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# The financial and employment effects of coronavirus disease 2019 on physicians in the United States

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## ABSTRACT

Although the coronavirus disease 2019 (COVID-19) pandemic has created havoc with the U.S. healthcare system and physicians, the financial and contractual implications for physicians are now beginning to come to the forefront. Financial assistance from the federal government has mainly been received by hospitals, which have borne the brunt of the COVID-19 illness. Some physician groups have, or are, receiving assistance through a few programs, although the accelerated and advance payments have been suspended. Employed surgeons are now being furloughed, terminated, or persuaded to agree to a significant cut in pay, forego bonuses, or take leave without pay as healthcare systems and some physician groups have started to experience the consequences of halting elective procedures. Newly hired surgeons might be forced in a few cases to agree to delays in starting their employment, new amendments, changes in employment status, and other terms for fear of losing their employment. In the present report, we have explained some agreement terminology and options available to allow physicians to understand the terms of their employment agreement and make their decisions after consulting with an expert healthcare attorney. (*J Vasc Surg* 2020;72:1856-63.)

**Key words:** COVID-19; Employment; Pandemic; Physician compensation

The coronavirus disease 2019 (COVID-19) pandemic has strained the U.S. healthcare system in many ways. The physical and emotional toll on healthcare professionals, the need for financial assistance, and the limited supplies of personal protective equipment and hospital space are just some of the challenges healthcare systems have faced. Although Congress has provided financial assistance for the healthcare system, much of this funding has been directed to the healthcare systems that own and operate hospitals. However, 97% of physician practices have also been experiencing negative financial effects because of COVID-19.<sup>1</sup>

President Trump signed a \$2 trillion economic stabilization package passed by Congress as the Coronavirus Aid, Relief, and Economic Security (CARES) Act on March 27, 2020. In addition to other items, the legislation provided a total of \$100 billion to Department of Health and Human Services, which included \$30 billion to hospitals and physician practices for lost revenue and the reimbursement of expenses related to the COVID-19 crisis<sup>2</sup> (Table 1). As of April 24, 2020, \$3 trillion

dollars had been allotted by Congress to address the COVID-19–related pandemic in the United States. The stimulus package passed by Congress offered a 20% increase in Medicare reimbursement for hospitals treating patients with COVID-19. There are several likely reasons why these funds have been dedicated to hospitals. For example, the expenditures by hospitals associated with caring for patients with COVID-19, combined with the loss of revenue from the foregone elective procedures, has been much greater for hospitals than for physician groups and practices. The healthcare systems also have unity within the hospital community, teams of lobbyists, financial consultants, and the banks that received these funds. Initially, large banks were criticized for not assisting small business owners by only taking applications from existing customers.<sup>3</sup>

The funds approved by Congress have been distributed as grants or loans through the Public Health and Social Services Emergency Fund (the relief fund consisting of grants), Accelerated and Advance Payment Program (early payments by Medicare for services provided, which have now been temporarily suspended), Paycheck Protection Program (which are forgivable loans for small businesses), Economic Injury Disaster Loan (which are small business loans), Small Business Debt Relief Program (debt relief for previous loans), and/or Coronavirus Economic Stabilization Act of 2020 (loans and subsidies; Table 1).

After the initial \$2 trillion dollars provided for in the CARES Act, the loans were disbursed by the Small Business Administration. In addition, another \$484 billion COVID-19 bill was passed by Congress on April 23, 2020, which included \$380 billion for small businesses. From this amount, \$321 billion has been allocated to replenish the previous Paycheck Protection Program. An

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**Table I.** Updates on COVID-19–related legislation and other actions with effects on physicians

Date	Event	Relevant details	Website links
March 1, 2020	Telehealth expansion	Medicare will pay physicians for telehealth services at the same rate as in-office visits for all diagnoses; physicians can reduce or waive Medicare patient cost-sharing for telehealth visits, virtual check-ins, and e-visits; physicians can provide telehealth services from their home and do not need to update their Medicare enrollment file with their home address; physicians licensed in one state can provide services to Medicare beneficiaries in another state; state licensure laws still apply; physicians caring for seniors and rural patients without internet access or a smartphone can now provide audio-only telephone evaluation and management visits for new and established patients; office-based physicians should use their usual place-of-service code to be paid at the nonfacility rate for telehealth services and add modifier 95 to telehealth claim lines; telehealth services billed using place of service code 02 (telehealth) will be paid at the facility rate; code selection and documentation guidelines for office visits performed via telehealth will be based on physician time spent on the date of visit or medical decision-making	<a href="https://www.ama-assn.org/delivering-care/public-health/cares-act-ama-covid-19-pandemic-telehealth-fact-sheet">https://www.ama-assn.org/delivering-care/public-health/cares-act-ama-covid-19-pandemic-telehealth-fact-sheet</a> ; <a href="https://www.fcc.gov/covid-19-telehealth-program">https://www.fcc.gov/covid-19-telehealth-program</a>
March 18, 2020: first COVID-19 legislation—H.R.6201 –Families First Coronavirus Response Act signed by President Trump	A \$1 billion fund was created to immediately assist small businesses hit hard by the current economic shutdown	Employees allowed to take ≥12 weeks of job-protected leave; disaster loan: \$1 billion in 2020 for emergency grants to states for activities related to processing and paying unemployment insurance benefits: Full Federal Funding of Extended Unemployment Compensation for a Limited Period; Emergency Paid Sick Leave Act; Payroll Credit for Required Paid Sick Leave	Purpose: <a href="https://www.congress.gov/bill/116th-congress/house-bill/6201/text">https://www.congress.gov/bill/116th-congress/house-bill/6201/text</a> ; details: <a href="https://www.aaos.org/globalassets/about/covid-19/sba-one-pager_chart.pdf">https://www.aaos.org/globalassets/about/covid-19/sba-one-pager_chart.pdf</a> ; <a href="https://disasterloan.sba.gov/">https://disasterloan.sba.gov/</a>
March 27, 2020	The Coronavirus Aid, Relief, and Economic Security Act was signed into law	\$2 Trillion economic stimulus package, including \$349 million in federal funds appropriated specifically to support small businesses, including physicians, support healthcare-related expenses or lost revenue due to the COVID-19 pandemic, and to cover treatment for uninsured COVID-19 patients; included Public Health and Social Services Emergency Fund; Accelerated and Advance Payment Program; Paycheck Protection Program; Economic Injury Disaster Loans; The Coronavirus Economic Stabilization Act; Small Business Debt Relief Program	<a href="https://www.congress.gov/bill/116th-congress/house-bill/748">https://www.congress.gov/bill/116th-congress/house-bill/748</a> ; <a href="https://www.hhs.gov/coronavirus/cares-act-provider-relief-fund/index.html">https://www.hhs.gov/coronavirus/cares-act-provider-relief-fund/index.html</a> ; <a href="https://www.cms.gov/files/document/Accelerated-and-Advanced-Payments-Fact-Sheet.pdf">https://www.cms.gov/files/document/Accelerated-and-Advanced-Payments-Fact-Sheet.pdf</a> ; <a href="https://home.treasury.gov/policy-issues/cares/assistance-for-small-businesses">https://home.treasury.gov/policy-issues/cares/assistance-for-small-businesses</a> ; <a href="https://www.akerman.com/en/perspectives/main-street-lending-program-offers-additional-relief-to-small-and-mid-size-businesses-under-the-cares-act.html#_ftn1">https://www.akerman.com/en/perspectives/main-street-lending-program-offers-additional-relief-to-small-and-mid-size-businesses-under-the-cares-act.html#_ftn1</a> ; <a href="https://www.sba.gov/funding-programs/loans/coronavirus-relief-options/sba-debt-relief">https://www.sba.gov/funding-programs/loans/coronavirus-relief-options/sba-debt-relief</a>

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Table I. Continued.

Date	Event	Relevant details	Website links
March 28, 2020	CMS expanded the Accelerated and Advance Payments Program for providers and suppliers during the COVID-19 emergency	Not applicable	<a href="https://www.cms.gov/files/document/Accelerated-and-Advanced-Payments-Fact-Sheet.pdf">https://www.cms.gov/files/document/Accelerated-and-Advanced-Payments-Fact-Sheet.pdf</a>
March 30, 2020	CMS issued new rules and waivers of federal requirements, including medical staff benefits, teaching physician rules, verbal orders	To ensure that local hospitals and healthcare systems have the capacity to absorb and effectively manage potential surges of COVID-19 patients; a waiver was also issued to allow hospitals to provide benefits and support to their medical staffs, such as multiple daily meals, laundry services for personal clothing, and/or child care services while the physicians and other staff were at the hospital providing patient care; medical residents were allowed more flexibility to provide services under the direction of the teaching physician; in addition to being able to directly supervise a resident with their physical presence during key portions of a procedure, teaching physicians can now also provide supervision virtually using audio/video communication technology; wider use of verbal orders rather than written orders by physicians to allow focus more of their time on patient care; expanding access to telehealth services for people with Medicare and paying for >80 additional services when furnished via telehealth	<a href="https://www.cms.gov/newsroom/fact-sheets/additional-backgroundsweeping-regulatory-changes-help-us-healthcare-system-address-covid-19-patient">https://www.cms.gov/newsroom/fact-sheets/additional-backgroundsweeping-regulatory-changes-help-us-healthcare-system-address-covid-19-patient</a> ; <a href="https://www.cms.gov/newsroom/fact-sheets/additional-backgroundsweeping-regulatory-changes-help-us-healthcare-system-address-covid-19-patient">https://www.cms.gov/newsroom/fact-sheets/additional-backgroundsweeping-regulatory-changes-help-us-healthcare-system-address-covid-19-patient</a>
April 22, 2020	HHS announcement for rural communities	Award of \$165 million to mitigate the effect of COVID-19 on rural communities under the CARES Act distributed to 1779 small rural hospitals to increase capacity for COVID-19 pandemic preparedness	<a href="https://www.hhs.gov/about/news/2020/04/22/hhs-awardsnearly-165-million-to-combat-covid19-pandemic-in-rural-communities.html">https://www.hhs.gov/about/news/2020/04/22/hhs-awardsnearly-165-million-to-combat-covid19-pandemic-in-rural-communities.html</a>
April 24, 2020	President Trump signed the bill into law: "Paycheck Protection Program and Health Care Enhancement Act" (COVID 3.5), \$480 billion	\$380 Billion for the Paycheck Protection Program and Small Business Administration; ~\$310 billion appropriated to refresh the Paycheck Protection Program, which covers forgivable government-backed private loans, provided employers retain their workforce; loans of ≤\$10 million to cover 8 weeks of expenses do not have to be paid back if ≥75% of the money is spent on rehiring and keeping employees; if not to be paid back, the loan has a 1% interest rate and must be repaid within 2 years; \$75 billion is additional funding to reimburse healthcare providers for healthcare-related expenses and lost revenues attributable to COVID-19; \$25 billion (in addition to \$100 billion appropriated under the CARES Act) for the HHS Public Health and Social Services Emergency Fund for necessary expenses to research, develop, validate, manufacture, purchase, administer, and expand capacity for COVID-19 tests	<a href="https://congress.gov/bill/116th-congress/house-bill/266">https://congress.gov/bill/116th-congress/house-bill/266</a> ; <a href="https://www.cbo.gov/publication/56338">https://www.cbo.gov/publication/56338</a> ; <a href="https://disasterloan.sba.gov/">https://disasterloan.sba.gov/</a>

**Table I.** Continued.

Date	Event	Relevant details	Website links
April 26, 2020	CMS Advance Payment Program to Part B suppliers suspended effective immediately	CMS will not be accepting new applications for the Advance Payment Program and will be reevaluating all pending and new applications for Accelerated Payments considering historical direct payments made available through HHS's Provider Relief Fund	<a href="https://hhs.gov/providerrelief">https://hhs.gov/providerrelief</a>
April 30, 2020	CMS issued another round of regulatory waivers and rule changes (interim rule with comment period)	Purpose is to increase diagnostic testing and access to medical care during the pandemic by increasing hospital capacity, supporting the healthcare workforce, reducing administrative burden, expanding access to telehealth, flexibility for accountable care organizations, delaying merit-based incentive payment system, qualified clinical data registry measure approval criteria	<a href="https://www.cms.gov/files/document/summary-covid-19-emergencydeclaration-waivers.pdf">https://www.cms.gov/files/document/summary-covid-19-emergencydeclaration-waivers.pdf</a> ; <a href="https://www.cms.gov/files/document/covid-medicare-and-medicaid-ifc2.pdf">https://www.cms.gov/files/document/covid-medicare-and-medicaid-ifc2.pdf</a> ; <a href="https://www.facs.org/covid-19/newsletter/050520/legislative-regulatory">https://www.facs.org/covid-19/newsletter/050520/legislative-regulatory</a> ; <a href="https://www.cms.gov/newsroom/press-releases/trump-administration-issues-second-round-sweeping-changes-support-us-healthcare-system-during-covid">https://www.cms.gov/newsroom/press-releases/trump-administration-issues-second-round-sweeping-changes-support-us-healthcare-system-during-covid</a>
May 12, 2020	The House of Representatives passed the Health and Economic Recovery Omnibus Emergency Solutions Act (H.R. 6800)	3 Trillion in funding for state and local governments, hospitals, and physicians, payments to individuals, and other assistance; not taken up by the U.S Senate	<a href="https://www.congress.gov/bill/116th-congress/house-bill/6800">https://www.congress.gov/bill/116th-congress/house-bill/6800</a>
May 28, 2020	The House of Representatives voted to pass H.R.7010 – Paycheck Protection Program Flexibility Act of 2020	Bill would extend the deadline for businesses to rehire employees and qualify for loans beyond June 30 to December 31, 2020; extend the due date for loan repayments beyond the current term of 2 years to 5 years; remove the rule requiring businesses to spend 75% of the loan on payroll costs and not >25% on other expenses	<a href="https://www.congress.gov/bill/116th-congress/house-bill/7010?overview=closed">https://www.congress.gov/bill/116th-congress/house-bill/7010?overview=closed</a>

CARES, Coronavirus Aid, Relief, and Economic Security; CMS, Centers for Medicare and Medicaid Services; COVID-19, coronavirus disease 2019; HHS, Department of Health and Human Services.

additional \$75 billion is intended for hospitals. It is uncertain at present whether a portion of these grants and loans will aid physicians directly without going through a healthcare system, which might subsidize or cover physician compensation.

### DECLINE IN OUTPATIENT VISITS AND PROCEDURES

The volume of outpatient visits has been reduced significantly since the pandemic started. A report collating 50 million visits representing >50,000 care givers from February 1, 2020 to April 16, 2020 in many different types of organizations showed a decline of almost 60% and a continued slowdown in April.<sup>4</sup> An online survey of 2533 U S. adults in the early part of

April 2020 showed that 72% of them or their physician had delayed care or chosen an alternative plan.<sup>5</sup> Furthermore, 32% of respondents had either made, or were in the process of making, adjustments to spending on their healthcare because of COVID-19. Consumers with chronic illnesses were even more likely to have modified their spending, with 20% planning to decrease the number of outpatient visits and 30% planning to skip or postpone elective procedures. Furthermore, in another survey of 185,000 patients, 40% of the patients with chronic conditions were either “worried or very worried” regarding the prospect of going to a medical facility and 10% actively avoiding receiving care.<sup>6</sup> This change has clearly affected vascular surgeons.

Surgical practices have seen a decrease in patient volume, especially because states have ordered a postponement of elective surgery. This has resulted in patients staying away from physician offices and the postponement or cancellation of nonurgent procedures. The Commonwealth Fund reported that visits to ambulatory practices had declined by 60% as of March 29, 2020, followed by a small rebound.<sup>7</sup> The decline in visits was largest for surgical and procedural practices.

### EFFECT OF TELEHEALTH

COVID-19 has resulted in an enormous increase in the use of telehealth for providing care. Of U.S. consumers, 46% have been using telehealth visits to replace the cancelled face-to-face visits compared with 11% in 2019.<sup>8</sup> Although the number of telehealth visits increased in ambulatory practice, they have only partially offset the decline in face-to-face visits. Surgical specialties have been the hardest hit, with surgery showing a 60% decline in visits. However, 5% of Americans or ~16.5 million have used telehealth for the first time during this crisis, and, of these, 37% had sought care for chronic diseases.<sup>5</sup> This aspect has provided good news beyond the pandemic and has allowed vascular specialists to provide closer monitoring of their patients who might be unable to attend face-to-face visits and, thereby, avoid preventable incidents.

The policy of Medicare to cover virtual visits has been a minor relief for some practices. Large employers of physicians were likely already offering telehealth visits, and even those visits have decreased. However, smaller practices that were not familiar with telemedicine might have found it difficult to start up information technology and workflows. Outpatient telemedicine programs in vascular surgery have been reported to reduce travel time and cost for patients.<sup>9</sup> Interstate licensing restrictions and noncompliance with the Health Insurance Portability and Accountability Act have been eased during this crisis. Income from telemedicine office visits, even when covered at regular office visit rates, will not cover overhead and staff payroll, because most practices do not have enough reserves.

### EFFECT ON EMPLOYEES

Many healthcare practices might be specifically designed to avoid layoffs, with options such as applying for funding under the CARES Act, diversifying practice groups, rotating schedules, and having staff (eg, medical assistants) work from home. Still, with the decreased patient volume at most physician practices, these actions might not be enough, and the practices might need to eventually furlough or lay off staff.<sup>10</sup> In addition to surgical specialists cutting their own salaries and benefits, surgical practices have two options in managing the significant loss of revenue: furlough or lay off all nonvital

employees. Both options implicate a host of legal issues that must be explored. Furloughing, depending on state law, allows the practice to offer temporary, unpaid leave. Temporarily furloughing employees allows the employee to apply for unemployment benefits and, possibly, to keep health insurance benefits. Before furloughing employees, practices must consider, at a minimum, their obligations with regard to their paid time-off policies, exemption issues under the Fair Labor Standards Act and state law, and—depending on the size of the employer—whether the furlough qualifies as an “employment loss” under the Worker Adjustment and Retraining Notification (WARN) Act. The WARN Act generally requires employers with  $\geq 100$  employees to provide  $\geq 60$  calendar days of notice to its employees before any plant closing or mass layoff, as defined by the statute. If the employees are furloughed for  $< 6$  months, the employees are not considered to have had an employment loss and the WARN Act notice requirements will not be triggered. However, it can be difficult to predict how long the furlough will be in effect.

If furloughing is not an option, practices can consider terminations. Terminations always carry risk to the practice, and any practice terminating employees should consult with their employment counsel before undertaking such measures. As with a furlough, the practice must review state and federal WARN Act requirements to determine their application to the layoff. Practices' decisions regarding which employees to lay off cannot be determined by any legally protected characteristic or in retaliation for employees legally protected activities. To combat discrimination and/or retaliations claims, the practice must have developed clear selection criteria for the layoff and apply it equally to all employees considered. Additionally, with the reinstatement of some elective procedures looming in some states, it could behoove practices to retain valued staff who could be difficult to replace.

### EFFECT ON PHYSICIAN EMPLOYMENT

Surgeons, depending on their employment contract, could find themselves in the same circumstances if COVID-19 persists. Intermountain Healthcare, which employs 2400 physicians and advanced practitioners, recently announced they are cutting physician pay, changing shift assignments, and requiring flexibility.<sup>11</sup> The nonprofit healthcare system maintained that 30% to 50% reduction in work-related work units occurred after the Utah Department of Health called for a pause on elective and nonessential services. Other employers have demanded a 50% reduction in pay, withheld bonuses for work already performed, and required the use of paid time off for employees to receive their monthly salary.<sup>12</sup> Several other employers have announced similar plans.<sup>13,14</sup> Newly hired surgeons who have already signed



**Table II.** Measures for mitigating the financial downturn and preparing for reopening during the COVID-19 pandemic

Action item	Objective	Details and tasks
Backlogged procedures and visits	Tracking of each cancelled visit, vascular laboratory test, and procedure; maintain patient contact	Maintain contact and anticipate timing of calling patients depending on easing of each state lockdown; use a newsletter for medical information and telephone calls for reassurance; be ready to prioritize visits or procedures depending on individual circumstances and staffing
Billing and banking	Prepare for and update coding changes and for postpandemic changes; meeting with bank	Update electronic medical records and train staff for new codes and billing related to COVID-19; review collection accounts; if financial hardship occurred, consider talking to vendors about adjusting rent, utilities, and other expenses; access CMS "advance" payments (Table I); access bank line of credit, if needed
Clinical database	If not previously instituted, maintain complete database to include patient diagnoses, date of cancellation, urgency, and a log of patient contact	Will help in prioritizing visits and procedures when lockdown has lifted
Financial forecasting	Review weekly or biweekly data trends on cancelled visits and procedures, charge lag times; monitor cash flows, accounts receivables, denials, and write-offs	Reduce fixed costs and supplies; calculate revenue decrease based on anticipated patient volume and cancelled visits and procedures to estimate cash flow and whether to approach lender if necessary or free up personal resources; use historical collection data to compare against current collections; adjust budget according to ramping up volumes; will help in staffing needs
Employees	Support staff; termination or furloughing, if necessary	Transparency with employees about practice and offering support; if some employees must laid off or furloughed, maintain contact and/or provide some incentives for them to return once business has reopened to minimize losing them to other practices; if staff termination required, consider furloughing first; use financial forecasting to consider the options for critical staff needed
New revenue	New sources of revenue	Consider the Paycheck Protection Program; contact CMS for "advance" payments (Table I); consider working in intensive care units if hospital has shortage of critical care physicians; review ancillary services such as noninvasive testing to determine whether they can be ramped up by offering services to referring physicians or other tenants
Reopening	Strategies to prepare for reopening	<a href="https://www.ama-assn.org/delivering-care/public-health/covid-19-physician-practice-guide-reopening">https://www.ama-assn.org/delivering-care/public-health/covid-19-physician-practice-guide-reopening</a> ; <a href="https://www.mgma.com/resources/operations-management/covid-19-medical-practice-reopening-checklist">https://www.mgma.com/resources/operations-management/covid-19-medical-practice-reopening-checklist</a> ; follow all state-mandated requirements for reopening; review and follow OSHA and CDC guidance
Telehealth	Use telehealth visits and learn the billing codes; monitor CMS and FCC sites for announcements	Determine which patient visits will be telehealth visits vs face to face; improve website and patient portal; to provide care, maintain contact with patients and document progress in database; monitor revenue from telehealth visits
Clinician well-being	Maintain personal well-being	Anxiety has been associated with COVID-19, even if for those not directly involved with infected patients; start or continue self-care while the crisis abates

*CDC*, Centers for Disease Control and Prevention; *CMS*, Centers for Medicare and Medicaid Services; *COVID-19*, Coronavirus disease 2019; *FCC*, Federal Communications Commission; *OSHA*, Occupational Safety and Health Administration.

employment agreements and had planned to start July 1, 2020 could also be facing a changing landscape. Employers could also be asking them to delay starting their employment and amending their employment agreements if the elective surgery volume has not increased at the institution.

Layoffs, furloughs, and salary reductions for physicians, in most situations, will be governed by the terms of the

physician's employment agreement. The terms and termination section of the employment contract must be read to gauge the exact circumstances applicable to the pandemic. Physicians should proceed with caution regarding all terminations because the nature of the termination could result in devastating noncompetition and insurance obligations. The contract could also allow or require the employer to pay the physicians for a

specified period.<sup>15</sup> A provision in the agreement referring to force majeure—or an act of nature—might apply to a pandemic and the resulting termination of employment.

For employed surgeons, the steps necessary to determine whether furlough or termination is applicable could be different for those healthcare workers deemed essential and involved in the care of patients with COVID-19. Surgeons deemed nonessential can either volunteer or be asked to care for patients with COVID-19 if first-line surgeons have become infected with the virus or have been too heavily burdened to continue. Most vascular surgeons are experienced in caring for critically ill patients and will have no problem being first-line caregivers. Others might need to be brought up to speed quickly by colleagues to step in and relieve first-line caregivers or to provide triage or urgent care. Surgeons require a methodical approach to endure and take steps to mitigate the harm to their practices (Table II).

Employers and physicians could bargain for and enter into contract amendments and new agreements based on the needs of both parties. The parties might choose to amend the terms of the employment contract or enter into a new contract to adapt to the changing conditions caused by the COVID-19 pandemic. Although employers might not renegotiate previously agreed on productivity metrics with surgeons who do not provide critical care and have continued to fall behind in their contractual obligations, physicians should address their productivity with their employer directly to understand whether other options are available to increase productivity such as additional locations or call hours.

### EFFECT ON PHYSICIAN COMPENSATION

Regarding compensation, whether the practice or hospital can readily reduce a physician's pay will depend on the terms of the contract. However, because most employment agreements include pay agreements determined by productivity, physicians might choose to renegotiate the terms. The federal government has temporarily issued waivers related to the Stark and Anti-kickback Laws during the COVID-19 pandemic. A detailed review of the employment contract and consultation with a healthcare or employment attorney might be needed if termination or furloughing becomes necessary.

An example of an academic medical center specialist compensation plan has often been referred to as a "XYZ" plan.<sup>16</sup> The base salary (X) is often the largest component and is tied to academic rank, historical salary, and/or market factors. The "Y" component is a supplement tied to teaching, research, and/or service efforts. Additional pay is tied to administrative positions such as directorship or clerkship directorships. The "Z" is the incentive component for clinical or nonclinical incentives for an individual, division, department, or institution and the component most likely to be affected by the

pandemic. In the base salary plus incentive model, if productivity does not meet contractual obligations, employers might continue to pay the base pay and incentive payments in advance for some time and then adjust compensation pursuant to the terms of the contract when the crisis has ended.

### STUDY LIMITATIONS

The true effect of the COVID-19 pandemic on surgeon practices will not be known for some time. Although several surveys have been referenced in our report, the estimates of foregone outpatient visits, reduction in work-relative value units, and compensation have relied on early reports and some have included a combination of surgical and nonsurgical specialties.

### CONCLUSIONS

The U.S. healthcare system and physicians are essential to the triumph of the United States over COVID-19. A strategic organizational plan, paired with flexibility and clear communication, will be imperative for healthcare systems and physicians as they navigate these unprecedented challenges. Even if the COVID-19 pandemic in the United States declines more quickly than initially projected, considerable uncertainty remains regarding the future for small businesses—including some physicians and small surgical practices and for surgeons employed in large groups. Although some states might now allow the resumption of elective surgery, it is more than likely that patients with vascular disease will still be reluctant to put themselves at risk unless the procedure is absolutely needed to relieve pain, prevent life- or limb-threatening consequences, or because of personal circumstances. Therefore, until healthcare systems and physician groups have cut up with the backlog of elective surgery, many surgeons could be faced with temporary downward adjustments in their compensation.

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