

Pediatric Visits More Likely for Mental Health Than Other Conditions During the COVID-19 Pandemic

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Studies have noted how social isolation during the COVID-19 pandemic has negatively impacted the mental health of children.^{1,2,3} We reviewed data from January 1, 2017, to February 28, 2021, to see if the number of pediatric mental health visits has increased during the pandemic. Our analysis shows that the volume of mental health visits for patients ages 5-18 increased slightly for outpatient visits and decreased for ED visits and hospital admissions between March 1, 2020, and February 28, 2021. As shown in Figure 1, outpatient visit volumes increased 4% over predicted volumes. ED visits and hospital admissions decreased 26% and 22% below predicted volumes, respectively.

Pediatric Mental Health Visit Volumes

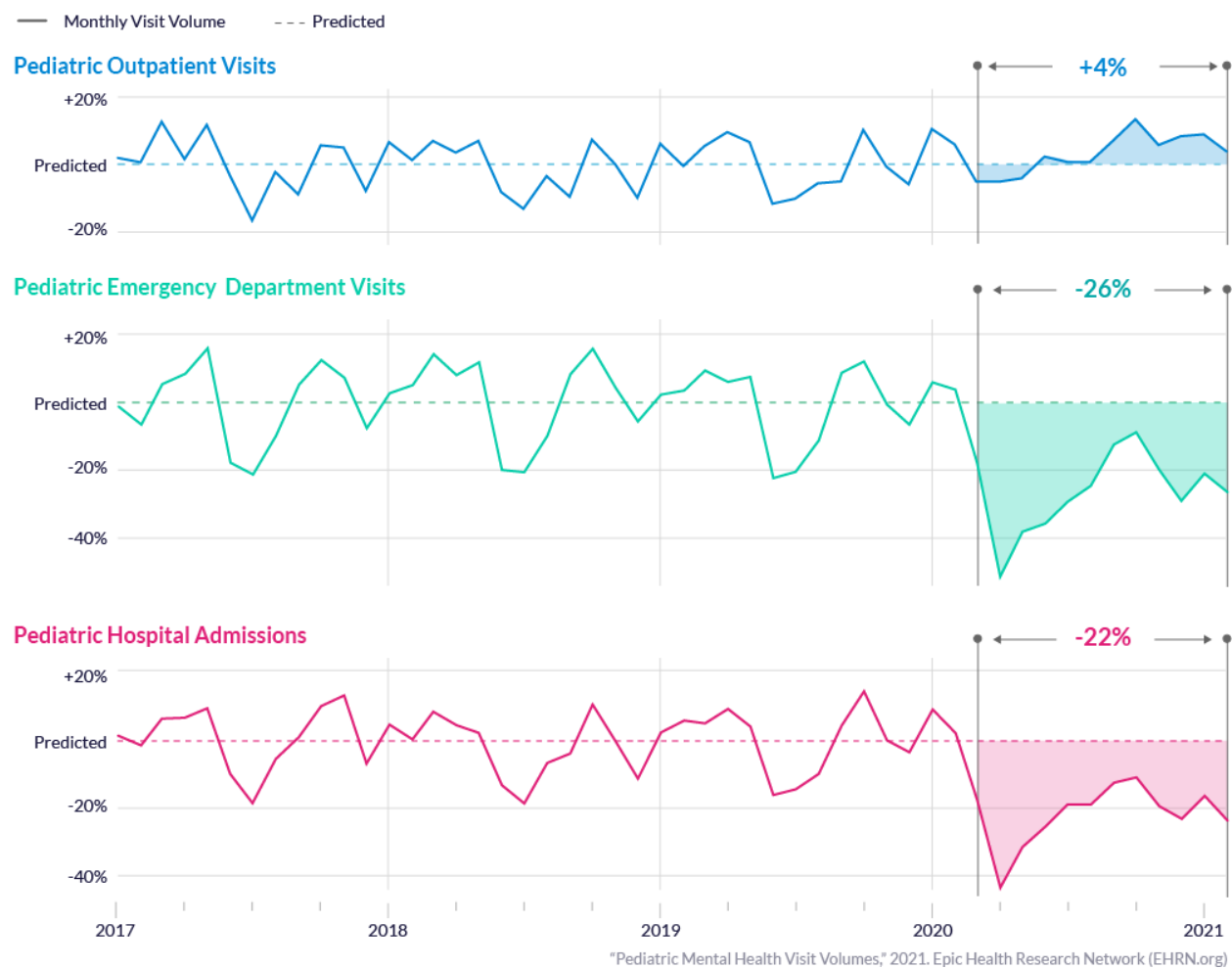


Figure 1. Predicted and observed monthly visit volumes for pediatric mental health visits from January 1, 2017, through February 28, 2021. The vertical lines for March 1, 2020, and February 28, 2021, indicate the time frame that we predicted visit volumes for.

Visit volumes have declined overall during the pandemic; however, as of February 28, 2021, visits with a mental health diagnosis have made up a larger proportion of pediatric outpatient and ED visits than they did before the pandemic. The proportion of outpatient and ED visits notably increased at the start of the pandemic largely because of the significant decrease in overall outpatient and ED visit volume at that time. Previous studies have found that patients who seek care during the pandemic are doing so for higher acuity conditions.⁴ An increase in the proportion of visits for mental health could indicate that those who are seeking care are doing so for higher acuity mental health needs. The proportion of outpatient visits and ED visits for mental health increased by 44% and 36% over predicted volumes, respectively, while hospital admissions for mental health was 2% below predicted volumes.

Proportion of Pediatric Mental Health Visits

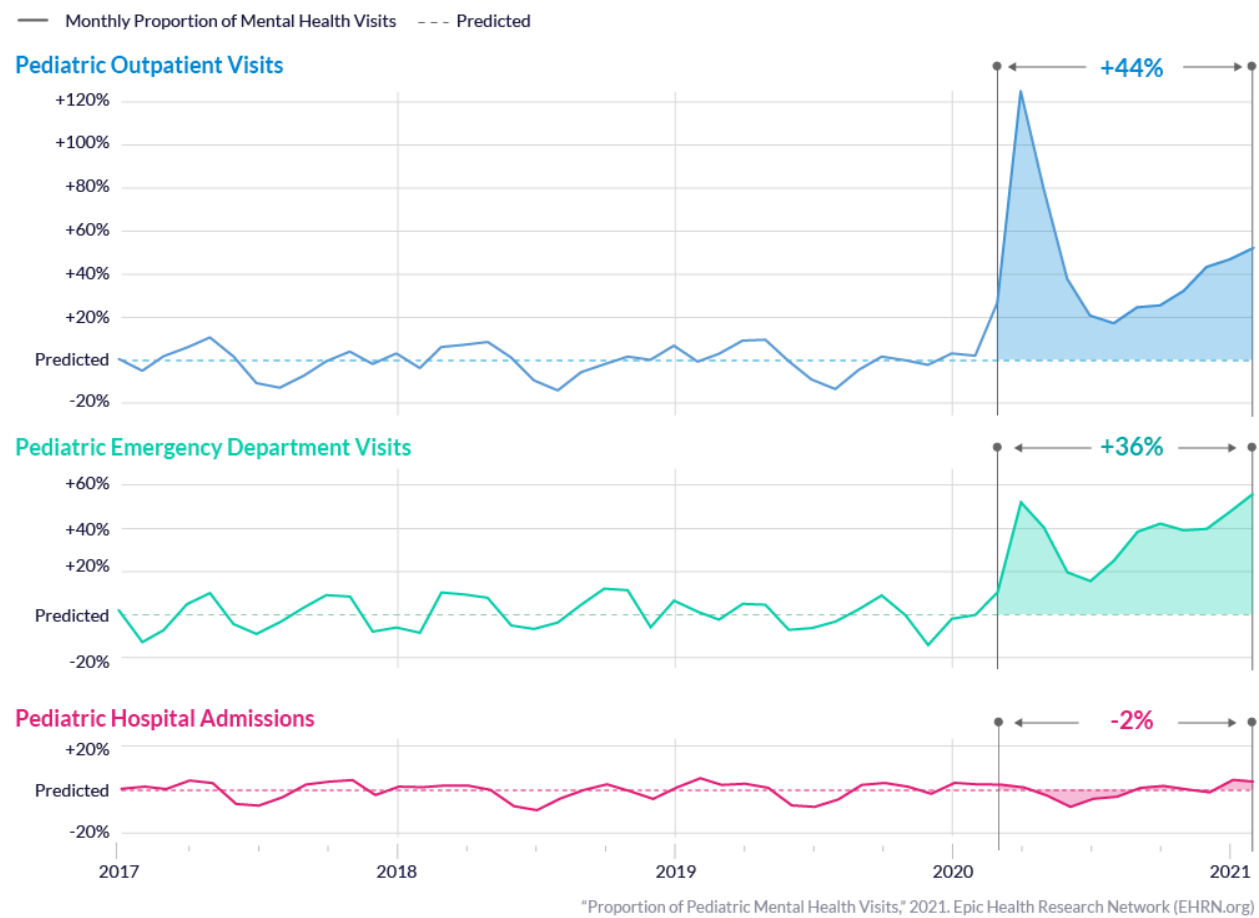


Figure 2. The proportion of pediatric mental visits compared to visits for all types of diagnoses.

Our analysis shows that while the overall visit volume for pediatric mental health visits has not increased, pediatric patients are more often receiving care for mental health compared to other concerns during the pandemic.

This study was completed by two teams each comprised of a clinician and two research scientists who worked independently analyzing pediatric mental health visit volumes. The two teams came to similar conclusions. Data are pooled from 77 healthcare

organizations representing 333 hospitals and 7,125 clinics that span 46 states and cover 64 million patients (8.6 million pediatric patients).

Term	Definition
Qualifying Visit	A visit qualifies for inclusion in the numerator if there is a diagnosis linked to the encounter which matches the CCSR/ICD-10-CM code list. Diagnosis must be of the types “Encounter Diagnosis” or “Billing Final Diagnosis”.
Admission	An encounter of type “Hospital Encounter”, “Hospital”, or “External Hospital Admission”, where the encounter is explicitly flagged as being an admission
ED Visit	An encounter of type “Hospital Encounter”, where the encounter is explicitly flagged as being an ED visit
Outpatient Visit	An encounter of type “Consult”, “Evaluation”, “Office Visit”, “Telemedicine”, “Telephone Visit”, or “Walk-In”
Predicted Visit Volume	Predicted visit volumes were determined by looking at historic visit volumes from January 1, 2017 to February 28, 2020 to predict visit volumes for March 1, 2020 through February 28, 2021.
Pediatric Patient	A patient who was between the ages of 5 and 18 on the date of the visit (*note that the upper bound is 18, not 17)
Child	A patient who was between the ages of 5 and 11 on the date of the visit
Schizophrenia	CCSR Code: MBD001 ICD-10-CM codes: F06.0, F06.1, F06.2, F20.0, F20.1, F20.2, F20.3, F20.5, F20.81, F20.89, F20.9, F21, F22, F23, F24, F25.0, F25.1, F25.8, F25.9, F28, F29
Depression	CCSR Code: MBD002 ICD-10-CM codes: F06.31, F06.32, F32.0, F32.1, F32.2, F32.3, F32.4, F32.8, F32.81, F32.89, F32.9, F33.0, F33.1, F33.2, F33.3, F33.41, F33.8, F33.9, F34.1
Bipolar Disorder	CCSR Code: MBD003 ICD-10-CM codes: F06.33, F06.34, F30.10, F30.11, F30.12, F30.13, F30.2, F30.3, F30.8, F30.9, F31.0, F31.10, F31.11, F31.12, F31.13, F31.2, F31.30, F31.31, F31.32, F31.4, F31.5, F31.60, F31.61, F31.62, F31.63, F31.64, F31.71, F31.73, F31.75, F31.77, F31.81, F31.89, F31.9, F34.0
Other Mood Disorder	CCSR Code: MBD004 ICD-10-CM codes: F06.30, F34.8, F34.81, F34.89, F34.9, F39
Anxiety	CCSR Code: MBD005 ICD-10-CM codes: F06.4, F40.00, F40.01, F40.02, F40.10, F40.11, F40.210, F40.218, F40.220, F40.228, F40.230, F40.231, F40.232, F40.233, F40.240, F40.241, F40.242, F40.243, F40.248, F40.290, F40.291, F40.298, F40.8, F40.9, F41.0, F41.1, F41.3, F41.8, F41.9, F93.0, F94.0
Obsessive-Compulsive Disorder	CCSR Code: MBD006 ICD-10-CM codes: F42, F42.2, F42.3, F42.4, F42.8, F42.9, F45.22, F63.3

Trauma/Stress Disorder	CCSR Code: MBD007 ICD-10-CM codes: F43.0, F43.10, F43.11, F43.12, F43.20, F43.21, F43.22, F43.23, F43.24, F43.25, F43.29, F43.8, F43.9, F44.0, F44.1, F44.2, F44.4, F44.5, F44.6, F44.7, F44.81, F44.89, F44.9, F48.1, F94.1, F94.2
Conduct Disorder	CCSR Code: MBD008 ICD-10-CM codes: F63.1, F63.2, F63.81, F63.89, F63.9, F91.0, F91.1, F91.2, F91.3, F91.8, F91.9
Personality Disorder	CCSR Code: MBD009 ICD-10-CM codes: F07.0, F60.0, F60.1, F60.2, F60.3, F60.4, F60.5, F60.6, F60.7, F60.81, F60.89, F60.9, F68.8, F69
Eating Disorder	CCSR Code: MBD010 ICD-10-CM codes: F50.00, F50.01, F50.02, F50.2, F50.8, F50.81, F50.82, F50.89, F50.9, F98.21, F98.29, F98.3
Suicide/Suicidal Tendencies	CCSR Code: MBD012 ICD-10-CM codes: R45.851, T14.91, T14.91XA, T36.0X2A, T36.1X2A, T36.2X2A, T36.3X2A, T36.4X2A, T36.5X2A, T36.6X2A, T36.7X2A, T36.8X2A, T36.92XA, T37.0X2A, T37.1X2A, T37.2X2A, T37.3X2A, T37.4X2A, T37.5X2A, T37.8X2A, T37.92XA, T38.0X2A, T38.1X2A, T38.2X2A, T38.3X2A, T38.4X2A, T38.5X2A, T38.6X2A, T38.7X2A, T38.802A, T38.812A, T38.892A, T38.902A, T38.992A, T39.012A, T39.092A, T39.1X2A, T39.2X2A, T39.312A, T39.392A, T39.4X2A, T39.8X2A, T39.92XA, T40.0X2A, T40.1X2A, T40.2X2A, T40.3X2A, T40.4X2A, T40.5X2A, T40.602A, T40.692A, T40.7X2A, T40.8X2A, T40.902A, T40.992A, T41.0X2A, T41.1X2A, T41.202A, T41.292A, T41.3X2A, T41.42XA, T41.5X2A, T42.0X2A, T42.1X2A, T42.2X2A, T42.3X2A, T42.4X2A, T42.5X2A, T42.6X2A, T42.72XA, T42.8X2A, T43.012A, T43.022A, T43.1X2A, T43.202A, T43.212A, T43.222A, T43.292A, T43.3X2A, T43.4X2A, T43.502A, T43.592A, T43.602A, T43.612A, T43.622A, T43.632A, T43.642A, T43.692A, T43.8X2A, T43.92XA, T44.0X2A, T44.1X2A, T44.2X2A, T44.3X2A, T44.4X2A, T44.5X2A, T44.6X2A, T44.7X2A, T44.8X2A, T44.902A, T44.992A, T45.0X2A, T45.1X2A, T45.2X2A, T45.3X2A, T45.4X2A, T45.512A, T45.522A, T45.602A, T45.612A, T45.622A, T45.692A, T45.7X2A, T45.8X2A, T45.92XA, T46.0X2A, T46.1X2A, T46.2X2A, T46.3X2A, T46.4X2A, T46.5X2A, T46.6X2A, T46.7X2A, T46.8X2A, T46.902A, T46.992A, T47.0X2A, T47.1X2A, T47.2X2A, T47.3X2A, T47.4X2A, T47.5X2A, T47.6X2A, T47.7X2A, T47.8X2A, T47.92XA, T48.0X2A, T48.1X2A, T48.202A, T48.292A, T48.3X2A, T48.4X2A, T48.5X2A, T48.6X2A, T48.902A, T48.992A, T49.0X2A, T49.1X2A, T49.2X2A, T49.3X2A, T49.4X2A, T49.5X2A, T49.6X2A, T49.7X2A, T49.8X2A, T49.92XA, T50.0X2A, T50.1X2A, T50.2X2A, T50.3X2A, T50.4X2A, T50.5X2A, T50.6X2A, T50.7X2A, T50.8X2A, T50.902A, T50.912A, T50.992A, T50.A12A, T50.A22A, T50.A92A, T50.B12A, T50.B92A, T50.Z12A, T50.Z92A, T51.0X2A, T51.1X2A, T51.2X2A, T51.3X2A, T51.8X2A, T51.92XA, T52.0X2A, T52.1X2A, T52.2X2A, T52.3X2A, T52.4X2A, T52.8X2A, T52.92XA, T53.0X2A, T53.1X2A, T53.2X2A, T53.3X2A, T53.4X2A, T53.5X2A, T53.6X2A, T53.7X2A, T53.92XA, T54.0X2A, T54.1X2A, T54.2X2A, T54.3X2A, T54.92XA, T55.0X2A, T55.1X2A, T56.0X2A, T56.1X2A, T56.2X2A, T56.3X2A, T56.4X2A,

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