



Technology Innovation in Medicaid: What to Expect in the Next Decade

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About the Authors

Lisa Suennen is a senior managing director, Megan Ingraham is a director, and Hannah Wagner is a consultant at Manatt Health. Manatt Health integrates legal and consulting expertise to better serve the complex needs of clients across the health care system. Combining legal excellence, firsthand experience in shaping public policy, strategy insight, and deep analytic capabilities, Manatt Health provides professional services to the full range of health industry players. This diverse team of more than 160 attorneys and consultants from Manatt, Phelps & Phillips, LLP, and its consulting subsidiary, Manatt Health Strategies, LLC, helps clients advance their business interests, fulfill their missions, and lead health care into the future. For more information, visit www.manatt.com.

About the Foundation

The California Health Care Foundation is dedicated to advancing meaningful, measurable improvements in the way the health care delivery system provides care to the people of California, particularly those with low incomes and those whose needs are not well served by the status quo. We work to ensure that people have access to the care they need, when they need it, at a price they can afford.

CHCF informs policymakers and industry leaders, invests in ideas and innovations, and connects with changemakers to create a more responsive, patient-centered health care system.

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Even though many people in the field worried that new technologies would never take hold because of significant barriers to adoption, a quiet yet remarkable transformation has been taking place over the last decade in the safety net, which serves the health care needs of Californians with low incomes or disabilities. Electronic health records (EHRs), electronic prescribing, and patient texting to modify behavior, which were once the domain of early adopters in the commercial sector, are now almost universally used in safety-net care. More recently, the coronavirus pandemic turbocharged the adoption of approaches like telehealth and remote monitoring among safety-net providers and their patients.

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To learn what leaders in the field expect over the next decade, Manatt Health — on behalf of the California Health Care Foundation (CHCF) Health Innovation Fund on its 10th anniversary — surveyed nearly 200 health care thought leaders across government, providers, plans, tech companies, community-based organizations, and investment firms. The survey was supplemented with more than 25 one-on-one interviews. The respondents foresaw a host of even more profound changes ahead:

- ▶ The astonishing growth of telehealth technologies — more than 100 times prepandemic levels — could continue if policymakers make permanent the emergency waivers that have so far allowed payments from Medicaid during the coronavirus pandemic.
- ▶ Care coordination technologies should extend their steady growth, enabling advances such as remote patient monitoring that ensure providers stay in touch with patients, that care between different providers doesn't fall through the cracks, and that the right care is given at the right time.
- ▶ Tools and services will increasingly target social risk factors, known as social determinants of health, which include housing, access to healthy food, transportation, and other issues that impact health outcomes and the cost of care.
- ▶ Services will shift from stand-alone offerings targeting specific needs like behavioral health and urgent care to integrated, platform-based models offering a wider array of care options.

Safety-net plans and providers — as well as the investors and entrepreneurs who serve them and the governments that shape markets — would be wise to take heed of the innovations rippling throughout the field. Those that get ahead of the changes will generate life-changing outcomes for their own patients and enrollees, and will be in a better position to foster regulatory and reimbursement reforms that unleash broader transformation across the health care system.

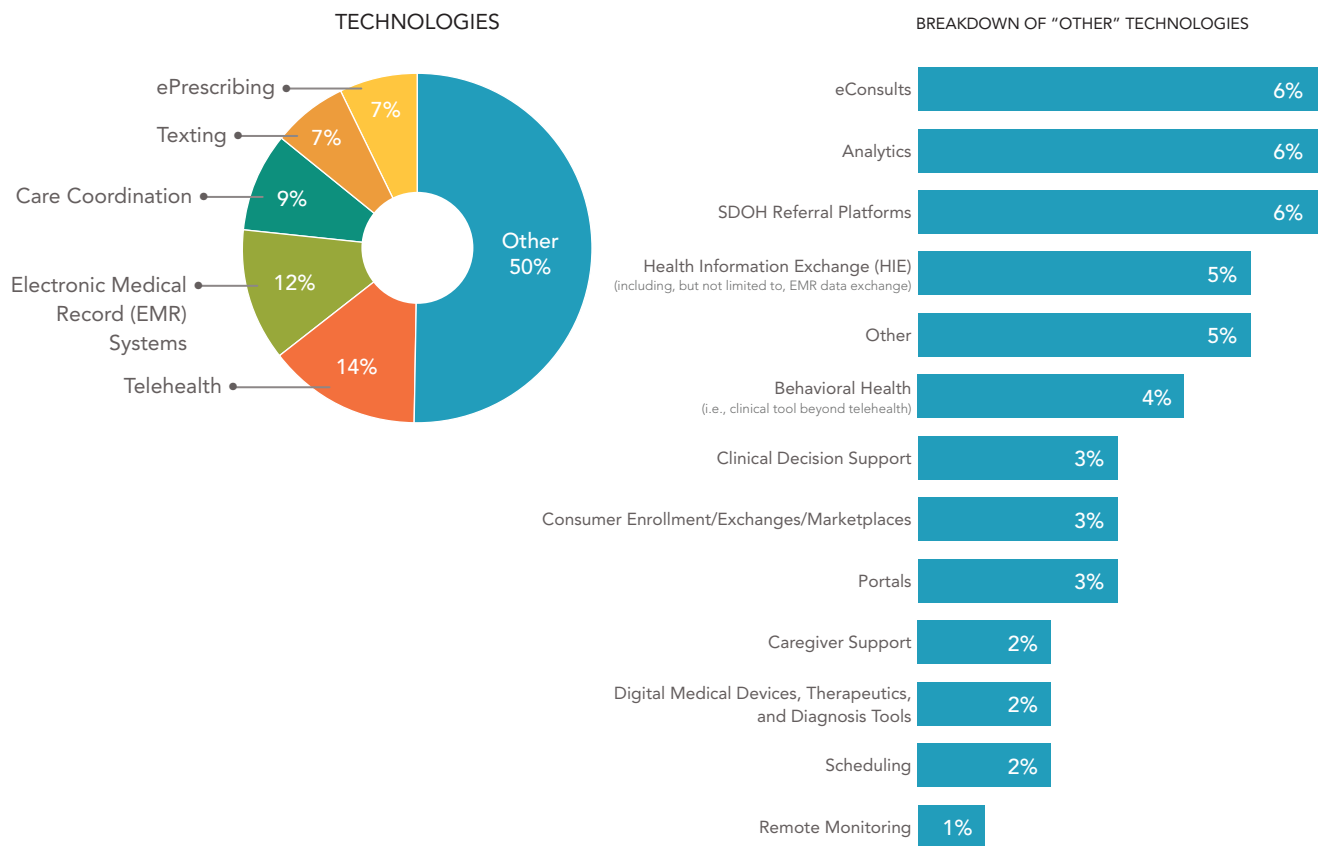
What Has Been Accomplished

Skeptics in the field have long assumed that safety-net providers were unwilling or unable to adopt emerging technology innovations owing to long-standing barriers such as inadequate reimbursement, high investment costs, unclear evidence of impact, low digital literacy and access among patients, and other issues. Despite these major headwinds, safety-net plans, providers, and patients widely adopted a

number of foundational technologies over the last decade, driven by a host of major forces (see “What Has Fueled the Last Decade’s Changes?” on page 5). Survey respondents reported that technology adoption and its impact on the safety net were most extensive in three areas: telehealth, EHRs (also known as EMRs), and care coordination (Figure 1).

Figure 1. Technologies with the Greatest Adoption and Impact over the Last Decade

Select the three technology-enabled innovations that have had the greatest impact on Medicaid/Medi-Cal over the last 10 years.



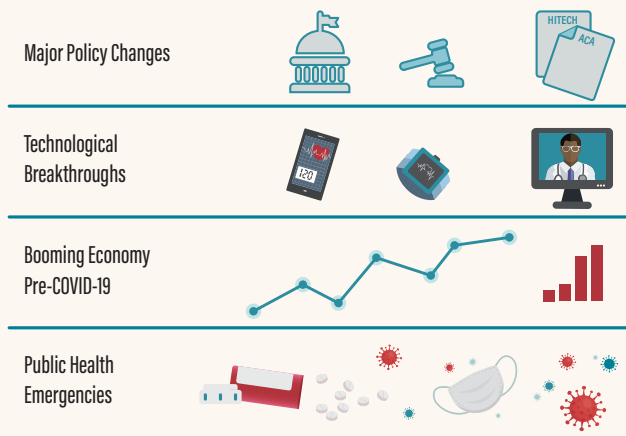
Note: Figures do not sum to totals due to rounding.

Source: CHCF/Manatt Health Medicaid Technology & Innovation Trends US Survey (summer 2020).

What Has Fueled the Last Decade's Changes?

Digital innovations such as those detailed in this report gained traction due to a host of interrelated forces, including major policy changes, technological breakthroughs, a booming economy pre-COVID-19, and public health emergencies.

Four Forces Driving Tech Innovation for the Health Care Safety Net



Major policy changes. Transformational national health care policies such as the HITECH Act of 2009 set the stage for the adoption of tech-enabled innovations. After the passage of the ACA, Medicaid programs also expanded in many states, resulting in 71 million total enrollees in January 2020, an increase of 26% from pre-ACA average monthly levels.¹ The program's growing focus on constraining spending and improving access shifted more people with low incomes or disabilities into managed care and value-based health care. By 2018, 69% of all Medicaid enrollees were enrolled in a managed care organization, and 46% of Medicaid spending came from MCOs, up from 28% of spending five years earlier.² In California, the percentage of Medi-Cal patients in MCOs is even higher, at 81% as of 2018.³

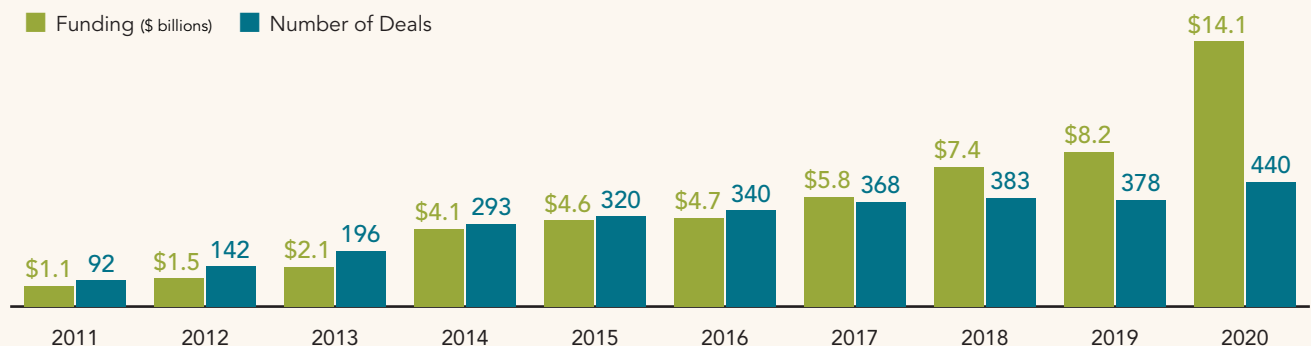
Technological breakthroughs. In parallel with these safety-net policy changes, technology attained greater influence due to the spread of broadband internet, as well as the proliferation of smartphones with apps that enabled greater information sharing and health monitoring. As technology prices fell, more people with low incomes were able to adopt these new technologies, as well. By 2019, nearly three-quarters of US adults with low incomes had a smartphone, a computer, or home broadband.⁴ This trend caught the attention of health care leaders, as one interviewee explained: "There has been a gigantic mind shift over the last decade. . . . Some myths are exploding, including that [people struggling financially] don't want or don't use technology."

A booming economy pre-COVID-19. In lockstep with rapid tech adoption, digital health venture capital funding ballooned from \$1 billion in 2011 to an estimated \$12 billion by 2020 (Figure 2). Greater funding spurred growth and innovation in the health tech sector, including among companies addressing the needs of the safety net.

As the US experienced its longest economic expansion beginning in 2010, state governments and Medicaid agencies were able to invest in and pay for expanded access to care, and they opened their minds and wallets to innovative ways of reaching patients.⁵ Strong state budgets allowed Medicaid agencies to extend sufficient funding to MCOs and to fund technology-enabled services among accountable care organizations.⁶ In parallel, CMS launched the Center for Medicare and Medicaid Innovation in 2010 to foster innovations in both health services and payments, which health technology facilitated. As a result, an orientation emerged to apply technology to fuel innovation within the safety net.

Public health emergencies. Finally, the opioid crisis, and later the COVID-19 pandemic, amplified the need to find new ways to serve vulnerable populations with multiple chronic conditions, many of which were covered by Medicaid as it expanded. The pandemic in particular accelerated the use of technology to enable access to care, while limiting exposure for both patients and providers.

Figure 2. Digital Health Venture Capital Funding, US, 2011 to 2020



Note: Only includes US deals >\$2 million; data through December 31, 2020.

Source: "2020 Market Insights Report: Chasing a New Equilibrium," Rock Health, accessed January 24, 2020.

Electronic health records. The Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 ushered in a new era in the adoption of EHRs, the basic technological infrastructure upon which many tech-enabled innovations depend. In 2010, less than 16% of nonfederal acute care hospitals across the US had basic EHR systems in place. By 2017, 96% of hospitals had a certified EHR system (Figure 3).⁷ By 2018, 99% of Federally Qualified Health Centers (FQHCs) used EHRs.⁸

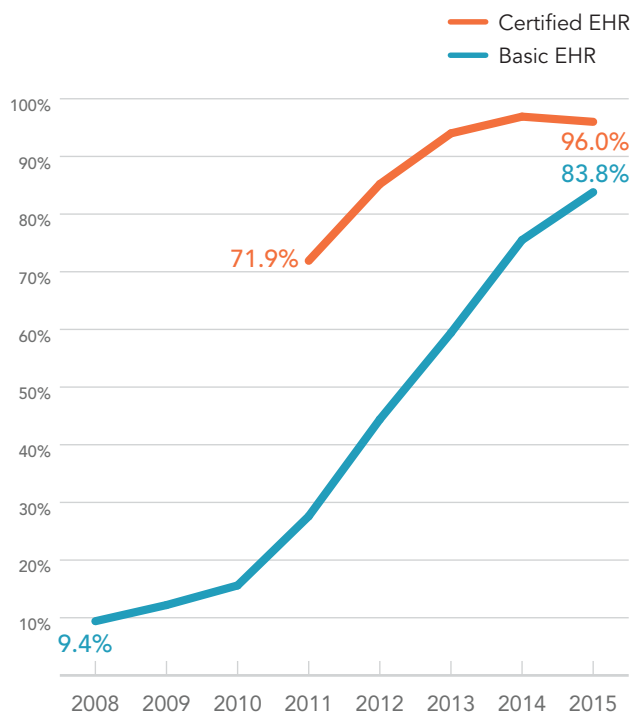
Widespread adoption of these foundational technologies set the stage for further innovation with compounding value. While EHRs themselves have had a mixed impact in terms of clinical outcomes and cost savings, their use in coordination with targeted care management tools can have a substantial impact on patient care.⁹ For example, [Collective Medical's](#) product mines and filters data across different EHRs to inform the care team about clinical decisions concerning patients with complex needs and to provide a real-time alert when patients repeatedly visit the emergency room or are hospitalized. Providers can then connect the patient with more-appropriate care. Emergency departments in Washington State saw \$34 million in savings and a 10% reduction in overall Medicaid emergency room visits after the first year of implementing Collective.¹⁰

Prescription drug monitoring programs are another example of innovations that build on EHRs. For example, these programs are increasingly integrated into EHRs to give providers real-time insight into prescribing patterns for patients who are at high risk for opioid abuse.¹¹ Looking forward, [Meditech](#), an EHR vendor that serves small and midsize safety-net hospitals, recently announced partnerships with Google Cloud and Apple Health, signaling further efforts to expand interoperability and improve analytics.¹²

Care coordination. The push toward managed care and value-based payments stimulated significant investment in care coordination technologies, which depend heavily on data sharing. Almost 9 in 10 acute care hospitals can now send patient information to sources outside their health system, and more than 6

Figure 3. Adoption of EHRs Among Nonfederal Acute Care Hospitals, US, 2008 to 2015

PERCENTAGE WITH ADOPTION OF AT LEAST A BASIC EHR WITH NOTES SYSTEM AND POSSESSION OF A CERTIFIED EHR*



*A basic EHR adoption requires the EHR system to have the set of EHR functions defined in [Health IT Dashboard Appendix Table A1: Electronic Functions Required for Hospital Adoption of Basic or Comprehensive EHR Systems](#). A certified EHR meets the technological capability, functionality, and security requirements adopted by the Department of Health and Human Services.

Source: JaWanna Henry et al., [Adoption of Electronic Health Record Systems Among U.S. Non-Federal Acute Care Hospitals: 2008–2015](#), ONC Data Brief 35, Office of the National Coordinator for Health Information Technology (ONC), May 2016.

in 10 can integrate a summary record of outside care. Almost two-thirds of FQHCs are exchanging data with hospitals (Figure 4).

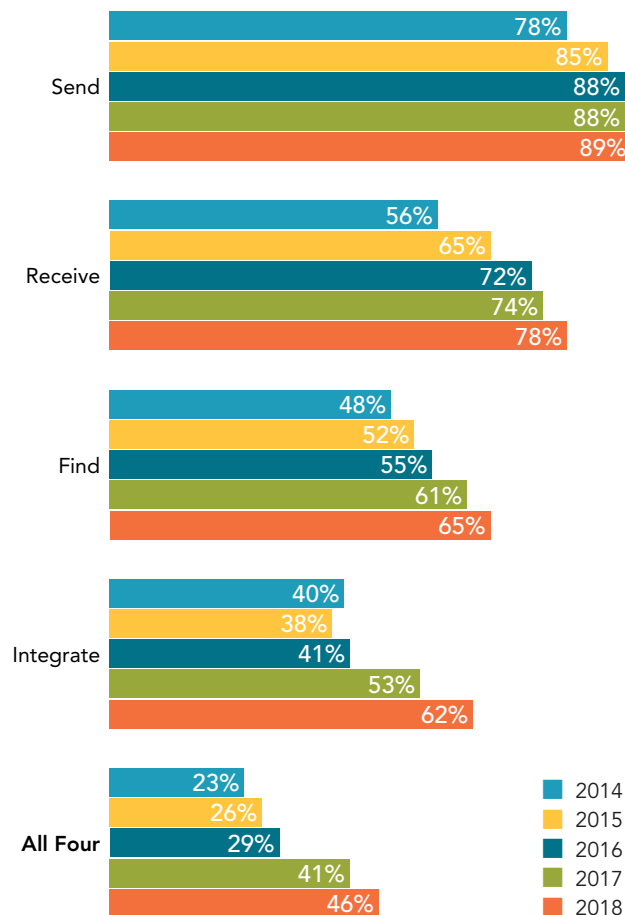
This kind of data exchange supports tech-enabled care coordination between patients, providers, and their care teams. A primary care provider, for example, can access information about a patient’s behavioral health, so the providers together can work to manage medications. A blood pressure monitor can notify a team of primary care providers and social workers automatically when a patient’s pressure spikes and allow the team to coordinate the best response.

In response to these trends, companies like [CareMore Health](#) and [Landmark Health](#) have built services that combine technology and human intervention to address the complex care needs of Medicare Advantage patients. Over the last decade, the companies have expanded to serve complex Medicaid patients, as well. For example, Landmark uses remote monitoring technology to help providers decide when it is worth making a home visit to a patient with complex medical and behavioral issues, as well as whether a nurse, a doctor, or a social worker should be dispatched. CareMore equips its multidisciplinary mobile care teams with a dashboard that combines claims and hospitalization data with EHR data to provide a comprehensive, real-time view of key metrics about quality, cost, and the patient experience. Teams can use the dashboard to shift attention to areas where they can provide the most benefits to patients. Landmark reports that its offerings have reduced hospital admissions by 28%, while CareMore Medicaid patients experienced at least 10% fewer days in the hospital, 21% fewer emergency room (ER) visits, and 23% fewer specialist visits than other similar Medicaid managed care enrollees.¹³

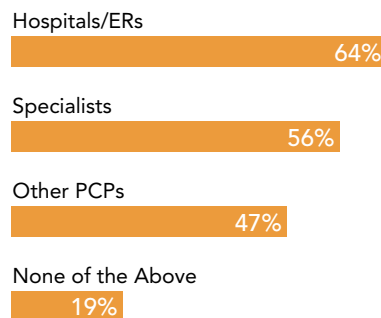
Medicaid programs are also increasingly focused on tracking and addressing patients’ social determinants of health, which in turn is generating demand for tech-enabled solutions among plans and providers. More than 30 states require managed care organizations (MCOs) to screen for or provide referrals to social services.¹⁴ California has joined this trend through

Figure 4. Data Sharing Among Nonfederal Acute Care Hospitals (2014 to 2018) and FQHCs (2019)

US Hospitals: Do you electronically find patient health information, and send, receive, and integrate patient summary of care records from sources outside your health system?



California FQHCs: Which providers do you exchange data with (select all that apply)?



Source: Yuriy Pylypchuk, Christian Johnson, and Vashali Patel, [State of Interoperability Among U.S. Non-federal Acute Care Hospitals in 2018](#) (PDF), ONC Data Brief 51, ONC, March 2020.

the implementation of its Whole Person Care pilots across its Medicaid program, known as Medi-Cal, to meet the needs of the state’s highly diverse population. As Medicaid expansion brings in new members with varying social and health needs and as COVID-19 puts even greater strain on safety-net populations, a pressing need exists for greater focus on social determinants of health. Companies such as [Aunt Bertha](#), [NowPow](#), and [Unite Us](#) are addressing this need with referral platforms to address complex social issues while improving health. Major California health systems and payers are using these tools to support the needs of patients with complex needs at risk of a costly health crisis.

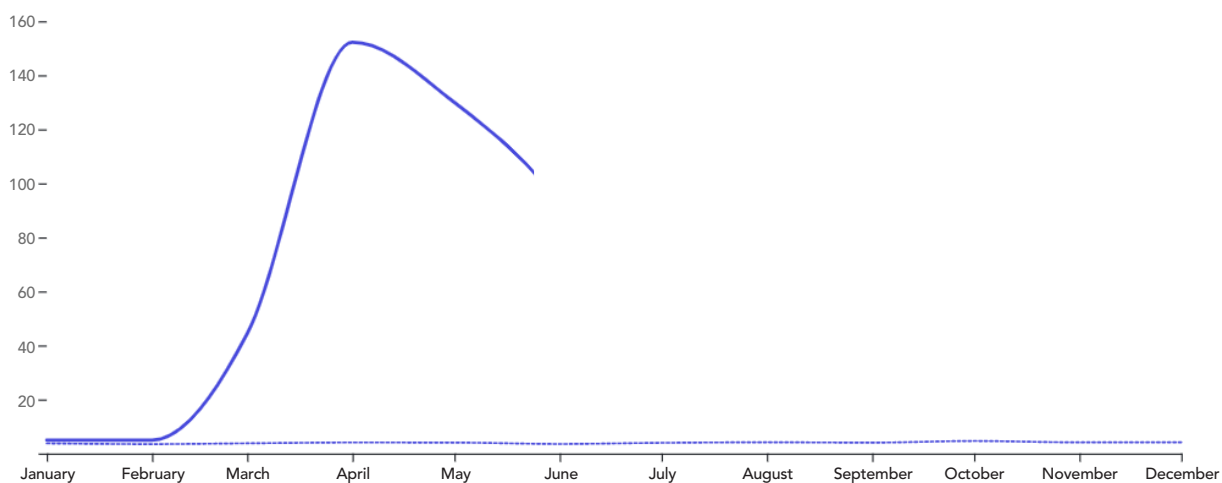
Telehealth. Although telehealth was pioneered in the late 1950s, only 35% of US hospitals had fully or partially implemented a computerized telehealth system by 2010.¹⁵ A minuscule one-tenth of 1% of Medicare primary care visits were conducted via telehealth in the week preceding the coronavirus pandemic, and adoption among Medicaid visits is estimated to have been at a similar level.¹⁶

But when the Centers for Medicare & Medicaid Services (CMS) allowed telehealth payments after the coronavirus pandemic began, the use of telehealth services among Medicare and Medicaid patients skyrocketed. For example, preliminary data show that the delivery of telehealth services among the nearly 91 million children and adults on Medicaid and the Children’s Health Insurance Program (CHIP) increased by over 2,600% between February and April 2020, compared with a similar period in 2019. Telehealth visits represented more than 100 services per 1,000 Medicaid and CHIP enrollees after the pandemic started (Figure 5).¹⁷

As one interviewee put it: “Telehealth has been around in many forms [for decades] and companies couldn’t get any traction due to reimbursement and workflow, among other issues. COVID-19 changed everything in an instant, making telehealth an overnight sensation that suddenly everyone is talking about, relying upon, and perhaps most important, reimbursing.”

A CHCF-sponsored survey that included many Californians with low incomes found that 65% were more or just as satisfied with their video provider visits as they were with their last in-person visit, and 72% felt

Figure 5. Telehealth Service Use per 1,000 Medicaid and CHIP Beneficiaries, US, 2019 (dotted line) vs. Q1 and Q2 2020



Notes: These data are preliminary. Data are sourced from the T-MSIS Analytic Files v4 in AREMAC, using final action claims. They are based on August T-MSIS submissions with services through the end of July. Recent dates of service have very little time for claims runout and large changes are expected in the results after each monthly update. Because data for July are mostly incomplete, results are only presented through June.

Source: [Services Delivered via Telehealth Among Medicaid & CHIP Beneficiaries During COVID-19: Preliminary Medicaid & CHIP Data Snapshot — Services Through June 30, 2020](#) (PDF), Centers for Medicare & Medicaid Services, n.d.

this way about their phone visits.¹⁸ While most states extended Medicare’s flexibility toward reimbursing telehealth visits to Medicaid programs as a way to improve access during the pandemic, it remains unclear whether reimbursements will continue once the public health emergency is over, especially for state Medicaid programs facing pandemic-related budget shortfalls.¹⁹ However, with former CMS Administrator Seema Verma saying she “can’t imagine going back” to requiring in-person visits, in addition to the prospect of significant change under the Biden administration, enough federal support may exist to secure long-term funding for these services.²⁰

Related to telehealth, the use of remote patient monitoring (RPM) advanced over the past decade, and it helped speed the transformation of essential services during the COVID-19 pandemic.²¹ More providers began using RPM for primary and specialty care.

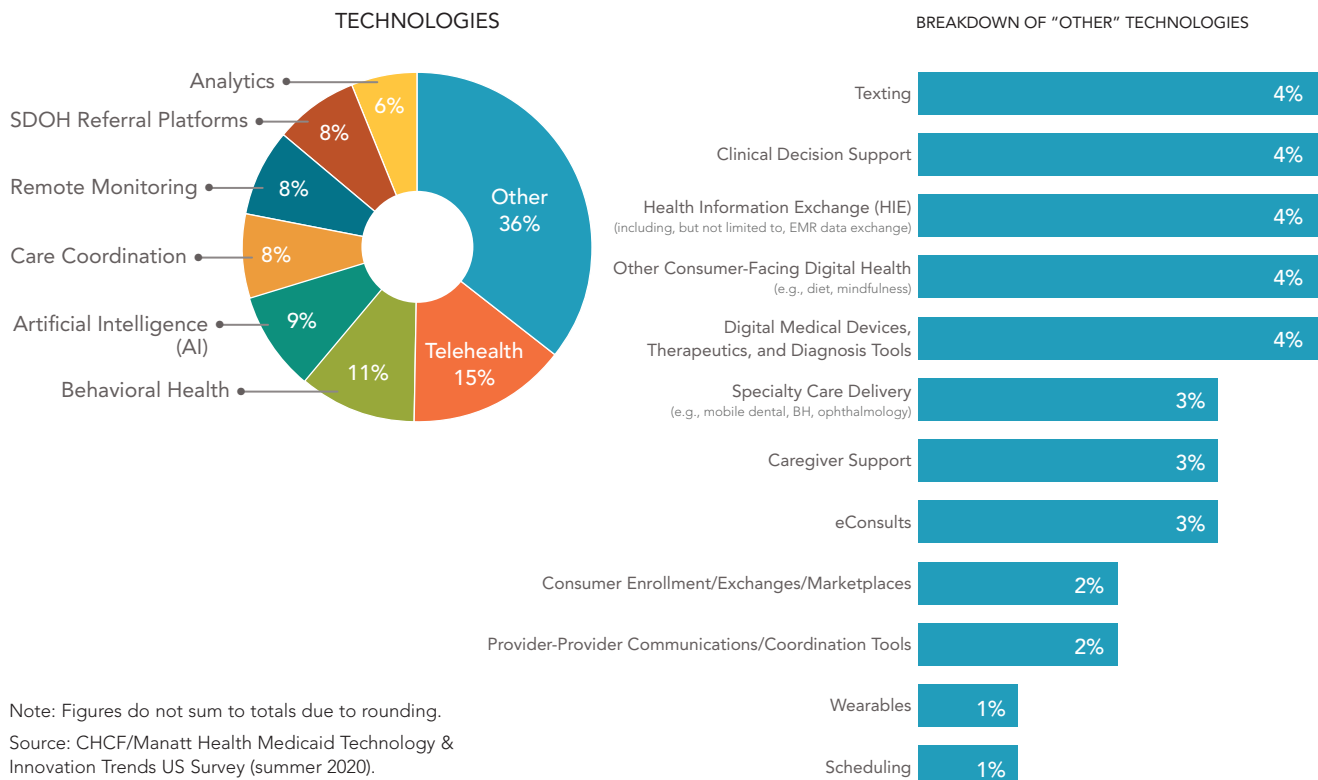
Early companies in the field, such as [Propeller Health](#), [iRhythm Technologies](#), and [AliveCor](#), established foundational models that enabled providers to monitor a patient’s health from a distance. These models spread across the cardiac and respiratory markets, for example, including iRhythm’s technology that enables providers to conduct comprehensive atrial fibrillation evaluations remotely during the pandemic.²²

What’s Coming Next

The nearly 200 health care thought leaders surveyed from across the safety-net landscape expect that behavioral health tech, artificial intelligence, and more extensive remote monitoring will join telehealth and care coordination as the innovations that will have the greatest impact on those who serve patients in the safety net over the coming decade (Figure 6).

Figure 6. Innovations with the Greatest Potential for Safety-Net Care over the Next Decade

Select the three technology-enabled innovations that you expect to have the greatest impact on Medicaid/Medi-Cal in the coming decade.



Note: Figures do not sum to totals due to rounding.
 Source: CHCF/Manatt Health Medicaid Technology & Innovation Trends US Survey (summer 2020).

These stakeholders are not simply saying we will see more telehealth services. Instead, more stakeholders expect to lean into foundational technologies like EHR and telehealth, expand their use, and work them into broader platforms, offering integrated services tailored to specific patient needs.

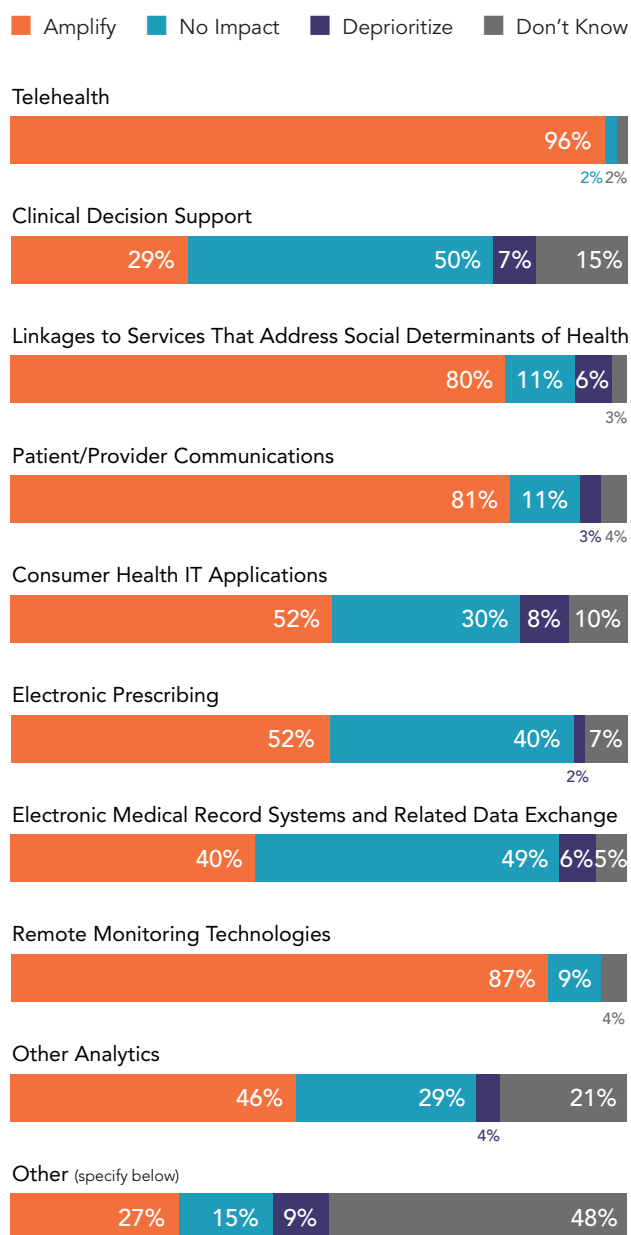
The pandemic has only amplified this vision. More than three-quarters of survey respondents expect COVID-19 to accelerate the development and adoption of tech-enabled innovation in telehealth, social determinants of health, patient and provider communications, and remote monitoring (Figure 7). More than half expect COVID-19 to accelerate growth and use of consumer health IT applications, such as asynchronous primary care and virtual cognitive behavioral health therapy for behavioral health conditions. The pandemic could provide the push needed to launch these applications into much wider use among safety-net populations.

Despite the hype around artificial intelligence, leaders interviewed believe AI in and of itself won't change health care or replace doctors. But AI used along with other human elements like care coordination and delivery could help make health care smarter and more efficient. "At some point, patients will contact [AI-enabled apps] first, and eventually [providers will have] AI sitting over our shoulders suggesting diagnoses," said one interviewee. "Prescriptive analytics" could increasingly be used to not only predict a patient's future health risks, but also empower providers to mitigate them.²³

While interviewee and survey respondents agree that tech-enabled innovation for the safety net will continue to deepen and expand over the next decade, its speed will be driven by a confluence of economic, technological, social, and regulatory factors.

Figure 7. The Coronavirus Pandemic's Impact on Tech-Enabled Innovation

For each technology, indicate whether the pandemic amplified, deprioritized, or had no impact on the development and adoption of the tech-enabled innovation.



Note: Figures may not sum to 100% due to rounding.

Source: CHCF/Manatt Health Medicaid Technology & Innovation Trends US Survey (summer 2020).

An economic downturn may have a significant impact on investment in new technologies over the coming years. Even though investors are wary about the future direction of the economy, they are eager to learn whether the investments of recent years have produced evidence of impact. As one investor put it, “Is the juice worth the squeeze? Or do you as an investor have to put a lot of capital [into Medicaid-directed solutions] to build infrastructure that isn’t necessary in other markets?” Despite this concern, 88% of survey respondents predict either modest or significant growth in investment in tech-enabled innovations for the safety net over the next decade (Figure 8).

As health care leaders look for future sources of innovation, nearly 70% of survey respondents expect for-profit companies that focus on the safety net to lead the way (Figure 9). This result may not be surprising given the tremendous innovation already coming from tech companies in this area.

Experts interviewed for this report expect solutions to shift from niche, disparate products to integrated, platform-based models adopting common data standards and a patient-centric view. Survey respondents are eager to find and fund companies building solutions that take a whole-person approach rather than addressing one condition at a time. “Oftentimes, companies can be really siloed — they solve one slice of the problem, [but] they need to find a way to come together,” said one interviewee. “Health systems aren’t looking for 250 skinny solutions — they’re looking for platform capabilities. Those companies thinking broadly about building suites of capabilities were those that we felt had the greatest potential.”

While it remains unclear whether regulatory changes such as Medicaid’s reimbursement for telehealth will continue after the coronavirus pandemic, some interviewees believe that sustained funding could allow for emerging tech companies to grow into larger platforms that offer comprehensive services, including access to live and virtual primary care, preventive health care services, and integrated mental health care and substance use disorder therapy.

Figure 8. Future of Tech Investment for Safety-Net Care

Do you think that investment in tech-enabled innovations for the safety net will rise, stay the same, or decline over the next decade?

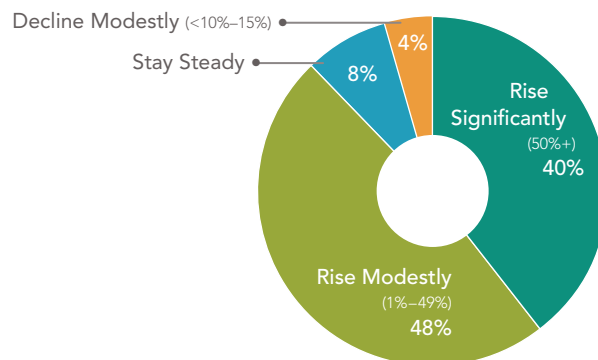
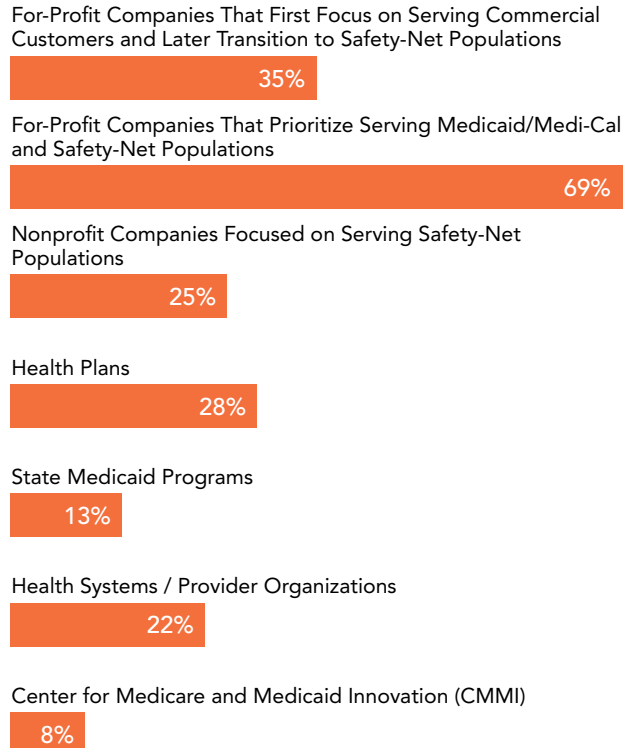


Figure 9. Sources of Tech-Enabled Innovation for Safety-Net Care

What is the most likely source of tech-enabled innovation for Medicaid and the safety net in the coming decade (select two)?



FIGURES 8 AND 9:
Source: CHCF/Manatt Health Medicaid Technology & Innovation Trends US Survey (summer 2020).

For example, [Remedy](#) currently offers 24/7 integrated urgent care through house calls, video visits, and walk-in clinics. Mental health care will be another focus of integrated models. Companies such as [Concert Health](#), [Ginger](#), and [SilverCloud Health](#) provide behavioral health offerings that can be integrated with doctors' existing ways of working. Offerings such as these could be further integrated into a broader platform of clinical services, similar to the models of [Livongo](#), which offers chronic condition management programs to insurers, employers, and hospitals and health systems through its merger with Teladoc Health. Entrepreneurs and investors interviewed expect many future solutions to improve data flows between payers and providers, bringing insights back to the point of care.

Finally, in 2020, widespread social movements calling for racial justice have led health systems, plans, and others to commit hundreds of millions of dollars to improving equity. How those commitments will shape technology innovation more broadly remains to be seen. Meanwhile, a handful of companies are innovating in this area, reflecting a growing focus on better serving patients while remaining more attuned to their specific cultural and language needs. For example, [ConsejoSano](#) helps its health care partners deliver culturally tailored care in a number of languages and offers patients help navigating the health care system, all designed to drive action that helps people live healthier lives and helps clients increase member engagement and improve health care quality.

Future-Proofing Tech Innovation

Health care in the safety net is at a tipping point in the 2020s. The coronavirus pandemic has called into question many long-standing policies and beliefs limiting technology adoption for the safety net, particularly around telehealth. At the same time, state Medicaid budgets are facing fresh pandemic-induced pressures. Meanwhile, AI and other emerging capabilities could push technology into unimagined areas as

the field continues to evolve. (See the sidebar “Three Phases of Technology Innovation for the Safety Net” on page 13.)

Technological progress over the last 10 years has set the stage for exponential advancements in care — if policy, regulatory, economic, and technological forces are supportive. As with all health care advancements, regulatory and financial alignment drive interest and uptake. Technology-based innovations and the innovators who bring them to market depend on legislators and regulators supporting the spread and scale of digital solutions, as clearly demonstrated by recent events in telehealth.

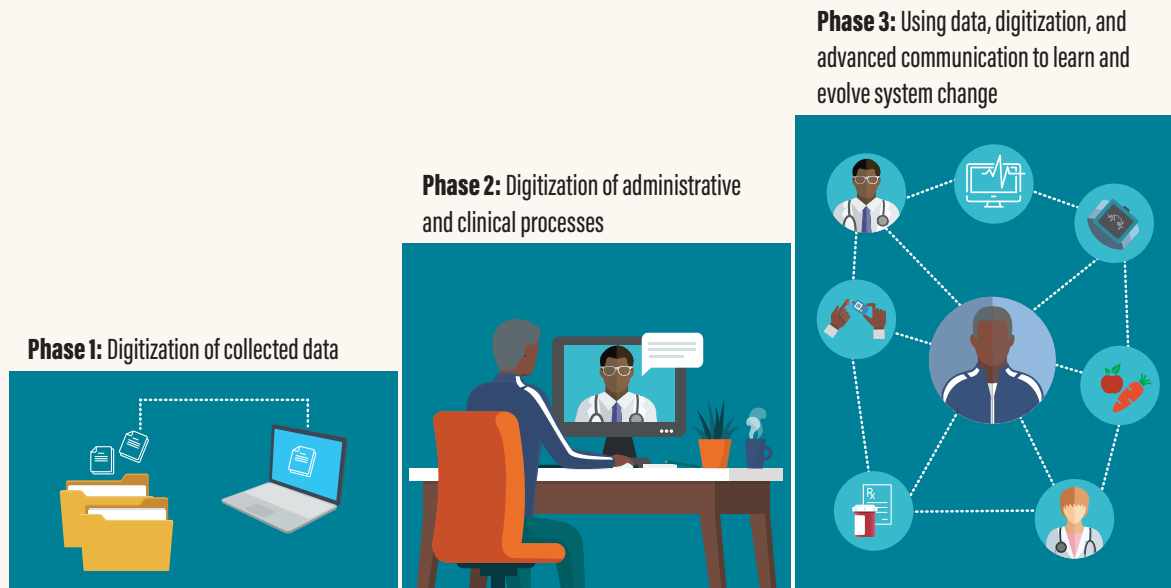
It's clear that the ongoing COVID-19 health and economic crisis, coupled with the actions of the Biden administration, will push policies in new directions. Key issues to track include:

- ▶ Whether the new administration attempts to build on the final CMS rule on interoperability and patient access released earlier in 2020, which is designed to improve the electronic exchange of health care data and streamline processes related to prior authorization²⁴
- ▶ Federal and state approaches to increase access to Medicaid and care for the uninsured, a need that has grown dramatically due to the COVID-19-induced recession
- ▶ The outcome of the latest challenge to the Affordable Care Act (ACA) in the Supreme Court (and the administration's response)

Also critical to the future will be policymaking around reimbursement for virtual care, particularly at Federally Qualified Health Centers and other safety-net providers. State Medicaid programs generally recognize the significance of telehealth and are establishing permanent policies to support its use once the pandemic ends. However, these programs must also tackle remaining barriers to consumer adoption, including inequitable access to fast internet connections and insufficient data plans on mobile devices.²⁵

Three Phases of Technology Innovation for the Safety Net

Expert interviewees reflected on the evolution of health care technology and its use in Medicaid. Responses suggest that technology has and will continue to evolve in three phases. Initially, technology became a critical tool in advancing administrative efficiency and cost-effectiveness. In this first phase, health care actors focused on digitizing data, such as turning paper into electronic records. That first phase provided the foundation for a second phase, automating whole administrative and clinical processes within payer and provider organizations. Over the next decade, interviewees suggest that these automated processes, together with better data integration, prescriptive analytics, and advanced communication tools, will enable a third and future phase where automated processes become integrated systems that are able to detect and deliver care across populations and in ways that are personalized to meet individual patient needs.



As an example of the changes as they relate to the three biggest areas of innovation over the last decade, consider the experience of a hypothetical Medicaid patient who has diabetes. In the first phase of technology evolution, focused on the digitization of records and processes, the patient enrolled in Medicaid through a state's electronic enrollment platform, researched her conditions on medical websites, and connected with other diabetics in online communities. The patient was identified as a possible case of unmanaged diabetes based on past ER visits and was put on a list for phone outreach through a disease management program. Her primary care physician consulted over the phone with an ophthalmologist regarding screening results.

In the second phase of technology evolution, focused on achieving greater digital efficiency and integration, the patient's wearable device now measures stick-free glucose levels every few minutes, reporting results using her smartphone. She is prescribed insulin through the electronic health record system, and her primary care provider receives notification via an EHR to conduct a foot exam at her next visit and makes an e-referral to an endocrinologist. The patient lives in a rural area, so she has a televisit with an endocrinologist in a distant city. She regularly engages with her primary care physician via video, phone, and email and participates in virtual diabetes management classes.

The third and future phase will focus on taking prescriptive actions as a result of predictive analytics about health outcomes as well as achieving greater personalization of care. The patient's coverage will seamlessly transition between an insurance exchange and Medicaid as her income fluctuates, ensuring continuity of coverage. Her sugar levels will be automatically uploaded from a wearable device into her EHR through a health information exchange. If her blood glucose levels spike and signal an intervention is most likely needed, her physician will be notified so he can reach out to the patient to evaluate recent changes in her diet, potentially "prescribe" low-sugar foods, and connect the patient to a local food bank to access healthier food. Her insulin pump will self-adjust based on predictive analytical data, and repeated high readings will trigger home or telehealth visits. Outreach efforts will be automatically escalated to her care manager or a nurse, depending on the patient's level of responsiveness. A chatbot will automatically text notices to her smartphone about the need to change medications to manage her condition.

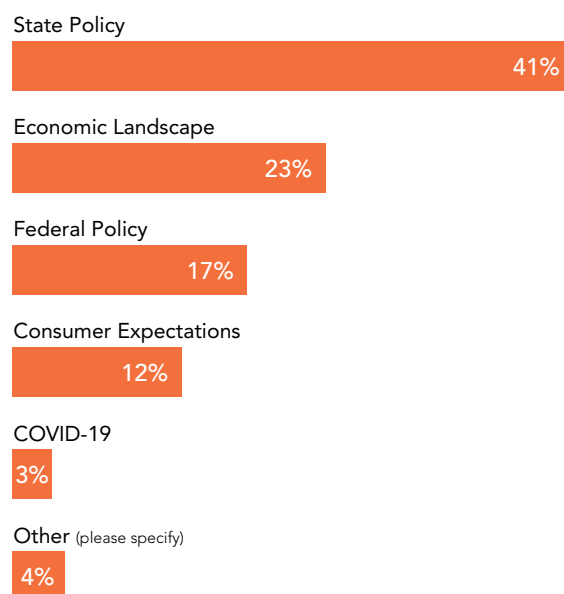
Survey respondents expect state policies to most heavily shape innovation in the future. Respondents' views of California's Medi-Cal program provide an example of this sentiment (Figure 10). California enjoys unique opportunities to spur technology innovation because of the state's vast scale. At the same time, the state faces complex challenges, such as rapid budget fluctuations, a diverse population, and a county-driven structure that fragments the delivery of behavioral health and primary care. If state and local budget pressures increase due to a COVID-19-related recession, plans and providers will be looking for solutions that demonstrate a quick and meaningful financial return on investment. Several interviewees noted that the continued expansion of value-based payment models and a greater focus on whole-person care among Medicaid patients at the state level will drive more integrated and platform-based innovation.

To navigate the changes ahead, those who serve the safety net will need to focus their attention on three areas:

- ▶ **Policymaking.** Further progress hinges on continued federal policy leadership on reimbursement and interoperability. While initial signals at the federal level are positive, the outlook is less certain at the state level. For example, the fragmentation of financing and accountability for California's Medi-Cal program inhibits innovation in the safety net.
- ▶ **The economy.** The economic picture is deeply uncertain, as is the evidence for cost savings from innovation to date. Growth in technology adoption will depend on how these two uncertainties play out.
- ▶ **Technological change.** Technology paired with services has shown the most promise in safety-net care. If AI and interoperability can reduce the cost of delivering tech-enabled services while maintaining a human touch, they could have a significant impact.

Figure 10. The Most Important Forces Shaping Tech Innovation over the Next Decade

What will be the most important driver to shape innovation in Medi-Cal in next decade?



Source: CHCF/Manatt Health Medicaid Technology & Innovation Trends US Survey (summer 2020).

Looking toward the coming decade of tech-enabled innovation, the field has arrived at a point that can be best described as the end of the beginning. Foundational innovations, such as EHRs and telehealth, have taken hold, although their growth has also highlighted the need for more integrated solutions. And it remains unclear whether fundamental changes will stick once the pandemic has passed.

But two things are clear: The pace of change will only increase, and technology will grow even more intertwined with safety-net care. It is up to all of us to realize the promise that technology can bring to the delivery of more effective, equitable, and cost-effective care that supports the health and well-being of people in the US with low incomes or disabilities.

Endnotes

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