

Effect of COVID-19 Pandemic on Visit Patterns for Anxiety and Depression

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The CDC has raised concerns about increased isolation, fear, and anxiety during the pandemic.¹ This brief examines how COVID-19 changed care delivery patterns for patients with anxiety or depression, in both established and newly diagnosed patients. Additionally, our analysis shows the initial steep drop-off in total visits has returned to pre-pandemic levels, with telehealth compensating for the reduction in office visits.

A total of 2,394,000 visits with a diagnosis of anxiety or depression were identified in the time span from January 7, 2018, to July 12, 2020. We used weekly visit volume data from before January 19, 2020, to create estimates for what visit volumes would have looked like without the COVID-19 pandemic.²

Soon after the COVID-19 outbreak, in-person office and ED visit volumes dropped below expected levels by as much as 65% and 42%, respectively. However, by the week of July 12, ED visits recovered to normal levels, while in-person office visits remained 22% lower than expected. The large initial reduction in office visit volume was partially filled by telehealth visits, which increased from a median of 13 weekly visits to a high of 10,849 visits the week of April 26. At peak volume, telehealth visits represented 54% of all anxiety and depression visits. By the week of July 12, the total volume of visits returned to pre-pandemic volumes, with telehealth visits reduced but still representing 29% of all visits. The total loss of in-person office visits (139,644) after January 19 nearly matches the total number of telehealth visits gained (140,832) during the same timeframe (see Figures 1 and 2D).

Visit Patterns for Patients with Anxiety & Depression - Breakdown

Weekly volume by type of visit and type of patient, January 5 – July 12, 2020.

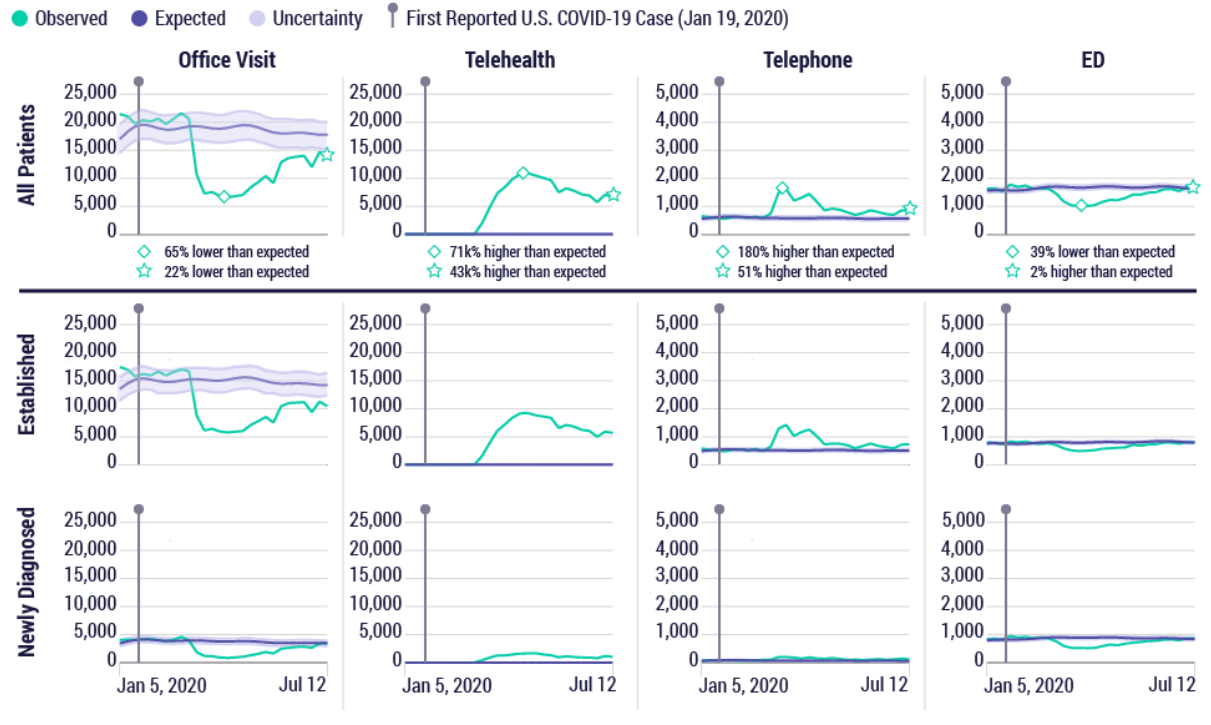


Figure 1. Weekly visit volume for anxiety and depression over time across different visit and patient types. The green line indicates actual observed weekly volumes, while the dark purple one shows estimates from a generalized additive model (GAM) combining long term trend, yearly seasonal, and holiday effects. The light purple lines indicate the lower and upper 80% uncertainty bounds of the estimates. The GAM was fitted to observations up to and including the week of January 19, which is the date the first COVID-19 case in the U.S. was reported.

Next, we analyzed visit volume trends for patients with a previously established diagnosis of anxiety or depression versus those patients who were newly diagnosed. Established patients saw a greater drop in the proportion of in-person office visits (95% to 35%) as compared to newly diagnosed patients (82% to 28%). Established patients also saw a greater increase in the proportion of telehealth visits (0.2% to 56%) as compared with newly diagnosed patients (0% to 49%) (see Figure 2).

Visit Patterns for Patients with Anxiety & Depression

Weekly volume and percent by type of visit and type of patient.

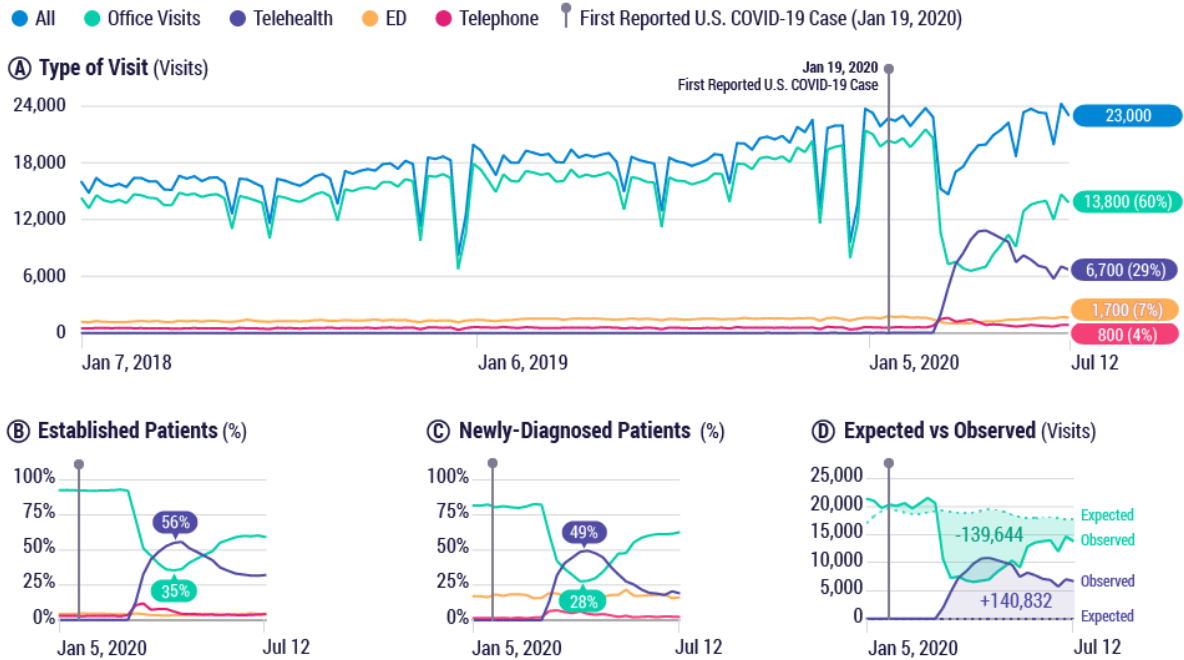


Figure 2. A) Weekly visit volume for anxiety and depression since 2018 across different visit types. B) and C) Weekly percent breakdown of visit types for established and newly diagnosed patients over time since 2020. D) Weekly visit volume for office and telehealth visits, illustrating how the gain in telehealth visits since January 19, 2020 nearly matches the office visits lost during the same time period.

Our analysis shows a greater proportion of care delivery for established patients was provided using telehealth, while newly diagnosed patients had a greater proportion of in-person visits (both office and ED visits). The larger proportion of newly diagnosed in-person office visits may reflect a provider’s desire to initiate new patient relationships in person. We plan to reexamine visit patterns for established and newly diagnosed patients every few months to determine what effect a prolonged pandemic has on visit volumes for anxiety and depression.

This summary includes behavioral health encounters as of July 18, 2020. Due to state privacy regulations for these encounters, our data may not accurately reflect national, regional, or state trends.

Data are pooled from 26 healthcare organizations spanning 17 states and covering 15 million patients.

SUMMARY STATISTICS

Visit Type	Maximum Difference (1/20 – 7/12)			Total Visits (1/20 – 7/12)		
	Observed	Expected	% Difference	Observed	Expected	% Difference
Office Visit	6,578	18,965	-65%	328,160	467,804	-30%
Phone	1,614	577	180%	22,178	14,528	53%
Telehealth	10,748	15	71,001%	141,257	425	33,134%
ED	1,010	1,668	-39%	35,625	41,611	-14%

Table 1. Summary statistics for weekly visit volumes for anxiety and depression after the first report of a U.S. COVID-19 case, January 19, 2020. Expected values are based on the GAM time series model described in the caption to Figure 1. Totals are for first-time and established patients combined.

DATA DEFINITIONS

Term	Definition
Anxiety	SNOMED CT 197480006 Mental Disorder > Anxiety Disorder
Depression	SNOMED CT 35489007 Mental Disorder > Mood Disorder > Depressive Disorder
Newly-Diagnosed Patient	A patient who has an encounter diagnosis of anxiety or depression after a period of two years without an encounter diagnosis of anxiety or depression.

REFERENCES

1. "Coping with Stress." *Centers for Disease Control and Prevention*. (July 1, 2020). Retrieved from: <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/managing-stress-anxiety.html>
2. January 19, 2020 was the date that the first COVID-19 case was reported in the U.S.

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Data Date: July 18, 2020

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<https://ehrn.org/wp-content/uploads/effect-covid-19-pandemic-visit-patterns-anxiety-depression.pdf>