As Office Visits Fall, Telehealth Takes Hold

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Recent data show that, while overall visit volumes have decreased dramatically since the beginning of the COVID-19 pandemic in the United States, telehealth visits overall have increased 300-fold.[1] This brief describes the diagnoses and specialties that saw the largest visit volumes of telehealth, with the goal of informing future strategy around telehealth.

For the top 100 visit diagnoses in 2019, this analysis compares telehealth visit volume to total visit volume from March 15 to May 8, 2020. The percentage of 2019 visits conducted via telehealth was extremely small (e.g. of the more than 875,000 visits in Family Medicine in this time period, less than 0.015% of them were telehealth), making year over year comparisons of little value. The top 10 diagnoses for telehealth visit volume in 2020 are summarized in the left column of Figure 1. As expected, virtually all diagnoses saw a decrease in total visit volume, while some, namely anxiety, were able to maintain 80% of their 2019 visit volumes (43,992 total visits in 2020 compared to 55,041 total visits in 2019) with over half being virtual.

Visits that require a physical exam, lab tests, or other procedures showed relatively low rates of telehealth adoption (e.g., General Exam visits in 2020 were 18% of their 2019 volume, with only 25% of those visits being telehealth). However, even those diagnoses with relatively low telehealth usage in 2020 could result in large total telehealth volume if those percentages were applied to a "normal" year (e.g., if 25% of an average year's General Exam visits were conducted via telehealth, that would equate to over 50,000 visits in our dataset). To examine this, we modeled how the 2020 percentage of telehealth could have affected care patterns during the same time period in a "normal" year (using 2019 as representative year); the top 10 diagnoses for visit by potential telehealth volume are shown in the right column of Figure 1.
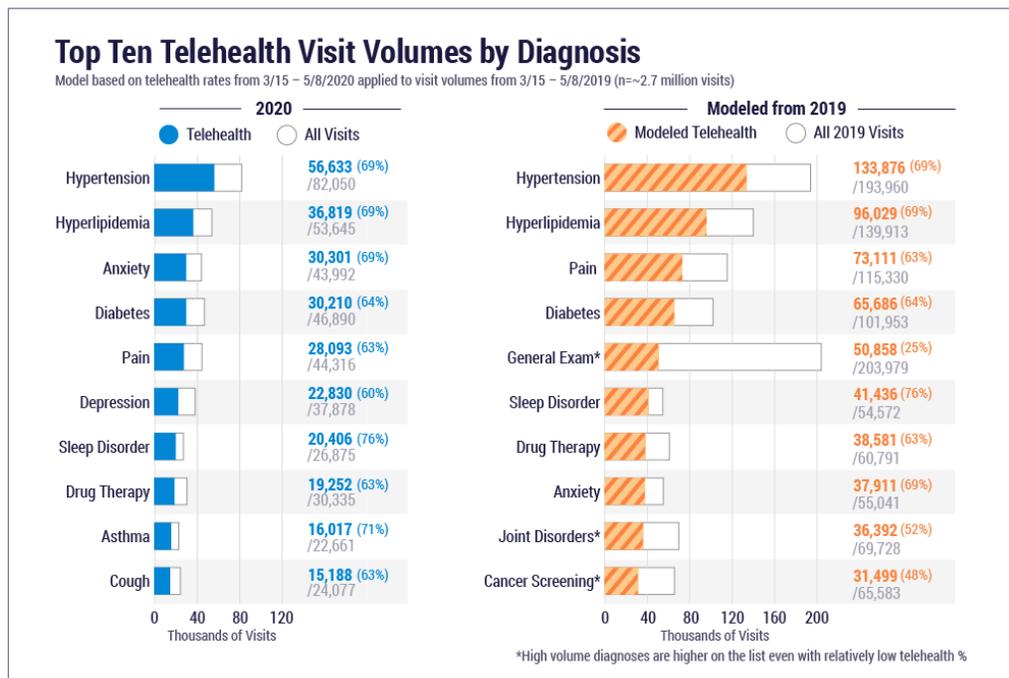

Figure 1: Diagnoses with the largest volumes of 2020 visits completed using telehealth.

Similarly, we compared telehealth visit volume to total visit volume from March 15 to May 8, 2020, organized by encounter department specialty. While having lower total visit volume in 2020, several specialties were able to complete more than half of their visits using telehealth, as shown in the left column of Figure 2. Again, some specialties more obviously lend themselves to telehealth, while others that require more intensive physical examination may not. We again modeled how the 2020 percentage of telehealth visits applied to an average year might affect care patterns by specialty; the top 10 specialties by potential telehealth volume are shown in the right column of Figure 2. Like diagnoses, specialties with relatively low telehealth usage in 2020 could result in large total telehealth volume if those percentages were applied to a "normal" year (e.g., if 56% of an average year's Dermatology visits were conducted via telehealth, that would equate to over 61,000 visits in our dataset).

Top Ten Telehealth Visit Volumes by Specialty
Model based on telehealth rates from 3/15 – 5/8/2020 applied to visit volumes from 3/15 – 5/8/2019 (n=~2.7 million visits)

	2020		Modeled from 2019	
	● Telehealth ○ All Visits		◐ Modeled Telehealth ○ All 2019 Visits	
Family Medicine		263,146 (57%) 463,743	Internal Medicine	567,949 (71%) 795,916
Internal Medicine		257,191 (71%) 360,424	Family Medicine*	499,126 (57%) 879,611
Cardiology		124,446 (62%) 199,435	Cardiology	221,475 (62%) 354,932
Pediatrics		43,176 (33%) 130,161	Pediatrics*	119,252 (33%) 359,504
Endocrinology		42,170 (66%) 63,651	Endocrinology	65,570 (66%) 98,971
Rheumatology		36,960 (68%) 54,535	Dermatology*	61,431 (56%) 109,341
Pulmonology		34,496 (81%) 42,510	Rheumatology	60,043 (68%) 88,594
Gastroenterology		33,238 (86%) 38,649	Ob/Gyn*	59,592 (37%) 163,019
Ob/Gyn		32,105 (37%) 87,826	Gastroenterology	58,281 (86%) 67,769
Psychiatry		28,585 (78%) 36,526	Pulmonology	57,473 (81%) 70,825

0   40   80   120
Thousands of Visits

0   40   80   120   160   200
Thousands of Visits
*High volume specialties are higher on the list even with relatively low telehealth %
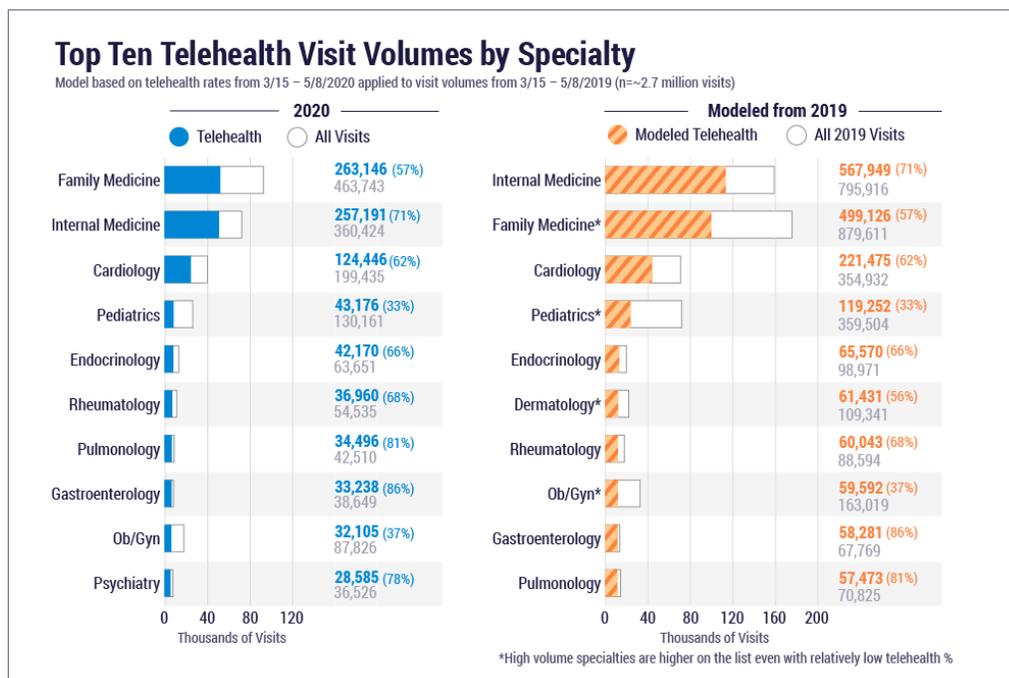
Figure 2: Specialties with the largest volumes of 2020 visits completed using telehealth.

These findings may help health systems discover diagnoses and specialties they may not have previously considered for telehealth and find opportunities to continue telehealth at scale.

In the coming months, we will continue to monitor these trends to determine the degree to which the volume and diversity of telehealth visits persists.

Data are pooled from 22 health systems that span 17 states and cover 7 million patients.

Term	Definition
Diagnoses	Defined by the encounter diagnosis using the following ICD-10 diagnosis codes: **Cancer Screening:** Z12.*; **General Exam:** Z00.* and Z01.*; **Joint Disorders:** M25.*; **Sore Throat:** M79.*; **Depression:** F32.* and F33.*; **Anxiety:** F41.*; **Cough:** R05.*; **Asthma:** J45.*; **Sleep Disorder:** G47.*; **Disease Screening:** Z11.* and Z13.*, **Diabetes/Elevated Blood Sugar:** R73.* and E11.*
Office Visit	An in-person outpatient visit.
Telehealth Visit	Visit with real-time audio and video communication between a patient and a healthcare provider, as consistent with CMS guidelines.

REFERENCES

1. "Expansion of Telehealth During COVID-19 Pandemic." Epic Health Research Network. (May 5, 2020). Retrieved from: https://ehrn.org/expansion-of-telehealth-during-covid-19-pandemic/