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The CAP Practice Leader Survey is a primary source of basic
data on pathology practices. The survey supplements the
CAP Practice Characteristics Survey and was most recently
conducted in 2019. Whereas the Practice Characteristics
Survey is fielded to individual pathologists, the Practice
Leader Survey targets practice leaders—those in leadership
or administrative roles with specific knowledge of the
practice's financial, operational, and billing information.
The survey was designed to elicit one—and only one—
response from each pathology practice in the United States.

The 2021 survey asked questions about practice
demographics (including questions on practice structure,
case volume, and staffing levels), case mix revenue and
sources (including questions on both AP and non-AP services);
hiring and staffing; market and regulatory issues (including
questions on participation in accountable care organizations/
alternative payment models (ACOs/APMs), problems with
coverage and payment, and factors that are expected to
affect their practice in the next few years).

The survey was fielded in June 2021. Invitations were sent
to all board-certified pathologists with five or more years
in practice with instructions that the survey should only
be completed by the individual best suited to represent
their practice. In total, 13,285 pathologists were invited to
participate, and 375 practice leaders participated in the
survey constituting an overall response rate of 2.8% and
a 3.4% response rate for members. These respondents
represented pathology practices in 44 states.

Sections of the Report

This report is divided into six sections:

A. Practice Demographics
B. Trends in Practice Consolidation
C. Services Provided and Revenues Received
D. Pathologist Staffing and the Job Market for Pathologists
E. Business, Regulatory, and Advocacy Issues Affecting Pathology Practices
F. Practices COVID-19 Related Activities

An appendix provides additional data from the survey.
Practice Demographics

This section summarizes data on respondent demographics, including:

- Percent of survey respondents, by primary practice setting
- Types of pathology services provided by respondents
- Number of laboratory tests processed in the prior year
- Practice ownership structure, by practice setting
- Changes in pathologists’ equity ownership stakes over the last two years
- Extent to which the practice provides services in rural areas, and
- Whether the practice is part of an Integrated Delivery Network
375 practice leaders responded to the 2021 Practice Leader Survey, compared to 341 responses in the 2018 survey. Although there are no rigorous data on the number of pathology practices in the United States, experts from the CAP estimate that this number is between 1,000 and 1,200.

In both the 2021 and 2018 surveys, about 70% of respondents were from hospital-based practices. About 25% were based in academic medical centers (AMCs), and 18% were based in non-academic hospitals that are owned, affiliated with, or managed by AMCs. In 2021, 25% of respondents’ practices were based in non-academic hospitals that were unaffiliated with academic medical centers, a drop from 30% of respondents in 2018.

Seventeen percent provide the majority of their services in independent laboratories, identical to the 2018 Practice Leader Survey.

* Independent laboratories are defined as stand-alone laboratories, reference laboratories, and specialized laboratories.

** “Other” include bloods centers/blood banks; central laboratories (AP/CP) for multiple hospitals; forensic laboratories/autopsy centers; and physician office laboratories (not pathologist-owned). Each of these settings account for 2% or fewer of total respondents. “Other” also includes four other miscellaneous responses.

Most respondents (82%) reported that their practices provided both Anatomic Pathology (AP) and Clinical Pathology (CP) services.

Fourteen percent of respondents' practices are AP-only, and 4% are CP-only.

Source: Q9—What services does your practice provide?
Practice Demographics

Figure A-3: Types of Pathology Services Provided, by Setting

<table>
<thead>
<tr>
<th>Setting</th>
<th>n</th>
<th>Both anatomic and clinical pathology</th>
<th>Anatomic pathology only</th>
<th>Clinical pathology only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>345</td>
<td>82%</td>
<td>14%</td>
<td>4%</td>
</tr>
<tr>
<td>Academic medical centers (AMC)</td>
<td>87</td>
<td>92%</td>
<td>8%</td>
<td>0%</td>
</tr>
<tr>
<td>Non-academic hospitals, managed, or affiliated with an AMC</td>
<td>61</td>
<td>97%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Non-academic hospitals unaffiliated with AMC</td>
<td>89</td>
<td>97%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Government-owned facilities</td>
<td>19</td>
<td>89%</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td>Independent laboratories</td>
<td>58</td>
<td>53%</td>
<td>41%</td>
<td>5%</td>
</tr>
<tr>
<td>Other*</td>
<td>31</td>
<td>35%</td>
<td>35%</td>
<td>29%</td>
</tr>
</tbody>
</table>

- Relatively few hospital-based pathology practices—whether academic or non-academic—do not provide both AP and CP services. Only 8% of respondents’ practices based in academic medical centers—and only 2% of respondents’ practices based in non-academic hospitals—are AP-only. Only 1% or fewer are CP-only.
- Among respondents’ practices based in independent laboratories, a larger share—41%—are AP-only, but none were CP-only.

* “Other” includes blood centers/blood banks (6); central laboratories for multiple hospitals (7); forensic laboratories/autopsy centers (5); physician office laboratories (not pathologist-owned) (7), and other miscellaneous settings (6).

Source: Q9—What services does your practice provide?
**Figure A-4: Number of Clinical Pathology Tests Processed in the Prior Year by Laboratories Owned and/or Directed by Respondents’ Practices, 2020 vs. 2017**

<table>
<thead>
<tr>
<th># of CP Tests Processed</th>
<th>2020 (n=290)</th>
<th>2017 (n=247)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 250,000</td>
<td>13%</td>
<td>28%*</td>
</tr>
<tr>
<td>250,000-499,999</td>
<td>12%</td>
<td>14%**</td>
</tr>
<tr>
<td>250,000-499,999</td>
<td>30%</td>
<td>27%</td>
</tr>
<tr>
<td>2,000,000-9,999,999</td>
<td>36%</td>
<td>24%</td>
</tr>
<tr>
<td>10,000,000 or more</td>
<td>8%</td>
<td>7%</td>
</tr>
</tbody>
</table>

*In the 2018 Practice Leader Survey, this category was “<200,000 CP tests processed”.

**In the 2018 Practice Leader Survey, this category was “200,001–500,000 CP tests processed”.

• In 2021, only 13% of respondents’ laboratories processed 250,000 or fewer CP tests in the prior year, compared to 28% that processed 200,000 or fewer CP tests in the prior year in 2018.

• By contrast, 36% processed between 2,000,000 and 9,999,999 CP tests in the prior year, compared to only 24% in 2018.

**Figure A-5: Number of Surgical and Non-gyn Cytopathology Accessions Processed in the Prior Year by Laboratories Owned and/or Directed by Respondents’ Practices, 2021 vs. 2018**

<table>
<thead>
<tr>
<th># of Surgical and Non-Gyn Cytopathology Accessions Processed</th>
<th>2021 (n=328)</th>
<th>2018 (n=247)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1,000</td>
<td>8%</td>
<td>19%</td>
</tr>
<tr>
<td>1,000-9,999</td>
<td>23%</td>
<td>29%</td>
</tr>
<tr>
<td>10,000-24,999</td>
<td>23%</td>
<td>20%</td>
</tr>
<tr>
<td>25,000-49,999</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>50,000-99,999</td>
<td>16%</td>
<td>31%</td>
</tr>
<tr>
<td>100,000 or more</td>
<td>9%</td>
<td></td>
</tr>
</tbody>
</table>

• As with clinical pathology tests, there was a substantial decline from 2018 to 2021 in the share of respondents’ laboratories that processed small quantities of surgical and non-gyn cytopathology accessions in the prior year.

• In 2021, only 8% of respondents’ laboratories processed fewer than 1,000 such accession in the prior year, and only 23% processed 1,000-9,999 accessions. By contrast, in 2018, 19% of respondents’ laboratories processed fewer than 1,000 accessions, and 29% processed 1,000-9,999 accessions.

• Almost half of respondents’ laboratories processed 25,000 or more surgical and non-gyn cytopath accession in 2020, compared to only 31% in 2017.


Practice Demographics

• Although, in aggregate, the percent of respondents’ practices that were owned by pathologists appeared to be fairly stable between 2018 and 2021, different patterns emerge when the data are disaggregated by practice setting.

• Specifically, the share of practices based in AMCs that are pathologist-owned fell from 13% in 2018 to 6% in 2021. There were substantial increases in the share of respondents whose practices are owned by hospitals and health systems and in corporate-owned practices. (There was also a decrease in respondents who chose “other” between 2018 and 2021).

• By contrast, the share of pathologist-owned practices increased substantially for practices based in non-academic hospitals (both those unaffiliated with AMCs and those owned, affiliated with, or managed by AMCs) and for practices based in independent laboratories.

  o Among practices based in non-academic hospitals, the share of pathologist-owned practices in 2021 increased, regardless of AMC affiliation, by about 12-13 percentage points relative to 2018. Hospital/health system ownership of hospitals unaffiliated with an AMC fell from 32% in 2018 to 18% in 2021.

  o Among practices based in independent laboratories, the share of pathologists-owned practices increased from 41% in 2018 to 56% in 2021. This was accompanied by a decrease in the share of practices based in independent laboratories that were clinician-owned multi-specialty practices and in practices that chose “other”.

Figure A-6: Practice Ownership Structure, By Practice Setting, 2018 vs. 2021

<table>
<thead>
<tr>
<th>Ownership Type</th>
<th>Setting</th>
<th>2021</th>
<th>2018</th>
<th>2021</th>
<th>2018</th>
<th>2021</th>
<th>2018</th>
<th>2021</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathologist Owned Practice</td>
<td>All Settings</td>
<td>40%</td>
<td>38%</td>
<td>6%</td>
<td>13%</td>
<td>52%</td>
<td>40%</td>
<td>69%</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>Academic medical center (AMC)</td>
<td>6%</td>
<td>13%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-academic hospital owned, managed, or affiliated with an AMC</td>
<td>52%</td>
<td>40%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-academic hospital unaffiliated with an AMC</td>
<td>69%</td>
<td>56%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Independent Laboratory</td>
<td>56%</td>
<td>41%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital-owned/health system-owned</td>
<td>All Settings</td>
<td>39%</td>
<td>34%</td>
<td>84%</td>
<td>60%</td>
<td>38%</td>
<td>40%</td>
<td>18%</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>Academic medical center (AMC)</td>
<td>84%</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-academic hospital owned, managed, or affiliated with an AMC</td>
<td>38%</td>
<td>40%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-academic hospital unaffiliated with an AMC</td>
<td>40%</td>
<td>38%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Independent Laboratory</td>
<td>18%</td>
<td>32%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate-owned (other than a pathologist-owned corporation)</td>
<td>All Settings</td>
<td>14%</td>
<td>15%</td>
<td>6%</td>
<td>12%</td>
<td>8%</td>
<td>10%</td>
<td>101%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Academic medical center (AMC)</td>
<td>6%</td>
<td>12%</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-academic hospital owned, managed, or affiliated with an AMC</td>
<td>8%</td>
<td>10%</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-academic hospital unaffiliated with an AMC</td>
<td>10%</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Independent Laboratory</td>
<td>101%</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinician-owned multi-specialty practice</td>
<td>All Settings</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>Academic medical center (AMC)</td>
<td>3%</td>
<td>2%</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Non-academic hospital owned, managed, or affiliated with an AMC</td>
<td>2%</td>
<td>3%</td>
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</tr>
<tr>
<td></td>
<td>Non-academic hospital unaffiliated with an AMC</td>
<td>2%</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Independent Laboratory</td>
<td>2%</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>All Settings</td>
<td>4%</td>
<td>11%</td>
<td>1%</td>
<td>12%</td>
<td>2%</td>
<td>7%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>Academic medical center (AMC)</td>
<td>1%</td>
<td>12%</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-academic hospital owned, managed, or affiliated with an AMC</td>
<td>2%</td>
<td>7%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-academic hospital unaffiliated with an AMC</td>
<td>7%</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Independent Laboratory</td>
<td>1%</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Numbers may not sum to 100% due to rounding.

Figure A-7: Changes in Pathologist Equity Ownership Stake in Practices Over the Last Two Years

Another way to assess trends in practice ownership is to ask about the percentage of equity in the practice that is held by pathologists. We asked practice leaders how much equity was held currently in their practice by pathologists, and how much pathologists held two years ago. A decrease over time would be consistent with decreases in pathologist ownership of practices.

As shown in Figure A-7, about 75% of practice leaders reported that pathologists held 100% of the equity in their practice both two years ago and now. About 10%-12% reported that pathologists had no equity in their practice, and approximately 10% reported pathologist equity of between 1% and 25%.

Overall, 95% percent of practices (n=162) reported that there was no change in pathologists' ownership in their practice. Only four practices reported a change greater than +/-2% in the last two years.

Source: Q5—Approximately what percent of aggregate ownership interest do pathologists have in this practice currently and two years ago (2019)?
Practice Demographics

- Overall, 44% of respondents reported that their practice provides some services to a hospital or laboratory in a rural area (i.e., a non-urban area with a population of 50,000 or less).
- Respondents in practices based in academic medical centers were less likely than those based in other settings to report that they provide services to rural populations. Only 31% of these respondents reported that their practice provides any services to a hospital or laboratory in a rural area, compared to 44%-56% for the other practice settings.

**Figure A-8: Practices That Provide Services to a Hospital or Laboratory Located in a Rural Area**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Yes (%)</th>
<th>No (%)</th>
<th>Unsure (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All settings (n=343)</td>
<td>44%</td>
<td>53%</td>
<td>3%</td>
</tr>
<tr>
<td>Academic hospital/medical center (n=86)</td>
<td>31%</td>
<td>67%</td>
<td>1%</td>
</tr>
<tr>
<td>Non-academic hospital/medical center owned, managed, or affiliated with an AMC (n=61)</td>
<td>46%</td>
<td>51%</td>
<td>3%</td>
</tr>
<tr>
<td>Non-academic hospital/medical center unaffiliated with an AMC (n=89)</td>
<td>54%</td>
<td>44%</td>
<td>2%</td>
</tr>
<tr>
<td>Independent laboratory (n=57)</td>
<td>44%</td>
<td>47%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Source: Q8–Does your practice provide any services to a hospital or laboratory that is considered to be located in a rural area (i.e., a non-urban area with a population of 50,000 or less)?

- Over 60% of respondents reported that their practice setting was part of a health care system or IDN.
- This is a slight increase from the 2018 Practice Leader Survey, in which 58% of respondents’ practice settings were part of a health care system or IDN.

**Figure A-9: Practices That Are Part of a Health System or Integrated Delivery Network (IDN) (n=350)**

- Yes, 63%
- No, 37%

Source: Q3–Is this practice setting part of a healthcare system or Integrated Delivery Network (IDN)? (An IDN is defined as network of facilities and providers that offer a continuum of care to a specific geographic area or market.)
This section summarizes data on trends in practice consolidation, including:

- Changes in the share of pathologists in smaller vs. larger practices over the last five years
- Changes in average practice size, overall and by setting
- Organizational and structural changes affecting practices that could be associated with practice consolidation, and
- Impact of consolidation among practices’ clients on pathology practices
Although the percentage of practices in the smallest practice size group (< 2.0 full-time equivalent [FTE] pathologists) was relatively unchanged since the 2018 survey, the share of pathologists in practices of 2.0–5.9 FTE pathologists fell substantially, from 43% in 2018 to 30% in 2021. The 2021 level is also lower than the 2016 level of 35% of respondents. Conversely, there were substantial increases from prior years in the share of pathologists in practices of 11.0–25.9 FTE pathologists and 26.0–50.0 FTEs pathologists.

Source: Q7– At the end of 2020, approximately how many of the following were employed at your primary practice? (pathologists); 2018 Practice Leader Survey Report, available at https://www.cap.org/gated-assets/uploads/private/2018-practice-leader-survey.pdf
Figure B-2: Average Number of FTE Pathologists Per Practice, by Setting, 2021 vs. 2018

- Average practice size increased for every major setting between the 2018 and 2021 surveys—most substantially among non-academic hospitals owned, affiliated, or managed by an academic medical center.

Source: Q7—At the end of 2020, approximately how many of the following were employed at your primary practice? (pathologists); 2018 Practice Leader Survey Report, available at https://www.cap.org/gated-assets/uploads/private/2018-practice-leader-survey.pdf
The data shown in Figures B-1 and B-2 are consistent with a trend toward increased practice consolidation. Figure B-3 also provides a measure of how many practices were involved in some type practice consolidation within the last two years. Ten percent of respondents indicated their practice acquired another practice/laboratory or group; 6% merged with another organization or group and 3% reported a portion of their practice/laboratory was acquired within the past two years.

Together, these practices accounted for 19% of respondents, suggesting that nearly one in every five practices may have been involved in some type of practice consolidation in the last two years.

Source: Q36—Within the last two years, was your current practice/laboratory involved in any of the following organizational/structural changes? (select all that apply)
Figure B-4: Impact of Consolidation and Economic Changes Among Pathologist Clients on Pathology Practices

<table>
<thead>
<tr>
<th>Changes to Pathology Practice’s Clients*</th>
<th>Occurred in the last two years</th>
<th>Impact on my practice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Negative impact</td>
</tr>
<tr>
<td>Physician clients have been acquired by a corporation or a health care system (n=248)</td>
<td>39%</td>
<td>88</td>
</tr>
<tr>
<td>Outreach clients (ie, surgery centers, physician offices) have moved their laboratory services in-house (n=244)</td>
<td>27%</td>
<td>59</td>
</tr>
<tr>
<td>One or more hospitals to which we provide services has had a structural change (eg, merged with another hospital, became part of an integrated health system, opted to bring its laboratory in-house) (n=248)</td>
<td>31%</td>
<td>65</td>
</tr>
<tr>
<td>A client (ie, physician office, surgery center, hospital laboratory) formed a relationship with a national or regional laboratory (eg, a joint venture; management agreement, direct purchase or lease) (n=239)</td>
<td>28%</td>
<td>59</td>
</tr>
<tr>
<td>A contracted hospital or independent laboratory closed (n=245)</td>
<td>9%</td>
<td>21</td>
</tr>
</tbody>
</table>

- The survey asked practice leaders about the impact of consolidation and structural changes among their clients, eg hospitals, physician offices, or other entities to which their practices provided services. The purpose of the question was to find out: (1) how many respondents’ clients experienced these changes in the last two years, and (2) whether the impact on the practice was negative or positive (or if it had no impact).

- Nearly 40% of respondents stated that physician clients had been acquired by a corporation or a health care system over the last two years. Just over half of this total—52%—reported that these acquisitions had a negative impact on their practice.

- Over 25% of practices stated that outreach clients moved their laboratory services in-house; that one or more hospitals to which they provided services merged with another hospital, became part of an integrated health system, or opted to bring its laboratory in-house; and/or that a client formed a relationship with a national or regional laboratory in the last two years. Most practices experiencing this reported that the impact was negative, with the negative impact being highest for clients moving laboratory services in-house and clients forming relationships with a national or regional laboratory.

- Only 9% of respondents reported that a hospital or independent laboratory with which they contracted closed in the last two years. Of those practice leaders to whom this did occur, 76% reported that it had a negative impact on their practice.

*The observations in each row exclude those who responded “Unsure” to that part of the question.

Source: Q37—Within the last two years, which of the following changes have occurred and if they have, what was the financial impact?
Services Provided and Revenues Received

This section summarizes data on services provided and revenues received, including:

- Sources of clinical pathology (CP) and anatomic pathology (AP) specimens, overall and by setting
- Sources of practice revenues, overall and by setting
- Changes in testing volume for the five months of the year, 2021 vs. 2020
- Changes in testing volume for the entire year, 2021 projected vs. 2020 actual, and
- Anticipated changes in Medicare revenues, 2021 vs. 2020
Figure C-1: Average Source of Clinical Pathology (CP) Specimens, by Setting

<table>
<thead>
<tr>
<th>Setting</th>
<th>Hospital: Inpatient</th>
<th>Hospital: Outpatient</th>
<th>Non-hospital</th>
<th>Pathology consults</th>
<th>Other source</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Settings</td>
<td>48%</td>
<td>28%</td>
<td>21%</td>
<td>2%</td>
<td>2%</td>
<td>228</td>
</tr>
<tr>
<td>Academic medical centers (AMC)</td>
<td>55%</td>
<td>30%</td>
<td>13%</td>
<td>2%</td>
<td>0%</td>
<td>54</td>
</tr>
<tr>
<td>Non-academic hospital, owned, managed by, or affiliated with an AMC</td>
<td>56%</td>
<td>32%</td>
<td>12%</td>
<td>0%</td>
<td>0%</td>
<td>47</td>
</tr>
<tr>
<td>Non-academic hospital unaffiliated with an AMC</td>
<td>58%</td>
<td>26%</td>
<td>15%</td>
<td>0%</td>
<td>0%</td>
<td>73</td>
</tr>
<tr>
<td>Independent laboratory</td>
<td>13%</td>
<td>15%</td>
<td>63%</td>
<td>2%</td>
<td>7%</td>
<td>26</td>
</tr>
</tbody>
</table>

- On average and across all settings, nearly half (48%) of a practice’s CP specimens come from provision of inpatient hospital services. Most of the remainder comes from provision of outpatient hospital services (28%) and non-hospital services (21%).
- Among hospital-based practices, on average, about 55%-58% of CP specimens come from provision of inpatient hospital services and only 12%-15% comes from provision of non-hospital services.
- By contrast, for practices based in independent laboratories, most CP specimens tend to come from the provision of non-hospital services (63%, on average).

Source: Using your best estimate, approximately what percent of your practice’s clinical pathology specimens came from the following sources in during the first five months of 2021? If none, please enter “0”. (Total must sum to 100%). If you do not feel confident in your response, please enter 100% in the “Unsure” category.
Figure C-2: Average Source of Surgical and Non-gyn Cytopathology Accessions, by Setting

<table>
<thead>
<tr>
<th>Setting</th>
<th>Hospital: Inpatient</th>
<th>Hospital: Outpatient</th>
<th>Non-hospital</th>
<th>Pathology consults</th>
<th>Other source</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Settings</td>
<td>37%</td>
<td>30%</td>
<td>26%</td>
<td>4%</td>
<td>3%</td>
<td>270</td>
</tr>
<tr>
<td>Academic medical centers (AMC)</td>
<td>46%</td>
<td>36%</td>
<td>11%</td>
<td>7%</td>
<td>0%</td>
<td>64</td>
</tr>
<tr>
<td>Non-academic hospital, owned, managed by, or affiliated with an AMC</td>
<td>48%</td>
<td>33%</td>
<td>15%</td>
<td>1%</td>
<td>2%</td>
<td>54</td>
</tr>
<tr>
<td>Non-academic hospital unaffiliated with an AMC</td>
<td>43%</td>
<td>35%</td>
<td>20%</td>
<td>2%</td>
<td>0%</td>
<td>78</td>
</tr>
<tr>
<td>Independent laboratory</td>
<td>12%</td>
<td>12%</td>
<td>67%</td>
<td>3%</td>
<td>5%</td>
<td>44</td>
</tr>
</tbody>
</table>

- On average and across all settings, 37% of practices’ surgical and non-gyn cytopathology accessions come from the provision of inpatient hospital services, 30% from hospital outpatient services, and 26% from the provision of non-hospital services.
- Among practices in hospital-based settings, more than 40% of these accessions come from the provision of inpatient hospital services, and smaller-than-average amounts come from the provision of non-hospital services, particularly among practices based in academic medical centers (AMCs) and those based in non-academic hospitals that are owned, managed by, or affiliated with an AMC.
- For practices based in independent laboratories, 67% of these accessions come from provision of non-hospital services.

Source: Q15—Using your best estimate, approximately what percent of your practice's surgical and non-gyn cytopathology accessions came from the following sources in during the first five months of 2021? If none, please enter “0”. (Total must sum to 100%). If you do not feel confident in your response, please enter 100% in the “Unsure” category.
## Figure C-3: Average Sources of Practice Revenue in 2020, by Setting

<table>
<thead>
<tr>
<th>Setting</th>
<th>n</th>
<th>Commercial health plans/private insurance</th>
<th>Medicare (Traditional)</th>
<th>Medicaid</th>
<th>Medicare Advantage</th>
<th>Self-pay</th>
<th>Hospitals for services provided (ie, Part A)</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Settings</td>
<td>202</td>
<td>32%</td>
<td>27%</td>
<td>12%</td>
<td>6%</td>
<td>5%</td>
<td>7%</td>
<td>12%</td>
</tr>
<tr>
<td>Academic medical centers (AMC)</td>
<td>30</td>
<td>33%</td>
<td>28%</td>
<td>18%</td>
<td>5%</td>
<td>4%</td>
<td>9%</td>
<td>1%</td>
</tr>
<tr>
<td>Non-academic hospital, owned, managed by, or affiliated with an AMC</td>
<td>42</td>
<td>34%</td>
<td>27%</td>
<td>19%</td>
<td>6%</td>
<td>3%</td>
<td>7%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Non-academic hospital unaffiliated with an AMC</td>
<td>53</td>
<td>37%</td>
<td>30%</td>
<td>11%</td>
<td>7%</td>
<td>5%</td>
<td>8%</td>
<td>1%</td>
</tr>
<tr>
<td>Independent laboratory</td>
<td>36</td>
<td>38%</td>
<td>29%</td>
<td>6%</td>
<td>7%</td>
<td>5%</td>
<td>5%</td>
<td>1%</td>
</tr>
</tbody>
</table>

- Across all settings, the major sources of revenues for pathology practices, on average, are commercial health plans/private insurance (32%), traditional Medicare (27%), and Medicaid (12%). On average, commercial health plans/private insurance and traditional Medicare account for nearly 60% of practice revenues.
- Medicaid accounts for nearly 20% of revenues for pathology practices based in academic medical centers and non-academic hospitals that are owned, managed by, or affiliated with AMCs, on average. However, for non-academic hospitals unaffiliated with an AMC, Medicaid accounts for only 11% of revenues, on average. Medicaid accounts for an average of only 6% of revenue for independent laboratories.
- Most practices in the major practice settings report little or no revenue in the “other” category. However, for some categories with few observations, respondents reported this category as a major source of revenue. “Other” represents 100% of reported revenues for all of the respondents who practice in blood centers/blood banks; an average of nearly 80% of revenues among the respondents who practice in government-owned facilities, and an average of 67% of revenues among practices based in forensic laboratories/autopsy centers. (Each of these categories had fewer than 7 respondents.)

Source: Q23—Using your best estimate, approximately what percent of your practice’s total revenue received during 2020 came from the following payment sources? (Total must sum to 100%)
• For the first time since the beginning of the COVID-19 pandemic, practice leaders’ year-to-date changes in non-COVID-19 clinical pathology testing and anatomic pathology testing was higher than in prior years. The average change in non-COVID-19 CP testing volume in May 2021 was 18% compared to May 2020, and the average change in AP testing volume was 20%. Practice leaders expected this trend to continue through the end of the year.

• This represents a continuing improvement from the beginning of the pandemic. As shown above, at the beginning of the pandemic (April 2020), non-COVID-19 laboratory testing had dropped by an average of 41% compared to April 2019, and AP testing had fallen by an average of 69%. Subsequent CAP surveys showed slow but continued improvement in year-to-date testing volume compared to the prior year.

Note: “EOY” means “End of Year”. The data for April 2020 compares volume from the same month in 2019; all other data points are year-to-date comparisons to the prior year.

Figure C-5: Testing Volume for the First Five Months of the Year, 2021 vs. 2020

- Figure C-5 shows that at least 75% of respondents’ practices experienced increases in both non-COVID-19 CP and AP testing volume for the first five months of 2021 (January through May) compared to the same period in 2020. More than one-third of practice leaders reported growth exceeding 25%.

- Slightly more than 20% of practice leaders reported that CP and AP testing volume was lower for the first five months of 2021 than 2020. For nearly all of these practices, the decrease in volume was at the lower range (-1 to -10% and -11% to -24%).

Source: Q12–Using your best estimate, how has the volume of clinical pathology and anatomic pathology changed between the first five months of calendar year 2021 and the same period in calendar year 2020 for your practice? If there has been no change, please select “0”.

Clinical Pathology (n=218)  Anatomic Pathology (n=267)
Mean and median testing (non-COVID) CP testing volumes increased across all major practice settings for the first five months of 2021, compared to the same period in 2020. For hospital-based setting, both the mean and median increases ranged between 14% and 20%. The increases were larger in independent laboratories, with a mean increase of 31% and a median increase of 28%.

Similarly, mean and median testing AP testing volumes increased across all major practice settings for the first five months of 2021, compared to the same period in 2020.

Source: Q12—Using your best estimate, how has the volume of clinical pathology and anatomic pathology changed between the first five months of calendar year 2021 and the same period in calendar year 2020 for your practice? If there has been no change, please select “0”.
Figure C-8: Anticipated Change in non-COVID-19 CP and AP Testing Volume, 2021 vs. 2020

- We also asked respondents to estimate how much they expected testing volume to change between 2020 and 2021. Nearly 90% expect that both non-COVID-19 CP and AP testing volume in their practice would be higher in 2021 than in 2020. About one-third expect that non-COVID-19 CP testing volume in 2021 will exceed 2020 levels by 25% or more. Nearly 40% of respondents expect that AP testing volume in 2021 will exceed 2020 levels by 25% or more.

- Only 8% of respondents expect both non-COVID-19 CP and AP testing volume to be lower in 2021 than in 2020.

Source: Q13—Using your best estimate, how much do you expect the volume of clinical pathology and anatomic pathology to change in your practice from calendar year 2020 to calendar year 2021 for your practice? If you expect no change, please select “0”.

Figure C-9: Mean and Median Estimated Change in non-COVID-19 CP Testing Volume, 2021 vs. 2020, by Setting

- The average and median estimated increases are higher for practices based in non-academic hospitals that are owned, managed, or affiliated with academic medical centers and for practices based in independent laboratories.

Source: Q13—Using your best estimate, how much do you expect the volume of clinical pathology and anatomic pathology to change in your practice from calendar year 2020 to calendar year 2021 for your practice? If you expect no change, please select “0”.

Figure C-10: Mean and Median Estimated Change in non-COVID-19 AP Testing Volume, 2021 vs. 2020, by Setting

- Mean and median estimated growth for AP testing volumes between 2020 and 2021 is nearly identical to that of non-COVID-19 CP testing. Median estimated growth is higher for practices based in independent laboratories than for other practice settings.

Source: Q13—Using your best estimate, how much do you expect the volume of clinical pathology and anatomic pathology to change in your practice from calendar year 2020 to calendar year 2021 for your practice? If you expect no change, please select “0”.

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Practice leaders also were asked whether they anticipated their practices’ 2021 payments from Medicare to increase, decrease, or not to change compared to 2020.

Across all settings, 50% of respondents reported that they anticipated their practices’ revenues from Medicare to decrease in 2021. For some practice settings—such as non-academic hospitals unaffiliated with academic medical centers or those based in independent laboratories—more than 50% of respondents anticipated decreases in revenues from Medicare.

The survey did not ask respondents why they anticipated reductions in revenues from Medicare. However, the response could reflect practice leaders’ awareness of forthcoming cuts in Medicare reimbursement to pathologists, particularly those associated with Medicare payments for evaluation and management (E/M) services.

Source: Q14—How do you anticipate changes in Medicare payments this year will affect your practice revenue?
This section summarizes data on practice staffing and the job market for pathologists, including:

- How many pathologists work in practices, by practice setting
- Number of pathologist positions that practices sought to fill in 2021
- Number of new pathologist positions in 2021
- Settings that sought to hire at least one pathologist in 2021
- Areas of expertise required for pathologist positions in 2021
- “Ideal” and “acceptable” candidates for open positions, by area of expertise and years in practice
- Length of time needed to fill open pathologist positions
- Inability to fill open positions
- Number of positions eliminated in 2021
- Reasons for eliminated positions
- Number of pathologists practices expect to hire and the number expected to retire from practice in next three years, and
- Methods of pathologist compensation
Overall, the median pathology practice has 7.0 full-time equivalent (FTE) pathologists. The average number of pathologists is 14.8 FTEs per practice. As shown in Figure B-2, these figures are higher than in 2018 both overall and by practice setting.

Practices based in academic medical centers tend to have more pathologists than do practices in other settings, with an average of nearly 32 FTE pathologists per hospital and a median of almost 24 FTE pathologists.

For settings other than those based in academic medical centers, the median practice size ranges from 4.0 to 8.0 FTE pathologists.

Note: *Each part-time pathologist is assumed to equal 0.4 FTE pathologists

Source: Q7—At the end of 2020, approximately how many of the following were employed at your primary practice? (Pathologists)
Nearly six in ten practice leaders (56%) reported that their practice expected to hire at least one pathologist in 2021.

This figure is slightly higher than both 2018 Practice Leader Survey, in which 52% of practice leaders responded that they sought to hire at least one pathologist in the prior year, and substantially higher than the 2016 Practice Leader Survey, in which 41% of respondents’ practices sought to hire at least one pathologist.

*Includes 4 positions of 0.5 FTEs

Q39 In your practice, how many FTE pathologist positions do you expect to be filled and how many do you expect to be eliminated in 2021? If none, please enter “0”. (Do not include recruitment for residency or fellowship positions.)
Of the 157 respondents whose practices expected to hire at least one pathologist in 2021, 60% were hiring to fill at least one “new” position (i.e., not a replacement for a position that was open due to retirement or other reasons).

Source: Q40—Of the X pathologist position(s) you seek to fill in 2021, how many [are new and not a replacement for an already existing position]?
The survey showed that 32% of the practices that were hiring pathologists in 2021 were based in academic medical centers. Another 40% were based in non-academic hospitals—22% in non-academic hospitals that are owned, managed, or affiliated with an academic medical center, and 18% in non-academic hospitals that are unaffiliated with an academic medical center.

In the 2018 Practice Leader Survey, 31% of the practices that sought to hire a pathologist in the prior year were based in academic medical centers, and 32% were based in non-academic hospitals.

Seventeen percent of practices that were seeking to hire pathologists were based in independent laboratories, compared to 25% of hiring practices in 2018. In both years, 13% of hiring practices were based in other settings (including central laboratories, forensic laboratories/Medical Examiner offices, government or military hospitals and laboratories, and physician office laboratories that were not pathologist-owned).

* Includes Central laboratories, forensic laboratories/Medical Examiner offices, government or military hospitals/laboratories, and physician office laboratories (not pathologist-owned)

More than half of practices were seeking to hire a pathologist with Specialty AP expertise (59%) or General AP/CP expertise (56%). Just over 20% were seeking a pathologist with Specialty CP expertise.

Sixteen percent of practices were seeking to fill a position that required leadership expertise.

Source: Q43–For the pathologist position(s) that are/were open in 2021, which of the following areas of expertise are/were required? (select all that apply)
Leaders whose practices were hiring pathologists in 2021 were asked to identify the number of years in practice they would “ideally” like a pathologist candidate to have. With the exception of leadership expertise, the ideal candidate would have between 2 and 5 years in practice after completion of training. For leadership expertise, the median years in practice for the ideal candidate was 6 to 10 years in practice.

Nevertheless, a substantial number of practice leaders—nearly 40% or more—either had no preference or identified an ideal candidate as having fewer than two years in practice for all areas except for leadership expertise.

**Figure D-6: Ideal Candidate for Open Position, by Area of Expertise and Years in Practice**

<table>
<thead>
<tr>
<th>Speciality AP (n=127)</th>
<th>21%</th>
<th>13%</th>
<th>35%</th>
<th>24%</th>
<th>7%</th>
</tr>
</thead>
<tbody>
<tr>
<td>General AP/CP (n=135)</td>
<td>22%</td>
<td>16%</td>
<td>34%</td>
<td>23%</td>
<td>6%</td>
</tr>
<tr>
<td>General CP (n=97)</td>
<td>30%</td>
<td>13%</td>
<td>36%</td>
<td>14%</td>
<td>6%</td>
</tr>
<tr>
<td>Leadership expertise</td>
<td>21%</td>
<td>8%</td>
<td>13%</td>
<td>28%</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>25%</td>
<td>17%</td>
<td>35%</td>
<td>17%</td>
<td>7%</td>
</tr>
<tr>
<td>Speciality CP (n=104)</td>
<td>31%</td>
<td>12%</td>
<td>34%</td>
<td>20%</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Source:** Q44—Please indicate: The number of years in actual practice (excluding fellowship training) you would ideally like a pathologist candidate to have for each of the following areas of expertise.
Figure D-7: Acceptable Candidate for Open Position, by Area of Expertise and Years in Practice

- The “acceptable candidate”—that is, the candidate who was hired—often had less experience than the “ideal” candidate. Even with about 20% or more of positions remaining open at the time the survey was fielded, pathologists with fewer than two years of experience were hired for nearly half of open general AP, AP/CP, and General CP positions. They were also hired for 43% of specialty AP positions and 34% of specialty CP positions.

Source: Q44—Please indicate: The number of years in actual practice (excluding fellowship training) you would ideally like for an acceptable candidate for each open position. If multiple positions were filled, please use an average number of years. If the position is still open, please check “Position Still Open”.

- Leadership expertise (e.g., chair, program director, medical director)

<table>
<thead>
<tr>
<th>Role</th>
<th>&lt;2</th>
<th>2–5</th>
<th>6–10</th>
<th>&gt;10</th>
<th>Still Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialty AP</td>
<td>43%</td>
<td>23%</td>
<td>9%</td>
<td>3%</td>
<td>23%</td>
</tr>
<tr>
<td>General AP/CP</td>
<td>49%</td>
<td>21%</td>
<td>7%</td>
<td>3%</td>
<td>22%</td>
</tr>
<tr>
<td>General CP</td>
<td>46%</td>
<td>21%</td>
<td>6%</td>
<td>5%</td>
<td>22%</td>
</tr>
<tr>
<td>Specialty CP</td>
<td>34%</td>
<td>26%</td>
<td>7%</td>
<td>4%</td>
<td>29%</td>
</tr>
<tr>
<td>General AP</td>
<td>50%</td>
<td>22%</td>
<td>5%</td>
<td>4%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Pathologist Job Market

Speciality AP | General AP/CP | General CP | Specialty CP | Leadership expertise (e.g., chair, program director, medical director) | Source: Q44—Please indicate: The number of years in actual practice (excluding fellowship training) you would ideally like for an acceptable candidate for each open position. If multiple positions were filled, please use an average number of years. If the position is still open, please check “Position Still Open”.
Figure D-8: Length of Time to Fill Open Pathologist Positions (n=144)

- A substantial proportion of positions—26%—were filled after being open for six months.
- Slightly over 20% of respondents reported that their positions were filled within three months, and two-thirds reported that their positions were filled within six months. Over 80% of respondents reported that positions were filled within nine months.

Source: Q42—What was the average time (in months) it took to fill the open position(s)? (Do not include positions that were not filled.)
Figure D-9: Inability to Fill Open Pathologist Positions (n=15)

- Of the 157 practices that were hiring pathologists in 2021, 15 reported that they were not able to fill at least one open position.
- The most frequently cited reasons for not being able to fill open positions were an inability to find qualified candidates (n=12) and that the job location did not meet applicants' requirements (n=5).
- “Other” responses (n=6) included an inability to offer career development and promotional opportunities, an inability to obtain a suitable visa for the applicant, and/or that the applicant found the workload excessive.

*“Other” responses include: Unable to offer career development and promotion opportunities; Unable to offer flex time or part time position as requested by applicant; Applicant(s) unable to obtain suitable visa; and Applicant(s) found workload excessive.

Source: Q41–Why was your practice unable to fill the open position(s)? (select all that apply)
Figure D-10: Number of Positions Eliminated in Practice in 2021 (n=256)

- Only 12% of practices reported that they eliminated pathologist positions in 2021.
- On average, these practices lost 1.2 FTE pathologist positions per practice.

Source: Q39—In your practice, how many FTE pathologist positions do you expect to be filled and how many do you expect to be eliminated in 2021? If none, please enter “0”. (Do not include recruitment for residency or fellowship positions.)
The most frequently cited reason for eliminating pathologist positions was a decision not to replace a retiring or departing pathologist. This reason was cited by each of the 22 respondents whose practices reported that they were eliminating at least one position.

Five practice leaders reported that their practice had lost funding for the position, and four practice leaders cited the loss of contracts with one or more hospitals or other provider organizations for cutting a position. Two practice leaders reported lost positions as a result of merging with, or being acquired by, another practice or hospital.

Five practice leaders cited “other” reasons for eliminating positions. Two of these respondents stated that their practice was simply postponing hiring rather than eliminating the position.

Source: Q45—You indicated your practice eliminated (or will eliminate) pathologist positions in 2021. Why does/did your practice plan to eliminate those positions? (select all that apply)
Figure D-12: Number of Pathologists Expected to Hire and Retire in Next Three Years

- Overall, the number of pathologists that practice leaders expect to hire over the next three years exceeds the number that they expect to retire from their practices.

- The practice leaders who responded to this question expect to hire a total of 451.9 FTE pathologists in the next three years, and expect that 262.5 FTE pathologists will retire in the next three years.

Source: Q46– Over the next three years, how many total pathologists (FTEs) do you expect to hire? To retire? If none, please enter “0”.
Figure D-13: Methods for Compensating Pathologists (n=285)

- Practice leaders report diverse ways in which pathologists in their practices are paid.
  - 41% report that pathologists are paid by salary plus bonus
  - 27% report that pathologists are paid by salary only
  - 26% report that pathologists are paid by salary plus a profit share/pool
- Seven percent of respondents (n=21) reported that pathologists in their practices are paid by “other” means. Some of these respondents are independent contractors or consultants. Other terms of payment include:
  - Paying salary to employees while partners receive a profit share
  - All pathologists receive profit sharing
  - Compensation is entirely production based

Source: Q47–What is the primary basis for compensating pathologists in your practice?
This section summarizes data respondent demographics, including:

- Participation in ACOs and APMs, 2021 vs. 2018
- Payment for Part A services to Medicare recipients
- Application of utilization management approaches by third-party payers
- Denial and non-participation in commercial health plan or insurer networks
- Billing for the professional component of clinical pathology services, and
- Professional component of clinical pathology services as a share of total practice revenues
Figure E-1: Participation in Accountable Care Organizations (ACOs) and Alternative Payment Models (APMs), 2018 vs. 2021

- The share of respondents who report participating in Accountable Care Organizations (ACOs) or Alternative Payment Models (APMs) fell substantially between 2018 and 2021—from 25% of practice leaders in 2018 to 18% in 2021.

- Correspondingly, the share of respondents whose practices do not contract with ACOs/APMs and do not plan to consider it in the future rose from 14% to 29% between 2018 and 2021. The share that do not contract with these plans but may consider it in the future also fell, from 27% of respondents in 2018 to 19% of respondents in 2021.

- Twenty-eight percent of practices that participate in ACOs/APMs reported their practice (or pathologists in their practice) receive financial incentives or shared savings for ACO/APM participation.

Source: Q49– Does your practice participate in one or more ACO/APMs?
Business, Regulatory, and Advocacy Issues Affecting Pathology Practices

Figure E-2: Payment for Part A Services to Medicare Recipients (n=189)

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have negotiated some payment for Part A services, but these payments are not proportionate to the level of required services.</td>
<td>36%</td>
</tr>
<tr>
<td>Have been successful in negotiating proportionate payments for Part A services</td>
<td>23%</td>
</tr>
<tr>
<td>Do not receive Part A payments even though we provide laboratory director services.</td>
<td>15%</td>
</tr>
<tr>
<td>Our practice is a &quot;global biller&quot; that negotiates a budget with the hospital and doesn't separate Part A and Part B services in those negotiations</td>
<td>13%</td>
</tr>
<tr>
<td>Have received payments for Part A services, but they are provided on a &quot;take it or leave it&quot; basis (ie, payments are not negotiated)</td>
<td>11%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
</tbody>
</table>

Note: Excludes 8 respondents who chose “unsure” as a response.

Source: Q25—For Part A services provided to Medicare recipients, which of the following best describes your practice’s current experience at one or more of your contracted hospitals? (If your practice provides services for more than one hospital, please choose all that apply).

- The management and supervision of a clinical laboratory is a professional service that is for the general benefit to patients and is reimbursed under Medicare Part A. Because reimbursement under Part A is made directly to the hospital, the pathologist or pathology group responsible for the management and supervision of the laboratory must seek payment from the hospital. The amount of compensation paid by a hospital to a pathologist or pathology group for their services is a matter of negotiation. (CAP members can learn more about pathologist-specific services covered under Medicare Part A at CAP.org).

- Result shown in Figure E-2 suggest that not all pathology groups have negotiated payments for Part A services. As shown by the bars shaded in red:
  - Fifteen percent of respondents reported that their practices provided laboratory director services to hospitals but that they did not receive Part A payments for some or all of the hospitals to which they provided those services.
  - Eleven percent of respondents reported that, while their practices received Part A payments for laboratory director services that they provided, those payments were not negotiated with their practice, but rather are provided on a “take it or leave it” basis.
Practice leaders were asked whether their practice experienced different types of utilization management approaches applied by private and public third-party payers. The most prevalent type of utilization management approaches experienced by survey respondents included prior authorization or pre-approval requirements for molecular tests (47%) and denial of reimbursement for the professional component of clinical pathology services (47%).

Just over one-third of respondents—34%—reported that they experienced consequences of Medicare National Coverage Determinations (NCDs) or Local Coverage Determinations (LCDs). Another 10% expect to experience problems with NCDs or LCDs in the next six months.

The percent of respondents who experienced Laboratory Benefit Manager (LBM) program requirements—22%—is more than double the percent who reported experiencing LBM program requirements in the 2018 Practice Leader Survey (10%).

### Figure E-3: Application of Utilization Management Approaches by Third-Party Payers

<table>
<thead>
<tr>
<th>Type of Third-Party Payer Policy</th>
<th>n</th>
<th>Currently Experiencing</th>
<th>Expect to Within Next 12 Months</th>
<th>Currently Not Experiencing</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior authorization or pre-approval requirements for molecular tests</td>
<td>250</td>
<td>47%</td>
<td>6%</td>
<td>28%</td>
<td>19%</td>
</tr>
<tr>
<td>Denial of reimbursement for professional component of clinical pathology (PC of CP)</td>
<td>222</td>
<td>47%</td>
<td>8%</td>
<td>24%</td>
<td>21%</td>
</tr>
<tr>
<td>Medicare coverage determinations (NCDs/LCDs)</td>
<td>251</td>
<td>34%</td>
<td>10%</td>
<td>26%</td>
<td>30%</td>
</tr>
<tr>
<td>Laboratory Benefits Manager (LBM) program requirements</td>
<td>250</td>
<td>22%</td>
<td>10%</td>
<td>35%</td>
<td>34%</td>
</tr>
<tr>
<td>Requirement to provide information for price transparency/cost estimation requirements</td>
<td>258</td>
<td>21%</td>
<td>10%</td>
<td>45%</td>
<td>25%</td>
</tr>
<tr>
<td>Non-standard coding practice (e.g., place of service, unique test code requirements/registry)</td>
<td>244</td>
<td>21%</td>
<td>10%</td>
<td>39%</td>
<td>30%</td>
</tr>
<tr>
<td>Prior authorization or pre-approval requirements for special stains and immunohistochemistry tests</td>
<td>251</td>
<td>8%</td>
<td>6%</td>
<td>73%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source: Q26—Has your practice experienced the following requirements imposed by third-party payers?
Figure E-4: Denial and Non-participation in Commercial Health Plan or Insurer Networks

- While most respondents did not experience issues with gaining/maintaining participant status to a commercial health plan or insurer network in the last two years,
  - 14% reported that their practice decided not to join a particular health care network or not to renew participation in a commercial health plan or insurer network;
  - 9% reported that their practice had been denied continued participation in a commercial health plan or insurer network in which it was previously a participating provider; and
  - 12% reported that their practice attempted to join a commercial health plan or insurer network but were denied participating provider status.

Source: Q27—Within the last 2 years, has your practice experienced one of the following.
Figure E-5: Billing for the Professional Component of Clinical Pathology Services (n=295)

- Roughly 54% of respondents indicated they billed at least some insurers for the professional component of clinical pathology services. Thirty-one percent billed for these services for all insurers, and 23% billed for these services for some insurers.
- One third of respondents—33%—do not bill insurers for the professional components of pathology services. Some of these respondents explicitly stated that they did not provide Medicare services (eg, they practice in a children’s hospital).

Source: Q29—Does your practice directly bill insurers other than Medicare for the professional component of clinical pathology (PC of CP) services?
Practice leaders were asked what share of their 2020 practice revenues came from billing for the professional component of clinical pathology (PC of CP). For over half of respondents (57%), the PC of CP accounted for no more than 5% of 2020 total practice revenues. Just over one-third of respondents said that the PC of CP accounted for 0% of practice revenues of CP.

By contrast, nearly one out of five respondents (18%) reported that the PC of CP accounted for more than 25% of their 2020 practice revenues. For 3% of respondents, the PC of CP accounted for 100% of 2020 practice revenues.

Source: Q30 Approximately what percent of your practice’s 2020 total revenues came from payments for the professional component of clinical pathology services?
Practices’ COVID-19 Related Activities

This section summarizes roles that pathology practices were playing in providing services relating to COVID-19 (as of early June 2021), including:

- The share of practices providing on-site COVID-19 testing
- The purposes for which COVID-19 testing is being performed
- The share of practices that received or have applied for federal funding for COVID-19 screening or surveillance testing
- The share of practices performing sequence or genotype analysis for identification of COVID-19 variants, and
- Difficulties in acquiring COVID-19 testing supplies
Seventy-four percent of respondents reported that members in their practice perform or oversee on-site COVID-19 testing in their primary laboratory/setting. 

At the time that the survey was fielded (June 2021), most of practices' COVID-19 testing was for screening and diagnosis. On average, 49% of testing was for screening and 45% was for diagnosis. The median values were only slightly different. On average, only 6% of practices' COVID-19 screening was for surveillance.

<table>
<thead>
<tr>
<th>Proportion of Practice's COVID-19 Testing for:</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening</td>
<td>49%</td>
<td>50%</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>45%</td>
<td>40%</td>
</tr>
<tr>
<td>Surveillance</td>
<td>6%</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>0%</td>
</tr>
</tbody>
</table>

*Excludes 53 respondents who answered “Unsure”.

Source: Q18—Approximately, what proportion of your COVID-19 testing is for the following purposes? If none, please enter “0”. If you do not feel confident in your response, please enter 100% in the “Unsure” category.
As shown in Figure F-3, there is variation among practices in how much of their COVID-19 testing is performed for screening, diagnosis, or surveillance. For example, while on average about 50% of practices’ COVID-19 testing is for screening and 45% is for diagnosis (Figure F-2), screening or diagnosis accounts for well over half of testing for a significant number of practices.

These data also show that a substantial share of practice that perform COVID-19 testing—77%—reported that none of their testing was for surveillance. However, the average was driven up by a small number of practices for which surveillance represents a substantial share of their testing.

Source: Q18—Approximately, what proportion of your COVID-19 testing is for the following purposes? If none, please enter “0”. If you do not feel confident in your response, please enter 100% in the “Unsure” category.
Twenty-eight percent of respondents received funding federal funding screening and/or surveillance for COVID-19 testing and 4% had applied for federal funding but had not yet received it. Thirty-nine percent had not applied for federal funding for screening and/or surveillance COVID-19 testing.

Thirty percent of respondents were unsure of whether their practice had applied for or received such funding.

Source: Q19—Has your practice applied for, or received, federal funding for COVID-19 screening or surveillance testing?
Twenty percent of practice leaders whose members perform COVID-19 testing reported that pathologists in their primary laboratory or setting perform sequence or genotypic analysis for identification of COVID-19 variants.

Source: Q20–Is your primary laboratory/setting performing sequence or genotypic analysis for identification of COVID-19 variants?
APPENDIX: Miscellaneous Data

This appendix contains additional miscellaneous content from the 2021 Practice Leader Survey.
Including the 41% of practice leaders who responded “unsure”, just over one-half of respondents (51%) reported that their practice provides some uncompensated or charitable care. For 24% of practices, uncompensated or charitable care accounted for 5% or less of services, and for another 12% of practices uncompensated or charitable care accounted for 6%-10% of services.

Eight percent of respondents reported that uncompensated or charitable care accounted for 11%-20% of services they provided, and 6% of respondents stated that such care accounted for more than 20% of the services that their practice provides.

Source: Q28–What fraction of the services you provide is uncompensated/charitable care?
### Figure X-2: Role of Practice’s Business Administrator, by Practice Setting

<table>
<thead>
<tr>
<th>Practice Setting</th>
<th>Pathologist</th>
<th>Non-pathologist</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Settings (n=374)</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td>Academic hospital/medical center (AMC) (n=99)</td>
<td>36%</td>
<td>64%</td>
</tr>
<tr>
<td>Non-academic hospital/medical center owned, managed, or affiliated with an AMC (n=66)</td>
<td>56%</td>
<td>44%</td>
</tr>
<tr>
<td>Non-academic hospital/medical center unaffiliated with an academic medical center (n=93)</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>Independent Laboratory (n=63)</td>
<td>46%</td>
<td>54%</td>
</tr>
<tr>
<td>Government owned facility (n=20)</td>
<td>45%</td>
<td>55%</td>
</tr>
</tbody>
</table>

*Source: Q6–Which best describes your practice’s principal business administrator (ie, the person who handles most of the practice’s day-to-day management of the practice)?*
In preparation for upcoming enactment of federal “surprise billing” legislation that would allow arbitration for certain out-of-network services, we asked questions to provide us with information about pathologists’ current use of arbitration. Since the new legislation will allow for arbitration to resolve surprise billing disputes, we wanted to get an understanding of how pathologists are involved in arbitration prior to the law’s implementation.

Of 128 respondents, 77% reported that their practice did not have any current arbitration cases related to the provision of out-of-network services. Of the remaining practices, 13% were involved in 1 to 10 arbitration cases, 2% were involved in 11 to 20 cases, and 9% were involved in more than 20 cases.

Source: Q32 - In 2020, approximately how many arbitration cases related to provision of out-of-network services has your practice been involved in?
Figure X-4: 2021 Practice Leader Survey Respondents, by State

<table>
<thead>
<tr>
<th>State</th>
<th># of responses</th>
<th>State</th>
<th># of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>AK</td>
<td>1</td>
<td>MO</td>
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<tr>
<td>AL</td>
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<td>MS</td>
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<tr>
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<td>5</td>
<td>MT</td>
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<tr>
<td>AZ</td>
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<td>NC</td>
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<tr>
<td>CA</td>
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<tr>
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<td>NJ</td>
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<td>OH</td>
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<tr>
<td>GA</td>
<td>11</td>
<td>OK</td>
<td>7</td>
</tr>
<tr>
<td>IA</td>
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<td>OR</td>
<td>6</td>
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<td>ID</td>
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<td>TN</td>
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</tr>
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<td>WV</td>
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</tr>
<tr>
<td>MN</td>
<td>5</td>
<td>WY</td>
<td>1</td>
</tr>
</tbody>
</table>

No responses were received from the District of Colombia, Guam, Hawaii, Iowa, Nebraska, Nevada, New Mexico, Puerto Rico, Vermont, or Wisconsin.

Responses are never analyzed or reported by State because of the small sample sizes and the need to maintain respondent confidentiality. This table is provided only to present information on the national distribution of survey respondents.