Policy Research Perspectives

Changes in Medicare Physician Spending During the COVID-19 Pandemic

By Kurt Gillis, PhD

Introduction

The COVID-19 pandemic has led to unprecedented changes in physician spending in the U.S. The Bureau of Economic Analysis (BEA) currently estimates that spending on physician services fell 40 percent between January and April of 2020 before rebounding to within 10 percent of the January level by June (BEA, 2021). In a study conducted by the Assistant Secretary for Planning and Evaluation, Department of Health and Human Services (ASPE), Medicare Part B "physician/supplier" spending in early April 2020 was 49 percent less that it was a year earlier, but by the end of June was just 5 percent less than the year-earlier level (Bosworth et al., 2020).

Similar to the ASPE study, this report documents changes in Medicare fee-for-service spending for the first six months of 2020, but with a focus exclusively on Medicare physician fee schedule (MPFS) services. Claims for a sample of Medicare beneficiaries are used to estimate overall changes in MPFS spending, and to identify the types of service, settings and specialties that were most affected by the pandemic. The report also examines the shift to telehealth.

Overall, MPFS spending followed the same pattern as the broader measures of physician spending mentioned above, with a steep decline in March and April of 2020, followed by a strong recovery in May and June. Total MPFS spending in the first six months of 2020 was $9.4 billion (19 percent) less than expected for that period based on the pre-pandemic trend. And although spending declined regardless of service type, setting or specialty, the severity of the impacts varied substantially. Telehealth spending increased dramatically during the study period but was concentrated in a handful of service categories.

Data and methods

The analyses in this report are based on quarterly Medicare "carrier" files for the first and second quarters of 2019 and 2020. These consist of professional claims for a five percent sample of Medicare beneficiaries and include claims for a calendar quarter that were submitted and processed within three months after the end of the quarter (ResDAC, 2016). The results have not been adjusted to account for claims missing from the data because they were processed after the three-month run-out period. These data capture spending for Medicare Part B fee-for-service enrollees, of which there were approximately 33 million in 2019 (The Boards of Trustees, 2020). Where totals are reported, spending has been extrapolated to the full Medicare fee-for-service population.

The analysis was limited to services paid under the MPFS in the respective year, including anesthesia services (CMS, 2019-2020). Spending was measured as the allowed charge which includes both the amount paid by Medicare and any enrollee deductible or coinsurance. Results are shown by type of service (as indicated by Berenson-Eggers Type of Service or BETOS category), place of service, provider specialty and state (based on location of the provider).

Impacts are measured by comparing actual and expected 2020 spending. Expected 2020 spending is defined as 2019 spending adjusted by the year-over-year rate of change prior to the pandemic (spending for the first eight weeks of 2020 compared to the same period in 2019). The year-over-year change in overall MPFS spending for the first eight weeks of 2020 was 2.1 percent. Where impacts are shown by spending category (e.g., for each specialty), the calculation of expected 2020 spending, including the year-over-year rate of change, is performed separately for each category shown. Although year-over-year changes in overall MPFS spending tend to be small, they can vary substantially by specialty and type of service, making actual 2019 spending a poor baseline for comparison. Impacts are measured both at points in time and as the cumulative total through June of 2020.

The shift to the use of telehealth in 2020 is shown both overall and by service category. Telehealth services are defined as procedure codes on Medicare's telehealth list (including those added in 2020) that were billed with a telehealth indicator (CMS, 2020). Telehealth services are indicated by the presence of either a telehealth procedure modifier ('G0', 'GT', 'GQ' or '95') or place of service ('02') on the claim. Some procedures, for example, telephone evaluation and management services (CPT 99441-99443) are, by their nature, telehealth services. These procedures are classified as telehealth regardless of whether they were billed with a telehealth indicator.

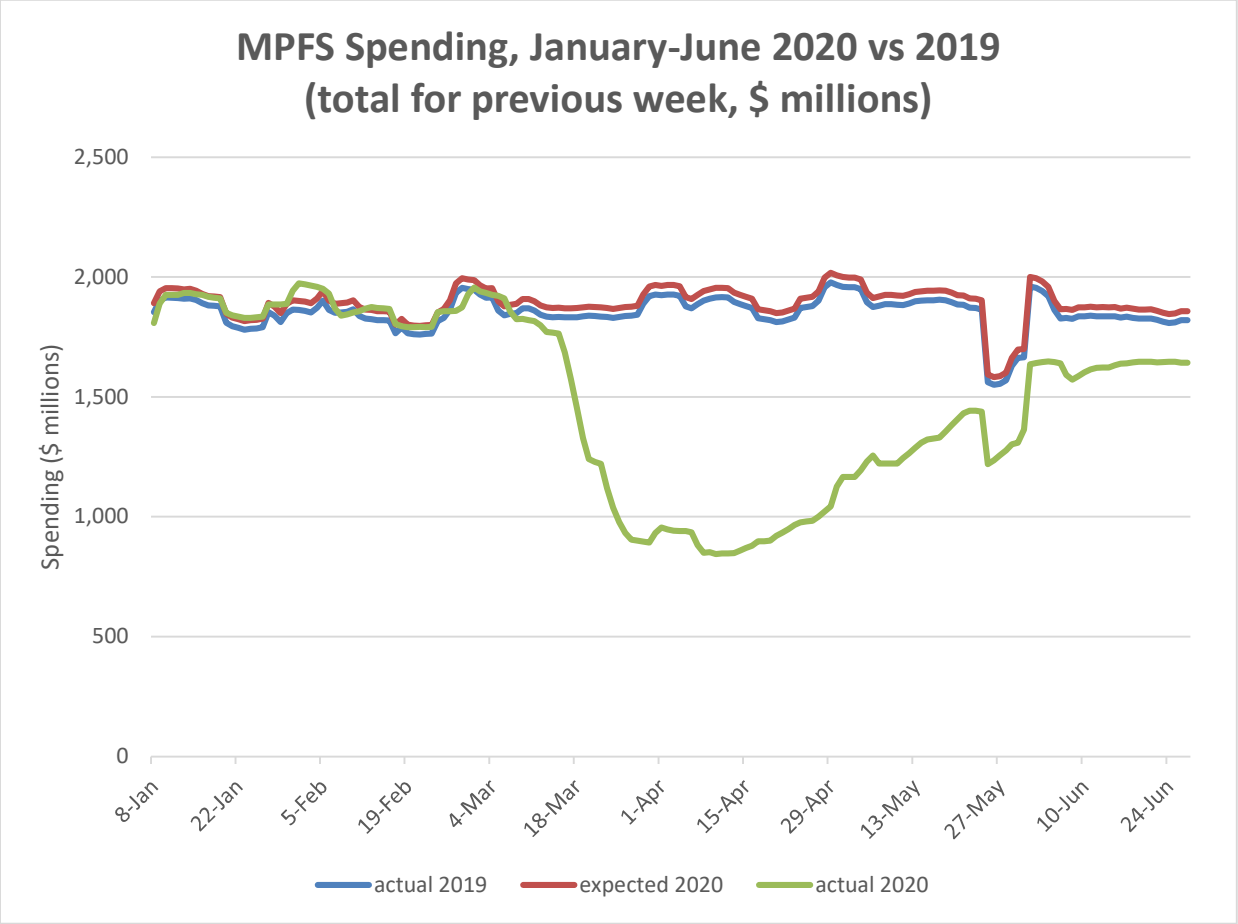
Results

Changes in MPFS spending over the first six months of 2020 are described in the following exhibits. Exhibits 1 through 4 show point-in-time differences between actual and expected 2020 spending both in the aggregate, and by type of service (Exhibit 3) and place of service (Exhibit 4).

Overall MPFS spending for the first six months of 2020 totaled $39.0 billion. Expected spending for this period was $48.4 billion, resulting in an estimated $9.4 billion (19 percent) cumulative reduction in MPFS spending for the first six months of 2020. There was substantial variation in the cumulative impacts as illustrated in Exhibit 5 (by provider specialty) and Exhibit 6 (by state). Dollar and percentage cumulative impacts by specialty and state are shown in Appendix Tables 1 and 2.

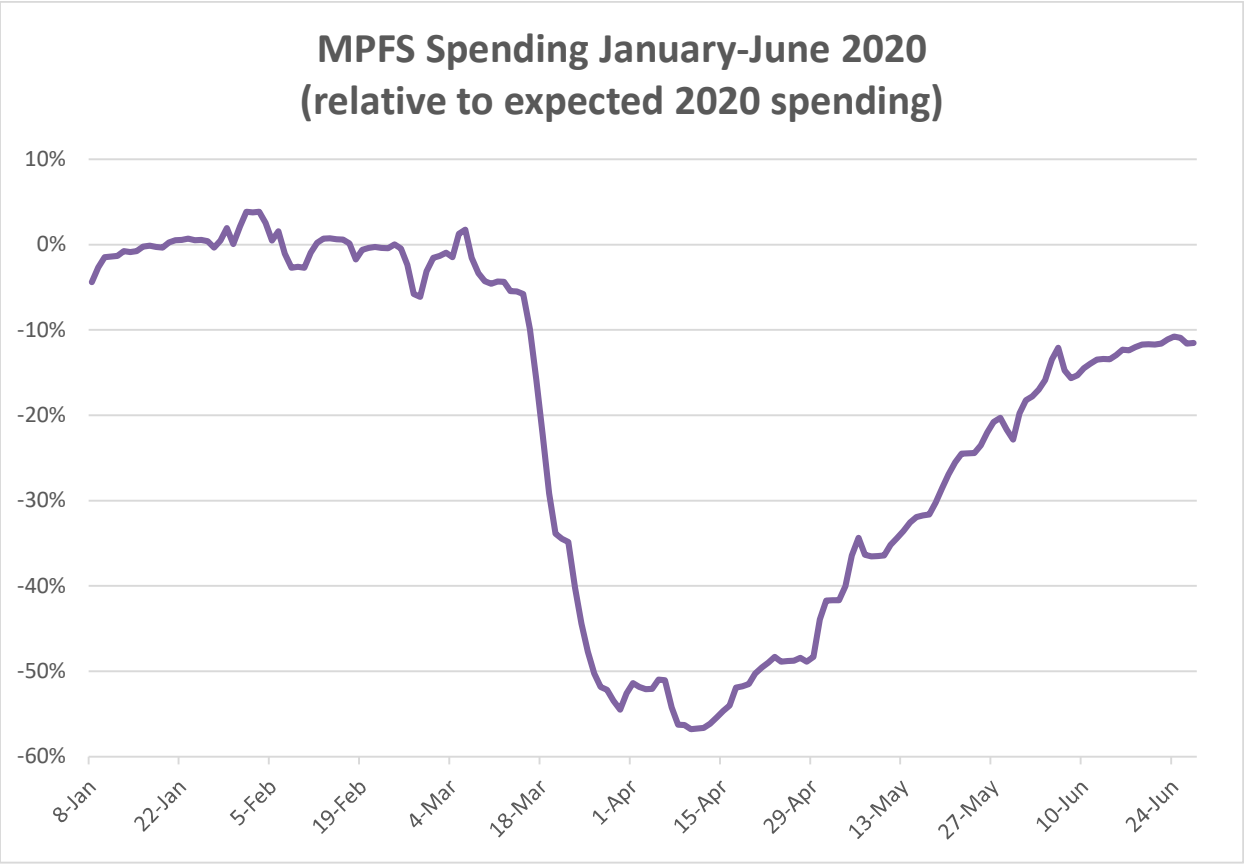
Finally, changes in MPFS telehealth spending in the first six months of 2020 are shown both overall (Exhibit 7) and by service category (Exhibit 8).

Exhibit 1. How did MPFS spending in the first six months of 2020 compare to 2019?



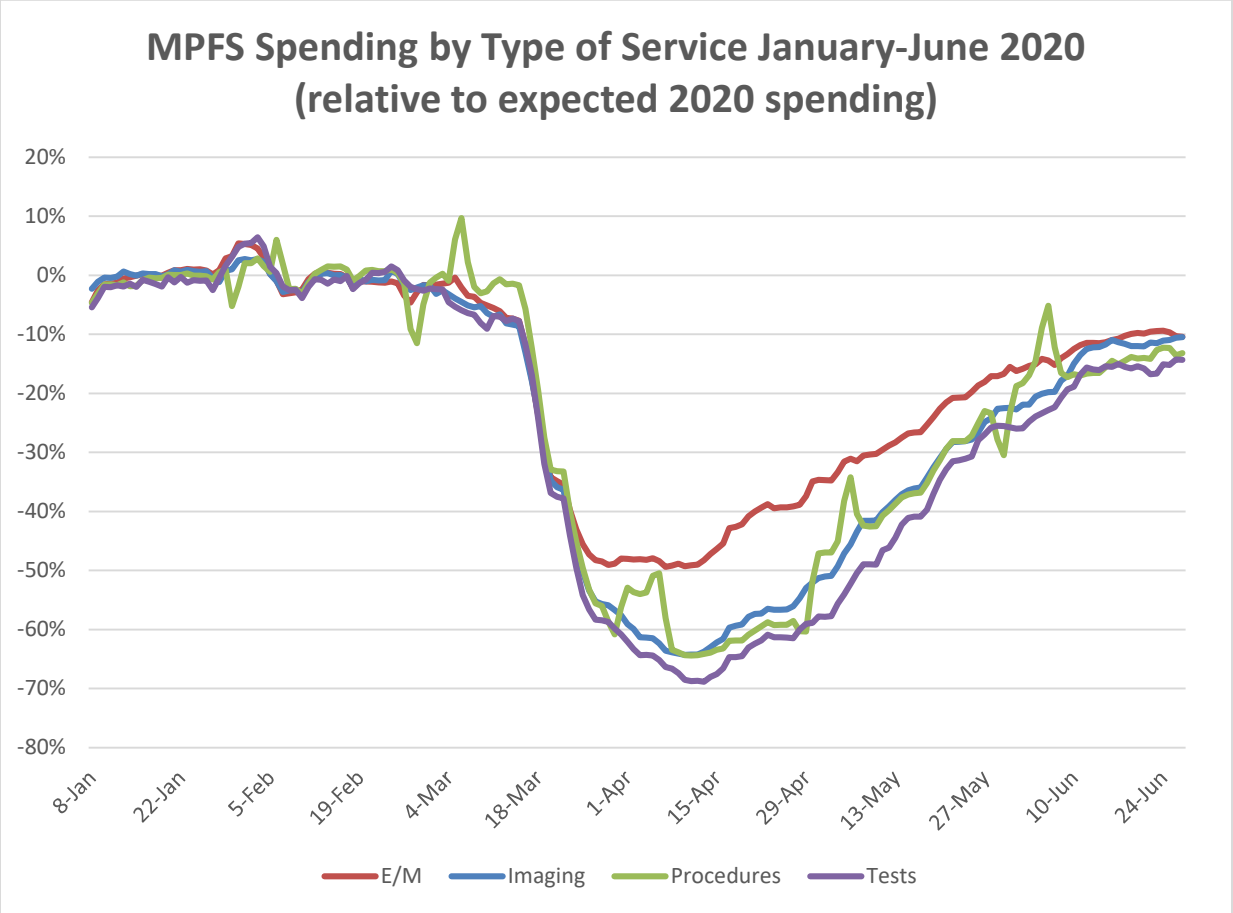
- MPFS spending totaled between $1.6 billion and $2.0 billion per week in the first six months of 2019 (with the dip at the end of May due to the Memorial Day holiday).
- MPFS spending for 2020 was similar to the 2019 level through mid-March, then dropped sharply, falling to $845 million for the week ending April 10.
- By the end of June 2020, weekly MPFS spending had recovered to more than $1.6 billion but remained well below expected spending for that period.

Exhibit 2. Impact of the pandemic on overall MPFS spending



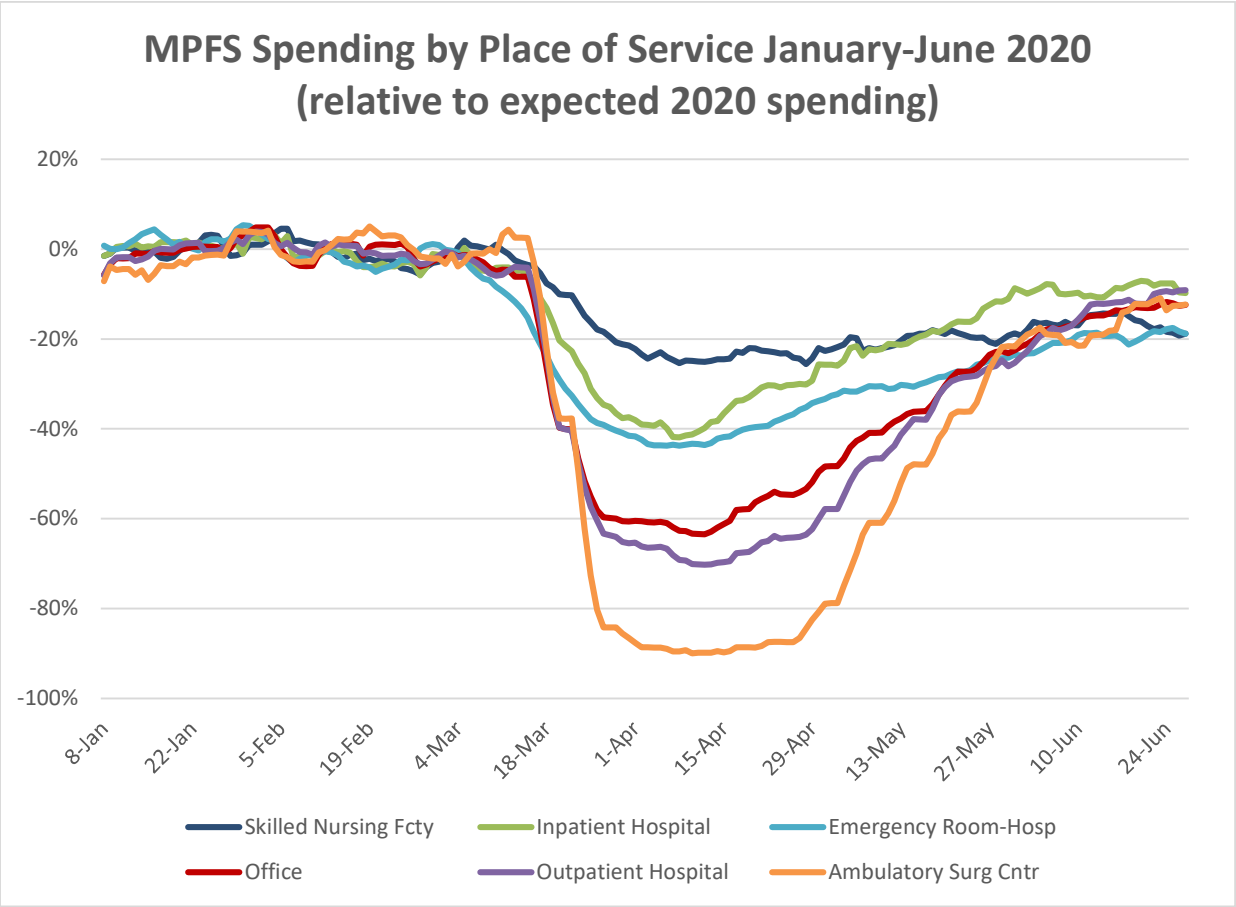
- Exhibit 2 shows the percentage difference between actual and expected 2020 spending.
- Actual MPFS spending for the week ended April 10 was 57 percent less than expected for that period.
- Despite a sharp recovery from the mid-April low, MPFS spending at the end of June remained 12 percent below the expected level.

Exhibit 3. Did the drop in spending vary by type of service?



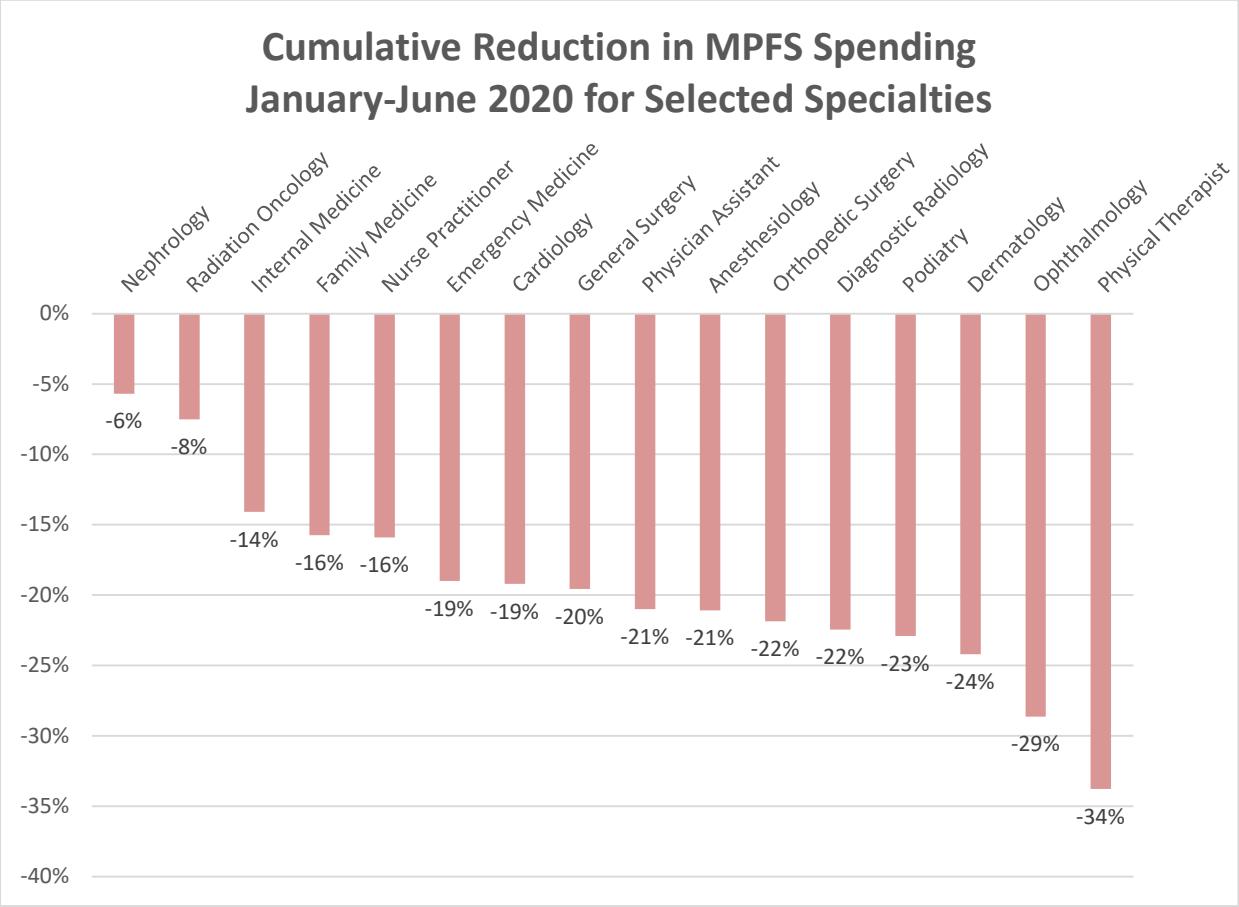
- The initial drop in MPFS spending was nearly identical for all major types of service.
- Evaluation and Management (E/M) spending fell nearly 50 percent by late March before levelling off.
- Spending for Imaging, Procedures and Tests continued to drop until mid-April, falling as much as roughly 65 percent to 70 percent below expected 2020 spending.
- By the end of June spending was down 10 percent for E/M and Imaging, but only slightly more for Procedures and Tests.

Exhibit 4. Did the drop in spending vary by place of service?



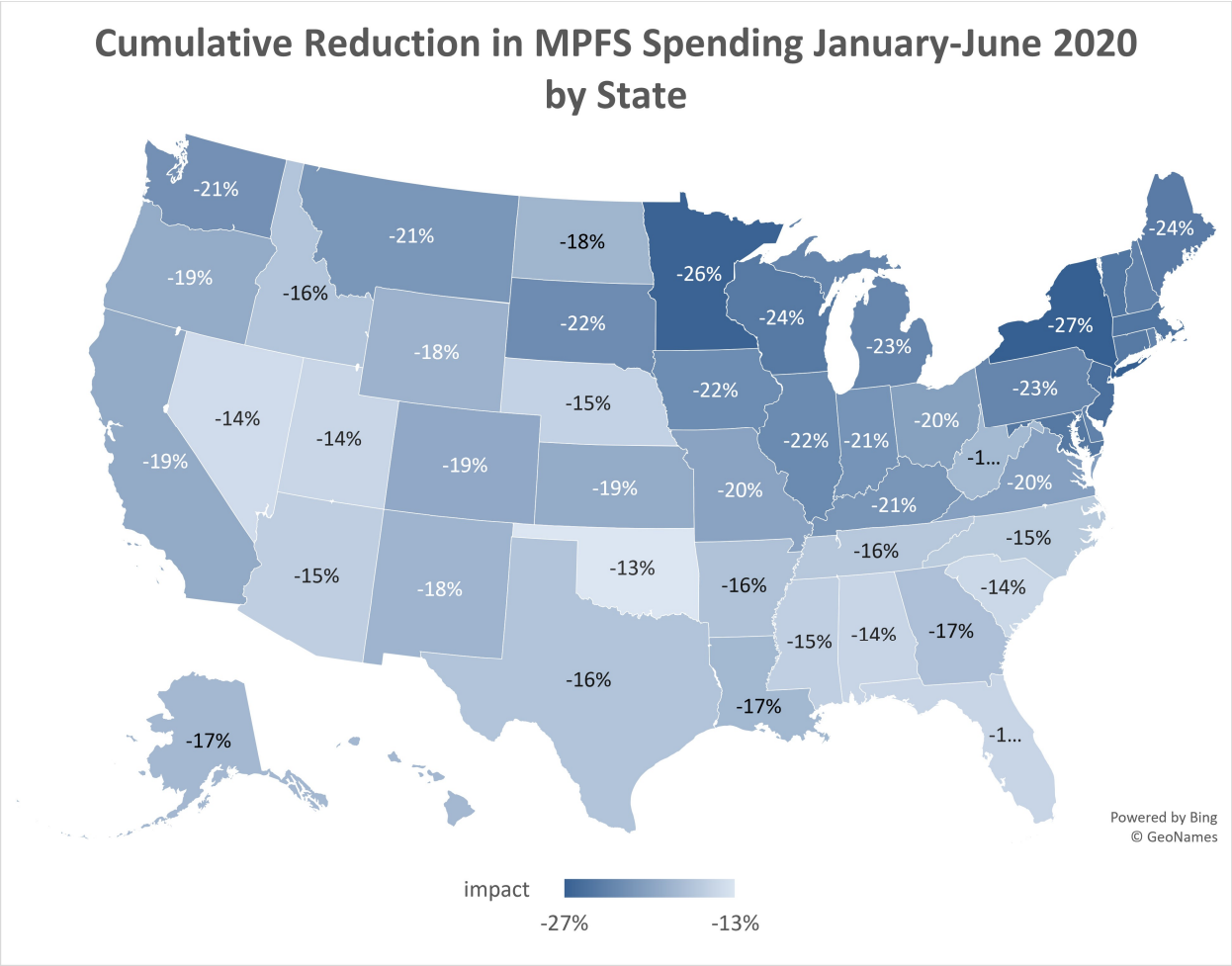
- MPFS spending in all major settings declined sharply before reaching lows in early to mid-April, but the magnitude of the decline varied considerably.
    - Spending for MPFS services provided in Skilled Nursing Facilities declined the least (down 25 percent in mid-April) but also displayed the weakest recovery.
    - MPFS spending in the Inpatient Hospital and Emergency Room settings fell more than 40 percent below expected spending.
    - Office and Outpatient Hospital MPFS spending dropped as much as 63 percent and 70 percent, respectively.
    - MPFS spending in the Ambulatory Surgical Center (ASC) setting was down as much as 90 percent in April, with a near halt to some elective procedures such as cataract surgery and colonoscopy.
- MPFS spending in all major settings recovered from these lows but remained 9 to 19 percent below expected 2020 spending at the end of June.

Exhibit 5. The cumulative reduction in MPFS spending by provider specialty



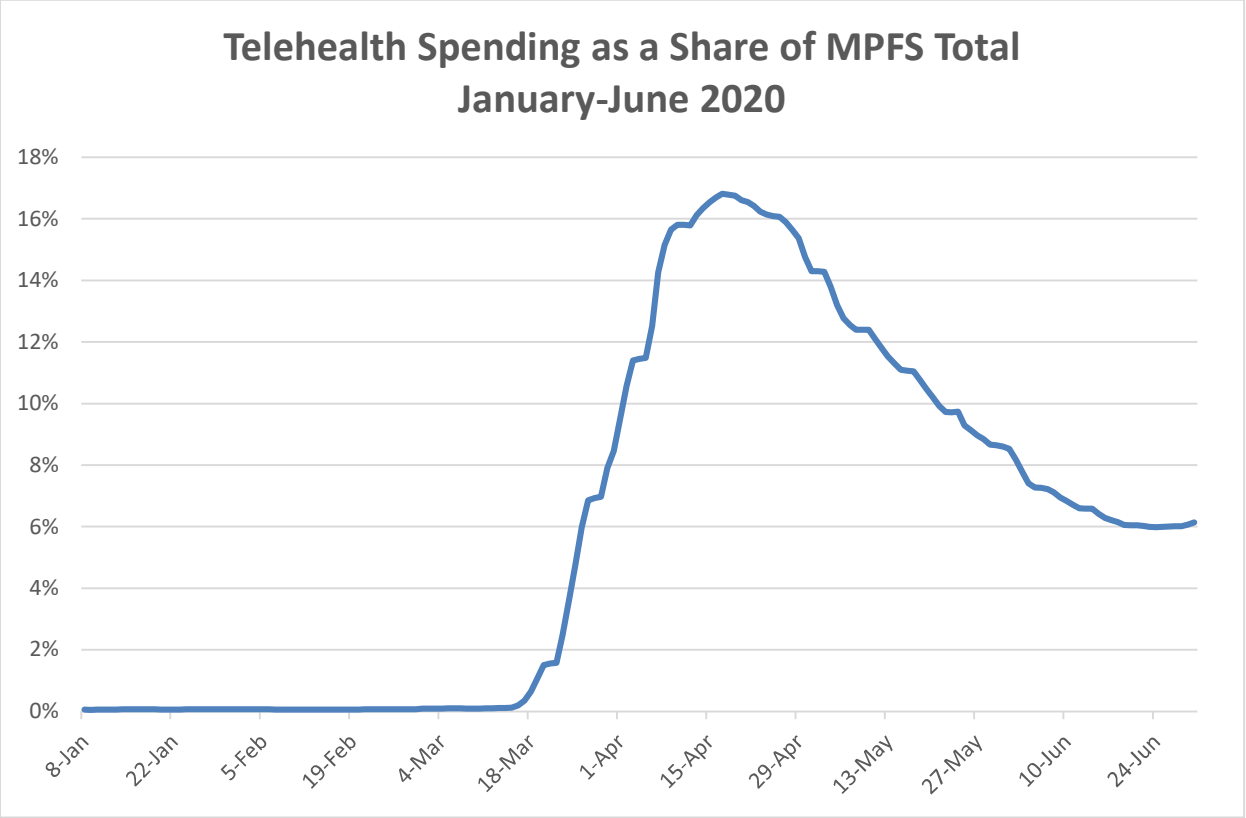
- Exhibit 5 shows cumulative impacts for the top provider specialties when ranked by actual 2019 MPFS spending.
- There was a substantial range in impacts among the specialties shown, from a 6 percent reduction in cumulative spending for Nephrology to a 34 percent reduction for Physical Therapists.
- Primary care specialties fared slightly better than average with cumulative spending for Internal Medicine and Family Medicine down 14 percent and 16 percent, respectively.
- Cumulative impacts, in both dollar and percentage terms, are shown for a more extensive list of specialties in Appendix Table 1.

Exhibit 6. The cumulative reduction in MPFS spending by state



- The cumulative reduction in MPFS spending for the first six months of 2020 ranged from 13 percent for Oklahoma to 27 percent for New York.
- There was a strong regional pattern to the impacts, with the biggest reductions concentrated in the Northeast and Upper Midwest and the smallest impacts in the South and Southwest.
- Cumulative impacts, in both dollar and percentage terms, are shown for all states in Appendix Table 2.

Exhibit 7. MPFS telehealth spending during the first six months of 2020



- Telehealth services were defined as procedures on Medicare's telehealth list that were billed with a telehealth modifier or place of service.
- Telehealth accounted for less than 0.1 percent of total MPFS spending prior to the pandemic, increasing to more than 16 percent by mid-April before falling to 6 percent by the end of June.

Exhibit 8. MPFS telehealth spending and utilization by service category

	Telehealth spending ($ millions)		*% of utilization billed as telehealth*	
Service category	*Jan 1-Mar 15*	*Mar 16-Jun 30*	*Jan 1-Mar 15*	*Mar 16-Jun 30*
Office Visits - Established Patient	$4.7	$912.5	0.2%	24.9%
Telephone Calls	$0.1	$367.6	100.0%	100.0%
Mental Health and Behavioral Health Services	$2.8	$248.9	0.9%	53.0%
Nursing Facility Visits	$0.5	$68.0	0.1%	11.4%
Office Visits - New Patient	$0.4	$66.0	0.1%	11.0%
Home and Other Visits	$0.1	$39.4	0.0%	19.6%
Preventive Medicine and Other Services	$1.6	$38.5	1.0%	15.8%
End Stage Renal Disease Services	$0.5	$22.6	0.2%	7.6%
Hospital Visits	$3.2	$19.3	0.2%	0.9%
Therapy Services	$0.0	$16.1	0.0%	2.9%
Transitional Care Management	$0.0	$12.6	0.0%	24.2%
Advance Care Planning	$0.0	$3.8	0.0%	10.3%
Medical Nutrition Counseling	$0.0	$1.8	0.4%	39.3%
Prolonged Services - Outpatient	$0.0	$1.3	0.1%	14.7%
Critical Care	$0.2	$1.3	0.1%	0.3%
Radiation Treatment Services	$0.0	$0.6	0.0%	1.2%
Eye Examinations	$0.0	$0.6	0.0%	0.2%
Emergency Department Visits	$0.0	$0.1	0.0%	0.0%
Opioid Use Disorder Therapy and Counseling	$0.0	$0.1	9.4%	22.2%
Ventilator Management	$0.0	$0.1	0.0%	3.0%
Electronic Analysis of Implanted Neurostimulator	$0.0	$0.0	0.0%	0.5%
Cardiac and Pulmonary Rehabilitation	$0.0	$0.0	0.0%	0.0%
Total	$14.1	$1,821.3		
% of all MPFS spending	0.1%	9.3%		

- Service categories are listed in order of March 16 to June 30 telehealth spending.
- MPFS telehealth spending totaled $1.8 billion from March 16 to June 30, 2020, or 9.3 percent of total MPFS spending in that period.
- From March 16 to June 30, 24.9 percent of Established Patient Office Visits and 53.0 percent of Mental Health and Behavioral Health Services were provided via telehealth.
- Established Patient Office Visits accounted for one-half of MPFS telehealth spending from March 16 through June 30 ($912.5 million out of $1,821.3 million), compared to one-third of telehealth spending prior to March 16.
- Many of the services that were eligible for telehealth were rarely provided in this way and had little in the way of telehealth spending (e.g., Hospital Visits).

Discussion

MPFS spending during the initial months of the pandemic followed a pattern similar to broader measures of employment and output in the U.S. economy, with a sharp drop in mid-March followed by a robust recovery after April. At its lowest point, MPFS spending in the week ending April 10, 2020 was 57 percent less than expected for that week, before recovering to within 12 percent of expected spending by the end of June. Cumulative spending for the first six months of 2020 was 19 percent below the expected amount for that period, a $9.4 billion loss in revenue. The loss in overall physician spending in the U.S. could be much greater than this figure as it covers only Medicare, and even then, excludes the roughly 40 percent of enrollees in Medicare Advantage (The Boards of Trustees, 2020). It is unclear how much of the associated drop in utilization of MPFS services has been delayed or foregone entirely, and the consequences this disruption in care may have for Medicare patients' health in the future.

MPFS telehealth spending prior to the pandemic was virtually non-existent, accounting for just 0.1 percent of spending, but by April of 2020 accounted for 16 percent of the total. However, use of telehealth was largely limited to Office Visits, Telephone Evaluation and Management services, and Mental and Behavioral Health services.

There was substantial variation in impacts by specialty, setting, and type of service that likely reflected, at least in part, the degree to which care could be delayed and whether services could be provided via telehealth. Spending for Evaluation and Management declined less than other types of services at the height of the pandemic in April as providers and patients substituted telehealth for in-person visits. Established Patient Office Visits are some of the most commonly provided MPFS services, and providers were able to shift these services to telehealth delivery more so than almost any service category.

Across settings, Ambulatory Surgical Center (ASC) spending was down 90 percent in April of 2020 as elective procedures including cataract surgery and colonoscopy were delayed. MPFS spending in the Office setting (which accounts for more than half of the MPFS total) was down as much as 63 percent. But spending in all major settings had returned to within roughly 10 percent to 20 percent of expected 2020 spending by the end of June.

The same factors may account for variation in specialty impacts. The specialties with the smallest reductions in spending included those providing care that may be difficult to delay (Nephrology, Radiation Oncology, Hematology/Oncology) or that can be provided using telehealth (Psychiatry). Any number of factors could be driving state impacts but the states with the smallest reductions in MPFS spending in the South and Southwest were generally states with relatively low incidence of confirmed COVID-19 cases early in the pandemic that were late to apply social distancing policies (McWilliams et al., 2021).

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Appendix table 1

Cumulative reduction in MPFS spending by specialty

	January-June 2020 Spending ($ millions)			
Medicare specialty	*Actual*	*Expected*	*Impact*	*% impact*
Anesthesiology	804	1,018	-215	-21%
Cardiology	2,127	2,633	-506	-19%
Chiropractic	284	359	-75	-21%
Clinical Psychologist	357	406	-48	-12%
CRNA, Anesthesia Asst	486	639	-153	-24%
Dermatology	1,487	1,962	-475	-24%
Diagnostic Radiology	2,168	2,795	-627	-22%
Emergency Medicine	1,236	1,526	-290	-19%
Family Medicine	2,419	2,871	-452	-16%
Gastroenterology	634	846	-212	-25%
General Surgery	795	988	-193	-20%
Hematology/Oncology	635	699	-64	-9%
Hospitalist	545	644	-98	-15%
Ind Diagnostic Test Fcty	412	494	-82	-17%
Internal Medicine	3,955	4,603	-648	-14%
Interventional Cardiology	477	593	-115	-19%
Nephrology	1,032	1,095	-62	-6%
Neurology	602	755	-153	-20%
Neurosurgery	327	408	-80	-20%
Nurse Practitioner	1,974	2,347	-373	-16%
Ophthalmology	1,910	2,676	-766	-29%
Optometry	445	660	-215	-33%
Orthopedic Surgery	1,484	1,900	-415	-22%
Otolaryngology	479	669	-191	-28%
Pathology	500	653	-153	-23%
Physical Med and Rehab	470	591	-121	-20%
Physical Therapist	1,383	2,089	-706	-34%
Physician Assistant	1,024	1,296	-272	-21%
Podiatry	799	1,036	-237	-23%
Psychiatry	461	515	-54	-10%
Pulmonary Disease	698	827	-129	-16%
Radiation Oncology	883	954	-72	-8%
Urology	732	903	-171	-19%
Vascular Surgery	543	620	-78	-13%
Total	38,965	48,374	-9,409	-19%

Note: Total includes other specialties.

Appendix table 2

Cumulative reduction in MPFS spending by state

	January-June 2020 Spending ($ millions)			
State	*Actual*	*Expected*	*Impact*	*% impact*
Alabama	604	706	-102	-14%
Alaska	79	96	-17	-17%
Arizona	1,046	1,232	-186	-15%
Arkansas	402	481	-78	-16%
California	4,133	5,082	-949	-19%
Colorado	480	592	-112	-19%
Connecticut	422	554	-132	-24%
Delaware	192	249	-57	-23%
District of Columbia	112	146	-34	-23%
Florida	3,790	4,424	-635	-14%
Georgia	1,097	1,315	-218	-17%
Hawaii	109	132	-23	-17%
Idaho	141	168	-27	-16%
Illinois	1,557	1,998	-441	-22%
Indiana	730	926	-196	-21%
Iowa	312	399	-87	-22%
Kansas	369	453	-84	-19%
Kentucky	485	614	-129	-21%
Louisiana	546	661	-115	-17%
Maine	115	150	-36	-24%
Maryland	1,076	1,415	-339	-24%
Massachusetts	1,003	1,324	-321	-24%
Michigan	1,034	1,335	-301	-23%
Minnesota	432	585	-153	-26%
Mississippi	403	473	-71	-15%
Missouri	656	815	-159	-20%
Montana	123	155	-32	-21%
Nebraska	230	270	-40	-15%
Nevada	379	438	-60	-14%
New Hampshire	170	220	-51	-23%
New Jersey	1,470	1,955	-486	-25%
New Mexico	175	212	-38	-18%
New York	2,670	3,635	-964	-27%
North Carolina	1,240	1,464	-224	-15%
North Dakota	92	111	-20	-18%
Ohio	1,138	1,420	-283	-20%
Oklahoma	492	563	-71	-13%

Appendix table 2 (continued)

Cumulative reduction in MPFS spending by state

	January-June 2020 Spending ($ millions)			
State	*Actual*	*Expected*	*Impact*	*% Impact*
Oregon	332	408	-76	-19%
Pennsylvania	1,498	1,935	-436	-23%
Rhode Island	107	138	-32	-23%
South Carolina	746	867	-122	-14%
South Dakota	108	138	-30	-22%
Tennessee	891	1,058	-167	-16%
Texas	2,870	3,423	-553	-16%
Utah	227	264	-38	-14%
Vermont	63	83	-20	-24%
Virginia	1,118	1,396	-278	-20%
Washington	700	891	-191	-21%
West Virginia	204	246	-43	-17%
Wisconsin	447	587	-140	-24%
Wyoming	74	90	-16	-18%
Total	38,965	48,374	-9,409	-19%

Note: Total includes territories and other areas.