

Housing and Health

DEFINITION

Housing and health is the percentage of children under age 18 who live in low-income families that reside in older housing, defined as housing built before 1980. Low-income families are those with incomes less than 200% of the federal poverty level.

SIGNIFICANCE

Homes that are dry, clean, pest-free, safe, contaminant-free, well-ventilated, well-maintained, and temperature regulated provide a healthy environment for children and residents.¹ Safe, affordable, and stable housing maintains the health and well-being of families and children, supporting mental and emotional health as well as physical safety. Healthy housing also protects families from weather, environmental hazards, and injury and provides a safe place for children to eat, sleep, play, and grow.^{2,3}

Unhealthy housing can cause or intensify many health conditions. Studies have connected poor quality construction, utility deficiencies, water intrusion, lead paint, radon, and pests to respiratory illnesses, asthma, unintentional injuries, lead exposure, and cancer. Children under age five, low-income children, and Children of Color are at increased risk of fall injuries due to unsafe sleep and home environments, including aging and deteriorating housing.^{4,5} Poor quality

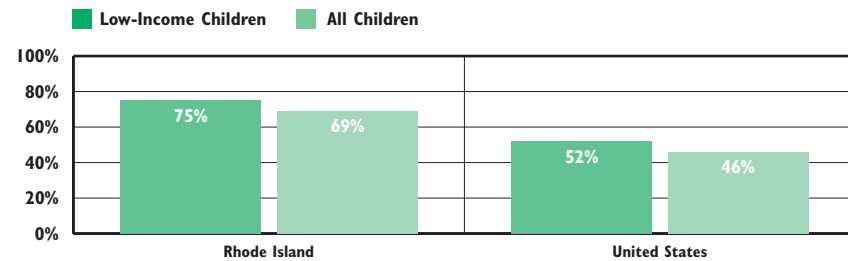
housing is also a strong predictor of emotional and behavioral problems, as well as academic achievement, in low-income children and youth. Adolescents living in poorer quality homes have lower reading and math proficiency than their peers.⁶

The quality and stability of their homes can have long-term effects on children. Lack of adequate and affordable housing puts safe, healthy, well-maintained homes out of reach for many families. Families may be forced to move frequently in search of better, more affordable housing or to raise their children in overcrowded and unsafe environments that can interfere with their growth, development, health, and academic performance. Overcrowded housing is associated with mental health concerns, stress, sleep problems, injury, and exposure to disease, while multiple moves are associated with behavioral and mental health concerns, academic difficulties, and substance use.⁷

Adopting a comprehensive “healthy homes” approach that addresses multiple housing deficiencies simultaneously can help prevent housing-related injuries and illnesses, reduce health care costs, and improve children’s quality of life. Because the causes of many health conditions related to the home environment are interconnected, it can be cost-effective to address multiple hazards simultaneously.^{1,4,8,9}



Children Living in Older Housing*, 2020-2024, Rhode Island and the United States



Source: Population Reference Bureau analysis of 2020-2024 American Community Survey (ACS) Public Use Microsample (PUMS) data. *Older housing is defined as built before 1980. The ACS reports housing year built by decade, so this is the best available approximation for housing built before 1978 when interior lead paint was banned. Factbooks prior to 2016 are not comparable due to the discontinuation of 3-year ACS data.

◆ **Between 2020 and 2024, Rhode Island had the highest percentage of low-income children (75%) and the second highest percentage of children of all incomes (69%) living in older housing in the U.S., after New York.**¹⁰

◆ **Lead Exposure:** Children living in homes built before 1978 are at risk of lead exposure. Even at low levels, lead exposure can negatively affect a child’s health, development, and brain.¹¹ In 2025, 4% (767) of Rhode Island children under age six who were screened had a confirmed blood lead level of ≥ 3.5 $\mu\text{g}/\text{dL}$.¹²

◆ **Asthma:** Asthma is the most common chronic condition in children and a leading cause of school absences and hospitalization for children under age 18 in the U.S.¹³ Between 2020 and 2024, there were 2,372 emergency department visits of Rhode Island children ages six and under (6.4 per 1,000) for which asthma was the primary diagnosis.¹⁴

◆ **Unintentional Injuries:** Falls are the leading cause of non-fatal unintentional injuries among children in the U.S.¹⁵ In 2024, housing-related falls resulted in 1,051 emergency room visits by Rhode Island children ages six and under.¹⁶

◆ **Weatherization Assistance Program:** This program helps income-eligible households reduce heating bills by providing whole-house energy efficiency and safety services. In 2023, 693 Rhode Island children under age 18 benefited from 1,212 completed weatherization projects, a return to previous levels after disruptions caused by the pandemic.¹⁷

Table 21.

Housing and Health, Rhode Island

CITY/TOWN	TOTAL # OF CHILDREN AGES 6 AND UNDER, 2020	CHILDREN <6 WITH LEAD EXPOSURE 2025		PRIMARY ASTHMA ED VISITS* 2020-2024		HOUSING RELATED FALLS 2024	WEATHERIZATION PROJECTS 2023	% HOUSING STOCK PRE-1980	
		#	TESTED	%	#				RATE PER 1,000
Barrington	1,262	*	321	0.9%	38	6.0	8	4	84%
Bristol	937	*	270	0.7%	16	3.4	16	10	68%
Burrillville	1,044	14	221	6.3%	34	6.5	13	11	65%
Central Falls	2,304	49	703	7.0%	125	10.9	34	13	74%
Charlestown	364	*	77	0.0%	6	3.3	*	9	50%
Coventry	2,267	*	556	0.5%	64	5.6	31	49	61%
Cranston	5,492	64	1,645	3.9%	250	9.1	81	170	78%
Cumberland	2,716	13	692	1.9%	58	4.3	30	24	59%
East Greenwich	996	*	275	1.5%	24	4.8	11	2	55%
East Providence	2,907	15	1,079	1.4%	135	9.3	33	59	80%
Exeter	397	*	69	1.4%	6	3.0	*	12	30%
Foster	246	*	77	2.6%	*	2.4	*	5	61%
Glocester	651	*	125	0.0%	5	1.5	5	21	59%
Hopkinton	539	*	96	3.1%	13	4.8	11	12	55%
Jamestown	223	*	55	1.8%	*	3.6	*	5	57%
Johnston	1,784	9	619	1.5%	54	6.1	30	57	69%
Lincoln	1,522	10	344	2.9%	32	4.2	13	14	63%
Little Compton	175	*	32	6.3%	*	1.1	*	0	57%
Middletown	1,257	6	203	3.0%	44	7.0	20	4	64%
Narragansett	461	*	82	1.2%	*	1.3	8	6	59%
New Shoreham	62	*	12	0.0%	*	0.0	*	0	57%
Newport	1,444	25	264	9.5%	51	7.1	26	7	85%
North Kingstown	1,831	5	472	1.1%	28	3.1	27	28	59%
North Providence	2,174	8	610	1.3%	72	6.6	32	56	66%
North Smithfield	726	*	170	0.6%	24	6.6	*	9	58%
Pawtucket	6,199	69	1,668	4.1%	314	10.1	85	113	83%
Portsmouth	1,141	*	217	1.4%	21	3.7	14	14	62%
Providence	15,026	356	5,863	6.1%	1,094	14.6	245	196	82%
Richmond	576	*	108	0.0%	*	1.4	10	0	41%
Scituate	607	*	177	0.6%	22	7.2	10	5	62%
Smithfield	1,122	*	233	0.9%	27	4.8	13	20	56%
South Kingstown	1,339	*	289	1.0%	25	3.7	30	5	54%
Tiverton	907	*	250	1.2%	8	1.8	6	43	59%
Warren	626	5	180	2.8%	24	7.7	10	15	80%
Warwick	5,228	13	1,370	0.9%	148	5.7	63	124	77%
West Greenwich	380	*	95	1.1%	6	3.2	*	6	27%
West Warwick	2,276	15	554	2.7%	74	6.5	27	40	68%
Westerly	1,257	6	214	2.8%	50	8.0	27	18	59%
Woonsocket	3,684	45	892	5.0%	198	10.7	68	26	83%
Five Core Cities	28,657	544	9,390	5.8%	1,394	9.7	458	355	82%
Remainder of State	45,492	223	11,853	1.9%	978	4.3	593	857	66%
Rhode Island	74,149	767	21,243	3.6%	2,372	6.4	1,051	1,212	71%

Source of Data for Table/Methodology

U.S. Census Bureau, Census 2020.

Children with Lead Poisoning: Rhode Island Department of Health, Healthy Homes and Childhood Lead Poisoning Prevention Program, 2025. The numerator is the number of Rhode Island children with a confirmed blood lead level ≥ 3.5 $\mu\text{g}/\text{dL}$ in calendar year 2025. The denominator is the number of children who were tested in calendar year 2025. Data are for children under age six.

Children with Asthma: Rhode Island Department of Health, Hospital Discharge Database, 2020-2024. The Rhode Island Department of Health defines emergency department (ED) visits for children with a primary asthma diagnosis as those resulting in a home discharge or another facility but not admitted to the hospital as an inpatient. Children with multiple ED visits are counted as a new event for each admission, so some children are counted more than once. For details, see Children with Asthma indicator. Data are for children ages six and under.

**Asthma data for 2020 are not comparable to prior years. Asthma-related emergency department visits and hospitalizations decreased substantially in spring 2020, due to the COVID-19 pandemic.

Housing Related Falls: Rhode Island Department of Health, Center for Health Data and Analysis, 2024. Data are for children ages six and under who are residents of Rhode Island.

Weatherization Projects: Rhode Island Department of Human Services, Weatherization Assistance Program data, 2023. Weatherization projects are defined as those receiving a final inspection by the end of calendar year 2023. Newer data was not available.

Housing Stock Pre-1980: Population Reference Bureau analysis of 2020-2024 American Community Survey (ACS) data. Table B25034. Older housing is defined as being built before 1980. The ACS reports housing year built by decade, so this is the best available approximation for housing built before 1978 when interior lead paint was banned.

* The data are statistically unreliable, and rates are not reported and should not be calculated.

^ The data are statistically unstable, and rates or percentages should be interpreted with caution.

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²² Hybels, M., Rogers, S., & Hunter, D. (2023). *Mechanisms for advancing health equity: Creating an equitable landscape for lactation consultant licensure in Rhode Island*. Network for Public Health Law.

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References for

Children Affected by Lead Exposure

- ² Rhode Island Department of Health. (n.d.). *Lead poisoning information for healthcare professionals*. Retrieved March 20, 2025, from <https://health.ri.gov/lead-poisoning/information/lead-poisoning-information-healthcare-professionals>
- ³ Centers for Disease Control and Prevention. (2022). *Health effects of lead exposure*. <https://www.cdc.gov/lead-prevention/symptoms-complications/index.html>
- ⁴ Whitehead, L. S., & Buchanan, S. D. (2019). Childhood lead poisoning: A perpetual environmental justice issue? *Journal of Public Health Management and Practice: JPHMP*, 25(1), S115–S120.
- ⁵ Child Trends. (2017). *Lead poisoning*.
- ⁶ World Health Organization. (2010). *Childhood lead poisoning*.
- ⁷ American Academy of Pediatrics Council on Environmental Health. (2016). Prevention of childhood lead toxicity. *Pediatrics*, 138(1). <https://doi.org/10.1542/peds.2016-1493>
- ⁸ Sacks, V., & Balding, S. (2018). *The United States can and should eliminate childhood lead exposure*. <https://www.childtrends.org/publications/the-united-states-can-and-should-eliminate-childhood-lead-exposure>
- ⁹ Ettinger, A. S., Ruckart, P. Z., & Dignam, T. (2019). Lead poisoning prevention: The unfinished agenda: The unfinished agenda. *Journal of Public Health Management and Practice*, 25 Suppl 1, Lead Poisoning Prevention(1), S1–S2.
- ¹⁰ Rhode Island Department of Health. (2025). *Childhood lead poisoning*. <https://health.ri.gov/data/childhood-lead-poisoning-data>
- ¹¹ Allwood, P. B., Falk, H., & Svendsen, E. R. (2022). A historical perspective on the CDC childhood lead poisoning prevention program. *American Journal of Public Health*, 112(S7), S635–S639.

- ¹² Aizer, A., Currie, J., Simon, P., & Vivier, P. (2018). Do low levels of blood lead reduce children's future test scores? *American Economic Journal. Applied Economics*, 10(1), 307–341.
- ¹³ Rhode Island Department of Health. (n.d.). *Healthy Homes and Childhood Lead Poisoning Prevention Program, 2007-2024*.
- ¹⁴ McLaine, P., Navas-Acien, A., Lee, R., Simon, P., Diener-West, M., & Agnew, J. (2013). Elevated blood lead levels and reading readiness at the start of kindergarten. *Pediatrics*, 131(6), 1081–1089.
- ¹⁵ Rhode Island Longitudinal Data System, Rhode Island Department of Education, & Rhode Island Department of Health. (2025). *The educational impact of lead exposure*. <https://rilds.org/lead-exposure>
- ¹⁶ Rhode Island Department of Health. (2022). *Lead hazard mitigation program*. <https://health.ri.gov/lead-poisoning/lead-hazard-mitigation-program>
- ¹⁷ Rhode Island Department of Health. (n.d.). *Childhood lead poisoning prevention program referral intervention process*. Retrieved March 15, 2025, from <https://health.ri.gov/lead-poisoning>
- ¹⁸ Rhode Island General Law, 23-24.6-9.
- ¹⁹ Rhode Island General Law, 34-18-58.

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References for Children with Asthma

- ³ Williams, D. R., Sternthal, M., & Wright, R. J. (2009). Social determinants: Taking the social context of asthma seriously. *Pediatrics*, 123 (Suppl 3).
- ⁴ Wright, R. J. (2020). Influences of climate change on childhood asthma and allergy risk. *The Lancet. Child & Adolescent Health*, 4(12), 859–860.
- ⁵ Centers for Disease Control and Prevention. (n.d.). *Asthma 2016 and 2021: Behavioral Risk Factor Surveillance System (BRFSS) Prevalence Data*. Retrieved March 18, 2025, from <https://www.cdc.gov/asthma/brfss/default.htm>
- ⁶ Perez, M. F., & Coutinho, M. T. (2021). An overview of health disparities in asthma. *Yale Journal of Biological Medicine*, 94(3), 497–507.
- ⁷ Subbarao, P., Mandhane, P. J., & Sears, M. R. (2009). Asthma: Epidemiology, etiology and risk factors. *Canadian Medical Association Journal*, 181(9), E181–E190.
- ⁸ Zanobetti, A., Ryan, P.H., Coull, B., Brokamp, C., Datta, S.,...Gold, D.R. (2022). Childhood asthma incidence, early and persistent wheeze, and neighborhood socioeconomic factors in the ECHO/CREW consortium. *JAMA Pediatrics*, 176(8), 759–767.
- ⁹ Centers for Disease Control and Prevention. (2024). *Most recent national asthma data: asthma mortality (2021). 2019-2021 National Health Interview Survey data*. https://www.cdc.gov/asthma/most_recent_national_asthma_data.htm
- ¹⁰ Aggarwal, S., Cepalo, T., Gill, S., Thipse, M., Clifton, K-L.,... Radhakrishnan, D. (2022). Factors associated with future hospitalization among children with asthma: a systematic review. *J Asthma*, 60(3), 425–445.
- ¹¹ Centers for Disease Control and Prevention. (2024). *Managing health conditions in school: Managing asthma in schools*. <https://www.cdc.gov/school-health-conditions/chronic/asthma.html>
- ¹² Rhode Island Department of Health. (2026). *Analysis of 2020-2024 Medicaid Data*.
- ¹³ National Institutes of Health. (2012). *Asthma care quick reference: Diagnosing and managing asthma*. www.nhlbi.nih.gov
- ¹⁴ Woods, E.R., Bhaumik, U., Sommer, S.J., Ziniel, S.,...Inethersole, S. (2012). Community asthma initiative: Evaluation of a quality improvement program for comprehensive asthma care. *Pediatrics*, 129(3), 465–472.
- ¹⁵ Chan, M., Gray, M., Burns, C., Owens, L.,...Homaira, N. (2021). Community-based interventions for childhood asthma using comprehensive approaches: A systematic review and meta-analysis. *Allergy, Asthma, and Clinical Immunology: Official Journal of the Canadian Society of Allergy and Clinical Immunology*, 17(1), 19.
- ¹⁶ Centers for Disease Control and Prevention. (2022). *School health profiles 2020: Characteristics of health programs among secondary schools*. Centers for Disease Control and Prevention.
- ¹⁷ Rhode Island Department of Health. (2020-2024). *Emergency Department Visits and Hospital Discharge Data*.

- ¹⁸ Koinis-Mitchell, D., D'Angelo, C., Dunsiger, S., McQuaid, E., Rogers, M.L. (2022). Effects of coronavirus disease 2019 pandemic on children, adolescents, and young adults with asthma in Rhode Island: Patterns in emergency department utilization with geospatial mapping. *Annals of Allergy, Asthma & Immunology: Official Publication of the American College of Allergy, Asthma, & Immunology*, 128(5), 598–600.
- ¹⁹ Simoneau, T., Greco, K.F., Hammond, A., Nelson, K., Gaffin, J.M. (2021). Impact of the COVID-19 pandemic on pediatric emergency department use for asthma. *Ann Am Thorac Soc*, 18(4), 717–719.
- ²⁰ Centers for Disease Control and Prevention. (n.d.). *2022: NSCH current asthma prevalence by state*. Retrieved March 3, 2025, from <https://www.cdc.gov/asthma-data/nsch-prevalence/index.html>
- ²¹ National Survey of Children's Health. (2019). *NSCH 2018-2019: Prevalence of current asthma, All States*. <https://nschdata.org/browse/survey/allstates?q=7628>

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Source of Data for Table/Methodology for Housing and Health

Effective October 1, 2015, the International Classification of Disease (ICD) codes changed from the 9th classification to the 10th classification, which may impact comparability across the years for Children with Asthma and Housing Related Falls.

Five core cities are Central Falls, Newport, Pawtucket, Providence, and Woonsocket.

References for Housing and Health

- ¹ U.S. Department of Housing and Urban Development. (n.d.). *Making homes healthier for families*. Retrieved March 1, 2024, from www.hud.gov
- ² Habitat for Humanity U.S. Research and Measurement Team. (2021). *How does housing affect children's education?* Habitat for Humanity International.
- ³ Swope, C., & Hernández, D. (2019). Housing as a determinant of health equity: A conceptual model. *Social Science & Medicine*, 243.
- ⁴ The Federal Healthy Homes Work Group. (2013). *Advancing healthy housing: A strategy for action*. www.healthyhomes.hud.gov

References

- ⁵ Safe Kids Worldwide. (n.d.). *Facts about childhood falls*. Retrieved February 10, 2021, from www.safekidssonomacounty.org
- ⁶ Coley, R. L., Leventhal, T., Lynch, A. D., & Kull, M. (2013). *Poor quality housing is tied to children's emotional and behavioral problems: Parents' stress from living in poor quality and unstable housing takes a toll on children's well-being*. MacArthur Foundation.
- ⁷ Cutts, D.B., Meyers, A.F., Black, M.M., Casey, P.H., Frank, D.A. (2011). U.S. housing insecurity and the health of very young children. *American Journal of Public Health, 101*(8), 1508–1514.
- ⁸ Office of Disease Prevention and Health Promotion. (2025). *Quality of housing - Healthy People 2030*. U.S. Department of Health and Human Services. <https://odphp.health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/quality-housing>
- ⁹ U.S. Department of Health and Human Services, Office of the Surgeon General. (2009). *The Surgeon General's call to action to promote healthy homes*.
- ¹⁰ Population Reference Bureau. (2025). *Analysis of 2020-2024 American Community Survey PUMS data*.
- ¹¹ World Health Organization. (2023). *Lead poisoning*. <https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health>
- ¹² Rhode Island Department of Health. (2025). *Healthy Homes and Childhood Lead Poisoning Prevention Program*.
- ¹³ Childhood Asthma Leadership Coalition. (2019). *Childhood asthma control saves lives: Opportunities for policymakers*. www.childhoodasthma.org
- ¹⁴ Rhode Island Department of Health. (2020-2024). *Hospital Discharge Database*.
- ¹⁵ Centers for Disease Control, Injury Prevention and Control. (2022). *10 leading causes of nonfatal emergency department visits, United States*. www.wisqars.cdc.gov
- ¹⁶ Rhode Island Department of Health Center for Health and Data Analysis. (2025).
- ¹⁷ Rhode Island Department of Human Services. (2024). *Weatherization assistance program data*.
- (continued from page 79)
- References for Healthy Weight**
- ⁷ Hales, C., & Fryar, C. D. (2020). Quickstats: Prevalence of obesity and severe obesity among persons aged 2–19 years — national health and nutrition examination survey, 1999–2000 through 2017–2018. *MMWR Morb Mortal Wkly Rep, 69*(13), 390.
- ⁸ Stierman, B., Afful, J., Carroll, M.D., Chen, T.,... Akinbami, L.J. (2021). National Health and Nutrition Examination Survey 2017–March 2020 prepandemic data files-development of files and prevalence estimates for selected health outcomes. *National Health Statistics Reports, 158*. <https://doi.org/10.15620/cdc:106273>
- ⁹ Brown University School of Public Health. (2025). *Analysis of BMI clinical and billing records of children ages two to 17 in Rhode Island from KIDSNET, Current Care, Blue Cross & Blue Shield of Rhode Island, Cigna HealthCare, Neighborhood Health Plan of Rhode Island, United Healthcare and Point32 collected by the Department of Health*.
- ¹⁰ Mahmood, N., Sanchez-Vaznaugh, E. V., Matsuzaki, M., & Sánchez, B. N. (2022). Racial/ethnic disparities in childhood obesity: The role of school segregation. *Obesity (Silver Spring, Md.), 30*(5), 1116–1125.
- ¹¹ National Center for Chronic Disease Prevention and Health Promotion. (2012). *Rhode Island: State nutrition, physical activity, and obesity profile*. Centers for Disease Control and Prevention.
- ¹² Lange, S. J., Kompaniyets, L., Freedman, D. S., Kraus, E. M., Porter, R., DNP3, Blanck, H. M., & Goodman, A. B. (2021). Longitudinal trends in body mass index before and during the COVID-19 pandemic among persons aged 2–19 years - United States, 2018–2020. *MMWR. Morbidity and Mortality Weekly Report, 70*(37), 1278–1283.
- ¹³ U.S. Department of Agriculture. (2020). *Dietary guidelines for Americans 2020-2025*.
- ¹⁴ Rhode Island Community Food Bank. (2025). *2024 Status report on hunger in Rhode Island*.
- ¹⁵ Rhode Island Community Food Bank. (2026). *2025 status report on hunger in Rhode Island*. https://rifoodbank.org/wp-content/uploads/2026/01/2025-Status-Report_Digital_FINAL-1.pdf
- ¹⁶ Rhode Island Department of Health. (2024). *2023 Rhode Island Youth Risk Behavior Survey*.
- ¹⁷ U.S. Department of Health and Human Services. (2018). *Physical activity guidelines for Americans, 2nd Edition*.
- (continued from page 81)
- References for Births to Teens**
- ⁸ Congressional Research Service. (2024). *Teen birth trends: In brief*. <https://www.everycrsreport.com/reports/R45184.html>
- ⁹ Ventura, S. J., Hamilton, B. E. & Mathews, T.J. (2014). National and state patterns of teen births in the United States, 1940-2013. *National Vital Statistics Reports, 63*(4), 1–33.
- ¹⁰ Rhode Island Department of Health, Center for Health Data and Analysis. (2010-2024).
- ¹¹ Maslowsky, J., Powers, D., Hendrick, E., & Al-Hamoodah, L. (2019). County-level clustering and characteristics of repeat versus first teen births in the United States, 2015-2017. *Journal of Adolescent Health, 65*(5), 674–680.
- ¹² Centers for Disease Control and Prevention. (2023). *Health care providers and teen pregnancy prevention*.
- ¹³ Rhode Island Department of Health. (2024). *2023 Rhode Island Youth Risk Behavior Survey*.
- ¹⁴ Rhode Island Department of Health, Division of Preparedness, Response, Infection Diseases & Emergency Medical Services, & Center for HIV, Hepatitis, STDs, and TB Epidemiology. (2025). *Sexually transmitted disease rates in youth, by year, Rhode Island, 2012-2024*.
- (continued from page 83)
- References for Alcohol, Tobacco, and Substance Use**
- ⁶ Rosales, R., Veliz, P. T., Jardine, J., Weigard, A. S., & McCabe, S. E. (2025). Ethnic discrimination's role on increased substance susceptibility and use among U.S. youth. *American Journal of Preventive Medicine, 69*(4), 107956.
- ⁷ Substance Abuse and Mental Health Services Administration. (2025). *2022-2023 national survey on drug use and health: Model-based estimated totals (in thousands) (50 states and District of Columbia)*. <https://www.samhsa.gov/data/report/2022-2023-nsduh-state-prevalence-estimates>
- ⁸ Rhode Island Department of Health. (2024). *2023 Rhode Island Youth Risk Behavior Survey*.
- ⁹ U.S. National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. (n.d.). *E-cigarettes and youth toolkit for partners: how you can help end the epidemic*. <https://stacks.cdc.gov/view/cdc/127513>
- ¹⁰ Jamal, A., Park-Lee, E., Birdsey, J., West, A., Cornelius, M., Cooper, M. R., Cowan, H., Wang, J., Sawdey, M. D., Cullen, K. A., & Navon, L. (2024). Tobacco product use among middle and high school students - National Youth Tobacco Survey, United States, 2024. *MMWR. Morbidity and Mortality Weekly Report, 73*(41), 917–924.
- ¹¹ Johnston, L. D., Miech, R. A., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2018). *Monitoring the future national survey results on drug use: 1975-2017: Overview, key findings on adolescent drug use*. Institute for Social Research, The University of Michigan.
- ¹² Centers for Disease Control and Prevention. (2015). *Three out of four American adults favor making 21 the minimum age of sale for tobacco products*. https://archive.cdc.gov/www_cdc.gov/media/releases/2015/p0707-tobacco-age.html
- ¹³ Committee on the Public Health Implications of Raising the Minimum Age for Purchasing Tobacco Products. (2015). *Public health implications of raising the minimum age of legal access to tobacco products*. <https://pubmed.ncbi.nlm.nih.gov/26269869/>
- ¹⁴ American Academy of Pediatrics. (2015). *Public policy to protect children from tobacco, nicotine, and tobacco smoke*. <https://publications.aap.org/pediatrics/article/136/5/998/33899/Public-Policy-to-Protect-Children-From-Tobacco?autologincheck=redirected>
- ¹⁵ Centers for Disease Control and Prevention. (2024). *Youth and tobacco use*. <https://www.cdc.gov/tobacco/php/data-statistics/youth-data-tobacco/index.html>
- ¹⁶ U.S. Food and Drug Administration. (2019). *Newly signed legislation raises minimum age of sale of tobacco products to 21*. <https://www.fda.gov/tobacco-products/retail-sales-tobacco-products/tobacco-21>
- ¹⁷ Rhode Island Department of Behavioral Healthcare, Developmental Disabilities and Hospitals. (2025). *Annual Synar Survey, FFY 2026, R.I.*
- ¹⁸ Rhode Island Department of Behavioral Healthcare, Developmental Disabilities and Hospitals. (2024). *Rhode Island Student Survey*.