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Expected changes in physician outpatient interventional practices as a result of coronavirus disease 2019 and recent changes in Medicare physician fee schedule

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ABSTRACT

Objective: We examined the economic and practice effects of the coronavirus disease 2019 (COVID-19) pandemic and decreased Medicare physician payments on outpatient vascular interventional procedures.

Methods: A 21-point survey was constructed and sent electronically to the physician members of the Outpatient Endovascular and Interventional Society and the American Vein and Lymphatic Society. The survey responses were converted to a Likert scale and statistical analyses performed to examine the associations between the response variables and the characteristics and practice patterns of the physician respondents.

Results: A total of 165 physicians responded to the survey, of whom 33% were vascular surgeons, 18% were radiologists, and 15% were general surgeons. For slightly more than one half (55%), their interventional practice was limited to the office setting, with the remainder also performing procedures in an office-based laboratory (OBL), ambulatory surgery center (ASC), or hospital. Almost all respondents had performed superficial venous interventions, with slightly more than one third also performing either deep venous procedures and/or peripheral arterial interventions. The COVID-19 pandemic had affected 98% of the practices, with a staff shortage reported by 63%. The most-established physicians, those with the longest interval since training completion, were the least likely to have experienced staff shortages. Almost all (94%) the respondents expected that the recent Medicare payment changes will have a negative effect on their practice. Physicians with only an office-based practice were less likely to add a physician associate compared with those with an OBL ($P = .036$). More than one quarter reported that it was likely they would close or sell their interventional practice in the next 2 years and 43% reported they were planning to retire early. The anticipated ameliorative responses to the decreased Medicare physician payments included adding wound care (24%) or other clinical services (36%) to their practices, with the alternatives considered more by younger physicians ($P = .002$) and nonsurgeons ($P = .047$). Only 10% expected to convert their practices to an ASC or hybrid ASC/OBL (16%).

Conclusions: The emotional and economic effects of the COVID-19 pandemic and the decreased Medicare physician reimbursement rates for vascular outpatient interventionalists have been significant. Even greater challenges for the financial viability of office practices and OBLs can be expected in the near future if additional further planned cuts are put into effect. (*J Vasc Surg Venous Lymphat Disord* 2022;■:1-9.)

Keywords: COVID-19; Medicare; Outpatient; Physician fee schedule; Physician's office; Surgery

The coronavirus disease 2019 (COVID-19) pandemic had significant effects on the treatment of patients with vascular disease. Nationally, 91% of vascular surgeons had reported that elective surgical procedures were cancelled at their hospitals during the pandemic.¹ In contrast, nationally, 49% of the office-based laboratories

(OBLs) stayed open, with the regional variability ranging from 69% staying open in the Southeast to only 20% in the Midwest.¹ Because multiple hospitals had cancelled elective surgical procedures for weeks at a time, OBLs, ambulatory surgery centers (ASCs), and physician offices were providing care for both elective and emergency

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procedures. This off-loading of patient volume to outpatient centers provided critical health care access for patients, with previously demonstrated comparable efficacy and high patient satisfaction.^{2,3} However, a large decrease in the number of surgical procedures and office visits, associated with the higher expenses required to mitigate COVID-19 transmission, caused significant financial challenges to vascular practices.⁴ In addition, the COVID-19 pandemic has had substantial mental health effects on vascular surgeons, who already have a high risk of burnout, low career satisfaction, and low quality of life.⁵

In addition to the continuing medical effects of the COVID-19 pandemic, physicians with outpatient vascular interventional practices have sustained further financial challenges owing to the significant reductions in reimbursement by the Centers for Medicare and Medicaid Services (CMS), which were implemented in 2022.⁶ Although the initial proposals would have resulted in a 13.75% decrease in physician reimbursement, congressional action on December 9, 2021, provided additional funding, which reduced the proposed cuts to 3.75% by the end of 2022.⁷ Nonetheless, the final effect on vascular surgery has still been estimated to be an overall decrease in reimbursement of 7.4% by July 1, 2022, with cuts to arterial revascularization and outpatient venous procedure reimbursement in the office and OBL setting of >20% during the same period.^{8,9} A combination of budget neutrality for physician payments under Part B of Medicare and inflation have already had a cumulative effect of a 20% decrease in procedural reimbursement for vascular procedures during the past decade, with an even greater decrease of 42% for venous procedures.¹⁰

We undertook the present study to examine the economic and practice effects of COVID-19 and the decreases in the Medicare physician fee schedule on interventionalists performing vascular outpatient interventional procedures and the expected changes in their practices. A survey for this purpose was designed and sent to the members of two societies primarily involved in outpatient vascular interventions, the Outpatient Endovascular and Interventional Society (OEIS) and the American Vein and Lymphatic Society (AVLS).

METHODS

A 21-point survey was created ([Appendix](#), online only) and sent electronically via a Doodle poll (available at: [Doodle.com](#); Zurich, Switzerland) on February 1, 2022, to the physician members of the OEIS ($n = 350$) and AVLS ($n = 815$). Nonphysician members and physicians in training were excluded. E-mails were sent to the registered e-mail address of the members. Physicians who were members of both societies ($n = 27$) were electronically limited to only one response and were linked to the society through whose request they had first responded. Repeat e-mail requests were sent to nonresponders for a total of five

ARTICLE HIGHLIGHTS

- **Type of Research:** A prospective survey
- **Key Findings:** A survey of 165 physicians performing outpatient vascular interventions in the office, office-based laboratory, or ambulatory surgery center setting found that 98% had been affected by the coronavirus disease 2019 pandemic, and 94% expected that the recent cuts in Medicare physician payments will have a negative effect on their practice.
- **Take Home Message:** Both the coronavirus disease 2019 pandemic and the recent cuts in Medicare physician payments for office and office-based laboratory interventional procedures have had negative effects on physician practices.

requests during a 2-week period. All responses were anonymous, and confidentiality was maintained throughout the survey process. The research committee and the executive committee of the OEIS reviewed and approved the survey. Informed consent and institutional review board approval were not deemed necessary owing to the anonymous nature of the survey.

Statistical analyses were performed using SAS software, version 9.4 (SAS Institute Inc, Cary, NC). Multivariable logistic regression was used to examine the associations between the response variables and explanatory variables, which included the characteristics and practice patterns of physicians. The survey responses were converted to a Likert scale of 1 through 5 (very likely, 5; likely, 4; neither likely nor unlikely, 3; unlikely, 2; very unlikely, 1). The final multivariable logistic regression model was determined using stepwise selection. The P value for the Hosmer-Lemeshow goodness-of-fit test was 0.44, indicating that the model adequately fit the data. The same set of explanatory variables was included in a series of multiple linear regression models with the response outcome variables, which included the COVID-19 impact, Medicare payment impact, adding physician associates, closing the practice, selling the practice, becoming an employee, retiring, converting to an ASC, converting to an ASC/OBL, adding wound care, adding other services, and a summary score of future personal and practice changes. The final models for each response variable were determined by the significance of the model and the model selection criteria, the Akaike information criterion.¹¹ All the explanatory variables were included in the initial model and were removed based on the model Akaike information criterion. The final models satisfied the assumptions of normality and constant variance. The descriptive data are expressed as the mean \pm standard deviation. The analytical results were considered significant when the P values were $\leq .05$ or the 95% confidence intervals for the odds ratios did not contain 1.

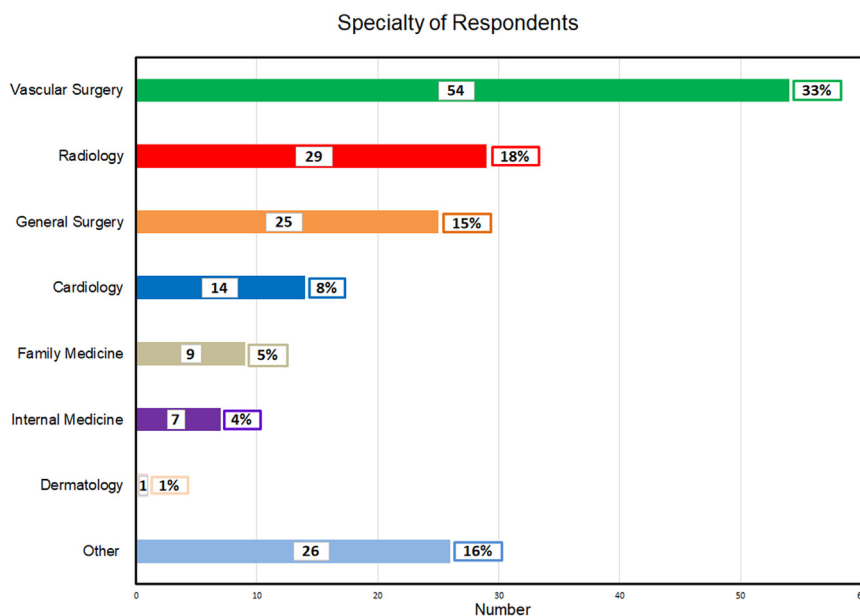


Fig 1. Specialty of physician respondents to the survey.

RESULTS

Physician and practice characteristics. A total of 165 physicians (14%) responded to the survey, requiring 5.8 ± 0.0 minutes for completion. Of the 165 respondents, 3 had declined to identify their society membership, 38 (23%) belonged to the OEIS, and 124 (77%) to the AVLS, with 10% belonging to both societies, reflecting a representative distribution of the societal physician memberships of 350 and 815, respectively. Those who were members of both societies were included in the society through which they had responded to the survey. Of the respondents, 33% were vascular surgeons, 18% were radiologists, and 15% were general surgeons (Fig 1). The 16% self-described as other included 15 vein/phlebology specialists, 4 cardiothoracic surgeons, 3 emergency medicine physicians, and 1 each in vascular medicine, cosmetic surgery, preventive medicine, and obstetrics-gynecology.

Slightly more than one half of the respondents (90 of 165; 55%) had had their interventional practice limited to the office setting and 12 (7%) had performed procedures solely in an OBL, 2 (1%) just in an OBL/ASC, and 1 (0.7%) solely in the hospital outpatient setting (Table I). Multiple practice locations were reported by 60 (36%), including office plus OBL by 38 (23%), office plus OBL/ASC by 22 (13%), hospital plus OBL or OBL/ASC by 26 (16%), and office plus hospital by 3 (2%). Reflecting most office-based practitioners, more than one half were single-physician practices. Almost all respondents (99%) were performed superficial venous interventions, with slightly more than one third performing deep venous procedures and arterial interventions (Table I). Almost one half of the respondents (71 of 165; 43%)

were performing more than one intervention type, with the most common being superficial venous combined with both deep venous and peripheral arterial (51 of 165; 31%). Superficial venous and cardiac interventions were performed by five respondents (3%), deep venous interventions by six (4%), and other combinations by nine respondents (5%).

Reflecting the memberships of the two societies surveyed, 90% of the members were in private practice as an owner or a partner, and more than one half were >20 years out of training, with ≥ 16 years of experience with interventional procedures (Table I).

Survey results. A staff shortage was reported by 103 of 163 respondents (63%), with 70% reporting specific difficulties in hiring and retaining nursing staff (50%), administrative office staff (31%), and vascular technologists (28%) mostly because of salary expectations. The COVID-19 pandemic was reported to have affected the respondents' practice in 98% of cases, with two of the four who had reported no effects being hospital-employed physicians (Fig 2, A). Similarly, 94% of physicians expected that the recent Medicare payment changes will have a negative or very negative effect on their OBL practice (Fig 2, B). Two thirds (112 of 165; 68%) thought it unlikely or very unlikely they would add physician associates to their practice in the next 2 years. In contrast, more than one quarter thought it likely or very likely they would close or sell their interventional practices in the next 2 years (Fig 3). In addition, 17% expected to become a hospital or group practice employee and 43% were likely or very likely to retire earlier than planned (Fig 4).

Table I. Practice and physician characteristics

Characteristic	No. (%)
Highest interventional practice type ^a	
Office-based practice	90 (55)
OBL	46 (28)
Hybrid OBL/ASC	24 (15)
Hospital outpatient	4 (2)
ASC only	0 (0)
Physicians in practice, No.	
1	81 (53)
2	25 (16)
3	11 (7)
4	6 (4)
5	8 (5)
6	22 (14)
Clinical practice	
Venous, superficial	164 (99)
Venous, deep	63 (38)
Peripheral arterial	60 (36)
Cardiac	12 (7)
Employment model	
Practice owner	125 (76)
Private practice, not the owner	23 (14)
Multispecialty group employee	9 (5)
Hospital employee	8 (5)
Interval since training, years	
1-5	9 (5)
6-10	7 (4)
11-15	29 (18)
16-20	23 (14)
≥20	96 (59)
Interventional practice duration, years	
1-5	16 (10)
6-10	24 (15)
11-15	37 (23)
16-20	30 (18)
≥20	56 (34)

ASC, Ambulatory surgery center; OBL, office-based laboratory.
^aFor physicians performing interventional procedures at multiple locations, the highest level of practice location was ranked as follows: (1) OBL/ASC, (2) ASC, (3) OBL, (4) hospital, and (5) office.

Converting to an ASC in the next 2 years was seen as likely by only 10% (16 of 154) and to a hybrid ASC/OBL model by 16% (23 of 143; [Supplementary Figs 1 and 2](#), online only). More respondents were likely to add wound care (32 of 131; 24%) or other services (51 of 140; 36%) to their practice ([Supplementary Figs 3 and 4](#), online only). Other services included cosmetic/aesthetic procedures, interventional oncology, lymphedema care, and MedSpa services. The responses to the open comments section

primarily expressed deep concerns about the financial viability of their OBL and clinical practices in the context of the recent CMS reimbursement changes and anticipated decreases in physician payments in the nonfacility outpatient setting.

Multivariable analysis. A multivariable analysis was performed to ascertain the potential relationships between the clinical practice and physician characteristics and expected changes due to the COVID-19 pandemic and CMS physician fee schedule implemented in January 2022. The most established physicians were the least likely to have experienced staff shortages. For each category increase since training completion ([Table I](#)), the odds ratio of a staffing shortage was 0.53 or a decrease of 47%. The odds ratios for those in private practice, multi-specialty groups, or hospital employees increased compared with a practice owner but the difference did not reach statistical significance. A significant association was found between the practice type and the likelihood of adding additional physicians within the next 2 years ($P = .036$). Office-based practices were less likely to add a physician associate, and those with an OBL were more likely to do so ([Table II](#)). Adding other clinical services was likely by older physicians and surgeons compared with cardiologists and radiologists ([Table II](#)). An expected practice change, a composite outcome of converting to an ASC or ASC/OBL and/or adding wound care or other services, was found to be less likely in an office-based practice ($P = .0088$) than in an OBL and was reported more likely by younger physicians ([Table II](#)).

DISCUSSION

During the past 15 years, a significant increase has occurred in the performance of interventional vascular procedures performed in the office, OBL, and ASC location. It has been estimated that there are now >750 OBLs and >5000 ASCs in the United States, far surpassing the number of hospitals and accounting for most outpatient surgical procedures.^{12,13} This reflects the safety and efficacy of these procedures in the nonfacility setting, in both a private practice and an academic situation, with clinical results equivalent to, or better than, procedures performed in the hospital.^{2,3,14} The AVLS is the largest professional society focused on venous care, and the OEIS is a multidisciplinary organization, with members performing outpatient venous, arterial, and cardiac outpatient procedures primarily in the OBL setting. As such, a survey of the members of these two societies has provided valuable insights on the effects of both COVID-19 and recent Medicare reimbursement physician payment policies on outpatient office-based vascular interventions.

The survey respondents represent a broad distribution of specialists ([Fig 1](#)) working in the office, OBL, and hybrid OBL/ASC environments ([Table I](#)). Their clinical practice

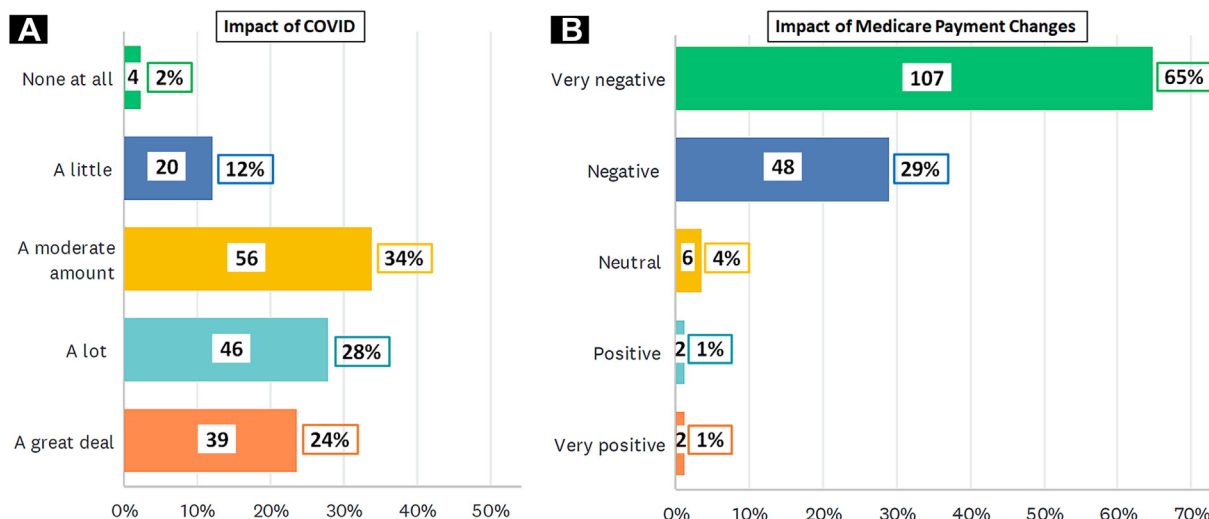


Fig 2. A, How significantly has coronavirus disease 2019 (COVID-19) affected your practice? **B,** How much of an effect will the Medicare payment changes have on your office-based laboratory (OBL)?

similarly reflects a focus on superficial and deep venous interventions and peripheral arterial procedures. With most being single-physician independent private practices with >16 years since training completion and a similar length of experience performing interventional procedures, the respondents were directly involved in patient care during the COVID-19 pandemic and have experienced the associated financial challenges. More importantly, as private independent physicians, they have also been directly responsible for managing the practice, staff recruitment and retention, and

maintaining the financial viability of their practices. It is, therefore, relevant to note that 98% reported that COVID-19 had affected their practice. This is very similar to the Medical Group Management Association survey,¹⁵ which reported that 97% of 724 medical practices had been negatively affected, with a reduction in income reported by 79% of plastic surgeons in private practice.¹⁶ A staff shortage was reported by two thirds of our respondents, with specific difficulties seen in hiring and retaining nursing staff, administrative office staff, and vascular technologists, mostly owing to higher salary

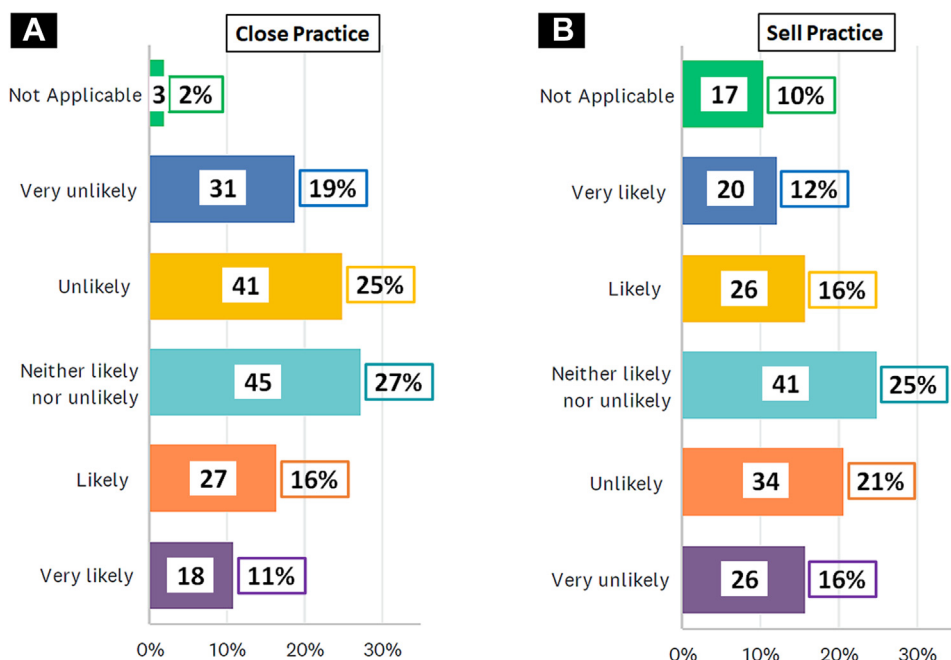


Fig 3. A, What is the likelihood of closing your interventional practice in the next 2 years? **B,** What is the likelihood of selling your interventional practice in the next 2 years?

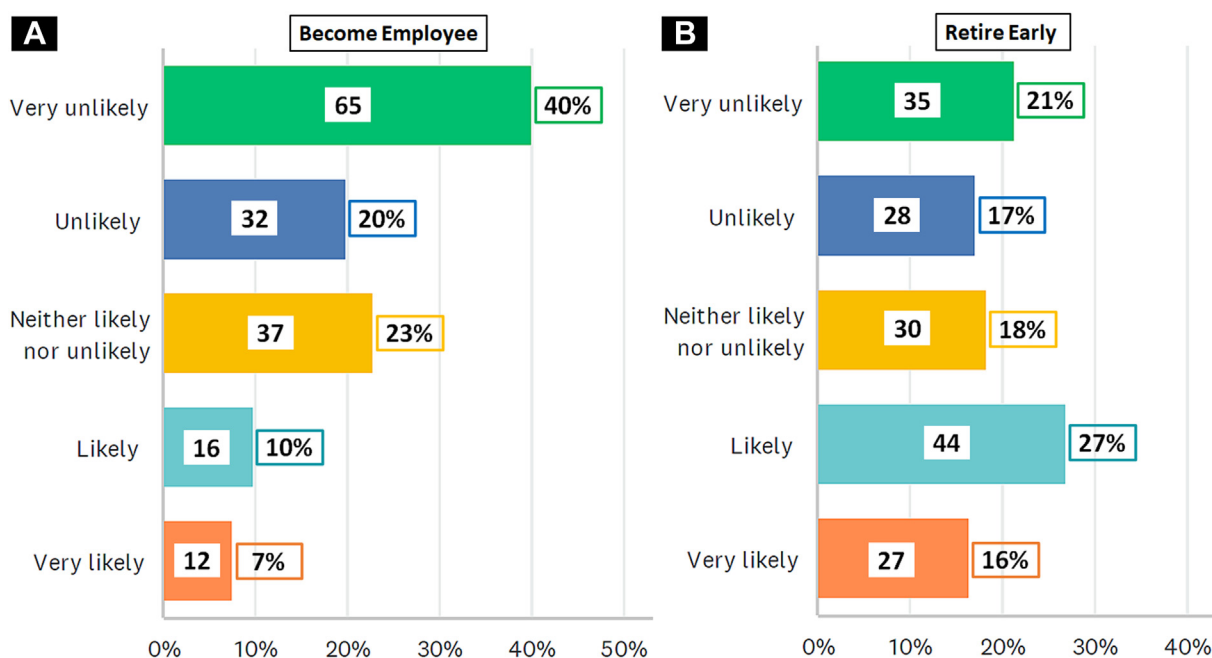


Fig 4. A, What is the likelihood of you becoming a hospital or group practice employee in the next 2 years? **B,** What is the likelihood of you retiring earlier than planned?

expectations. Such recruitment and retention difficulties could have resulted from the increased stress encountered during COVID-19 by health care workers and the desire to decrease their work hours, possibly owing to increased governmental unemployment benefits.¹⁷ These have resulted in both professional and economically stressful effects on outpatient vascular proceduralists. The most established physicians were the least likely to have experienced staff shortages, possibly owing to longer physician–staff relationships and stronger financial status.

With the COVID-19 pandemic not yet completely resolved, OBLs and office practices have faced a new and additional economic challenge owing to the decreased payments with the new physician fee schedule from CMS implemented in January 2022.^{6,18} Although ameliorated to some degree by congressional action, by July 1, 2022, the physician payments under Medicare Part B will have decreased by 0.75% owing to the conversion factor required for evaluation/management code changes, a cut of 2% for sequestration required by the Budget Neutrality Act of 2011 and an additional cut of 1% for clinical labor update costs (with additional 1% annual cuts for the subsequent 3 years). This overall 3.75% decrease, however, will not be evenly distributed and will disproportionately affect interventional practices with high equipment and supply costs.⁸ Thus, cuts to arterial revascularization and outpatient venous procedure reimbursement in the office and OBL setting have been estimated to reach >20%.⁹ The Society for Vascular Surgery has estimated that a \$44

million decrease in payments will occur for outpatient vascular interventions in 2022.¹⁹ Although physicians are facing these cuts, a 3.2% increase in payment to hospitals and 8.5% increase to Medicare Advantage insurers have been planned, neither of which are bound by the budget neutrality rules affecting physicians.^{20,21} In this context, it is not surprising that 94% of the respondents to our survey expected that the recent Medicare payment reductions to physicians will have negative effects on their practice (Fig 2, B). More than one quarter reported it was likely that they will close or sell their interventional practice in the next 2 years (Fig 3), with 17% expecting to become a hospital or group practice employee (Fig 4). Such an expectation would be a continuation of the present trends; by January 2022, fully 74% of all physicians in the United States were employed by hospitals or corporate entities, a 19% increase during the previous 3 years.²² However, such practice consolidation leads to greater cost and expenditures for health care and decreased access to care, especially for marginalized underserved populations who might not be able to afford the higher copays in the nonoffice setting.^{23,24} Changes in Medicare reimbursement for dialysis access led to the closing of 20% of dialysis centers in 2017.²⁵ Furthermore, the economic effect of Medicare reimbursement decreases will not be limited to just the care of Medicare patients. Private commercial insurers will follow the lead of Medicare in their payment policies.²⁶

As a result of these decreases in reimbursement, two thirds of the survey respondents thought it unlikely that

Table II. Multivariable analysis of effects of coronavirus disease 2019 (COVID-19) and Medicare reimbursement changes

Variable	Staff shortage ^a	Add physician ^b	Add other services ^c	Practice change ^d
Specialty	NS	NA		NS
Surgery (reference)				
Cardiology			−0.886 (0.0153)	
Medical			0.090 (0.7863)	
Other			0.143 (0.5953)	
Radiology			−0.578 (0.0468)	
Society membership	NS	NA		
AVLS (reference)				
OEIS			−0.114 (0.6249)	1.535 (0.1823)
Practice type	NS	<i>P</i> = .036	NS	
Office-based practice (reference)		75		
OBL		98		−2.618 (0.0088)
Hybrid OBL/ASC		81		
Hospital outpatient		83		−2.644 (0.1219)
Physicians in practice	1.16 (0.93-1.44)	NA	0.002 (0.9618)	NS
Clinical practice	NS	NA	NS	NS
Venous, superficial (reference)				
Venous, deep				
Peripheral arterial				
Cardiac				
Employment model		NA	NS	NS
Practice owner (reference)				
Hospital employee	1.86 (0.32-10.85)			
Multispecialty group employee	2.70 (0.49-14.92)			
Private practice, not owner	4.49 (0.91-22.20)			
Interval since training	0.53 (0.34-0.85)	NA	0.361 (0.0018)	0.677 (0.0170)
Interventional practice duration	1.42 (0.97-2.08)	NA	−0.158 (0.1270)	NS

ASC, Ambulatory surgery center; AVLS, American Vein and Lymphatic Society; NA, not applicable; NS, not significant; OBL, office-based laboratory; OEIS, Outpatient Endovascular and Interventional Society.

^aData presented as odds ratios (95% confidence intervals) from logistic regression.

^bKruskal-Wallis test with mean rank score when *P* < .05.

^cEstimated coefficient with *P* value from multiple linear regression.

they would add other physicians to their practices. This is consistent with a recent survey of 92 medical groups, of which 42% expect to implement a delay or have a hiring freeze.²⁷ Office-based practices were less likely to add a physician associate and those with an OBL were more likely to do so (Table II), probably because of the stronger financial status of the latter group. Compensating for these financial changes, most physicians anticipated expanding their clinical practice by adding wound care or other services (Supplementary Figs 3 and 4, online only). Older physicians and surgeons were less likely to do so, possibly because they were already providing additional services or saw less of a long-term need to do so. The need to expand one's scope of practice to account for decreased reimbursement has also been espoused by other specialties.^{16,28} However, only a few anticipated adding an ASC or hybrid ASC/OBL, likely

because of the significant conversion costs and regulatory burdens.

Among the survey's most concerning results were those indicating that 16% of physicians reported it was very likely, and another 27% likely, that they will retire early. This is of great concern, because previous studies have demonstrated that an expressed intent to leave has correlated well with actual departures.²⁸⁻³⁰ In a national survey of >20,000 health care providers, 24% of physicians and 33% of midlevel providers indicated they were likely to leave their current practice within 2 years because of COVID-19–related stress, with those in practice for >20 years having a 2.5 times greater risk.¹⁷ This is not dissimilar to our survey's finding that 27% of respondents were likely to close or sell their practice within 2 years (Fig 3), with an even higher percentage planning on early retirement (Fig 4). Similar results have been

found from surveys of primary care physicians, lending credence to the expected exacerbation of physician shortages in the next 2 years.³¹ The effect on vascular surgeons and related specialties performing outpatient vascular procedures could also be problematic if it discourages medical students from entering this field of practice.

As with many surveys, one limitation of the present study was that the reported information was based on a response rate from a few subjects. Therefore, the possibility exists of a response bias in that those who responded might have been more likely to have been negatively affected by COVID-19 or the changes in reimbursement policy. Similarly, the respondents' actions could differ from their stated expectations. However, in the presence of high inflation and the additional proposed CMS cuts in 2023, the financial repercussions could be even worse than the respondents expected when completing the survey.

CONCLUSIONS

The emotional and economic effects of the COVID-19 pandemic on physicians have been significant. For vascular proceduralists, the additive effects of the cuts in reimbursement instituted by Medicare in 2022 portend even greater challenges for the financial viability of office practices, OBLs, and OBL/ASC. The requirement for budget neutrality in Medicare Part B payments for physicians, no adjustment for inflation in physician payments since 2001, and the annual inflation rate now at 9.1%, a 40-year high,³² indicate impending economic hardships for physicians providing outpatient vascular care in the nonfacility setting. It appears that structural changes in the CMS physician reimbursement calculations are required to prevent irreparable harm and allow for continued viable independent private practice care of vascular patients.

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AUTHOR CONTRIBUTIONS

Conception and design: JB, KJ, CP, SD

Analysis and interpretation: JB, KJ, CC

Data collection: JB

Writing the article: JB, KJ, CC

Critical revision of the article: CP, SD

Final approval of the article: JB, KJ, CC, CP, SD

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Additional material for this article may be found online at www.jvsvenous.org.

APPENDIX (online only).**Effect of Medicare payment changes questionnaire**

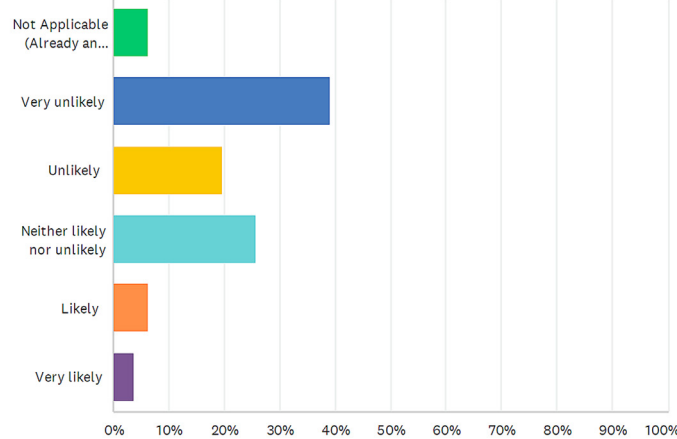
The changes in Medicare payment recently enacted and effective on January 1, 2022, have the potential to significantly affect office-based laboratories (OBLs) and procedural centers. As a member of OEIS/AVLS, we would like to invite you to participate in a survey through which we wish to evaluate the real-world effects of these changes.

Your confidentiality is ensured, and all answers will remain completely anonymous. Your participation is voluntary, but we very much encourage your contribution.

1. Select your specialty
 - Vascular surgery
 - Radiology
 - Cardiology
 - General surgery
 - Family medicine
 - Internal medicine
 - Dermatology
 - Other _____
2. Which of the following societies are you a member of
 - OEIS
 - AVLS
3. Do you work in an (check all that apply; except for office-based practices, all others require presence of radiographic fluoroscopy units):
 - Office-based practice
 - OBL
 - Ambulatory surgery center (ASC)
 - Hybrid OBL/ASC
 - Hospital outpatient
4. Are you a
 - Practice owner
 - Private practice but not the owner
 - Multispecialty group employee
 - Hospital employee
5. Select all the procedures that you perform:
 - Venous, superficial
 - Venous, deep
 - Peripheral arterial
 - Cardiac
6. How many years has it been since you finished your training?
 - 1-5 years
 - 6-10 years
 - 11-15 years
 - 16-20 years
 - ≥20 years
7. How many years have you worked in an interventional practice?
 - 1-5 years
 - 6-10 years
 - 11-15 years
 - 16-20 years
 - ≥20 years
8. How many physician associates are in your interventional practice?
 - 2
 - 3
 - 4
 - 5
 - ≥6
9. Are you experiencing a staff shortage?
 - Yes
 - No
 - If yes, please describe _____
10. How significantly has COVID-19 affected your practice?
 - Not at all
 - A little
 - A moderate amount
 - A lot
 - A great deal
11. How much of an impact will the Medicare payment changes have on your OBL?
 - Very negative
 - Negative
 - Neutral
 - Positive
 - Very positive
12. What is the likelihood of adding physician associates to your interventional practice in the next 2 years?
 - Very unlikely
 - Unlikely
 - Neither likely nor unlikely
 - Likely
 - Very likely
13. What is the likelihood of closing your interventional practice in the next 2 years?
 - Very unlikely
 - Unlikely
 - Neither likely nor unlikely
 - Likely
 - Very likely
 - Not applicable
14. What is the likelihood of selling your interventional practice in the next 2 years?
 - Very unlikely
 - Unlikely
 - Neither likely nor unlikely
 - Likely
 - Very likely
 - Not applicable
15. What is the likelihood of you becoming a hospital or group practice employee in the next 2 years?
 - Very unlikely
 - Unlikely
 - Neither likely nor unlikely
 - Likely
 - Very likely
16. What is the likelihood of you retiring earlier than planned?
 - Very unlikely
 - Unlikely
 - Neither likely nor unlikely

- Likely
Very likely
17. If not already, what is the likelihood of converting to an ASC in the next 2 years?
Very unlikely
Unlikely
Neither likely nor unlikely
Likely
Very likely
Not applicable (already an ASC)
18. If not already, what is the likelihood of converting to an ASC/OBL model in the next 2 years?
Very unlikely
Unlikely
Neither likely nor unlikely
Likely
Very likely
- Not applicable (already an ASC/OBL)
19. If not already, are you likely to add wound care to your practice?
Very unlikely
Unlikely
Neither likely nor unlikely
Likely
Very likely
Not applicable (already offer wound care)
20. Are you likely to add any other services to your practice?
Very unlikely
Unlikely
Neither likely nor unlikely
Likely
Very likely
If likely, please specify the service _____
- Additional comments: _____

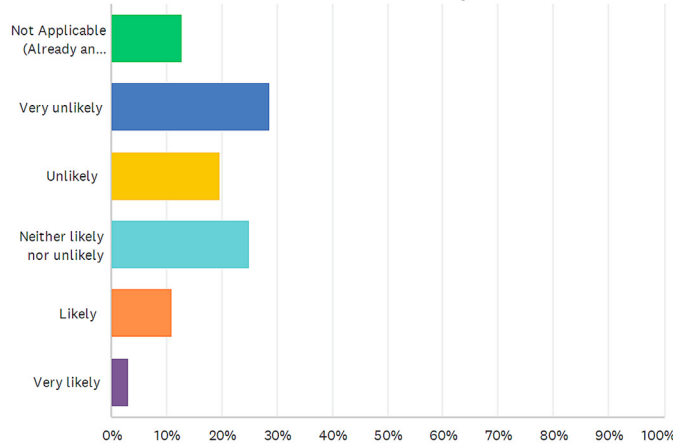
If not already, what is the likelihood of converting to an Ambulatory Surgery Center (ASC) in the next two years?



ANSWER CHOICES	RESPONSES	
Not Applicable (Already an ASC)	6.10%	10
Very unlikely	39.02%	64
Unlikely	19.51%	32
Neither likely nor unlikely	25.61%	42
Likely	6.10%	10
Very likely	3.66%	6
TOTAL		164

Supplementary Fig 1 (online only). Likelihood of converting to an ambulatory surgery center (ASC).

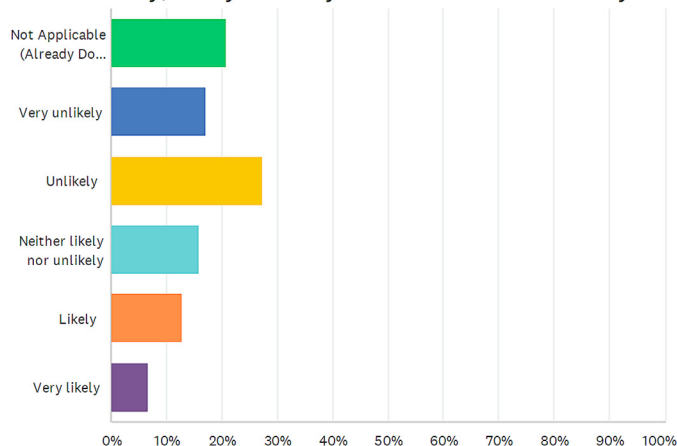
If not already, what is the likelihood of converting to an ASC/OBL model in the next two years?



ANSWER CHOICES	RESPONSES	
Not Applicable (Already an ASC/OBL)	12.80%	21
Very unlikely	28.66%	47
Unlikely	19.51%	32
Neither likely nor unlikely	25.00%	41
Likely	10.98%	18
Very likely	3.05%	5
TOTAL		164

Supplementary Fig 2 (online only). Likelihood of converting to an ambulatory surgery center/office-based laboratory (ASC/OBL) model.

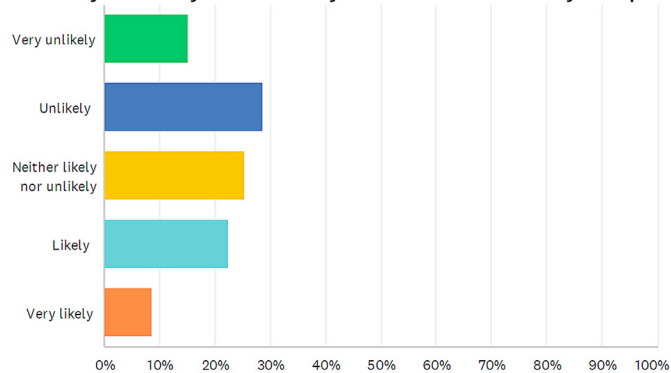
If not already, are you likely to add wound care to your practice?



ANSWER CHOICES	RESPONSES
Not Applicable (Already Do Wound Care)	20.61% 34
Very unlikely	16.97% 28
Unlikely	27.27% 45
Neither likely nor unlikely	15.76% 26
Likely	12.73% 21
Very likely	6.67% 11
TOTAL	165

Supplementary Fig 3 (online only). Likelihood of adding wound care to the practice.

Are you likely to add any other services to your practice?



ANSWER CHOICES	RESPONSES
Very unlikely	15.15% 25
Unlikely	28.48% 47
Neither likely nor unlikely	25.45% 42
Likely	22.42% 37
Very likely	8.48% 14
TOTAL	165

Supplementary Fig 4 (online only). Likelihood of adding any other services to the practice.