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Depression Prevalence in Adolescents and Adults: United States, August 2021–August 2023

Debra J. Brody, M.P.H., and Jeffery P. Hughes, M.P.H.

Key findings

Data from the National Health and Nutrition Examination Survey

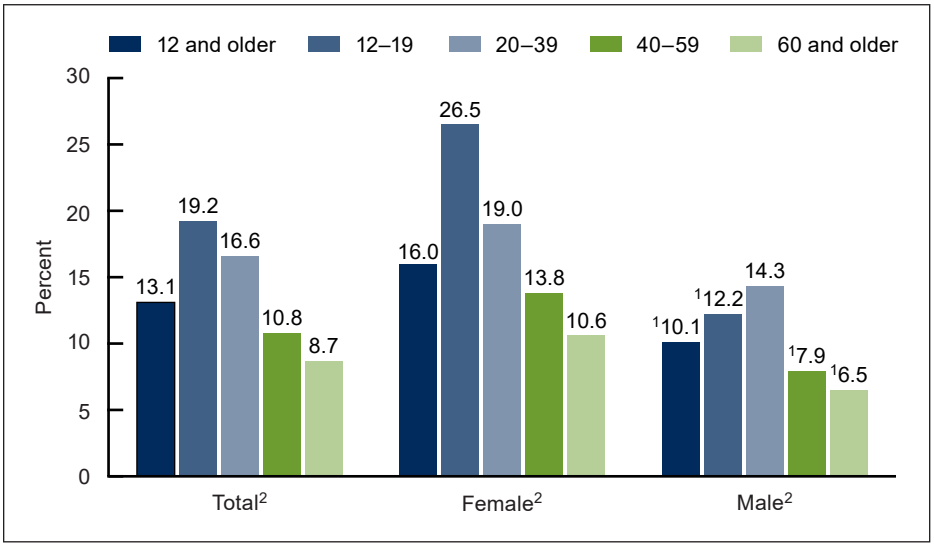
- During August 2021–August 2023, depression prevalence in the past 2 weeks was 13.1% in adolescents and adults age 12 and older and decreased with increasing age overall and in females and males.
- Depression prevalence decreased with increasing family income overall and in females and males.
- From 2013–2014 to August 2021–August 2023, depression prevalence in adolescents and adults increased overall and in females and males.
- Among adolescents and adults with depression, 87.9% reported at least some difficulty with work, home, or social activities due to their depression symptoms.
- Among adolescents and adults with depression, a higher percentage of females (43.0%) than males (33.2%) reported receiving counseling or therapy in the past 12 months.

Major depression is a common and treatable mood disorder characterized by changes in cognitive and physical symptoms lasting for at least 2 weeks (1). Depression carries a high economic burden (2) and is a leading cause of disability (3). Depression prevalence differs by age, sex, and income (4). This report presents the most recent depression prevalence estimates in adolescents and adults age 12 and older, based on the August 2021–August 2023 National Health and Nutrition Examination Survey (NHANES). Depression symptoms are measured using the Patient Health Questionnaire (PHQ–9) (5).

What was the depression prevalence in adolescents and adults during August 2021–August 2023, and did it differ by sex and age?

During August 2021–August 2023, the prevalence of depression in the past 2 weeks was 13.1% in adolescents and adults age 12 and older (Figure 1,

Figure 1. Depression prevalence in people age 12 and older, by sex and age group: United States, August 2021–August 2023



[1]Significantly different from females in the same age group.
[2]Significant decreasing linear trend.
NOTE: Depression is defined as a score greater than or equal to 10 on the Patient Health Questionnaire.
SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

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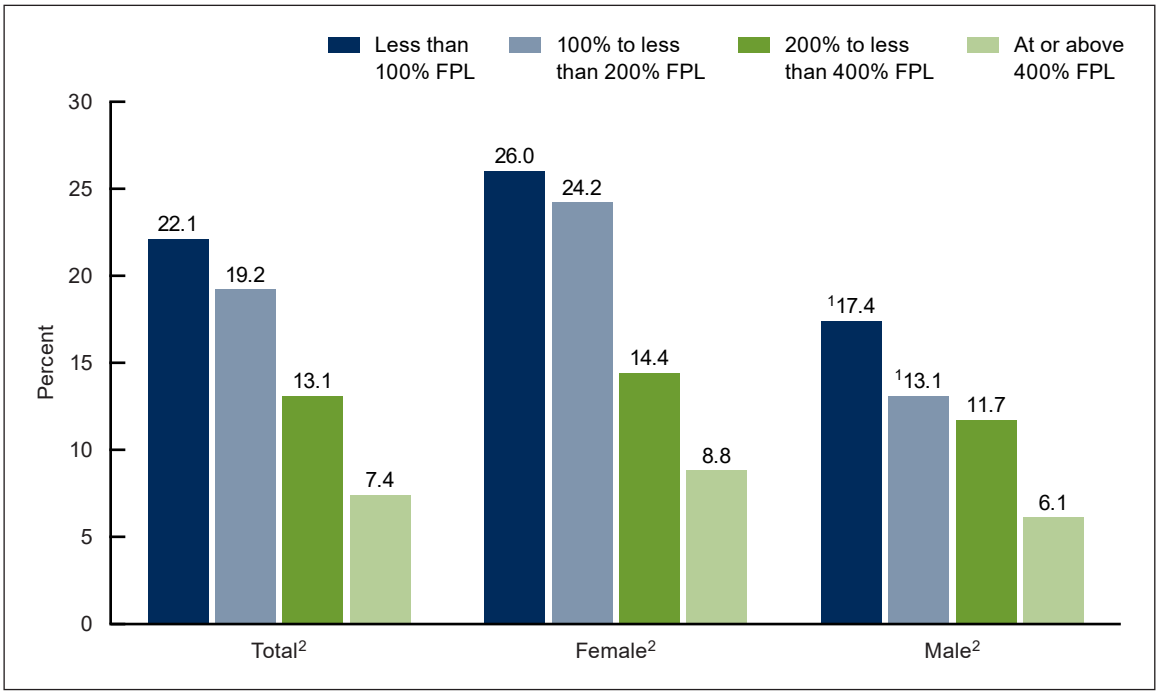
Table 1). Depression prevalence decreased with increasing age. Overall, prevalence was highest in adolescents ages 12–19 (19.2%) and lowest in adults age 60 and older (8.7%). A similar trend was observed in females, where depression decreased from 26.5% among those ages 12–19 to 10.6% among those age 60 and older. In males, depression decreased with age, although the difference between males ages 20–39 (14.3%) and those ages 12–19 (12.2%) was not significant.

Depression prevalence was higher in females (16.0%) than in males (10.1%) overall and in every age group, except in adults ages 20–39 (19.0% and 14.3%, respectively), where the observed difference was not significant. The prevalence of depression in adolescent females ages 12–19 (26.5%) was more than double that of males in the same age group (12.2%).

Was there a difference in depression prevalence by sex and level of family income during August 2021–August 2023?

During August 2021–2023, the prevalence of depression decreased with increasing family income from 22.1% in adolescents and adults with family income less than 100% of the federal poverty level (FPL) to 7.4% in those with family income at or above 400% FPL (Figure 2, Table 2).

Figure 2. Depression prevalence in people age 12 and older, by sex and family income level: United States, August 2021–August 2023



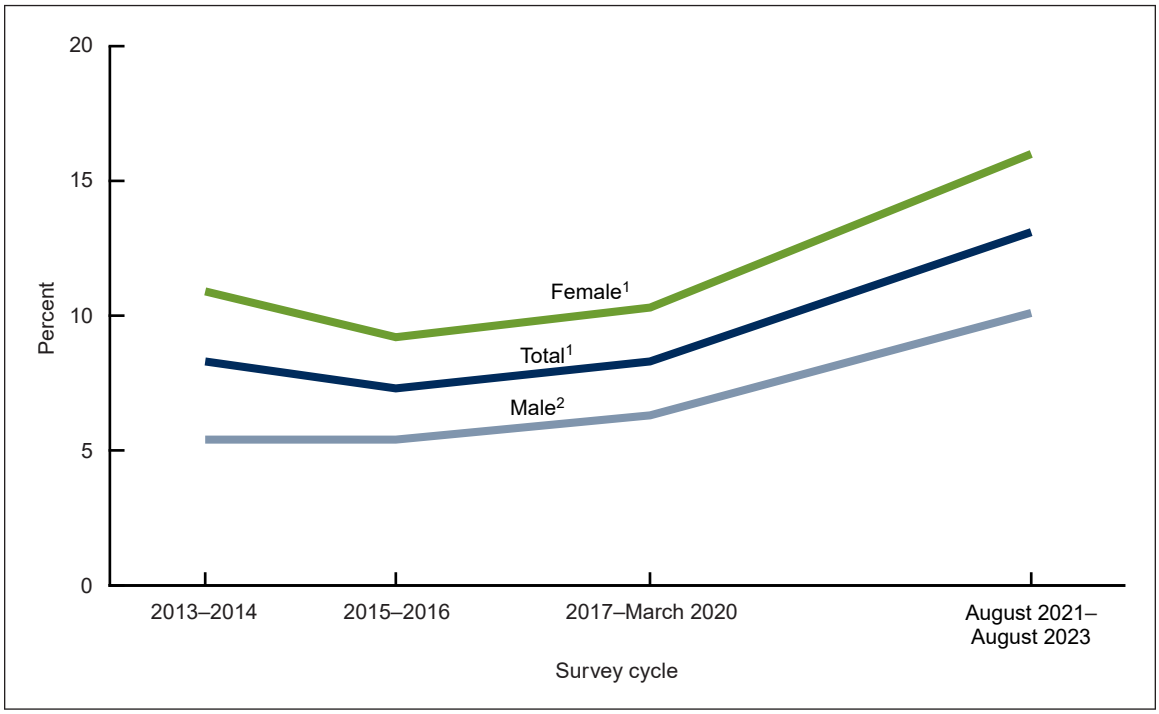
[1]Significantly lower than females in the same income level ($p < 0.05$).
[2]Significant decreasing linear trend by family income as a percentage of the federal poverty level ($p < 0.05$).
NOTES: Depression is defined as a score greater than or equal to 10 on the Patient Health Questionnaire. FPL is federal poverty level. Income levels are defined by FPLs (11.9% are missing income).
SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

A similar trend of decreasing depression prevalence with increasing family income was observed by sex. Depression prevalence was about three times higher for females and males from families in the lowest income level (26.0% and 17.4%, respectively) compared with those in the highest family income level (8.8% and 6.1%, respectively). Additionally, depression prevalence was higher in females than in males among adolescents and adults with family income less than 100% and 100% to less than 200% of FPL.

Did depression prevalence change from 2013–2014 to August 2021–August 2023?

The prevalence of depression in adolescents and adults age 12 and older increased from 8.2% to 13.1% from 2013–2014 to August 2021–August 2023 (Figure 3, Table 3). Similar increases in the prevalence of depression across the 10-year period were observed in females and males.

Figure 3. Trends in depression prevalence in people age 12 and older, by sex: United States, 2013–2014 to August 2021–August 2023

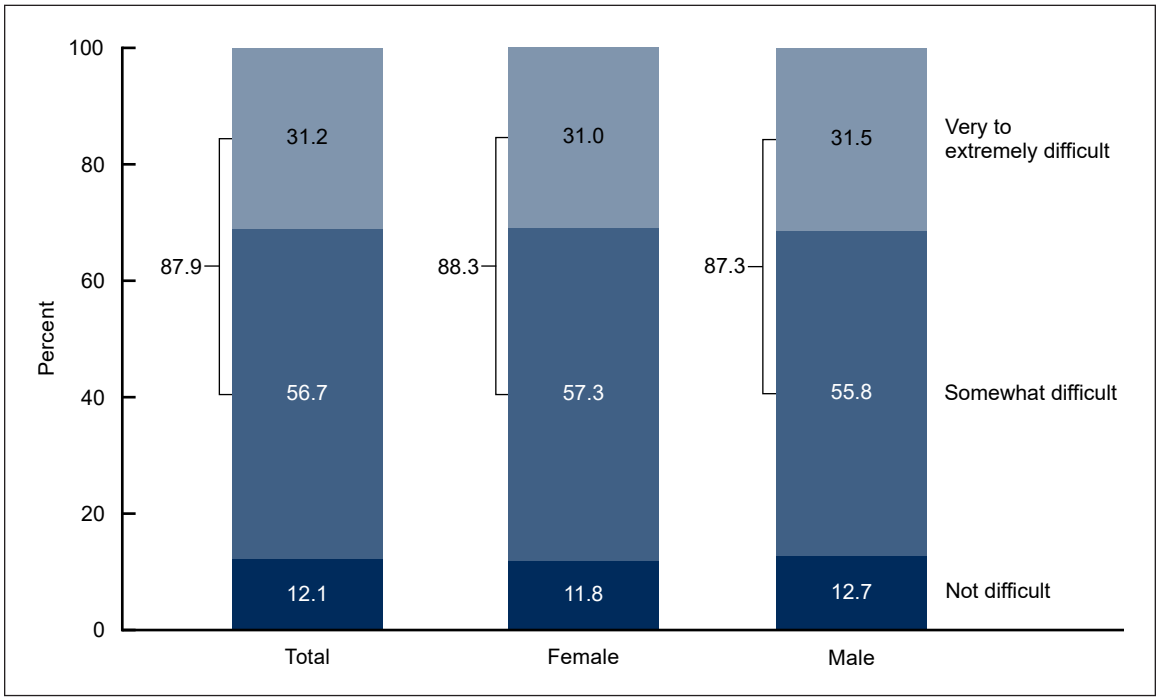


[1]Increasing quadratic trend ($p < 0.05$).
[2]Increasing linear trend ($p < 0.05$).
NOTE: Depression is defined as a score greater than or equal to 10 on the Patient Health Questionnaire.
SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, 2013–2014 through August 2021–August 2023.

What percentage of adults and adolescents with depression reported difficulty with work, home, or social activities because of depression symptoms?

In adults and adolescents with depression, 87.9% reported difficulty with work, home, or social activities because of their depression symptoms (Figure 4, Table 4). Similar percentages of females and males with depression reported that it was somewhat difficult (57.3% and 55.8%, respectively) or very to extremely difficult (31.5% and 31.0%, respectively) to perform these activities due to depression symptoms.

Figure 4. Percentage of people age 12 and older with depression who reported difficulty with work, home, or social activities due to depression symptoms, by sex: United States, August 2021–August 2023

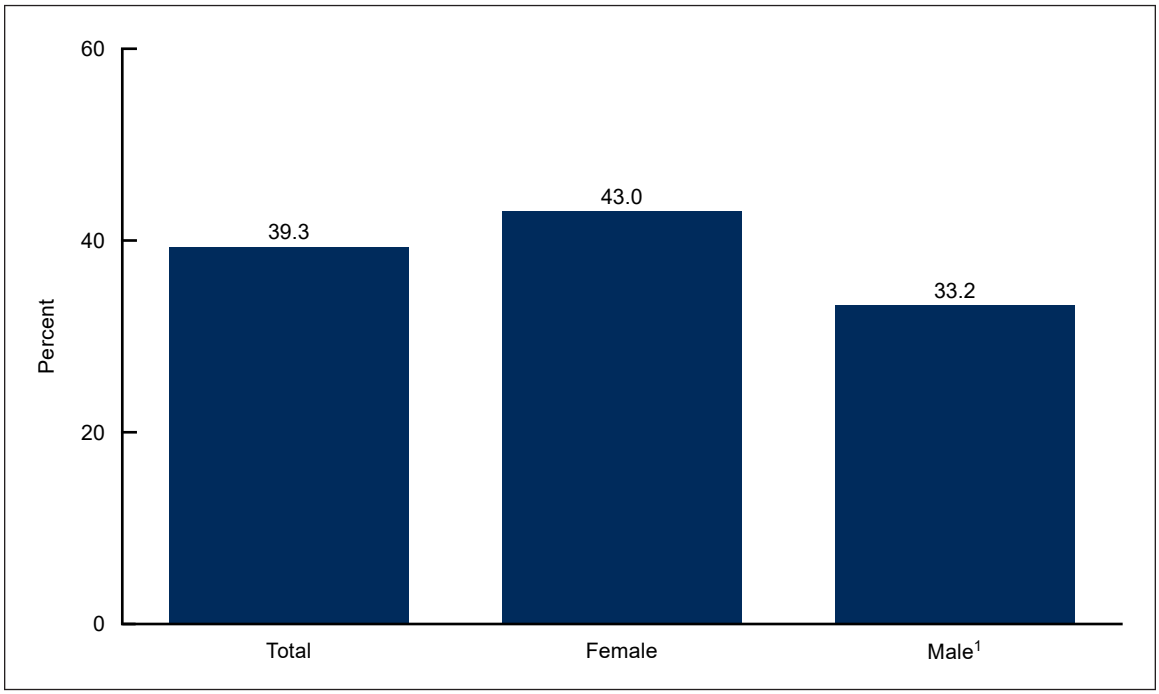


NOTES: Depression is defined as a score greater than or equal to 10 on the Patient Health Questionnaire. Estimates are based on the question, "How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?" Totals may not sum to 100% due to rounding.
SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

What percentage of adolescents and adults with depression received counseling or therapy in the previous 12 months?

Nearly 40% of adolescents and adults with depression received counseling or therapy with a mental health professional in the previous 12 months (39.3%) (Figure 5, Table 5). A higher percentage of females (43.0%) than males (33.2%) reported receiving counseling or therapy from a mental health professional.

Figure 5. Percentage of people age 12 and older with depression who received counseling or therapy during the previous 12 months, by sex: United States, August 2021–August 2023



[1]Significantly different from females ($p < 0.05$).
NOTES: Depression is defined as a score greater than or equal to 10 on the Patient Health Questionnaire. Estimates for counseling or therapy are based on the question, "During the past 12 months, did you receive counseling or therapy from a mental health professional such as a psychiatrist, psychologist, psychiatric nurse, or clinical social worker?"
SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

Summary

During August 2021–August 2023, 13.1% of U.S. adolescents and adults age 12 and older had depression in a given 2-week period. Depression prevalence was higher in females than males and decreased with increasing age. Depression prevalence also increased as family income level decreased; more than one in five adolescents and adults with family income below the poverty level (22.1%) had depression. From 2013–2014 to August 2021–August 2023, the prevalence of depression increased from 8.2% to 13.1%. Among adolescents and adults with depression, 87.9% reported at least some difficulty with work, home, and social activities because of depression symptoms, and 39.3% received counseling or therapy from a mental health professional in the past 12 months. The public health importance of screening and treatment for mental health conditions, including depression, is highlighted in Healthy People 2030 (6).

Definitions

Depression: Defined by a score of 10 or greater on the 9-item Patient Health Questionnaire (PHQ–9), a validated screening instrument assessing depression symptoms in the past 2 weeks based on self-report (5). For each question, the response options, "not at all," "several days," "more than half the days," and "nearly every day," are given a score of 0–3. PHQ–9 summary scores range from 0 to 27.

Difficulty related to depression: Measured using a follow-up question to the PHQ–9 when one or more symptoms is endorsed (5): "How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?" Response options are "not difficult," "somewhat difficult," "very difficult," or "extremely difficult." In Figure 4, the last two response options were combined as "very to extremely difficult."

Percentage of the federal poverty level (FPL): Based on the ratio of family income to the federal poverty guidelines, expressed as a percentage. The federal poverty guidelines, specific for the survey year, are adjusted for inflation and family size (7).

Receipt of counseling or therapy in the past 12 months: Based on the question, "During the past 12 months, did you receive counseling or therapy from a mental health professional such as a psychiatrist, psychologist, psychiatric nurse, or clinical social worker?"

Data source and methods

Data from the August 2021–August 2023 National Health and Nutrition Examination Survey (NHANES) were used to estimate depression prevalence and to test for differences between subgroups. Data from four NHANES cycles (2013–2014, 2015–2016, 2017–March 2020, and August 2021–August 2023) were used to assess 10-year trends.

NHANES is a cross-sectional survey designed to monitor the health and nutritional status of the U.S. civilian noninstitutionalized population using a multistage probability sample design (8). The survey consists of home interviews and standardized health examinations in mobile examination centers. NHANES has been continuous since 1999 until it was interrupted in 2020 due to the COVID-19 pandemic. In August 2021, NHANES resumed with modifications to the survey content, procedures, and methodology (8), which included changing the administration mode of the depression symptom questions to audio computer-assisted self-interview (9). About 89% of the participants answered the questions on depression symptoms in English or Spanish. The question on receipt of counseling or therapy in the past 12 months was asked in the household interview. Parents of adolescents ages 12–15 answered the question for their children.

This analysis included NHANES participants age 12 and older. Examination sample weights, which account for the differential probabilities of selection, nonresponse, and noncoverage, were incorporated into the estimation process. The standard errors of the percentages were estimated using Taylor series linearization (10), a method that accounts for the clustered sample design. For August 2021–August 2023, differences between estimates overall and among subgroups were evaluated using *t* tests at the 0.05 level. Linear and nonlinear trends across age groups and family income levels were evaluated using orthogonal polynomial matrices, and trends across 10-year periods were evaluated using regression models that accounted for unequal spacing and lengths of the survey cycles. All differences reported are statistically significant unless otherwise indicated. All estimates presented in this report meet National Center for Health Statistics data presentation standards for proportions (11). Statistical analyses were conducted using SAS System for Windows version 9.4 (SAS Institute Inc., Cary, N.C.) and SUDAAN version 11.1 (RTI International, Research Triangle Park, N.C.).

About the authors

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Figure Tables

Data table for Figure 1. Depression prevalence in people age 12 and older, by sex and age group: United States, August 2021–August 2023

Sex and age group	Sample size	Percent	Standard error
Total			
12 and older	6,228	13.1	0.7
12–19	1,018	19.2	1.3
20–39	1,338	16.6	1.8
40–59	1,478	10.8	0.8
60 and older	2,394	8.7	0.8
Female			
12 and older	3,361	16.0	0.9
12–19	515	26.5	2.5
20–39	732	19.0	2.1
40–59	810	13.8	1.3
60 and older	1,304	10.6	1.1
Male			
12 and older	2,867	10.1	0.9
12–19	503	12.2	1.5
20–39	606	14.3	2.3
40–59	668	7.9	1.2
60 and older	1,090	6.5	1.3

NOTE: Depression is defined as a score greater than or equal to 10 on the Patient Health Questionnaire.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

Data table for Figure 2. Depression prevalence in people age 12 and older, by sex and family income level: United States, August 2021–August 2023

Sex and family income	Sample size	Percent	Standard error
Total			
Less than 100% FPL	889	22.1	1.3
100% to less than 200% FPL	1,099	19.2	1.5
200% to less than 400% FPL	1,601	13.1	1.0
At or above 400% FPL	1,896	7.4	0.6
Female			
Less than 100% FPL	504	26.0	1.8
100% to less than 200% FPL	636	24.2	2.3
200% to less than 400% FPL	870	14.4	1.2
At or above 400% FPL	955	8.8	0.8
Male			
Less than 100% FPL	385	17.4	2.7
100% to less than 200% FPL	463	13.1	2.2
200% to less than 400% FPL	731	11.7	1.2
At or above 400% FPL	941	6.1	1.1

NOTES: Depression is defined as a score greater than or equal to 10 on the Patient Health Questionnaire. FPL is federal poverty level. Family income is expressed as a percentage of FPL. Income levels are defined by FPL (11.9% are missing income).

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

Data table for Figure 3. Trends in depression prevalence in people age 12 and older, by sex: United States, 2013–2014 to August 2021–August 2023

Sex and survey cycle	Sample size	Percent	Standard error
Total			
2013–2014	6,378	8.2	0.5
2015–2016	6,078	7.3	0.5
2017–March 2020	9,650	8.3	0.5
August 2021–August 2023	6,228	13.1	0.7
Female			
2013–2014	3,283	10.9	0.8
2015–2016	3,086	9.2	0.8
2017–March 2020	4,887	10.3	0.8
August 2021–August 2023	3,361	16.0	0.9
Male			
2013–2014	3,095	5.4	0.6
2015–2016	2,992	5.4	0.4
2017–March 2020	4,763	6.3	0.5
August 2021–August 2023	2,867	10.1	0.9

NOTE: Depression is defined as a score greater than or equal to 10 on the Patient Health Questionnaire.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, 2013–2014 through August 2021–August 2023.

Data table for Figure 4. Percentage of people age 12 and older with depression who reported difficulty with work, home, or social activities due to depression symptoms, by sex: United States, August 2021–August 2023

Sex and level of difficulty	Sample size	Percent	Standard error
Total			
Not difficult	107	12.1	1.3
Somewhat difficult	477	56.7	1.8
Very to extremely difficult	279	31.2	2.2
Female			
Not difficult	67	11.8	1.8
Somewhat difficult	313	57.3	2.0
Very to extremely difficult	176	31.0	2.5
Male			
Not difficult	40	12.7	2.3
Somewhat difficult	164	55.8	3.7
Very to extremely difficult	103	31.5	3.8

NOTES: Depression is defined as a score greater than or equal to 10 on the Patient Health Questionnaire. Estimates are based on the question, "How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?"

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

Data table for Figure 5. Percentage of people age 12 and older with depression who received counseling or therapy during the previous 12 months, by sex: United States, August 2021–August 2023

Sex	Sample size	Percent	Standard error
Total	862	39.3	2.3
Female	556	43.0	3.3
Male	306	33.2	2.6

NOTES: Depression is defined as a score greater than or equal to 10 on the Patient Health Questionnaire. Estimates for counseling or therapy are based on question, "During the past 12 months, did you receive counseling or therapy from a mental health professional such as a psychiatrist, psychologist, psychiatric nurse, or clinical social worker?"

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

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