Prevalence of Select Mental Health Diagnoses among Vermonters Aged 0-21 in 2022



Data Brief

June 2024

Key Findings

The prevalence of depressive disorder diagnoses and anxiety/fear-related disorder diagnoses were higher among adolescents and females, and slightly higher among those with Medicaid insurance coverage.

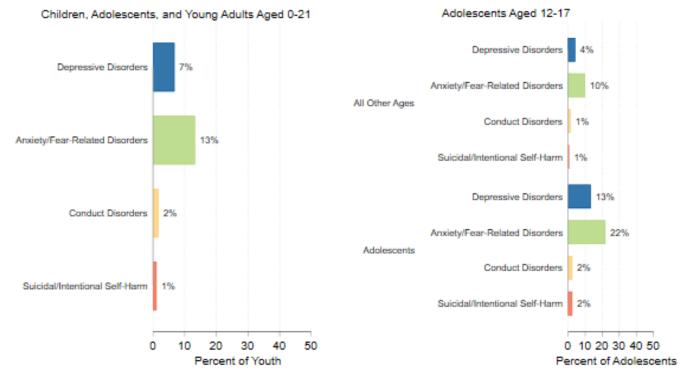
Background

Several government and professional agencies declared that America's youth are in the midst of a mental health crisis.^{1,2} In this data brief, we quantified the prevalence of depression, anxiety, conduct disorder, and suicide/self-harm diagnoses across demographic subgroups to inform quality improvement efforts.

Approach/Methods

In this data brief, we used the Clinical Classifications Software Refined created by the Agency for Healthcare Research and Quality to identify prevalence of depression, anxiety, conduct disorder, and suicide/self-harm diagnoses among children, adolescents, and young adults aged 0-21 in Vermont's allpayer claims dataset (Vermont Health Care Uniform Reporting and Evaluation System; VHCURES).^{3,4} We used Chi-squared statistical tests to compare the proportion of mental health disorders across age, sex, insurance, and rurality, using an alpha-level of .05 to indicate statistical significance.

Adolescents had a higher prevalence of depressive, anxiety/fear-related, and conduct disorders, and suicidal/intentional self-harm diagnoses in 2022 compared to other ages.



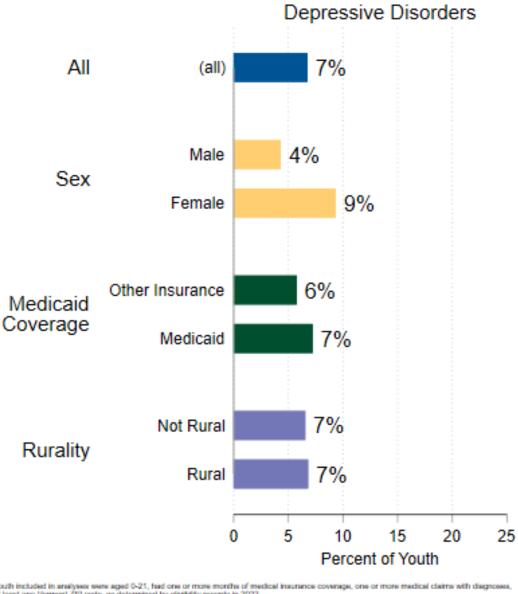
Percent of Children, Adolescents, and Young Adults Categorized by Select Mental Health Diagnoses, 2022.

Youth included in analyses were aged 0-21, had one or more months of medical insurance coverage, and at least one Vermont ZIP code, as determined by eligibility records in 2022

Clinical Classifications Software Refined created by the Healthcare Cost and Utilization Project of the Agency for Healthcare Research and Quality. Conduct Disorder category includes disruptive and impulse control disorders. Suicidal/Intentional Self-Harm includes suicidal ideation, attempt and intentional self-harm, initial or subsequent diagnoses.

SOURCE: VHCURES Extract #3008



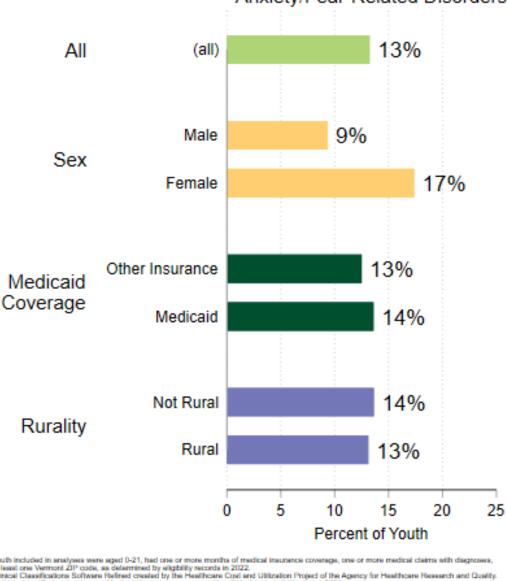


Youth included in analyses were aged 0-21, had one or more months of medical insurance coverage, one or more medical claims with diagnoses, at least one Vermont ZIP code, as determined by eligibility records in 2022. Chicae Classifications Software Refined created by the Healthcare Cost and Utilization Project of the Agency for Healthcare Research and Quality. Chicae Identified as having any Medicaid had one or more months of Medicaid eligibility during 2022. Nursity definition from the Evideral Office of Rural Health Policy SOURCE: VHCURES Extract 43008

Nearly 1 in 10 children in Vermont had a depressive disorder diagnosis in 2022

- Females had a higher prevalence of depressive disorders (9%) compared to males (4%).
- Patients with any Medicaid in 2022 had a slightly higher prevalence of depressive disorders (7%) compared to those with no Medicaid (6%).
- There were no differences in the prevalence of depressive disorder diagnoses comparing youth living in rural and non-rural areas of Vermont.





Anxiety/Fear-Related Disorders

You'h included in analyses were aged 0-21, had one or more months of medical insurance coverage, one or more medical claims with diagnoses, at least one Vermont 20° code, as determined by eligibility records in 2022. Clinical Classifications Software Refined created by the Healthcare Cost and Ultization Project of the Agency for Healthcare Research and Quality. Children identified as having any Medicald had one or more months of Medicald eligibility during 2022. Rurality definition from the Federal Office of Rural Health Policy. SOURCE: VHCURES Extract #3008

More than 1 in 5 adolescents had an anxiety/fear-related disorder diagnosis in 2022

- Females had a higher prevalence of anxiety/fear-related disorders (17%) compared to males (9%).
- ٠ Patients with any Medicaid in 2022 had a slightly higher prevalence of anxiety/fear-related disorders (14%) compared to those with no Medicaid (13%).
- Patients living non-rural locations had a slightly higher prevalence of anxiety/fear-related disorders (14%) compared to patients living in rural areas (13%)



How is Vermont Addressing the Youth Mental Health Crisis?

- The <u>Vermont State Health Improvement Plan</u> includes investments to integrate mental health disorder prevention into primary care and to implement *Zero Suicide* in health care systems.
- The <u>Vermont Department of Health</u> in coordination with the <u>Department of Mental Health</u> has a <u>5-year Garrett Lee Smith Youth Suicide Prevention</u> grant aimed at reducing suicide deaths among Vermont Youth aged 10-24 by expanding prevention efforts, reducing access to lethal means, improving social connectedness, and implement Umatter suicide prevention for schools.
- The <u>Vermont Department of Health</u> and <u>Department of Mental Health</u> are engaged in a new prevention effort called <u>Facing Suicide VT</u> to coordinate statewide prevention efforts, expand suicide prevention efforts including the Zero Suicide program, recovery and support groups, and to support suicide awareness and support training and suicide prevention programs.
- <u>Vermont's Area Health Education Centers</u> work to train and retain healthcare workers and improve healthcare access in the state. Their recent <u>Extension for Community Healthcare</u> <u>Outcomes</u> (ECHO) session focused on pediatric mental health presentation and treatment in the primary care setting.
- The Department of Mental Health, <u>Agency of Education</u>, and the <u>Center for Health and Learning</u> developed a comprehensive model school protocol for suicide prevention and postvention. <u>Vermont Model School Protocol for Suicide Prevention.pdf</u>
- The <u>Vermont Child Health Improvement Program</u> is engaged in several efforts to improve child, adolescent, and young adult mental health.
 - <u>Child Health Advances Measured in Practice Network</u> works with practices to improve depression screening, treatment, and referrals among adolescents and young adults.
 - The <u>Vermont Child Psychiatry Access Program</u> connects primary healthcare providers with clinical social workers and psychiatrists for free consultations about mental health diagnosis and treatment plans.
 - The <u>Firearms and Suicide Prevention Evaluation Team</u> examines the impact of different suicide training programs in Vermont.

These are just some of Vermont's statewide initiatives. For more information, use the links above.



Summary

Quantifying the prevalence of depression, anxiety, conduct disorder, and suicide/self-harm diagnoses across demographic subgroups is important to inform future quality improvement efforts at primary care practice.

Similar to national data,⁵⁻⁷ our analyses showed that adolescents (aged 12-17) in Vermont had a higher prevalence of depressive disorder diagnoses, anxiety/fear-related disorder diagnoses, conduct disorder diagnoses, and suicidal/intentional self-harm diagnoses compared to all other ages combined. Prevalence of depressive disorder diagnoses and anxiety/fear-related disorder diagnoses were also higher among females compared to males.⁶

These results highlight the continued need for systems integration and improving access to mental health services for all, particularly adolescents.

Notes

- We used data from the Vermont Health Care Uniform Reporting and Evaluation System (VHCURES) Extract #3008 to identify 122,535 patients aged 0-21 years old. with at least one Vermont ZIP Code in 2022 with at least one month of medical insurance eligibility.
- Age was based on insurance eligibility records, not age at any visit dates during the year. Children, adolescents, and young adults with multiple ages more than 1 year apart over the year were excluded.
- ZIP Code was based on the insurance eligibility records. Children are identified as Vermont patients if they have at least one Vermont ZIP Code in the year. Patients were assigned to counties based on their first Vermont ZIP Code in the year.
- Children identified as having any Medicaid had one or more months of Medicaid eligibility during 2022.
- Children were identified as rural using the Federal Office of Rural Health Policy definition.
- We classified diagnoses found on their medical claims using the Clinical Classifications Software Refined (CCSR v.2022.1) created by the Healthcare Cost and Utilization Project (H-CUP) of the Agency for Healthcare Research and Quality. Diagnoses used for inclusion in the CCSR v.2022.1 can be found on the <u>H-CUP website</u>. We reviewed both inpatient and outpatient medical claims diagnoses in 2022. Patients with medical insurance eligibility, but with no medical claims with diagnoses were coded as not having depressive disorder, anxiety/fearrelated disorder, or suicidal ideation, suicide attempts, and intentional self-harm diagnoses.
- Comparisons by sex, age group, insurance coverage and rurality were conducted using chisquare tests of independence unless otherwise noted. Comparisons are significant at the .05 level unless otherwise noted.
- The Vermont Health Care Uniform Reporting and Evaluation System (VHCURES) data are under the stewardship of the Green Mountain Care Board (GMCB). The analyses, conclusions, and recommendations from the VHCURES data are solely those of the study authors and are not necessarily those of the GMCB. The GMCB had no input into the study design, implementation, or interpretation of the findings.



References

- 1. American Academy of Pediatrics. AAP-AACAP-CHA declaration of a national emergency in child and adolescent mental health. October 19, 2021.
- 2. Office of the Surgeon General. Protecting youth mental health: The US surgeon general's advisory [Internet]. 2021
- 3. Green Mountain Care Board. Vermont Health Care Uniform Reporting and Evaluation System (VHCURES) 2024 Available from: <u>https://gmcboard.vermont.gov/DATA-AND-ANALYTICS/DATA-COLLECTION/vhcures-vermonts-all-payer-claims-database</u>.
- Green Mountain Care Board. VHCURES overview: A guide for data users. Version 1 ed. Montpelier, VT. 2019.
- 5. Centers for Disease Control and Prevention. Data and Statistics on Children's Mental Health [[Internet]. https://www.cdc.gov/childrensmentalhealth/data.html#print
- 6. Centers for Disease Control and Prevention. YRBS Data Summary & Trends Report, 2011-2021. Atlanta, GA2023
- Jones SE, Ethier KA, Hertz M, et al. Mental health, suicidality, and connectedness among high school students during the COVID-19 pandemic—Adolescent Behaviors and Experiences Survey, United States, January–June 2021. MMWR supplements. 2022;71(3):16

Prepared by VCHIP's Health Services Research Team, <u>Susan Richardson</u>, PhD, <u>Allison Perusse</u>, BA, & <u>Valerie Harder</u>, PhD MHS.