

Telehealth: Industry Trends and Predictions for 2020

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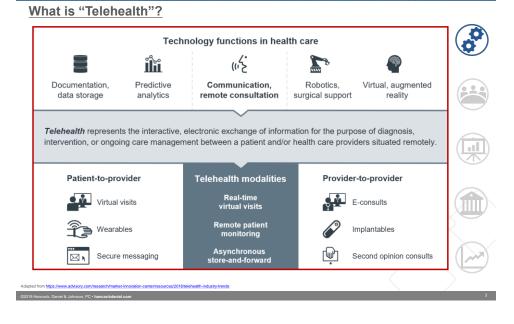
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Defining Telehealth



Defining Telehealth

Provider Use of Telehealth

likely to invest in telehealth in 2017

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Stroke, mental health, and primary care remain top uses of telehealth • Telehealth program maturity, by care setting REACH Health, 2018 U.S. Telemedicine Industry Survey ::::: ┋╬║ ACUTE CARE PRIMARY CARE SKILLED NURSING 35% 12% 5% 6% Greater than 3 years 22% 23% Less than 3 years No telehealth program 42% 67% 89% 83% Top specialty applications 233 Health care executives $\langle \rangle$ responding that they were

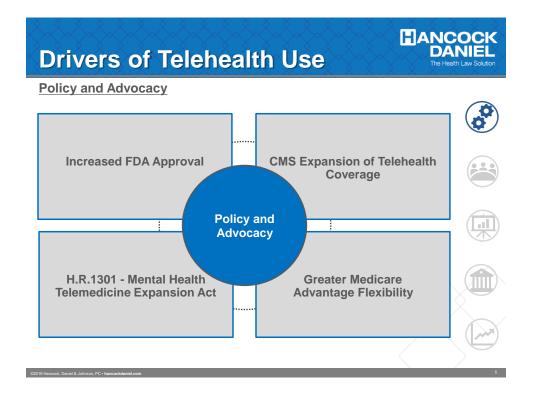
Psychiatry

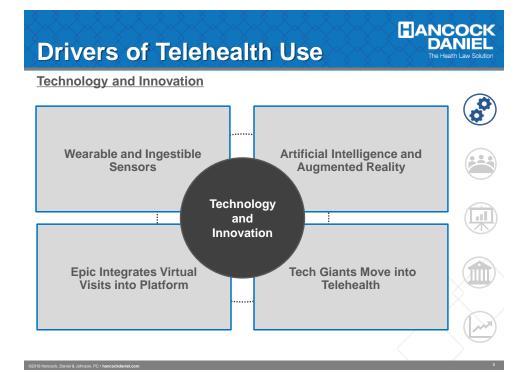
Stroke

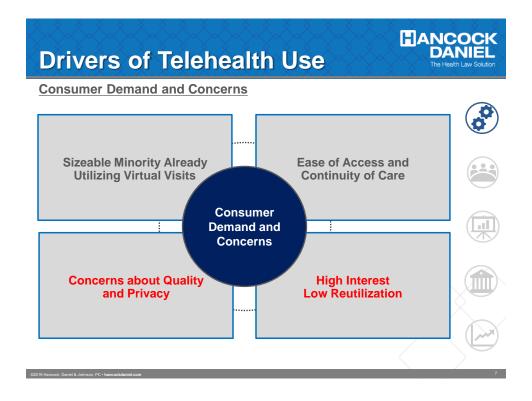
Neurology

Radiology

Pediatrics

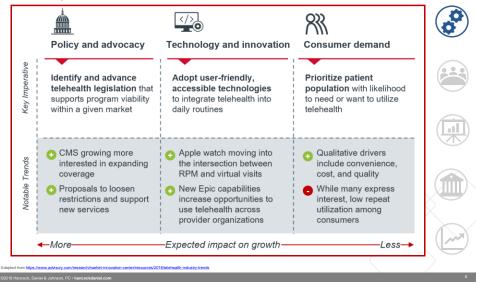






Drivers of Telehealth Use

Summary of Demand Drivers



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Major Players and Priorities

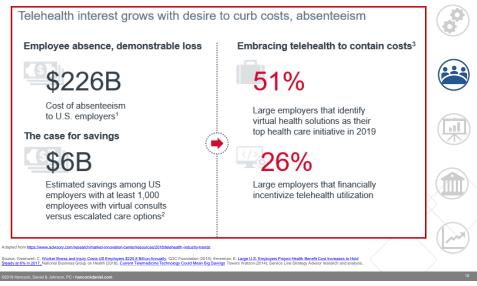
Overview of Major Players and Priorities

EmployersPayersProvide granzationsImage: Constant of the point of the	Lines between partners, con	mpetitors often blurred		
Promotion of workplace health; decreased absenteeism Reduced cost and utilization; promotion of preventive services Enhanced competitive market position; new patient capture; transfer avoidance Clinically integrated networks Vendors and developers Retailers Image: Clinically integrated networks Vendors and developers Retailers Image: Clinically integrated networks Image: Clinically integrated developers Image: Clinically integrated developers Image: Clinically integrated networks Vendors and developers Image: Clinically integrated developers Image: Clinically integrated networks Vendors and developers Image: Clinically integrated developers Image: Clinically integrated networks Vendors and developers Image: Clinically integrated developers Image: Clinically integrated networks Vendors and developers Image: Clinically integrated developers Image: Clinically integrated networks Vendors and developers Image: Clinically integrated developers Image: Clinically integrated networks Vendors and developers Image: Clinically integrated developers Image: Clinically integrated networks Profit-enhancing partnerships; market share Image: Clinically integrated delivery market Image: Clinically integrated networks Profit-enhancing partnerships; market share Image: Clinically i	Employers	Payers	11011401	
Initial constraints Initial constraints<		+ ==	\+ 	
networks developers Retailers Reduced total cost of care; improved quality and operational Profit-enhancing partnerships; market share Deepening presence in the healthcare delivery market	workplace health;	utilization; promotion	market position; new patient	
Reduced total cost of Profit-enhancing in the healthcare care; improved quality partnerships; market delivery market and operational share			Retailers	
Reduced total cost of Profit-enhancing in the healthcare care; improved quality partnerships; market delivery market and operational share	<u>.</u>		₩.	
	care; improved quality and operational	partnerships; market	in the healthcare	
from https://www.advisory.com/research-market-innovation-center/resources/2018/telehealth-industry-trends		elehealth-industry-trends	\leq	<u>۹</u>

Major Players and Priorities

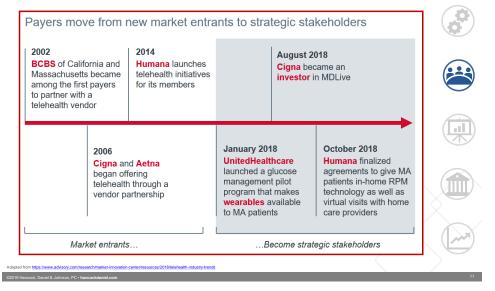
Employers

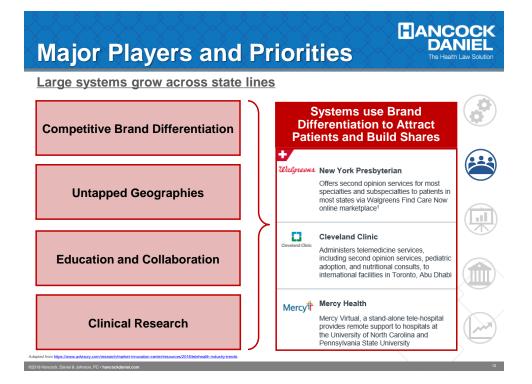
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Major Players and Priorities

Payers





HANCOCK DANIEL **Major Players and Priorities Provider Organizations – Small Systems** Smaller systems aim to beat provider shortages through telehealth Drivers of provider shortages across service lines Insufficient Disproportionate Low rates of High share of regional provider physicians aging into insurance retirement volumes concentrations acceptance Frequently Pediatric Physicians affected Psychiatrists Neurologists service subspecialists overall lines 46.9% 11.4 vs. 2.2 25% vs 10% >1 in 3 Neurologists per Share of respondents Share of all active Reported vacancies of >12 months among 100,000 people in using an out of network physicians who will hospital-based Washington DC vs. mental health specialist be 65 or older by developmental Wyoming² vs. medical specialist3 20304 pediatricians, nationally1 rce: Workforce Shortage Fact Sheet, Children's H rtal Illness (2016); Mann, S, Research Shows Sho

Major Players and Priorities

Clinically Integrated Networks (CINs)

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CIN challenge	Telehealth's matching value proposition	
Variability in patient care	Coordination among primary and specialty care providers; enhanced access	(
Outcomes analytics	Continual generation of mineable data; remote monitoring capabilities across care settings	
High-quality, manageable cost	Timely, reliable, and efficient treatment and ongoing care management	
we're actually able to connect	e patient is in the primary care physician's office, the specialist with the primary care physician and ty, that's greater convenience, and certainly it's nediately." Dr. Robert Pearl, Executive Director and CEO, Permanente Medical Group	

HANCOCK DANIEL **Major Players and Priorities** Vendors and Developers Telehealth M&A Activity 2018-19 Teladoc acquired international virtual care provider Advance Medical in Spring 2018 dr. on demand Allow Teladoc to develop and expand its global market into Latin America and Asia Pacifica 2. AmWell acquired Avizia in Spring 2018 my-[-elemedicine.com" Expand American Well's acute care 0 capabilities and give them access to Avizia's hospital-based cart lineup and custom **Teladoc** workflow software for over 40 specialties 3. InTouch acquired Reach Health in Spring 2018, taking on Reach's 200 **HEALTH** health system customers Broadens InTouch's footprint and expands services and capability to cover programs icliniq across the continuum of care THE VIRTUAL HOSPITAL

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Major Players and Priorities

Retailers

Former Apple CEO: Remote patient monitoring, telehealth will drive future of healthcare

Jackie Drees - Thursday, July 18th, 2019 Print | Email

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Advancements in health sensory technology will pave the way for remote patient monitoring and telehealth to dominate the future of healthcare, according to former Apple CEO John Sculley, who shared his viewpoint in *Fortune*.

There are two specific trends that will drive a major shift in the healthcare sector over the course of the next decade: a decrease in the number of available hospital beds and an increase in healthcare super users, which is a small percent of the population that uses the more than half of all the money spent on healthcare across the country, Mr. Sculley wrote.

The rise in telehealth services will result from advanced sensors, which will allow virtual care to push beyond urgent care situations. With telehealth, providing care to chronically ill patients in their own homes "will become mainstream practice," according to Mr. Sculley. Additionally, remote monitoring capabilities will continue to flourish, which will lead to fewer patients being re-admitted back to the hospital after discharge.

As for tech giants like Apple, Google and Amazon, Mr. Sculley predicts Apple will continue to add sensorbased applications to its Apple Watch and may even eventually launch a subscription service that can virtually connect Apple Watch users to their physicians. Google could develop medical sensors that work with its artificial intelligence-powered voice assistant to create an automated patient caregiver for homebased patients, and Amazon could continue improving its Alexa voice assistant to provide chronic care to patients at home, Mr. Sculley wrote.

https://www.beckershospitalreview.com/healthcare-information-technology/former-apple-ceo-remote-patient-monitoring-telehealth-will-drive-future-of-healthcare.htm

Major Players and Priorities

Retailers

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Will Amazon's telemedicine program spread beyond employees?

Laura Dyrda (Twitter) - Friday, September 27th, 2019 Print | Email

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Amazon launched a virtual health program earlier this week to employees, offering telemedicine as well as in-person healthcare services.

The program allows employees to contact healthcare providers through its mobile app or website, and they can text nurses and receive prescriptions through the platform. While the services are only available to employees, analysts predict it could spread.

As reported by *Barron's*, Jailendra Singh, Credit Suisse analyst, wrote in a note: "If the Amazon Care program is a success, the company is likely to have all willingness to expand its offerings to the broader U.S. market. Historically, Amazon has experimented with new products on its employees first, before broadening them out to the general population...Bottom line, the telemedicine industry is another addition to the list of industries for which every Amazon move will now be closely watched."

Daniel Grosslight of SVB Leerink was also cited in the report. He wrote in a note that Amazon could partner with telehealth vendors to manage the network and be a potential new source of revenue. He also wrote that he "would not be surprised" if Apple and Google launched similar platforms.

https://www.beckershospitalreview.com/telehealth/will-amazon-s-telemedicine-program-spread-beyond-employees.html







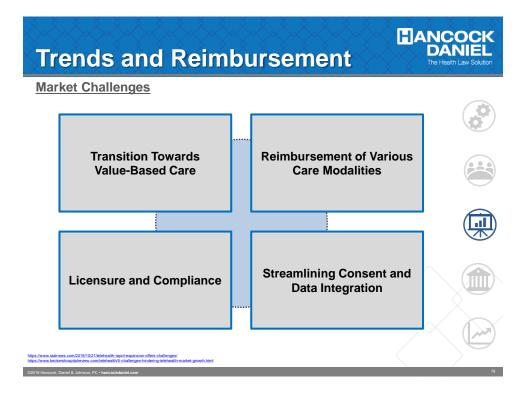












Trends and Reimbursement

Low Reimbursement for Top-Volume CPT Codes

%	Î	\mathcal{C}_{\bullet}		
CPT Code	2017 volume	2019 non-facility reimbursement	2019 facility reimbursement	
99214	118,030	\$110.28	\$80.01	Æ
99213	100,293	\$75.32	\$51.90	(L
90832	55,973	\$68.47	\$63.43	
90792	16,974	\$157.49	\$144.52	
99309	15,839	\$92.98	\$92.98	(\mathbf{x})
99212	15,260	\$45.77	\$25.95	$\langle \rangle$

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Trends and Reimbursement

Modalities of Telehealth Services Promote Value-Based Care

Telehealth-enabled imperatives for growth, value-based care goals

		Value-based care	
Real-time virtual visits	Enhance patient access and convenience	 Reduce costs by shifting patients to lower cost settings 	
	Attract and retain new patients	Cut patient/provider travel time	(Fi
Remote patient monitoring	 Differentiate from competitors Align with consumer interest in technology 	 Reduce avoidable emergency department utilization and 30-day readmissions 	
Asynchronous store-and-forward	Reduce wait time to next appointment and no-show rates	Increase patient activation and engagement	
	Achieve operational efficiencies	Expand specialist coverage	

Adapted from https://www.advisory.com/research/market-innovation-center/resources/2018/telehealth-industry-trend @2019 Hancock, Daniel & Johnson, PC+ hancockdaniel.com

Trends and Reimbursement

Virtual Visits

Adapted

Metrics	Proven results	Growth?	VB care?	
Cost savings	 24.2% reduction in psychiatric hospitalizations in a study of 100,000 VA patients using on-demand video visits 			
Downstream revenue	 30% of patients seek in-person follow up care within 21 days of a virtual urgent care visit A 500-bed rural health system in the northeast served 50 new bariatrics patients per year, bringing in an estimated annual revenue of \$700,000 from new system patients 			
Patient satisfaction	AveraNow program gets average 4.71/5 star score In HBR study, 97% patient satisfaction after first visit, 74% of patients felt that the virtual visit improved their relationship with their provider			

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Trends and Reimbursement

Remote Patient Monitoring

Improves care adherence, reduces unnecessary health care utilization

Metrics	Proven results	Growth?	VB care?	
Care adherence	 65% of new mothers reported blood pressure data for 5-7 days post discharge, compared to <5 % of new mothers nationally who attend post-natal visits 			
Readmissions, cost-savings	 Geisinger lowered odds of readmission at 30 days by 44% when CHF¹ patients were enrolled in RPM relative to earlier periods when not enrolled; estimated ROI is 3.3, with 11% cost savings during study period 			
Unplanned hospitalizations	 In VA study of chemotherapy patients, pilot group had 57% fewer unplanned hospitalizations and 97% fewer unplanned clinic visits compared to the control group 			
s://www.advisory.com/research/market-in	novation-center/resources/2018/telehealth-industry-trends			

Trends and Reimbursement

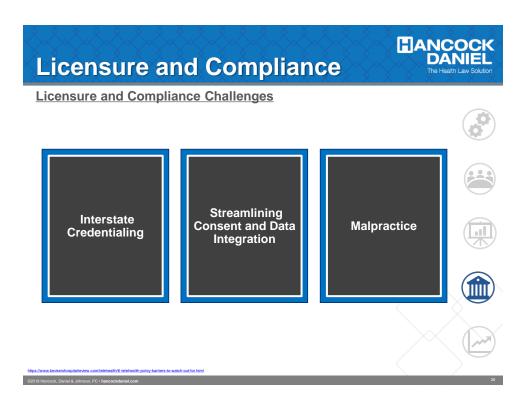
Asynchronous Store and Forward

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Business case lies in avoidable (or more affordable) referrals

Metrics	Proven results	Growth?	VB care?	
Cost savings	 The total cost for teledermatology referrals was \$89,523 or \$460 per participant; this reflected an \$82 difference in per-participant costs, which was statistically significant After their first 40,000 cases, HealthPartners' Virtuwell reported savings of \$88 per episode 			
	In one HBR study, when a sending physician			
Capacity/ throughput gains	intended to refer a patient to a specialist but first virtually consulted a specialist in that field, about 50% of the time the referral was avoided • Out of 36 primary care physicians' referrals, 69% of e-consultations were resolved without a visit to a cardiologist			
Downstream revenue	 34% of non-system patients who used MultiCare's e-visit program sought in-person care from MultiCare within 12 months of their e-visit 			
https://www.advisory.com/researc	htmarket-innovation-center/resources/2018/telehealth-industry-trends			\rightarrow
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Trends and Reimbursement Current Reimbursement in Virginia (((-))) Remote Monitoring Store and ę Live Virtual Forward Interactions X ✓ MEDICARE Medicare does not reimburse for store-and-Medicare will reimburse for Medicare will reimburse real-time audio and video for 30-minutes or more of forward services, except for CMS demonstration interactions between eligible providers and patients at monthly remote patient monitoring services per programs in Alaska and Hawaii. select, predominantly rural, patient. care sites. ✓ \checkmark MEDICAID Virginia Medicaid covers Virginia Medicaid reimburses Virginia provides coverage diabetic retinopathy screening, dermatology live virtual interactions under all fee-for-service and for continuous glucose monitoring for members and select radiology codes by store-and-forward. managed care plans; there is no Medicaid parity law. with Type 1 or Type 2 diabetes or pregnant women injecting insulin. https://www.cchpca.org/sites/default/files/2019-05/cchp_report_MASTER_spring_2019_FINAL.pdf https://www.advisory.com//media/Advisory-com/Research/MIC/Resources/2017/2018-Telehealth-State-Policy-Profiles.pdf#page=139 ©2019 Hancock, Daniel & Johnson, PC • hancockdaniel.com



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Licensure and Compliance

Virginia Professional Regulations



Requirements:

Online Prescribing

- Obtaining a medical or drug history;
- · Informing the patient about the benefits and risks of the drug;
- Conducting a patient exam, either physically or by the use of instrumentation and diagnostic equipment, through which images and medical records may be transmitted electronically.

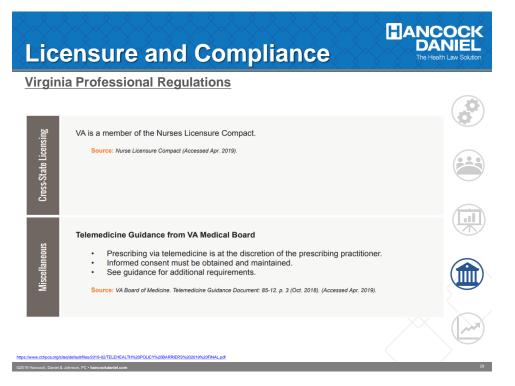
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Practitioners can also prescribe Schedule II-V controlled substances under certain circumstances. Additional requirements apply for the prescription of Schedule VI controlled substances via telemedicine.

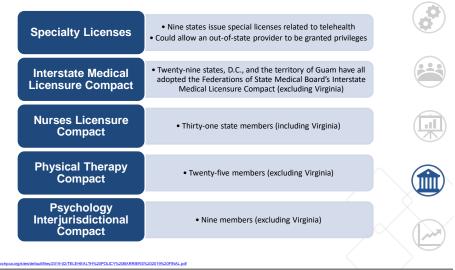
Source: VA Board of Medicine. Telemedicine Guidance Document: 85-12. p. 4 (Oct. 2018) & VA Code Annotated Sec. 54.1-3303. (Accessed Apr. 2019).

https://www.cchpca.org/sites/default/files/2019-02/TELEHEALTH%20POLICY%20BARRIERS%202019%20FNAL.pdf @2019 Hancock, Daniel & Johnson, PC - hancockdaniel.com



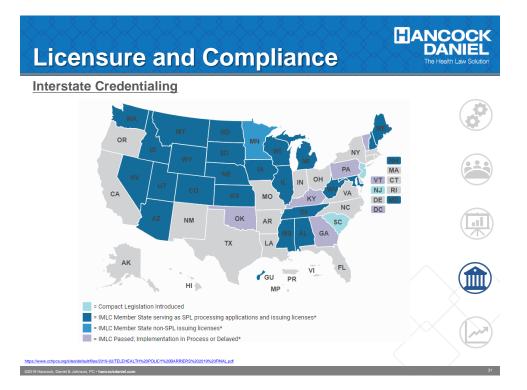
Licensure and Compliance

Interstate Credentialing



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Licensure and Compliance

Streamlining Consent and Data Integration

- · Consent and Data Integration Issues
 - Increasing system complexity and interaction of multiple systems
 - Level of Health IT capability impacts functionality of telehealth program
 - Example: electronic transfer v. need to manually transfer and enter patient data
 - Key Considerations
 - Function
 - Integration
 - Network interoperability including medical devices, EHR/EMR, personal health records
 - Usability
 - Reliance on software
 - Security
 - Technology management
 - Assurance
 - Certification

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2993051/ @2019 Hancock, Daniel & Johnson, PC - hancockdaniel.com



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Licensure and Compliance

Malpractice

• Unauthorized medical practice can result in disciplinary action in the physician's own state and potential prosecution for unlicensed medical practice in the patient's state

Differing Standards of Care

- Liability laws
- Statutes of limitations
- Standards of care
- Damage caps

Licensure and Compliance

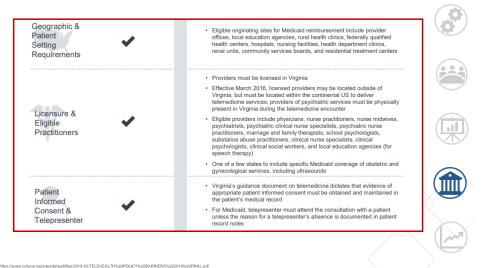
Malpractice Insurance

- Unresolved jurisdictional issues difficult for insurance companies to assess financial risks
- Providers should confirm that medical malpractice policies tailored for in-office encounters include telemedicine
- Many malpractice policies exclude unlicensed activities – physicians must understand state licensing provisions and coverage requirements in other states

Licensure and Compliance



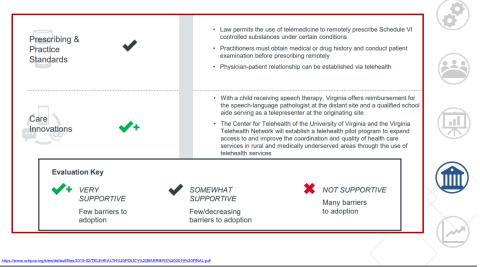
Telehealth Policy Profile for Virginia



https://www.cchpca.org/sites/default/liles/2019-02/TELEHEALTH%20POLICY%20BARRIERS%202011 ©2019 Hancock, Daniel & Johnson, PC • hancockdaniel.com

Licensure and Compliance

Telehealth Policy Profile for Virginia

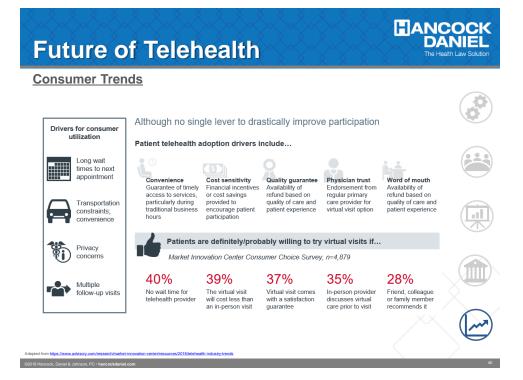


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Future of Telehealth **Policy Trends Bipartisian Budget** Potential Increased **Restructuring of** Act of 2018 Participation in Telehealth Implementation for Interstate Licensure **Risk-Based Reimbursement to** Compacts **Bundle Payments** Programs CMS gets creative in order to expand telehealth coverage Key CMS decision Impact Implication Create new virtual New virtual services are not CMS looking for services that are explicitly subject to Medicare telehealth opportunities to expand telehealth coverage NOT considered to meet service restrictions on: within bounds of their the technical definition of Modality "Medicare telehealth Ì legal authority services" Patient location Care site A ©2019 Hancock, Daniel & Johnson, PC • hancockdaniel.com

HANCOCK DANIEI **Future of Telehealth Technology Trends** Industry trends pushing adoption of virtual technologies along Technology feature Function Example use Established · Teledermatology store- Camera Image capture and-forward Video · Audio-visual · Primary and urgent conferencing care virtual visits Bluetooth · Manual biometric Monitoring CHF and data collection peripherals COPD patients · Manual and automatic · Monitoring heart rate, Emerging · Smartphone, wearablebiometric data collection steps, food intake, etc. based sensors Ingestible sensors · Automatic biometric · Digestible pill for tracking data collection medication adherence Experimental · Artificial intelligence · Diagnosis and treatment · Imaging interpretations and machine learning recommendations · Chat bot for mental health · Virtual and augmented · Simulated therapy · Provider training reality Tele-rehabilitation es/2018/telehealth-industry-trends ancock Daniel & Johnson PC • bancockdaniel.com

Future of Telehealth Technology Trends Apple watch uses RPM to drive virtual visits downstream Apple watch generating telehealth volumes In September 2018, the FDA approved the Apple watch as a tool for detecting one of the leading causes of stroke To test these "built-in ECG" capabilities, Stanford 0 launched a study with 400,000 participants If the apple watch detects complications in any of the participants, they get a free follow-up virtual visit from American Well Negotiations to watch: Because of its potential to create cost savings by preventing strokes, this new capability has led to discussions about providing subsidized Apple watches to members of certain insurance plans To date, Apple has had conversations with CMS about possibilities within Medicare Advantage, and has signed deals with Aetna and United Healthcare ©2019 Hancock. Daniel & Johnson. PC • hancockdaniel.com



Key Takeaways



