

Follow-Up Rates After Telehealth and Office Visits Steady in Last Three Years

Team A: Kersten Bartelt, RN; Alex Piff

Team B: Jackie Gerhart, MD; Eric Barkley

Last updated 09 January 2024 • Check for updates at EpicResearch.org

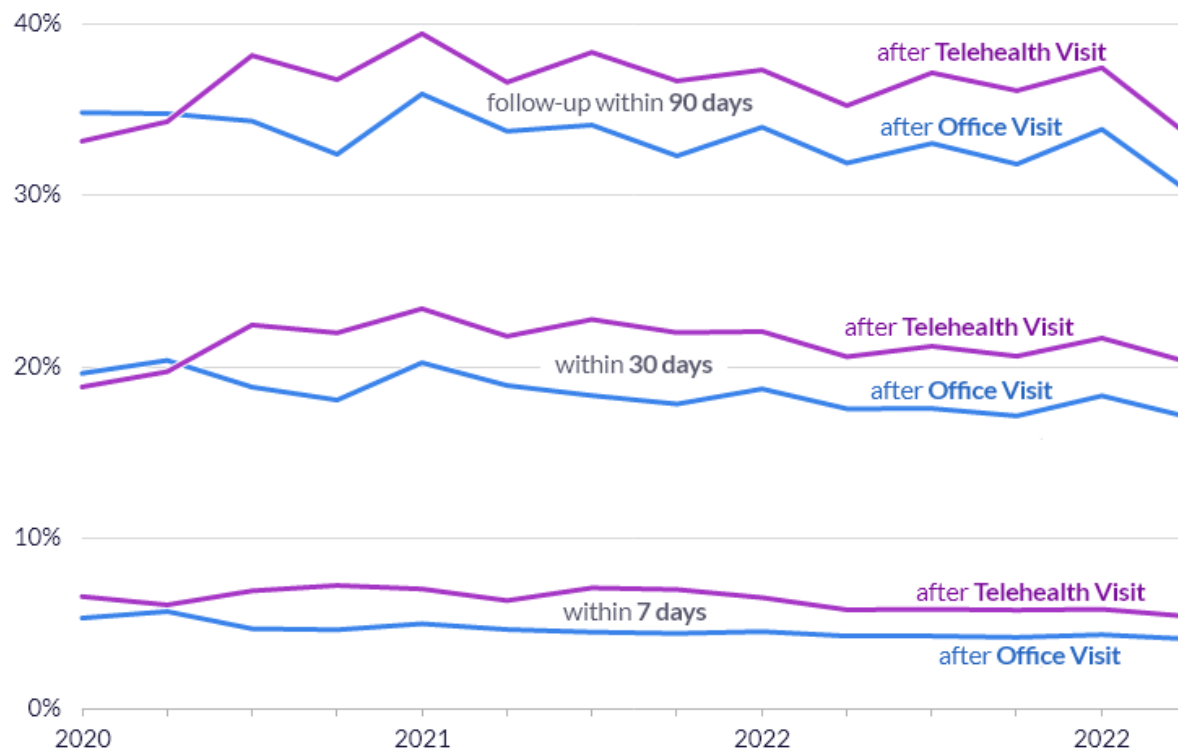
Key Findings:

- The rate of follow-up after an office visit or telehealth visit in the 7, 30, or 90 days after the initial encounter has stayed fairly consistent over the last three years.
- In most specialties, telehealth visits are more likely than office visits to have a follow-up within 7 days, but that gap narrows when looking at 30- or 90-day follow-up rates.

We previously published a study that showed most specialties had a greater rate of same-specialty in-person follow-up within 90 days after an office visit than after a telehealth visit.¹ To further understand follow-up patterns, we compared follow-up rates for telehealth and office visits in the 7, 30, and 90 days after the initial encounter. In contrast to our previous study, follow-up rates for this study include both telehealth and office visits.

We studied telehealth and office visits between January 2020 and August 2023 to determine how often a same-specialty follow-up occurred. The follow-up visit could be either an office visit or a telehealth visit but must be in the same department specialty as the initial visit. Overall, the follow-up rate was under 40% for both telehealth and office visits within 90 days of the initial encounter, under 25% within 30 days, and under 10% within 7 days, as seen in Figure 1. These rates have remained steady since 2020.

Follow-Up Rate After Telehealth and Office Visits



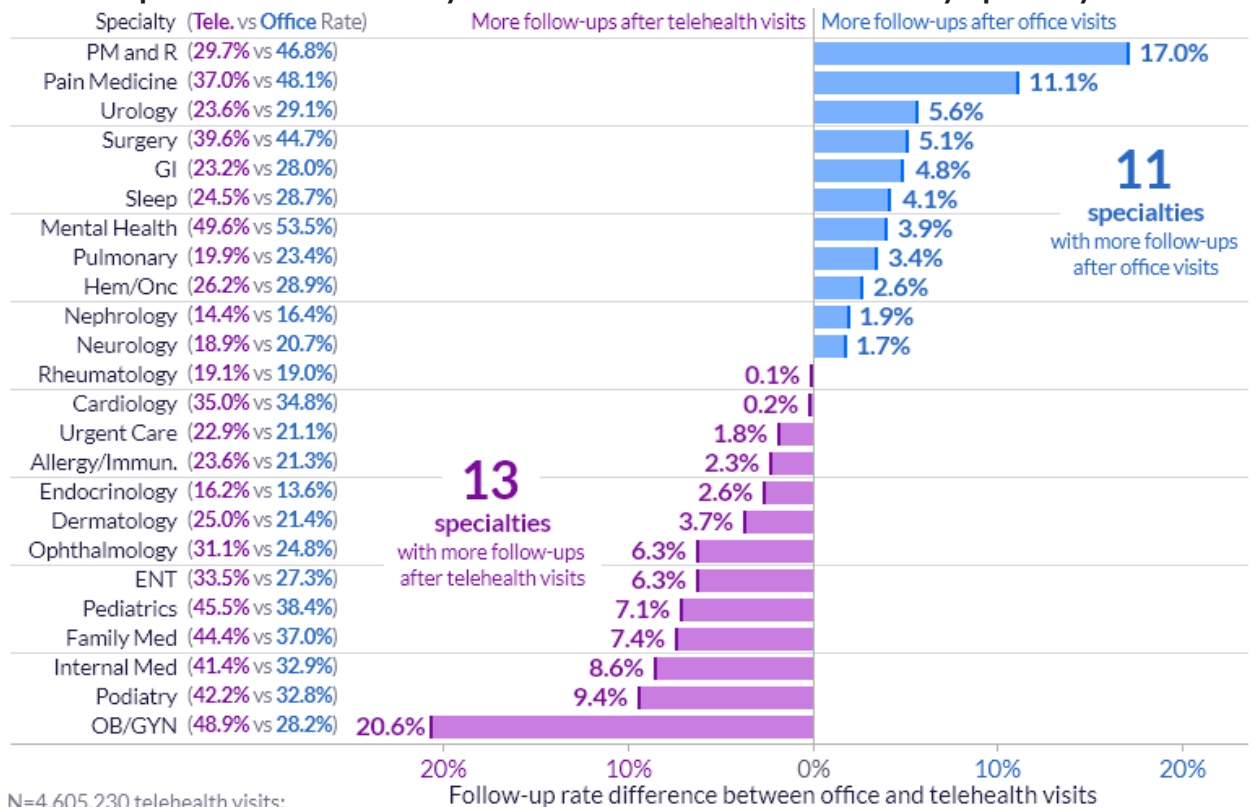
N=22,333,572 telehealth visits; 251,223,804 office visits

"Follow-Up Rate After Telehealth and Office Visits," 2024. EpicResearch.org

Figure 1. The rate of telehealth and office visits with follow-up over time.

We then stratified by department specialty for telehealth and office visits between July 2022 and August 2023 to evaluate patterns post-pandemic. We found that, compared to follow-up after office visits, follow-up within 90 days after a telehealth visit is more common in 13 department specialties of the 24 studied. Additionally, follow-up within 30 days and 7 days after a telehealth visit is more common in 14 and 17 department specialties, respectively. The top specialties with higher rates of follow-up after telehealth visits across all intervals included OB/GYN, podiatry, and primary care. The top specialties with higher rates of follow-up after office visits across all intervals included physical medicine and rehabilitation (PM and R), mental health, and sleep.

Follow-Up Rates Within 90 Days of Telehealth and Office Visits by Specialty

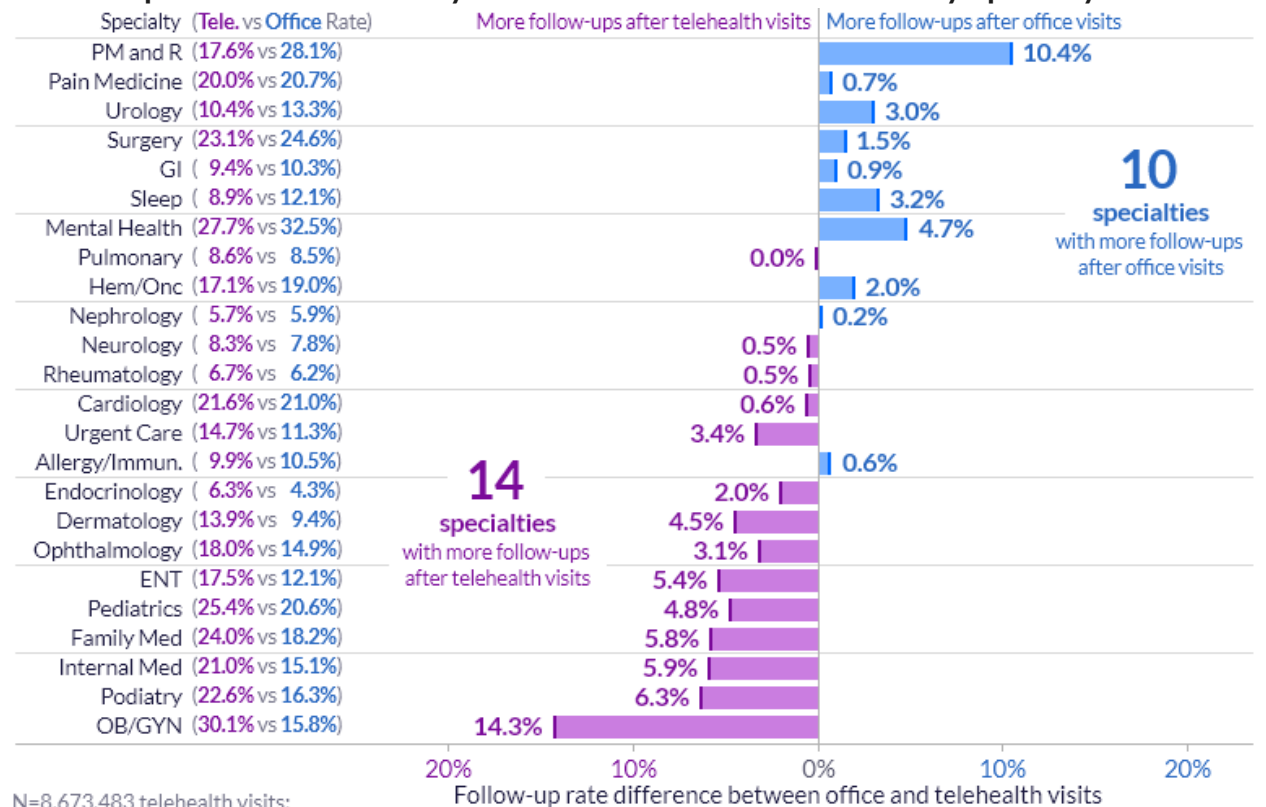


N=4,605,230 telehealth visits;
82,778,813 office visits

"Follow-Up Rate Within 90 Days of Telehealth and Office Visits by Specialty," 2024. EpicResearch.org

Figure 2a. The difference in rate of same-specialty follow-up in the 90 days after telehealth and office visits.

Follow-Up Rates Within 30 Days of Telehealth and Office Visits by Specialty



N=8,673,483 telehealth visits;
133,867,774 office visits

"Follow-Up Rate Within 30 Days of Telehealth and Office Visits by Specialty," 2024. EpicResearch.org

Figure 2b. The difference in rate of same-specialty follow-up in the 30 days after telehealth and office visits.

Follow-Up Rates Within 7 Days of Telehealth and Office Visits by Specialty

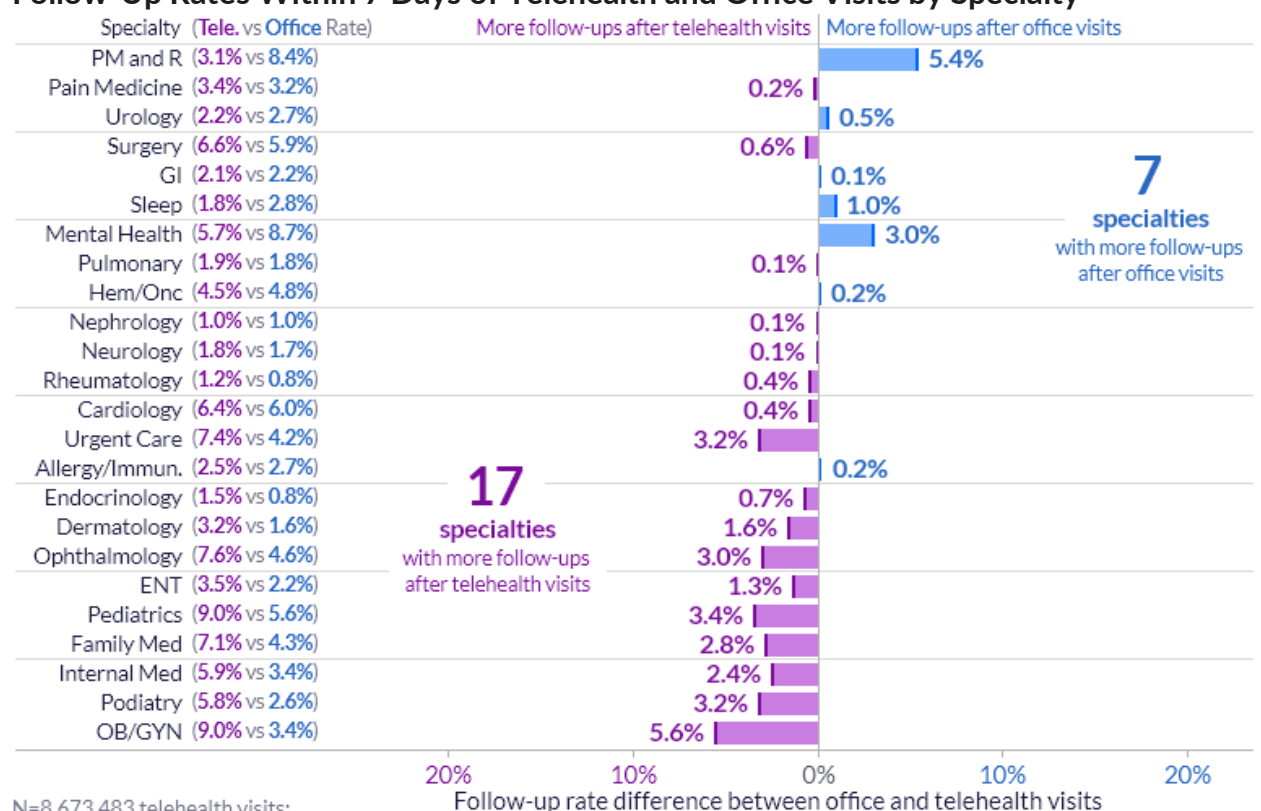


Figure 2c. The difference in rate of same-specialty follow-up in the 7 days after telehealth and office visits.

These data come from Cosmos, a collaboration of 236 Epic health systems representing over 227 million patient records from 1,301 hospitals and more than 28,600 clinics from all 50 states and Lebanon. This study was completed by two teams that worked independently, each composed of a clinician and research scientists. The two teams came to similar conclusions. Graphics by Brian Olson.

References

- Gerhart J, Piff A, Bartelt K, Barkley E. Fewer In-Person Follow-Ups Associated with Telehealth Visits Than Office Visits. Epic Research. <https://epicresearch.org/articles/fewer-in-person-follow-ups-associated-with-telehealth-visits-than-office-visits>. Accessed on December 1, 2023.

Data Definitions

Term	Definition
Study population	Patients aged 0–99 with an initial encounter within the study period.
Initial encounter	A telehealth or office visit encounter with no same department specialty encounters in the prior 30 days for the 7 day and 30 day follow-up groups, and no encounters in the prior 90 days for the 90 day follow up group.
Telehealth encounter	Any encounters of types: Telemedicine E-Visit E-Consult Telephone with a CPT billing code

	Office Visit with a CPT billing code of 99441, 99442, or 99443 Appointment with a CPT billing code of 99441, 99442, or 99443
Office visit encounter	Encounters with a type of Hospital Outpatient Visit or a type of Office Visit or Appointment unless the encounter has a CPT billing code 99441, 99442, or 99443.
Department specialty	<p>Categories of department specialties were:</p> <ul style="list-style-type: none"> • Allergy/Immunology: Allergy, Allergy and Immunology, Immunology, Pediatric Allergy, Pediatric Allergy/Immunology, Pediatric Immunology • Cardiology: Adult Congenital Heart Disease, Advanced Heart Failure and Transplant Cardiology, Cardiac Electrophysiology, Cardiac Rehabilitation, Cardiology, Cardiovascular Disease, Clinical Cardiac Electrophysiology, Electrophysiology, Interventional Cardiology, Pediatric Cardiology, Pediatric Cardiology Center • Dermatology: Dermatology, Dermatopathology, Pediatric Dermatology • Endocrinology: Endocrinology, Endocrinology, Diabetes & Metabolism, Pediatric Endocrinology • ENT: Otolaryngology, Otolaryngology/Facial Plastic Surgery, Pediatric Otolaryngology • Family Medicine: Family Medicine • General Internal Medicine: Adult Health, Adult Medicine, Ambulatory Care, Chronic Care, Preventative Medicine, Primary Care, Internal Medicine, General Internal Medicine, General Care, General Practice, Internist, Medical, Medical Clinic, Physician's Office • GI: Gastroenterology, Hepatology, Pediatric Gastroenterology • OB/Gynecology: Gynecology, Maternal & Fetal Medicine, Maternal and Fetal Medicine, Midwifery, Obstetrics, Obstetrics & Gynecology, Obstetrics and Gynecology, Urogynecology, Women's Health, "Women's Health Care, Ambulatory" • Hem/Onc: Hematology, Hematology and Oncology, Hematology-Oncology Clinic, Hematology-Oncology Specialty Care Area, Medical Oncology, Oncology, Pediatric Hematology, Pediatric Hematology and Oncology, Pediatric Hematology-Oncology, Pediatric Oncology • Mental Health: Behavioral Health, Behavioral Health Clinic, Child and Adolescent Psychiatry, Counseling, Developmental – Behavioral Pediatrics, Domestic Abuse Support Services, Geriatric Psychiatry, Marriage and Family Therapy, Mental Health, Neuropsychology, Neuropsychiatry, Pediatric Psychiatry, Pediatric Psychology, Post-Trauma Therapy and Support, Psychiatric/Mental Health, Psychiatry, Psychology, Psychotherapy, Social and Spiritual Support • Nephrology: Dialysis Clinic, Nephrology, Outpatient Hemodialysis Clinic, Pediatric Nephrology • Neurology: Clinical Neurophysiology, Neurology, Neurology Clinic, Neurophysiology, Pediatric Neurology, Spinal Cord Injury Medicine • Ophthalmology: Cornea Ophthalmology, Glaucoma Ophthalmology, Glaucoma Specialist, Neuro- Ophthalmology, Ophthalmology, Ophthalmology Clinic, Pediatric Ophthalmology, Pediatric Ophthalmology and Strabismus Specialist, Retina Ophthalmology, Retina Specialist

- Pain Medicine: Interventional Pain Medicine, Pain, Pain Clinic, Pain Management, Pain Medicine
- Pediatric Primary Care: Adolescent Medicine, Pediatric Internal Medicine, Pediatrics, Developmental and Behavioral Pediatrics, Chronic Care, Clinical Child & Adolescent, Developmental
- PM and R: Outpatient Rehabilitation Clinic, Physical Medicine and Rehabilitation, Rehabilitation
- Podiatry: Orthotics, Pediatric Podiatry, Podiatric, Podiatry
- Pulmonary: Pediatric Pulmonology, Pulmonary Clinic, Pulmonary Disease, Pulmonology, Thoracic Diseases
- Rheumatology: Pediatric Rheumatology, Rheumatology
- Sleep: Sleep Center, Sleep Medicine
- Surgery: Ambulatory Surgery Center, Bariatrics, Breast Surgery, Burn Surgery, Cardiothoracic Surgery, Colon and Rectal Surgery, Female Pelvic Medicine and Reconstructive Surgery, General Surgery, Maxillofacial Surgery, Oral Surgery, Orthopaedic Surgery, Pediatric Cardiothoracic Surgery, Pediatric Neurosurgery, Pediatric Plastic Surgery, Pediatric Surgery, Pediatric Trauma Surgery, Plastic and Reconstructive Surgery, Plastic Surgery, Plastic Surgery within the Head & Neck, Spine Surgery, Surgical, Surgical Oncology, Surgical Services Clinic, Thoracic Surgery, Transplant Surgery, Trauma Surgery, Vascular Surgery
- Urgent Care: Urgent Care, Urgent Care Center
- Urology: Pediatric Urology, Proctology, Urology

Table 1: Follow-Up Rate After Telehealth and Office Visits

Quarter	Telehealth 90 days	Office Visit 90 days	Telehealth 30 days	Office Visit 30 days	Telehealth 7 days	Office Visit 7 days
2020 Q1	33%	35%	19%	20%	7%	5%
2020 Q2	34%	35%	20%	20%	6%	6%
2020 Q3	38%	34%	22%	19%	7%	5%
2020 Q4	37%	32%	22%	18%	7%	5%
2021 Q1	39%	36%	23%	20%	7%	5%
2021 Q2	37%	34%	22%	19%	6%	5%
2021 Q3	38%	34%	23%	18%	7%	4%
2021 Q4	37%	32%	22%	18%	7%	4%
2022 Q1	37%	34%	22%	19%	7%	5%
2022 Q2	35%	32%	21%	18%	6%	4%
2022 Q3	37%	33%	21%	18%	6%	4%
2022 Q4	36%	32%	21%	17%	6%	4%
2023 Q1	37%	34%	22%	18%	6%	4%
2023 Q2	34%	30%	20%	17%	5%	4%

Table 2: Follow-Up Rates After Telehealth and Office Visits by Specialty

	Specialty	Telehealth	Office Visit	Delta
90 days	PM and R	29.7%	46.8%	17.0%
	Pain medicine	37.0%	48.1%	11.1%
	Urology	23.6%	29.1%	5.6%
	Surgery	39.6%	44.7%	5.1%
	GI	23.2%	28.0%	4.8%
	Sleep	24.5%	28.7%	4.1%
	Mental Health	49.6%	53.5%	3.9%
	Pulmonary	19.9%	23.4%	3.4%
	Hem/Onc	26.2%	28.9%	2.6%
	Nephrology	14.4%	16.4%	1.9%
	Neurology	18.9%	20.7%	1.7%
	Rheumatology	19.1%	19.0%	-0.1%
	Cardiology	35.0%	34.8%	-0.2%
	Urgent care	22.9%	21.1%	-1.8%
	Allergy/Immun.	23.6%	21.3%	-2.3%
	Endocrinology	16.2%	13.6%	-2.6%
	Dermatology	25.0%	21.4%	-3.7%
	Ophthalmology	31.1%	24.8%	-6.3%
	ENT	33.5%	27.3%	-6.3%
	Pediatrics	45.5%	38.4%	-7.1%
	Family Med	44.4%	37.0%	-7.4%
	Internal Med	41.4%	32.9%	-8.6%
	Podiatry	42.2%	32.8%	-9.4%
	OB/GYN	48.9%	28.2%	-20.6%
30 days	PM and R	17.6%	28.1%	10.4%
	Pain medicine	20.0%	20.7%	0.7%
	Urology	10.4%	13.3%	3.0%
	Surgery	23.1%	24.6%	1.5%
	GI	9.4%	10.3%	0.9%
	Sleep	8.9%	12.1%	3.2%
	Mental Health	27.7%	32.5%	4.7%
	Pulmonary	8.6%	8.5%	0.0%
	Hem/Onc	17.1%	19.0%	2.0%
	Nephrology	5.7%	5.9%	0.2%
	Neurology	8.3%	7.8%	-0.5%
	Rheumatology	6.7%	6.2%	-0.5%
	Cardiology	21.6%	21.0%	-0.6%
	Urgent care	14.7%	11.3%	-3.4%

	Allergy/Immun.	9.9%	10.5%	0.6%
	Endocrinology	6.3%	4.3%	-2.0%
	Dermatology	13.9%	9.4%	-4.5%
	Ophthalmology	18.0%	14.9%	-3.1%
	ENT	17.5%	12.1%	-5.4%
	Pediatrics	25.4%	20.6%	-4.8%
	Family Med	24.0%	18.2%	-5.8%
	Internal Med	21.0%	15.1%	-5.9%
	Podiatry	22.6%	16.3%	-6.3%
	OB/GYN	30.1%	15.8%	-14.3%
7 days	PM and R	3.1%	8.4%	5.4%
	Pain medicine	3.4%	3.2%	-0.2%
	Urology	2.2%	2.7%	0.5%
	Surgery	6.6%	5.9%	-0.6%
	GI	2.1%	2.2%	0.1%
	Sleep	1.8%	2.8%	1.0%
	Mental Health	5.7%	8.7%	3.0%
	Pulmonary	1.9%	1.8%	-0.1%
	Hem/Onc	4.5%	4.8%	0.2%
	Nephrology	1.0%	1.0%	-0.1%
	Neurology	1.8%	1.7%	-0.1%
	Rheumatology	1.2%	0.8%	-0.4%
	Cardiology	6.4%	6.0%	-0.4%
	Urgent care	7.4%	4.2%	-3.2%
	Allergy/Immun.	2.5%	2.7%	0.2%
	Endocrinology	1.5%	0.8%	-0.7%
	Dermatology	3.2%	1.6%	-1.6%
	Ophthalmology	7.6%	4.6%	-3.0%
	ENT	3.5%	2.2%	-1.3%
	Pediatrics	9.0%	5.6%	-3.4%
	Family Med	7.1%	4.3%	-2.8%
	Internal Med	5.9%	3.4%	-2.4%
	Podiatry	5.8%	2.6%	-3.2%
	OB/GYN	9.0%	3.4%	-5.6%