Supplementary Online Content

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eTable 1. Chief Complaint Keywords and Discharge Diagnosis Codes Included in Definitions for Emergency Department Visits Related to Mental Health

eTable 2. Changes in Mental Health–Related Emergency Department Visits for Adults Aged 18 to 64 Years in Selected Periods Before and During the COVID-19 Pandemic, by Sex and Age, US, February 10, 2019, to August 14, 2021

eAppendix 1. Detailed Footnotes for Figure 2 Mental Health–Related, Anxiety, and Depressive Disorder US Emergency Department Visits, by Race and Ethnicity

eAppendix 2. Detailed Footnotes for Figure 3 Bipolar, Schizophrenia Spectrum, and Trauma- and Stressor-Related Disorder US Emergency Department Visits, by Race and Ethnicity

This supplementary material has been provided by the authors to give readers additional information about their work.
**eTable 1. Chief Complaint Keywords and Discharge Diagnosis Codes Included in Definitions for Emergency Department Visits Related to Mental Health**

**Description:**
The purpose of these syndromes is to identify visits among persons who experienced any mental health challenge, including specific disorders, in emergency departments and ambulatory healthcare settings. This includes capturing visits where there are acute mental health crises (i.e., the sole or primary reason for the visit is only related to mental health) as well as visits where mental disorders are present (defined as coded in the discharge diagnosis or mentioned in the chief complaint text) but may not be the sole reason for the visit.

This definition uses *International Classification of Diseases, Ninth Revision, Clinical Modification* codes (ICD-9-CM), *International Classification of Diseases, Tenth Revision, Clinical Modification* codes (ICD-10-CM), *Systematized Nomenclature of Medicine* (SNOMED) codes, and free text reason for visit (chief complaint terms).

--- Not shown: Non-decimal versions of all discharge diagnosis codes were included.
--- Not shown: Common misspellings of chief complaint terms were included.

| Definition | Chief Complaint Search Terms | Diagnosis Codes |
|------------|-----------------------------|-----------------|
| *Also includes chief complaint terms from the conditions listed below* | Gedriff (includ misspelling) Grieve (includ misspelling) Bereave (includ misspelling) Psych Mental health Mental evaluation Mental problem Mentally Mental illness Reactive attachment Auditory hallucination Visual hallucination Hearing voice Evaluation hallucination History of hallucination Hallucinations patient Hallucinations unspecified Seeing thing Delusion (include misspelling) Paranoia (include misspelling) Trichotillomania Dissociative disorder Dissociative conversion Dissociative identity Dissociative and conversion Dissociative tendency Dissociative episode Dissociative conversion Dissociative behavior Dissociative amnesia Dissociative attentive Experiencing dissociation Dissociative (when used with depress, | 296.90; 296.99; 297.0; 297.1; 297.2; 297.3; 297.8; 297.9; 298.0; 298.1; 298.2; 298.3; 298.4; 298.8; 298.9; 300.10; 300.11; 300.12; 300.13; 399.14; 300.15; 300.81; 300.82; 300.89; 300.7; 307.80; 307.89; 300.9 648.40, 648.41, 648.42 648.43,648.44 V62.82 F22; F23; F28; F29; F39; F44; F45; F48; F53.1; F54; F63.3; F93.8; F93.9; F94; F98.9 F99; Z63.4 413307004; 74732009; 231538003; 268664001; 48500005; 191667009; 41526007; 191667009; 224965009; 74506000 |

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| Category                                      | Conditions                                                                 | Codes                                                                 |
|----------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------|
| **CDC Anxiety Disorders v1**                 | Depression, psych, dysthymic, anxiety, anxious, traumatic stress, PTSD, adjustment disorder, mental, attention deficit, bipolar, schizophrenia, schizoaffective, schizotypal – and associated misspellings of all terms | 300.00; 300.01; 300.02; 300.09; 300.20; 300.21; 300.22; 300.23; 300.29; 313.0 309.24; 309.28 F40; F41; F43.22; F43.23; F93.0 197480006; 126943008; 21897009; 69479009; 109006; 61387006; 70997004; 191709001 |
| **CDC Depressive Disorders v1**               | Depression, psych, dysthymic, anxiety, anxious, traumatic stress, PTSD, adjustment disorder, mental, attention deficit, bipolar, schizophrenia, schizoaffective, schizotypal – and associated misspellings of all terms | 296.20; 296.21; 296.22; 296.23; 296.24; 296.25; 296.30; 296.31; 296.32; 296.33; 296.34; 296.35; 300.4; 309.0; 309.1; 296.90; 296.99; 309.28 F32 (except F32.5); F33 (except F33.42); F34.1; F34.9; F43.21; F43.23; O90.6 35489007; 310497006; 370143000; 712823008; 57194009 |
| **CDC Bipolar Disorders v1**                  | Depression, psych, dysthymic, anxiety, anxious, traumatic stress, PTSD, adjustment disorder, mental, attention deficit, bipolar, schizophrenia, schizoaffective, schizotypal – and associated misspellings of all terms | 296.00; 296.01; 296.02; 296.03; 296.04; 296.05; 296.40; 296.41; 296.42; 296.43; 296.44; 296.45; 296.50; 296.51; 296.52; 296.53; 296.54; 296.55; 296.60; 296.61; 296.62; 296.63; 296.64; 296.65; 296.7 296.80; 296.81; 296.82; 296.89 F30.1; F30.2; F30.3; F30.8; F30.9; F31.0; F31.1; F31.2; F31.3; F31.4; F31.5; F31.6; F31.7 (only include: F31.70, F31.71, F31.73, F31.75, F31.77); F31.8; F31.9; F34.0 191627008; 371596008; 83225003; 231494001; 284513006; 268619003 |
| **CDC Schizophrenia Spectrum Disorders v1**   | Depression, psych, dysthymic, anxiety, anxious, traumatic stress, PTSD, adjustment disorder, mental, attention deficit, bipolar, schizophrenia, schizoaffective, schizotypal – and associated misspellings of all terms | 295.00; 295.01; 295.02; 295.03; 295.04; 295.10; 295.11; 295.12; 295.13; 295.14; 295.20; 295.21; 295.22; 295.23; 295.24; 295.30; 295.31; 295.32; 295.33; 295.34; 295.40; 295.41; 295.42; 295.43; 295.44; 295.45; 295.46; 295.47; 295.48; 295.49; 295.50; 295.51; 295.52; 295.53; 295.54; 295.55; 295.56; 295.57; 295.58; 295.59; 295.60; 295.61; 295.62; 295.63; 295.64; 295.65; 295.66; 295.67; 295.68; 295.69; 295.70; 295.71; 295.72; 295.73; 295.74; 295.75; 295.76; 295.77; 295.78; 295.79; 295.80; 295.81; 295.82; 295.83; 295.84; 295.85; 295.86; 295.87; 295.88; 295.89; 295.90; 295.91; 295.92; 295.93; 295.94; 295.95; 295.96; 295.97; 295.98; 295.99; 296.00; 296.01; 296.02; 296.03; 296.04; 296.05; 296.40; 296.41; 296.42; 296.43; 296.44; 296.45; 296.50; 296.51; 296.52; 296.53; 296.54; 296.55; 296.60; 296.61; 296.62; 296.63; 296.64; 296.65; 296.7 296.80; 296.81; 296.82; 296.89 F30.1; F30.2; F30.3; F30.8; F30.9; F31.0; F31.1; F31.2; F31.3; F31.4; F31.5; F31.6; F31.7 (only include: F31.70, F31.71, F31.73, F31.75, F31.77); F31.8; F31.9; F34.0 191627008; 371596008; 83225003; 231494001; 284513006; 268619003 |
| CDC Trauma and Stressor-related Disorders v1 | Traumatic stress | PTSD (including misspellings) | Adjustment disorder | Reaction to acute stress | Acute stress reaction | Acute stress crisis | Acute stress eval | Eval acute stress | Acute stress behavior (including misspellings for behavior) | Behavior acute stress | Behavior acute stress | Reaction to severe stress | Severe stress reaction | Severe stress crisis |
|-------------------------------------------|-----------------|--------------------------------|---------------------|-------------------------|----------------------|-------------------|------------------|------------------|-----------------------------------------------------------------|--------------------|--------------------|-------------------------|-----------------------|---------------------|
|                                           |                 | 295.44; 295.50; 295.51; 295.52; 295.53; 295.54; 295.60; 295.61; 295.62; 295.63; 295.64; 295.70; 295.71; 295.72; 295.73; 295.74; 295.80; 295.81; 295.82; 295.83; 295.84; 295.90; 295.91; 295.92; 295.93; 295.94 | F20; F21; F25 |
|                                           |                 | 58214004; 268617001; 64905009; 191526005; 68890003 |

| CDC Attention-Deficit/Hyperactivity Disorders v1 | Attention deficit | Hyperactivity | Attention problems |
|-------------------------------------------------|-------------------|---------------|--------------------|
|                                                 | 314.00, 314.01; 314.9; 314.2 | F90 (include all in this series) |
|                                                 | 406506008         | 35253001      |

| CDC Disruptive Behavioral and Impulse-Control v1 | Conduct disorder | Oppositional defiant (with spelling mistakes for “defiant”)| Antisocial personality | Disturbance of conduct | Impulse control disorder | Explosive disorder |
|-------------------------------------------------|-----------------|----------------------------------------------------------|------------------------|------------------------|------------------------|---------------------|
|                                                 | 309.3; 309.4; 312.00; 312.01; 312.02; 312.03; 312.10; 312.11; 312.12; 312.13; 312.20; 312.21; 312.22; 312.23; 312.4; 312.81; 312.82; 312.89; 312.9; 312.30; 312.31; 312.39; 313.81; 314.2; 301.7 | F43.24; F43.25; F91.0; F91.1; F91.2; F91.3; F91.8; F91.9; F63.81; F63.1; F63.2; F63.9; F63.0; F63.89; F60.2 |
|                                                 | 54319003; 18941000; 430909002; 26665006 |

| CDC Obsessive-Compulsive Disorders v1 | Obsessive compulsive | Compulsive disorder |
|-------------------------------------|----------------------|---------------------|
|                                     | 300.3                | F42                 |
|                                     | 191736004            |                     |
### CDC Eating Disorders v1

| Disorder | Code Range |
|----------|------------|
| Pica     | 307.1; 307.50; 307.51; 307.52; 307.53; 307.54; 307.59 |
| Bulimia  | F50.00; F50.01; F50.02; F50.2; F50.8; F50.82; F50.89; F50.9; F98.21; F98.29; F98.3 |
| Binge eating | 72366004; 56882008; 7800400; 32721004 |
| Binge-eating | 307.20; 307.21; 307.22; 307.23 |
| Eating disorder | F95; G25.69 |
| Rumination disorder | 568005; 5158005 |
| Binging or purging | 307.20; 307.21; 307.22; 307.23 |
| Binging and purging | F95; G25.69 |
| Weight loss or anorexia | 568005; 5158005 |
| Anorexia nervosa | 307.20; 307.21; 307.22; 307.23 |
| Anorexic | F95; G25.69 |
| Being treated for anorexia | 568005; 5158005 |
| Treatment for anorexia | 307.20; 307.21; 307.22; 307.23 |
| Weight loss | F95; G25.69 |
| Loss of weight | 568005; 5158005 |
| Eating disorder | 307.20; 307.21; 307.22; 307.23 |
| Anorexia history | F95; G25.69 |
| History of anorexia | 568005; 5158005 |
| History anorexia | 307.20; 307.21; 307.22; 307.23 |
| Mental anorexia | F95; G25.69 |
| Mental (when used with anorexia) | 568005; 5158005 |
| Psych (when used with anorexia) | 307.20; 307.21; 307.22; 307.23 |

### CDC Tic Disorders v1

| Disorder | Code Range |
|----------|------------|
| Neurological tic | 307.20; 307.21; 307.22; 307.23 |
| Tic disorder | F95; G25.69 |
| Behavioral tic | 568005; 5158005 |
| Facial tic | 307.20; 307.21; 307.22; 307.23 |
| Face tic | F95; G25.69 |
| Tic like phenomenon | 568005; 5158005 |
| Verbal tic | 307.20; 307.21; 307.22; 307.23 |
| Motor tic | F95; G25.69 |

Footnotes. In developing the syndrome definitions noted above for mental health, a team of scientists with cross-cutting expertise in mental disorders – including a practicing psychiatrist – reviewed all ICD-9, ICD-10 and SNOMED codes related to mental disorders. Codes related to mental disorders that are non-specific to mental health, for example, related to substance use, developmental disabilities, or dementia, were excluded. Mental health-related codes were further classified into the aforementioned categories based on previous literature and with expert judgement based on best alignment with the Diagnostic and Statistical Manual of Mental Disorders, version 5 (DSM-5). For individual disorder categories where the sample size in national syndromic surveillance data was too minimal to meaningfully include an individual syndrome definition, codes were placed in the “All Mental Health” definition (e.g., reactive attachment disorder). Terms and codes that were non-specific and unable to differentiate between specific

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mental disorders (e.g., psychosis; hallucinations) were also included in the “All Mental Health” but not specific individual disorder syndromes to improve syndrome specificity.
| Mental Health during the COVID-19 Pandemic, after Delta variant onset | Mental Health during the COVID-19 Pandemic, following a COVID-19 case peak |
|---|---|
| **Index Period: July 18–Aug. 14, 2021** | **Index Period: Feb. 14, 2021–Mar. 13, 2021** |
| **Index period compared to MH in the COVID-19 Pandemic, prior to Delta variant period (Apr. 18–May 15, 2021)** | **Index period compared to MH during a COVID-19 case peak (Dec. 27, 2020–Jan. 23, 2021)** |
| **Index period compared to MH in the COVID-19 Pandemic, following a COVID-19 case peak (Feb. 10, 2019–Mar. 9, 2019)** | **Index period compared to pre-pandemic MH (July 14, 2019–Aug. 10, 2019)** |
| **Total ED visit counts for MH** | **Total ED visit counts for MH** |
| **ED visits for MH per 100,000 ED visits** | **ED visits for MH per 100,000 ED visits** |
| **% Change in ED counts for MH** | **% Change in ED counts for MH** |
| **Visit ratio (95% CI)** | **Visit ratio (95% CI)** |
| **% Change in ED counts for MH** | **% Change in ED counts for MH** |
| **Visit ratio (95% CI)** | **Visit ratio (95% CI)** |

### All mental health

| Sex | Total ED visit counts for MH | ED visits for MH per 100,000 ED visits | Index period compared to MH in the COVID-19 Pandemic, prior to Delta variant period (Apr. 18–May 15, 2021) | Index period compared to pre-pandemic MH (Feb. 10, 2019–Mar. 9, 2019) |
|---|---|---|---|---|
| Females | 135,357 | 6615 | -3.0% 0.86 (0.86, 0.87) | 138,098 | 8527 |
| Males | 113,676 | 6848 | -3.6% 0.85 (0.84, 0.85) | 117,899 | 8957 |
| **Male/Female Ratio** | | | 1.04 (1.03, 1.04) | 1.05 (1.04, 1.06) |

| Age | Total ED visit counts for MH | ED visits for MH per 100,000 ED visits | Index period compared to MH in the COVID-19 Pandemic, prior to Delta variant period (Apr. 18–May 15, 2021) | Index period compared to pre-pandemic MH (Feb. 10, 2019–Mar. 9, 2019) |
|---|---|---|---|---|
| Aged 18-24 | 36,365 | 6401 | -6.7% 0.83 (0.82, 0.84) | 37,945 | 8741 |
| Aged 25-49 | 142,927 | 7012 | -2.4% 0.86 (0.85, 0.86) | 144,811 | 9085 |
| Aged 50-64 | 70,408 | 6363 | -3.3% 0.87 (0.86, 0.88) | 73,872 | 8097 |

### Anxiety disorders

| Sex | Total ED visit counts for MH | ED visits for MH per 100,000 ED visits | Index period compared to MH in the COVID-19 Pandemic, prior to Delta variant period (Apr. 18–May 15, 2021) | Index period compared to pre-pandemic MH (Feb. 10, 2019–Mar. 9, 2019) |
|---|---|---|---|---|
| Females | 76,454 | 3738 | -3.0% 0.86 (0.86, 0.87) | 77,633 | 4793 |
| Males | 45,649 | 2750 | -3.9% 0.85 (0.83, 0.86) | 47,891 | 3638 |
| **Male/Female Ratio** | | | 0.74 (0.73, 0.74) | 0.76 (0.75, 0.77) |

| Age | Total ED visit counts for MH | ED visits for MH per 100,000 ED visits | Index period compared to MH in the COVID-19 Pandemic, prior to Delta variant period (Apr. 18–May 15, 2021) | Index period compared to pre-pandemic MH (Feb. 10, 2019–Mar. 9, 2019) |
|---|---|---|---|---|
| Aged 18-24 | 17,422 | 3066 | -6.4% 0.83 (0.81, 0.85) | 17,738 | 4086 |
| Aged 25-49 | 70,168 | 3443 | -2.8% 0.85 (0.85, 0.86) | 71,179 | 4466 |
| Aged 50-64 | 34,873 | 3151 | -3.1% 0.87 (0.86, 0.88) | 36,983 | 4054 |

### Depressive disorders

| Sex | Total ED visit counts for MH | ED visits for MH per 100,000 ED visits | Index period compared to MH in the COVID-19 Pandemic, prior to Delta variant period (Apr. 18–May 15, 2021) | Index period compared to pre-pandemic MH (Feb. 10, 2019–Mar. 9, 2019) |
|---|---|---|---|---|
| Females | 41,597 | 2033 | -7.1% 0.83 (0.82, 0.84) | 45,973 | 2839 |
| Males | 30,923 | 1863 | -3.7% 0.85 (0.83, 0.86) | 33,312 | 2531 |
| **Male/Female Ratio** | | | 0.92 (0.90, 0.93) | 0.89 (0.88, 0.90) |

| Age | Total ED visit counts for MH | ED visits for MH per 100,000 ED visits | Index period compared to MH in the COVID-19 Pandemic, prior to Delta variant period (Apr. 18–May 15, 2021) | Index period compared to pre-pandemic MH (Feb. 10, 2019–Mar. 9, 2019) |
|---|---|---|---|---|
| Aged 18-24 | 10,814 | 1903 | -9.5% 0.80 (0.78, 0.82) | 12,213 | 2814 |
| Aged 25-49 | 37,328 | 1831 | -4.2% 0.84 (0.83, 0.85) | 40,385 | 2534 |
| Aged 50-64 | 24,532 | 2217 | -6.2% 0.84 (0.83, 0.86) | 26,865 | 2945 |

### Bipolar disorders

| Sex | Total ED visit counts for MH | ED visits for MH per 100,000 ED visits | Index period compared to MH in the COVID-19 Pandemic, prior to Delta variant period (Apr. 18–May 15, 2021) | Index period compared to pre-pandemic MH (Feb. 10, 2019–Mar. 9, 2019) |
|---|---|---|---|---|
| Females | 16,650 | 814 | -5.3% 0.84 (0.83, 0.86) | 17,872 | 1103 |
| Males | 12,688 | 764 | -7.4% 0.81 (0.80, 0.83) | 14,051 | 1068 |
| **Male/Female Ratio** | | | 0.94 (0.92, 0.96) | 0.97 (0.95, 0.99) |

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| Age Group | Aged 18-24 | Aged 25-49 | Aged 50-64 |
|-----------|------------|------------|------------|
| Aged 18-24 | 3,562 | 17,282 | 8,616 |
| Aged 25-49 | 627 | 848 | 779 |
| Aged 50-64 | -6.1% | -6.2% | -6.0% |
| Sex | Females | Males | Male/Female Ratio |
| Schizophrenia spectrum disorders | | | |
| Aged 18-24 | 8,819 | 16,415 | 2.29 |
| Aged 25-49 | 431 | 989 | (2.24, 2.35) |
| Aged 50-64 | -4.4% | -7.3% | 2.38 |
| Trauma and stressor-related disorders | | | |
| Aged 18-24 | 10,757 | 8,116 | 0.93 |
| Aged 25-49 | 526 | 489 | (0.90, 0.96) |
| Aged 50-64 | -8.6% | -3.3% | 0.94 |
| Attention-deficit/hyperactivity disorders | | | |
| Aged 18-24 | 2,956 | 3,091 | 1.29 |
| Aged 25-49 | 1,44 | 186 | (1.23, 1.36) |
| Aged 50-64 | -9.9% | -5.3% | 1.29 |
| Disruptive behavioral and impulse disorders | | | |
| Aged 18-24 | 684 | 582 | 1.05 |
| Aged 25-49 | 33 | 35 | (0.94, 1.17) |
| Aged 50-64 | -7.2% | -3.0% | 1.05 |
| Obsessive-compulsive disorders | | | |
| Aged 18-24 | 865 | 921 | 2.29 |
| Aged 25-49 | 24 | 27 | (2.24, 2.35) |
| Aged 50-64 | -5.5% | -5.5% | 2.38 |

| Male/Female Ratio/ | 2.29 (2.24, 2.35) | 2.38 (2.32, 2.43) |
| Age | | |
| Aged 18-24 | 2.214 | 2.871 | -8.1% |
| Aged 25-49 | 390 | 505 | -14.5% |
| Aged 50-64 | -8.1% | -14.5% | -24.9% |
| Sex | Females | Males | Male/Female Ratio |
| Age | | | |
| Aged 18-24 | 8,119 | 16,415 | 2.29 |
| Aged 25-49 | 431 | 989 | (2.24, 2.35) |
| Aged 50-64 | -4.4% | -7.3% | 2.38 |
| Trauma and stressor-related disorders | | | |
| Aged 18-24 | 10,757 | 8,116 | 0.93 |
| Aged 25-49 | 526 | 489 | (0.90, 0.96) |
| Aged 50-64 | -8.6% | -3.3% | 0.94 |
| Attention-deficit/hyperactivity disorders | | | |
| Aged 18-24 | 2,956 | 3,091 | 1.29 |
| Aged 25-49 | 1,44 | 186 | (1.23, 1.36) |
| Aged 50-64 | -9.9% | -5.3% | 1.29 |
| Disruptive behavioral and impulse disorders | | | |
| Aged 18-24 | 684 | 582 | 1.05 |
| Aged 25-49 | 33 | 35 | (0.94, 1.17) |
| Aged 50-64 | -7.2% | -3.0% | 1.05 |
| Obsessive-compulsive disorders | | | |
| Aged 18-24 | 865 | 921 | 2.29 |
| Aged 25-49 | 24 | 27 | (2.24, 2.35) |
| Aged 50-64 | -5.5% | -5.5% | 2.38 |

| Male/Female Ratio/ | 2.29 (2.24, 2.35) | 2.38 (2.32, 2.43) |
| Obsessive-compulsive disorders | | | |
| Aged 18-24 | 865 | 921 | 2.29 |
| Aged 25-49 | 24 | 27 | (2.24, 2.35) |
| Aged 50-64 | -5.5% | -5.5% | 2.38 |

| Male/Female Ratio/ | 2.29 (2.24, 2.35) | 2.38 (2.32, 2.43) |

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aNSSP collects free-text reason for visit (chief complaint), discharge diagnosis, and patient demographic details. ... Revision, Clinical Modification (ICD-9-CM) codes; International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes; and Systematized Nomenclature of Medicine (SNOMED) codes. Emergency department visits ... identified by querying ED visits data from the National Syndromic Surveillance Program (NSSP) using keyword syndromes developed by CDC in partnership with state and local health departments (eTable 1); bTo reduce artifactual impact from ... examining trends in MH-related ED visits by sex and age were restricted to facilities with a coefficient of variation \( \leq 40 \) and average weekly discharge diagnosis \( \geq 75\% \) from January 2019–August 2021. cRate of ED visits for MH outcome = (number of ED visits for MH outcome/number of total ED visits) \times ... periods, divided by the proportion of ED visits for MH outcome during the comparison period (ED visits for MH outcome (index period)/all ED visits (index period)) \times 100,000. \( \% \) Visit ratios = Proportion ED visits for MH outcome during the index period divided by the proportion of ED visits for MH outcome during the comparison period (ED visits for MH outcome (comparison period)/all ED visits (comparison period)). Male to female visit ratios = (proportion of ED visits for MH outcome during index period for males/proportion of ED visits for MH outcome during index period for females). Ratios >1 indicate a higher proportion of ED visits for MH outcome during the surveillance period for males compared with females.

| Age  | Sex | Eating disorders | Sex | Age  | Tic disorders |
|------|-----|------------------|-----|------|--------------|
|      | Age 18-24 | Females | 608 | 30 | -12.9% | 0.78 (0.70, 0.87) | -13.6% | 0.84 (0.75, 0.94) | 712 | 44 | 6.1% | 1.08 (0.97, 1.20) | 12.7% | 1.36 (1.24, 1.53) |
|      | Ages 25-49 | Males | 149 | 9 | -6.3% | 0.82 (0.66, 1.03) | -6.9% | 0.88 (0.71, 1.10) | 153 | 12 | 10.9% | 1.13 (0.90, 1.43) | 4.8% | 1.17 (0.94, 1.47) |
|      | Ages 50-64 | Male/Female Ratio | 0.30 (0.25, 0.36) | 0.30 (0.25, 0.36) | 0.26 (0.22, 0.31) | 0.26 (0.22, 0.31) |
|      | Age 18-24 | Females | 245 | 43 | -17.2% | 0.73 (0.62, 0.87) | -5.4% | 0.92 (0.78, 1.10) | 334 | 77 | 12.5% | 1.14 (0.97, 1.33) | 22.8% | 1.53 (1.30, 1.79) |
|      | Ages 25-49 | Males | 375 | 18 | -8.8% | 0.80 (0.70, 0.92) | -15.5% | 0.81 (0.71, 0.93) | 397 | 25 | 5.0% | 1.08 (0.94, 1.24) | 2.9% | 1.22 (1.06, 1.40) |
|      | Ages 50-64 | Male/Female Ratio | 1.72 (1.34, 2.20) | 1.72 (1.34, 2.20) | 1.54 (1.22, 1.96) | 1.54 (1.22, 1.96) |

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eAppendix 1. Detailed Footnotes for Figure 2 Mental Health–Related, Anxiety, and Depressive Disorder US Emergency Department Visits, by Race and Ethnicity

U.S.=United States; ED=emergency department. This figure includes data from December 27, 2020 through August 14, 2021. Shaded areas of the graph depict time periods included in analytic index or comparison periods. From left to right, this includes a COVID-19 case peak comparison period from Dec. 27, 2020–Jan. 23, 2021; the period immediately following a COVID-19 case peak index period of Feb. 14, 2021–Mar. 13, 2021; a COVID-19 pandemic comparison period with low circulation of the Delta variant (Pre-Delta period): Apr. 18–May 15, 2021; and a COVID-19 pandemic index period with high circulation of the Delta variant (Delta period): July 18–Aug. 14, 2021. These windows were used in the temporal comparisons displayed in Table 2. Comparisons between racial and ethnic groups for ED visit rates for each MH outcome of interest were non-temporal and within the index period of interest. In the Delta period, prevalence ratios ≥1.0 with 95% confidence intervals excluding 1.0 indicated that there were the following differences between groups: (1) non-Hispanic White persons had higher prevalence of any MH-related ED visits compared to non-Hispanic American Indian or Alaska Native, non-Hispanic Asian, Hispanic, non-Hispanic Black, and non-Hispanic Native Hawaiian or Other Pacific Islander persons; (2) non-Hispanic American Indian or Alaska Native persons had higher prevalence of any MH-related ED visits compared to non-Hispanic Black, Hispanic, and non-Hispanic Native Hawaiian or Other Pacific Islander persons; (3) non-Hispanic White persons had higher prevalence of anxiety disorder-related ED visits compared to non-Hispanic American Indian or Alaska Native, non-Hispanic Asian, Hispanic, non-Hispanic Black, and non-Hispanic Native Hawaiian or Other Pacific Islander persons; (4) non-Hispanic American Indian or Alaska Native persons had higher prevalence of anxiety disorder-related ED visits compared to non-Hispanic Black and non-Hispanic Native Hawaiian or Other Pacific Islander persons; (5) non-Hispanic Black persons had lower prevalence of anxiety disorder-related ED visits compared to non-Hispanic Asian and Hispanic persons; (6) non-Hispanic White persons had higher prevalence of depressive disorder-related ED visits compared to non-Hispanic American Indian or Alaska Native, non-Hispanic Asian, non-Hispanic Black, and Hispanic persons; (7) non-Hispanic American Indian or Alaska Native persons had higher rates of depressive disorder-related ED visits compared to non-Hispanic Black and Hispanic persons; and (8) non-Hispanic Asian persons had higher prevalence of depressive-disorder related ED visits compared to Hispanic persons. No other comparisons between racial and ethnic groups showed differences. In the period after a COVID-19 case peak, prevalence ratios ≥1.0 with 95% confidence intervals excluding 1.0 comparing between racial and ethnic groups showed similar findings as to the Delta period with several exceptions: (1) non-Hispanic White persons showed no differences in prevalence of MH-related ED visits with non-Hispanic American Indian or Alaska Native persons; (2) non-Hispanic American Indian or Alaska Native persons had higher prevalence of any MH-related ED visits compared to non-Hispanic White persons; (3) non-Hispanic American Indian or Alaska Native persons had higher prevalence of anxiety disorder-related ED visits compared to non-Hispanic Asian persons; (4) non-Hispanic American Indian or Alaska Native persons had higher prevalence of depressive disorder-related ED visits compared to non-Hispanic Asian persons; (5) non-Hispanic Asian persons showed no differences in prevalence of depressive disorder-related ED visits compared to Hispanic persons; (6) non-Hispanic White persons showed no differences in prevalence of depressive disorder-related ED visits compared to non-Hispanic American Indian or Alaska Native persons.

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eAppendix 2. Detailed Footnotes for Figure 3 Bipolar, Schizophrenia Spectrum, and Trauma- and Stressor-Related Disorder US Emergency Department Visits, by Race and Ethnicity

U.S.=United States; ED=emergency department. This figure includes data from December 27, 2020 through August 14, 2021. Shaded areas of the graph depict time periods included in analytic index or comparison periods. From left to right, this includes a COVID-19 case peak comparison period from Dec. 27, 2020–Jan. 23, 2021; the period immediately following a COVID-19 case peak index period of Feb. 14, 2021–Mar. 13, 2021; a COVID-19 pandemic comparison period with low circulation of the Delta variant (Pre-Delta period): Apr. 18–May 15, 2021; and a COVID-19 pandemic index period with high circulation of the Delta variant (Delta period): July 18–Aug. 14, 2021. These windows were used in the temporal comparisons displayed in Table 2. Comparisons between racial and ethnic groups for ED visit rates for each MH outcome of interest were non-temporal and within the index period of interest. In the Delta period, prevalence ratios $\geq 1.0$ with 95% confidence intervals excluding 1.0 indicated that there were the following differences between groups: (1) non-Hispanic White persons had higher prevalence of bipolar disorder-related ED visits compared to non-Hispanic Black, non-Hispanic Asian, Hispanic, and non-Hispanic American Indian or Alaska Native persons; (2) non-Hispanic Black persons had higher prevalence of bipolar disorder-related ED visits compared to non-Hispanic American Indian or Alaska Native and Hispanic persons; (3) non-Hispanic White persons had higher prevalence of schizophrenia spectrum disorder-related ED visits compared to Hispanic persons; (4) non-Hispanic Black persons had higher prevalence of schizophrenia spectrum disorder-related ED visits compared to non-Hispanic American Indian or Alaska Native, non-Hispanic Asian, Hispanic, and non-Hispanic White persons; (5) non-Hispanic American Indian or Alaska Native persons had higher prevalence of trauma and stressor-related disorder ED visits compared to non-Hispanic Asian, Hispanic, and non-Hispanic Black persons; (6) non-Hispanic White persons had higher prevalence of trauma and stressor-related disorder ED visits compared to non-Hispanic Black persons. No other comparisons between racial and ethnic groups showed differences. In the period after a COVID-19 case peak, prevalence ratios $\geq 1.0$ with 95% confidence intervals excluding 1.0 comparing rates between racial and ethnic groups showed similar findings as to the Delta period with several exceptions: (1) non-Hispanic Black persons showed no differences in prevalence of bipolar disorder-related ED visits with non-Hispanic American Indian or Alaska Native persons; (2) non-Hispanic American Indian or Alaska Native persons had higher prevalence of trauma and stressor-related disorder ED visits compared to non-Hispanic White persons; (3) non-Hispanic White persons had higher prevalence of trauma and stressor-related disorder ED visits compared to Hispanic and non-Hispanic Asian persons.