Building a better working world

Progress through policy: the digital health imperative

Unlocking health care innovation to enhance access and improve outcomes

April 2024

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As the challenges of health care affordability, staffing and access continue across the US, the rise of technology presents a significant opportunity to unlock more responsive care that better addresses patients' health and social needs while alleviating provider burden and reducing costs.

The question is, will US policymakers take action to capture this potential?

Our work at Ernst & Young LLP (EY US) has shown that the state of digital health in both the US and abroad calls for a more effective health care ecosystem to support the potential of a digitally connected future.

1

Barriers to a digital health future

From life expectancy to post-operative complications, maternal mortality, chronic disease management and more, US patients fare worse than their peers in comparable countries. For patients from underserved racial and ethnic groups, these disparities are often more pronounced.

What is holding back health care advancement and accessibility in the US?

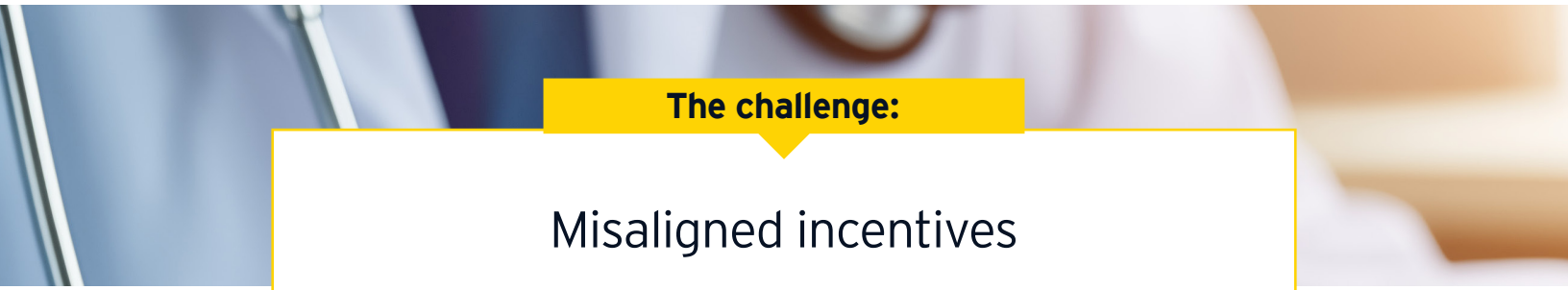
The future of health care is digitally connected

At EY US, we envision a digital future for the health care system that includes smart hospitals and ecosystems centered around care delivered at the most cost-effective, convenient location, built on a foundation of widely available data, real-time insights and frictionless consumer-focused experiences.

Foundational to this ecosystem is home-based care, enabled by wearables, remote patient monitoring, care navigators and connected care teams that empower patients across geographic locations and demographic backgrounds to remain healthy and in their communities for as long as possible. This paper explores each of our five challenges and the policies needed to attain the digital health future.

1

Payment infrastructure

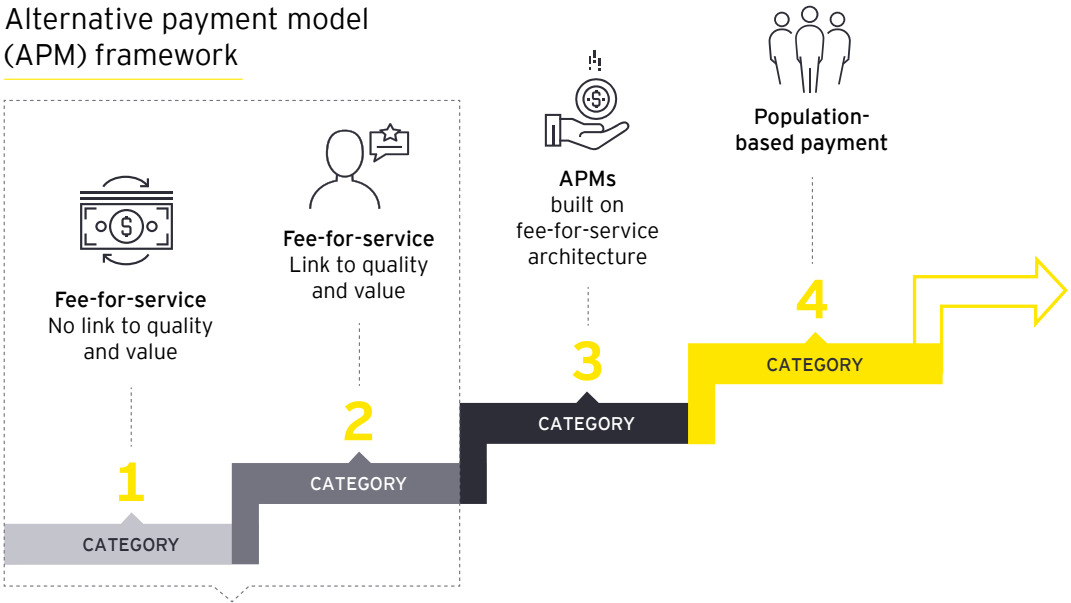


The challenge:

Misaligned incentives

Despite developing and testing novel payment and care delivery models for over a decade, the US health care system continues to revolve around fee-for-service payments and other misaligned incentives that do not necessarily reward improved patient outcomes or clinician time spent addressing the social drivers of health (e.g., transportation, education, housing and nutrition). Provider performance metrics today are exceedingly complex and overindexed on process as opposed to outcomes measures.

Alternative payment model (APM) framework



Majority of health care payments in the US

Misaligned payment policies and incentives also prevent widescale investment in and adoption of digital innovation – such as telehealth and hospital-at-home – which can be a key enabler in the move toward a value-based population health approach. Smaller providers with fewer resources are at risk of being left behind without policy changes that enable them to make significant up-front investments.

The digital future:

Aligned incentives

Value-based payment models replace fee-for-service as the dominant payment model in the health care system, shifting toward a population health approach and away from volume-based "sick care." This enables payers and providers to have a clear and reliable understanding of expected reimbursements and costs and to receive proper incentives that support diverse, high-quality care offerings, including digital and home care, as appropriate for their patients. Price and quality transparency have increased in the US, so purchasers and patients have more information, and providers are incentivized to compete and improve care quality, potentially by leveraging digital solutions.

2

Digital health investment

The challenge:

Regulatory and statutory barriers to innovation

The health care system faces key regulatory barriers around adopting next-generation innovations such as telehealth, interoperable systems, remote patient monitoring, and tools and technologies enabled by artificial intelligence (AI) and machine learning (ML). During the COVID-19 public health emergency, Congress temporarily waived certain Medicare requirements, allowing beneficiaries to receive telehealth and eligible patients to receive hospital-level care at home through the Acute Hospital Care at Home program. However, the reimbursement landscape for those remote services is uncertain beyond 2024, hindering provider investment in them.

Today's approval pathways and payment mechanisms also pose significant barriers to provider and payer adoption of AI/ML tools that could help address many of today's workforce challenges and streamline back-office functions. In fact, research has indicated that these barriers can hinder innovation itself as digital health startups can struggle to gain the needed investment without a clear outlook for their product.[2] Without a pathway to payment driven by continued reimbursement, potential innovation around digital health will be repressed.

Barriers to digital health innovation

Inadequate investment; startup constraints	**Burdensome approval pathways**	**Inadequate coverage and payment policy**	**Lack of deployment and adoption**

Future state

Sustainable pathway to promote digital health innovation through up-front investment, streamlined approval processes, adequate coverage and payment policy, and incentives to drive adoption.

The digital future:

Innovation can flourish

Regulators and private-sector companies work together to create pathways that promote the adoption of thoroughly vetted and tested innovative tools that drive better outcomes, improve the patient experience and ease the provider burden. Data collection improvements and standardization, as well as interoperable systems that deliver a comprehensive view of the patient and are enabled by AI/ML tools and other technologies that promote care efficacy, safety, consumer privacy and other protections, are critical to success. Innovation is incentivized with the appropriate guardrails, delivering new technologies, treatments, diagnostics and care delivery mechanisms that drive enhanced, more equitable outcomes and better experiences for patients and providers alike. Health systems and providers using these new technologies have the tools and training to balance the risks of bias while striving for efficiency.

3

Interoperability

The challenge:

Lack of interoperability and poor data quality

Today, many health systems and provider groups lack the ability to access and integrate large, diverse health data sets from multiple applications, systems and platforms (i.e., interoperability) across the care continuum, hindering their ability to improve outcomes and understand the full picture of a patient's health. This lack of interoperability can lead to care duplication and added administrative burden for both the patient and provider — and leaves providers with a fragmented picture of the patient's health.

In the *EY Global Voices in Health Care Study 2023,* clinician respondents unanimously said they do not have access to analytic insights about their patient pool.[3] This is due in part to both a lack of standards-based data collection and inadequate data governance. As a result, patient data often exists outside a health system's electronic health record (EHR). In addition, even when patient data has been captured in an EHR, it can be difficult to navigate.

80%

of medical data is unstructured.[4]

"It's a double-edged sword. It's nice to be able to have access to all the information about a patient that's ever been recorded, but it's also incredibly difficult to pull the information you want in a timely way.

– US clinician who participated in the recent EY Global Voices in Health Care Study

The digital future:

Interoperable systems that function on robust data sets

The US health care system has in place high-quality, standards-based data collection and sharing, driving more efficiency within care models and reducing time between interactions with caregivers. The documentation burden is lighter, and there is less duplication of care. Patients own their health data, and platforms exist to share patient data securely across providers, payers and other health companies as needed — potentially even allowing patients to monetize their data for their own benefit.

Commercialized health care products, such as smart devices and genetic testing kits, are integrated into a single patient-owned longitudinal health record that is powered by vendor-neutral data and built using open application programming interfaces (APIs). Health systems maintain continuous up-to-date recordkeeping, including the standardized collection of social drivers of health (SDOH) and sexual orientation and gender identity (SOGI) data to improve patient care and advance a more patient-centered approach, along with meaningful linkages to social and community supports. Above all, there is an expectation that data is securely and safely held, with additional demands on systems to enable protection in the event of data breaches.

4

Workforce

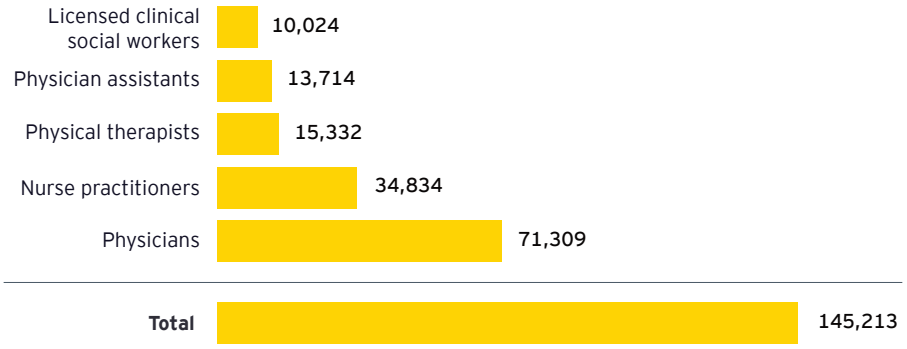
The challenge:

Workforce shortages and limited pipeline

The provider workforce today is frustrated, burnt out and nearing retirement — with many citing growing caseloads and administrative burdens stemming from EHRs, prior authorizations and regulatory requirements as reasons for early retirement.

These challenges are driving projected worker shortages that span a variety of roles. By one estimate, significant physician shortages across both primary care and specialties are expected by 2034.[5] According to another projection, the US will face a deficit of nearly 200,000 nurses by 2031 and the number of unfilled home health aide and personal health aide positions will jump by 37% by 2028.[6] The US also faces shortages of primary and behavioral health providers, which have led to prolonged wait times for patients in areas designated by the Health Resources and Services Administration as health professional shortage areas (HPSAs).[7]

Number of health care professionals leaving the workforce, 2021–2022



Additionally, the US is missing an opportunity to backfill those shortages and retain and recruit the younger workforce. For example, graduate medical education (GME) slots have not kept pace with application levels. While Congress allocated additional GME slots in the Consolidated Appropriations Act of 2021, the country is still not meeting demand: in 2022, more than 3,300 applicants lacked residency slots.[8] In addition, existing clinicians are turning to other non-health care job opportunities to broaden their experience and minimize burnout due to a lack of career advancement opportunities within the medical field.

The digital future:

Sustainable workforce

AI-enabled technologies and other digital tools are leveraged to remove administrative burdens, such as documentation and scheduling. Clinicians have the flexibility to offer both in-person and virtual care options, supported by holistic care teams that operate at the top of their licenses. Above all, new care models enable providers to be reimbursed for population-level care that is designed to alleviate shortages in key specialties and underserved areas. On any given day, clinicians are spending more time with patients, benefiting from more balanced and sustainable workloads. This is further supported by robust and sustained investments in the pipeline focused on meeting necessary demand and creating flexible career paths to promote better work-life balance.

5

Patient experience

The challenge:

Poor patient experience

The *EY Global Consumer Health Survey 2023* reveals that the health care experience in its current state is not working for a significant portion of the patient population. While there has been a decades-long push to make the patient a consumer of health care, today's fragmented care system forces patients to repeatedly fill out medical forms, including sensitive background information, and leaves them to navigate complicated legacy systems and policies. Due to the workforce challenges discussed previously, patients in some areas of the country can wait months for a visit that may only last 15 minutes.

While many patients stand to benefit from the digitally enabled tools that are commonplace in other industries, there is a generational divide that creates a need for more optionality and education that doesn't currently exist. While younger generations favor a light touch and instant interactions via digital tools, patients who are experiencing the most comorbidities and have the biggest care needs often are not comfortable using them. Each of these challenges is compounded by the fact that patient trust in the US health care system is declining, particularly among Black and Hispanic patients — and research consistently shows that trust, positive patient experience and outcomes are highly correlated.[9]

Six **patient segments** have emerged across generations, each with differing attitudes toward health care:

6%
In-the-moment strugglers
- Medical expert-reliant and present-focused
- Majority female
- Majority younger than 55

10%
Price-conscious experience hunters
- Self-reliant and present and future-focused
- Majority female
- Majority younger than 35

12%
The blended
- Medical expert-reliant and future-focused
- Equal male and female
- Majority older than 55

19%
Experience-first youngsters
- Shared responsibility and equally present and future-focused
- Majority male
- Majority younger than 55

26%
Mature altruists
- Shared responsibility and future-focused
- Majority female
- Majority older than 55 or younger than 34

27%
All about health
- Self-reliant and future-focused
- Majority male
- Majority age 35 and older

Source: *EY Global Consumer Health Survey 2023*, EY analysis.

The digital future:

Enhanced patient experience

Patients are empowered to guide their own care journeys, equipped with digitally enabled tools that help manage their health, streamline administrative processes and engage with their care teams. They expect personalized care based on what is known about them — from previous care preferences to a holistic view of their health status. Health systems and payers deliver frictionless experiences across a patient's entire care journey, built with digital tools, enabling more seamless access to providers, individualized care options, and confirming that patients feel cared for whether they are at home or hospital. Most importantly, health care organizations have gained their patients' trust due to the increased focus on patient-driven care pathways, transparency and accountability, and digitally enabled innovation that delivers high patient satisfaction and improved clinical outcomes.

2

Global digital health examples


96
153

Aligning incentives

Argentina's Plan Nacer for neonatal care[10]

In 2007, Argentina worked with the World Bank to implement Plan Nacer, a results-based-funding (RBF) model that provides financial incentives to provincial governments and health care providers and systems for meeting or exceeding specific health outcomes related to neonatal care. The program cost $39 million (in 2008), a fraction of the country's $4 billion annual health budget, and proved to be highly cost effective. Between 2005 and 2008, neonatal mortality rates decreased in the seven original provinces by 74%, risk of low birth weight dropped by 19%, and by 2012 more than 7,000 health facilities had joined and participated in the program, with enrollment exceeding 2 million pregnant women and children.

Innovation

Singapore's GenAI Sandbox[11]

In Singapore, the Infocomm Media Development Authority (IMDA) and the AI Verify Foundation launched the GenAI Evaluation Sandbox, which aims to solidify trust and usability in generative AI (GenAI) across industries, including health care. This initiative is positioned to greatly benefit the health care industry through its ability to leverage responsible AI to support ethical decision-making, foster improved patient outcomes, help provide equitable access to medical services and enhance diagnostic efficiency.

Promoting interoperability

UAE's digital health care platform[12]

The United Arab Emirates (UAE) developed and implemented a digital health care platform, Riayati, that integrated three existing health information platforms into a National Unified Medical Record. The platform centralizes records from almost 4,000 medical facilities and delivers an innovative, fully integrated, digitized clinical information system for the UAE population. Riayati manages over 12.2 million unified medical records and connects to almost 105,000 clinicians across seven emirates. Riayati also features an "e-claims post office" that provides a secure data exchange system for health insurance claims between payers and providers. This exchange system integrates with 25 insurance companies and connects over 1,000 providers.

Bolstering the workforce

Australia's Stronger Rural Health Strategy and HeaDS UPP workforce data and planning tool[13]

Australia's Stronger Rural Health strategy aims to deliver 3,000 additional doctors and 3,000 additional nurses over a 10-year period, and includes a range of incentives, targeted funding and bonding arrangements designed to provide opportunities for clinicians to train and serve in those rural communities. As part of the strategy, Australia launched the HeaDS UPP tool, a new integrated public resource of health workforce and services access and usage data for the entire country.

Experience

France's Mon espace santé (My health space)[14]

France's online health space, *Mon espace santé* (My health space), is designed to house individuals' medical history, prescriptions, previous X-rays and other documents. The program is housed on an independent platform and includes a mobile app and e-health solution designed to empower patients in France to choose with whom they share their health data. Further, the program grants access to vetted digital solutions, promotes a comprehensive health record for the French people, and has a function for provider messaging.

3

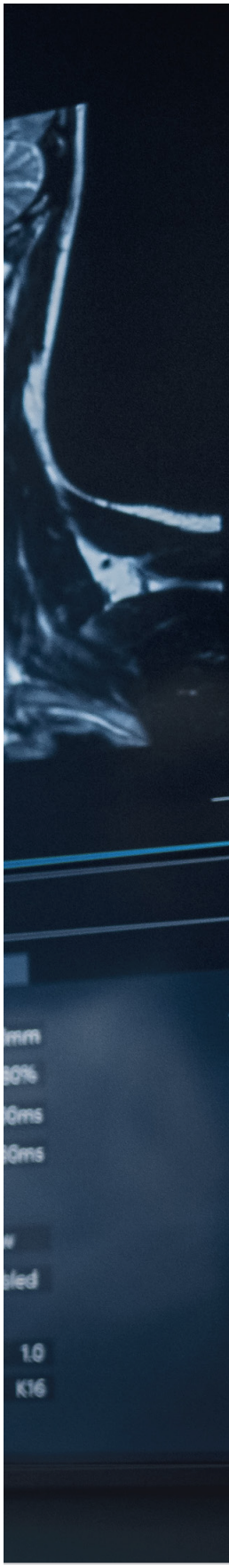
Domestic digital health strides

While true digital transformation has yet to be realized, there is forward momentum in the US.

We have seen progress toward digitally enabled value-based care models — such as payers acquiring enabling platforms and tools and up-front investments incentivizing clinicians to consider a shift toward value, and employers adopting new digitally enabled patient-centric models of care. Similarly, health care organizations are working in earnest to determine how best to leverage new AI capabilities to synthesize images or ease physician burden through AI scribes and chatbots. Amid this progress, the federal government is working hand in hand with industry to chart the way forward.

The US also has seen public and private sector efforts to increase interoperability and usability of data through standardized APIs, the adoption of a trusted exchange framework and common agreement to scale electronic health information nationwide, as well as first-movers paving the way to deliver patients a longitudinal health record in their pockets. With retail and technology companies becoming an entrenched part of the health care ecosystem, we have also seen interest in more patient-centric, accessible and shoppable health care.

Despite this progress, however, we have a long journey ahead to achieve our digital health future. Sustainable payment options for digital health care (e.g., medical devices, virtual tools), true systemwide interoperability, a robust tech-enabled workforce and seamless patient experience remain elusive. And without policy to spur us forward, widespread adoption in the US will lag behind our global counterparts.



4

How policy can shape our digital health future


LVL 1
SLP 16
V4
V5
V6

There are five key considerations for policymakers that can address US challenges and facilitate the future digital health care ecosystem, improving patient care and outcomes.

Correct misaligned payment incentives to drive digitally enabled value-based care

- Accelerate the push toward value-based care and away from volume through creation of more sustainable and scalable models, incentivizing adoption through payment policies.
- Align and streamline quality and cost metrics across payers and providers to mitigate concerns with multi-model adoption and reporting burden, while driving results on more meaningful measures.
- Create payment flexibilities that enable adoption of digital tools at both the state and federal level in support of a shift toward population health and value-based models.
- Reward population health and chronic disease management approaches, along with delivery of care in more appropriate, patient-centric care settings.

Bolster innovation to increase efficiencies and enhance patient care

- Develop clear reimbursement and coverage policy, including for post-PHE telehealth flexibilities and reimbursement, hospital at home models, and other digital and technology innovations.
- Update approval and change control pathways to support new digital technologies and create policy that does not preclude future innovation.
- Provide up-front infrastructure investments, especially for smaller companies and adopters with limited resources but with the desire to provide value-based, digitally enabled population health care.
- Facilitate and invest in public-private partnerships to spur innovation.
- Invest in R&D for populations and/or diseases or conditions historically underinvested in.

3

Facilitate interoperability and the equitable use of enabling technologies

- Continue oversight and supports for implementation of interoperability imperatives and mandates, with an eye toward enabling usability for providers and patients.
- Include public health entities, smaller providers and those outside of the standard EHR ecosystem (e.g., behavioral health), and others lacking adequate infrastructure. Incentivize adequate and standardized collection of SDOH and SOGI data and connection with community resources so that the data is being used in a way that is beneficial to the patient.

4

Re-examine care pathways and the future provider pipeline

- Facilitate adequate provider payment at state and federal levels, including specialties that have seen historical underinvestment, such as primary care and mental and behavioral health.
- Invest in pipeline and career pathing programs, including a focus on underserved communities and HPSAs, and revisit GME programs for physicians and non-physician providers.
- Support polices that address provider burnout and invest in solutions, including those that reduce administrative burden and enable top-of-license care.
- Adopt policies that enable advanced practice providers to work at the top of their license.
- Enable cross-state practice, such as through state compacts, to help alleviate shortages.

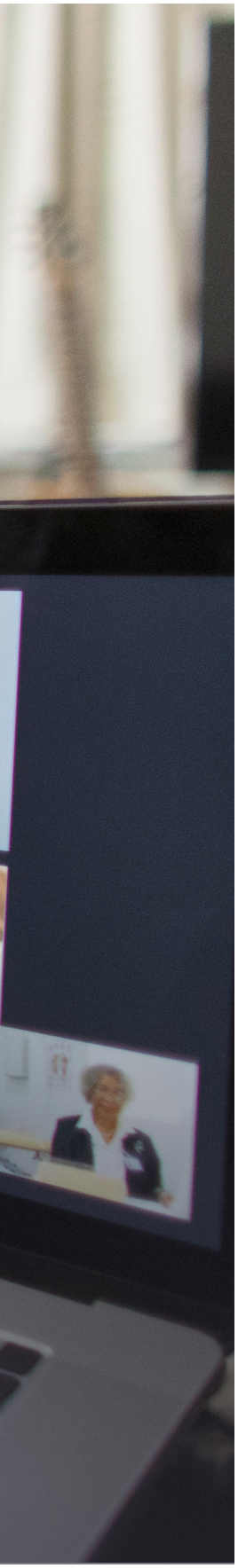
5

Improve patient experience and equitable outcomes

- Promote policies that facilitate frictionless, patient-centered care.
- Facilitate seamless access to medical records and a continued focus on data privacy and safety.
- Enhance access to usable cost and quality data, including through promotion of digital, patient-facing tools and enable mechanisms that incentivize selection of high-value providers.
- Prevent the inadvertent creation of a two-tiered system in which those lacking access to robust networks, digital tools and other supports are left behind through health equity policies.
- Provide supports and investments in community resources and supports to address SDOH and incentivize a warm handoff through quality metrics and other supports.

5

Final thoughts



The current US health care system is based on antiquated payment models, technology and regulations that are no longer sustainable for patients or providers.

Around the globe, our peer nations have shown the positive impact digitally enabled tools and patient-centric solutions can have on patient care. In the US, creating a more digital and patient-friendly health care system that enables all clinicians to practice at the top of their license begins with Congress. Lawmakers must focus on making policy improvements that lift barriers to innovation, reward providers for the quality and value of the care provided and maintain a robust health care workforce that can deliver the digital care of the future.

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