Mental Health Among US Adolescents – Healthy People 2030

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Course: PH2001
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Date: 2/12/24

Introduction

Introduction: Mental health is our emotional, psychological, and social well-being. It profoundly influences how we think, feel, and act, shaping our responses to stress, our relationships with others, and our decision-making processes.

There are two main subcategories for Mental Illness:

AMI (any mental illness)

SMI (serious mental illness)

An estimated 49.5% of adolescents had any mental disorder.

Of adolescents with any mental disorder, an estimated 22.2% had severe impairment and/or distress.

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Healthy People 2030 – Objectives, Baseline and Targets

1. **Increase the proportion of adolescents with depression who get treatment — MHMD-06**

Baseline: **41.4** percent of adolescents aged 12 to 17 years with MDEs received treatment in the past 12 months, as reported in 2018

Target: **46.4** percent

2. **Reduce suicide attempts by adolescents — MHMD-02**

Baseline: **2.4** suicide attempts per 100 population of students in grades 9 through 12 occurred in the past 12 months, as reported in 2017

Target: **1.8** per 100

3. **Increase the proportion of children with mental health problems who get treatment — MHMD-03**

Baseline: **70.7** percent of children aged 4 to 17 years with mental health problems received treatment in 2019
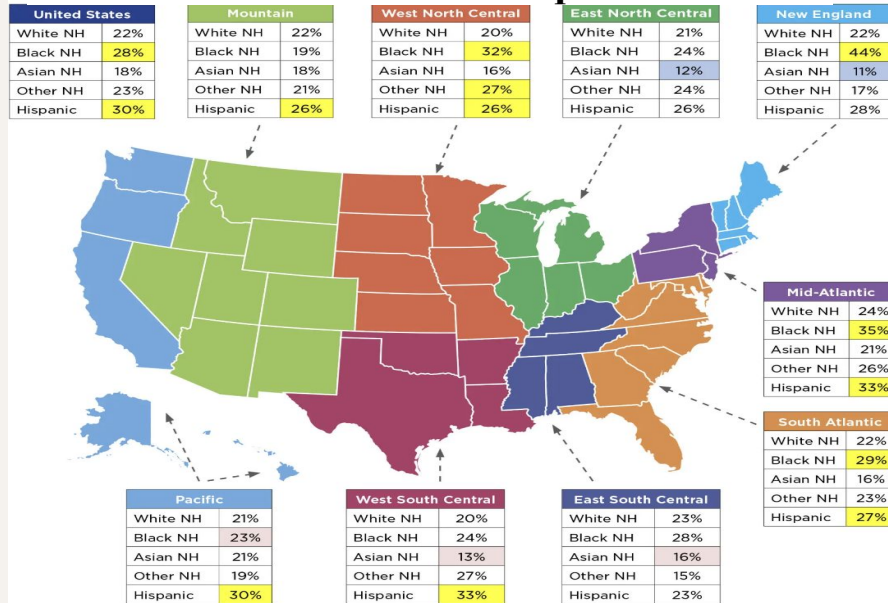
Target: **79.3** percent

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Burden of Mental Health Among US Adolescents

- **Prevalence Rate:** In 2021, 49.5% of adolescents in the U.S had a mental disorder.
- **Incidence Rate:** 4.9% of adolescents are diagnosed with mental health issues.
- **Mortality Rate:** In 2021, suicide from mental health issues was the 2nd leading cause of death of young people. 5,000 young people in the U.S commit suicide each year due to mental health issues.
- **Proportional Mortality:** The rate of suicide death increased by 2% for Hispanic youths from 4.9 per 100,000 population to 5.0 per 100,000 population between 2018 and 2020.
- **Economic Burden:** The mean total for publicly funded outpatient services for youth mental health issues is $2,673 per episode.The average expense per episode for different service types was $1,079 for psychotherapy, $683 for assessment, $227 for collateral services, $161 for case management, and $186 for medication support.

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Descriptive Epidemiology - Mental Health Among Youth

Percentage of Children with 1 ACE in the United States as of September 2017

United States	
White NH	22%
Black NH	28%
Asian NH	18%
Other NH	23%
Hispanic	30%

Mountain	
White NH	22%
Black NH	19%
Asian NH	18%
Other NH	21%
Hispanic	26%

West North Central	
White NH	20%
Black NH	32%
Asian NH	16%
Other NH	27%
Hispanic	26%

East North Central	
White NH	21%
Black NH	24%
Asian NH	12%
Other NH	24%
Hispanic	26%

New England	
White NH	22%
Black NH	44%
Asian NH	11%
Other NH	17%
Hispanic	28%

Mid-Atlantic	
White NH	24%
Black NH	35%
Asian NH	21%
Other NH	26%
Hispanic	33%

South Atlantic	
White NH	22%
Black NH	29%
Asian NH	16%
Other NH	23%
Hispanic	27%

Pacific	
White NH	21%
Black NH	23%
Asian NH	21%
Other NH	19%
Hispanic	30%

West South Central	
White NH	20%
Black NH	24%
Asian NH	13%
Other NH	27%
Hispanic	33%

East South Central	
White NH	23%
Black NH	28%
Asian NH	16%
Other NH	15%
Hispanic	23%

NH=Non-Hispanic

Yellow shading = Percentage is higher than white non-Hispanic children at a statistically significant level.
Blue shading = Percentage is lower than white non-Hispanic children at a statistically significant level.
Red shading = Estimate should be interpreted with caution, because the relative confidence interval is greater than 120 percent. See the "About the data used in this report" section for more information.
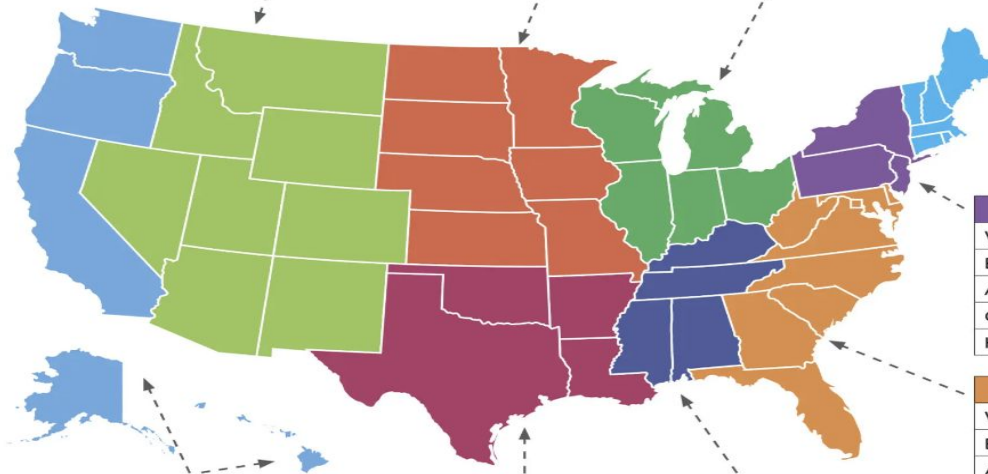
ACE: adverse childhood experience
- Violence
- Abuse
- Family with mental health or substance abuse

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Prevalence of Mental Health Disorders Among Youth[1]

According to a 2010 report:[2]

49.5% of U.S. adolescents met criteria for mental health disorders.[3]

14.3% met criteria for MOOD DISORDERS

31.9% met criteria for ANXIETY DISORDERS

19.6% met criteria for BEHAVIOR DISORDERS

11.4% met criteria for SUBSTANCE USE DISORDERS

42% of all affected youth also met criteria for a second disorder.

PREVALENCE OF SEVERE IMPAIRMENT:

22.2% of adolescents with mental health disorders were classified as exhibiting severe impairment and/or distress. Of the 22.2%:

11.2% met criteria for MOOD DISORDERS

8.3% met criteria for ANXIETY DISORDERS

9.6% met criteria for BEHAVIOR DISORDERS

1 SOURCE: Merikangas K. R., He, J. P., Burstein M., ... Swendsen, J. (2010). Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Survey replication—adolescent supplement (NCS-A). Journal of the American Academy of Child & Adolescent Psychiatry, 49(10), 980–989. Retrieved from http://hsc.unm.edu/som/psychiatry/crcbh/docs/Archive/11-17-10.NCS-A.Article.pdf (PDF, 10 pages).

2 A nationally representative face-to-face household survey of the prevalence and correlates of DSM-IV mental disorders among U.S. adolescents (aged 13-17 years) was performed between February 2001 and January 2004.

3 Lifetime prevalence is estimated on the proportion of respondents who had ever had a mental disorder at the time of the interview.

Prevalence of Mental Health Disorders Among Youth in the United States as of 2010.

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Risk Factors of Mental Health

- The more risk factors adolescents are exposed to, the greater the potential impact on their mental health

- Factors that contribute to mental health issues among adolescents include pressure to conform with peers, exploration of identity, and exposure to adversity.

- Media influence and current gender norms greatly impact the relationship adolescents have with their lived reality and aspirations for the future.

- Traumatic childhood events such as neglect or abuse increases the likelihood of adolescents developing mental health issues in the future.

- Other risk factors include substance abuse, bullying, academic struggles, cultural and societal factors, etc.

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Prevention

Primary Prevention:

- Preventing mental health from developing
- Ex. Implementing school-based mental health education programs, Promoting healthy lifestyles

Secondary Prevention:

- Early Detection and intervention for those who are at risk
- Ex. Routine mental health screenings in schools or home, Implementing suicide prevention programs

Tertiary Prevention:

- Prevent worsening mental health conditions and reduce impact of existing conditions on their life
- Ex. Intensive therapy, Psychiatric treatment, Support groups

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Recommended Testing for Mental Health

Testing can be classified as questions provided by a mental health professional to provide a diagnosis to a patient and recommend a treatment after.

They will talk to the professional about their thoughts, feelings, mood, behaviors and relationships without a parent.

This conversation can take a few sessions and at the end the professional will give an opinion about the child's mental health problems and suggest a treatment plan.

Recommended diagnostic tests include:

- Minnesota Multiphasic Personality Inventory (MMPI-2), Beck Anxiety Inventory,Beck Depression Inventory
- Gold standard: Multimodal diagnostic interviews

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Recommended Screening for Mental Health

Screening can be classified as a standard list of questions typically provided by the health care provider.

Questions are based off a person's mood, thinking, behavior, and memory.

If screening shows sign of disorder, then more testing is done.

- Recommended screenings include PHQs (Patient Health Questionnaires)
  - Ex. PHQ-4, PHQ-SADS, Brief PHQ, PHQ-9
  - Gold Standard: CAFAS (Child and Adolescent Functional Assessment Scale)
- Adolescents are recommended to be screened for mental health disorders between the ages of 12 and 18 to ensure accurate diagnosis, treatment, and follow up.
- Adolescents are recommended to be screened for mental health disorders annually.

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Troubles with Screening

- Closely consider an adolescents development, diversity, and environmental factors as these all play a role in how one is diagnosed.
  - How a child's external factors are affect the internal mindset of the child.
- In some low-income areas, access to screening or treatment is limited. Or in some situations overdiagnosis tends to occur.
- Major Depression Disorder (MDD) is commonly misdiagnosed.
  - 57% of MDD patients received the diagnosis, 43% did not; 33% of patients with BD were incorrectly diagnosed with MDD

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Healthy Range

Determining the cut -off point for a healthy range in mental health involves considering various factors such as psychological well-being , emotional stability , social functioning and the absence of severe mental illness symptoms.

Healthy mental health can be indicated by factors like positive self-esteem:

- Effective coping mechanisms,
- The ability to form and maintain relationships,
- Adaptability to change, and
- A sense of purpose and fulfillment in life.

Additionally, the absence of severe symptoms of mental illnesses like depression, anxiety disorders, bipolar disorder, or schizophrenia can also be indicative of good mental health.

It is crucial to seek professional guidance and assessment to accurately determine the cut-off points specific to an individual's mental health status.

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Sensitivity & Specificity

Sensitivity and specificity are key parameters used to evaluate the performance of diagnostic tests.

Demonstrating sensitivity to change over time is a requirement of all outcomes measures

- ○ CAFAS provides an objective, comprehensive assessment of a youth's needs that is sensitive to change over time, making it the most widely used outcome measure available.

Tp=73.57%

Tp + Fn=73.57% +55%=1.28569

Sensitivity: 73.57%/(73.57 %+55%) / 1.28569 =44.50%

18.57%+ 55% = 0.7357(73.57%)

0.7357/(0.7357 + 18.57%) = 0.7984

Specificity: 1.28569/ 0.7984= 1.61 %

Formula:
Sensitivity = TP/(TP + FN)
Specificity = TN/(TN + FP)
TP=true positive
TN=true negative
FP=false positive
FN=false negative.

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Public Health Policy

Children's Health Insurance Program (CHIP):

- Goals: To provide health insurance coverage for low-income children and adolescents who do not qualify for Medicaid but cannot afford private insurance.
- Components: comprehensive coverage, provider networks, no treatment limitations, & preventative services

https://www.healthcare.gov/medicaid-chip/childrens-health-insurance-program/

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Significance & Conclusion

Significance:

- Adolescence is a crucial period of development through changes in physical, emotional, and psychological aspects.
- Early interventions/treatments during this stage can prevent worsening mental illness later in life.

Prioritizing mental health in adolescents is crucial for promoting healthy development, preventing long-term mental illness, reducing stigma, and promoting resilience.

References

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Mortality rate-Facts About Suicide | Suicide Prevention | CDC
Prevalence rate- https://www.nimh.nih.gov/health/statistics/mental-illnes
Economic burden- CHILD AND ADOLESCENT MENTAL HEALTH - 2022 National Healthcare Quality and Disparities Report - NCBI Bookshelf
Proportional Mortality: CHILD AND ADOLESCENT MENTAL HEALTH - 2022 National Healthcare Quality and Disparities Report - NCBI Bookshelf
Map 1: The prevalence of adverse childhood experiences, nationally, by state, and by race or ethnicity - Child Trends
Map 2: Prevalence of Mental Health Disorders Among Youth
Supporting references: Mental Health for Adolescents | HHS Office of Population Affairs
Learn About Children's Mental Health | CDC

Mental health of adolescents

THE CLINICAL EXAMINATION OF CHILDREN, ADOLESCENTS AND THEIR FAMILIES
12 Most Reliable Mental Health Assessment Tools
Screening and Counseling Adolescents and Young Adults: A Framework for Comprehensive Care | AAFP
Misdiagnosis of bipolar disorder in children and adolescents: a comparison with ADHD and major depressive disorder(all,of%20patients%20with%20BD%20were
Children's Health Insurance Program (CHIP) Eligibility Requirements | HealthCare.gov