



A NEW ERA OF VIRTUAL HEALTH

With telehealth as an important component of care delivery in a post-COVID-19 world, providers, payers, and employers are evaluating comprehensive virtual care strategies and rapidly moving into a new era of virtual health.



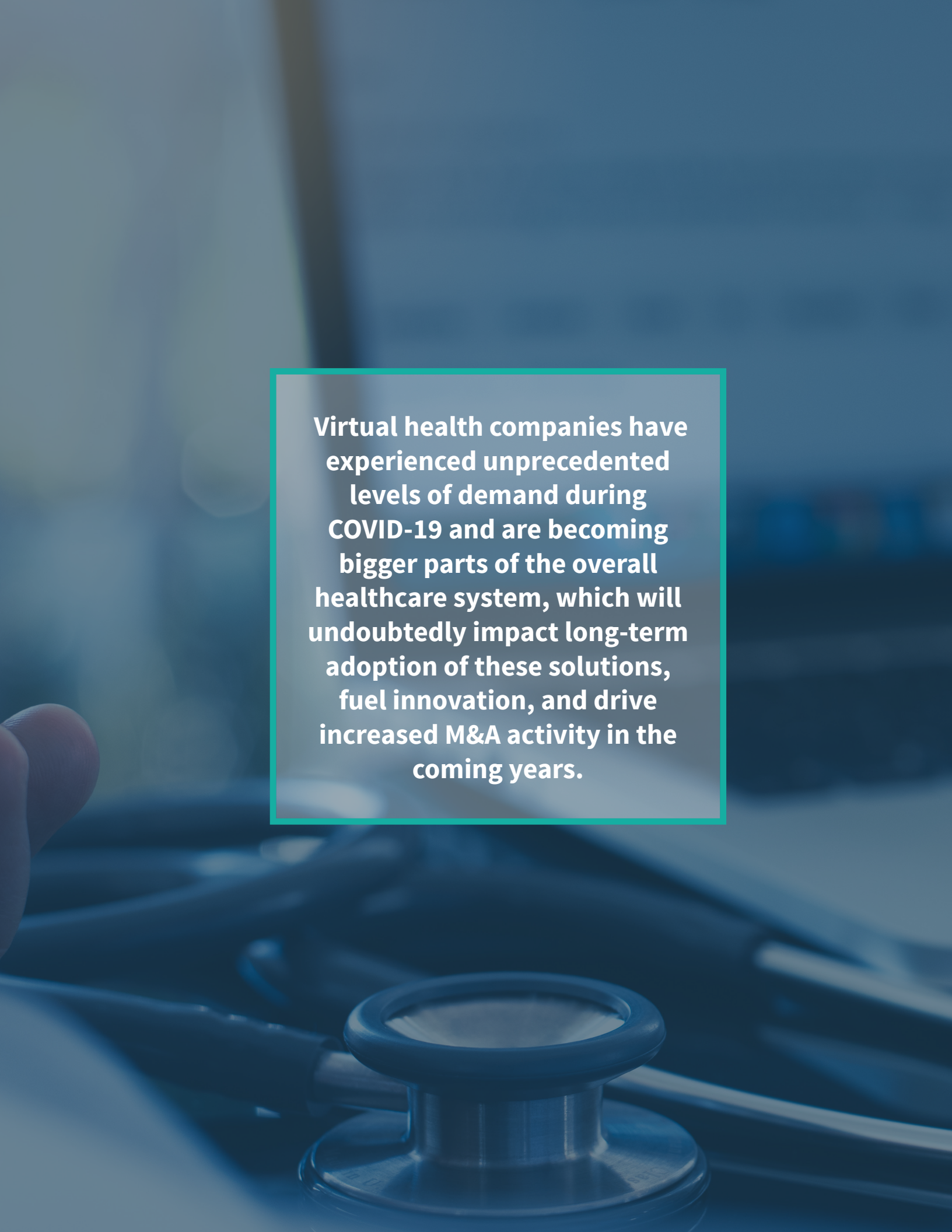


TripleTree is a healthcare merchant bank focused on mergers and acquisitions, growth capital, strategic advisory and principal investing services. Since 1997, the firm has advised and invested in some of the most innovative, high-growth businesses in healthcare.

We are continuously engaged with decision makers including best-in-class companies balancing competitive realities with shareholder objectives, global companies seeking growth platforms, and financial sponsors assessing innovative investments and first-mover opportunities.

CONTENTS

- 3** INTRODUCTION
- 6** DEFINING THE VIRTUAL HEALTH LANDSCAPE
- 8** COMPREHENSIVE CARE DELIVERY TRANSFORMATION
- 18** END MARKET DEEP DIVES
 - 19** VIRTUAL HEALTH AND SMALL TO MEDIUM PHYSICIAN PRACTICES
 - 23** THE ACCELERATION OF VIRTUAL HEALTH IN THE EMPLOYER MARKET
 - 30** VIRTUAL BEHAVIORAL HEALTH
 - 36** VIRTUAL HEALTH IN GOVERNMENT-SPONSORED HEALTHCARE
 - 42** VIRTUAL CLINICAL TRIALS
- 46** RAPIDLY EVOLVING REGULATORY AND REIMBURSEMENT ENVIRONMENT
- 52** ACTIVE M&A AND CAPITAL MARKETS
- 66** WHAT'S NEXT: TRIPLETREE'S PERSPECTIVE



Virtual health companies have experienced unprecedented levels of demand during COVID-19 and are becoming bigger parts of the overall healthcare system, which will undoubtedly impact long-term adoption of these solutions, fuel innovation, and drive increased M&A activity in the coming years.

INTRODUCTION

For years, even decades, the promise of virtual health has fueled innovation and investment with an eye towards creating a more convenient, cost-effective, and high-quality healthcare system. When the COVID-19 pandemic struck in early 2020, a new sense of urgency around virtual health emerged as providers, clinicians, payers, employers, and patients quickly looked for new ways to deliver and receive care – in a convenient, cost-effective, and safe manner.

This new sense of urgency enabled the virtual health market to take a massive leap forward as we saw accelerated and wide-spread implementation, adoption, and utilization of virtual health solutions across care settings, provider types, and patient demographics. This acceleration was further supported by regulatory changes from the Centers for Medicare & Medicaid Services (CMS), other government bodies, and commercial payers that temporarily removed historic impediments to adoption. As a result, virtual health companies experienced unprecedented levels of demand during COVID-19 and have become bigger parts of the overall healthcare system, which will undoubtedly impact long-term adoption of these solutions, fuel additional innovation, and drive increased M&A activity in the coming years.

Historically, adoption of virtual health solutions was relatively low, with only 10% of healthcare consumers using telehealth over a 12-month period according to a 2019 study by J.D. Power.¹ Amidst the pandemic and the 'shelter in place' orders seen across the country in the first half of 2020, telehealth companies saw an unprecedented surge in demand:

- In the second quarter of 2020, **Amwell** saw average monthly visit volumes and average monthly active providers increase over 300% and 400%, respectively, as compared to the first quarter of 2020.
- Visits on **Teladoc's** platform increased by over 200% in Q2 2020 compared to Q1 2019.
- **MDLIVE** reported 50% week-over-week increases in visit volume during March and April 2020 and was adding up to 20,000 new individual users per day during the same time period.
- **Doctor on Demand** reported more than doubling its number of covered lives in the first half of 2020.

While this surge in telehealth utilization moderated in the second half of 2020 as hospitals and doctors' offices opened back up, we believe consumer and market preferences combined with behavior change will have a transformational impact on care delivery:

- **76%** of consumers are interested in using virtual care.²
- **36%** of consumers would leave their current physician for a provider who offered telehealth services.³
- **95%** of providers plan to offer telehealth in the future.⁴
- **90%** of health systems expect to increase spend on clinician-to-clinician acute care telemedicine in the next 12 to 18 months.⁵
- **90%** of hospitals expect greater usage of telehealth vs. pre-COVID-19 levels to persist.⁶

- **80%** of large employers believe virtual care will significantly impact the delivery of healthcare in the future.⁷

With telehealth as an important component of care delivery in a post-COVID-19 world, providers, payers, and employers are evaluating comprehensive virtual care strategies and rapidly moving into a new era of virtual health. The sharp rise in demand for virtual health technologies is also accompanied by longer-term implications across the industry, including an acceleration of long-standing home-base care delivery, value-based care, and consumerism trends. While these shifts and trends were present and occurring pre-pandemic, COVID-19 was the catalyzing event that accelerated change across the ecosystem.

In this report, we will explore several end markets and themes that are particularly central to this new era of virtual health:

- **Care Delivery Transformation:** We see an immediate opportunity for a comprehensive reshaping of care delivery to improve the patient experience, drive quality improvement, and reduce the total cost of care by transforming how patients access and navigate care. The traditional provider ecosystem has the opportunity to customize care delivery by seamlessly leveraging a hybrid of virtual / in-person and real-time / asynchronous care modalities while enabling longitudinal and personalized engagement, communication, and monitoring with technology in the home. In addition, a landscape of next-generation virtual primary care, home-based care, and specialty care platforms are rapidly emerging and transforming the care delivery ecosystem.
- **Small to Medium Physician Practices:** Small to mid-sized physician practices saw significant declines in volume in late Q1 and Q2 2020 as COVID-19 first swept across the U.S. As a result, practices rapidly adopted telehealth and other virtual health technologies. In the short term, virtual health solutions were a lifeline to these physician practices' financial viability. Longer term, we anticipate that virtual health technologies will drive physician and patient satisfaction, efficiencies, improved care quality, and hybrid in-person / virtual primary care practices that transcend traditional geographic constraints.
- **Employers:** Virtual health is a top priority for employers as a continuation of years-long initiatives to contain healthcare costs and drive employee engagement, productivity, and retention. COVID-19 accelerated these initiatives with considerations such as employee mental health, remote work environments, and return-to-work safety measures being front of mind.
- **Behavioral / Mental Health:** The behavioral / mental health market saw rapid adoption of virtual health solutions due to COVID-19. The mental health market is ideal for virtual health adoption due to underlying supply and demand imbalances, social stigma barriers, and high co-occurrence of mental and physical health conditions. In addition, with the stress, anxiety, economic hardships, and social isolation from COVID-19 exacerbating the mental health crisis, the opportunity for virtual health to transform behavioral and mental health is profound.

- **Government-Sponsored Health:** Medicaid enrollment steadily increased in the second half of 2020 due to rising unemployment rates triggered by the pandemic. Medicaid populations typically have elevated social and physical complexities that create unique challenges for access, cost, and quality. Virtual health technologies are poised to support high quality, cost-effective care at scale for these populations. In the Medicare Advantage (MA) market, demand for virtual health solutions spiked sharply during the initial COVID-19 outbreak and accelerated a longer-term shift toward increasing levels of at-home monitoring/remote patient monitoring (RPM), in-home testing, telehealth visits, virtual behavioral health, and virtual health risk assessments (HRAs), among other items. Looking ahead, many industry leaders agree that virtual health will become 'table stakes' for MA plans to remain competitive in the marketplace.
- **Pharma / Clinical Trials:** The limitations of in-person-only clinical trials were exposed during COVID-19 as many were forced to shut down or delay. Virtual health technologies have been historically underutilized in clinical trials but hold the potential to drive significant value for patients and pharmaceutical companies.
- **Rapidly Evolving Regulatory and Reimbursement Environment:** While constituents across the industry agree that telehealth (and, more broadly, virtual health) is here to stay, long-term adoption and utilization will be shaped by the regulatory and reimbursement environment. Federal regulators and commercial payers relaxed many rules and

payment policies surrounding telehealth as a temporary measure during the COVID-19 pandemic. While there is no crystal ball, CMS and the broader payer ecosystem are highly supportive of regulatory and reimbursement reforms to promote the use of telehealth long-term.

- **Flurry of Fundraising, M&A, and Capital Markets Activity:** A combination of market momentum and industry tailwinds, fueled by these themes has kicked-off a flurry of fundraising, M&A, and public market activity for innovative and leading virtual health platforms. We expect this is just the beginning of the activity as buyers, investors, and companies look to capitalize on the virtual health value creation opportunity.

"Virtual health companies experienced unprecedented levels of demand during COVID-19 and have become bigger parts of the overall healthcare system, which will undoubtedly impact long-term adoption of these solutions, fuel additional innovation, and drive increased M&A activity in the coming years."

DEFINING THE VIRTUAL HEALTH LANDSCAPE

‘Virtual health’ has become synonymous with other emerging and existing healthcare nomenclature – telemedicine, telehealth, digital health, connected health – and more. Although these terms are often used interchangeably, for purposes of this report, we use the terms ‘virtual health’ and ‘telehealth’ as follows:

- **‘Virtual health’** is used broadly to discuss the technologies and solutions that enable healthcare stakeholders to remotely engage and monitor consumers across the healthcare ecosystem (see Figure 1).
- **‘Telehealth’**, a sub-set of virtual health, refers to the remote care delivery method and technology used to facilitate health-related services.

As the healthcare landscape changes, the impacts of virtual health, telehealth are igniting swift and targeted movement across healthcare. TripleTree has evaluated a wide array of technologies that are critical to enabling the next generation of care models: virtual, hybrid and in-person care. These technologies can be used by the broad healthcare community in a growing collection of modalities.

In many cases, we are seeing the network of technologies beginning to converge with the emergence of companies that now have capabilities to span across categories. As we explore the complexity of virtual health, it is important to understand the sub-categories and their definitions that make up the landscape:

- **Triage and Intake:** Capabilities that engage with patients to digitally diagnose, triage, schedule, and route them to the appropriate care pathway based on their specific symptoms, care delivery needs, and severity.
- **Virtual Visits:** Technologies enabling telehealth visits spanning voice and video, synchronous and asynchronous, and various visit types (check-ins, evaluations, consults, urgent care, etc.).
- **eConsults:** Synchronous or asynchronous provider-to-provider consultations, typically between a Primary Care Physician (PCP) and specialist.
- **Virtual Primary Care:** New, innovative primary care practices built around virtual health and consumer engagement technologies.
- **Virtual Second Opinions:** Virtual technologies connecting consumers and specialists across a broad set of conditions for second opinions.
- **Telepharmacy:** Medication review, prescription verification, transparency, and other pharmacy services delivered remotely.
- **Clinical Communications:** Secure, HIPAA-compliant provider-to-patient or provider-to-provider communications technologies.
- **In-Home Monitoring:** Remote patient monitoring (RPM) solutions improving in-home care, safety, and chronic care management.

- **Digital Therapeutics and Self-Care:** Evidence-based software platforms delivering FDA and non-FDA cleared therapeutic interventions.
- **Wearables and At-Home Exams:** Sensors and wireless health data collection; on-demand medical exam and wellness kits for the home.
- **Virtual Clinical Trials:** Technologies enabling patients to remain home-based at various stages of a clinical trial.

"In many cases, we are seeing the landscape of virtual health technologies beginning to converge with the emergence of companies that now have capabilities to span across categories."

FIGURE 1. VIRTUAL HEALTH ECOSYSTEM



COMPREHENSIVE CARE DELIVERY TRANSFORMATION

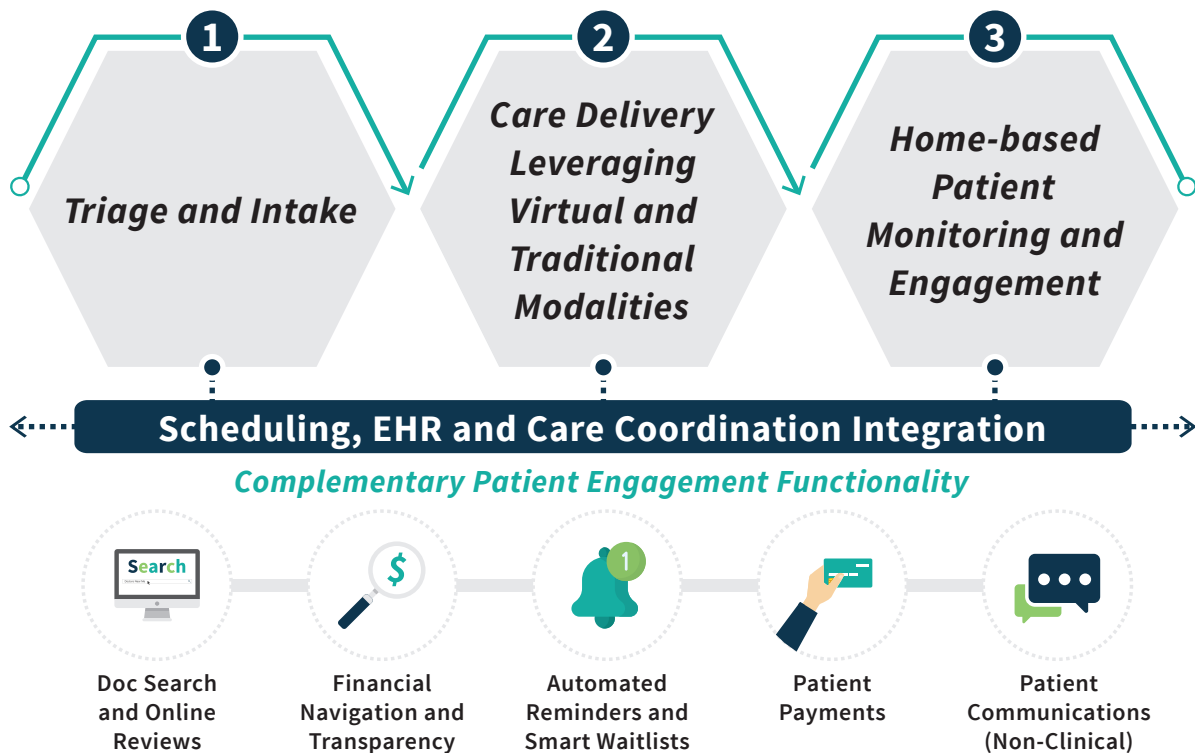
COVID-19 exposed a wide range of vulnerabilities across the U.S. healthcare system. Providers felt the abrupt and immediate financial impact of COVID-19 more than any other stakeholder group. During the height of the initial shutdown in March and April 2020, hospital volumes across all specialties and regions were down 50%+ year-over-year, with certain service lines down as much as 70-80%.⁸ Ambulatory practices were similarly hit hard with visits and revenue down 55-60% during the same time period.⁹ Some argue that COVID-19 exposed the weaknesses of our fee-for-service model and providers' reliance on elective

procedures for financial viability. In this regard, the pandemic may ultimately serve as a historical turning point and accelerant for greater adoption of capitated arrangements and other value-based care (VBC) approaches.

While we support the continued progress toward VBC, we believe there is a more immediate opportunity to reshape care delivery and create a more efficient and cost-effective healthcare system using intelligent and innovative technology in three primary areas (see Figure 2).

FIGURE 2. THE FUTURE OF CARE DELIVERY

COMPREHENSIVE CARE DELIVERY LEVERAGING TECHNOLOGY AND VIRTUAL HEALTH CAPABILITIES



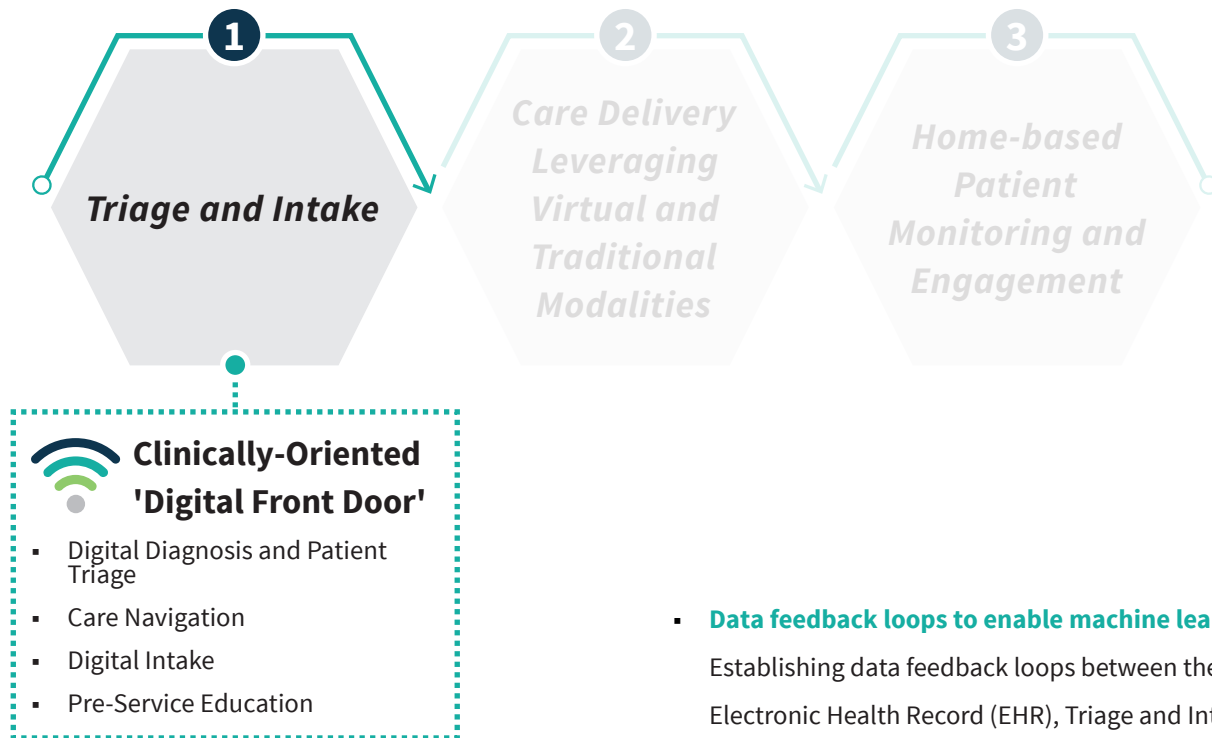
- **Triage and Intake:** An amalgamation of intelligent, data-driven capabilities that engage with patients to digitally diagnose, triage, and route them to the appropriate care pathway based on their specific symptoms, care delivery needs, and severity.
- **Customized Care Delivery Leveraging Virtual and Traditional Modalities:** Once a patient is triaged, the most appropriate, cost-effective care pathway can be determined. Traditional, in-person care delivery certainly has its place, but is often over-utilized relative to the patient’s severity and specific needs and can unnecessarily delay access to care by days or even weeks for certain services. PCPs, for instance, are often overwhelmed with patients filling their waiting rooms that could otherwise be treated asynchronously or monitored remotely from their homes. Intelligently steering patients to the proper care delivery modality improves convenience, timely access, and patient satisfaction, while allowing physicians to practice at the top of their license and maximize the economic impact for all constituencies.
- **Home-based Patient Monitoring and Engagement:** COVID-19 accelerated the industry’s trend toward caring for and managing patients from the comfort of their homes. This low-cost alternative – coupled with telehealth and RPM capabilities – delivers a broad range of benefits from reduced readmissions and enhanced outcomes to improved chronic care management and better intelligence for managing risk and deploying timely care interventions.

Beyond care delivery, a range of complementary patient engagement solutions focused on access, administrative processes, and patient financial responsibility are available and serve to shape a comprehensive technology-enabled care delivery strategy. These tools provide helpful navigational resources, transparency, education, and convenience to ensure that provider schedules are optimized, and consumers have the best experience possible.

TRIAGE AND INTAKE

Often termed the 'Digital Front Door', a phrase developed by **Zipnosis**, this term refers to an ecosystem of solutions that engage with patients prior to the clinical encounter, assess their needs, and, ultimately, route the patient to the right provider, at the right time, and in the right modality (e.g., virtual, in-person, asynchronous, self-management, etc.) (see Figure 3). There are many different use cases and sub-segments within the Triage and Intake ecosystem – symptom checkers / digital diagnosis, smart wait lists, appointment reminders, self-scheduling, find-a-doc, etc. – and many of these sub-segments saw heightened demand amid the COVID-19 pandemic. Symptom checkers / digital diagnosis and virtual triage solutions, for example, saw a massive increase in adoption when the pandemic initially hit as these solutions enable patients to self-treat, see an on-demand provider, or engage in an asynchronous visit versus tapping precious health system resources. Longer-term, particularly as virtual visits become a mainstay in care delivery, providers and health systems will need to adopt a cohesive, end-to-end Triage and Intake strategy in

FIGURE 3. TRIAGE AND INTAKE SUCCESS FACTORS



© 2021 TripleTree, LLC. All Rights Reserved.

order to expand patient access, improve clinical and administrative productivity, and increase revenue (e.g., through reduced patient leakage). We anticipate that the demand for a cohesive strategy will ultimately lead to partnerships and consolidation across this category as vendors position themselves as the end-to-end solution to seamlessly navigate patients through provider organizations. Key necessary underpinnings to a successful Triage and Intake strategy include:

- **Enterprise-wide provider data management.** Many health systems lack visibility into who their providers are, what they do, the types of conditions and patients they are best equipped to treat, and their availability. An enterprise-wide provider data management solution provides visibility into these items and therefore is the foundation of an end-to-end strategy.

- **Data feedback loops to enable machine learning.** Establishing data feedback loops between the Electronic Health Record (EHR), Triage and Intake solutions, and monitoring solutions (e.g., RPM) can provide the input needed to enable machine learning to improve the accuracy of triaging, patient navigation, and decision support. This will drive care quality, remove cost from the system, and optimize the patient and provider experience.
- **Pre-visit workflows enabling data-driven patient/provider encounters.** Even if a patient is matched with the right provider, at the right time, and in the appropriate modality, the quality and efficiency of the patient/provider encounter is dependent on the provider having the patient’s information assembled and presented in an intelligent, action-oriented manner. As solutions move patients through the health system, there is a unique opportunity for pre-service engagement and data collection and to present this information to the provider via integrations to the EHR and other clinical systems.

MARKET MAP – TRIAGE AND INTAKE

DIGITAL FRONT DOOR – DIVERSIFIED



SCHEDULING AND DATA MANAGEMENT



DIGITAL DIAGNOSIS AND PATIENT TRIAGE

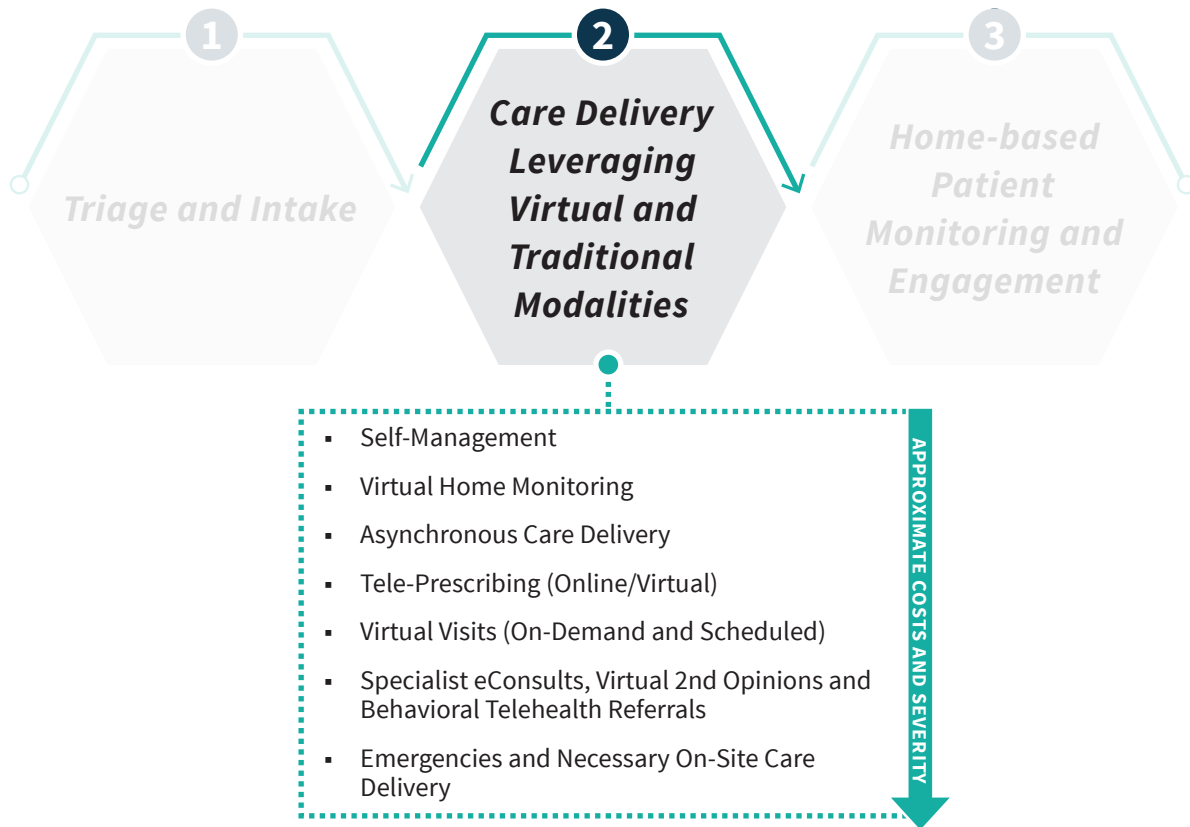


CUSTOMIZING CARE DELIVERY – LEVERAGING VIRTUAL AND TRADITIONAL MODALITIES

Without a doubt the pandemic has increased our awareness of virtual health and its potential staying power as a long-term, permanent fixture of our healthcare delivery system. Beyond traditional telehealth models, there are a range of delivery modalities that are growing in popularity and utilization by providers and patients alike (see Figure 4). For instance, throughout the pandemic it was critical that hospitals manage the scarcity of intensive care unit (ICU) beds available for severe COVID-19 cases. In this regard, innovative digital health and remote monitoring

solutions help manage the 'worried well' and lower severity patients that could otherwise be directed to self-manage or be virtually monitored from their homes. For COVID-19 and non-COVID-19 patients requiring an elevated level of care, asynchronous functionality and/or virtual visits can be easily facilitated on an on-demand or scheduled basis and eConsults and specialist eReferrals can be triggered rapidly, as appropriate. These capabilities along with more targeted virtual health deployment (e.g., telestroke, teleICU, telepsychiatry, etc.) enhance access, speed of care delivery, and allow physicians to perform at the top of their licenses.

FIGURE 4. CARE DELIVERY SUCCESS FACTORS



© 2021 TripleTree, LLC. All Rights Reserved.

Traditional, in-person care and medical procedures will continue to be facilitated based on need and patient preferences. However, the complementary use of customized, technology-enabled virtual care delivery will be essential to alleviating supply and demand care delivery imbalances across the country, as well as sustaining the long-term financial viability of our health system. The following are among the major considerations in establishing virtual health as a permanent, highly utilized component within the care delivery spectrum:

- **Positive reimbursement reform:** CMS's support for telehealth reimbursement parity during COVID-19 has been a boon for the industry. Post-pandemic,

there is an expectation (but by no means a certainty) that the telehealth reimbursement environment will be more favorable. The length of the pandemic has provided significant amounts of data that telehealth providers, CMS, and commercial payers can utilize to support the efficacy and safety of telehealth. This, in turn, will help solidify a more concrete view on long-term reimbursement. Additionally, the cost structure of telehealth services will need to be considered. Home health, for example, is a great use case for telehealth and the efficiency gains related to reduced travel time and greater patient throughput should be considered when evaluating reimbursement. See the Regulatory and Reimbursement Changes section in this report for a deep dive on this topic.

- **Evolving payer-provider contracting:** We expect, and are already seeing, provider-payer contracting dynamics to take into account greater telehealth utilization in the future. Providers may account for these dynamics as well and shift their operating models from a staffing, technology adoption, and real estate footprint perspective. Further, virtual health vendors may benefit from new reimbursement models that require the provider to digitally diagnose and, when applicable, virtually treat the patient before the payer authorizes a more costly in-person visit.
 - **Outcomes and clinical efficacy are key:** The breadth and quality of telehealth provider networks are critical to ensure adequate coverage, timely access, and high-quality outcomes for patients. Clinical efficacy – substantiated by outcomes and/or patient-reported data – will help justify equivalent reimbursement for telehealth and emerging asynchronous care delivery models and drive further adoption among major providers, payers, and employers.
 - **Remote and community-based diagnostics will enhance and extend virtual health’s reach:** On-demand medical exam kits, at-home lab tests, and digital tools that collect patient diagnostic information will see increased demand. Patients looking to avoid the risk and long wait times at clinics and hospitals will increasingly seek to receive their lab work, tests, and treatments at less costly, community-based sites run by **Quest Diagnostics**, **LabCorp**, and **CVS**, for example.
 - **HIPAA compliant capabilities will be required:** While HIPAA requirements were relaxed during the COVID-19 pandemic, security, scalability, and feature functionality will all be important technological factors moving forward from a compliance and competitive, barriers to entry, perspective.
 - **EHR integration and interoperability will be increasingly important:** For telehealth to go mainstream, the various telehealth platforms, asynchronous care delivery solutions, and virtual health tools will need to integrate with the provider’s EHR system for streamlined scheduling, documentation, and billing purposes. Interoperability will be as important as ever to ensure that care coordination, quality, and the patient’s experience are optimized.
- Consumer awareness of virtual health exploded during the pandemic, and we have seen behavior change and consumer demand. These dynamics will influence how traditional and virtual care delivery providers adapt to the 'new normal' and compete effectively for patient volume as expectations evolve. Consumer-oriented models, whether cash pay or covered, that offer enhanced convenience, customization (i.e., tailored, concierge support and coaching), specialization (e.g., pediatrics, geriatric care, men’s and women’s health, etc.), and an overall consumer-friendly experience will find themselves well positioned to attract and retain patients.

MARKET MAP – CARE DELIVERY

ASYNCHRONOUS VIRTUAL CARE



LIVE VIRTUAL VISITS

PURE-PLAY TECHNOLOGY PLATFORMS



ADJACENT TECH PLATFORMS WITH TELEHEALTH



VIRTUAL OR HYBRID NEXT-GEN PRIMARY CARE



VIRTUAL OR HYBRID NEXT-GEN HOME-BASED CARE



MARKET MAP – CARE DELIVERY

CONDITION-FOCUSED VIRTUAL CARE AND TELEPHARMACY



FACILITY-FOCUSED SOLUTIONS

LONG-TERM CARE, HEALTH SYSTEMS, CORRECTIONAL, ETC.



eCONSULT TECHNOLOGY PLATFORMS

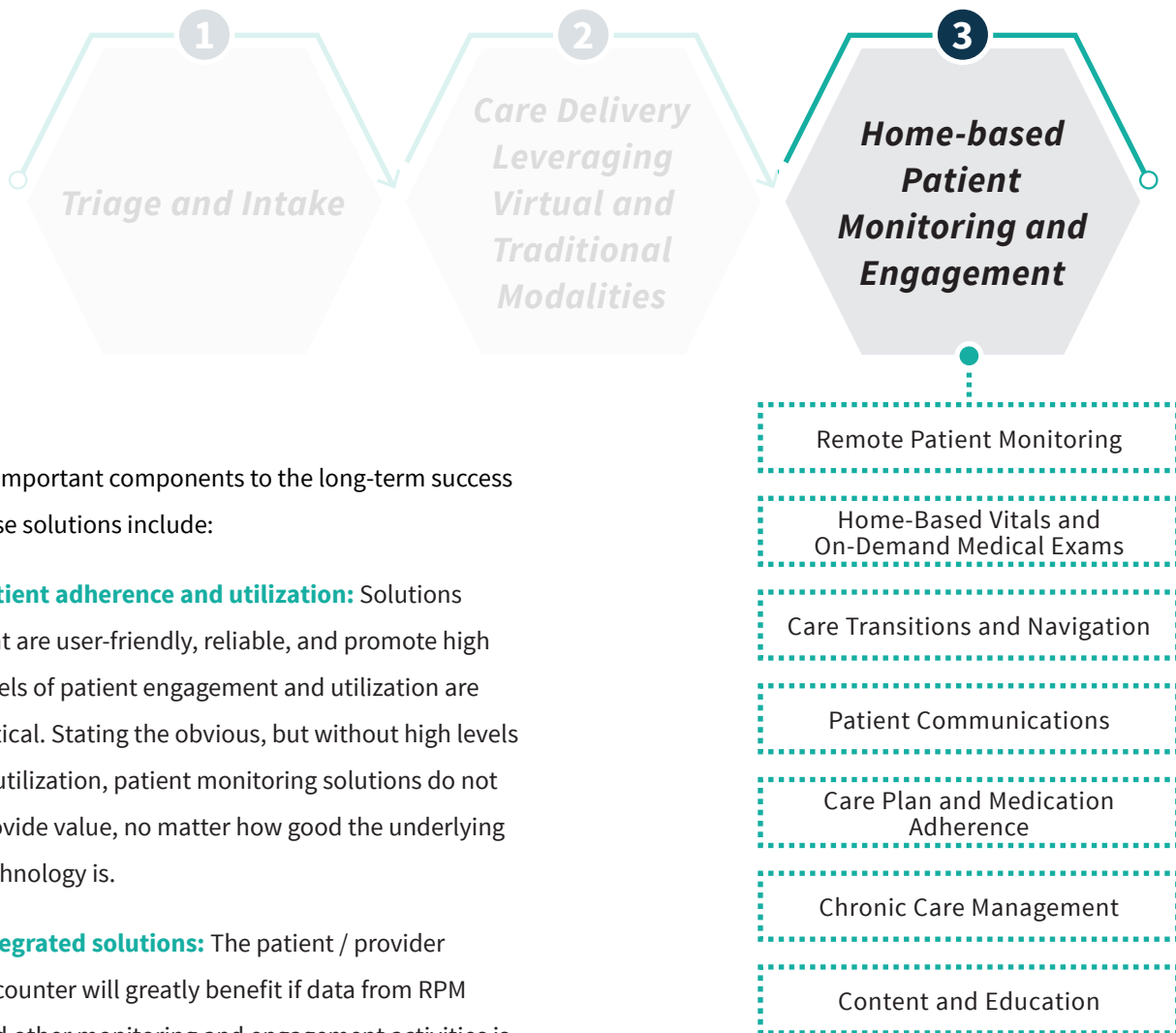


HOME-BASED PATIENT MONITORING AND ENGAGEMENT

The shift of care to the home is a long-standing, well-documented trend as it is a lower-cost care setting, seniors prefer to age in place, and there are unique clinical benefits to care in the home. COVID-19 has reinforced the importance of the home as a highly valuable clinical setting and has greatly accelerated the use of the home for care delivery. Ironically, this rise in home-based care delivery harkens back to the genesis of healthcare in the U.S. in the 19th century and early 20th century where the vast majority of care

was decentralized and occurred in patients' homes by local community physicians. The key difference today in the return of care to the home is the availability of advanced technology, logistics, equipment, and testing to make home-based care highly scalable and effective (see Figure 5). This ecosystem is also supported by strong, macro tailwinds such as an aging population, a rise in chronic conditions, increasing focus on addressing social determinants of health, and positive reimbursement developments by CMS and commercial payers.

FIGURE 5. HOME-BASED SUCCESS FACTORS



© 2021 TripleTree, LLC. All Rights Reserved.

A few important components to the long-term success of these solutions include:

- **Patient adherence and utilization:** Solutions that are user-friendly, reliable, and promote high levels of patient engagement and utilization are critical. Stating the obvious, but without high levels of utilization, patient monitoring solutions do not provide value, no matter how good the underlying technology is.
- **Integrated solutions:** The patient / provider encounter will greatly benefit if data from RPM and other monitoring and engagement activities is available and made actionable to providers when interventions are needed and during regularly scheduled visits. In a future state, data from ongoing monitoring and engagement activities should be one of the data sources leveraged during Triage and Intake and care delivery solutions adopted by health systems.
- **Aligning economic incentives:** Financial incentives are a powerful motivator for behavior change and adoption. In a world where providers have a broad range of economic arrangements across Medicare,

Medicaid, and various commercial payers, the financial incentive for providers to adopt monitoring solutions has not always been clear. However, there are several tailwinds that are beginning to align financial incentives: CMS has released new Current Procedural Terminology (CPT) codes in recent years to incentivize providers to deploy patient monitoring solutions, many MA plans are including patient monitoring as a covered benefit, and the broader shift to value-based care is driving demand.

- Comprehensive approach:** Home- and post-acute care delivery today is highly fragmented and is challenged by comprehensive coordination, communication, and patient data liquidity. Home-based patient monitoring and engagement platforms must develop a comprehensive approach and set of capabilities to address the needs of clinicians, patients, family members, technicians, and administrative personnel.

"There is a more immediate opportunity to reshape care delivery and create a more efficient and cost-effective healthcare system through the use of intelligent and innovative technology."

MARKET MAP – HOME-BASED PATIENT MONITORING AND ENGAGEMENT

RPM

HOME-BASED EXAMS

TRANSITIONS AND NAVIGATION

PATIENT COMMUNICATIONS AND RELATIONSHIP MANAGEMENT



***VIRTUAL HEALTH
END MARKET
DEEP-DIVES***

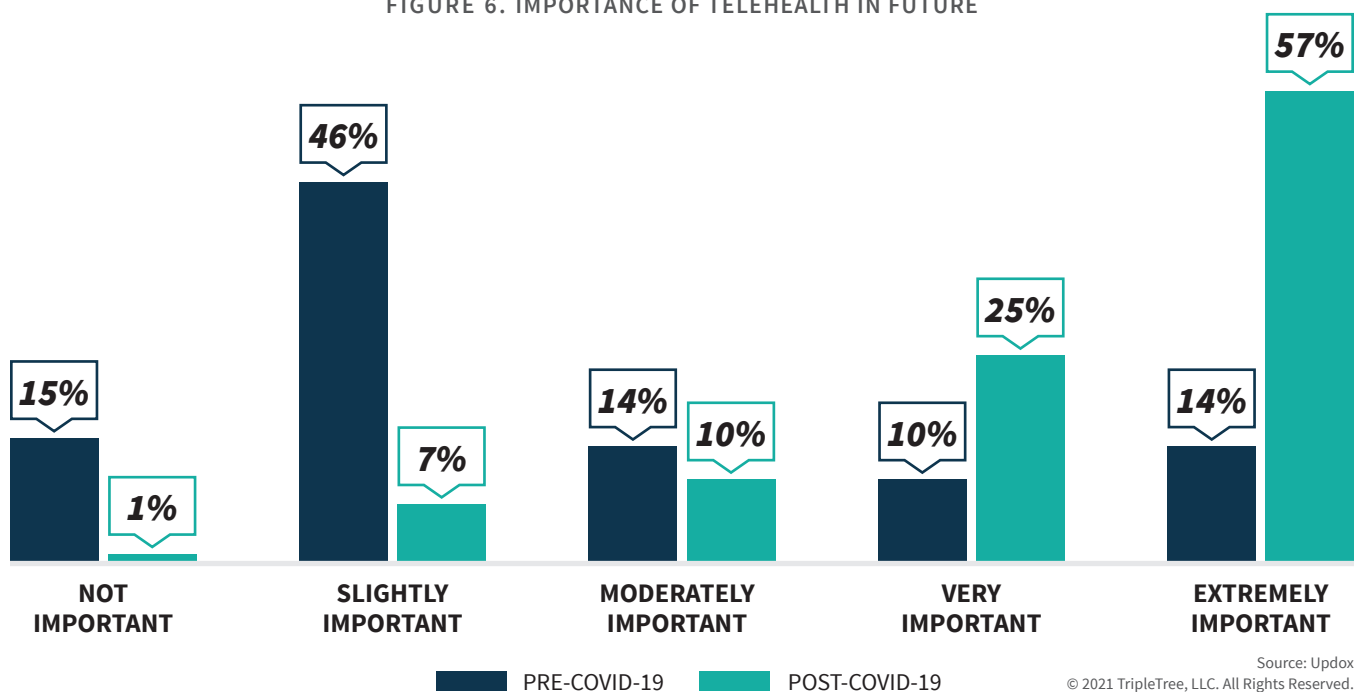
VIRTUAL HEALTH AND SMALL TO MEDIUM PHYSICIAN PRACTICES

Virtual health has had an important impact on small to medium-sized physician practices (both primary care and specialty groups). These practices represent an important part of the healthcare delivery system in the U.S., as they include more than half of working physicians. Like many small businesses, small to medium-sized physician practices were hit hard by the COVID-19 pandemic. During the height of the pandemic, many physician practices were forced to implement layoffs, furloughs, and pay cuts, with some even considering closures due to decreased patient and elective procedure volumes. In response, the government stepped in to help struggling physician practices through measures like the U.S. Small Business Administration (SBA) program and advanced payments from Medicare and other designated funds. In addition, many physician technology platforms (e.g., EMRs, patient relationship management (PRM),

scheduling, etc.) introduced telehealth modules early in the pandemic in order to allow physician practices to continue seeing patients virtually. These technologies, combined with stand-alone plug-and-play telehealth solutions, have enabled telehealth to become a key modality of care and technology capability for small to medium-sized physician practices.

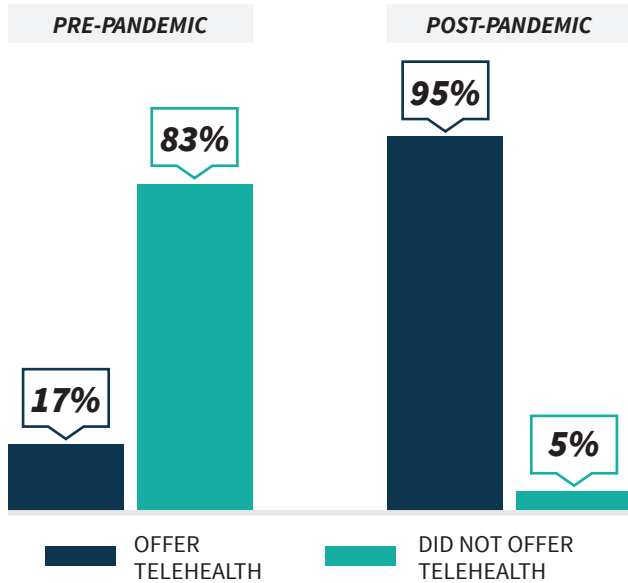
In May 2020, **Updox**, along with the Harris Poll, conducted an online survey of 2,000 U.S. adults aged 18+. They found that 42% reported using telehealth since the pandemic began, and of those who used it, 65% did so because of convenience and 63% because they were worried about being exposed to sick patients. Updox also informally surveyed 400 of its users on the importance of telehealth and how they intend to offer telehealth in the future. Post-COVID-19, 82% of those polled say telehealth is very or extremely important

FIGURE 6. IMPORTANCE OF TELEHEALTH IN FUTURE



Source: Updox
© 2021 TripleTree, LLC. All Rights Reserved.

FIGURE 7. INTENT TO USE TELEHEALTH IN FUTURE



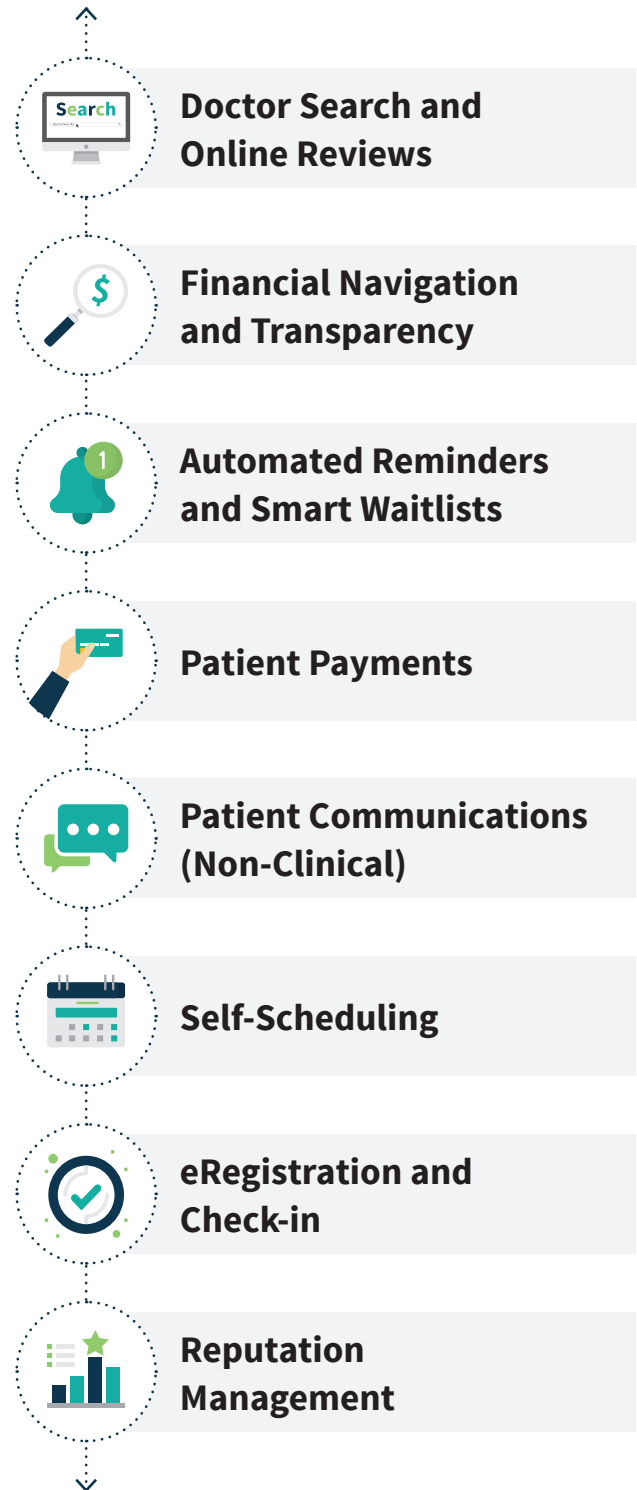
Source: Updox
© 2021 TripleTree, LLC. All Rights Reserved.

(up from 24% pre-COVID-19) and 95% intend to offer telehealth as an option (see Figure 6 and Figure 7). Another survey from **Kareo** found that 72% of practices plan to continue the usage of telemedicine after the pandemic, with an expectation that 24% of future visits for all specialties will be conducted virtually. We think these surveys offer strong evidence for how important telehealth has become for physician practices and how it is expected to have staying power.

EXPANDING BEYOND VIRTUAL VISITS

As telehealth becomes a mainstay modality of care for physician practices, a broader ecosystem of virtual health solutions are in high demand in order to create more consumer-centric practices that can integrate telehealth into their front-office and back-office workflows (see Figure 8). These additional solutions span across administrative, scheduling, billing/ payment, and patient communication and engagement capabilities.

FIGURE 8. VIRTUAL HEALTH LEADING TO DEMAND FOR ADJACENT, COMPLEMENTARY SOLUTIONS



© 2021 TripleTree, LLC. All Rights Reserved.

From a clinical perspective, PCPs are also looking for virtual health tools at the point of care that help expand the scope of what they can do and improve care quality. In that regard, virtual eConsults are of growing importance. These are physician-to-physician interactions - generally PCPs to specialists - that lower costs and improve patient satisfaction by preventing unnecessary specialist visits. This allows specialists to focus on practicing at the top of their licenses by

keeping the less complex cases out of their offices. It also enables PCPs to function as the true 'quarterback' of care and treat patients more holistically by avoiding unnecessary specialist referrals. It is estimated that more than 70% of routine clinical referrals can be immediately treated by PCPs with an eConsult solution,¹⁰ so the opportunity for quality improvement and cost reduction is significant.

MARKET MAP VIRTUAL HEALTH PLATFORMS IN THE SMALL-TO-MEDIUM PHYSICIAN PRACTICE MARKET

PATIENT RELATIONSHIP MANAGEMENT AND COMMUNICATIONS



PRACTICE MANAGEMENT



VIRTUAL VISITS



CROSS-INDUSTRY VIRTUAL VISITS



LONG-TERM IMPLICATIONS: ACCELERATING VALUE-BASED CARE AND PRACTICE TRANSFORMATION

The COVID-19 pandemic exposed the weaknesses of the fee-for-service model and physician practices' reliance on patient and procedure volumes for financial viability. Although there was initially speculation that the pandemic could slow down the shift to value-based contracting arrangements, as the pandemic continued, it became clearer that practices at the forefront of value-based contracting would re-emerge stronger. When providers take risks and function more like payers, they can reap the financial rewards of investments in virtual health technology platforms. We think that the pandemic may ultimately serve as a historical turning point and push providers to greater adoption of capitated arrangements and other value-based care approaches.

The pandemic could also be a catalyst for physician practices to transform how they are organized and deliver care to patients. For example, as geographic barriers are lifted through virtual health technology, physician practices may look to re-organize themselves around different care delivery models:

- Organizing care teams around populations, not physical practices, with small teams taking responsibility for a fixed population with conditions that align with their particular clinical expertise.
- Centralizing (and automating) repeatable administrative and non-relationship enhancing workflows.

- Offering multiple modalities of care – synchronous, asynchronous, home-based, office-based, etc. – customized for patient preference and conditions.

"Many practices have adapted to the pandemic by rapidly transitioning to telehealth, by managing their digital front door, upgrading administrative and engagement capabilities, implementing clinically-oriented virtual care solutions and transitioning to take on risk. As a result, telehealth is likely here to stay with subsequent waves of demand and innovation on the horizon."

THE ACCELERATION OF VIRTUAL HEALTH IN THE EMPLOYER MARKET

Since the outbreak of the COVID-19 pandemic, virtual health has had a significant and rapidly evolving impact in the employer market as companies seek to drive engagement, productivity, satisfaction, and health and well-being amidst the new normal of remote work environments and the rapidly evolving return-to-office protocols.

According to a recent survey conducted by **Willis Towers Watson**,¹¹ the U.S. has seen the number of remote work employers grow from 14% to 39% of those surveyed during the pandemic. While this shift in company operations and workflows was occurring, employees across the country reported record levels of stress and disruption in their daily lives. According to a recent survey from Ginger (see Figure 9):

- Nearly **70%** of workers have stated that this is the most stressful time in their professional career, including the Great Recession and the September 11th terror attacks.¹²
- Over **90%** of employees working from home have reported experiencing moderate or extreme stress.¹³
- **70%** of individuals agreed that employees at their company have been less productive because of stress and anxiety surrounding COVID-19.¹⁴

As a result, companies of all sizes have been rapidly exploring and adopting virtual health solutions. The aforementioned survey by **Willis Towers Watson** indicates that 86% of employers are promoting telemedicine and 58% are increasing access to telebehavioral health.

FIGURE 9. IMPACT OF COVID-19 ON EMPLOYEES



Source: Ginger
© 2021 TripleTree, LLC. All Rights Reserved.

POINT SOLUTIONS ARE EXPANDING THE SUITE OF CONDITIONS MANAGED

Historically, the employer virtual health landscape has been characterized by platforms that have focused on a specific care type (e.g., urgent care or primary care), a single chronic health condition (e.g., diabetes, hypertension, sleep, musculoskeletal [MSK], etc.), or behavioral / mental health in order to validate outcomes, ROI, engagement, go-to-market, and other key platform performance metrics. With the increased demand and adoption for virtual health in the employer market, we expect to see, and are already witnessing, leading platforms expanding across a broader set of medical and behavioral conditions as consumers and employers alike demand a single access point to digital care.

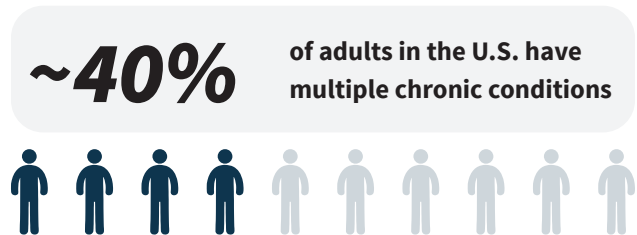
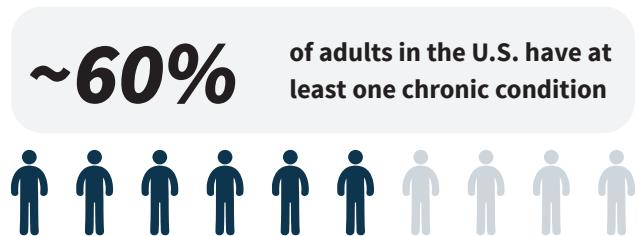
This expansion is supported by a mounting body of evidence showing the interconnectedness of chronic medical conditions as well as physical/behavioral conditions (see Figure 10):

- **A growing number of Americans are suffering from more than one chronic condition.** Recent estimates show that ~60% of adults in the U.S. have at least one chronic condition, and ~40% had multiple chronic conditions.¹⁵
- **Chronic mental health and medical conditions are deeply interconnected.** There is a 3x increase in medical care plan noncompliance when mental illness and/or addiction is present.¹⁶ In addition, 68% of adults with a mental health condition also report having at least one medical condition, and 29% with a medical condition report also having a comorbid mental health condition.¹⁷

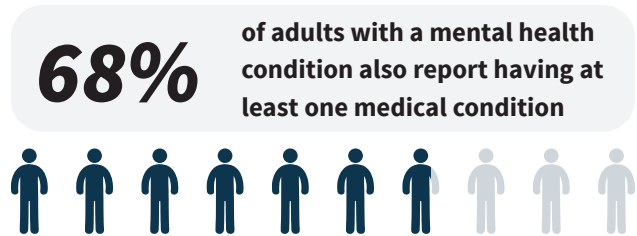
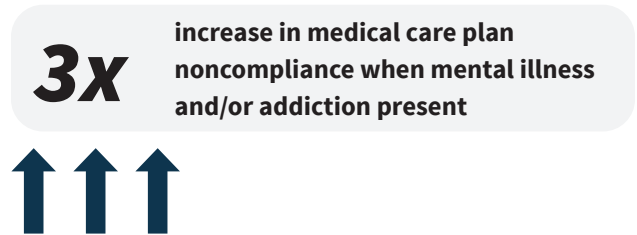
The \$18.5B merger of **Teladoc** and **Livongo** is an example of this theme playing out in the marketplace. Teladoc provides on-demand, episodic virtual visits across medical clinicians as well as therapists and other behavioral health clinicians, while **Livongo** specializes in long-term chronic care management across diabetes, hypertension, and behavioral health. We expect to see this strategy continue to play out in the market and accelerate via M&A, partnerships, and organic expansion.

FIGURE 10. INTERCONNECTEDNESS OF PHYSICAL AND MENTAL HEALTH

A growing number of adults in the U.S. are suffering from more than one chronic condition



Chronic mental health and medical conditions are deeply interconnected



Source: CDC; SilverCloud; Tiatros
© 2021 TripleTree, LLC. All Rights Reserved.

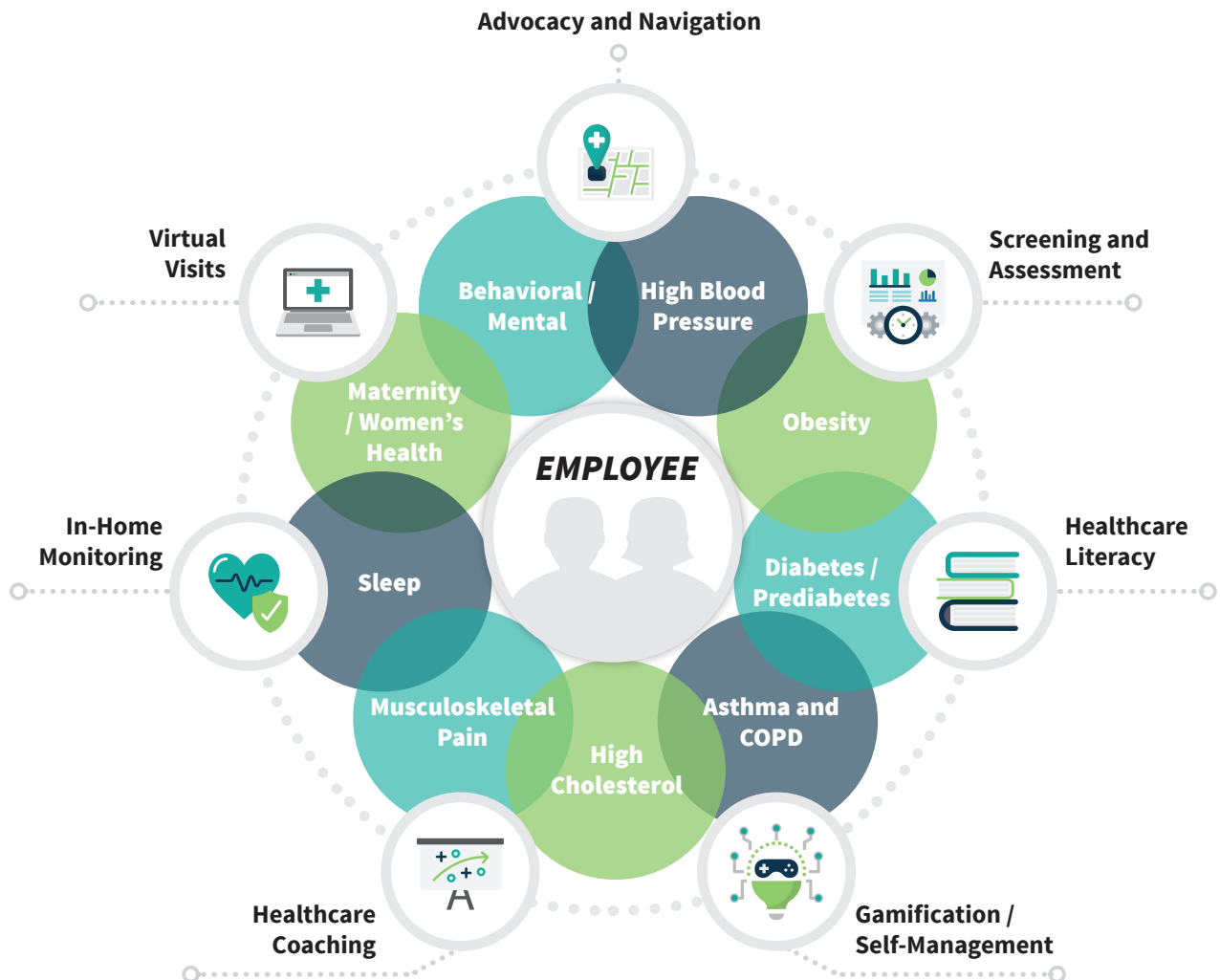
LEADING PLATFORMS BUILDING END-TO-END CAPABILITIES

In addition to expanding across conditions, leading employer virtual health platforms have identified that improving overall health and well-being for employees requires a broad set of end-to-end capabilities. As a part of the research for this report, TripleTree connected with Michael Laquere, CEO of the Employer Health Innovation Roundtable (EHIR) to hear his perspectives. According to Laquere, “COVID-19 accelerated the adoption of virtual health capabilities by employers, but

it’s still early days as they look to build comprehensive strategies to meet the needs of their employees.”

Technology platforms are taking greater leaps to engage with employees where they are in their health journey, removing barriers to access, optimizing healthcare utilization, and creating a sense of ownership and empowerment of employees to manage their health. Below is a spectrum of capabilities we see inherent in many of these platforms that are driving adoption (see Figure 11).

FIGURE 11. KEY PLATFORM CAPABILITIES IN THE EMPLOYER MARKET



© 2021 TripleTree, LLC. All Rights Reserved.

- **Advocacy and Navigation:** Dramatic variations in cost and quality of care exist because consumers lack the resources to navigate the complexities that exist in the healthcare system. Several digital approaches are seeking to break down these barriers. One of the best examples is virtual second opinion solutions. Virtual second opinions are a medium to connect consumers with the highest quality physicians across a broad set of conditions, while eliminating historic geographic barriers. These solutions offer a network of physicians at institutions such as Cleveland Clinic, MD Anderson, Mayo Clinic, and other top tier centers of excellence. They are making medical records collection and physician consultation increasingly seamless to the user, incorporating multi-modal forms of communication (e.g., asynchronous text-based) to speed turnaround times. These platforms are becoming even more sophisticated, considering not only condition-specific and physician quality data but also consumer preference data to optimize matching for the patient-physician connection.
- **Screening and Assessment:** The ability to address the reality that each individual seeking treatment will come to that situation with a different set of physical and mental conditions has long been challenging to address through digital means. However, the barriers of appropriately screening and assessing each individual are being broken down and platforms are emerging to create an individualized experience for each employee. The employer-version of the 'Digital Front Door',

solutions are utilizing advanced technology capabilities, such as chatbots and Artificial Intelligence (AI) tools, to streamline intake, triage, and navigation. They can provide feedback on an individual's symptoms, establish the most appropriate baseline to begin treatment, guide individuals to the right level of care based on their condition, follow up to assess progress, and create social communities to support the individual's journey.

- **Healthcare Literacy:** We have moved into an era where the initial entry point for self-diagnosis has become the internet, and individuals seek to assess their condition amidst a sea of conflicting information, often leading to poor medical decisions. A recent study found that 53% of consumers are unhappy with their medical decisions because they lack the right information and guidance.¹⁸ Getting the latest evidence-based research into the hands of the consumer to allow them to make the best decisions for their health has been proven to have a positive effect on cost and quality of care. Many digital solution providers are finding new and more engaging ways to do this. On-demand, clinically validated content is now getting into the hands of consumers through the stroke of a few keywords. Others are simulating an interactive environment through the use of video sessions put on by subject matter experts, allowing individuals immediate access to information on a timetable that suits their schedule. Integrating this form of content with tools that allow for self-management is enhancing

the efficacy of solutions as consumers engage with confidence in their own condition management.

- **Gamification/Self-Management:** Gamification concepts have emerged in healthcare as a way to modify an individual's behavior to improve health outcomes. Behavioral economic principles are being applied via digital means to drive interventions to unseat unhealthy behaviors. Gamification is being applied within the employer market across areas where behavior change can be most readily addressed to impact high-cost populations and improve employee productivity. Initial applications were focused on fitness and nutritional programs. Some of its more advanced applications are now seeking to address mental health and diabetes, where incremental improvements in behavior change can have a significant impact on overall health and well-being and employer healthcare spend. With younger generations growing up with broad access to video games, this is a natural extension to create positive and sustained engagement for condition management.
- **Health Coaching:** Healthcare coaching is not a new concept to the employer market, but many virtual health platforms are amplifying the effectiveness of coaching by offering a medium to engage through video, text, and voice. This has created an environment to affect behavior change through a personal touch, while driving an expanded level of engagement in a scalable manner. Virtual platforms are allowing consumers to engage with specialists and multi-functional teams that would have otherwise been difficult to implement through historical approaches.
- **In-Home Monitoring:** To effectively manage chronic conditions, virtual platforms have combined digital applications with hardware to support the longitudinal management of an individual's condition. Creating an integrated approach between application and device increases the frequency of engagement, provides a mode for effective monitoring and clinical escalation, and supports data collection for outcomes tracking. These integrated systems are being utilized across conditions. For example, diabetes applications are being combined with blood glucose meters, and sleep and MSK platforms are using device sensors for immediate feedback and tracking. This approach is proving valuable when reporting value back to employers and payers.
- **Virtual Visits:** Consistent with other segments of the healthcare market, telemedicine in the employer market has long been a desired benefit but one that went underutilized. According to a 2019 **Mercer** study, employee utilization of telemedicine benefits averaged just 9%. In the same **Mercer** survey, more than half of employers said their organization was concerned over the level of depression, anxiety, and job-related stress in the workforce. In an effort to address, 49% of those employers contracted for enhanced Employee Assistance Program (EAP) services and 37% implemented tele-therapy solutions within the last two years.¹⁹ Telemedicine providers and virtual health platforms are forging

important partnerships as they both play an important role in many episodic and longitudinal moments of care. We expect to see these providers play an increasingly important role in employer strategies for cost containment.

EVALUATING RETURN ON INVESTMENT

Employer expectations on value creation from vendor platforms have evolved meaningfully over the past several years, and while ROI can be presented through many forms, employer expectations have been heightened. Michael Laquere from EHIR commented, “The combination of technology and human interventions is changing how employers think about ROI and is creating momentum to explore at-risk pricing models and performance guarantees that promote better outcomes for their employees.” Some key factors employers evaluate include:

- **Employee Engagement:** Are my employees engaging with the solution and would I find advocates in those that are? Is long-term engagement high, indicating platform stickiness with employees?
- **Hard and Soft Dollar ROI:** Am I getting a quantifiable return for my dollar spent (e.g., lower healthcare costs, lower absenteeism, improved productivity, etc.), and is it objective?
- **Benefits Differentiation:** Is this a differentiated solution as part of my benefits package to improve retention / recruitment?

Virtual health platforms are helping push the envelope

on validating the impact their solutions are having on employee populations. The incentives in the employer market are becoming more apparent, as clinical outcomes data is showing more promise and a strong value proposition around non-clinical metrics (e.g., reduced absenteeism, productivity). As the market continues to evolve on reporting value to the employer and ROI becomes more and more of a focus, these companies are some of the best positioned – many with validation from the FDA, several validating their solution through clinical trials, and nearly all with a strict focus on data and analytics to track and report on outcomes.

"With the increased demand and adoption for virtual health in the employer market, we expect to see, and are already witnessing, leading platforms expanding across a broader set of medical and behavioral conditions as consumers and employers alike demand a single access point to digital care."

MARKET MAP - VIRTUAL HEALTH PLATFORMS IN THE EMPLOYER MARKET

VIRTUAL VISIT FOCUSED



CHRONIC CONDITION FOCUSED



MATERNITY / WOMEN'S HEALTH



VIRTUAL 2ND OPINIONS



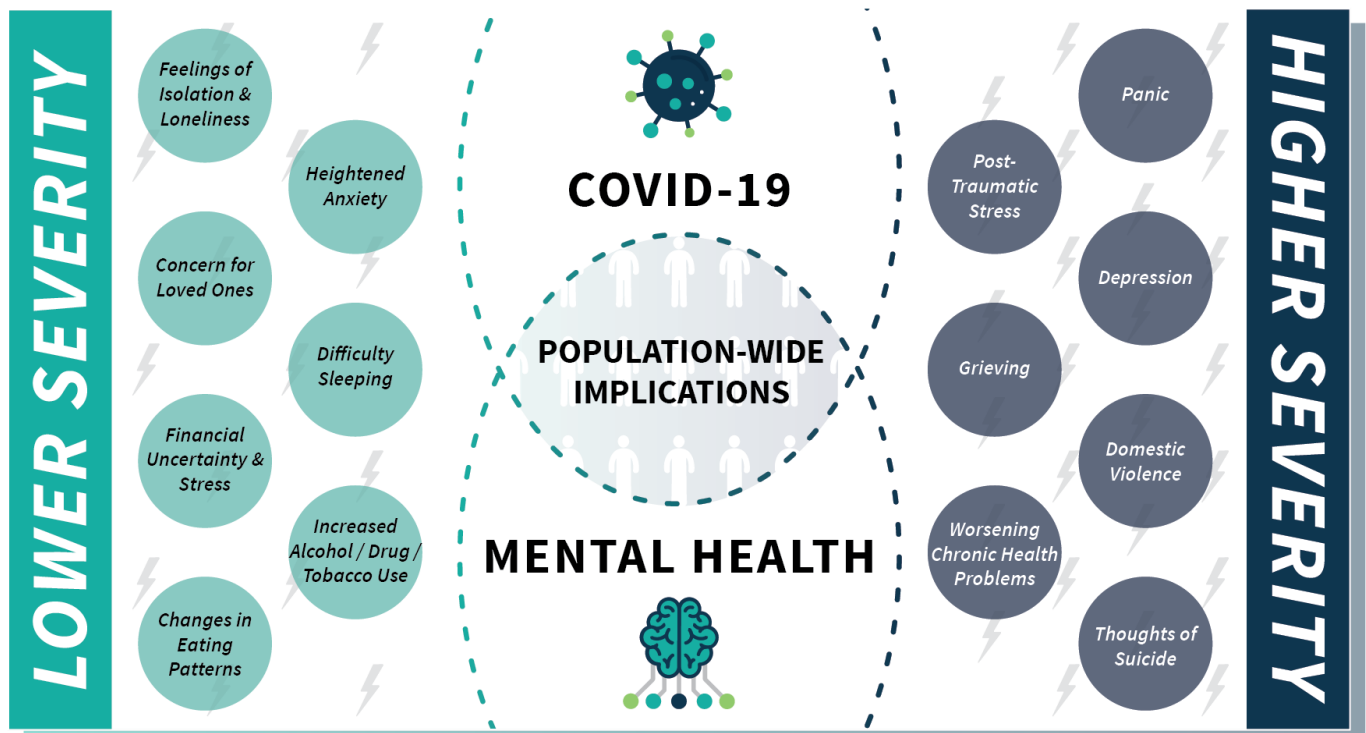
VIRTUAL BEHAVIORAL HEALTH

The COVID-19 pandemic struck individuals across the country with a one-two hit from both the rapidly spreading virus and the resulting mitigation strategies (shelter-in-place orders, social distancing, etc.). The result was a far-reaching impact on our collective mental health and well-being. Feelings of isolation and loneliness, anxiety, and heightened stress became commonplace. Furthermore, more severe behavioral health issues related to substance abuse, depression, domestic violence, and instances of post-traumatic stress are becoming more prevalent. As a result of COVID-19, it is clear there is a need, and an opportunity, for behavioral health providers to facilitate care in this new market environment (see Figure 12).

COVID-19 NEGATIVELY IMPACTING MENTAL HEALTH

The coronavirus pandemic undoubtedly impacted each of us in one way or another – individuals facing job losses, pay cuts, and furloughs; fear of a recession; fear of infection for oneself or loved ones; and fear of the unknown amidst a rapidly evolving situation. In the early days of the pandemic, nearly 50% of adults in America reported that worry and stress related to the coronavirus was having a negative impact on their mental health,²⁰ resulting in existing behavioral health patients and new 'entrants' across the severity spectrum turning to behavioral health services via virtual technologies.

FIGURE 12. BEHAVIORAL HEALTH IMPLICATIONS OF COVID-19



© 2021 TripleTree, LLC. All Rights Reserved.

ADDRESSING HISTORIC CHALLENGES IN THE BEHAVIORAL HEALTH MARKET

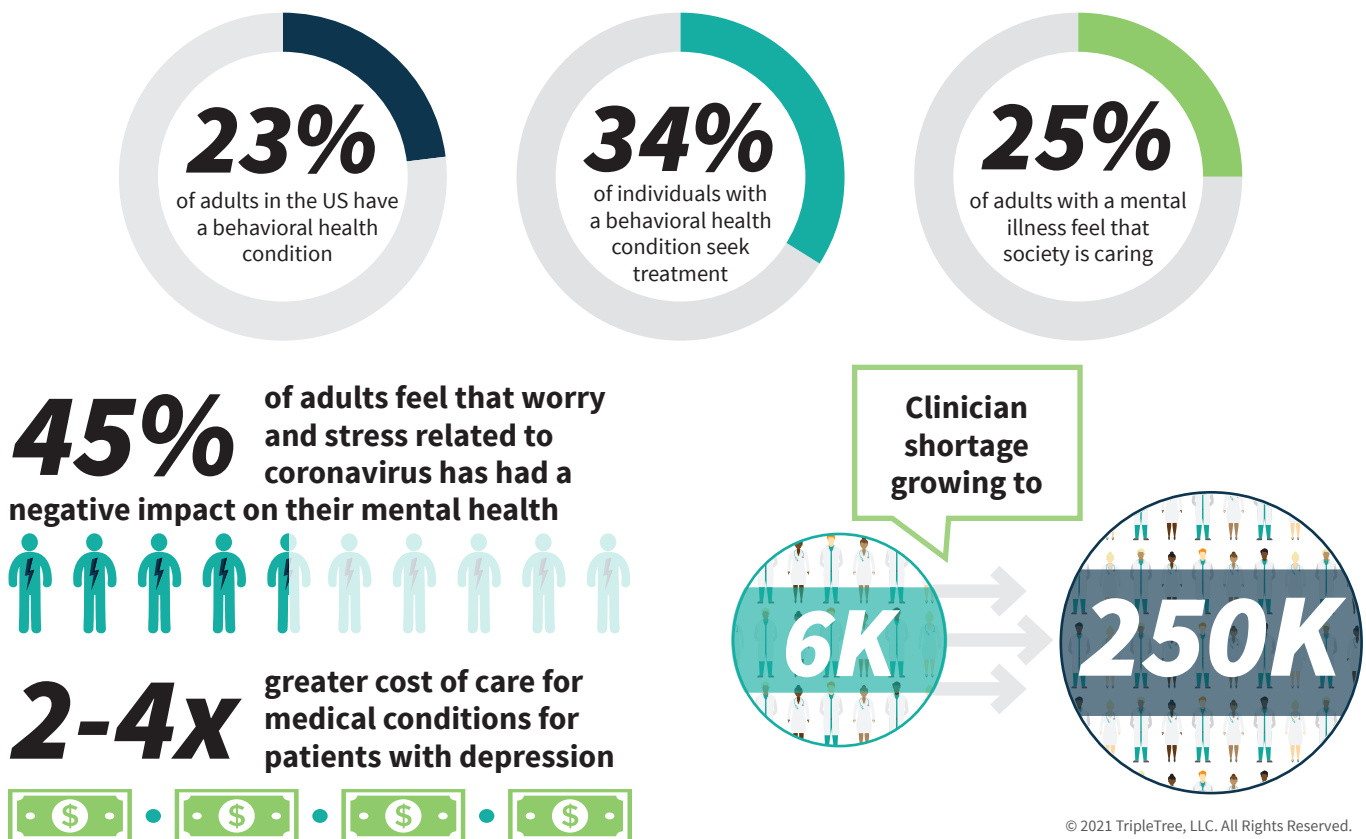
As the healthcare industry has adjusted to the new realities of more distanced and virtual care (versus face-to-face), the increased adoption of virtual technologies is accelerating progress against a set of challenges faced by the behavioral health market (see Figure 13):

- **Behavioral Health Provider Shortages:** Today, there are ~6,000²¹ too few behavioral health providers in the U.S., and this shortage is expected to grow to a staggering 250,000²² by 2030. Virtual health technologies increase the capacity of each provider to see more patients by removing geographic and other physical barriers. It is worth noting that behavioral health provider shortages also result

from state-by-state licensing requirements, which limit the ability for providers to practice across state lines virtually. Certain therapies can also be delivered via virtual self-management technologies, freeing up valuable clinician time.

- **Barriers to Patients Seeking Care:** Only 34%²³ of individuals with a behavioral health condition seek treatment due to a combination of cost, social stigma concerns, and long wait times. Virtual health provides increased privacy, which significantly lessens social stigma barriers. In addition, the efficiency of virtual health visits results in shorter wait time (<20 minutes on average) and lower cost per session.

FIGURE 13. CHALLENGES FACED BY THE BEHAVIORAL HEALTH INDUSTRY



© 2021 TripleTree, LLC. All Rights Reserved.

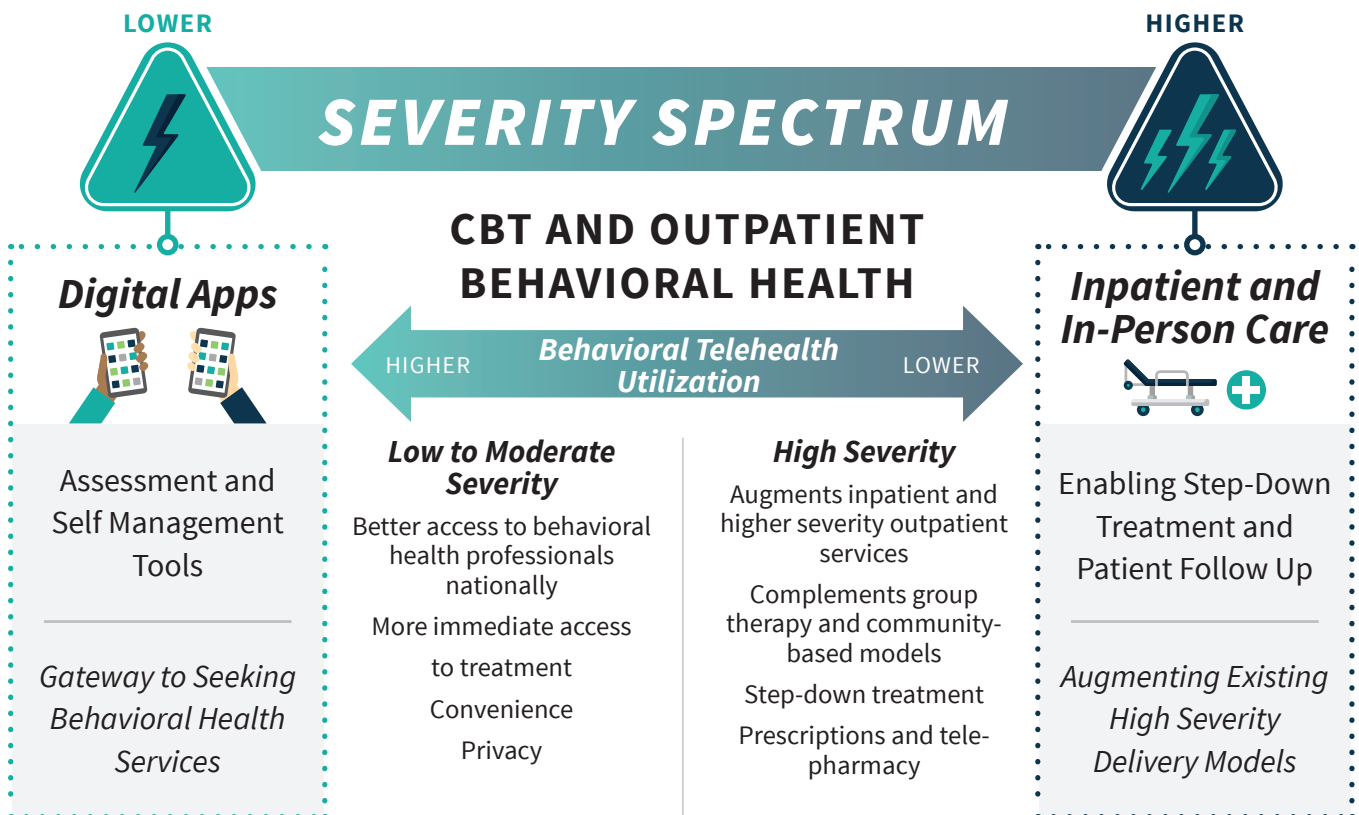
- Physical and Mental Healthcare Silos:** While the healthcare system has had an increasing awareness over the past decade of the integral role that behavioral health plays in physical health outcomes and cost, in many cases these two domains continue to be addressed in silos. Virtual health solutions can move the industry further toward breaking down these silos by connecting physical and mental health providers in care plan deployment and collaboration, integrating behavioral health screening and referrals into primary care, and enabling collaboration with population health and care management solutions.

A CATALYST FOR BEHAVIORAL VIRTUAL HEALTH SOLUTIONS

The pandemic has served as a catalyst for positive disruption. Even in the early stages of managing the pandemic, we experienced heightened adoption and integrated use of virtual health technology within established disciplines (see Figure 14).

For instance, Cognitive Behavioral Therapy (CBT), including techniques such as talk therapy or psychotherapy, represents a common use case for behavioral virtual health; its application can be used to effectively treat many common mental health disorders. As the COVID-19 outbreak began, a range of outpatient

FIGURE 14. CONTINUUM OF VIRTUAL HEALTH UTILIZATION BY ACUITY



© 2021 TripleTree, LLC. All Rights Reserved.

behavioral health service providers nimbly shifted their in-person delivery models to telehealth as a means of facilitating the continuation of care for existing patients. While in-person care has returned in many instances, the providers we have spoken to expect to see a long-term shift towards telehealth as a percentage of total patient volume. In some cases, behavioral health providers are positioning themselves for a permanent business model change, implementing across-the-board changes to patient engagement, scheduling, IT security and privacy initiatives, compliance with state regulations, and reimbursement processes, among other things.

For those experiencing mental health issues for the first time, virtual health provides a convenient, relatively private means of accessing care. Appointments can also be arranged much more quickly with access to qualified behavioral health professionals located throughout the country. The high prospects for increased and sustained demand are supported by this ease-of-use concept coupled with far less stigma associated with seeking mental health services. Many more are seeking these services thanks to primary care referrals, word-of-mouth reference points among family and friends, and a general sense of 'community' brought on by the notion that most of us have faced some level of impact from the coronavirus pandemic.

There are also technology-enabled options for those experiencing less severe mental health issues. Digital apps with direct to consumer (DTC) and/or business-to-business (B2B) models provide evidence-based mental health assessment tools and self-management aides

that improve awareness and can lead to a reduction in stress and anxiety, improve confidence, and help users sleep better at night. These solutions provide a safe, effective, and highly convenient alternative for managing periods of heightened stress. For some experiencing significantly worsening mental health, these digital tools can serve as a gateway to higher severity behavioral health support and intervention – in fact, several digital apps have triaging, referral, and asynchronous chat capabilities that allow easy access to behavioral health professionals if the user is interested in escalating the type of care they are receiving. Virtual reality is another technology capability that, while nascent today, is rapidly emerging and holds significant promise for the behavioral health industry.

In higher severity cases, behavioral virtual health can serve as a complementary tool alongside other therapies or as a step-down treatment. Virtual health technologies also play a critical role in ongoing patient monitoring, prescription writing and refills, and as a point of possible intervention for better managing comorbid conditions.

MARKET REALITIES THAT COULD TEMPER BEHAVIORAL VIRTUAL HEALTH

Despite the wave of accelerated demand and utilization of behavioral virtual health, there are certain realities that could hold the industry back from realizing its full potential:

- **Supply to meet the accelerated virtual health demand:** A steady supply of behavioral health professionals within a given provider's network is

critical to meeting the increased demand created by COVID-19. Meanwhile, existing clinicians with flexibility in their schedules can ramp up hours during periods of heightened demand.

- **Patient financial status:** Patients struggling with a recent job loss or uncertainty surrounding their economic future may not be able to afford mental health treatment in the near-term. Even employed individuals with covered mental health benefits may deprioritize treatment due to co-pays and unmet high deductibles.
- **Lack of proper education and awareness:** While the stigma associated with receiving behavioral healthcare continues to abate, many individuals still may not have the awareness and education required to fully explore their options and seek out the appropriate behavioral health modality and level of care.

There are solutions to these potential issues, including patient financing (sliding-scale and needs-based free arrangements) and community support programs that foster education and awareness. Creativity coupled with strong execution will help leading virtual behavioral health providers capitalize on the current environment and position themselves to thrive over the long-term.

"Creativity coupled with strong execution will help leading virtual behavioral health providers capitalize on the current environment and position themselves to thrive over the long-term."

MARKET MAP – VIRTUAL BEHAVIORAL HEALTH

LOW SEVERITY - DIGITAL APPS AND SELF-MANAGEMENT TOOLS



TECH-FORWARD PLATFORMS FOR LOW / MODERATE SEVERITY



GENERALIST TELEHEALTH PROVIDERS WITH BEHAVIORAL HEALTH CAPABILITIES



TECH-ENABLED SERVICES PLATFORMS - MODERATE / HIGH SEVERITY



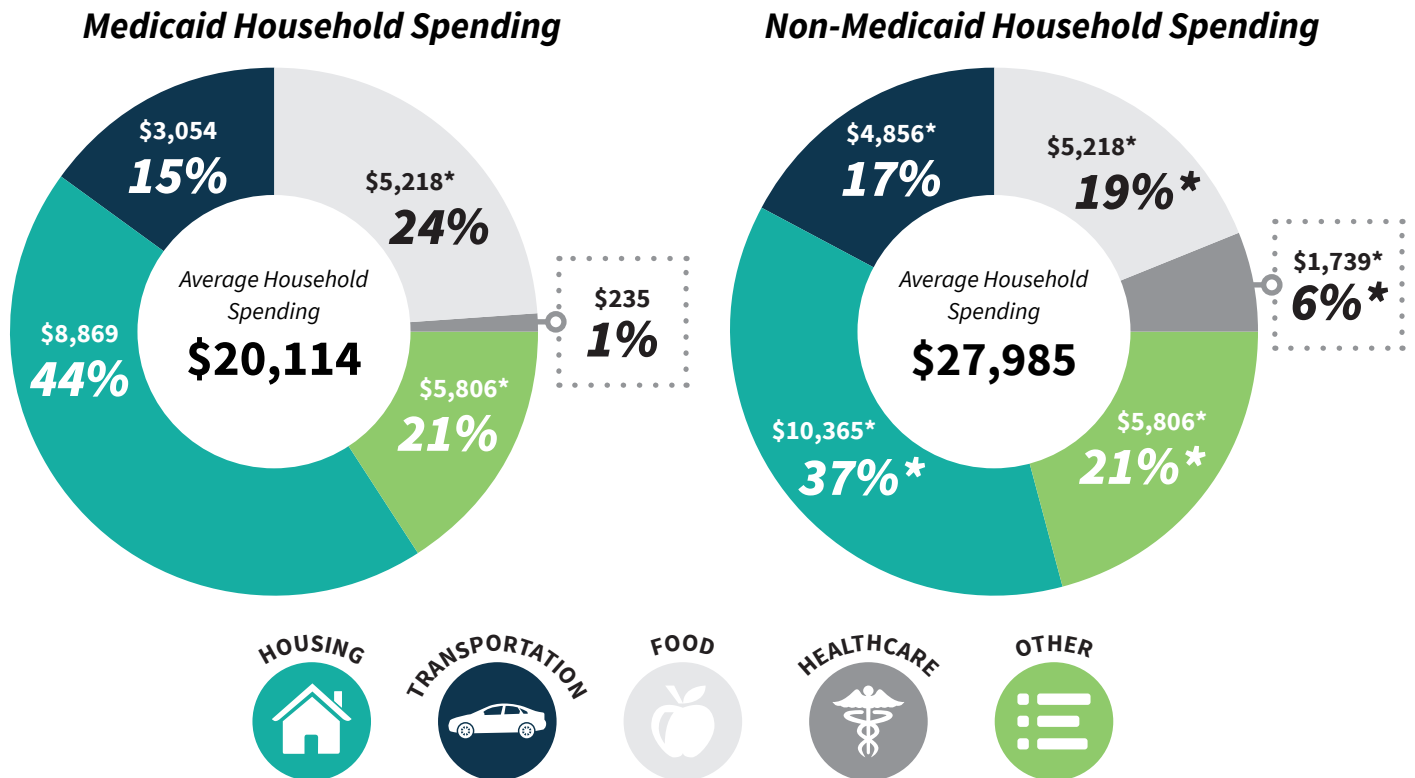
VIRTUAL HEALTH IN GOVERNMENT-SPONSORED HEALTHCARE

While the long-term economic impact triggered by the pandemic is impossible to predict, COVID-19 caused a rapid rise in Medicaid enrollment. A **Health Management Associates** study²⁴ estimated that Medicaid enrollment could increase by 5 to 18 million members because of COVID-19 (note: as of September 2020, the most recent month available, this projection appears accurate as Medicaid and Children's Health Insurance Program (CHIP) enrollment had grown to 77.3M, an increase of 6.7M from February 2020 enrollment). Quickly expanding Medicaid rolls coincided with a period of slumping state-level revenue, creating significant budgetary pressures.

HIGHLY VULNERABLE AND ADVERSELY IMPACTED POPULATIONS

Medicaid populations were among the most adversely impacted by the new realities that set in across the healthcare system and economy due to COVID-19 (see Figure 15). Job losses exacerbate mental health conditions and already-prevalent social factors like food insecurity and access to affordable housing – which together represent nearly 70%²⁵ of low-income Medicaid household expenditures – have a well-documented relationship with poorer physical health. For example, Medicaid beneficiaries under 65 are more than two times²⁶ more likely to be diabetic as compared to

FIGURE 15. AVERAGE HOUSEHOLD SPENDING COMPARISON FOR MEDICAID AND NON-MEDICAID



*Indicates statistically significant difference from Medicaid at p<0.05 level.

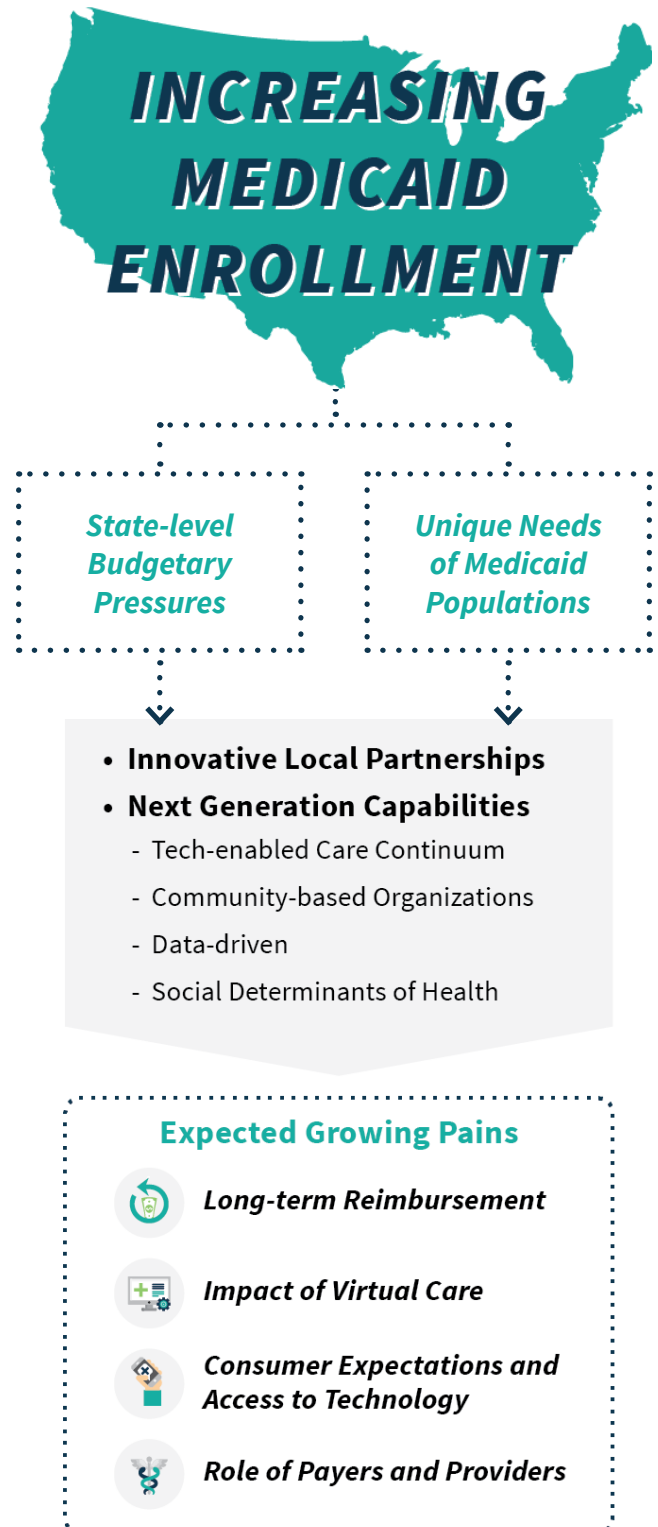
Source: Kaiser Family Foundation

© 2021 TripleTree, LLC. All Rights Reserved.

individuals with private insurance, and low-income Americans report that multiple chronic conditions limit activities of daily life by two to three times²⁷ the rate of people with higher incomes. These social and physical complexities require active management to improve physical health outcomes and avoid unnecessary utilization.

Given this confluence of factors, states across the country – especially those that expanded Medicaid – will likely negotiate with managed care organizations (MCOs) to drive cost containment at a time when safety-net providers are under extreme financial strain themselves (see Figure 16). While these measures, which may include caps on provider payments and drug formulary restrictions,²⁸ are helpful from a cost perspective, they do not address structural access, cost, and quality challenges. As such, we believe states will begin looking for MCOs to accelerate adoption of capabilities that increase access to higher quality and lower-cost care, with virtual health technologies at the center. According to a report from **America's Health Insurance Plans** (AHIP),²⁹ Medicaid managed care plans are evaluating and deploying innovative virtual health solutions spanning virtual visits, virtual behavioral health, RPM, chronic care management, and Triage and Intake³⁰ (find-a-doc, scheduling, ratings/reviews, etc.) In addition, CMS released a toolkit for states to consult in adopting expanded telehealth coverage for Medicaid and CHIP and all 50 states expanded telehealth access for Medicaid beneficiaries during the pandemic.³¹ We are encouraged by these developments as leveraging virtual care for Medicaid members can expand access to care while being both scalable and cost-effective.

FIGURE 16. IMPACT OF GROWING MEDICAID ENROLLMENT



© 2021 TripleTree, LLC. All Rights Reserved.

We have observed examples of MCOs, states, and even providers taking action to ensure Medicaid populations have access to virtual care.

Several examples from early in the pandemic include:

- **CareFirst Community Health Plan** (formerly known as Trusted Health Plan) deployed an integrated local strategy that supports its Federally Qualified Health Center (FQHC) partners, encourages the use of telehealth to improve access to care, supports broader behavioral health and engages community-based organizations (CBOs) to support the unique needs of its Medicaid members in the Washington D.C. area.
- **Centene** teamed up with the National Association of Community Health Centers (NACHC) to help FQHCs adopt telehealth. Interestingly, the effort will bring FQHCs together to pursue a national telehealth strategy for Medicaid programs.
- **The State of Massachusetts** partnered with **Doctor on Demand** to provide free visits for COVID-19 related issues to the state’s Medicaid enrollees. Further, the state’s Medicaid and CHIP administrator, MassHealth, partnered with Maven to provide virtual health access for individuals experiencing COVID-19 symptoms.
- Louisiana-based health system **Oschner** put a portion of its \$1 million Federal Communications Commission (FCC) COVID-19 telehealth grant to work by distributing more than 1,000 TytoCare at-home kits to Medicaid and other at-risk populations.

- **Magellan Health** made two strategic investments in virtual behavioral health innovators **Kaden Health** and **Neuroflow**.

With healthcare being accessed in new ways as the result of COVID-19, there has been a profound shift toward digital distribution channels. Next-generation healthcare companies focused on vulnerable populations that can deliver care at scale by leveraging virtual health technologies to address the unique needs of Medicaid populations (including a holistic view of social determinants of health) have a significant opportunity to enable quality care in a post-COVID-19 world. Long-term factors that will shape the ultimate path to success for these platforms include:

- **Provider networks:** The impact of virtual care capabilities on existing health plan preferred network relationships.
- **Care modality optimization:** Striking the appropriate balance between virtual and in-person care, with highly flexible workflows to enable rapid decision making, triaging, and transitions.
- **Consumerism and technology access:** Consumer expectations and access to technology to utilize virtual health (e.g., hand-held devices, high-speed internet, etc.).
- **Reimbursement:** Long-term virtual care reimbursement strategies (e.g., Fee-for-Service vs. at-risk contracting) and sustainable utilization.

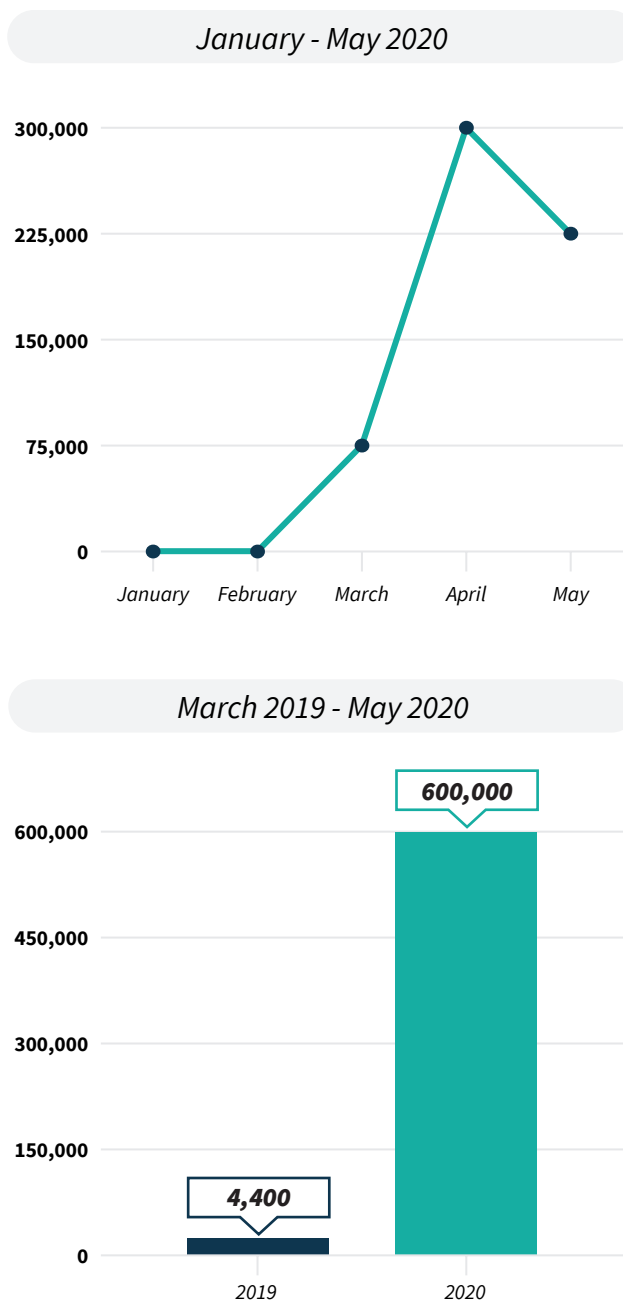
ACCELERATION OF VIRTUAL HEALTH IN MEDICARE ADVANTAGE

Prior to the COVID-19 pandemic, many MA plans had begun work on integrating virtual health capabilities into plan structures in order to drive quality, reduce costs, and better engage with members. As COVID-19 spread across the U.S. in Q1 and Q2 of 2020, MA plans greatly accelerated their virtual health strategies by rapidly adopting virtual health technologies while modifying reimbursement strategies for telehealth, RPM, virtual behavioral health, and virtual health risk assessments (HRAs), among other items. As one example, Figure 17 demonstrates the substantial increase in virtual care utilization from **Anthem's** MA populations during the early days of the COVID-19 pandemic (see Figure 17).³²

While utilization increased during the early days of the pandemic, seniors simultaneously reported favorable telehealth experiences and would be likely to use telehealth again, which bodes well for the longevity of utilization in the senior population.³³

As the COVID-19 pandemic has persisted, MA plans are recognizing the long-term benefits of virtual health and MA member behavior change has set-in. This behavior change is particularly important in MA populations where seniors had previously been more hesitant to adopt virtual health technologies. Due to COVID-19, virtual health is quickly becoming 'table stakes' for MA plans to remain competitive in the marketplace. From the MA plans' perspective, virtual health potentially improves several key value drivers:

FIGURE 17. UTILIZATION OF VIRTUAL HEALTH BY ANTHEM MA MEMBERS



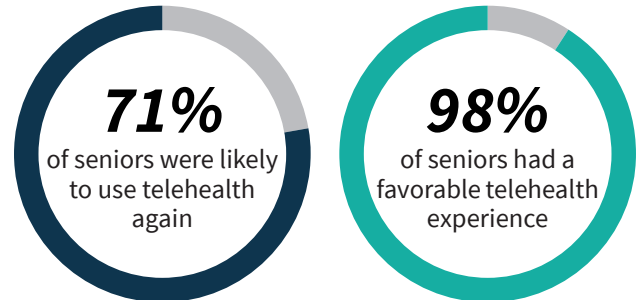
Source: Anthem's affiliated Medicare Advantage Plans © 2021 TripleTree, LLC. All Rights Reserved.

- **Retention:** Virtual health offers convenience, improved access, and additional member touchpoints, all of which could drive member stickiness for MA plans. Instituting the right member experience makes a plan three times more likely to retain that member.³⁴
- **Quality:** In-home monitoring, digital interventions, automated outreach, and other virtual technologies enable proactive, real-time, and personalized management of a MA members' health, ultimately driving care quality improvements and reductions in hospital visits.
- **Costs:** For many populations, better care quality ultimately also means lower costs. For example, continuous in-home monitoring of blood glucose for a diabetic both improves the quality of care for that individual, while simultaneously reducing the risk of an expensive emergency room visit due to a gap in care.

While member activation, satisfaction, and care cost/quality are top priorities for MA plans and carry a high ROI, a recent **J.D. Power** survey shows that these are areas where health plans face significant challenges and capability shortcomings:³⁵

- 60% of health plan members reported they were not contacted by their health plan with guidance or information related to COVID-19.
- 48% of health plan members reported their plan has not shown concern for their health since the pandemic began.

FIGURE 18. SENIOR SENTIMENT ON TELEHEALTH



Source: Better Medicare Alliance
© 2021 TripleTree, LLC. All Rights Reserved.

- Just 25% of health plan members say they view their health plan as a trusted partner in their health and wellness.

In the same survey, telehealth usage was shown to be highly correlated to increases in overall customer satisfaction. As the broader healthcare ecosystem embraces the paradigm shift to virtual health, MA plans represent a perfect use case with a high ROI for these technologies, and we expect the market to respond accordingly in the long-term.

"While utilization increased during the early days of the pandemic, seniors simultaneously reported favorable telehealth experiences and would be likely to use telehealth again, which bodes well for the longevity of utilization in the senior population."

MARKET MAP – PAYER-FOCUSED VIRTUAL HEALTH

PAYER-FOCUSED VIRTUAL HEALTH



MA RISK ADJUSTMENT / VIRTUAL HRAS



SDOH NETWORKS, NAVIGATION, AND TECHNOLOGY



SDOH-BASED CARE DELIVERY



VIRTUAL CLINICAL TRIALS

The use of virtual clinical trials accelerated in the midst of COVID-19 as the global pandemic hindered the traditional method of clinical trials, wherein participants travel to clinical sites for in-person evaluations. Clinical trials, as traditionally conducted, are expensive, inefficient, and difficult to access:

- On average, it takes 10-15 years and \$2.6 billion to develop one new medicine.³⁷
- 12% of molecular entities that enter clinical trials receive FDA approval.³⁸

Virtual clinical trials, however, have the potential to drive cost efficiencies, increase speed, provide more flexible design protocols, and increase patient recruitment, retention, and compliance. In that regard, the statistics supporting the use of virtual clinical trials are staggering:

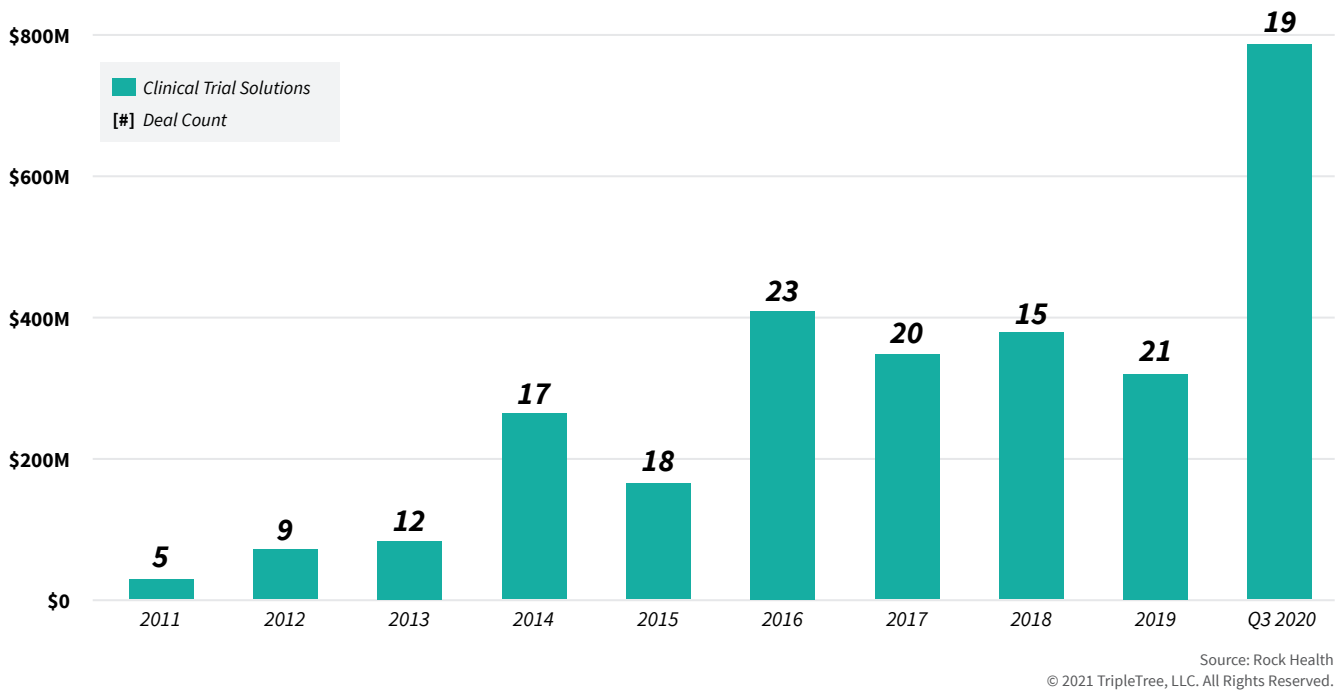
- 85% of patients want to participate in relevant clinical trials.³⁹
- However, 33% of traditional studies fail to enroll a single patient.⁴⁰
- Geography is one of the main barriers to trial enrollment, with 70% of potential clinical trial participants living more than two hours away from a traditional study center.⁴¹
- If given the option, 54% of potential patients would participate in a trial if it had virtual visits.⁴²
- Beyond the benefits of recruitment and enrollment, virtual clinical trials have a 5% drop-out rate⁴³ versus a standard drop-out rate of 30%.⁴⁴

The use of technology in clinical trials is not a new concept. For years, the market has seen a growing use of technologies within traditional trials – Electronic Data Capture (EDC) systems, Electronic Clinical Outcome Assessments (eCOA), Electronic Patient Reported Outcomes (ePRO), etc. Virtual clinical trials take the use of technology a step further by decentralizing the trial, enabling the removal of traditional study sites. As a result, virtual clinical trials can increase accessibility, retention, compliance, and speed efficiencies. As the virtual clinical trial industry continues to evolve, innovative technology companies have quickly positioned themselves as innovators within key workflows, including design protocols, patient recruitment, adherence, and data collection and management, among others. According to data from **Rock Health**, these innovative clinical trial technology companies are receiving significant interest from venture capitalists, with COVID-19 serving as a catalyst to this interest (see Figure 19).

DESIGN PROTOCOLS

Virtual clinical trials provide principal investigators, and the physician leading and conducting the clinical trial, significantly more flexibility in the trial design than traditional clinical trials, ultimately leading to improved participation rates and reduced costs. A key decision while designing a virtual clinical trial is to determine if the trial will be 'site-less' or operate in a hybrid decentralized model. Several factors influence this decision, including availability of technology or apps to facilitate and execute the needs of the trial, the ease of which the patient demographics can navigate those technologies, and the type of data that needs to

FIGURE 19. VENTURE FUNDING FOR CLINICAL TRIAL DIGITAL HEALTH SOLUTIONS



be collected throughout the trial period. As such, not all trials are suitable for a virtual modality, and each element of the trial should be evaluated during the design process for its virtual ‘friendliness’. This virtual approach to clinical trials is vastly different than its traditional counterpart, whose foundation is developed on many trial sites and in-person data collection. There are a variety of innovative virtual trial companies focused on this segment that leverage large data sets to enable intelligent and efficient virtual trial design protocol, feasibility, and set-up.

PATIENT RECRUITMENT

Traditional clinical trials bring immense cost and inherent geographic limitations during the patient recruitment process. The traditional clinical trial recruitment reach is often limited by a patient’s geography due to site locations. With more than two thirds of trial sites failing to meet recruitment targets,⁴⁵

this phase of the process is a significant pain point and is typically the biggest cause of clinical trial delays. Virtual clinical trials, however, provide more efficient and far-reaching patient recruitment opportunities due to the removal of geographic barriers. In addition, virtual clinical trials can target a more diverse group of patient participants, which may lead to a higher degree of representation of the real-world than what could be obtained via a traditional clinical trial. As we see the shift from traditional to virtual clinical trials unfold, constituents will need to reassess the way they approach patient recruitment to recruit the most diverse patient sample utilizing cutting-edge technology. Innovators in this segment leverage clinical, Real-World Evidence (RWE), demographic, and other data sources along with advanced Artificial Intelligence (AI) and Natural Language Processing (NLP) to intelligently automate patient/trial identification and matching.

ADHERENCE

Adherence to trial protocols is a key challenge for traditional clinical trials with up to 40% of patients not remaining compliant with trial protocols.⁴⁶ Moving the clinical trial to a hybrid or fully virtual model could potentially exacerbate this issue, and therefore requires the use of a variety of technologies. In that regard, clinical-trial specific adherence platforms are seeing increasing levels of demand as the market shifts toward virtual clinical trials. These platforms leverage a variety of technologies and behavioral science to engage, educate, remind, and monitor patients for adherence to clinical protocols. While it is too soon to have definitive data on virtual clinical trial adherence and compliance statistics, leading platforms in the space cite adherence rates of 90% or greater.

PATIENT DATA MANAGEMENT

Conducting clinical trials in a virtual environment brings hurdles in the way researchers collect and manage patient data. The burden of data collection shifts from researcher to patient, as a virtual environment requires self-reporting technologies, monitors, biosensors, and other monitoring technologies. Researchers must ensure there is a standardized and user-friendly way to maintain the integrity of the data collection process, and underlying conclusions from the virtual clinical trial. Researchers are increasingly turning to innovative technology providers for these solutions and are finding that the opportunities provided by real-time mobile data collection largely outweigh the risks that come without having a centralized approach during a trialling period. In that regard, many players in the remote patient monitoring and wearables space are seeing

life sciences and virtual clinical trials as a new growth market outside of their traditional consumer, provider, employer, or payer markets.

As the acceleration of virtual clinical trials continues to build, the Contract Research Organization (CRO) and life sciences community is seeing the immense benefits that virtual clinical trials bring to patients and researchers. The benefits of improved patient recruitment, reduced patient dropout, increased compliance, and cost/speed efficiencies make virtual clinical trials a highly attractive alternative for all stakeholders involved.

"Virtual clinical trials, however, have the potential to drive cost efficiencies, increase speed, provide more flexible design protocols, and increase patient recruitment, retention, and compliance."

MARKET MAP - VIRTUAL CLINICAL TRIALS

VIRTUAL DESIGN AND SET-UP



VIRTUAL PATIENT ID AND RECRUITMENT



DATA COLLECTION, WEARABLES, AND REMOTE MONITORING



RWE / RWD



END-TO-END / DIVERSIFIED



RAPIDLY EVOLVING REGULATORY AND REIMBURSEMENT ENVIRONMENT

There is no doubt that pure need, triggered by the pandemic, was the driving force behind increased utilization of virtual health capabilities in recent history – but it is important to also consider the significant impact of changes to the regulatory and reimbursement environment. As COVID-19 swept across the nation in the first half of 2020, CMS and Congress moved quickly to expand coverage and reimbursement for both telehealth and RPM capabilities. While these regulatory and reimbursement changes were temporary actions intended to equip the market to quickly pivot in the face of the pandemic, many believed that the resulting acceleration in virtual health technology adoption would drive the industry toward long-term regulatory and reimbursement reform. As former CMS Administrator Seema Verma commented, “the genie’s out of the bottle on this one.”

SETTING THE STAGE: PRE-COVID-19 REGULATORY AND REIMBURSEMENT BACKDROP

To understand the long-term impact of these recent regulatory and reimbursement changes, it is important to look back at the environment pre-pandemic – and how it was a barrier to both provider and patient adoption. The combination of federal legislation, CMS regulation, state-level regulation, and requirements from population to population created a dizzying regulatory and reimbursement backdrop.

Telehealth was first recognized as a reimbursable service under the Balance Budget Act of 1997 with additional legislation passed three years later in the Benefits Improvement and Protection Act of 2000. A year later, the Consolidated Appropriations Act of 2001

expanded reimbursement conditions under Medicare. While regulations continued to evolve over the next 20⁷ or so years, these three pieces of legislation created the framework that dictated the regulatory and reimbursement environment for virtual health services before the COVID-19 pandemic. In general terms, providers and facilities received lower compensation for virtual health services when compared to in-person visits for that same service. Key components of this foundational framework included:⁴⁸

- **Modality:** Reimbursement was limited to live-video telehealth services (store-and-forward, asynchronous, and phone are typically not reimbursed by Medicare).
- **Patient location:** The patient was required to be in a non-Metropolitan Statistical Area (MSA) or a rural Health Professional Shortage Area (HSPA) – with a few noted exceptions for acute stroke, end-stage renal disease (ESRD), and substance use disorder conditions. Additionally, the patient’s ‘originating site’ (i.e., their required location during the telehealth visit) was largely limited to care facilities (e.g., provider offices, hospitals, skilled nursing facilities, etc.).
- **Provider type:** The type of provider reimbursed for telehealth services was limited by Medicare to a narrow set of clinicians including physicians, nurse practitioners (NPs), physician assistants (PAs), nurse midwives, clinical nurse specialists, clinical psychologists, clinical social workers, and registered dietitians or nutrition professionals.

- **Service type:** Reimbursable telehealth services were limited to a specific list of CPT codes that were evaluated each year. Common reimbursable telehealth services included ED consultations, outpatient visits, nutrition therapy, smoking cessation services, psychotherapy, and counseling sessions.

Over time, CMS added reimbursable services to this foundation, even reimbursing for services that fell outside of the technical definition of telehealth (and therefore not subject to some of the legacy restrictions):

- **Virtual check-ins:** Brief check-in's with existing patients to determine if a face-to-face visit is required (can be held via video or phone).
- **Remote evaluations:** Evaluation / review of patient-transmitted information via video or image technology to determine if a face-to-face visit is required.
- **eConsults:** Provider-to-provider consultations via call, video, or asynchronous modality. Both the consulting and treating provider are reimbursed for eConsults.
- **Chronic care management and RPM:** Starting in 2015, several CPT codes were added to reimburse for non-face-to-face chronic care management and RPM. Notably, CMS unbundled a CPT code in the 2018 Physician Fee Schedule to allow providers to be reimbursed for collecting and interpreting remotely generated patient data.
- **Bipartisan Budget Act of 2018:** MA plans were allowed to offer telehealth benefits without the

restrictions defined by Medicare beginning in 2020. Historically, MA plans were able to offer telehealth as a supplemental benefit under the same restrictions as Medicare and often with higher premiums or additional co-pays for patients.

This restrictive federal regulatory and reimbursement environment also applied to Medicaid programs, and when combined with state-level requirements, created even more obstacles to virtual health adoption. Variation between Medicaid programs from state-to-state reflected the following realities:

- **Live-video telehealth:** Reimbursed in all 50 states, with various restrictions on provider type, originating site, facility type, service type, etc.⁴⁹
- 19 states allowed the home to be the originating site for the patient.
- **Store and forward:** Reimbursed in 16 states but typically restricted to specific specialties (e.g., dermatology).⁵⁰
- **RPM:** Reimbursed in 23 states and typically limited to certain provider types (e.g., home health) or specific chronic conditions (e.g., chronic obstructive pulmonary disease [COPD]).⁵¹
- **Commercial health plans were managed similarly to Medicaid at the state level:** Pre-COVID-19, 42 states had laws governing private payer telehealth reimbursement, frequently including coverage parity that requires payers to cover the same services for telehealth as are delivered in-person, provided that the quality of care was not compromised.⁵² Importantly, these parity laws

typically did not dictate reimbursement, resulting in most commercial health plans reimbursing covered telehealth visits at a lower rate than in-person visits.

And if the myriad of federal regulations, state regulations, and payer-specific rules were not daunting enough, there were additional state-level licensing laws, typically dictated by the state medical boards, that needed to be considered:

- Licensing requirements often required that providers delivering care via telehealth be licensed in the state of the originating site (i.e., the patient’s location at the time of treatment). While interstate licensure compacts have emerged in recent years to ease the licensing burden, it has continued to be a significant administrative hurdle for the telehealth market leading up to COVID-19.
- Online prescribing requirements varied by state. Certain states allowed telehealth to be used to establish the patient-provider relationship required for online prescribing, while others did not. Most states considered an online questionnaire to be insufficient to establish the patient-provider relationship. Pre-COVID-19, relaxation of online prescribing was occurring for medication assisted therapy (MAT), with four states going so far as to reimburse for MAT services provided via telehealth.

These regulatory and reimbursement complexities created significant challenges for patients, providers, and virtual health companies, while constraining overall market adoption leading up to the start of the COVID-19 pandemic.

SWIFT AND BROAD ACTIONS TAKEN DURING THE PANDEMIC

As COVID-19 swept across the nation in the first half 2020, CMS and Congress moved quickly to institute temporary measures that expanded coverage, access, and reimbursement for virtual health capabilities, especially telehealth and RPM solutions. With these relaxations and the ‘forced trial’ that COVID-19 necessitated, constituents across the provider, payer, employer, life sciences, and consumer markets rapidly adopted and began utilizing virtual health technologies.

Key temporary changes to the regulatory and reimbursement environment implemented during COVID-19 included:

- **Modality:** Added coverage and reimbursement for audio-only telehealth visits.⁵³
- **Geography:** Lifted the MSA and HSPA geographic restrictions on beneficiaries, expanding the definition of Originating Site to include patients’ homes, and allowing FQHCs and RHCs to be eligible distant sites (where the provider is located).⁵⁴
- **Provider type:** Allowed more providers to be reimbursed for telehealth services, including physical therapists, occupational therapists, and speech language pathologists.⁵⁵
- **Service type:** Added 100 additional reimbursable services.⁵⁶
- **Reimbursement amount:** Implemented payment parity – telehealth visits reimbursed as if they are in-person.⁵⁷

- **Licensing:** Waived requirements for providers to be licensed in the patient’s state (with certain restrictions and state-level requirements).⁵⁸
- **Medicaid plans and commercial health plans:** Moved quickly (on a case-by-case basis) to waive co-pays, expand reimbursable services, and lift geographic restrictions.⁵⁹
- **Relaxed HIPAA requirements:** Allowed non-HIPAA compliant to enter the market.

These reimbursement and regulatory changes during the COVID-19 pandemic enabled the telehealth landscape to transform in a matter of weeks as patients and providers began using telehealth on a massive scale in late Q1 2020 and Q2 2020. Although telehealth visits reduced after the initial COVID-19 wave as physician offices and health systems opened back up, telehealth utilization has remained well above pre-pandemic levels as of the date of this research publication. Longer-term, utilization and adoption will be tightly linked to the post-pandemic regulatory and reimbursement environment for virtual health.

LOOKING AHEAD: WHAT’S NEXT?

While there is no crystal ball for what the future regulatory and reimbursement environment looks like, there are several factors that point to positive long-term change, including clear support from CMS, MedPAC, and commercial payers:

- **Public statements and actions from CMS** are promoting long-term regulatory and reimbursement changes.

- **Members of Medicare Payment Advisory Commission** (MedPAC) are expressing support for telehealth.
- **Commercial payers** are making strategic moves to position their businesses for the future of virtual health. Examples include:
 - **Anthem’s** investment in **K Health** and partnership with **Amwell**
 - **Cigna’s** partnership with **Talkspace**, investment in **Ginger**, and acquisition of **MDLive**
 - **Optum’s** acquisition of **AbleTo** and **Vivify**
 - **Humana’s** investment in **Heal** and partnership with **Doctor on Demand**
 - **Centene’s** investment in **Babylon Health**
 - **Magellan’s** investments in **Kaden** and **NeuroFlow**
- **Strong demand** from patients and providers for virtual health.

Across the numerous temporary measures instituted to increase access to virtual health during the COVID-19 pandemic, an important subset could disproportionately move the industry toward positive, long-term adoption of these technologies and help drive care delivery transformation that benefits patients, providers, and payers (see Figure 20):

- Including patients' homes as a qualifying originating site for virtual visits, which will dramatically reduce barriers to patient access to telehealth.

- Asynchronous virtual visit payment parity (or 'gross margin' parity given the lower cost to deliver) as text-based interactions increase provider efficiency by three to five times and enable patients without access to high-speed internet to participate in virtual visits.
- Reimbursement for audio-only virtual visits for the same patient access benefits as asynchronous visits (removes access to high-speed internet as a barrier).
- Relaxation of state-based licensing requirements, which is a significant barrier to utilizing virtual health technologies as a load-balancing mechanism for supply/demand imbalances across geographies.
- Lifting the MSA and HSPA originating site restrictions to enable access to telehealth in urban areas, dramatically increasing the number of potential reimbursable telehealth visits.

As we look forward to the future of the virtual health reimbursement and regulatory environment, we are optimistic that providers, payers, patients, and regulators will come together to drive positive change. Ultimately, we expect the industry to support the transformational opportunity that virtual health represents with an appropriate long-term reimbursement regulatory framework that promotes access and care quality. A recent statement from Susan Thompson, a MedPAC commissioner and interim CEO of UnityPoint Health, sums it up well: “Pandora's box is open. Telehealth is a core digital strategy for healthcare that will be an expectation from our beneficiaries going forward. So how does MedPAC respond to this watershed moment? I strongly recommend we embrace it.”

FIGURE 20. FUTURE OF VIRTUAL HEALTH



© 2021 TripleTree, LLC. All Rights Reserved.

"Reimbursement and regulatory changes during the COVID-19 pandemic enabled the telehealth landscape to transform in a matter of weeks as patients and providers began using telehealth on a massive scale in late Q1 2020 and Q2 2020...As we look forward to the future of the virtual health reimbursement and regulatory environment, we are optimistic that providers, payers, patients, and regulators will come together to drive positive change."

ACTIVE M&A AND CAPITAL MARKETS

As virtual health capabilities become more entrenched across healthcare, reimbursement strategies are recalibrated, and adoption from providers, employers, consumers, and other constituents normalizes, the growth profile for emerging virtual health companies is accelerating. With the surge in demand for virtual health, investors, acquirers, and companies alike are positioning themselves for the 'new normal' and the opportunities created by virtual health. These factors have created a strong environment across M&A activity, capital raising, Initial Public Offerings (IPO) / Special Purchase Acquisition Companies (SPAC) issuances, and commercial partnerships.

A report from Rock Health shows the massive increase in digital health funding in 2020, showing significant growth in total capital deployed, number of deals, and average deal size (see Figure 21 and Figure 22).⁶⁰

We expect the uptick in venture funding to create an active M&A, IPO, and SPAC environment for years to come. In addition, COVID-19 drove significant virtual health public market and M&A activity with several notable deals in 2020, including the following:

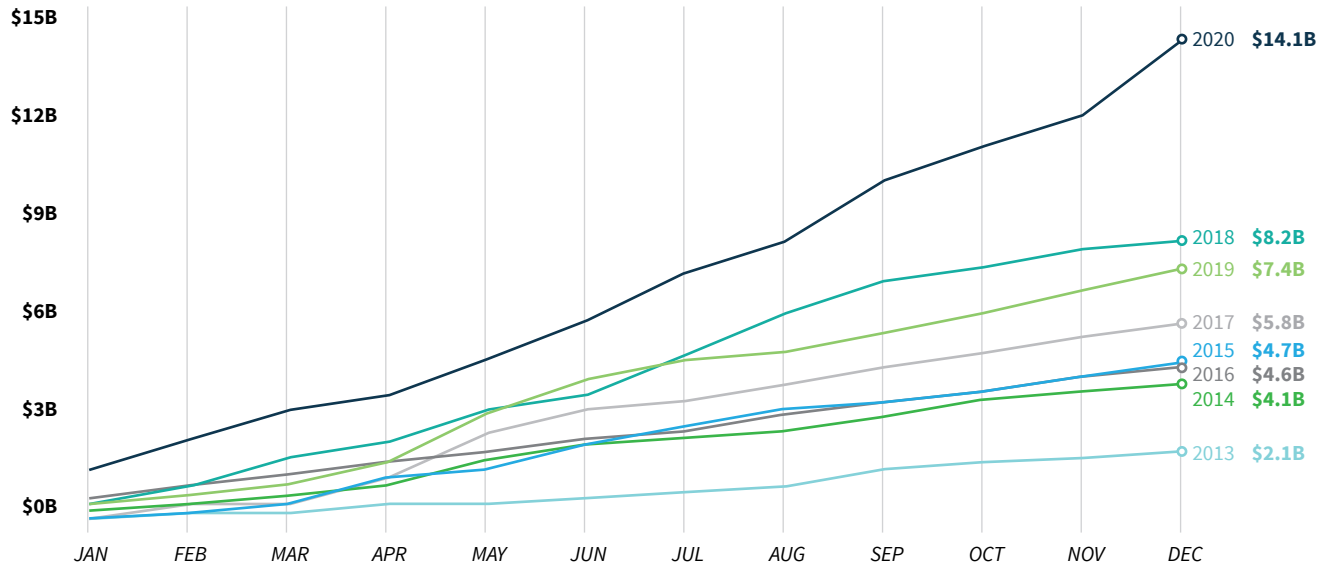
- **GoodRx's** and **Amwell's** IPOs in September 2020.
- Multiple notable virtual health SPACs including **Talkspace**, **Uphealth/Cloudbreak**, **SOC Telemed**, and **hims & hers**, among others.

- From an M&A perspective, there were many transactions (see Figure 23), with **Teladoc/Livongo's \$18.5 billion merger**, **Cigna's** acquisition of **MDLive**, the merger of **Doctor on Demand** and **Grand Rounds** being the largest and most emblematic of the market demand for a comprehensive, end-to-end virtual health platform.

We expect the M&A and capital raising activity to sustain for the foreseeable future and lead toward more comprehensive, end-to-end platforms that span across end markets and virtual health sub-segments.

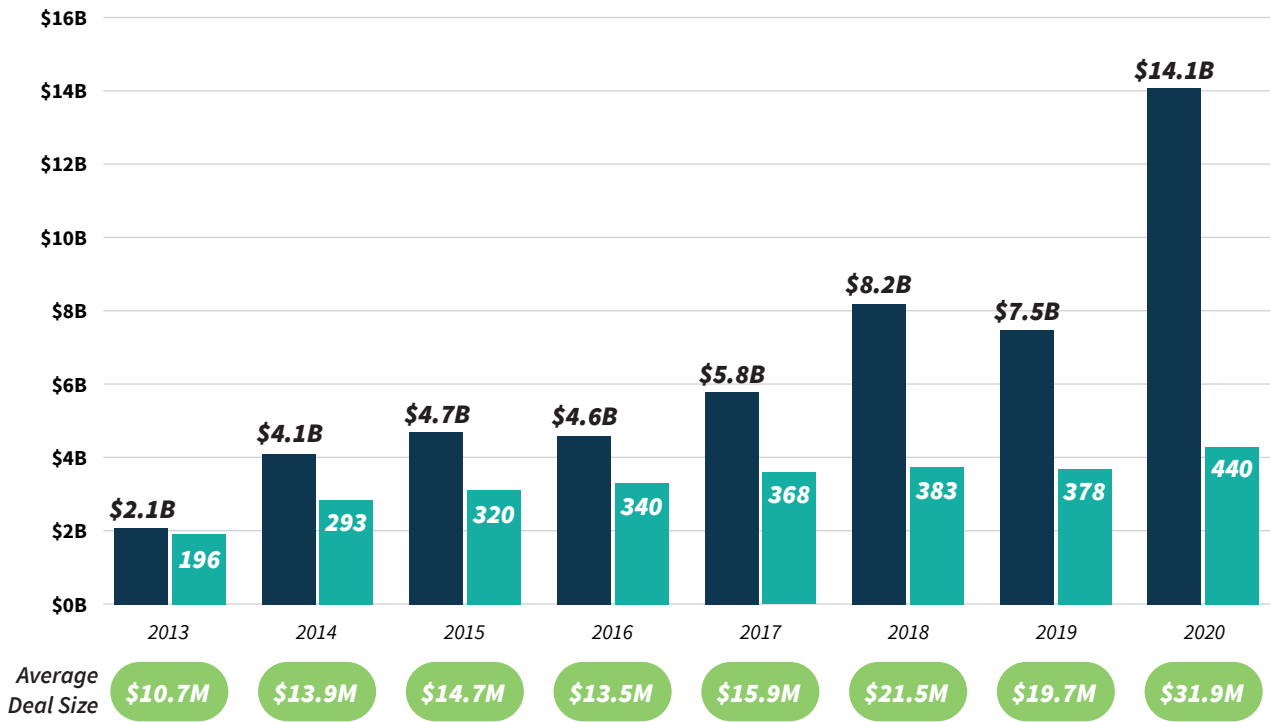
"We expect M&A and capital raising activity to sustain for the foreseeable future and lead toward more comprehensive, end-to-end platforms that span across end markets and virtual health sub-segments."

FIGURE 21. VIRTUAL HEALTH FUNDING IN 2020



Source: Rock Health
© 2021 TripleTree, LLC. All Rights Reserved.

FIGURE 22. VIRTUAL HEALTH FUNDING, DEALS, AND DEAL SIZE



Source: Rock Health
© 2021 TripleTree, LLC. All Rights Reserved.

FIGURE 23. RECENT VIRTUAL HEALTH CAPITAL RAISE, M&A, SPAC, AND IPO ACTIVITY
(\$ IN MILLIONS)


Company	Sector	Transaction Type	Most Recent Capital Raised	Aggregate Capital Raised	Most Recent Capital Raise Date
 sharecare	Digital Front Door	Capital Raise	\$10.0	\$671.1	Mar-21
 ribbon	Digital Front Door	Capital Raise	\$3.5	\$15.4	Feb-21
 Zocdoc	Digital Front Door	Capital Raise	\$150.0	\$583.7	Feb-21
 Phynd  sympplr	Digital Front Door	Merger / Acquisition	N/A	N/A	N/A
 ENLIVE  nex health	Digital Front Door	Merger / Acquisition	N/A	N/A	N/A
 HEALTHSPARQ [®]  KYRUUS	Digital Front Door	Merger / Acquisition	N/A	N/A	N/A
  k health	Digital Front Door	Capital Raise	\$132.0	\$264.5	Dec-20
  babylon	Digital Front Door	Capital Raise	\$100.0	\$751.8	Dec-20
 PAIR  TEAM	Digital Front Door	Capital Raise	\$2.7	\$2.7	Dec-20
  ConsejoSano	Digital Front Door	Capital Raise	\$17.1	\$22.5	Nov-20
 Solv.	Digital Front Door	Capital Raise	\$27.0	\$50.1	Nov-20
  UPFRONT	Digital Front Door	Capital Raise	\$11.5	\$22.4	Nov-20
 buoy	Digital Front Door	Capital Raise	\$37.5	\$66.8	Oct-20
 odoro  clearwave	Digital Front Door	Merger / Acquisition	N/A	N/A	N/A
  Your.MD	Digital Front Door	Capital Raise	\$25.0	\$40.0	Oct-20
 doctor.com  PRESS GANEY [®]	Digital Front Door	Merger / Acquisition	N/A	N/A	N/A
 98point6.	Digital Front Door	Capital Raise	\$118.0	\$249.5	Sep-20
  PATIENTPOP	Digital Front Door	Capital Raise	\$50.0	\$97.4	Aug-20
 clearstep	Digital Front Door	Capital Raise	\$1.3	\$1.3	Aug-20

FIGURE 23. RECENT VIRTUAL HEALTH CAPITAL RAISE, M&A, SPAC, AND IPO ACTIVITY
(\$ IN MILLIONS)

Company	Sector	Transaction Type	Most Recent Capital Raised	Aggregate Capital Raised	Most Recent Capital Raise Date
 Infermedica	Digital Front Door	Capital Raise	\$38.0	\$41.8	Aug-20
 Lumeon	Digital Front Door	Capital Raise	\$22.9	\$67.3	Jul-20
 Nex Health	Digital Front Door	Capital Raise	\$15.0	\$22.1	Jun-20
 GYANT	Digital Front Door	Capital Raise	\$13.6	\$22.2	Jun-20
 Orbita	Digital Front Door	Capital Raise	\$9.0	\$18.4	May-20
 BRIGHTMD	Digital Front Door	Capital Raise	\$16.7	\$30.4	Mar-20
 HealthJoy	Digital Front Door	Capital Raise	\$30.0	\$48.5	Feb-20
 SCI SOLUTIONS SM R1  Tonic an R1 company	Digital Front Door	Merger / Acquisition	N/A	N/A	N/A
 healthmark Ridgmont  OTech SQUITY PARTNERS SM GROUP	Digital Front Door	Recapitalization	N/A	N/A	N/A
 KYRUUS	Digital Front Door	Capital Raise	\$72.3	\$168.7	Dec-19
 DOCASAP	Digital Front Door	Capital Raise	\$18.0	\$27.4	Dec-19
 RELATIENT BRIGHTON PARK CAPITAL	Digital Front Door	Recapitalization	N/A	N/A	N/A
 SENSELY	Digital Front Door	Capital Raise	\$15.0	\$26.2	Oct-19
 lumahealth	Digital Front Door	Capital Raise	\$16.0	\$22.3	Aug-19
 SRM	Digital Front Door	Capital Raise	\$10.0	\$10.0	Mar-19
 Doctolib	Digital Front Door	Capital Raise	\$150.0	\$234.0	Mar-19
 dr. on demand GRAND ROUNDS SM	Virtual Visits	Merger / Acquisition	N/A	N/A	N/A
 MDLIVE  Cigna	Virtual Visits	Merger / Acquisition	N/A	N/A	N/A
 timelyMD	Virtual Visits	Capital Raise	\$60.0	\$60.0	Jan-21

FIGURE 23. RECENT VIRTUAL HEALTH CAPITAL RAISE, M&A, SPAC, AND IPO ACTIVITY
(\$ IN MILLIONS)

Company	Sector	Transaction Type	Most Recent Capital Raised	Aggregate Capital Raised	Most Recent Capital Raise Date
  UpHealth	Virtual Visits	SPAC	N/A	N/A	N/A
	Virtual Visits	Capital Raise	\$14.0	\$27.3	Sep-20
	Virtual Visits	Capital Raise	\$100.0	\$127.9	Sep-20
	Virtual Visits	Capital Raise	\$50.0	\$173.6	Sep-20
	Virtual Visits	Capital Raise	\$75.0	\$93.5	Sep-20
	Virtual Visits	Capital Raise	\$33.5	\$33.5	Sep-20
	Virtual Visits	Capital Raise	\$100.0	\$798.5	Aug-20
	Virtual Visits	SPAC	N/A	N/A	N/A
	Virtual Visits	Capital Raise	\$43.0	\$99.0	Jul-20
	Virtual Visits	Capital Raise	\$78.7	\$244.6	Jul-20
 	Virtual Visits	Merger / Acquisition	N/A	N/A	N/A
	Virtual Visits	Capital Raise	\$30.0	\$158.4	Jun-19
 	Virtual Visits	Merger / Acquisition	N/A	N/A	N/A
	Virtual Visits	Capital Raise	\$6.6	\$17.1	Jun-20
	Virtual Visits	Capital Raise	\$9.9	\$9.9	Jun-20
	Virtual Visits	Capital Raise	\$5.0	\$7.5	May-20
 	Virtual Visits	Recapitalization	N/A	N/A	N/A
	Virtual Visits	Capital Raise	\$22.0	\$51.6	Feb-20
 CLOUDBREAK	Virtual Visits	Capital Raise	\$10.0	\$10.0	Feb-20

FIGURE 23. RECENT VIRTUAL HEALTH CAPITAL RAISE, M&A, SPAC, AND IPO ACTIVITY
(\$ IN MILLIONS)

Company	Sector	Transaction Type	Most Recent Capital Raised	Aggregate Capital Raised	Most Recent Capital Raise Date
 wheel	Virtual Visits	Capital Raise	\$13.9	\$13.9	Jan-20
 Access+Physicians	Virtual Visits	Capital Raise	\$9.3	\$9.9	Nov-19
 intellivisit	Virtual Visits	Capital Raise	\$0.7	\$2.7	Aug-19
 IMMERTEC	Virtual Visits	Capital Raise	\$12.0	\$12.4	Jul-19
 GoCheckKIDS	Virtual Visits	Capital Raise	\$7.0	\$14.8	Apr-19
 zipnosis	Virtual Visits	Capital Raise	\$3.1	\$23.3	Apr-19
CIRRUS MD	Virtual Visits	Capital Raise	\$15.0	\$26.5	Feb-19
 FAMH first stop health	Virtual Visits	Capital Raise	\$6.5	\$13.1	Jan-19
 sitka	eConsults	Capital Raise	\$14.3	\$22.4	Jan-21
 Arista MD	eConsults	Capital Raise	\$24.0	\$35.4	Mar-20
 InformedDNA [®] Genetics, Decoded.	eConsults	Capital Raise	\$10.0	\$28.3	Feb-20
 RubiconMD	eConsults	Capital Raise	\$18.0	\$39.0	Feb-20
 dispatch	Virtual Primary and Urgent Care	Capital Raise	\$200.0	\$407.0	Feb-21
 edenhealth	Virtual Primary and Urgent Care	Capital Raise	\$60.0	\$102.8	Feb-21
 Curai health	Virtual Primary and Urgent Care	Capital Raise	\$27.5	\$38.2	Dec-20
 Carbon Health	Virtual Primary and Urgent Care	Capital Raise	\$100.0	\$162.5	Nov-20
 Cricket Health	Virtual Primary and Urgent Care	Capital Raise	\$15.0	\$43.8	Oct-20
 nice	Virtual Primary and Urgent Care	Capital Raise	\$5.0	\$5.0	Oct-20
 hims&hers  OAKTREE	Virtual Primary and Urgent Care	SPAC	N/A	N/A	N/A

FIGURE 23. RECENT VIRTUAL HEALTH CAPITAL RAISE, M&A, SPAC, AND IPO ACTIVITY
(\$ IN MILLIONS)

Company	Sector	Transaction Type	Most Recent Capital Raised	Aggregate Capital Raised	Most Recent Capital Raise Date
 Ready Responders	Virtual Primary and Urgent Care	Capital Raise	\$54.0	\$116.7	Aug-20
 ro	Virtual Primary and Urgent Care	Capital Raise	\$200.0	\$291.6	Jul-20
 heal	Virtual Primary and Urgent Care	Capital Raise	\$100.0	\$177.8	Jul-20
 PlushCare	Virtual Primary and Urgent Care	Capital Raise	\$23.0	\$32.4	May-20
 MAVEN	Virtual Primary and Urgent Care	Capital Raise	\$45.0	\$86.3	Feb-20
 Parsley Health	Virtual Primary and Urgent Care	Capital Raise	\$26.0	\$37.7	Oct-19
 fireflyhealth	Virtual Primary and Urgent Care	Capital Raise	\$10.2	\$15.3	Aug-19
 SteadyMD	Virtual Primary and Urgent Care	Capital Raise	\$6.0	\$9.0	Aug-19
 remedy	Virtual Primary and Urgent Care	Capital Raise	\$10.0	\$10.0	Jun-19
 hims & hers	Virtual Primary and Urgent Care	Capital Raise	\$113.3	\$172.0	Jan-19
 2nd.MD Accolade	Second Opinions	Merger / Acquisition	N/A	N/A	N/A
 consumermedical	Second Opinions	Merger / Acquisition	N/A	N/A	N/A
 GRAND ROUNDS*	Second Opinions	Capital Raise	\$175.0	\$350.0	Sep-20
 conversa	Clinical Communications	Capital Raise	\$20.0	\$36.2	Jan-21
 asparia Intrado	Clinical Communications	Merger / Acquisition	N/A	N/A	N/A
 criticalalert tigerconnect	Clinical Communications	Merger / Acquisition	N/A	N/A	N/A
 updox Evercommerce	Clinical Communications	Merger / Acquisition	N/A	N/A	N/A
 WOLL™	Clinical Communications	Capital Raise	\$45.0	\$45.1	Nov-20
 tigerconnect	Clinical Communications	Capital Raise	\$45.0	\$126.1	Oct-20

FIGURE 23. RECENT VIRTUAL HEALTH CAPITAL RAISE, M&A, SPAC, AND IPO ACTIVITY
(\$ IN MILLIONS)










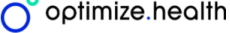

Company	Sector	Transaction Type	Most Recent Capital Raised	Aggregate Capital Raised	Most Recent Capital Raise Date
 SeamlessMD	Clinical Communications	Capital Raise	\$4.0	\$5.1	Aug-20
 klara	Clinical Communications	Capital Raise	\$15.0	\$32.0	Aug-20
 medici	Clinical Communications	Capital Raise	\$24.0	\$70.6	Apr-20
 twistle	Clinical Communications	Capital Raise	\$18.3	\$21.0	Oct-19
 weave	Clinical Communications	Capital Raise	\$70.0	\$156.8	Oct-19
 AIRSTRIP®	Clinical Communications	Capital Raise	\$21.5	\$87.5	Oct-19
 caremerge	Clinical Communications	Capital Raise	\$5.2	\$25.3	Jul-19
 pulsara	Clinical Communications	Capital Raise	\$11.3	\$29.5	Mar-19
 SIGNALLAMP HEALTH	Clinical Communications	Capital Raise	\$4.7	\$5.5	Jan-18
 HRS Health Recovery Solutions	In-Home Monitoring	Capital Raise	\$70	\$84.8	Mar-21
 BioTelemetry PHILIPS	In-Home Monitoring	Merger / Acquisition	N/A	N/A	N/A
 eko	In-Home Monitoring	Capital Raise	\$65.0	\$100.5	Oct-20
 MD Revolution	In-Home Monitoring	Capital Raise	\$17.9	\$61.4	Jul-20
 optimize.health	In-Home Monitoring	Capital Raise	\$3.5	\$3.5	Jun-20
 Routinify SMARTER LIVING	In-Home Monitoring	Capital Raise	\$1.5	\$1.5	Jun-20
 current health	In-Home Monitoring	Capital Raise	\$9.0	\$17.0	Dec-19
 vivify health OPTUM	In-Home Monitoring	Merger / Acquisition	N/A	N/A	N/A
 CST The Company That Saves Lives BEST BUY	In-Home Monitoring	Merger / Acquisition	N/A	N/A	N/A
 TULA HEALTH	In-Home Monitoring	Capital Raise	\$2.7	\$2.7	May-19

FIGURE 23. RECENT VIRTUAL HEALTH CAPITAL RAISE, M&A, SPAC, AND IPO ACTIVITY
(\$ IN MILLIONS)

Company	Sector	Transaction Type	Most Recent Capital Raised	Aggregate Capital Raised	Most Recent Capital Raise Date
 INDEPENDA	In-Home Monitoring	Capital Raise	\$0.9	\$14.2	Mar-19
Calibrate	Digital Therapeutics / Self Management	Capital Raise	\$22.5	\$27.6	Jan-21
 UPRIGHT HEALTH DARIO	Digital Therapeutics / Self Management	Merger / Acquisition	N/A	N/A	N/A
 Hinge Health	Digital Therapeutics / Self Management	Capital Raise	\$300.0	\$442.4	Jan-21
 virta	Digital Therapeutics / Self Management	Capital Raise	\$65.0	\$269.0	Dec-20
newtopia	Digital Therapeutics and Self-Care	Capital Raise	\$7.5	\$25.9	Oct-20
ONE DROP	Digital Therapeutics and Self-Care	Capital Raise	\$34.7	\$107.9	Aug-20
 DARIO	Digital Therapeutics / Self Management	Capital Raise	\$0.3	\$91.4	Jul-20
 Livongo Teladoc HEALTH	Digital Therapeutics and Self-Care	Merger / Acquisition	N/A	N/A	N/A
 fruit street	Digital Therapeutics and Self-Care	Capital Raise	\$0.3	\$25.3	May-20
 PHYSERA omada	Digital Therapeutics and Self-Care	Merger / Acquisition	N/A	N/A	N/A
 jointacademy	Digital Therapeutics / Self Management	Capital Raise	\$23.0	\$109.0	Sep-20
 kaia health	Digital Therapeutics / Self Management	Capital Raise	\$26.0	\$47.3	Jun-20
lark	Digital Therapeutics / Self Management	Capital Raise	\$55.0	\$61.0	May-20
goodpath	Digital Therapeutics / Self Management	Capital Raise	\$4.0	\$4.0	Apr-20
 omada	Digital Therapeutics and Self-Care	Capital Raise	\$73.0	\$202.3	Jun-19
 DAY TWO	Digital Therapeutics / Self Management	Capital Raise	\$31.0	\$43.0	Jun-19
everlywell	Wearables and At-Home Exams	Capital Raise	\$75.0	\$310.1	Jan-21
 reperio	Wearables and At-Home Exams	Capital Raise	\$6.0	\$6.0	Oct-20

FIGURE 23. RECENT VIRTUAL HEALTH CAPITAL RAISE, M&A, SPAC, AND IPO ACTIVITY
(\$ IN MILLIONS)

Company	Sector	Transaction Type	Most Recent Capital Raised	Aggregate Capital Raised	Most Recent Capital Raise Date
 workpath ro	Wearables and At-Home Exams	Merger / Acquisition	N/A	N/A	N/A
 BioIntelliSense	Wearables and At-Home Exams	Capital Raise	\$12.0	\$12.0	Aug-20
 Tasso	Wearables and At-Home Exams	Capital Raise	\$17.0	\$23.1	Jul-20
 higgi	Wearables and At-Home Exams	Capital Raise	\$30.0	\$91.3	May-20
 LetsGetChecked	Wearables and At-Home Exams	Capital Raise	\$65.4	\$109.4	May-20
 tytocare™	Wearables and At-Home Exams	Capital Raise	\$100.0	\$148.5	Apr-20
 Healthy.io	Wearables and At-Home Exams	Capital Raise	\$60.0	\$90.0	Sep-19
 aspenn Rx-Health	Telepharmacy	Capital Raise	\$23.0	\$32.0	Jan-21
 scriptdrop	Telepharmacy	Capital Raise	\$15.0	\$51.9	Oct-20
 GoodRx	Telepharmacy	IPO	\$100.0	\$100.0	Sep-20
 Truepill	Telepharmacy	Capital Raise	\$75.0	\$113.4	Sep-20
 prescriptive	Telepharmacy	Capital Raise	\$26.0	\$26.0	Aug-20
 LEMONAID	Telepharmacy	Capital Raise	\$41.4	\$63.4	Jul-20
 MEDLY	Telepharmacy	Capital Raise	\$100.0	\$100.0	Jul-20
 NORTH WEST TELEPHARMACY+ Solutions	Telepharmacy	Capital Raise	\$70.0	\$240.0	Jun-20
 honeybee	Telepharmacy	Capital Raise	\$5.4	\$9.9	Dec-19
 alto	Telepharmacy	Capital Raise	\$250.0	\$352.1	Dec-19
 NURX.	Telepharmacy	Capital Raise	\$20.0	\$116.2	Aug-19
 CAPSULE	Telepharmacy	Capital Raise	\$200.0	\$262.1	Jul-19

FIGURE 23. RECENT VIRTUAL HEALTH CAPITAL RAISE, M&A, SPAC, AND IPO ACTIVITY
(\$ IN MILLIONS)






















Company	Sector	Transaction Type	Most Recent Capital Raised	Aggregate Capital Raised	Most Recent Capital Raise Date
 DIGITAL PHARMACIST™	Telepharmacy	Capital Raise	\$100.0	\$113.8	Mar-19
  BIOCLINICA®	Virtual Clinical Trials	Merger / Acquisition	N/A	N/A	N/A
  SIGNANT HEALTH	Virtual Clinical Trials	Merger / Acquisition	N/A	N/A	N/A
	Virtual Clinical Trials	Capital Raise	\$34.0	\$99.0	Nov-20
	Virtual Clinical Trials	Capital Raise	\$91.0	\$151.1	Oct-20
	Virtual Clinical Trials	Capital Raise	\$5.0	\$7.4	Sep-20
	Virtual Clinical Trials	Capital Raise	\$40.0	\$106.5	Aug-20
	Virtual Clinical Trials	Capital Raise	\$50.0	\$50.0	Aug-20
	Virtual Clinical Trials	Capital Raise	\$30.0	\$30.3	Aug-20
 	Virtual Clinical Trials	Recapitalization	N/A	N/A	N/A
	Virtual Clinical Trials	Capital Raise	\$45.0	\$106.5	Jul-20
 	Virtual Clinical Trials	Merger / Acquisition	N/A	N/A	N/A
	Virtual Clinical Trials	Capital Raise	\$17.0	\$20.0	May-20
	Virtual Clinical Trials	Capital Raise	\$4.7	\$9.0	Mar-20
	Virtual Clinical Trials	Capital Raise	\$100.0	\$137.8	Feb-20
	Virtual Clinical Trials	Capital Raise	\$19.3	\$19.3	Jan-20
	Virtual Clinical Trials	Capital Raise	\$150.0	\$150.0	Jan-20
	Virtual Behavioral Health	Capital Raise	\$24.5	\$51.8	Aug-19
	Virtual Behavioral Health	Capital Raise	\$20.0	\$41.6	May-19










FIGURE 23. RECENT VIRTUAL HEALTH CAPITAL RAISE, M&A, SPAC, AND IPO ACTIVITY
(\$ IN MILLIONS)

Company	Sector	Transaction Type	Most Recent Capital Raised	Aggregate Capital Raised	Most Recent Capital Raise Date
 Modern Health	Virtual Behavioral Health	Capital Raise	\$74.0	\$181.4	Feb-21
 alma	Virtual Behavioral Health	Capital Raise	\$28.0	N/A	Feb-21
 EQUIP	Virtual Behavioral Health	Capital Raise	\$13.0	\$16.7	Jan-21
 concert health	Virtual Behavioral Health	Capital Raise	\$14.0	\$14.0	Jan-21
 talkspace	Virtual Behavioral Health	Capital Raise	\$300.0	\$410.7	Jan-21
 talkspace HUDSON EXECUTIVE	Virtual Behavioral Health	SPAC	N/A	N/A	N/A
 whil. rethinkfirst	Virtual Behavioral Health	Merger / Acquisition	N/A	N/A	N/A
 NEUROFLOW	Virtual Behavioral Health	Capital Raise	\$20.0	\$31.0	Dec-20
 Lyra	Virtual Behavioral Health	Capital Raise	\$187.0	\$472.5	Dec-20
 Calm	Virtual Behavioral Health	Capital Raise	\$40.0	\$144.6	Dec-20
 PEAR THERAPEUTICS	Virtual Behavioral Health	Capital Raise	\$100.0	\$293.7	Dec-20
 spring health	Virtual Behavioral Health	Capital Raise	\$76.0	\$102.9	Nov-20
 DynamyCare HEALTH	Virtual Behavioral Health	Capital Raise	\$3.5	\$7.4	Oct-20
 Workit Health	Virtual Behavioral Health	Capital Raise	\$12.0	\$18.6	Oct-20
 Kaden	Virtual Behavioral Health	Capital Raise	\$19.1	\$19.1	Oct-20
 freespira	Virtual Behavioral Health	Capital Raise	\$10.0	\$20.2	Oct-20
 nocd	Virtual Behavioral Health	Capital Raise	\$12.0	\$17.6	Oct-20
 DOTCOM THERAPY	Virtual Behavioral Health	Capital Raise	\$4.3	\$5.1	Sep-20
 ginger	Virtual Behavioral Health	Capital Raise	\$50.1	\$115.5	Aug-20

FIGURE 23. RECENT VIRTUAL HEALTH CAPITAL RAISE, M&A, SPAC, AND IPO ACTIVITY
(\$ IN MILLIONS)

Company	Sector	Transaction Type	Most Recent Capital Raised	Aggregate Capital Raised	Most Recent Capital Raise Date
 brightline	Virtual Behavioral Health	Capital Raise	\$20.0	\$25.0	Aug-20
 mindoula	Virtual Behavioral Health	Capital Raise	\$27.2	\$37.5	Jul-20
 Big Health	Virtual Behavioral Health	Capital Raise	\$39.0	\$54.8	Jun-20
 mindstrong	Virtual Behavioral Health	Capital Raise	\$100.0	\$160.4	May-20
 holmusk	Virtual Behavioral Health	Capital Raise	\$21.5	\$37.3	May-20
 Presence Learning	Virtual Behavioral Health	Capital Raise	\$27.0	\$64.5	May-20
 Meru Health	Virtual Behavioral Health	Capital Raise	\$8.1	\$12.3	May-20
 wellth	Virtual Behavioral Health	Capital Raise	\$10.0	\$23.1	May-20
 AbleTo  OPTUM	Virtual Behavioral Health	Merger / Acquisition	N/A	N/A	N/A
 vida	Virtual Behavioral Health	Capital Raise	\$25.0	\$78.0	Apr-20
 ayogo	Virtual Behavioral Health	Capital Raise	\$7.5	\$10.0	Apr-20
 XRHealth	Virtual Behavioral Health	Capital Raise	\$7.0	\$10.1	Apr-20
 SilverCloud	Virtual Behavioral Health	Capital Raise	\$14.7	\$25.2	Apr-20
 lionrock	Virtual Behavioral Health	Capital Raise	\$7.0	\$7.0	Apr-20
 Brightside	Virtual Behavioral Health	Capital Raise	\$5.0	\$7.4	Mar-20
 axial Healthcare	Virtual Behavioral Health	Capital Raise	\$15.0	\$41.9	Feb-20
 Limbix	Virtual Behavioral Health	Capital Raise	\$9.0	\$14.2	Feb-20
 Cerebral	Virtual Behavioral Health	Capital Raise	\$35.0	\$46.0	Jan-20
 Boulder	Virtual Behavioral Health	Capital Raise	\$11.0	\$14.7	Dec-19

FIGURE 23. RECENT VIRTUAL HEALTH CAPITAL RAISE, M&A, SPAC, AND IPO ACTIVITY
(\$ IN MILLIONS)

Company	Sector	Transaction Type	Most Recent Capital Raised	Aggregate Capital Raised	Most Recent Capital Raise Date
	Virtual Behavioral Health	Merger / Acquisition	N/A	N/A	N/A
	Virtual Behavioral Health	Capital Raise	\$4.7	\$25.8	Nov-19
TEMPEST	Virtual Behavioral Health	Capital Raise	\$11.0	\$17.0	Sep-19
	Virtual Behavioral Health	Capital Raise	\$45.0	\$74.1	Sep-19
	Virtual Behavioral Health	Capital Raise	\$36.6	\$72.7	Aug-19
	Virtual Behavioral Health	Capital Raise	\$20.2	\$45.9	Aug-19
	Virtual Behavioral Health	Capital Raise	\$101.3	\$178.4	Aug-19
	Virtual Behavioral Health	Capital Raise	\$67.5	\$158.9	May-19
	Virtual Behavioral Health	Capital Raise	\$4.5	\$4.7	Jan-19
	Virtual Behavioral Health	Capital Raise	\$15.0	\$16.0	Jan-19

© 2021 TripleTree, LLC. All Rights Reserved.

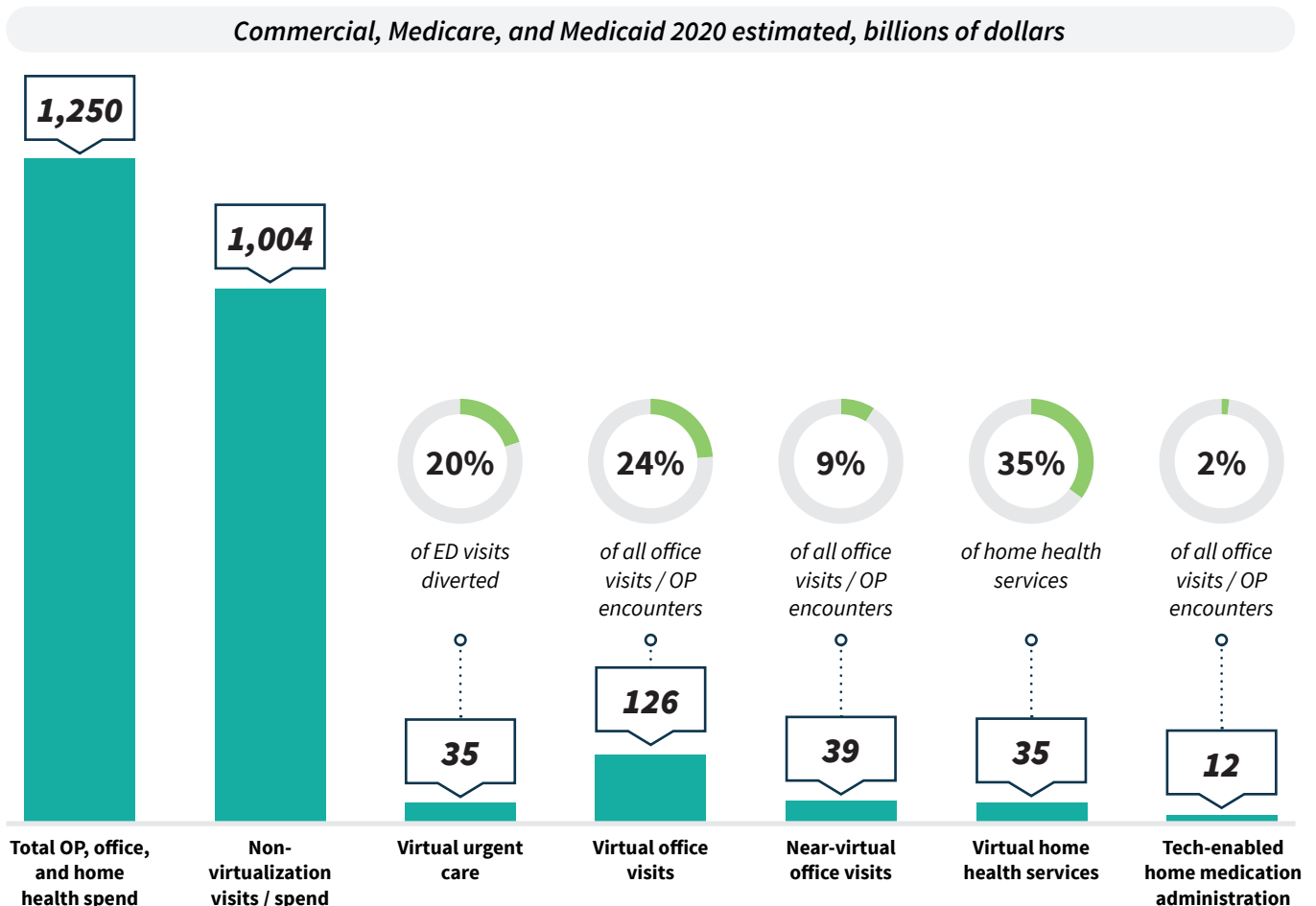
WHAT'S NEXT: TRIPLETREE'S PERSPECTIVE

As we reflect on our industry interactions, market discussions, research activities, and observations over the past year, we are confident that virtual health is now a core component of the healthcare ecosystem. The pandemic acted as the necessary catalyst to accelerate adoption of virtual health capabilities and entrench behaviors and solutions – realities that will be difficult to contract to pre-pandemic levels. This initial wave of adoption occurred so rapidly that not all stakeholders had the time to strategize and develop holistic virtual health strategies. This is what's next as we move into this next era of virtual health.

TripleTree anticipates a market maturation in the coming years, leading to the development of comprehensive strategies for integrated virtual care delivery. As we contemplate the future, we envision an integrated strategy that includes three key components:

- **Triage and Intake:** An amalgamation of intelligent, data-driven capabilities that engage with patients to digitally diagnose, triage, and route them to the appropriate care pathway based on their specific symptoms, care delivery needs, and severity.

FIGURE 24. CURRENT OP AND OFFICE VISITS THAT CAN BE VIRTUALLY ENABLED



Source: McKinsey
© 2021 TripleTree, LLC. All Rights Reserved.

- Care Delivery Leveraging Virtual and Traditional Modalities:** Once the patient is triaged, the most appropriate, cost effective care pathway can be determined. Traditional, in-person care delivery certainly has its place, but is often over-utilized relative to the patient's severity and specific needs and can unnecessarily delay access to care by days or even weeks for certain services. Primary care physicians (PCPs), for instance, are often overwhelmed with patients filling their waiting rooms that could otherwise be treated asynchronously or monitored remotely from their homes. Intelligently steering patients to the proper care delivery modality improves convenience, timely access, and patient satisfaction while allowing physicians to practice at the top of their license and maximizing the economic impact for all constituencies.
- Home-based Patient Monitoring and Engagement:** COVID-19 will serve to accelerate the industry's trend toward caring for and managing patients from the comfort of their homes. This low-cost alternative – coupled with telehealth and RPM capabilities – delivers a broad range of benefits from reduced readmissions and enhanced outcomes to improved chronic care management and better intelligence for managing risk and deploying timely care interventions.

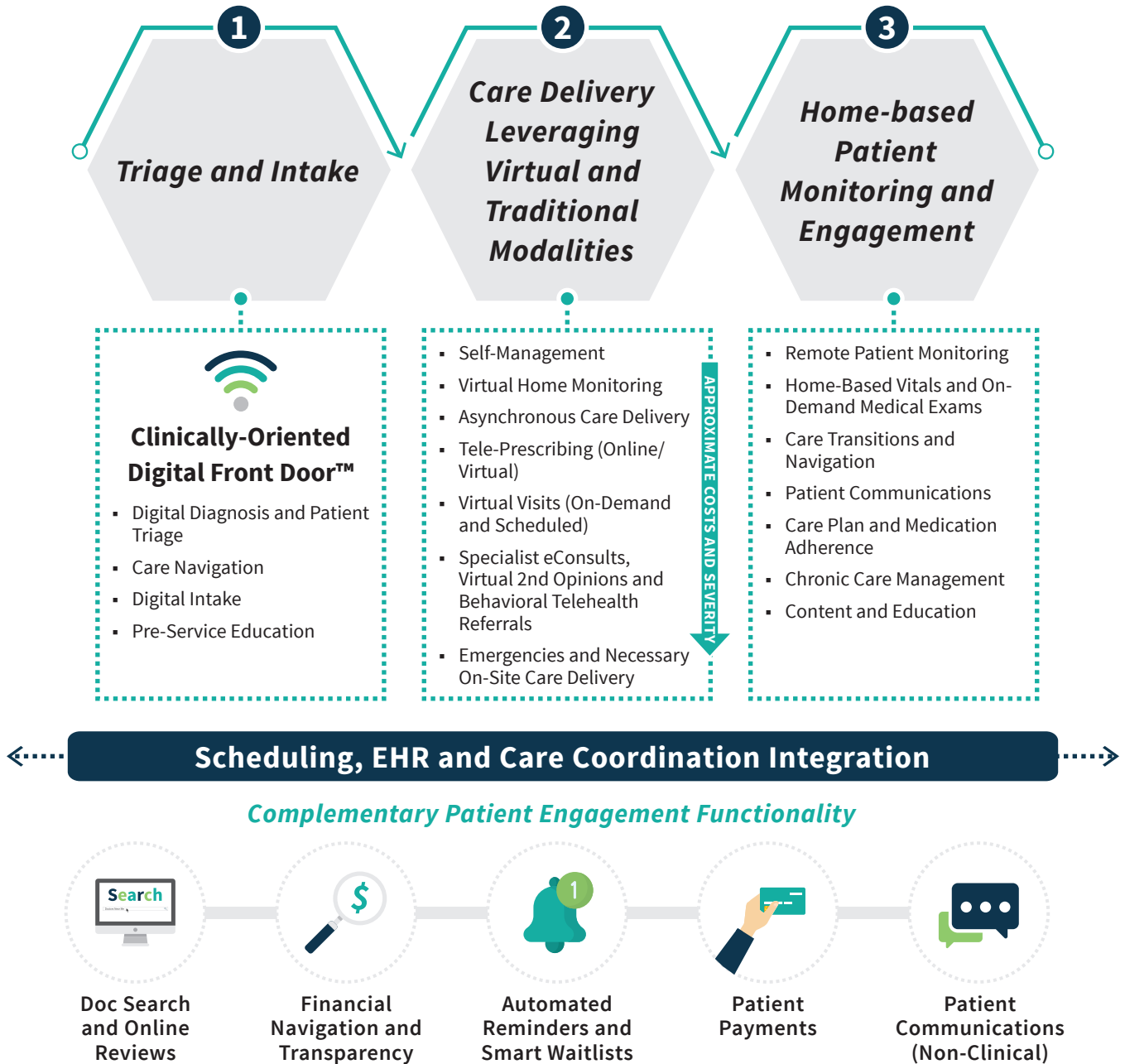
TripleTree's vision for this strategy (see Figure 25) contemplates the creation of a seamless, interconnected ecosystem with broad impact across the healthcare ecosystem; from small and medium

provider practices to employers, from virtual behavioral health to virtual clinical trials, to a more progressive regulatory and reimbursement environment that supports government-sponsored programs. As this comprehensive strategy for virtual care delivery comes into focus, there is a massive market opportunity for innovative companies, investors, and buyers to succeed. Early estimates size the virtual health opportunity at ~20% of all Medicare, Medicaid, Commercial, and Home Health spend, equating to a growing ~\$250 billion market opportunity (see Figure 24).⁶¹

In addition to this \$250 billion virtual health opportunity, the longer-term implications across the entire healthcare industry will be pronounced as we anticipate a domino effect from virtual health adoption that will drive waves of demand across areas that complement virtual health and address other vulnerabilities exposed by COVID-19.

The recent acceleration and adoption of virtual health capabilities has demonstrated that healthcare can reimagine the principles and mechanics of care delivery in response to ever-changing demands. As the virtual health transformation gained momentum in 2020, the sharp rise in demand and adoption created the runway for the next round of disruption and innovation. We look forward to watching and participating in this next round of industry transformation – with virtual health at the forefront and consumers at the ready.

FIGURE 25. COMPREHENSIVE CARE DELIVERY STRATEGY LEVERAGING VIRTUAL HEALTH



© 2021 TripleTree, LLC. All Rights Reserved.

ENDNOTES

1. J.D. Power July 2019 Telehealth Satisfaction Study
2. McKinsey: Telehealth: A quarter-trillion-dollar post-COVID-19 reality?
3. Sage Growth / Blackbook Research: COVID-19 Market Pulse: March, 2020
4. Updox: The 2020 Virtual Care Report
5. SOC Telemed July 2020 Investor Presentation
6. Ibid
7. Business Group on Health, August 2020
8. Strata Decision Technology: The National Patient and Procedure Volume Tracker™
9. MGMA: COVID-19 Financial Impact on Medical Practices
10. AristaMD: Website
11. Willis Towers Watson: April 2020 Employer Survey
12. Ginger: COVID-19: Four Radical Changes in U.S. Worker Mental Health Needs
13. Ibid
14. Ibid
15. CDC: Chronic Diseases in America
16. SilverCloud
17. Perspectives on the Emerging Digital Transformation of the Management of Psychiatric Comorbidities in Chronically Ill Populations published in the Journal of Psychiatry Treatment and Research.
18. Consumer Medical: Creating Engaged Healthcare Consumers to Optimize Quality and Lower Costs
19. Mercer: DIY Mental Health: Survey Finds Employers Taking Action to Improve Access to Care
20. KFF Tracking Pole
21. KFF: Mental Healthcare Health Professional Shortage Areas (HPSAs)
22. Behavioral Health + Economics Network: Addressing the Behavioral Health Workforce Shortage
23. Substance Abuse and Mental Health Services Administration – Key Substance Use and Mental Health Indicators in the United States: Results from the 2018 National Survey on Drug Use and Health
24. Health Management Associates: COVID-19 Impact on Medicaid, Marketplace, and the Uninsured
25. KFF: Healthcare Spending Among Low-Income Households with and without Medicaid
26. Summary Health Statistics: National Health Interview Survey, 2018 – Table A-4a
27. Summary Health Statistics: National Health Interview Survey, 2018 – Table P-2a
28. Fierce Healthcare
29. AHIP – The Value of Medicaid Managed Care: Innovating in Medicaid
30. CMS – State & CHIP Telehealth Toolkit: Policy Considerations for States Expanding Use of Telehealth
31. KFF - State Efforts to Expand Medicaid Coverage & Access to Telehealth in Response to COVID-19
32. Anthem: Virtual Healthcare Use Among Medicare Advantage Members Before and During the COVID-19 Pandemic, November 2020
33. Better Medicare Alliance – Telehealth During a Time of Crisis: Medicare Experiences Amid COVID-19, July 2020
34. McKinsey – Great Customer Experience: A Win-Win for Consumers and Health Insurers, 2016

35. J.D. Power – Health Plans have a Customer Engagement Problem, May 2020
36. Better Medicare Alliance – Telehealth During a Time of Crisis: Medicare Experiences Amid COVID-19, July 2020
37. Pharmaceutical Research and Manufacturers of America (PhRMA)
38. Ibid
39. CISCRP 2019 Deciding to Participate Survey
40. Medidata, “Non-enrolling sites come at a price”, March 2016
41. National Academies – Virtual Clinical Trials: A New Model for Patient Engagement, August 2019
42. Pharmpro “Are Site-Less Trials the Future of Clinical Research?” May 2018
43. Ibid
44. S. Elvidge, “Importance of Patient Retention Strategies,” Life Science Leader, April 2010
45. Pharmaceutical Technology: The Numbers Game: boosting trial enrollment. February 2014
46. Evidera: Virtual Trials and Real-World Evidence Data Collection: Identifying Core Needs and Defining “Virtual Trials”, Fall 2019
47. Center for Connected Health Policy – State Telehealth Laws and Reimbursement Policies: February 2020
48. Ibid
49. Ibid
50. Ibid
51. Ibid
52. Ibid
53. Manatt on Health: August 2020
54. Ibid
55. Ibid
56. Ibid
57. Center for Connected Health Policy – Telehealth Coverage Policies in the time of COVID-19
58. Ibid
59. Ibid
60. Rock Health: 2020 Market Insights Report
61. McKinsey – May 2020 – Telehealth: A quarter-trillion-dollar post-COVID-19 reality?

IMPACT

*Virtual First Medical
Practice Collaboration*

VIRTUAL FIRST MEDICAL CARE

*Combining digital medicine + communications technology +
clinical expertise for patient-centered healthcare*

TripleTree and TT Capital Partners are proud founding members of IMPACT, a pre-competitive collaboration of leading digital health companies, investors, payers, and consultants dedicated to supporting virtual-first medical organizations and their commitments to patient-centric care.

Together, the founding members of IMPACT are working to enable expanded access to high-quality, evidence-based virtual care for patients, healthcare providers, and payers in order to improve clinical and health economic outcomes, enhance access, and provide a better overall patient experience.

Learn more at www.impact.dimesociety.org





HEALTHCARE MERCHANT BANKING

TRIPLE-TREE.COM

THIS PUBLICATION MAY BE COPIED, REPRODUCED OR TRANSMITTED, IN WHOLE OR IN PART, PROVIDED TRIPLETREE HOLDINGS, LLC IS ATTRIBUTED AS THE AUTHOR AND THE FOLLOWING NOTICE APPEARS ADJACENT TO SUCH INFORMATION: COPYRIGHT © 2021 TRIPLETREE HOLDINGS, LLC. THE INFORMATION CONTAINED HEREIN HAS BEEN OBTAINED FROM SOURCES BELIEVED TO BE RELIABLE, BUT THE ACCURACY AND COMPLETENESS OF THE INFORMATION, AND THAT OF THE OPINIONS THEREIN, ARE NOT GUARANTEED. ALL PRODUCT NAMES, LOGOS AND BRANDS ARE PROPERTY OF THEIR RESPECTIVE OWNERS. ALL COMPANY, PRODUCT AND SERVICE NAMES USED IN THIS PUBLICATION ARE FOR IDENTIFICATION PURPOSES ONLY. USE OF THESE NAMES, LOGOS AND BRANDS DOES NOT IMPLY ENDORSEMENT. AS AN INDEPENDENT FIRM, TRIPLETREE, LLC MAY PERFORM OR SEEK TO PERFORM INVESTMENT BANKING SERVICES AND TTCP MANAGEMENT SERVICES, LLC MAY PERFORM OR SEEK TO PERFORM PRINCIPAL INVESTING SERVICES FOR THE COMPANIES REFERENCED IN THIS DOCUMENT.

© 2021 TRIPLETREE HOLDINGS, LLC. ALL RIGHTS RESERVED.

 triple-tree.com/strategic-insights

 [@tripletreellc](https://twitter.com/tripletreellc)

 [tripletreellc](https://facebook.com/tripletreellc)

 linkedin.com/tripletree