

## COMMENTARY

# Economic and Clinical Impact of Covid-19 on Provider Practices in Massachusetts

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A survey developed through a partnership of clinicians, researchers, and public and private entities in Massachusetts was hosted by Harvard Medical School. Between May 20 and July 9, 2020, respondents from 398 practices shared details on the revenue and expense implications of the novel coronavirus, as well as insights into the personal impact Covid-19 is having. More than 60% of practices reported they would cut salaries of providers or employees, cut services or other operating expenses, and furlough or lay off more employees without additional financial assistance, with a roughly 40% likelihood of following through. Consolidation, selling, or closing the practice were reported by 20%–40% of practices, driven by independent practices such as primary care (60% noted closure at 21% likelihood). The authors include policy actions that may mitigate the harm to access to care.

The Covid-19 pandemic has substantially disrupted the U.S. health care system and economy. Beyond the more than 6 million infections and 183,000 deaths reported in the U.S. as of September 1, 2020,<sup>1</sup> the unemployment rate stood at 9.9%, with nearly 15 million unemployed individuals at the end of August. About 1.5 million health care jobs were lost in March and April 2020 alone,<sup>2,3</sup> and while there has been some recovery, as of August 7, health care is down by 797,000 jobs since February 2020.<sup>4</sup> Despite this disruption in the health care industry, data on its impact on provider practices have been scant.

Through a partnership of clinicians, researchers, and public and private entities in the Commonwealth of Massachusetts, we queried provider practices about the impact of Covid-19 on their clinical and economic activities using a survey hosted by Harvard Medical School. Respondents included 398 practices across specialties, from small independent private practices to large provider organizations, over 50 days from May 20 through July 9, 2020.

Our results show that Covid-19 has affected practices in profound ways, from reductions in the health care workforce, to a decline in visits and clinical activities, to the consequent reductions in revenues and resulting economic distress. These effects were felt throughout the delivery system, though with heterogeneity across specialties and types of practices. Telehealth has provided a partial clinical substitute and financial boost, as has direct financial assistance from federal and state sources, but a clear sense of economic peril remained across respondents.

Practices are considering strategies to cut costs (e.g., cutting services or personnel) or generate revenues (e.g., increase volume or improve coding) to maintain viability, and a nontrivial share are considering consolidation, sale, or closure. These projected actions, to the extent they are realized, could curtail access to care, especially among communities that rely on independent private practices. To the extent that consolidation or sales of practices to private entities occurs, insurers may face higher prices of health care services in future contract negotiations from previously independent practices.

## Demand Shock and Financial Peril

As millions of patients stayed home nationally, large amounts of outpatient care were canceled or deferred. In March and April, outpatient visits nationwide had declined 60%.<sup>5</sup> While there has been some recovery since then,<sup>6</sup> the uncertainty associated with the novel coronavirus and the economy continues to stress the health care industry. Reports from hospitals offered anecdotes of about 30% declines in inpatient admissions, 50% reductions in emergency department visits, and 70% reductions in outpatient procedures compared to the same time last year.<sup>7</sup> The expansion of telehealth and payment for telehealth by Medicare and other payers have helped practices maintain some elements of care delivery and provided a revenue stream,<sup>8</sup> but telehealth visits have not completely substituted for the forgone in-person visits.

“*Our results show that Covid-19 has affected practices in profound ways, from reductions in the health care workforce, to a decline in visits and clinical activities, to the consequent reductions in revenues and resulting economic distress. These effects were felt throughout the delivery system ... a clear sense of economic peril remained across respondents.*”

With a largely fee-for-service payment system nationwide, many practices — small businesses that depend on in-person visits for revenue — found themselves in financial peril.<sup>9,10</sup> Stories of practices

furloughing additional workers, cutting salaries, and nearing closure or sell-off grew.<sup>11</sup> Early survey data of physician practices from several states showed large declines in visits and revenue in April.<sup>12,13</sup> Despite these signals of economic distress, comparative evidence on how primary care, behavioral health, medical and procedural specialties, and other provider practices have fared under Covid-19 has been lacking. Moreover, the extent to which practices consider cost-cutting and revenue-generating strategies to survive the pandemic has not been studied.

## **Practice Survey Design and Analysis**

The survey was fielded to health care provider practices including physician and non-physician practices in Massachusetts from May 20 through July 9, 2020. The survey instrument is shown in the Appendix. Participation was voluntary, and no deadline was imposed. Each question on the survey was optional. All responses were kept confidential on the Harvard Medical School survey platform. All results are reported in aggregate, without revealing any practice identities.

For questions that asked about information before and after March 2020, ascertaining how an outcome changed from before to after the Covid-19 pandemic, we included responses only when data were provided for both before and after March 2020. Responses for some questions, such as clinical visits or revenues and expenses, were scaled by the total number of clinical workers within the respondent's practice, defined as full-time equivalent (FTE) physicians, nurse practitioners, physician assistants, nurses, and other clinical personnel. Aggregate statistics that reflect the average clinician were weighted by clinical FTEs when analyzed across practices. This gave larger weight to larger practices. On the other hand, aggregate responses reflecting the average practice were unweighted, which gave small and large practices equal weight.

Responses were aggregated overall and by categories of provider specialty, which includes primary care, behavioral health, and medical and procedural specialties; health systems; and all other providers. This latter category included physical therapy, chiropractor practices, dentistry, community health centers, and other providers. In addition, we analyzed responses from primary care and non-primary care practices by type of affiliation, defined in a binary fashion as independent (privately owned) and non-independent (which includes hospital or health-system owned). Further details regarding data cleaning and processing are provided in the Appendix. The Harvard Institutional Review Board approved this research study.

## **Study Population**

A total of 398 provider practices and organizations completed the survey, with eligible responses included in the analysis. Table 1 shows distribution of responses by specialty and practice affiliation. On average, practices had 27.6 clinical FTEs and 25.6 nonclinical FTEs (Table 1).

Primary care practices comprised 29% of the sample, averaging 13.2 clinical FTEs and 16.5 nonclinical FTEs per practice. Slightly more than half (54%) were independent practices, which were considerably smaller (9.5 clinical FTEs and 8.0 nonclinical FTEs per practice) than non-independent primary care practices, which averaged 17.4 clinical and 26.1 nonclinical FTEs. Behavioral health practices accounted for 24% of the sample and medical and procedural

**Table 1. Characteristics of Practices**

	Practices (%)	Clinical FTEs	Nonclinical FTEs
<b>By Specialty Category</b>			
Primary Care	114 (29)	13.2	16.5
Behavioral Health	95 (24)	10.2	2.5
Medical/Procedural Specialties	70 (18)	14.6	23.4
Health Systems	2 (1)	2,717.3	1,660.0
All Other Practices	117 (29)	13.4	26.4
<b>By Practice Affiliation</b>			
Primary Care—Independent	61 (15)	9.5	8.0
Primary Care—Non-independent	53 (13)	17.4	26.1
Other Providers—Independent	166 (42)	6.5	8.4
Other Providers—Non-independent	116 (29)	24.0	31.8
Health Systems	2 (1)	2,717.3	1,660.0
Total	398 (100)	27.6	25.6

FTEs is full-time equivalents. Clinical FTEs include physicians, nurse practitioners, physician assistants, nurses, and other clinical personnel. Nonclinical FTEs include all other staff. Source: The authors.

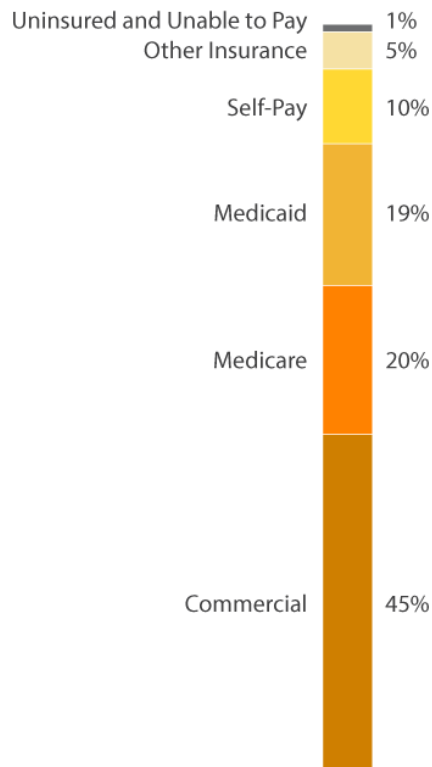
specialties 18% of the sample. Two health systems were included, which averaged 2,717 clinical FTEs and 1,600 nonclinical FTEs.

“ There were 9,509 FTE nonclinical staff across all practices in the sample, among whom 1,955 (20.6%) FTEs were reported furloughed or laid off at the time of data collection. Analogously, 22.6% of nurses, case managers, and other clinicians were furloughed or laid off.”

Among all respondents, commercial payers accounted for 45% of practices’ patients on average, followed by Medicare (20%), Medicaid (19%), self-pay (10%), other insurance (5%), and lastly uninsured and unable to pay (1%). This general pattern was consistent across provider categories (Figure 1).

FIGURE 1

## Practice Payer Mix, All Practices



Note: This graph shows the average payer mix across practices before Covid-19. This average is not weighted by practice size. The sample comprises 398 completed and eligible responses (May 20 – July 9, 2020).

Source: The Authors

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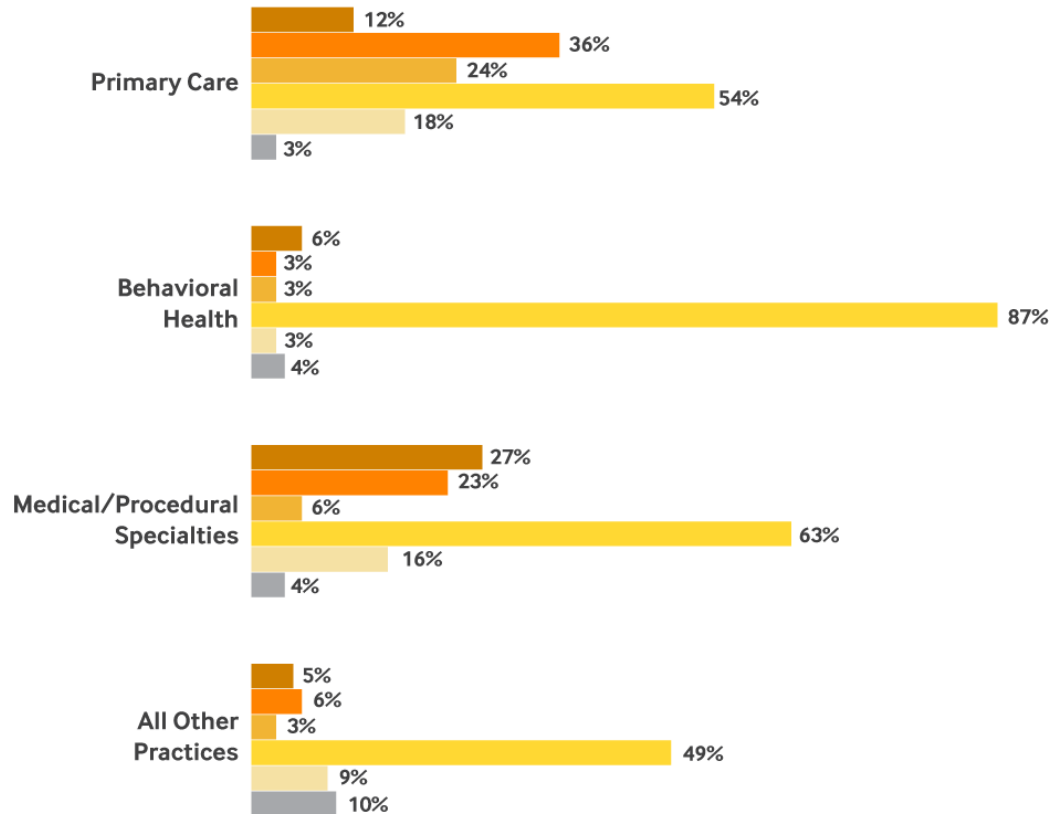
Behavioral health had larger proportions of self-pay patients than other categories, while health systems had larger proportions of commercially insured patients (Appendix).

About 54% of primary care practices reported independent, private practice status, 36% reported a hospital or health system affiliation for contracting purposes, and 12% reported a hospital or health system affiliation for clinical or educational purposes. Behavioral health respondents were overwhelmingly independent private practices (Figure 2).

FIGURE 2

## Practice Affiliations, by Specialty

- Affiliated with hospital or health system: clinical or education
- Affiliated with hospital or health system: jointly contract with payers
- Associated with other private practices (e.g. IPA)
- Independent private practice
- Owned by hospital or health system
- Owned by private equity or other non-clinical entity



Note: These graphs show the average proportion of practices that indicated any of six types of affiliations. These averages are not weighted by practice size. Health systems were excluded from this graph given their affiliation by definition. Practices can indicate more than one type of affiliation among the choices, which explains why the numbers for each category do not add up to 100.

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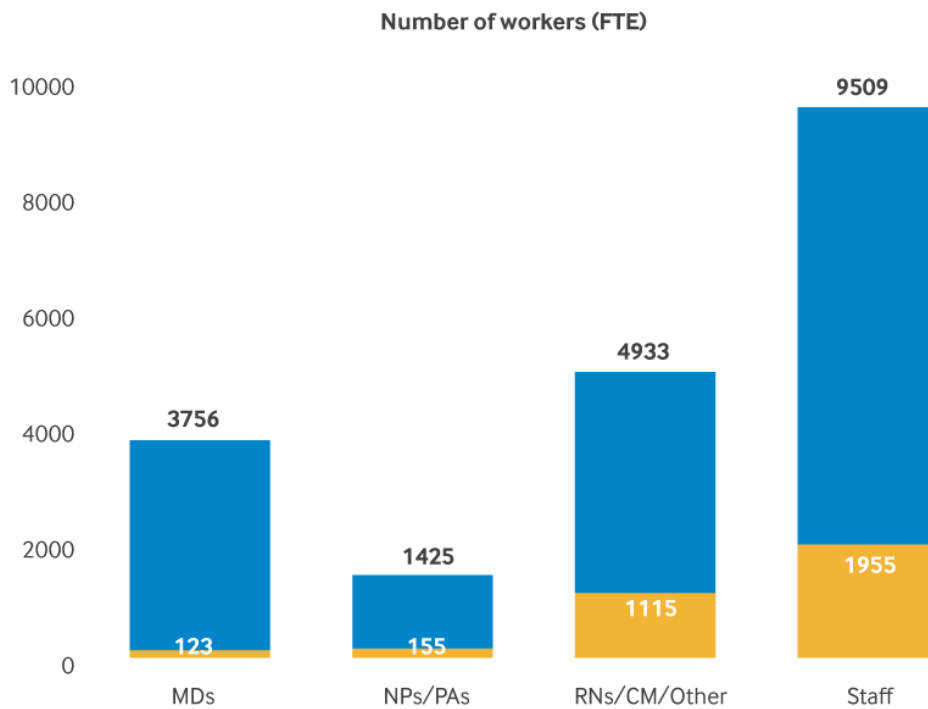
## Changes in Workforce

Summed across all practices, the number of workers before Covid-19 (defined as March 2020) and furloughed or laid off due to Covid-19 are notable. (Figure 3a, Figure 3b).

FIGURE 3A

## Changes in Workforce, All Practices

■ Pre-COVID  
■ Furloughed or Laid-Off



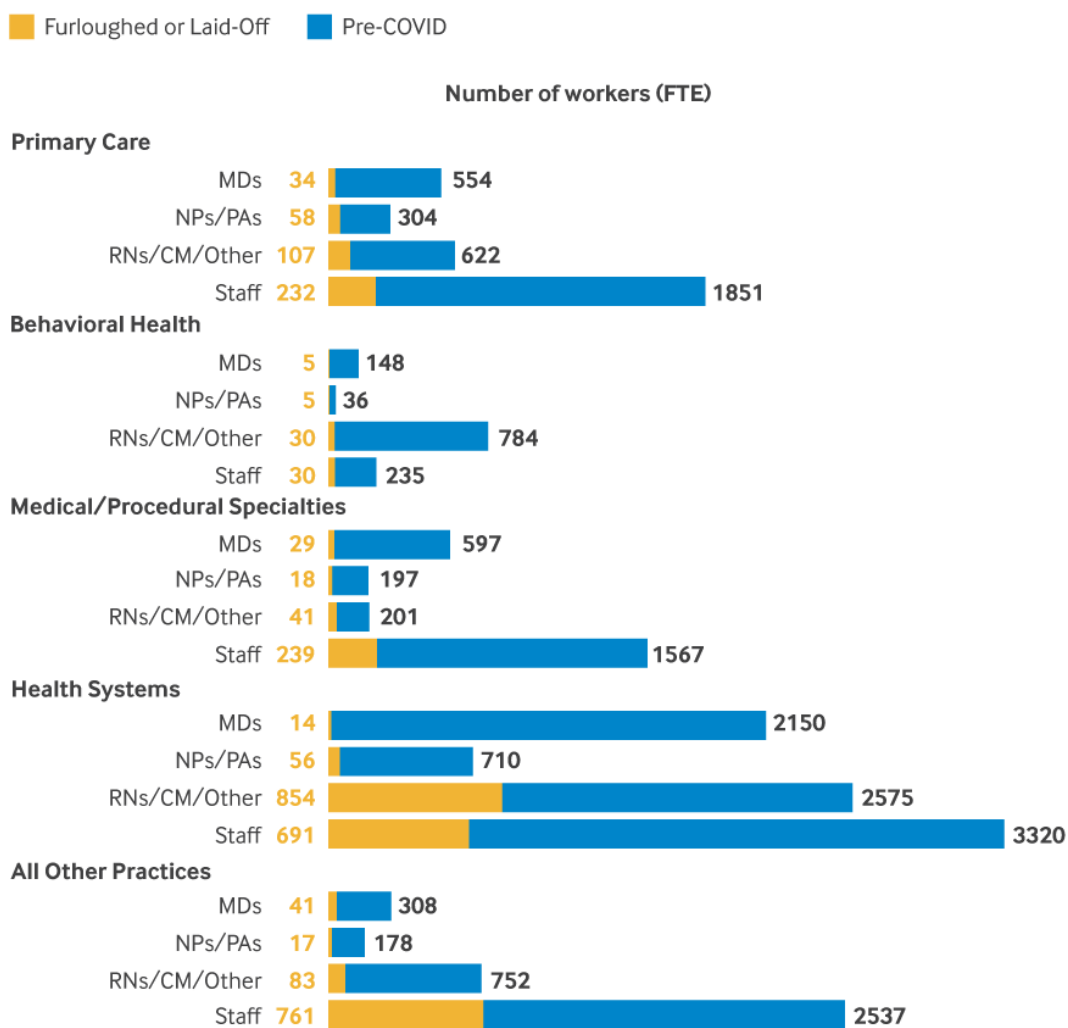
Note: This graph shows the cumulative number of FTEs (Pre-Covid) and reportedly furloughed or laid off due to Covid-19. The sample size for each category is shown in Table 1.

Source: The Authors

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FIGURE 3B

## Changes in Workforce, by Specialty



Note: These graphs show the cumulative number of FTEs (Pre-Covid) and reportedly furloughed or laid off due to Covid-19. The sample size for each category is shown in Table 1.

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There were 9,509 FTE nonclinical staff across all practices in the sample, among whom 1,955 (20.6%) FTEs were reported furloughed or laid off at the time of data collection. Analogously, 22.6% of nurses, case managers, and other clinicians were furloughed or laid off. The proportion of advanced practice providers (NPs/PAs) furloughed or laid off was lower at 10.9%, and that for physicians was the lowest at 3.3% (123 of 3,756 physician FTEs). By specialty category, sizeable reductions in nurses and other clinical staff as well as nonclinical staff were seen in primary care, health systems, and medical and procedural specialties. Behavioral health reported the lowest share of workers affected. Findings for primary care and all other practices by affiliation are also shown in the Appendix.



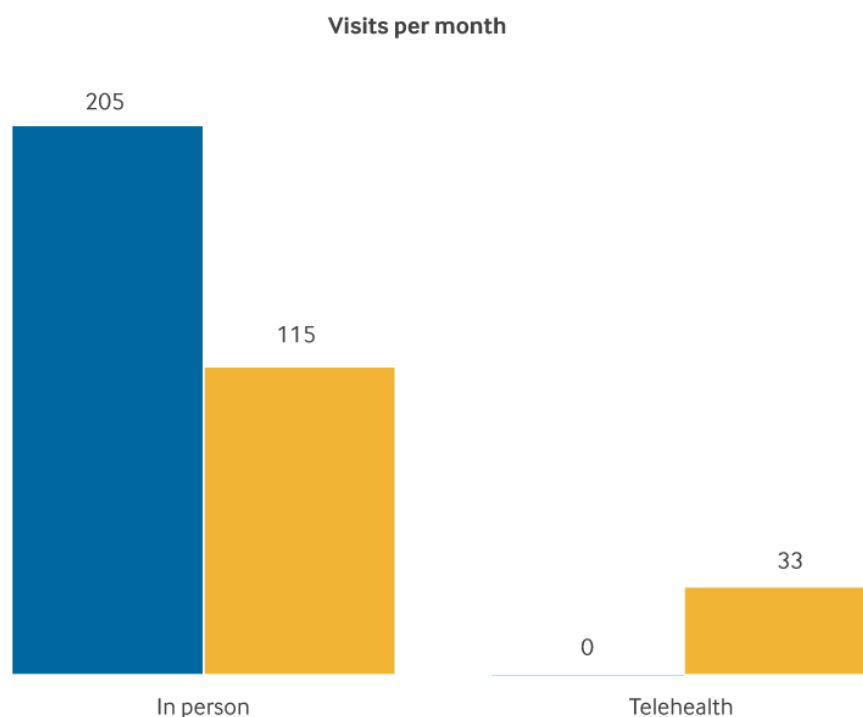
## Changes in Clinical Activity

Across all practices, in-person visits per clinical FTE per month averaged 205 pre-Covid-19 and declined to 115 post-Covid-19, a reduction of 90 in-person visits (44%). Meanwhile, telehealth visits per clinical FTE per month increased from essentially none pre-Covid-19 to 33 post-Covid-19, thus making up less than half of the decline in in-person visits (Figure 4). Both independent and non-independent practices reported large reductions in in-person visits, with a smaller share replaced by telehealth among independent practices (Appendix).

FIGURE 4

### Changes in Monthly Visits, All Practices

■ Before March 2020 ■ After March 2020



Note: These graphs show average monthly in-person and telehealth visits across practices per pre-Covid clinical FTE before and after March 2020, weighted by pre-Covid clinical FTE (physicians, nurses, nurse practitioners, physician assistants, case managers, and other clinicians). The sample size for each category is shown in Table 1.

Source: The Authors

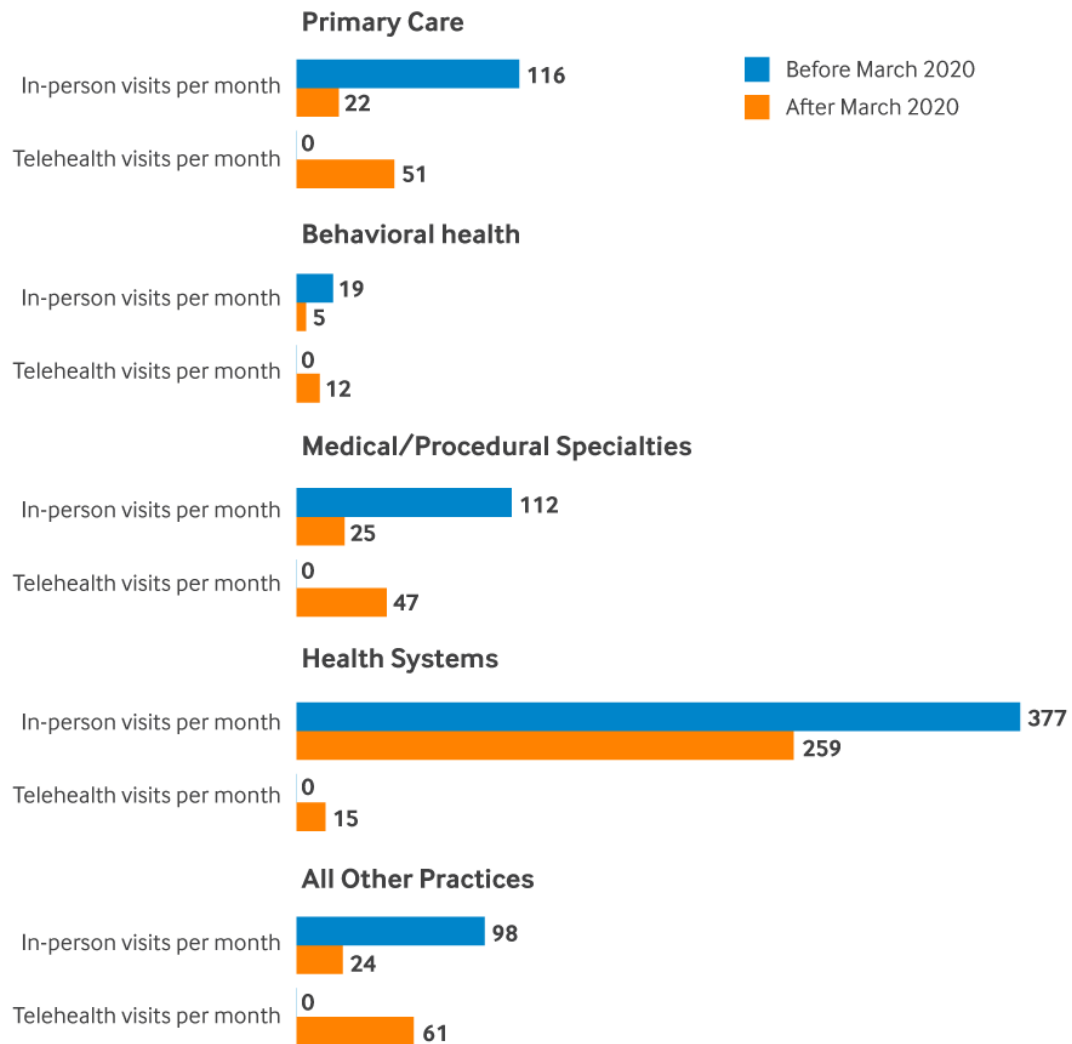
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Decomposed by specialty category, the declines in in-person visits were similar for primary care (81%), behavioral health (74%), medical and procedural specialties (78%), and all other practices (76%). Health systems experienced a 31% decline in in-person visits. All specialty categories reported incomplete substitution of in-person visits by telehealth with the exception of behavioral

health, which was able to almost fully substitute for the decline in in-person visits with telehealth (Figure 5).

FIGURE 5

## Changes in Monthly Visits by Specialty



Note: These graphs show average monthly in-person and telehealth visits across practices per pre-Covid clinical FTE before and after March 2020, weighted by pre-Covid clinical FTE (physicians, nurses, nurse practitioners, physician assistants, case managers, and other clinicians). The sample size for each category is shown in Table 1.

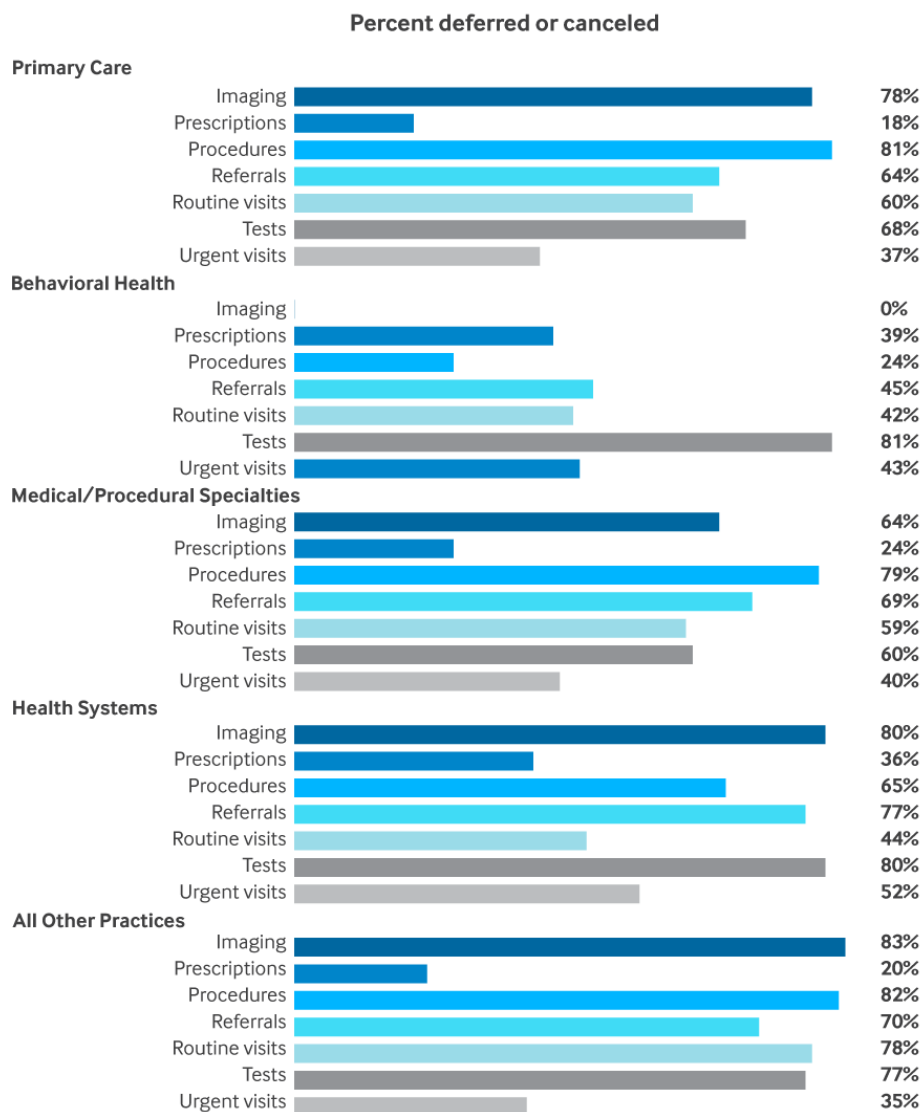
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Clinical activities deferred or canceled due to Covid-19 varied by specialty (Figure 6).

FIGURE 6

## Changes in Clinical Activity, by Specialty



Note: These graphs show the average reported shares of clinical activities deferred or canceled across practices due to Covid-19, weighted by pre-Covid clinical FTE (physicians, nurses, nurse practitioners, physician assistants, case managers, and other clinicians).

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Within primary care, specialty, health systems, and other practices, reductions on the order of 60% to 80% of procedures, imaging, tests, and referrals were reported to be canceled or deferred. Again, behavioral health was an exception, with smaller shares of some of these activities deferred. The proportion of visits affected differed in some cases relative to analogous calculations from the previous question, accounting for the incomplete substitution by telehealth. The proportion of

**Table 2. Percent of Full Capacity for Telehealth Reached, by Specialty**

	Practices	Mean	Std. Dev.
By Specialty Category			
Primary Care	112	71	28
Behavioral Health	93	88	21
Medical/Procedural Specialties	68	50	40
Health Systems	2	74	19
All Other Practices	88	53	42

The survey asked: Approximately what percent of your practice's full capacity for Telehealth is your practice doing now? ("Full capacity" means telehealth usage by all clinicians in your practice with adequate technology for doing so.) Source: The authors.

prescriptions affected was smaller for all practices. Similar patterns were found among independent and non-independent practices (Appendix).

On average, practices reported achieving approximately 67% of their full capacity for telehealth at the time of survey completion (Table 2). "Full capacity" was defined as telehealth use by all clinicians in a practice with adequate technology for doing so.

Behavioral health practices reported an average of 88% of full capacity reached, whereas medical and procedural specialties and other practices were roughly halfway to full capacity. Primary care and health systems reported an average capacity of 71% and 74%, respectively. Similar responses were found among independent and non-independent practices (Appendix).

## Changes in Revenues and Expenses

Reported total practice revenues declined to a greater extent than total practice expenses (Figure 7a). Primary care practices reported average total revenues of \$24,000 per clinical FTE per month before March 2020 and \$11,000 after March 2020 (54% decline), compared to reported average expenses of \$27,000 before and \$19,000 after (30% decline). A similar pattern was found across the other specialties (with the exception of health systems, which experienced fewer reactive revenues and expenses) (Figure 7b).

FIGURE 7A

## Changes in Monthly Revenues and Expenses, All Practices

■ Before March 2020 ■ After March 2020



Note: These graphs show average monthly revenues and expenses across practices per pre-Covid clinical FTE before and after March 2020, weighted by pre-Covid clinical FTE (physicians, nurses, nurse practitioners, physician assistants, case managers, and other clinicians). Figures are rounded to the nearest thousand dollars. The survey was fielded from May 20 through July 9, 2020. Thus, at the time of data collection, "After March 2020" would have generally referred to April through June 2020.

Source: The Authors

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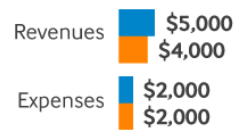
FIGURE 7B

## Changes in Monthly Revenues and Expenses, by Specialty

### Primary Care



### Behavioral health



### Medical/Procedural Specialties



### Health Systems



### All Other Practices



Note: These graphs show average monthly revenues and expenses across practices per pre-Covid clinical FTE before and after March 2020, weighted by pre-Covid clinical FTE (physicians, nurses, nurse practitioners, physician assistants, case managers, and other clinicians). Figures are rounded to the nearest thousand dollars. The survey was fielded from May 20 through July 9, 2020. Thus, at the time of data collection, "After March 2020" would have generally referred to April through June 2020.

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This change in revenues and expenses was generally consistent with anecdotal evidence from practices, that they tried maintain their expenses — the largest component of which was employee salaries — in the early months of the pandemic as revenues fell; the aim was to defer more difficult decisions of cuts in personnel or practice closure.

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“ *Primary care practices reported average total revenues of \$24,000 per clinical FTE per month before March 2020 and \$11,000 after March 2020 (54% decline)... A similar pattern was found across the other specialties.* ”

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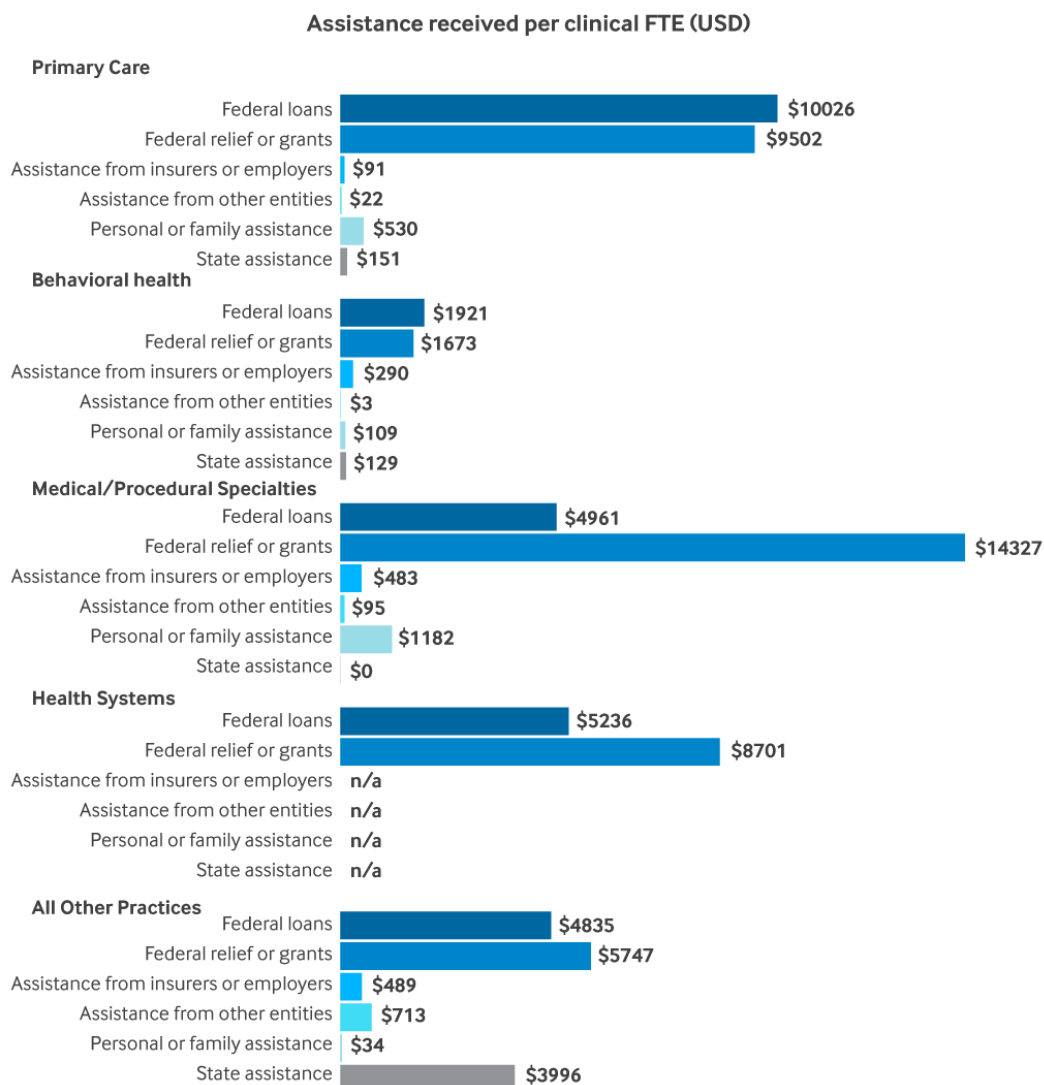
Independent practices faced larger percent reductions in revenues than non-independent practices (Appendix). Within primary care, revenues among independent practices declined from \$19,000 per clinical FTE per month to \$11,000 (42% decline) amidst a 18% decline in expenses, while revenues among non-independent practices decreased by 61% while expenses decreased by 35%. A similar pattern was observed among non-primary care practices).

This pattern is consistent with reports of smaller, privately owned community practices facing relatively more financial peril relative to practices that may have some hospital or health system support. In general, non-independent practices reported larger revenues and expenses at baseline, which may reflect larger clinical operations in these settings. These hospital- or health system-affiliated practices also did report larger drops in revenue than in expenses, which — combined with reductions in admissions, elective procedures, and other sources of revenue — may generate different or additional economic pressure that smaller independent practices do not face. Further context for interpreting these findings may be gleaned from qualitative responses.

Practices reported receiving various amounts of financial assistance from federal, state, and other sources (Figure 8).

FIGURE 8

## Financial Assistance Received, by Specialty



Note: These graphs show the average reported amounts of financial assistance received across practices per pre-Covid clinical FTE, weighted by pre-Covid clinical FTE (physicians, nurses, nurse practitioners, physician assistants, case managers, and other clinicians). Within "All Other Practices," state assistance includes support for community health centers.

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Primary care practices reported receiving \$10,026 per clinical FTE in federal loans, which need to be repaid, and \$9,502 per clinical FTE in federal relief or grants, which do not need to be repaid. Health systems and medical and procedural specialists reported similar amounts of assistance. Behavioral health and all other practices reported less assistance. Personal or family assistance of about \$500 per clinical FTE in primary care and \$1,200 in medical and procedural specialties was reported. State assistance included that for community health centers. Generally, average



**Table 3. Forecasted Responses to Covid-19, by Specialty**

	All Practices(N=308)		Primary Care(N=103)		Behavioral Health(N=78)		Medical/Procedural Specialties (N=61)		Other Providers(N=65)	
	Selected (%)	Likelihood (%)	Selected (%)	Likelihood (%)	Selected (%)	Likelihood (%)	Selected (%)	Likelihood (%)	Selected (%)	Likelihood (%)
<b>Cut Expenses</b>										
Cut salaries of providers or employees	61	41	82	54	24	13	74	55	58	41
Cut services or other operating expenses	68	43	79	50	50	28	72	55	66	38
Furlough or lay off employees	62	41	82	53	27	15	74	53	62	41
<b>Raise Revenues</b>										
Generate revenue by improved diagnostic coding	25	12	39	18	12	5	26	13	17	8
Generate revenue by providing more services	44	21	44	19	49	23	33	18	48	23
Evolve toward membership-based practice	17	6	28	8	10	6	11	3	14	7
<b>Change Ownership</b>										
Consolidate with hospital or health system	18	7	25	9	6	2	20	9	20	7
Consolidate with other practices	23	7	31	12	13	2	21	8	26	7
Sell the practice	26	10	28	9	13	5	33	16	32	13
Close the practice	42	17	47	15	28	13	44	23	48	22
Other	4	3	3	1	10	7	0	0	3	2

The survey question asked, “Without additional financial assistance, what is the percent chance that your practice WOULD DO the following in the foreseeable future?” Respondents were free to choose more than one response and invited to indicate a percent likelihood for each choice. Health systems were not reported separately because only one of the two health systems responded to this question. Source: The authors.

assistance for independent practices was greater than that reported by non-independent practices (Appendix).

## Forecasted Responses to Covid-19

Respondents were asked to forecast what strategies — and with what likelihood — their practices would adopt in response to Covid-19 without additional financial assistance (Table 3).

Among all practices, the most common responses were “cut salaries of providers or employees,” “cut services or other operating expenses,” and “Furlough or lay off employees,” which ranged from 61% to 68% of respondents; the average reported likelihood of taking these actions was 41% to 43%. These three responses were most cited among primary care practices, with 79% to 82% of respondents selecting them, reporting an average likelihood of taking these actions of slightly more than 50%. Behavioral health practices were less likely to select these responses. These three responses may represent efforts to keep the practice open without consolidation or closure.

Among all practices, generating revenue through providing more services or improved diagnostic coding was selected by 44% and 25% of respondents, respectively, with average likelihood among those selecting these options of 21% and 12%, respectively. These may also represent strategies to maintain a practice during Covid-19.

About 42% of all practices selected “close the practice” with an average likelihood among those selecting this option of 17%. By specialty, 47% of primary care practices selected closure with a reported likelihood averaging 15%. This was similar among medical and procedural specialists, and lower among behavioral health practices.

Among all practices, 23% selected consolidation with other practices and 18% consolidation with hospitals or health systems, with average likelihoods of around 7% for each option. In addition, 26% selected “sell the practice” with an average likelihood of 10%. Sales of practices may include those to private equity, provider groups, or larger health systems, which may result in consolidation similar to the prior two options. About 17% of practices selected “evolve toward membership-based practice,” sometimes referred to as a concierge or direct care model, in which patients pay a prospective fee for access to a provider or practice. This option was most cited among primary care practices (28% selected, average likelihood 8%).

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“ About 42% of all practices selected “close the practice” with an average likelihood among those selecting this option of 17%.”

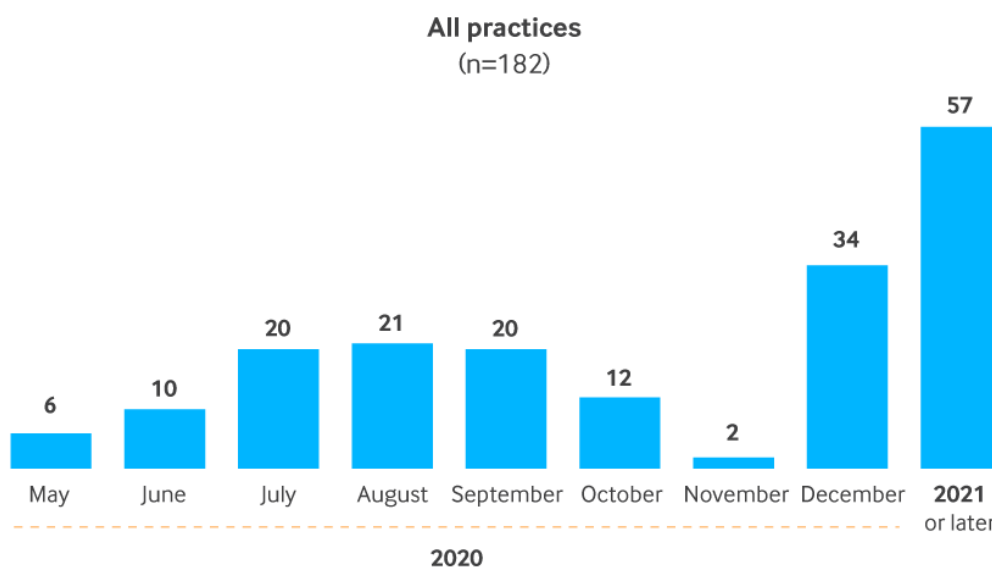
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Independent practices were more likely to choose practice closure, consolidation, or sale relative to non-independent practices (Appendix). Within primary care, 60% of independent practices selected “close the practice,” with an average likelihood of 21%, while 28% of non-independent practices selected this option, reporting a 6% likelihood. Similarly, 33% of independent primary care practices selected “sell the practice,” with a mean likelihood of 11%, compared to 21% of non-independent practices selecting this option, with a likelihood of 6%. An analogous pattern was found among all other types of practices.

For those considering closing their practice, we see double-digit monthly numbers (10–34) projecting closures in June, July, August, September, October, and December. Another 57 respondents considering a closure would hold off until 2021 or later (Figure 9). Based on affiliation, more independent than non-independent practices anticipate closures (Appendix). There is some variation based on specialty and the sample sizes are smaller in the subgroups, but the distribution of purported closures by specialty appears largely in line with the overall all practices data (Appendix).

FIGURE 9

## Timing of Projected Closure, All Practices



Note: This histogram shows how the number of practices that provided a presumptive closure date without additional financial assistance in response to the follow-up question to question 9 (see the full survey instrument in Appendix 1). Conditional on not selecting 0% for the closure option, the follow-up survey question asked, "Without additional financial assistance, when would your practice NEED TO CLOSE (select 1)?" This is a raw unweighted histogram of counts of practices that selected a given period.

Source: The Authors

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## Preferred Payment Model

Respondents were asked to report their preference, using a 10-point scale covering intensity of support or opposition, regarding four payment models, ranging from pure fee-for-service (FFS) to a prospective per-member-per-month global payment (capitation) for their practice's services. To separate the mechanism of payment from the amount of payment, the survey asked respondents to assume current fees (prices). In recognition of key components of global payment models, but to not overly complicate the question, the question also asked the respondent to assume accurate risk-adjustment and adequate quality measurement (Table 4).

Results weighted by FTE reflect the average preferences of a clinician, assuming practice-level preferences represent individual clinician preferences. In the weighted results, large practices or provider groups have proportionally larger weight and influence on the averages. Unweighted results, which render small and large practices equally weighted, reflect average preferences of a practice. Within each specialty category, we reported P values from a t test of the difference in means between each alternative payment mechanism and pure FFS (the reference group).

Table 4. Preferences Among Payment Mechanisms, by Specialty

	Primary Care(N=101)		Behavioral Health(N=87)		Medical/Procedural Specialties(N=158)		Health Sys-tems(N=2)		Other Providers(N=43)	
	Mean pref-erence	P value vs. FFS	Mean pref-erence	P value vs. FFS	Mean prefer-ence	P value vs. FFS	Mean pref-erence	P value vs. FFS	Mean pref-erence	P value vs. FFS
<b>Weighted by clinical FTE (larger practices have more weight)</b>										
Pure FFS	6	--	6.3	--	7.7	--	4	--	8.2	--
Partial FFS + bun-dled payments for episode	5	0.03	4		4.2	0.06	8	--	4.1	
Partial FFS + pro-spective payment	6.7	0.08	4.3	0.001	5.7	0.69	8	--	3.1	0.001
Prospective glob-al payment	5.3	0.11	4.2		5.3	0.45	4.7	--	6.3	0.09
<b>Unweighted (equal weight between large and small practices)</b>										
Pure FFS	--	8.5	--	8.8	--	4	--	8.3	--	
Partial FFS + bundled payments for episode	<0.001	2.1	<0.001	3.1	<0.001	8	--	3.1	<0.001	
Partial FFS + pro-spective payment	6 0.54	2.5	<0.001	2.3	<0.001	8	--	3.6	<0.001	
Prospect-ive global payment	0.08	2	<0.001	1.9	<0.001	5	--	3.3	<0.001	

Preference for payment mechanisms was indicated on a 10-point scale, with 0 indicating strongly oppose, 10 indicating strongly favor, and 5 indicating neutral. Sample sizes in the headings indicate the numbers of practices that responded to this question. FFS = fee-for-service. P values are from a t test of the difference in mean preference between a given payment mechanism and that for pure FFS, the reference group. Health systems were excluded from statistical tests because only two health systems responded to this question. Source: The authors.

In general, smaller practices had a stronger preference for pure FFS, while larger practices had a stronger preference for alternative payment mechanisms, notably global payment. For example, the average primary care *practice* (unweighted result) reported a preference of 5.2 for global payment (P value of 0.08 in its difference relative to pure FFS), while primary care *clinicians* on average (weighted result) reported a preference of 5.3 for global payment (P value of 0.11 in its difference relative to pure FFS).

Behavioral health providers and practices preferred pure FFS to alternative payment mechanisms ( $p \leq 0.001$ ). In unweighted results, medical and procedural specialty practices on average preferred pure FFS (8.8) relative to other payment mechanisms such as global payment (1.9) (P value of the difference  $< 0.001$ ). Upon weighting by clinical FTE, the average specialist preference for global payment was notably greater (5.3 and no longer significantly different from pure FFS). This again highlights the influence of larger practices that preferred global payment.

“ Overall, practices not infrequently reported a strong preference for pure fee-for-service over alternative models despite reporting economic peril caused by the decline in visits and utilization.”

The average preference among independent primary care clinicians (weighted results) for pure FFS, partial FFS with a prospective payment, and global payment were similar, while non-independent

primary care clinicians preferred partial FFS with a prospective payment to pure FFS (6.9 vs. 5.4,  $p=0.04$ ), but did not prefer global payment to pure FFS, although this was not statistically significant (4.9 vs. 5.4,  $p=0.11$ ). A similar pattern between independent and non-independent clinicians was observed for all other specialties as a whole (Appendix).

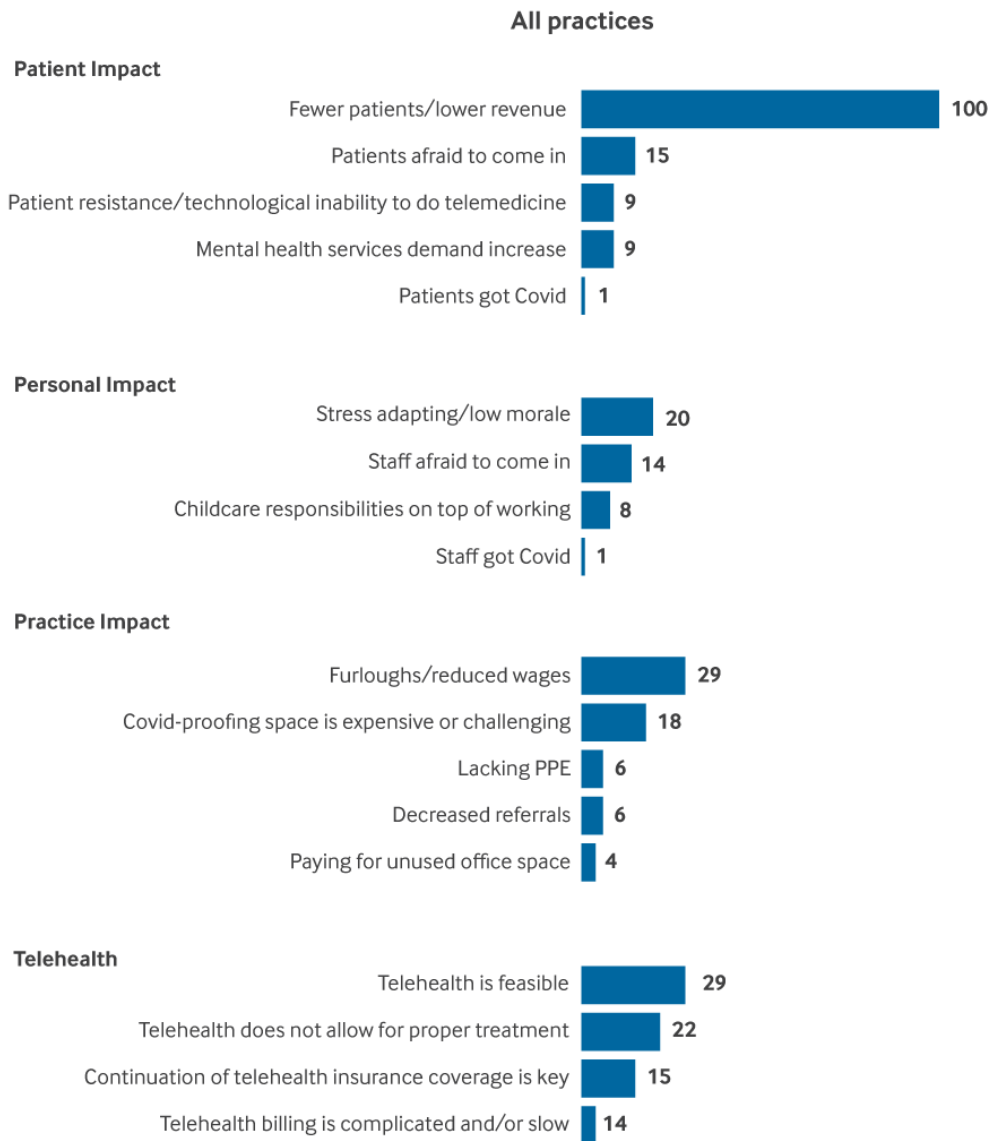
Unweighted results showed that primary care practices had generally mixed preferences among the payment option. Meanwhile, independent specialty practices more clearly preferred pure FFS to other options. Within each category of affiliation, a comparison of weighted and unweighted results again implied that larger practices preferred global payment more than smaller practices, as weighting by clinical FTE increased the preference for global payment. Overall, practices not infrequently reported a strong preference for pure fee-for-service over alternative models despite reporting economic peril caused by the decline in visits and utilization.

## **Provider Perspectives**

Lastly, the survey offered respondents the opportunity to describe in their own words how Covid-19 had impacted their practice (Figure 10).

FIGURE 10

## Common Themes Among Free Text Responses



Note: This bar graph indicates the raw number of respondents who addressed each of these themes.

Source: The Authors

NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

The open-text comments are presented to show the common themes in these responses, grouped by patient impact, personal impact, practice impact, and perspectives that discussed telehealth. A total of 100 respondents discussed fewer patients and the consequent lower revenues, which was by far the most common theme. Fear among patients and staff, low morale and stress of adaptation, the expense of revamping practices space for the Covid-19 era, and furloughs and reduced wages were also frequently mentioned. While some respondents reported that telehealth was feasible,

often among behavioral health practices, other respondents noted that telehealth is not a sufficient substitute for in-person visits, such as proceduralists.

No analysis could do justice to personal anecdotes shared by the respondents. While some were lengthy, a selection of representative responses in their own words is provided here:

*“I could never have prepared for something of this magnitude. It’s affected my psyche. I feel like any day I may get infected and not survive. I will continue to see my patient. They need me.” — Pediatric practice*

*“I have never until now feared for my practice’s viability. I don’t think any amount of financial assistance will get us to pre-Covid-19 operation levels. The amount of renovation needed to make the space safe for that volume is not possible.” — Family Medicine practice*

*“The pandemic was worse than tsunami. I lack words to describe how precariously my business has suffered since the Covid-19. I have lost my whole life savings and would need at least \$350,000 to stand again.” — Home Care practice*

*“We are working twice as hard, for half the result. It is exhausting and disheartening. Everyone, providers and staff, is burning out.” — Endocrine practice*

*“I continue to pay for office space that I can’t use. Now I have to pay for a telemedicine service also, in order to provide video sessions for my patients. Because I’m simultaneously homeschooling my daughter, I can’t work as many hours. My husband was furloughed so we’re desperate financially. Without assistance from the PPP loan my practice would have to close.” — Clinical Psychology practice*

*“The advent of Covid-19 has decimated our practice as the majority of our behavioral health consultants to the nursing homes have been restricted from entry. Telehealth services are made difficult as the average age of our population is 85 and they reside in LTC facilities. Sadly, many of our patients have died from Covid, which will likely result in the loss of customers as nursing facilities close and consolidate.” — Geriatric Psychiatry practice*

*“The pandemic has caused tremendous uncertainty and threatened to end primary care as we know it. We are doing our part to take the best care of our patients that we can and keep sick patients out of ERs, hospitals, and other health care settings, but we are not being compensated enough to keep our practice open. Our patients would suffer tremendously if we cannot stay open.” — Family Medicine practice*

*“As ophthalmologists, this has been a disaster. Telehealth is not an option. Elective surgery is not permitted. We have very high fixed costs. Our income will be in negative numbers unless we close practice or file for bankruptcy. Even if we open fully, hard to know when patients will return. I am truly torn as to what to do. I love my patients, staff, and fellow doctors but can’t afford to take on more debt to continue. We are no different than the thousands of other businesses that have and will continue to fail as this pandemic plays out.” — Ophthalmology practice*

*“Covid has destroyed my practice. I used to think that healthcare was the safest field to be in as it would always be needed no matter how the rest of the economy was. This belief has been shattered. My practice has evaporated. Patients have been terrified and will not seek medical care unless they are dying....*



*Haircutters are reopened yet neurosurgery cannot do surgeries that are not life-threatening. Many other states are already allowing elective procedures but not Massachusetts. Medicare is also not supportive as I submitted an application for the accelerated payment program but it is in limbo as they stopped paying those for no obvious reason. My emergency disaster loan still never completed processing either. I used to feel important to the community and now I am superfluous.” — Neurosurgery practice*

## Limitations

We note several limitations of these data. First, the survey was fielded to a convenience sample of provider practices across Massachusetts, which may not be representative of all practices in the state despite our efforts to circulate the survey broadly. Second, participation in a voluntary survey may not be random, rendering the responses susceptible to biases due to selection effects, whereby participation may be correlated with unobservable practice characteristics that may be correlated with certain responses. Third, survey responses may be influenced by other biases in reporting, such as recall bias, which could produce inaccurate or exaggerated responses.

Additionally, our data capture a cross-section of respondents over a 7-week period in late May through early July 2020. Economic conditions at the practices may change with time for many reasons. For example, the number of furloughed or laid-off workers may change as more workers exit practices or some return due to reopening or conclusion of federal programs that provided income assistance. To the extent that demand for services is higher upon reopening than during normal times due to deferred or postponed care, practices may make up some lost finances in the early days of reopening. On the other hand, a rebound in utilization may be slow, given the new precautions needed to be established in clinic and lag in resumption of full clinical activities.

## Policy Implications

These data add to survey evidence from other states<sup>12,13</sup> and to surveys of primary care practices nationwide that paint a picture of physician practices in distress.<sup>14</sup> It offers granular details and a sense of the heterogeneity between physician specialties and among health care providers more broadly. Much uncertainty over the fate of practices remains, as many states undertake a phased reopening during which health care utilization will rebound.

“ *At a policy level, public payers, private payers, and employers may consider collective action to support vulnerable practices on the verge of closure, sale, or consolidation.* ”

At a policy level, public payers, private payers, and employers may consider collective action to support vulnerable practices on the verge of closure, sale, or consolidation. Preventing these outcomes would help maintain access to care, especially in disadvantaged communities or rural areas where few alternative providers exist. For policy makers and insurers who are concerned about provider consolidation and its implications for prices, helping to maintain the viability of independent practices may make further sense. Given lower tax revenues and other resource



constraints exacerbated by the economic downturn, public and private payers may find it difficult to support providers in need despite current savings from deferred or canceled care.<sup>7</sup> Recent trends in outpatient utilization point to a fairly robust rebound in visits several months into the pandemic.<sup>6</sup> Our data suggest that independent practices, including primary care, have been more affected by the pandemic demand shock, while mental health providers were on average better able to substitute in-person visits with telehealth and maintain their revenue. To the extent that financial resources could be mobilized to support providers most in need, public and private entities could target practices of certain specialties or in certain settings, such as independent practices in the community that lack financial support from a hospital or health system.

The policy mechanism for delivering financial support to practices could vary. It includes cash advances, additional lump sum payments, increasing fees within established fee schedules, and prospective payment models. Recently, the Commonwealth of Massachusetts has established a formal mechanism for practices to request a one-time Alternative Interim Payment equaling up to 2 months' worth of average 2019 MassHealth (Medicaid) payments for physician services, up to \$500,000, as a cash advance.<sup>15,16</sup> Commercial payers in the state have also taken steps to support provider practices during the pandemic, including a program from Blue Cross Blue Shield of Massachusetts to transition primary care payments toward a value-based or prospective model.<sup>17</sup> Outside of Massachusetts, Blue Cross Blue Shield of North Carolina has introduced a payment model that similarly seeks to stabilize practices during the pandemic and transitions primary care payment toward a prospective arrangement.<sup>18</sup> These and related efforts to help practices remain solvent during the pandemic may serve as an example for other states and insurers.

## Summary of Key Findings

- **Study population:** Respondents included 398 practices across specialties in Massachusetts, from small independent private practices to large provider organizations, over 50 days from May 20 through July 9, 2020.
- **Workforce:** Cumulatively, 21% of nonclinical staff, 23% of nurses/other clinical staff, and 11% of nurse practitioners or physician assistants were reportedly furloughed or laid off due to Covid-19. Fewer physicians were out of practice.
- **Patient visits:** In-person visits declined by 44% after March 2020, driven by fewer visits to primary care and specialty practices, with less than half of this decline substituted by telehealth visits. Telehealth substitution for in-person visits was more complete in behavioral health. Health systems experienced less of a decline in in-person visits.
- **Clinical activity:** About 60%–80% of procedures, imaging, tests, and referrals were canceled or deferred in primary care, specialty practices, and those other than behavioral health.
- **Telehealth capacity:** Practices on average reported reaching about two-thirds of their full capacity for telehealth, led by behavioral health, health systems, and primary care.

- **Revenues and expenses:** Practice revenues declined more than did practice expenses after Covid-19. Independent practices reported larger percent reductions in revenues relative to expenses (42% reduction in revenues vs. 18% reduction in expenses among independent primary care practices) than did non-independent practices.
- **Practice responses:** More than 60% of practices reported they would cut salaries of providers or employees, cut services or other operating expenses, and furlough or lay off more employees without additional financial assistance, with a roughly 40% likelihood of following through. Consolidation, selling, or closing the practice were reported by 20%–40% of practices, driven by independent practices such as primary care (60% noted closure at 21% likelihood).
- **Payment preferences:** Going forward, smaller practices preferred pure fee-for-service to alternative payment models including global payment, while larger practices had a stronger preference for global payment. Independent behavioral health and specialist providers were more likely to clearly prefer pure fee-for-service, while primary care providers viewed global payment more favorably relative to pure fee-for-service than did other providers. Practices not infrequently reported a strong preference for pure fee-for-service over alternative models despite reporting economic peril caused by the decline in visits and utilization.
- **Stories:** Respondents offered anecdotes of patient impact, personal impact, practice impact, and more, such as the following: *“We are working twice as hard, for half the result. It is exhausting and disheartening. Everyone, providers and staff, is burning out”* and *“I have never until now feared for my practice’s viability. I don’t think any amount of financial assistance will get us to pre-Covid-19 operation levels. The amount of renovation needed to make the space safe for that volume is not possible.”*

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