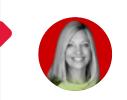
CVSHealth. Health Health</p

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" We are facing a challenging time, but also one of great hope and promise."

Karen S. Lynch, President and Chief Executive Officer of CVS Health



THE COVID-19 PANDEMIC is a defining moment for health care. Pharmacists, researchers, clinicians and every single person on the front lines of care have stepped up like never before. Our industry continues to face a once-in-a-lifetime challenge, and together we continue to respond with resilience and innovation.

Each year, our Health Trends Report examines the forces impacting care – including the latest in health technology – and forecasts where our industry is headed. This year's report is heavily influenced by the realities and ripple effects of COVID-19, such as the rise of virtual health care and the increasing rates of anxiety, depression and other mental health issues stemming from social isolation.

While COVID-19 continues to dominate the health care conversation, our industry continues to innovate through crisis. The smart use of health data and technology, for example, has opened new ways to identify patients when they need care the most.

Alongside the pandemic, our country is also experiencing an extraordinary awakening on racial inequality, a longstanding barrier to equitable health outcomes. I find it personally heartening to see stakeholders across the health care industry begin to question the status quo and identify new opportunities to make services more equitable. We should all be proud of the direction our industry is taking. Yet, there is still more to be done to drive fair access to health care for all.

We are facing a challenging time, but also one of great hope and promise. As the pandemic eventually passes, its lessons will serve to make our health system more agile and more responsive to the needs of consumers. That's at the heart of our purpose to be there for every meaningful moment of health throughout an individual's lifetime.

Jaun J. Lynch

Karen S. Lynch, President and Chief Executive Officer of CVS Health



The EHR Hits Its Stride

Digital health records were supposed to make a clinician's job easier. Are they ready to deliver on that promise?

he dream of an electronic health record (EHR)—born in the visionary 1960s—imagined one seamless, universal home for a patient's medical history. The actual rollout has been a bit rockier. Over the past decade, EHRs have contributed to exhaustion and burnout¹⁰ among health care providers, increased costs for software and maintenance¹¹ and presented interoperability issues.¹²

In 2021 and beyond, EHRs will continue to face these growing pains. Innovations in both software and integration are already changing some of their more vexing features. Here is what the next year may bring:

Patient Portals Get Friendlier.

Starting on April 5, 2021, all patients will be able to freely access their own medical records, a stipulation of the 21st Century Cures Act.¹³ While patients have always been able to request their own medical records, the Cures Act will enable new patient access provisions and better interoperability,

making it easier for patients to get what they need.

This shift will largely be mediated through EHR software. Epic, one of the nation's largest EHR companies, has been fine-tuning MyChart, a feature that allows patients to not only securely see and share their data with providers, but also navigate appointments and information about health care costs.¹⁴

According to Sharon Vitti, President of MinuteClinic and Senior Vice President of CVS Health, MyChart is becoming an "indispensable tool" not only for clinicians but the patients they serve. Since the pandemic landed last spring, MinuteClinic used MyChart to bring some services online, including virtual visits with providers, and it is one of the principal ways for patients to see COVID-19 test results.

Pre-pandemic studies suggest these kinds of patient portals may even boost adherence and offer more ownership of the treatment journey, though how that might relate to clinical outcomes isn't yet clear.¹⁵

EHRs Learn to Cooperate.

Fragmentation of health data across multiple, incompatible systems has been a headache for consumers and providers since day one. A 2017 analysis of more than 500,000 providers identified at least 18 distinct EHR platforms in use,¹⁶ and a 2018 study found that most hospitals don't use patient data from outside their own system.¹⁷

That may soon change. In recent years, both Epic and Cerner, the two largest EHR companies, have launched





has been a big area of our focus."

Sharon Vitti, President of MinuteClinic and Senior VP of CVS Health

initiatives to facilitate the safe, digital sharing of data—even among providers who use different systems. One promising technique is natural language processing, a subfield of artificial intelligence that focuses on communication and translation.¹⁸

"Interoperability has been a big area of our focus. It has to be," says Vitti. "Retail medical clinics share information with hundreds of providers and medical institutions. We can't exist in a silo." Since 2014, her teams have shared 128 million records across 10,000 health care locations in all 50 states, through Epic's Care Everywhere program. And other areas of the company, such as the Coram Home Infusion arm of CVS Health, are launching Epic modules of their own.

Unsounding the Alarms

One major challenge is to shift the balance of work—making EHRs productive while easing the attention they require from providers. Clinicians from across the industry report spending more time in front of computers than in front of their patients, a source of frustration that leads not only to less productive clinical interactions but, studies show, to exhaustion and burnout.

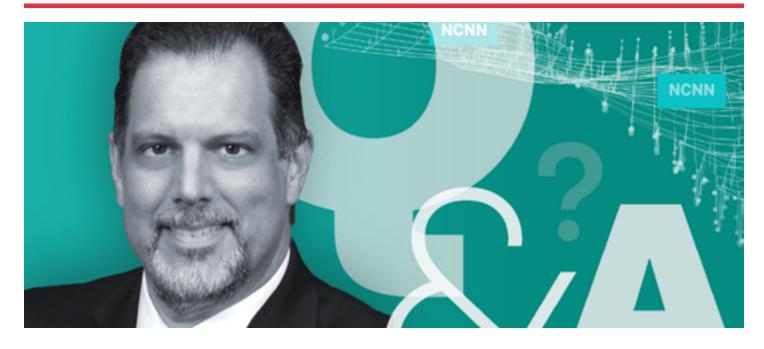
Part of that, says Vitti, arises from "alert fatigue." The technology notifies providers about risks to a patient, but too many beeps, emails and pop-up windows can make the user tune it all out. "When we first built our system, we built in a lot of alerts to support evidence-based medicine, and kept adding them because we wanted to make sure we were creating safety nets around new clinical issues," she says.

Since then, CVS Health has conducted user group surveys and worked with Epic to streamline their system, which meant

implementing workflow efficiencies and instituting a focused review system for every new alert.

EHRs still have a long way to go before they deliver on their promise. But these and other good ideas—such as addons that incorporate social determinants of health help a clinician remember to work a patient's food insecurity into their diabetes plan¹⁹—may turn the tide. In the coming years, the EHR may at last become the intuitive, unobtrusive and everyday tool that changes medicine for the better.

- ¹⁰ https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2748054, https://academic.oup.com/jamia/article-abstract/27/4/531/5722322, https://cvshealth.com/sites/default/files/cvs-health-path-to-better-healthstudy-2020.pdf
- 11 https://www.healthit.gov/faq/how-much-going-cost-me#
- 12 https://www.sciencedirect.com/science/article/pii/B9780128193143000021
- ¹³ https://www.hhs.gov/about/news/2020/03/09/hhs-finalizes-historic-rules-toprovide-patients-more-control-of-their-health-data.html
- 14 https://www.mychart.com/
- ¹⁵ https://humanfactors.jmir.org/2019/4/e15038/
- ¹⁶ https://www.healthcareitnews.com/news/why-ehr-data-interoperability-suchmess-3-charts#
- ¹⁷ https://blackbookmarketresearch.newswire.com/news/epic-systems-andmeditech-rise-atop-black-book-2018-survey-of-20441584_0
- 18 https://ieeexplore.ieee.org/abstract/document/8395074
- ¹⁹ https://ehrintelligence.com/features/integrating-social-determinants-of-healthinto-the-ehr



Cancer Needs a Better Roadmap

Rapid advances in oncology have sometimes made treatment paths more uncertain. Payers and providers can join forces to fix that.

reakthroughs in cancer treatment are a bright spot in 21st-century medicine, with mortality rates decreasing by 1.5 percent every year for the past two decades.⁸ The number and complexity of new treatments, however, have sometimes caused confusion for providers—

and wide differences in practice.

Last year, Roger Brito, an oncologist and the Divisional Head of Enterprise Oncology at CVS Health, helped launch the Transform Oncology Care program, which aims to use new technology to advance outcomes for oncology patients, their physicians and payers.

The program is being rolled out nationwide to health plans that contract with CVS Health and for purchase to nonmember

provider systems. We asked Brito to discuss the new tools and how else providers can tackle the "triple toxicity" of cancer.

Q: Looking at the oncology landscape, what's going well and where is there need for improvement?

Brito: The field is always changing. Most oncologists are treating patients with completely different therapies than they were five years ago. The good news is that technology is driving innovation and improvement, and the majority of cancers, when diagnosed early, can be effectively managed, treated and even cured.

But this rapid rate of innovation can be a challenge. Today, the majority of cancer patients are treated in community health care settings, not at big academic centers. And local oncologists often don't have the luxury of consulting with a broad team of specialist colleagues. Due to time constraints, it can be difficult to keep pace with evidence-based care guidelines. I know that from experience —I've practiced in both academic and community settings. So, there's a need to streamline all the changes, educate providers and align with best practices.

Q: You were one of the forces behind the "Transform Oncology Care" program from CVS Health. What are some of its guiding ideas?

Brito: The question first posed to our team was straightforward: "How do you fix cancer care?" We found that cancer patients are likely to experience what we call "triple toxicity." Of course, there's a physical toxicity of treatments, like chemotherapy. But there can also be financial toxicity, because of out-of-pocket costs, and there's another toxicity from the psychosocial effects of having cancer. We looked for ways to target all three, to treat cancers more effectively while also reducing the total costs of care, keeping in mind that it's the patient at the heart of this care that we should be thinking about first and foremost.

Q: One of those steps has been a partnership with the *National Comprehensive Cancer Network (NCCN)*. How does that work?

Brito: One solution for smarter, more effective care is to give these local oncologists a set of digital tools that gives them better access to cutting-edge, promising therapies. That better care management leads to savings, because of fewer trips to the emergency room or hospital admissions.

The NCCN treatment and supportive care guidelines, which cover more than 97 percent of cancers, are there to assure that a provider is making the best, evidence-based choice. The guidelines are regularly updated, resulting in more than 500 changes annually. It can be difficult and time consuming for oncologists to keep pace with new recommendations—in fact, we know that only one in seven community oncologists regularly consult these care pathways.

So we've partnered with NCCN to integrate their treatment guidelines directly into our web-based provider portal. This is truly a novel approach. The platform allows participating oncologists around the country to have at their fingertips the most up-to-date NCCN clinical guidelines and therapy regimens at diagnosis. They no longer need to worry about researching 500 updates. We provide that information to them in real time at their point of prescribing, which easily fits into their workflows.

Therapeutic regimens that align with the NCCN guidelines will also automatically receive prior authorization approval, speeding therapy for patients. In the past, that approval process could take up to a week to complete.

Q: Your team has also spearheaded a move toward broad-panel genomic testing. Why is that important?

Brito: With more advanced cancers, the NCCN guidelines can include a number of treatment options, compared to just one or two recommendations for early cancers. Precision medicine— mapping an advanced cancer to a specific genetic mutation—can deliver improved survival. One problem is many patients with advanced cancers don't get genetic sequencing, or if they do, it's too narrow or it's too late to benefit from the drug. And we know about one in seven oncologists don't order these tests for a variety of reasons, including the fact there are relatively few payers who reimburse broad-panel sequencing.⁹

Broad-panel tests identify more individual variations in a cancer, which in turn allows oncologists to pinpoint the best treatment more quickly. That can eliminate the need for second and third rounds of alternative therapies. So our program is increasing access to this testing for eligible patients, with the platform automatically flagging those who would benefit.

We recently completed a study with cancer patients who received treatment based on broad-panel versus narrowpanel sequencing, and total care costs were cut by almost half six months out. Broad-panel costs more up front, but total costs were lower since the testing allowed for more targeted interventions and improved outcomes.

Q: An early version of Transform Oncology Care has been piloted across 12 states for patients in CVS Health provider networks. What has the evidence shown?

Brito: The vast majority—over 90 percent—of our 600-plus providers delivered cancer care to their patients based on NCCN best practices. The trend we've seen is an improvement in the standard of care. While we're still accruing and analyzing data, there's evidence of fewer hospitalizations and chemotherapy treatments, improving care, saving money and lessening the burden of side effects.

For me, that is incredibly promising. We're bringing greater alignment between providers and payers, promoting highquality care at lower costs. It's the guide star of value-based care, that providers aren't getting reimbursed for doing things to the patient, but for doing things for the patient. The patient benefits from better treatment at a lower cost. That should be the goal for all of us.

⁸ https://www.cancer.gov/news-events/press-releases/2020/annual-reportnation-2020

⁹ https://www.medscape.com/slideshow/genomics-and-oncologyreport-6008655#6



The Mental Health Shadow of COVID-19

Cara McNulty discusses the crisis in mental health care and possible steps to address it.

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any people have experienced episodes of poor mental health during the COVID-19 pandemic. To help them, "it's important that we continue the conversation around mental health and wellbeing, and that we continue to reduce stigma, so that people

aren't afraid to seek care," says Cara McNulty, President of Aetna Behavioral Health and Employee Assistance Program. The video explores how to identify those who might be struggling and includes/mentions a CVS Health program to make treatment more accessible. " It's important that we continue the conversation around mental health and wellbeing, and that we continue to reduce stigma, so that people aren't afraid to seek care."

Cara McNulty, President of Aetna Behavioral Health and Employee Assistance Program

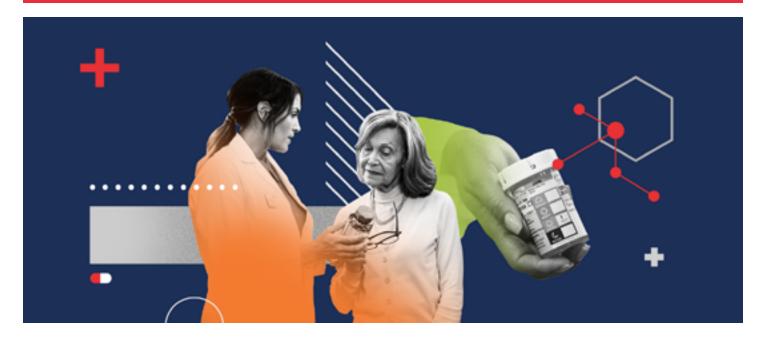


The Next Step Forward in Cardiac Care

Alan Lotvin discusses how connected care, patient-friendly tools and a digital mindset will counter the most deadly disease in America.

s cardiac care at a turning point? The pandemic has underlined a need for "more care at home, more care directed by patients, in real time, using new technologies," says Alan Lotvin, M.D., Executive Vice President of CVS Health and President of CVS Caremark. This video interview explores ideas for the future of heart disease treatment, including the need for remote diagnostics and connecting points of care. "The pandemic has underlined a need for "more care at home, more care directed by patients, in real time, using new technologies."

Alan Lotvin, M.D., Executive VP of CVS Health and President of CVS Caremark



The Year of the Pharmacist

In 2021, pharmacists will take on larger roles and, lest we forget, help administer the world's most-awaited vaccine.

harmacy will continue to be the most frequent¹ health care touchpoint in the coming year, with millions of Americans heading there for the COVID-19 vaccine and for other routine interactions. According to the most recent National Pharmacist Workforce Study,² pharmacists have been more active than ever in their traditional roles, which include counseling patients and connecting them to other services. These roles will increasingly be augmented in the years ahead, in part by innovative pilots and new technologies that promise to give the profession an even broader reach and impact.

"Pharmacists practicing at the top of their licenses are advocates who listen to patient concerns, educate on available options and connect patients with solutions to improve their health," says Neela Montgomery, Executive Vice President of CVS Health and President of CVS Pharmacy/Retail. "That has

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"We hope to make pharmacy an even stronger pillar of our health care system."

Neela Montgomery, Executive VP of CVS Health and President of CVS Pharmacy/Retail

particularly held true during the COVID-19 crisis, given the immense role our pharmacists play in providing accessible, community-based care. We hope to make that an even stronger pillar of our health care system."

One striking opportunity is to have pharmacists help people facing challenges related to their social determinants of health. These are the social and material circumstances, such as food insecurity,³ that might keep someone from living an optimally healthy lifestyle. A recent study found that social



factors account for more than a third of total deaths per year in the United States,⁴ but efforts to address these in traditional medical settings, where patients and providers are often acutely focused on the problem at hand, have been challenging.

"We've found people are not only open and willing to share social needs with their pharmacists but in many cases they listen to and act on the advice and recommendations of pharmacists," says Peter Simmons, Vice President of Transformation, Pharmacy Delivery and Innovation at CVS Health. With HealthTag, a pilot involving Aetna Medicaid members in two states, CVS Health pharmacists have started to include local resources along with medication directions inside the prescription bag. These resources might include details about how to get help with food, housing or transportation through local community services. The network of these organizations is backed by Unite Us, a social care coordination program.

"When we can help people overcome challenges such as food insecurity or the lack of proper nutrition, that is a major step forward toward helping them make significant advances in their overall health," Simmons says.

Another way patients can benefit is when pharmacists make the most of the data frontier. Machine-learning insights promise to be especially helpful in the management of chronic conditions. More than 1,000 CVS Pharmacy locations are taking part in a first-of-its-kind pilot with customers insured by Aetna and other commercial health plans. An analytics engine regularly reviews medical and pharmacy data to identify which people might be at high risk for nonadherence or negative outcomes. The engine then prioritizes them for the "pharmacist panel"—a program of one-on-one coaching and counseling individualized for each member.

So far, the pilot has been a success, with the data showing not only upticks in medication adherence and in clinical care gap closure but reductions in unnecessary emergency room and physician visits.⁵ Those results lead to improved patient outcomes, says Simmons, as well as lower medical costs.

The COVID-19 crisis has also brought the pharmacists' public health role into stark focus. Simmons says that many pharmacists have, over the course of the pandemic, become go-to local experts and trusted resources. This trust will be critical during the COVID-19 vaccine rollout—the largest in U.S. history⁶ —as a poll in December 2020 showed that only about 60 percent of Americans intended to get the vaccine.⁷ These local practitioners can help inform Americans of the

efficacy and safety of vaccines and, perhaps, move the needle toward universal adoption.

"The pharmacy is the most local and familiar outpost of the health care system," says Simmons. "There's both a trust and a responsibility that comes with that." In the years to come, the pharmacist's role will continue to evolve, making this touchpoint even more essential to the betterment of the nation's health.

¹ https://pubmed.ncbi.nlm.nih.gov/29317929/

- ² https://www.aacp.org/article/2019-national-pharmacist-workforce-study
- ³ https://www.cdc.gov/socialdeterminants/about.html
- ⁴ https://www.ajmc.com/view/the-importance-of-considering-the-socialdeterminants-of-health
- ⁵ Q3 2020 CVS Health Corp Earnings Call
- ⁶ https://apnews.com/article/biggest-vaccination-effort-us-history-2d46fd529b2f f5313201e8065b81c0d7
- ⁷ https://news.gallup.com/poll/325208/americans-willing-covid-vaccine.aspx



More Engines That Predict Disease

Behind the scenes, smart algorithms can sort through data and identify a health crisis before it happens. Where is this technique most useful now?

> ig data has already helped make treatment more personal and effective. Its next step may be to help providers spot disease risk before a patient is aware of it—letting them know that kidney disease or a complication in their chronic condition is on the horizon.

These advances lean on machine learning algorithms, approaches similar to the ones underlying face recognition or the ability of a Tesla car to self-park. For a decade, artificial intelligence (AI) projects in medicine have promised to improve diagnosis, treatment recommendations and patient care.

Some of that promise has been fulfilled, and much more may be realized soon. For an update, we spoke with physician Daniel Knecht, Vice President of Clinical Product at CVS Health, who is looking at tools that can capitalize on the big data frontier.

Q: For the past decade, we've seen steady progress on using artificial intelligence to predict disease. Can you walk us through the idea?

Knecht: Yes, as physicians we've all seen the news stories how AI might be able to predict the onset of Alzheimer's disease²⁵ or the next pandemic.²⁶ Most of these applications are still far away. But I'll use our Transform Diabetes Care program as an example of what can happen today and what is happening.

All of these approaches use machine learning, meaning that we feed the computers large data sets. Our data scientists train that model to sift through the data and reliably predict based on a variety of signals—who might have an increased risk for a poor health outcome. For instance, our care engine has permission from 250,000 members with diabetes in our system to sift through several hundred data components age, sex, demographics, medical utilization patterns and zip codes. The engine develops, for lack of a better term, a "digital diabetes doctor."

One model can fairly accurately predict the patient's hemoglobin A1C levels. We have found that it's almost on par to measuring A1C in the lab using the patient's blood. With that, we can identify those at risk of poor management of diabetes and the subsequent consequences of uncontrolled diabetes. The next thing this tool does is offer the best way to engage with these folks—a "nudge" or personalized recommended health action.

Q: What would an algorithm-driven "nudge" look like?

Knecht: To the patient, a nudge could be an email, a text or a phone call from a care manager or a conversation at the pharmacy. The intent is to raise awareness, but more importantly, it's to provide an actionable next step. We don't want to send a list of 20 things to do. So we say, what's the next singular best action they should be taking?

For the provider, notifications should help them practice the best evidence-based medicine. Providers are taking care of thousands of individuals at any one time. An algorithm can sort through the noise and help suggest some clinically validated next steps, which also arrive as an email, text or call.

The magic of these advanced analytics is that they never sleep. Your provider is practicing medicine 50 hours a week, but this engine is constantly running, constantly refreshing, constantly ingesting data. It's consistently updating its actions and its recommendations for an entire patient population.

Q: Why is a program like this valuable?

Knecht: It can help with the problem of clinical inertia. I'm a physician myself, and there are times that patients aren't seeing physicians as frequently as they should or can. Even when they do see a physician, often the next clinical action is not taken as promptly as it should be. There is a very human bias to stay the course. It's certainly something we often see within diabetes care. I think the beauty of machine learning in our program is that we can nudge both the patient and the provider.

Q: Which conditions make the best candidates for this approach?

Knecht: From an industry perspective, we'll want to go after things that are big cost drivers. And from a public health perspective, we'll want to go after conditions that really have substantial morbidity and mortality. We want to improve the medical system, and, of course, we want to help the most people on their path to better health.

Hypertension is a good example, and we're already doing work in this area. AI can help us encourage screening or

nudge people to stay adherent to their medication. It can send a notification if they're not hitting their goals, or prompt them to ask their provider about starting another medication or following an appropriate diet.

Q: Will patients—and providers—learn to embrace health care guided by data analytics?

Knecht: Health care is an incredibly intimate experience. I see a model where empathetic and professional clinicians are on the front lines, practicing at the top of their license. And they're assisted by AI and advanced analytics. AI will help physicians make better diagnoses and better treatment recommendations. What data cannot do is replace the empathy, kindness and warmth of a provider you trust.



" An algorithm can sort through the noise."

Daniel Knecht, Vice President of Clinical Product, CVS Health

- ²⁰ https://www.census.gov/newsroom/press-releases/2014/cb14-84.html
- ²¹ https://www.ncoa.org/news/resources-for-reporters/get-the-facts/healthyaging-facts/#:~:text=Approximately%2080%25%20of%20older%20 adults,of%20all%20deaths%20each%20year.
- ²² https://www.aha.org/center/age-friendly-health-systems
- ²³ https://www.aha.org/center/age-friendly-health-systems
- ²⁴ https://www.healthinaging.org/tools-and-tips/tip-sheet-what-older-adultsneed-know-about-retail-clinics
- ²⁵ https://www.ibm.com/blogs/research/2020/10/ai-predict-alzheimers/
- ²⁶ https://www.technologyreview.com/2020/03/12/905352/ai-could-help-withthe-next-pandemicbut-not-withthis-one/



Tailor Care to the Older Patient

Aging populations face special risks. New protocols and tools will help keep them healthy longer.

he number of people older than 65 will double by the year 2060,²⁰ and if current trends hold, two out of three of them will have multiple chronic conditions.²¹ Meeting their health care needs will call not only for a shift in perspective but in clinical practice. "We're heading into a new era for the care of older Americans," says Christopher Ciano, President of Medicare for Aetna, a CVS Health company, "and this means engaging with a broader range of issues that affect them." If health care systems can get on board with evidence-based ways to help this population, the entire ecosystem of health care stands to benefit.

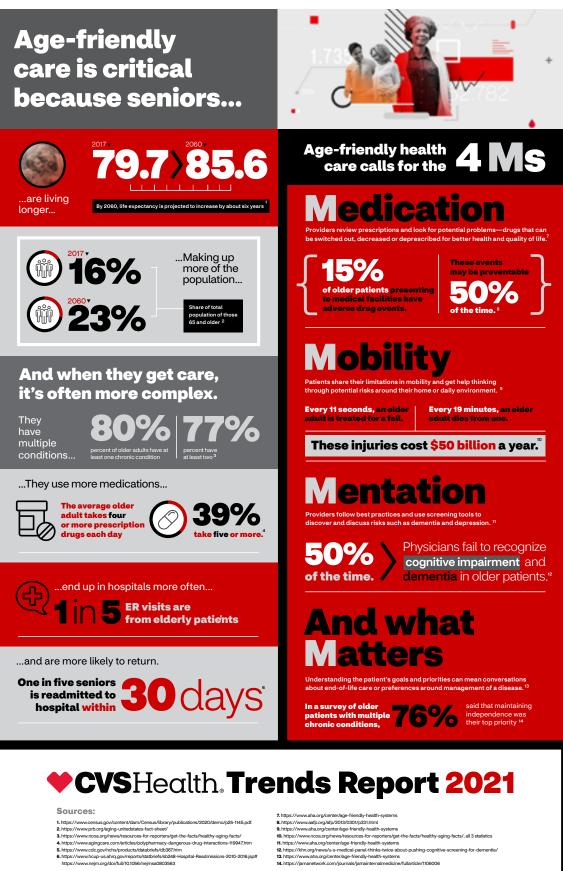
One of the more promising efforts from CVS Health is the Age-Friendly Health Systems approach, an initiative led by the Institute for Healthcare Improvement.²² Practitioners are encouraged to adopt a range of best practices that align with a framework known as the "4Ms": reviewing their patients' Medications, Mentation, Mobility and what Matters most to them in terms of health goals.²³

In 2021 and beyond, the approach will be adopted by MinuteClinic, the retail medical clinic of CVS Health, and the largest retail clinic network in the United States. MinuteClinic's commitment to be an Age-Friendly Health System is supported by a grant from The John A. Hartford Foundation to the Case Western Reserve University Frances Payne Bolton School of Nursing, in partnership with the Institute for Healthcare Improvement. Retail clinics as a whole have seen rising numbers of patients older than 65, with surveys showing more than one in seven coming for medical services.²⁴

"For us, the Age-Friendly initiative maps out a way to make a difference for patients 65 and older," says Angela Patterson, DNP, Chief Nurse Practitioner Officer of MinuteClinic and Vice President of CVS Health. "Our commitment involves supporting the work of the broader primary care health system within a community and helping optimize the best outcomes for these older patients. There was natural synergy with the 4Ms framework."

The figure below explains why older patients require special attention and how the 4Ms approach might help.





7. http://www.aba.org/center/dage-friendly-health-systems 8. http://www.aba.org/center/dage-friendly-health-systems 10. http://www.aba.org/center/dage-friendly-health-systems 10. http://www.aba.org/center/dage-friendly-health-systems 12. http://knowick-sendical-apat-thinks-twice-about-pushing-cognitive-screening-for-dement 13. http://www.aba.org/center/dage-friendly-health-systems 13. http://www.aba.org/center/dage-friendly-health-systems



Paying for New Medical Miracles

Million-dollar treatments are becoming more common. How can the health care system financially take them on?

ecent discoveries are, in some cases, completely changing the rules of intractable disease. Gene therapies, in particular, can sometimes offer durable improvement or complete cures, and the U.S. Food and Drug Administration (FDA) expects to approve up to 20 such therapies a year by 2025.²⁷ "The drug pipeline is very exciting from a clinical point of view," says Joanne Armstrong, M.D., M.P.H., Chief Medical Officer for Women's Health and Genomics, CVS Health. "We are seeing powerful therapies, and as these prove their clinical worth, we expect to see more."

The challenge: These drugs can come with unprecedented price tags. One therapy for a muscle-wasting disease costs more than \$2 million for a one-time dose.²⁸ A gene therapy for a hereditary form of blindness costs \$425,000 per eye.²⁹ A recent CVS Health study estimated gene therapies treating just 11 conditions could add an additional \$45 billion to health care costs over the next five years.³⁰

As these game-changing treatments enter clinical practice, it's up to the entire industry—payers, providers, drug manufacturers and other health care stakeholders—to get them to patients without bankrupting the system. A number of innovations on the payment side are aiming to do just that.

Value-Based Contracting

The idea behind value-based contracting is simple: Reimbursement for an expensive drug is tied to whether it performs as promised. "Though the drug may promise to cure these patients for life, these are early days in their use," says Armstrong. "What we're saying is, show us the clinical value proposition first." For their part, manufacturers are open to strategies like this as a way for patients to gain access to their product—and indeed, many have already been experimenting with models like this on their own. Novartis, the maker of the \$2 million drug, is offering insurers a five-year installment payment plan, with refunds if the gene therapy doesn't perform as expected.³¹ CVS Health has drafted a number of these contracts, and the formula for both parties can be complex, taking into account how the drug is administered, expectations for recovery and the role of side effects and other clinical issues.

Medical and Network Management

With the financial stakes of a high-cost drug, it's critical to see that the treatment is administered in the best way and to someone who has the greatest potential to benefit. "We want to make sure these high-cost drugs are going to the right patients in the right setting," says Armstrong. One effort takes



a page from a CVS Health protocol improving outcomes for members who need bone marrow and organ transplants. The National Medical Excellence (NME) program partners Aetna case managers with experts at hospitals and other health care settings that have demonstrated superior track records and medical standards, ensuring that a major procedure is administered with the greatest chance of long-term success.

In the case of gene therapy, for example, that medical management partnership would apply in many of the same ways, but also extend to collaborations with the manufacturer. Additionally, CVS Health is forming a designated network of gene therapy, cellular and other innovative therapies (GCIT[™]) providers who meet product, quality and economic standards.

Financial Protection Plans

One place a multimillion-dollar bill would be felt immediately is among smaller payment pools, such as self-funded employers. Stop-loss insurance is a way to cap those outof-pocket expenses for claims at an agreed amount. CVS Health recently made available a gene therapy stop-loss program to Aetna and CVS Caremark PBM self-insured employers who do not otherwise have coverage. A separate, installment payment plan for select gene therapy products can also spread the payment of high-cost claims over several years. "These strategies give plan sponsors an approach to prevent them from the alternative—not covering these therapies at all," Armstrong says. "That just wouldn't be good for medicine."

Since many of these payment strategies are so new, the coming year will bring a test of their success in managing costs for employers and patients. But industry experts see more value-based contracting as a way to prepare for paying for the next generation of pricey drugs. As other, larger patient populations with costly diseases—such as hemophilia—enter the payment pool, this kind of innovation will become even more critical to pursue.

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- ²⁸ https://www.reuters.com/article/us-novartis-genetherapy/novartis-2-milliongene-therapy-for-rare-disorder-isworlds-most-expensive-drug-idUSKCN1SU1ZP
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"The drug pipeline is very exciting from a clinical point of view."

Joanne Armstrong, M.D., M.P.H., Chief Medical Officer for Women's Health and Genomics, CVS Health



Virtual Care Goes Mainstream

The past year has been a trial by fire for telehealth. Here's what is likely to emerge and endure.

> s the COVID-19 pandemic took hold in March 2020, so too did the number of U.S. telehealth visits, which soared to more than 150 percent of what they had been the year before.³² In April, virtual visits made up nearly 70 percent of all

patient-provider interactions,³³ and Doximity, an online network for doctors, estimated in September that more than 20 percent of all medical visits in 2020 will have been delivered via telemedicine, representing nearly \$30 billion of medical services.³⁴

"We are seeing health care paradigms shift all around us," says Jonathan Mayhew, Executive Vice President of Transformation at CVS Health. "Understanding the shift in consumer experience and charting how it can lead to better care will be the big challenge of the decade ahead."



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What has the industry learned, and which innovations are likely to stick around? While most of the attention has been on televisits, the pandemic also led to other changes, including the wider adoption of apps and wearables.³⁵ COVID-19 also raised the urgency of other at-a-distance solutions, especially for populations whose health might be compromised by a hospital visit.

"Among the many lessons we have learned from this pandemic, we now know care can be done in multiple ways, including online," says Adam Pellegrini, who helped transform Fitbit into a health care company and now develops virtual care programs at CVS Health. "We need to offer care in the ways that people are looking to receive it—through phones, through connected devices, through asynchronous conversations and, of course, through the telehealth visit."

This year, apps focusing on wellness saw a sharp uptick, with downloads of mental health apps jumping about 30 percent in the first few months of the pandemic^{36 37} and fitness³⁸ apps growing their user base by about 50 percent worldwide. Among older consumers, 6 in 10 said that they were embracing technology more during the pandemic, according to an August survey, with nearly a third of those 64 and older using wearables to monitor their health.³⁹

If these are all aspects of a new virtual care ecosystem, says Pellegrini, the next challenge will be integration. While more than 500 hospitals now have some way to handle data from wearable devices,⁴⁰ that information mostly stays on the patient's phone.⁴¹ A 2019 survey of health care practitioners found that only 5 percent of them made use of data from their patients' wearable devices, many citing compatibility issues with electronic health records (EHRs).⁴²

When that patient-generated data—along with other inputs such as home devices and other telehealth touchpoints—can more easily make its way into EHRs, providers will get a much clearer picture. That one-stop approach would help patients, who could log into a single platform to track their health, and algorithms might even flag likely problems, notifying a physician to follow up.

Other services may also soon be going more remote. The COVID-19 pandemic presented a danger to many traditional dialysis patients, who faced higher risks of complications from infection,⁴³ which encouraged renewed interest in home dialysis. A completely integrated data platform could be critically helpful there as well, says Pellegrini.

The digital future cuts two ways, however, for those who lack the devices or digital literacy. One 2017 study found that as many as a quarter of adults⁴⁴ on Medicaid said that they did not use computers or the internet. Moving the needle will take a commitment from the entire health care sector to expand digital literacy and options for care. As part of that, the CVS Health Foundation made a \$2 million grant to enable 39 free and charitable clinics to help provide access to telehealth visits, which proved especially critical in 2020 for those at high risk for COVID-19.

Telehealth has arrived and there's no going back. Patients not only have embraced new technologies during the pandemic but have also been happy⁴⁵ with their virtual care, rating their satisfaction at about 86 percent on a national J.D. Power survey in October 2020.⁴⁶ "Consumers have shown that they're willing to adopt new ways to take care of their health," says Pellegrini. "That's a win for them and for the system."

- ³⁶ https://www.cnbc.com/2020/10/10/covid-stress-companies-turn-to-virtualtherapy-meditation-apps.html
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- ⁴⁶ https://www.beckershospitalreview.com/telehealth/telehealth-patientsatisfaction-soared-in-2020-despitepersisting-disparities-6-stats.html



Diabetes Care Is Community Care

Racial inequalities have driven the disease for decades. Should a national treatment strategy move closer to underserved neighborhoods?

he number of people in the U.S. living with diabetes has almost tripled since 2000,⁴⁷ and by 2050, it could affect as many as one in three people in the country.⁴⁸ But that caseload is not distributed evenly. Black adults are especially at risk, and nearly twice as likely as white adults to develop type 2 diabetes.⁴⁹ A quick look at other populations with elevated risks—other racial minorities^{50,51} as well as people with lower incomes⁵²—should be cause for alarm and swift action.

Health risk is tied to neighborhoods and communities,⁵³ and diabetes is no different. Populations at highest risk for the disease are statistically more likely to live in places without easy access to supermarkets,⁵⁴ a factor that increases risk, or access to health care providers. In the years ahead, solutions that take place in these same neighborhoods will be key to turning back the tide of the disease.

"Diabetes is a problem that requires community-based solutions," says endocrinologist Kenneth Snow, who has spent more than two decades developing clinical strategies for managing diabetes. He now works with CVS Health on their Transformation team, which is developing new, locally-based models for care of diabetes and other chronic diseases.

Two key issues will be better access to local care and overall affordability. While community health centers already exist in many Black and brown communities, says Snow, and can deliver some checkups and screening services, more robust solutions can be tougher to find in neighborhoods where traditional health care services are in short supply. The recent spread and rising adoption of retail medical clinics⁵⁵ and ambulatory care centers,⁵⁶ which represent one of the fastest growing sectors in health care, may offer those solutions closer to where they're needed.

For instance, many of CVS Health's MinuteClinic facilities, says Snow, now offer a number of critical services that can help manage diabetes on a walk-in basis. Those include onsite retinal screening, pharmacist consultations and access to guidance—in person or virtually—from Certified Diabetes Educators who can help patients with nutrition and lifestyle. "We know that when you bring care to people, they're much more likely to access it," Snow says. Telehealth—more widely embraced since the COVID-19 pandemic began⁵⁷—can also help deliver care.

Affordability is another important frontier. The high price of insulin⁵⁸ means that many skip or ration doses—one in four, according to a recent Yale study.^{59,60} Insulin costs remain an industry-wide challenge, says Snow, but in some cases,

making consumers aware of their options can bring down costs. The vast majority of people with type 2 diabetes who need insulin, for instance, can be treated with less-expensive human insulin, rather than the newer, genetically engineered insulin analogs. Pharmacists can help educate people who could do equally well with either.

Retail points of care can also help with other costs of care, such as missing a half-day of work to visit a physician's office—a concern for workers with minimal leave or sick days. A retail checkpoint can offer a suite of diabetes services on a drop-in basis, and often at more convenient hours.

Centering diabetes care at a pharmacy can promote a onestop approach that keeps the patient's health, convenience and financial concerns front of mind. "Diabetes is a case study in how a more connected experience can translate to simpler, affordable and more accessible care for underserved communities," says Dan Finke, Executive Vice President, CVS Health and President, Aetna. "Instead of having a patient navigate through multiple services in different places, our coordinated, community-based approach can help address the health disparities that have too long characterized chronic diseases like diabetes."



Dan Finke, Executive Vice President, CVS Health and President, Aetna ⁴⁷ https://www.cdc.gov/diabetes/pdfs/data/statistics/ national-diabetes-statistics-report.pdf https://www.cdc.gov/diabetes/statistics/slides/

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systems-and-services/our-insights/walking-out-ofthehospital-the-continued-rise-of-ambulatory-careand-how-to-take-advantage-of-it#

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