

2017 Telemedicine and Digital Health Survey

*Telemedicine Surges Ahead As Providers,
Patients Embrace Technology*



Executive Summary

Fueled by surging demand among patients and providers, telemedicine is spreading rapidly throughout the health care system, according to the 2017 Foley Telemedicine and Digital Health Survey.

The survey found that hospitals, specialty clinics and other health care organizations have overcome past hesitations and are now embracing telemedicine's potential to provide quality services and generate revenue regardless of geography. In fact, organizations are moving aggressively to implement telemedicine-based offerings for high-demand services like online specialty/second opinions and mental health. Many also see strong potential in using digital technology to provide their expertise in lucrative foreign markets.

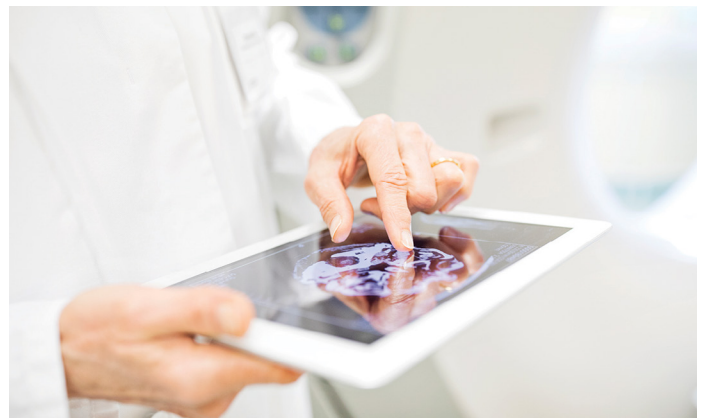
Just three years ago, 87 percent of respondents to [our survey](#) did **not** expect most of their patients to be using telemedicine services by 2017. In this year's survey, approximately three-quarters of respondents currently offer or plan to offer telemedicine services. More importantly, 53 percent of those said their programs were growing or expanding, while only 14 percent said their programs were under consideration or in development. By contrast, 34 percent of respondents to our 2014 survey said their programs were in the early stages – showing just how far telemedicine has advanced in only a few years.

The 2017 survey is comprised of more than 100 senior executives at hospitals, specialty clinics, ancillary services and related organizations – and international expansion appears to be at the front of their minds. While just 22 percent currently offer international telemedicine services, 32 percent said they are interested in doing so. And of that group, more than 80 percent plan to roll out international telemedicine programs within three years. Here, again, providers are looking beyond the United States to pursue new opportunities, particularly in the Middle East and China.

The allure of providing services to affluent overseas patients is powerful, and the risks can seem amorphous. But, in fact, providing transnational telemedicine services to patients overseas carries its own set of legal and regulatory compliance issues to navigate. Providers pursuing those opportunities are certain to encounter complications arising from a tangle of foreign and domestic legal regimes, from complicated tax rules to data security to Foreign Corrupt Practices Act requirements.

Telemedicine technology, meanwhile, is gaining acceptance in the professional community. Nearly three-quarters of providers said they were satisfied with their organizations' telemedicine platforms. While familiar challenges remain, including reimbursement and state licensing requirements, providers seem determined to move past them and implement technology that is popular with patients and has potential to improve quality and increase market share.

As providers drive telemedicine's expansion, their actions will increase pressure on payers to broaden reimbursement for telemedicine services, and on state and federal governments to reduce regulatory ambiguities and barriers. The U.S. Food and Drug Administration (FDA) will also be pushed to approve software and other digital health technologies.



Highlights of Foley's 2017 Telemedicine and Digital Health Survey

- **Telemedicine has arrived – and delivers results.** Three-quarters of survey respondents said they offer or plan to offer telemedicine services. With more than half of those in the growth or expansion phase, telemedicine is rapidly spreading throughout the health care system. Providers reported strong satisfaction with the telemedicine platforms they were using; over half of the organizations that track return on investment reported savings of 10 percent or more. A third of respondents said 50 percent or more of patients continued to use telemedicine after an initial visit, demonstrating growing patient satisfaction with the service.
- **Providers see opportunities overseas.** Despite legal and regulatory uncertainties, providers are using international telemedicine to serve clients in the domestic market and overseas. More than half of respondents said they offer or are interested in offering international telemedicine. Those who are interested appear to be moving fast: More than 80 percent said they plan to implement international telemedicine within three years.
- **Telemedicine drives digital health.** More than 80 percent of respondents said telemedicine was spurring expansion of their digital health services, with mobile health applications, remote patient monitoring and personal health records also popular. Organizations reported strong interest in additional digital solutions for monitoring patient compliance.
- **Legal and regulatory questions remain.** Rules on recording patient encounters, interstate licensing, prescribing drugs and Medicare coverage are in flux as health care organizations and legislators determine how best to harness the promise of telemedicine.
- **Reimbursement remains a major challenge.** More than half of respondents tagged third-party reimbursement as the greatest challenge to implementation. While three-quarters reported that all or some of their telemedicine services were reimbursed, a third said rates were lower than identical in-person services.



TWEET THIS

Law firm @FoleyandLardner's new survey finds that #telemedicine surges ahead as providers, patients embrace technology



Full Results

IMPLEMENTATION IS ADVANCING

The majority of respondents said they currently offer or plan to provide telemedicine services. More importantly, a full 68 percent of those who offer it have already pushed past the implementation phase; 53 percent said they were in the growth or expansion phase and another 15 percent were in the mature or optimization phases. Only 14 percent described their programs as under development, compared with 34 percent in our 2014 telemedicine survey, and the portion of providers in a pilot phase dropped to 10 percent from 16 percent.

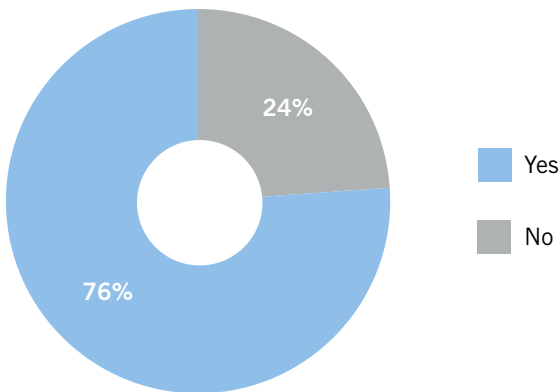
These responses, combined with the Centers for Medicare & Medicaid Services (CMS) data showing that Medicare payments for telemedicine rose 28 percent last year to \$28.8 billion, paint a clear picture: health care organizations are aggressively implementing telemedicine programs, which are quickly advancing along the maturity curve.



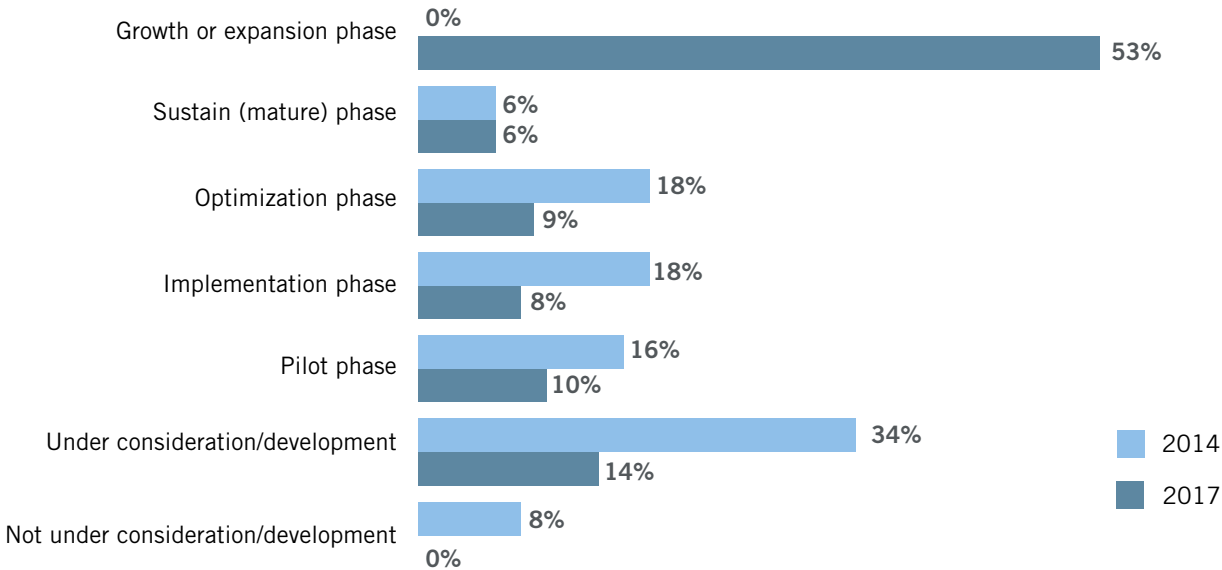
"We are entering a new era of how medical care is delivered, and on whose terms. Health care organizations have realized telemedicine is not just a fad or pilot project; it is a new way to practice medicine and manage populations."

**Nathaniel M. Lacktman, chair of
Foley's Telemedicine Industry Team**

1 DOES YOUR ORGANIZATION CURRENTLY OFFER, OR ARE YOU PLANNING TO PROVIDE, TELEMEDICINE SERVICES?



2 WHAT IS THE CURRENT STATUS OF YOUR TELEMEDICINE PROGRAM?



Telemedicine Delivers Results

Providers reported strong satisfaction with the telemedicine platforms they were using. More than 60 percent said improved patient access and scheduling flexibility were key factors in delivering that satisfaction, with program software and compensation rates also scoring high marks.

Patients also appeared convinced of telemedicine's value. Half of respondents said they received reimbursement from patient self-pay, indicating that patients value telemedicine services enough to pay for them out of their own pockets. And a third of respondents said 50 percent or more of patients continued with telemedicine after an initial use. Clearly, the convenience and efficacy of telemedicine are winning over consumers. "Our patients love telemedicine," said one respondent. "They love our telefacilitators, our providers and the service."

While the low percentage of respondents who track return on investment (46 percent) appears surprising at first glance, it could simply indicate that organizations have moved beyond questions about telemedicine's ROI. Telemedicine has long been more about expanding the delivery of services than increasing returns, anyway: In our 2014 survey, half of respondents ranked improvement of care as their primary rationale for implementing telemedicine, and another 18 percent saw it primarily as a method for reaching new patients.

The widespread move toward implementation indicates that questions about financial returns have been settled, and that telemedicine technology has proven its financial viability. Indeed, nearly a third of those who track ROI reported generating savings of 20 percent or more. "About two-thirds of patients would have used an emergency department or urgent care if they didn't have telemed as an option," said one respondent, a director of telehealth for an emergency physician group.

Second opinions and mental health services were among the leading uses of telemedicine, illustrating two services that lend themselves especially well to the technology – and also happen to align with reimbursement patterns. More than half of respondents also said they used telemedicine for remote patient monitoring, even though only 15 percent reported reimbursement for the service, a testament to the technology's power to reduce costs of untreated chronic disease. Telepharmacy services were the least likely to be offered, which is understandable given that only 6 percent of respondents reported being reimbursed for those services.

Urgent or after-hours care and outpatient services also ranked highly among respondents. A third of organizations surveyed used store and forward (except for radiology and pathology) and telestroke for remote diagnosis and treatment of strokes. Nearly a quarter of respondents utilized telemedicine for destination medical services, in line with the increasing use of remote technology to fuel international expansion.

"It's invigorating to see a real inflection point among patients, with nine of 10 who have used virtual care services reporting a high level of satisfaction. It shows just how far telemedicine has come in these past few years."

Nathaniel M. Lacktman



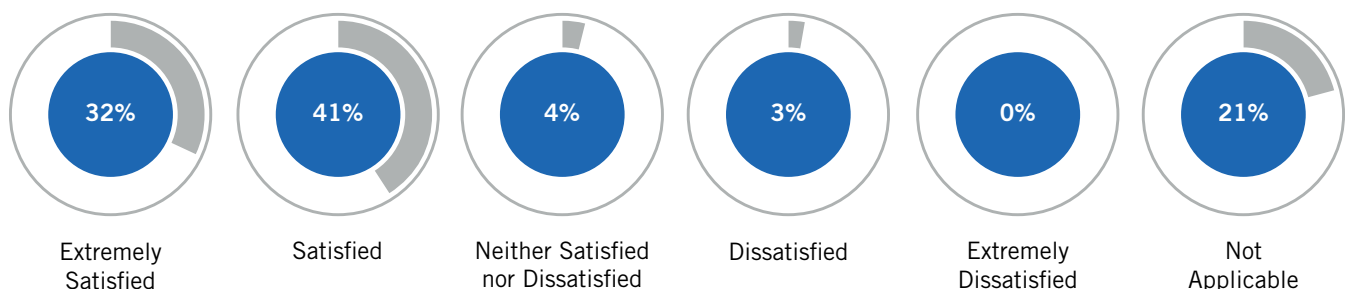
TWEET THIS

Survey Says: 73% of #healthcare providers are satisfied or very satisfied with their orgs #telemedicine platform

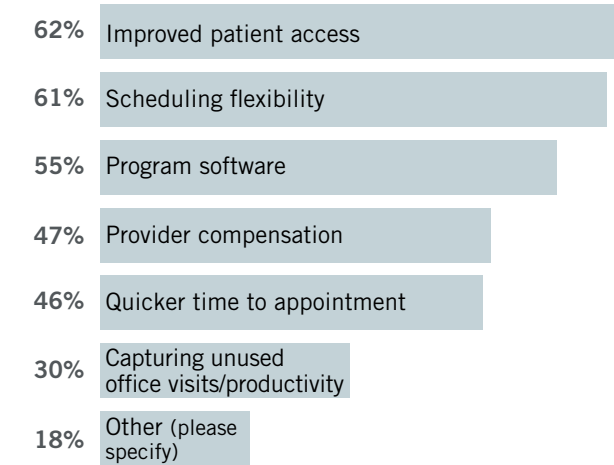
Half of survey respondents are reimbursed from patient self-pay, showing how much patients value #telemedicine services

3

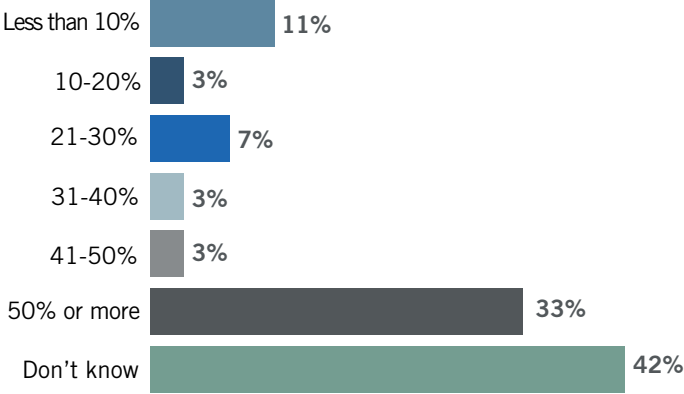
WHAT IS THE SATISFACTION LEVEL OF PROVIDERS WHO HAVE USED YOUR ORGANIZATION'S TELEMEDICINE PLATFORM?



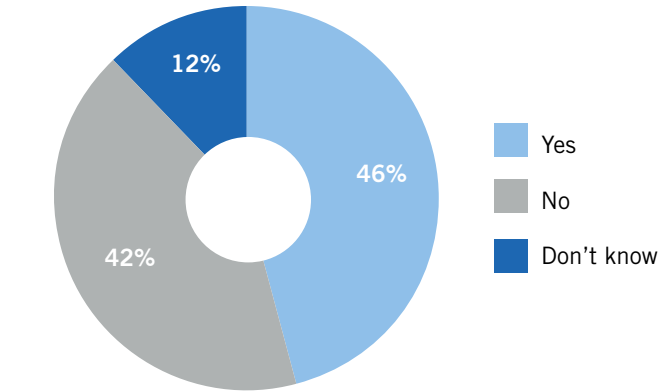
4 WHAT ARE THE KEY FACTORS THAT IMPACT PROVIDER SATISFACTION LEVELS? (SELECT ALL THAT APPLY)



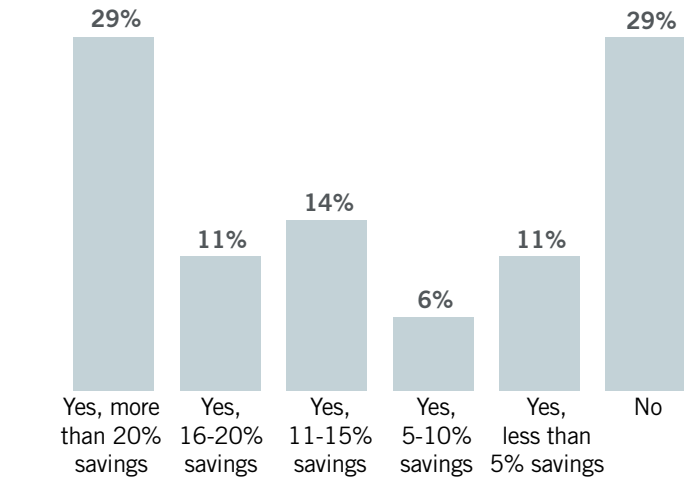
5 WHAT PERCENTAGE OF YOUR PATIENT POPULATION CONTINUES WITH TELEMEDICINE VISITS AFTER THE INITIAL VISIT?



6 DO YOU TRACK COST SAVINGS OR ROI FROM TELEMEDICINE SERVICES?



7 HAS YOUR ORGANIZATION REALIZED COST SAVINGS OR ROI FROM TELEMEDICINE SERVICES?



International Expansion

Interest in expanding telemedicine overseas is surging. More than half of respondents said they currently offer or plan to offer international services with this technology. And most are operating on an aggressive timeline: Of those who plan to offer international telemedicine, more than 80 percent plan to roll it out in the next three years. This portends a period of vigorous expansion as U.S. organizations seek to use telemedicine to offer their expertise to patients in fast-growing foreign markets.

Consultations, second opinions and specialties like radiology and pathology lend themselves particularly well to international telemedicine. U.S. experts can review digital images and diagnostic information and provide recommendations from remote locations. Some providers also reported using telemedicine to connect overseas professionals holding U.S. licenses with domestic patients. The U.S. Army is offering telemedicine to personnel and beneficiaries throughout **Europe**.

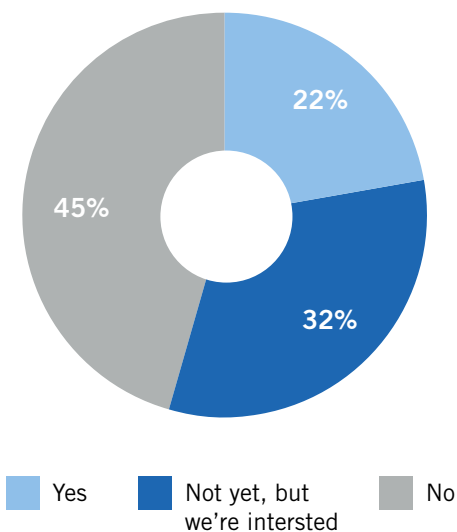
This expansion comes despite, or perhaps due to, a lack of insurance reimbursement in many international markets. Given a tough environment for third-party reimbursement in the United States, providers may welcome expansion in markets where patients pay in cash.

In China, a rapidly growing middle class simply needs better access to care, while patients in the Middle East are willing to pay premium prices for consultations with the most qualified U.S. professionals. Providers in Southern California and Florida are capitalizing on their historic affinity with Latin American patients to use telemedicine to expand into Central and South America.

Still, U.S. organizations should tread carefully when offering services in foreign jurisdictions. Aggressive plans give rise to concerns that organizations are not moving cautiously enough in reckoning with the formidable and complex tangle of laws and regulations governing telemedicine technology around the world. Fee-splitting and kickbacks, data privacy and security, licensure, and jurisdiction and venue for litigation are just a few of the many issues confronting organizations that want to expand internationally. They also must make sure their telemedicine operations comply with complex tax regimes and the Foreign Corrupt Practices Act. Those entering overseas markets without first resolving legal questions might find themselves in trouble later.

8

DOES YOUR ORGANIZATION OFFER TELEMEDICINE SERVICES INTERNATIONALLY?



"The rise of telemedicine provides underserved areas with new opportunities to improve the lives of patients with reduced costs."

Consultant, Massachusetts



"The risks of offering telemedicine or digital health services across international jurisdictions are real and substantial. Opportunities abound, but entrepreneurs, developers and health care providers must be as diligent in complying internationally as they are domestically."

Nathan A. Beaver, partner in the firm's Government & Public Policy and FDA Practices, and the Life Sciences Industry Team

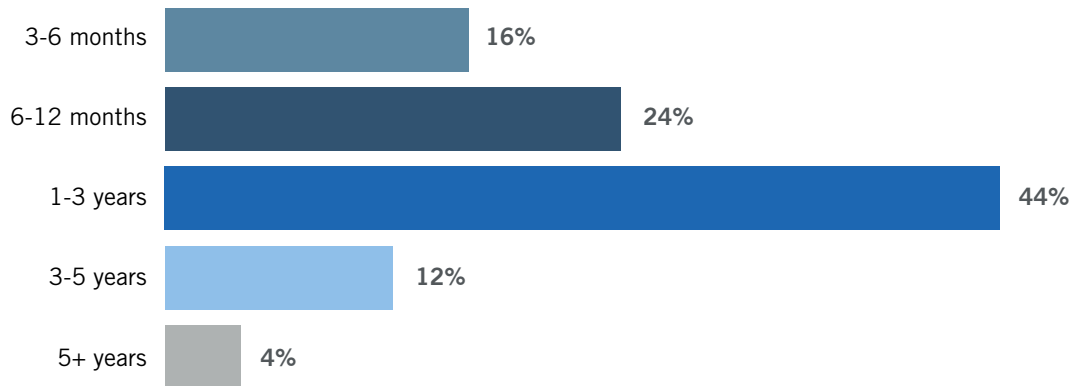


TWEET THIS

54% of survey respondents currently offer or plan to offer (within 3 years) international #telemedicine services

9

HOW SOON DO YOU EXPECT INTERNATIONAL EXPANSION?



Digital Health, Artificial Intelligence and the FDA

Telemedicine was the most common driver behind expanding digital health services, followed by mobile health applications, wearable devices for remote patient monitoring and patient health records. Roughly a third of respondents also said they plan to use digital technology to monitor efficacy and track adverse events. Medical monitoring was the most prevalent use for digital hardware, with the technology also in frequent use as a diagnostic tool and for external storage of data. More than half of respondents said they need hardware or software to help them meet their goals for monitoring patient compliance with therapy. Patient interaction portals, lab testing and disease diagnosis also drew strong interest among providers.

Respondents are not so enthusiastic about using digital technology to replace the skills of human providers – at least not yet. Only 10 percent reported using research-assisted services like digital libraries and chatbots to augment human providers. Organizations are also slow to adopt artificial intelligence (AI), although they see promise in it, especially as a means of monitoring population health and reducing administrative burdens. Twenty-eight percent of respondents listed cost as a major obstacle to adopting AI, closely followed by interoperability and infrastructure constraints, which are common at large health care organizations.

The FDA could help speed the adoption of digital health technology, and providers are hopeful that will happen under newly appointed Commissioner Scott Gottlieb. Only 34 percent of respondents rated the FDA as effective in regulating new technology; 25 percent deemed it ineffective. Sixty-one percent said they would like the FDA to eliminate unnecessary ambiguity in the regulations governing telemedicine, while 58 percent said they want a quicker approval process. Also high on the wish list: a lighter touch for FDA reviews of software as a medical device.

On the positive side, respondents are broadly optimistic that the 21st Century Cures Act will open up new study designs and treatment options and ease the requirements around informed consent. More than a third thought it will also speed up FDA approvals and clearances.

“The sooner we rethink and replace many traditional health care delivery models, the better.”

Director of Telemedicine Program, Missouri



“We are optimistic the FDA under Scott Gottlieb will provide significant help to providers

by reducing ambiguity in the rules governing digital health technology and speeding up the approval process for software as a medical device.”

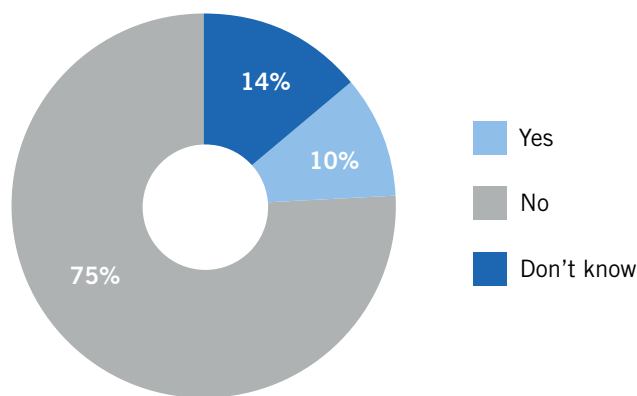
David L. Rosen, BS Pharm, JD, FDA Practice Group Leader, co-chair of the firm’s Life Sciences Industry Team



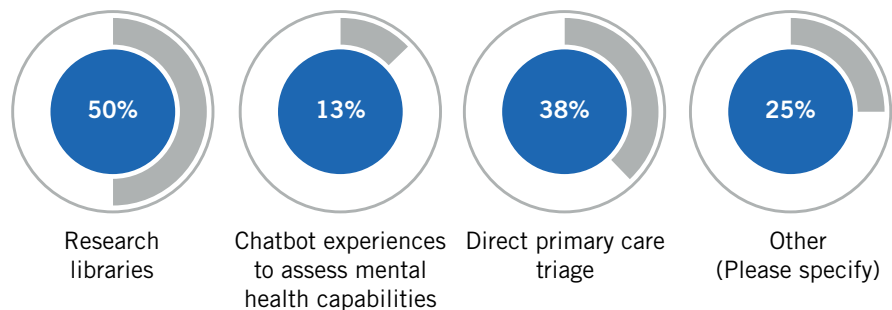
TWEET THIS

61% of respondents say they want the #FDA to eliminate unnecessary ambiguity in the regs governing #telemedicine

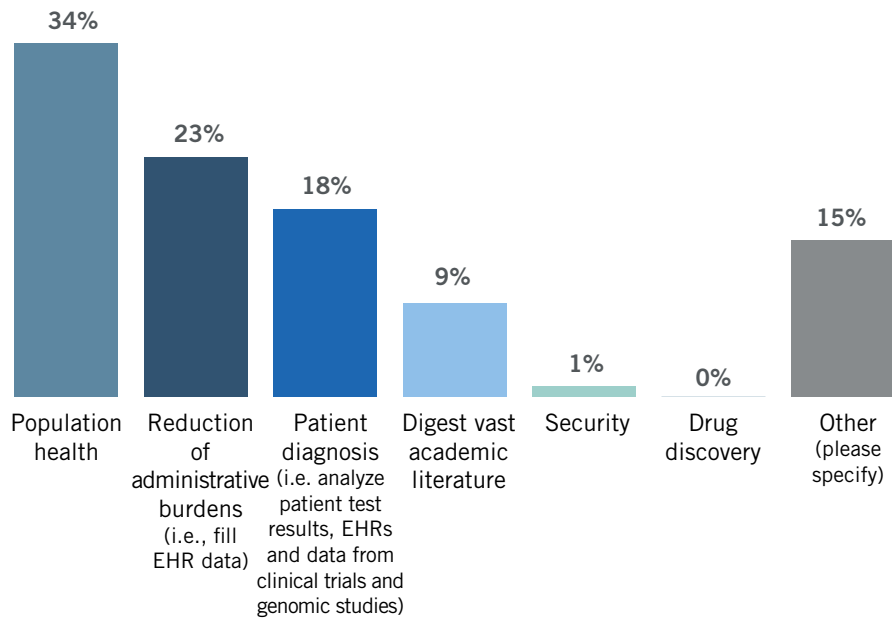
10 ARE YOU USING RESEARCH-ASSISTED SERVICES TO AUGMENT HUMAN PROVIDERS?



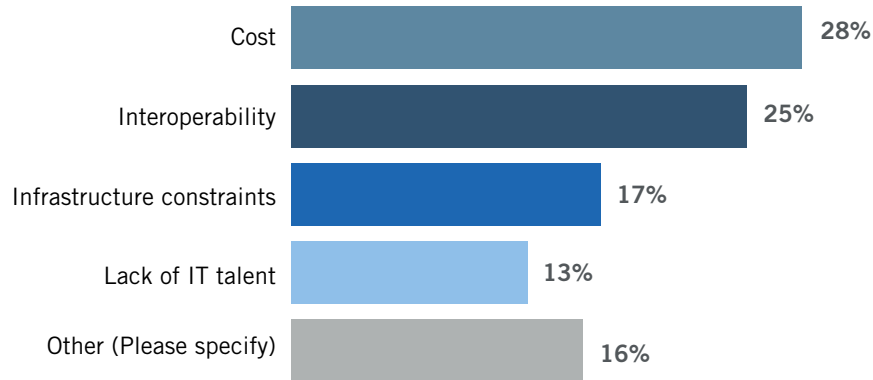
11 HOW ARE YOU USING RESEARCH-ASSISTED SERVICES TO AUGMENT HUMAN PROVIDERS? (SELECT ALL THAT APPLY)



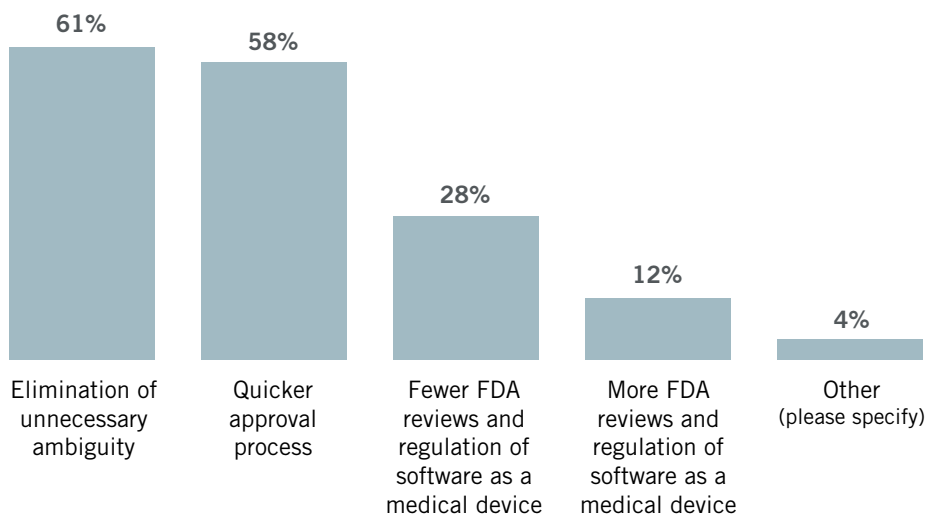
12 WHAT DO YOU SEE AS THE GREATEST OPPORTUNITY PROVIDED TO YOUR ORGANIZATION BY ARTIFICIAL INTELLIGENCE?



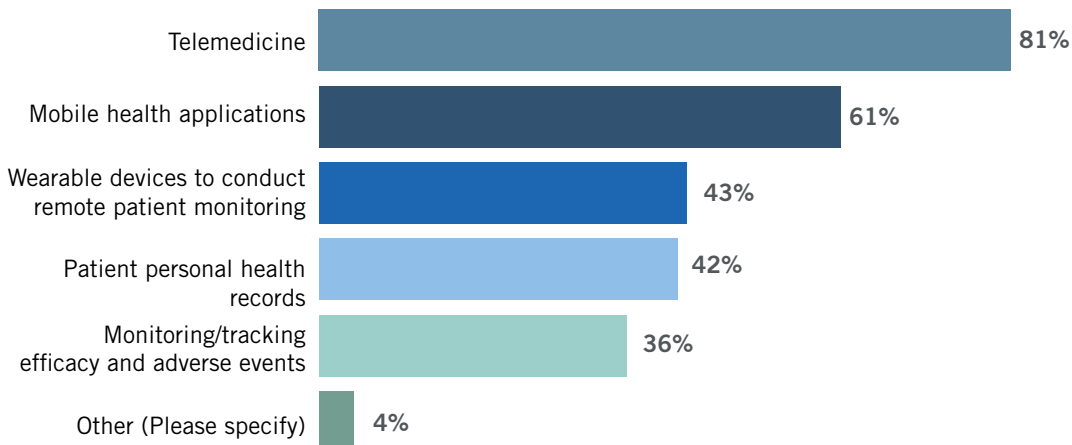
13 WHAT DO YOU SEE AS THE BIGGEST OBSTACLE TO ADOPTING ARTIFICIAL INTELLIGENCE?



14 WITH A NEWLY APPOINTED FDA COMMISSIONER, WHICH DIGITAL HEALTH REGULATORY CHANGES WOULD YOU LIKE TO SEE IN THE NEAR FUTURE? (SELECT ALL THAT APPLY)

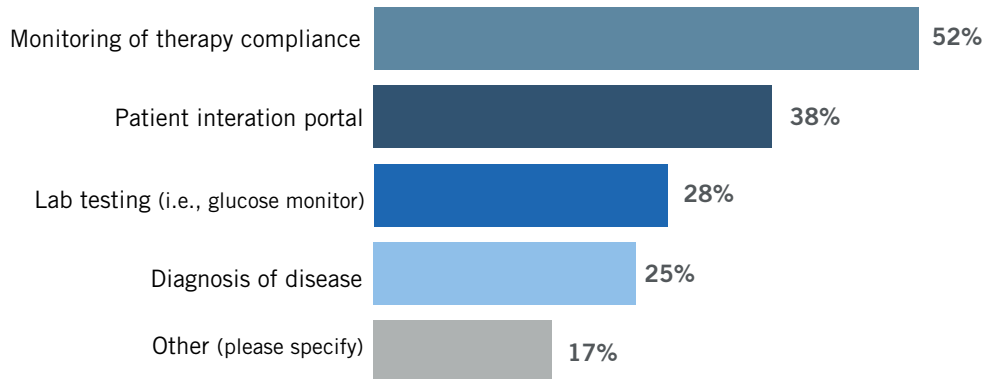


15 HOW IS YOUR ORGANIZATION PLANNING TO EXPAND ITS DIGITAL HEALTH SERVICES? (SELECT ALL THAT APPLY)



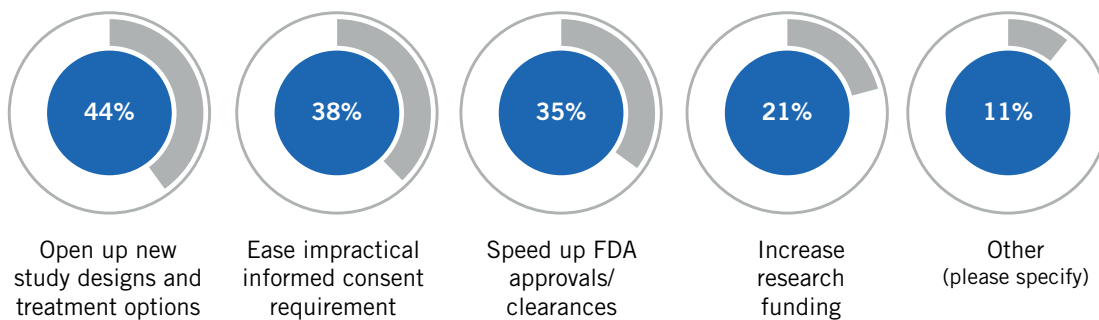
16

IN WHICH AREA(S) DOES YOUR ORGANIZATION NEED HARDWARE OR SOFTWARE ASSISTANCE TO ACHIEVE ITS GOALS? (SELECT ALL THAT APPLY)



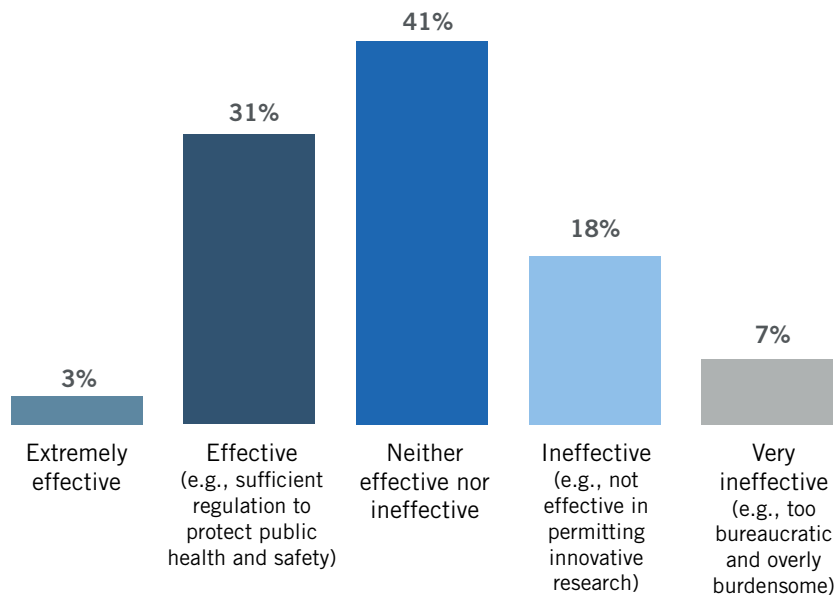
17

WHAT IMPACT DO YOU EXPECT THE 21ST CENTURY CURES ACT TO HAVE ON YOUR BUSINESS? (SELECT ALL THAT APPLY)



18

IN YOUR OPINION, HOW EFFECTIVE IS THE FDA IN REGULATING NEW MEDICAL DEVICE TECHNOLOGY?



New Technology Raises New Legal Questions

Discrete and inexpensive recording technology is forcing providers to confront the question of whether or not they should make digital records of patient telemedicine visits – and what to do if patients surreptitiously record their telemedicine consult. Respondents were evenly split on whether they record encounters with patients, indicating uncertainty about how to proceed with this useful but potentially risky technology. One study showed that 90 percent of patients found a video recording of their neurosurgery consultation was helpful, and 100 percent found the recording helped them understand their discharge instructions. Some providers are already using apps that allow patients to access such recordings from a secure site online.

Developing a national or enterprise policy on recording is tricky but completely achievable for organizations that pay proper attention to detail. State laws vary on whether one or both parties must consent to a recording (Vermont's new telemedicine law bans all recordings of consultations), and while HIPAA places strict controls on a provider's release of information, patients have no limits on what they choose to share on social media and other platforms. Providers must be prepared to deal with the unauthorized release of excerpts that may, fairly or unfairly, denigrate the advice or examining skills of their professionals, as well as the evidentiary implications of recorded patient encounters.

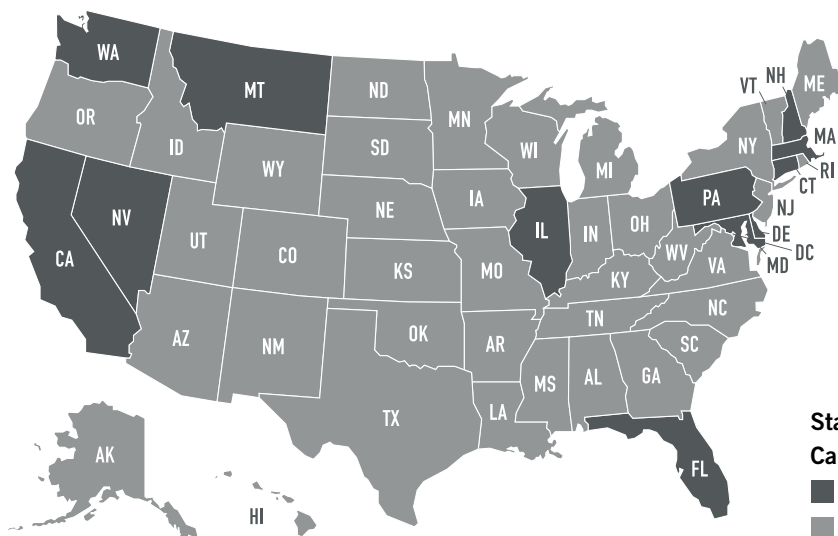
State laws also vary on the issue of patient informed consent to participate in telemedicine. Some states, like Oklahoma, have eliminated informed consent on the belief that patients are capable of understanding that the provider of a consultation is not physically in the room with them. There is no federal policy on telemedicine consent, so as with recordings, providers must carefully consider the law in every state where they plan to provide services.

State licensing requirements are also a concern, with the director of a telemedicine program in Florida saying: "I would love to see additional work on either interstate or even national licensure." Another respondent suggested a national license and credentialing service that is updated at least monthly. Only a third of respondents said they use credentialing by proxy, even though CMS finalized rules governing telemedicine providers operating from remote locations in 2011.

Approximately twelve states have phone recording laws requiring that both parties to a telephone conversation give their express consent before the conversation may be recorded. Other states require only one party give consent.

"Too many providers and entrepreneurs are overwhelmed and confused with the myriad legal and regulatory issues when delivering health care services through technology and across states. They want expert advisors who can offer solutions and legally compliant pathways to success across states, not simply to tell them whether or not an in-person exam is required."

Nathaniel M. Lacktman



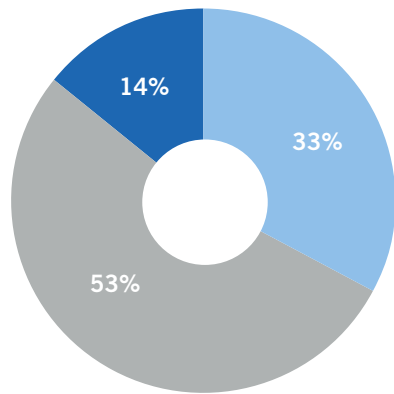
State Law: Recording Phone Calls and Discussions

■ 2-Party Consent Law

■ 1-Party Consent Law

19

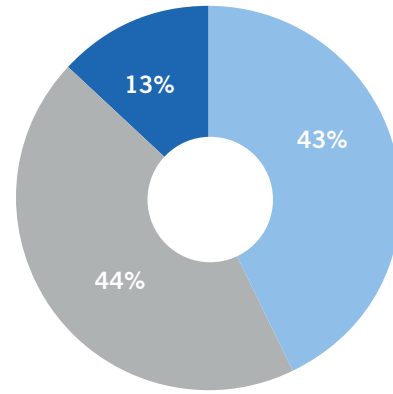
**DOES YOUR ORGANIZATION USE
TELEMEDICINE CREDENTIALING BY
PROXY FOR PHYSICIAN CREDENTIALING?**



Yes No Don't know

20

**DO YOUR PROVIDERS RECORD
TELEMEDICINE ENCOUNTERS WITH PATIENTS?**



Yes No Don't know

Challenges and Concerns

Third-party reimbursement remains a serious concern; almost 60 percent of respondents listed it as a challenge, although 76 percent reported some or all of their telemedicine services were reimbursed, compared with 2014, when 41 percent of respondents said they received no reimbursement for a telemedicine visit.

Physician buy-in, which was ranked as a major concern by 39 percent of respondents in the 2014 survey, fell to 32 percent this year, as organizations appear to be making progress in winning over traditionally skeptical providers. Nearly three-quarters of providers who use an organization's telemedicine platform were reported to be satisfied or extremely satisfied, and only 3 percent said they were dissatisfied, suggesting the technology is gaining wide acceptance.

Among other challenges, a quarter of respondents said they were having trouble obtaining institutional leadership, support and funding for telemedicine programs. Monitoring the quality of telemedicine technology also was a concern for some, while others were awaiting more academic research to justify implementation and had questions about credentialing. Return on investment was only listed as a concern by a small minority of respondents.

Given telemedicine's obvious benefits for providers and patients, this suggests health care organizations must look beyond short-term uncertainty in areas like reimbursement and regulation to form a long-term view of how this technology can augment their delivery system. By examining successful implementation programs and staying abreast of evolving state and federal rules, they can build telemedicine programs that will take full advantage of the opportunity to radically increase access while lowering costs.

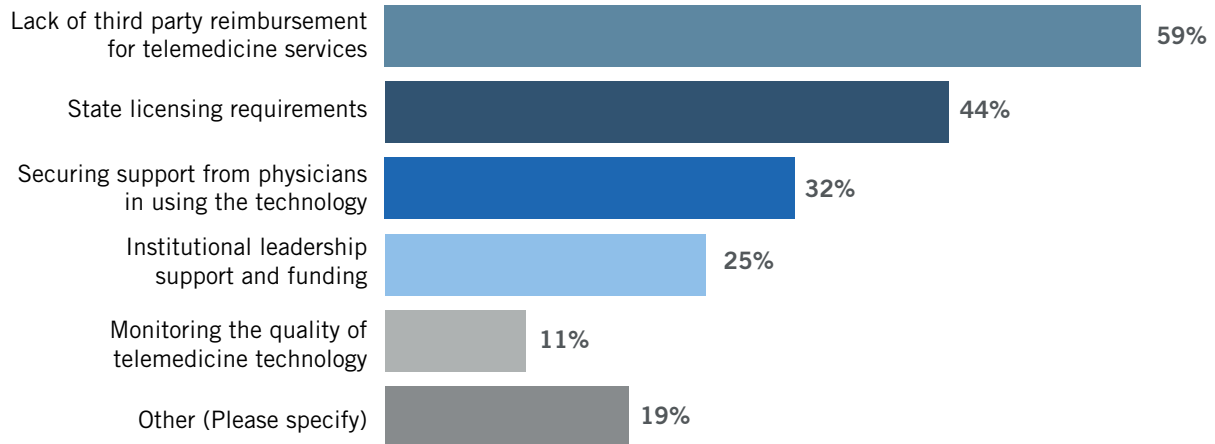


"There's no reason to deny reimbursement or pay less for telemedicine-based services simply because it is delivered through new technology. Third-party reimbursement needs to catch up, and Congress needs to change the rules for Medicare."

Monica R. Chmielewski, co-chair of the firm's Life Sciences Industry Team and vice chair of the firm's Health Care Industry Team

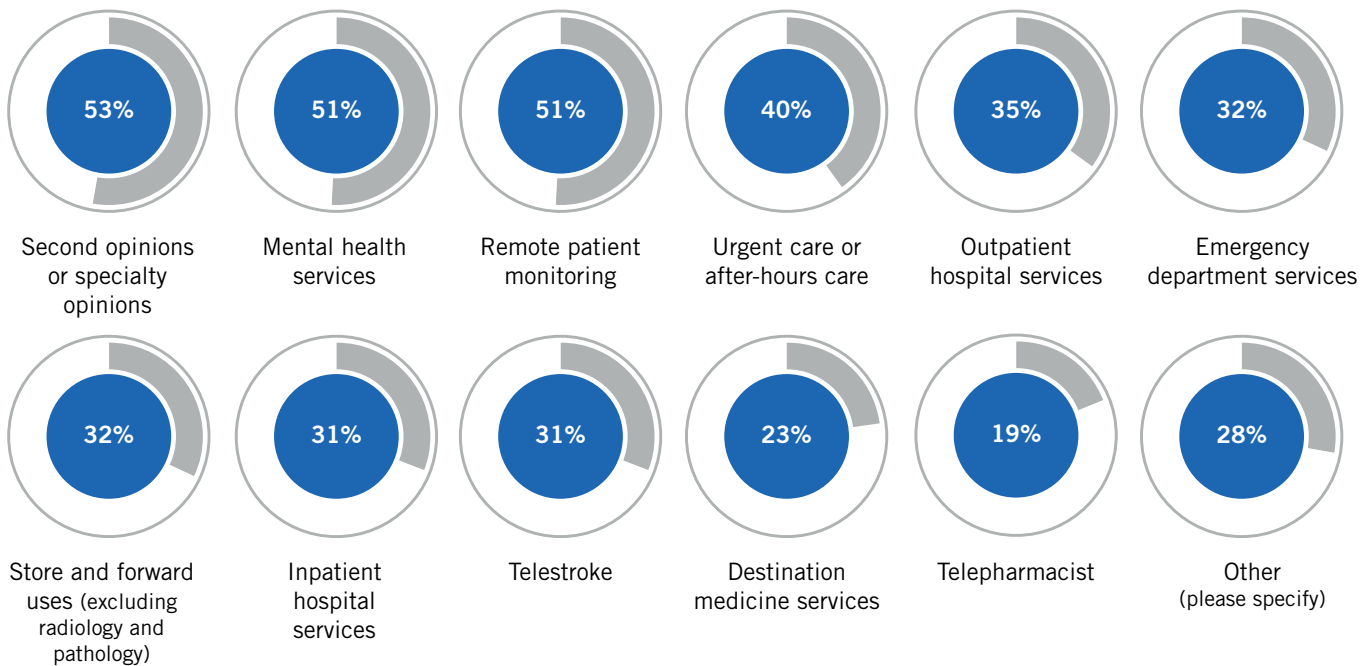
21

WHICH OF THE FOLLOWING HAS BEEN A CHALLENGE TO IMPLEMENTING TELEMEDICINE PRACTICES IN YOUR ORGANIZATION? (SELECT ALL THAT APPLY)



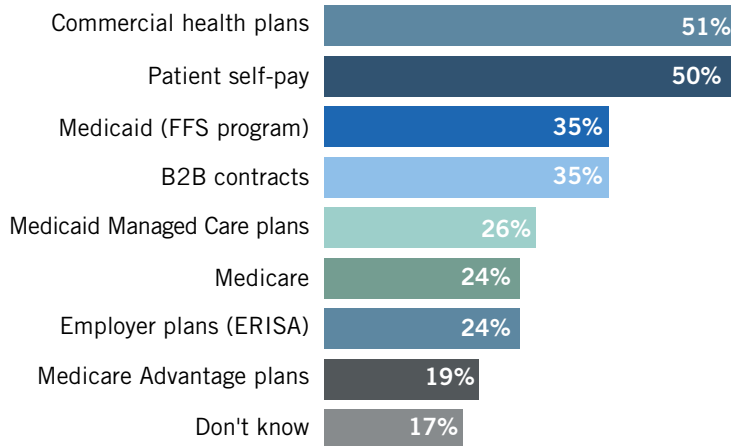
22

WHICH OF THE FOLLOWING SERVICES DOES YOUR ORGANIZATION OFFER OR PLAN TO OFFER VIA TELEMEDICINE? (SELECT ALL THAT APPLY)



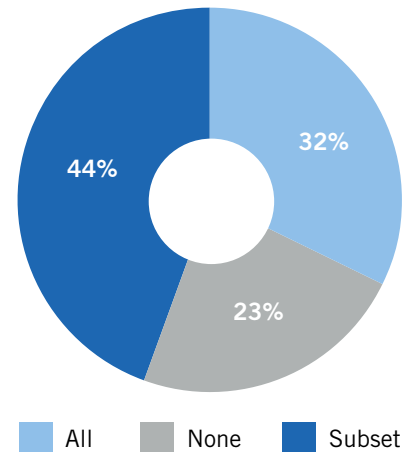
23

**IS YOUR ORGANIZATION REIMBURSED FOR
TELEMEDICINE SERVICES FROM THE FOLLOWING
PAYER SOURCES? (SELECT ALL THAT APPLY)**



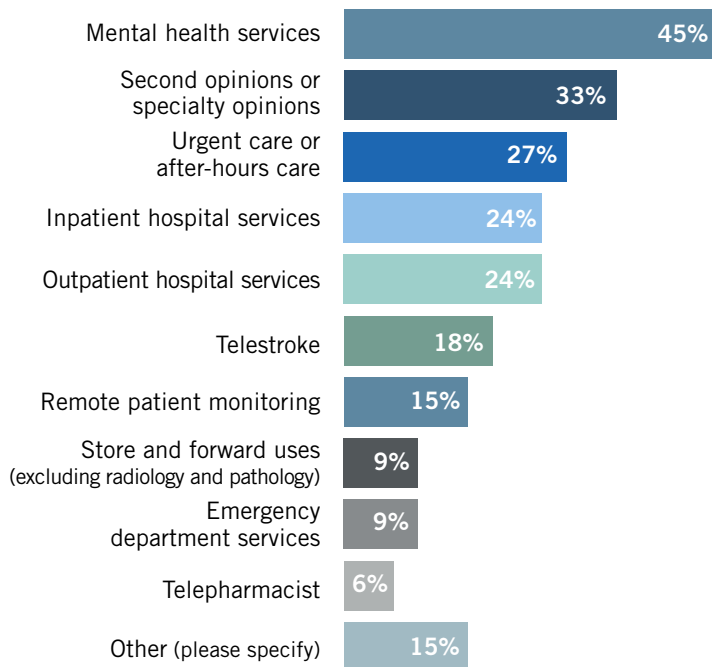
24

**IS YOUR ORGANIZATION REIMBURSED
FOR ALL TELEMEDICINE SERVICES
OR ONLY A SUBSET?**



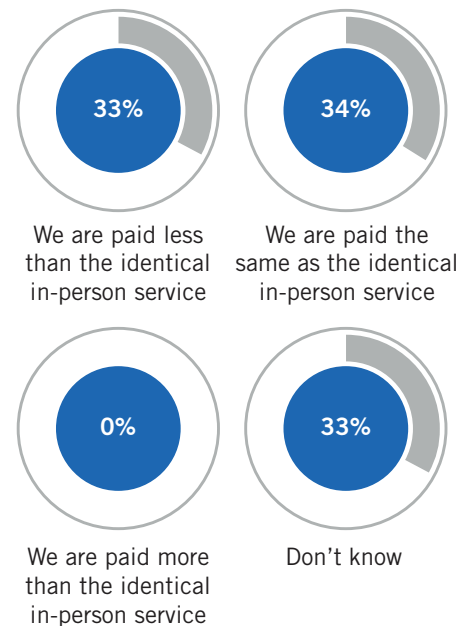
25

**SELECT THE SUBSET FOR WHICH YOUR
ORGANIZATION IS REIMBURSED FOR
TELEMEDICINE SERVICES.
(SELECT ALL THAT APPLY)**



26

**REGARDING THE PAYMENT RATE
YOUR ORGANIZATION IS REIMBURSED
FOR TELEMEDICINE SERVICES BY
COMMERCIAL HEALTH PLANS (NOT
MEDICARE), PLEASE CHOOSE THE
OPTION THAT BEST DESCRIBES
YOUR EXPERIENCE.**



Methodology and Demographics

Foley distributed this survey in the third quarter of 2017 and received responses from 107 senior-level executives and health care providers at hospitals, specialty clinics, ancillary services and related organizations. Forty-three percent of respondents held the title of chief executive officer or vice president. Respondents were primarily based throughout the United States, including Florida (23 percent), Massachusetts (10 percent), California (6 percent) and New York (6 percent).

The breakdown of respondents includes:

- Provider group (19 percent)
- Hospital (18 percent)
- Specialty clinic (e.g., cardiology, internal medicine) (9 percent)
- Ancillary service (e.g., diagnostic, therapeutic) (9 percent)
- Chronic long-term care management (e.g., home health, hospice) (1 percent)
- Other (45 percent)



About Foley's Telemedicine Industry Team

Foley's Telemedicine Industry Team helps clients embrace emerging issues in telemedicine, enabling them to provide innovative care for patients in new markets around the block and around the world.

By taking advantage of technological advances, health care facilities, professionals and entrepreneurs have the chance to be at the forefront of health care delivery by expanding their service offerings to share their insight with patients independent of geography. With this opportunity come challenges as laws and regulations struggle to keep up with the pace of innovation. It is critical to consult with a legal services provider with the experience and resources to help you grow your business while managing the evolving issues associated with this emerging field.

Our attorneys have the experience necessary to assist with telemedicine program assessment, development and implementation; nursing hotlines and pharmacy call centers; and multi-state, web-based health care tools and services. We also are well-positioned to provide counsel on operational issues, including payor credentialing, patient verification and medical record management.

About Foley & Lardner LLP

Foley & Lardner LLP looks beyond the law to focus on the constantly evolving demands facing our clients and their industries. With more than 900 lawyers in 19 offices across the United States, Europe and Asia, Foley approaches client service by first understanding our clients' priorities, objectives and challenges. We work hard to understand our clients' issues and forge long-term relationships with them to help achieve successful outcomes and solve their legal issues through practical business advice and cutting-edge legal insight. Our clients view us as trusted business advisors because we understand that great legal service is only valuable if it is relevant, practical and beneficial to their businesses. Learn more at Foley.com.

For More Information

To learn more about Foley's Telemedicine and Digital Health Survey, please contact **Nathaniel M. Lacktman** at nlacktman@foley.com or 813.225.4127, or **David L. Rosen** at drosen@foley.com or 202.672.5430.



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