



HEALTH INFORMATION TECHNOLOGY

# Digital Health Highlights

May 2020



CONSUMER HEALTH AND TECHNOLOGY

# About this report, *Digital Health Highlights*

This report includes excerpts from our monthly corporate subscription service, *Digital Health Trends*, and from our market analysis research and reporting, *Leaders & Disrupters*.

We've flagged a handful of stories for this highlights version that we hope you find helpful. We also hope you will see the value in having access to the full report, like the awesome companies listed on the right do.

If you'd like pricing information on our subscription services, which would give you and your company access to the full contents of our reporting each month, please email: [dave.lake@circlesquareinc.com](mailto:dave.lake@circlesquareinc.com).



# The Ups and Downs of Digital Health

## Digital Health Highlights (May 2020)

From the co-editors...

**Interoperable EHRs.** Epic shines across digital health segments this month. KLAS confirms its dominance in the large health system market as hospital consolidation drives decisions away from competitors. KLAS also sees Epic as leading in AI tools among its peers and Black Book reports it leads in pop health as well. And it launches a research network leveraging its EHR data across customers to shed light on the current pandemic environment.

**Analytics.** Clinical analytics remains a significant trend in digital health. \$250m in new investment this month into analytics shows continued investor confidence with most of it in late stage support for companies like Dascena, Syapse, Oncology Analytics, OWKIN and Arterys. Oncology and cardiology interest is most notable. There's also a growing belief in analytics supporting virtual trials with early stage investment into ObvioHealth and Stellar Health.

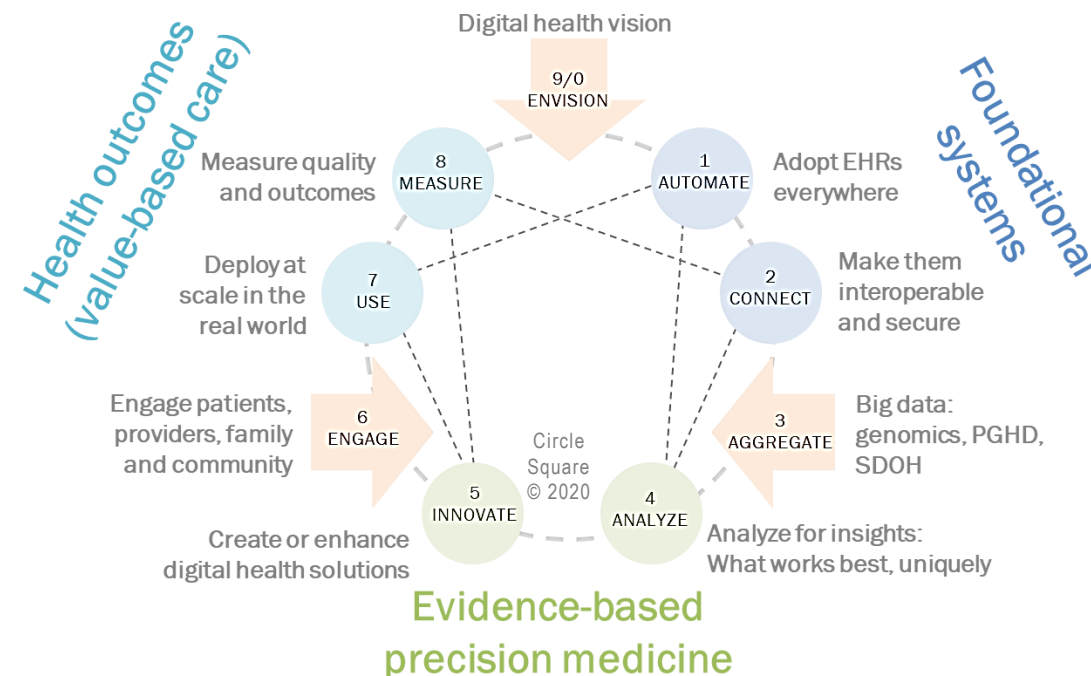
**Consumer health and technology.** Telehealth visits began to plateau this month after spiking at the beginning of the pandemic, but funding in the space remained healthy, both for virtual visits as well as tele-mental health. Big tech had a mixed month. The Apple-Google contact tracing technology went live to a mostly tepid response, while Microsoft released a cloud offering for healthcare providers, following the trend of large cloud providers tailoring specific offerings to the needs of individual industries.

**Digital public health.** This month we highlight contact tracing and a new consumer sentiment tracker from Penn Medicine analyzing Twitter content.

Michael 

Michael Lake and Dave Lake  
Co-editors *Digital Health Trends*

## Circle Square tracks digital health as a transformation process





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Digital health tools can be valuable to hospital discharge planning and readiness initiatives

Mergers and acquisitions in foundation systems

### Interoperability and Security

#### **Venture-backed healthcare APIs; a free one for health plans; and challenges in data sharing with public health agencies**

HHS OIG toolkits can identify patients at risk for opioid issues

Health information exchange organizations contribute to supporting COVID-19 response

### Healthcare Analytics

Black Book Research ranks population health technology companies in four segments

Epic has the most widely adopted AI solution among EHRs

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Mt. Sinai finds AI/ML of CT images plus clinical data show equivalent accuracy to a senior chest radiologist for COVID-19 diagnosis

#### **Epic launches the Epic Health Research Network as a public benefit corporation to rapidly share new medical information**

IQVIA reports on the global landscape of genomic initiatives

Investments in healthcare analytics

### Consumer Health and Technology

#### **Telehealth visits plateau but funding for startups does not**

CB Insights reports on the role of big tech in healthcare and what could be next for each

Apple heart study struggles with engagement and Fitbit launches a heart study of its own

#### **FDA authorizes the first at-home test kit for COVID-19**

Digital mental health startup funding continues across stages

CVS sees telehealth and prescription delivery surge and plans to open 1,000 COVID-19 testing centers

Microsoft launches its Cloud for Healthcare service

#### **Investment, acquisition and research in digital physical therapy**

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#### **Health systems are partnering with digital health startups across the organization and driving innovation**

Virtual addiction treatment and femtech companies get early stage funding in emerging markets

Patient monitoring innovation storylines include many related to COVID-19

Virtual care platform briefs from recent KLAS Research reporting

Amazon is funding four COVID-related projects

Additional funding across consumer health segments

### Digital Public Health

McKinsey research points to optimism about contact-tracing

Examples of digital contact tracing and relevant features

#### **Apple-Google contact tracing tech goes live, is in use by three states, but the public doesn't trust big tech**

Duke policy group recommends three immediate, feasible steps in COVID-19 containment efforts

Pew reports patient matching issues are an obstacle to effective contact tracing and immunization efforts

Penn COVID-19 US Twitter Map (new)

Top COVID-19 trackers

# KLAS Research identifies shifting perspectives in the large and small hospital EHR market

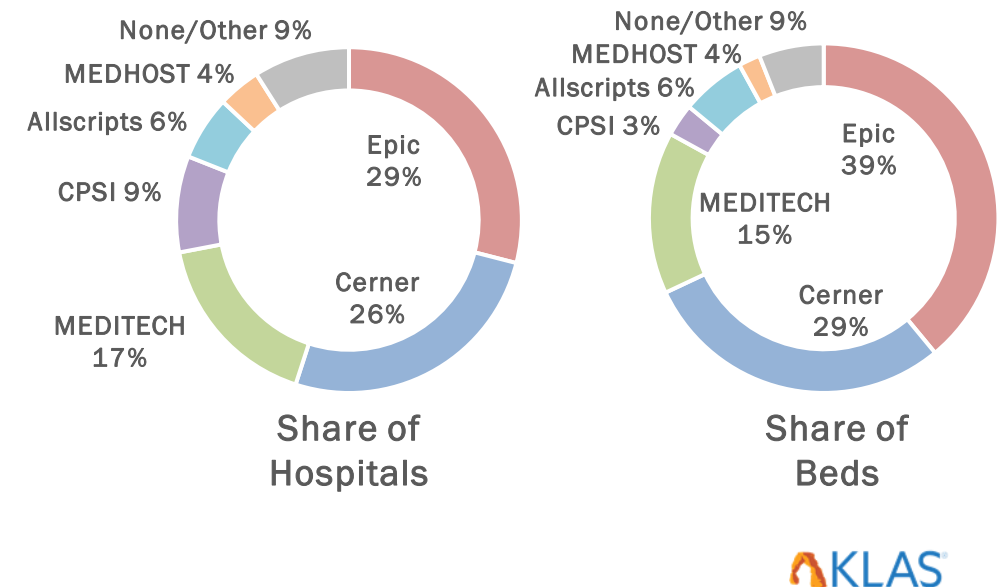
**MEDITECH grows via Expanse.** The Expanse platform draws interest and purchases from organizations outside MEDITECH's legacy customer bases resulting in net market share growth in two of the last three years. Most in 2019 are community hospitals (26–200 beds), but one is 400+ beds. Continued ancillary development and plans for new nurse workflow added to interest.

**Cerner sees net decrease in market share for first time.** Four large orgs left Cerner in 2019 driven largely by standardization to Epic and lack of improvement to the revenue cycle solution. It won the most standalone facilities in 2019, most being smaller orgs valuing Cerner clinicals.

**Epic continues to grow market share across all segments of the private sector.** Epic is the only vendor to have reliably delivered full acute/ambulatory care integration and a complete clinical/revenue cycle solution to large, complex customers. It now accounts for ~40% of US acute care beds. Seven small hospitals chose Epic's Community Connect offering in 2019.

**Athenahealth exit leaves a void in the small hospital market.** It generated excitement in the market via a budget price point, SaaS technology, and a direct vendor relationship. MEDITECH developed MaaS (a cloud hosted option); Allscripts will release a standardized Sunrise Clinical Manager; and both MEDHOST and CPSI are working to update their clinician workflows. 120+ small hospitals will be back in the market at some point.

## US hospital market share



*Editorial:* KLAS Research highlights recent changes at both ends of the hospital bed size continuum. Epic has become dominant in the larger organizations, and as they consolidate, those using non-Epic solutions typically standardize on the Epic platform, and often impacting Cerner, who for the first time has lost share. Allscripts is losing share across both go-forward platforms. It has developed an integrated ambulatory solution, but customers feel this development is more routine maintenance versus investment. and development. 25% of Paragon customers who made a purchase decision in 2019 chose to migrate to Sunrise Clinical Manager (SCM). In the smaller hospitals, MEDITECH continues to progress with its Expanse product.

# Venture-backed healthcare APIs; a free one for health plans; and challenges in data sharing with public health agencies



Can API vendors solve healthcare's interoperability woes? Three alternatives:



Madison, WI  
\$50m raised (late stage)  
Intermountain notable  
Connects vendors-providers



San Francisco, CA  
\$124m raised (late stage)  
Unified patient record  
200 systems



New York, NY  
\$14m raised (early stage)  
API pulls patient records  
Eight telehealth contracts



Change Healthcare provides free APIs to health plans to meet CMS requirements

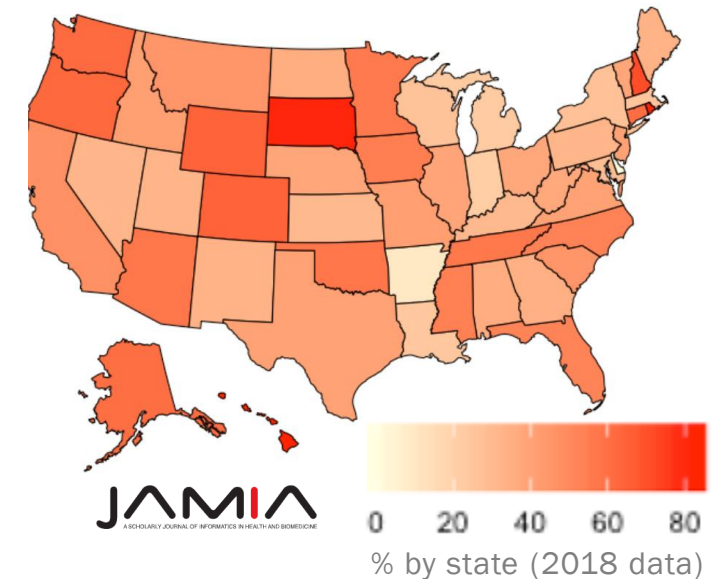
Change Healthcare (Nasdaq: CHNG) is making its Connected Consumer Health interoperability APIs available at no charge to help health plans achieve compliance with the CMS Interoperability and Patient Access Final Rule.

The solution includes the necessary security, identity management, and consent management capabilities to enable health plans to administer patient identity and to provide data to third-party applications in accordance with CMS regulations and HIPAA.

Health plans can now achieve CMS compliance while mitigating cybersecurity and implementation risks.



42% of hospitals reported public health agencies could not receive electronic data



*Editorial:* As ONC and CMS rules promote increased healthcare interoperability, TechCrunch looks at a few companies offering API-focused services. Particle Health, an early stage competitor, is the focus of the story. Change Healthcare is offering its API services to health plans for free, getting our attention. And in a JAMIA study, Harvard Business School researchers used data from the 2018 AHA survey to find patchwork data sharing, often occurring via fax or phone.

# Epic launches the Epic Health Research Network as a public benefit corporation to rapidly share new medical information

## About EHRN.

EHRN is designed for rapid sharing of knowledge to help solve medical problems.

Epic makes this information available with internal peer review, but without third-party peer review, to expedite sharing.

Epic stresses that it's important that good data be available sooner, rather than perfect data be available too late, and it welcomes submissions

## Research released to date.

Pediatric Immunizations Drop in the Wake of COVID-19 ([5/19](#))

Trends in Acute MI and Stroke in the ED During COVID-19 ([5/14](#)) See *chart at right*

Race, Comorbidities, and COVID-19 ([5/11](#))

Obesity and COVID-19 Severity ([5/8](#))

COVID-19 Severity by Smoking Status ([5/7](#))

Mount Sinai Studies COVID-19 and Blood Clots ([5/5](#))

Expansion of Telehealth During COVID-19 Pandemic ([5/5](#))

Prevalence of Comorbidities in COVID-19 Related Hospitalizations and Deaths ([5/4](#))

Delayed Cancer Screenings ([5/4](#))

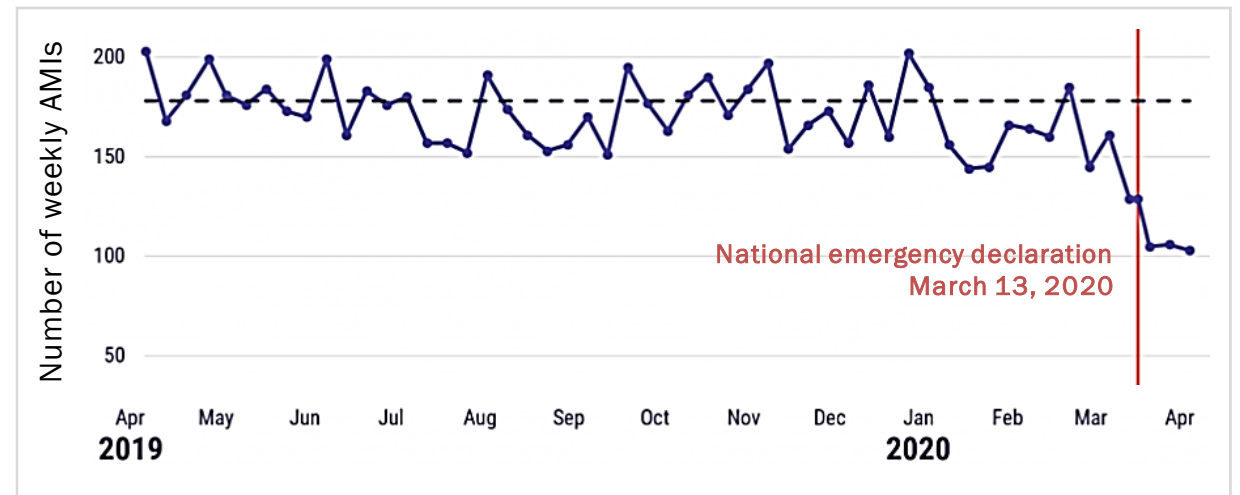
Plus 7 other research briefs reported

## EPIC HEALTH RESEARCH NETWORK

FACILITATING RAPID SHARING OF NEW MEDICAL KNOWLEDGE



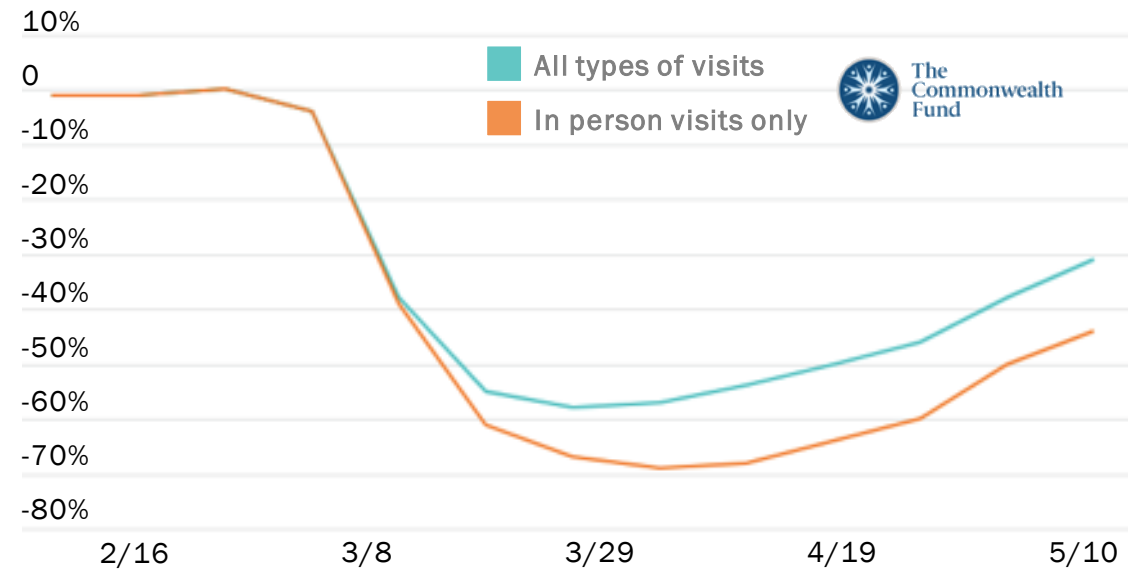
### Weekly trend in AMI presentation (n=3.5m)



*Editorial:* The idea behind Epic's EHRN is to reduce the time it takes for healthcare professionals and researchers to share data-driven observations as well as new learnings about best practices. The data analytics and presentation have been reviewed by an internal team but have not been submitted to any outside peer review. There are helpful insights around the drop in emergency visits for heart attacks (above), delayed cancer screenings, and lower pediatric immunizations. The COVID-19 data showing little impact on severity by obesity, race, smoking status and others differ from popular press accounts, which may point to sampling issues built into the observational nature of the EHR data.

# Telehealth visits plateau but funding for startups does not

Percent change in doctor visits from baseline



Telehealth visits that exploded in recent months are starting to plateau, and in some cases, decline in popularity as doctor's offices reschedule backlogged patients for more in-person appointments. Telemedicine visits accounted for about 14% of all total visits the week of April 19, but that number dropped to 13% the next week and 12% the week after that.

Telehealth funding this month



Funding	Round
\$194m	Series C
€45m	Series C
\$28m	Series B
\$25m	Venture
\$16.7	Series C
\$9.6m	Series B
\$4m	Seed
£2m	Series A

Logos linked to story sources

*Editorial:* In other telehealth news, Doctor on Demand [announced](#) it will expand services to Medicare Part B beneficiaries, making it the first big telemedicine provider to cater to the approximately 33 million seniors in the program. Historically, the use and reimbursement of telehealth services in Medicare Part B has been restricted to certain geographic and care delivery locations. That changed in mid-March. As well, Premera Blue Cross [launched](#) its first virtual care health plan for member access to primary care providers. Members may access a virtual primary care provider at any time, for a zero copay, through an app operating on 98point6.



# Health systems are partnering with digital health startups across the organization and driving innovation



Babylon Health partnered with New York City-based Mount Sinai Health Partners to give New Yorkers 24-7 access to digital healthcare services amid the pandemic



Intel Labs is teaming up with the University of Pennsylvania's Perelman School of Medicine to develop artificial intelligence models that identify brain tumors



Charlotte, North Carolina-based health system Atrium Health announced yesterday that it will be the first to bring Butterfly's point-of-care ultrasound device into wide practice



Boston Children's Hospital is adopting Kyruus software to improve patients' online experience and help them more easily find a provider



Mayo Clinic will use AI software Ultromics (UK) to analyze echocardiograms of COVID-19 patients to identify how the virus affects the cardiovascular system



Ayin Health, Providence's pop health mgmt company, offers health screening, symptom assessment and testing services for employer staffing support



Banner Health taps LifeLink to implement new waiting room chatbot designed to help curb face-to-face interactions during the pandemic.



University Hospitals, Cleveland, is partnering with TensorMark, facial recognition software that can validate someone tested positive for COVID-19



Yale New Haven Health System is implementing Capsule Technologies' Ventilated Patient Surveillance workstation to help monitor ventilated COVID-19 patients.

*Editorial:* Here's a roundup of health system partnerships in digital health reported in Becker's. This group focuses on larger systems who are working with emerging startups on innovative solutions in a variety of areas: telehealth, symptom assessment, AI diagnostics, facial recognition, remote monitoring, point-of-care ultrasound and others.

# FDA authorizes the first at-home test kit for COVID-19

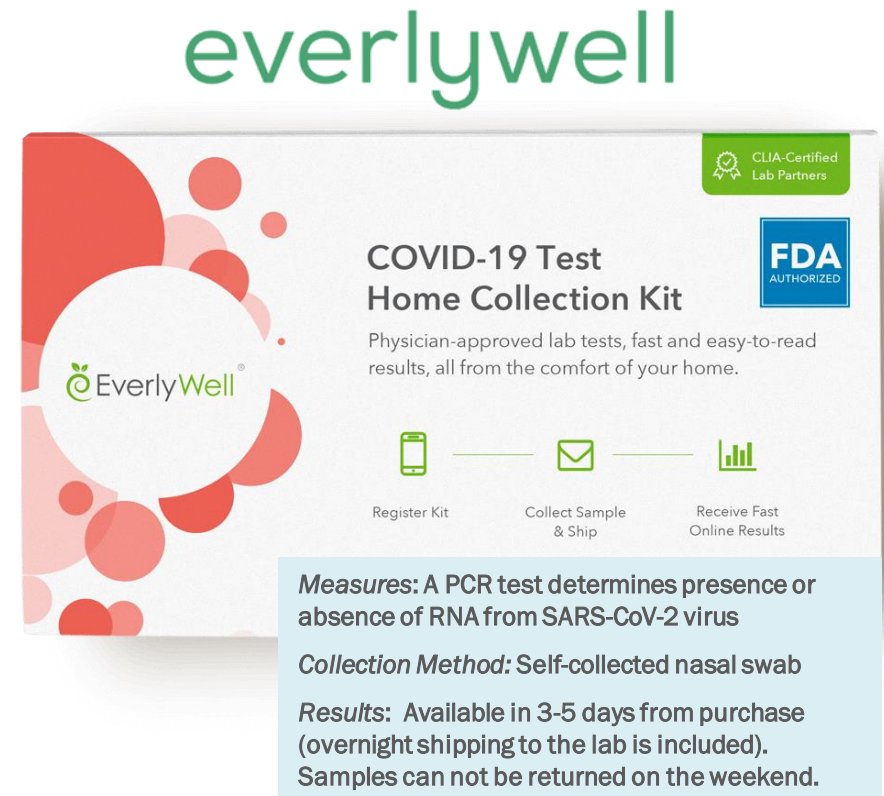
The FDA granted Everlywell emergency use authorization (EUA) for its COVID-19 Test Home Collection Kit. Positive test results will include a telehealth consult and be reported to the appropriate mandated federal and local public health agencies.

The test is the first standalone at-home sample collection kit that can be used with certain authorized tests. The kit will be available for individual purchase by month's end.

The test is the only EUA for at-home collection of COVID-19 testing that is not tied to one specific lab and allows Everlywell to work with a number of certified labs offering several authorized tests, rather than being limited to a single laboratory or a single test.

Supplies will be limited initially but the company says it will be increasing its capacity weekly.

Test kit will be offered at no profit to the company with the \$109 price going to cover its costs, such as overnight shipping to the lab, lab processing fees, physician review and diagnosis, and kit components.



*Editorial:* In March, several startups, including Carbon Health, Forward, Everlywell, myLAB Box, and Nurx announced they would begin selling home testing kits for COVID-19, however the FDA put a stop to sales before products hit the marketplace. With their EUA now in place, Everlywell can begin selling tests. And others have followed suit. Hims & Hers, as well as Health Vault, have begun selling at-home COVID tests. Following a virtual consultation, the companies are supplying Rutgers Clinical Genomics Laboratory's saliva-based molecular test to consumers.

# Investment, acquisition and research in digital physical therapy



## Omada raised \$57m and spent \$30m of it to acquire Physera for virtual physical therapy

Omada Health, which sells tools for managing chronic disease, pulled in \$57 million from investment fund Perceptive Advisors. It used some of that money to buy digital health startup Physera, an app-based platform that includes remote consultations with physical therapists; it had raised \$10.8m since its launch in 2015..

Omada's existing digital disease-management programs focus on diabetes prevention and management, hypertension, and behavioral health. Alongside coaching, the company can monitor its users' progress using a range of connected technologies

Both Omada and Physera sell to health plans and employers, which cover the full or partial cost of the service. Omada will begin offering the service immediately.



## Study: Hinge Health's digital exercise-therapy program decreased user pain

Study published in JMIR found that participants reported a 68.5% improvement of pain from the start of the study to the end of the study. Among those who finished the 12-week program, 78.6% reported minimally important changes in pain.

Over 73% of participants who started the trial finished. Those who completed the study demonstrated a greater pain reduction than their peers who did not finish.

Secondary outcomes focused on depression. Researchers found that users reduced anxiety and depression by 58%.

Hinge is the first of the virtual MSK startups to publish a large-scale study. The study included a total of 10,264 participants; of those, 3,796 had knee pain and 6,468 had lower-back pain for at least three months.

*Editorial:* The online physical therapy space is growing. Companies in it provide alternatives to at-home and on-site physical therapy, most focusing on musculoskeletal disorders like knee, back, or shoulder pain. Many position themselves as a means to reduce the need for pain medications. Sword Health and Hinge Health incorporate wearables into their platform, while Reflexion Health's platform records users doing exercises so therapists can provide personalized oversight. Kaia and Kiio are focused primarily on back pain. Force Therapeutics' platform includes patient-provider communication tools, virtual rehab and outcomes analytics. Physitrack provides an alternative to the traditional paper-based exercise regimens.

# Apple-Google contact tracing tech goes live, is in use by three states, but the public doesn't trust big tech

The Apple-Google technology aims to help public health agencies deploy apps that tell individuals when they may have been exposed to another person with COVID-19.

Device owners must opt in to enable the functionality, which does not collect location data. Users ultimately decide whether or not to report their positive COVID-19 diagnosis through the public health agency's app.

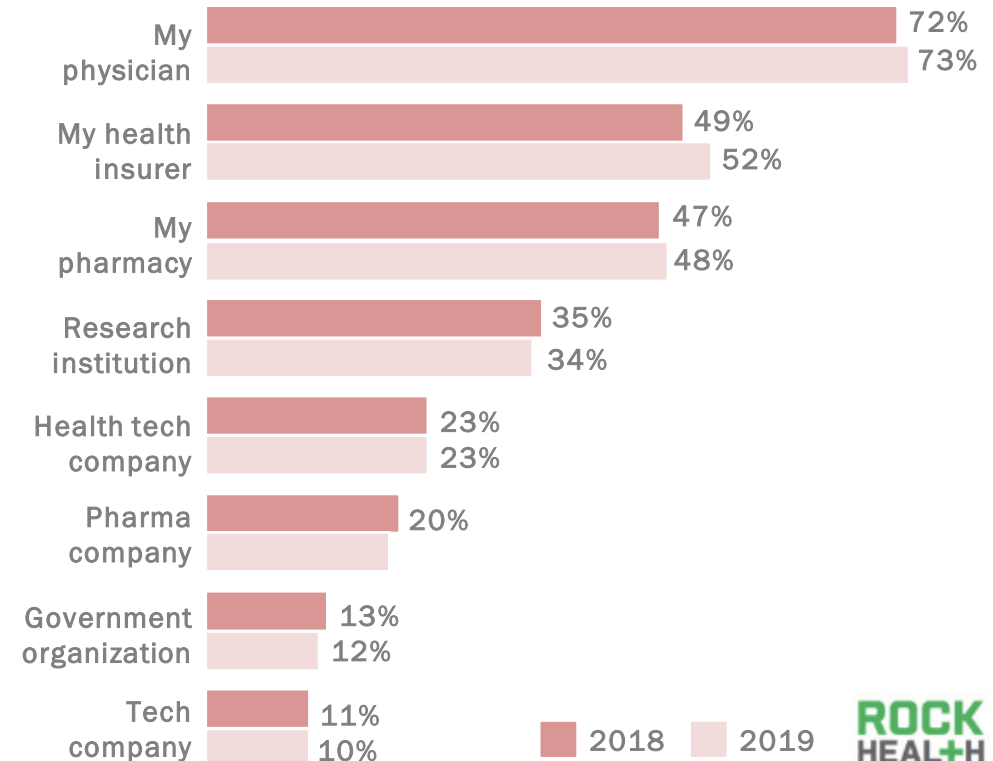
Alabama, North Dakota and South Carolina are the first states to commit publicly to using the technology.

Apple and Google won't make the actual contact tracing apps, government health bodies will.

22 countries and some US states have requested and received access to the Apple-Google technology. The technology won't allow governments to turn the technology on silently.

Entities will not be able to use the data for advertising or other uses.

## Willingness to share health information



*Editorial:* In their annual survey of 4,000 US adults, Rock Health's findings consistently show that Americans are most widely unwilling to share their health data with the government and big tech. An analog approach to contact tracing is likely to be the most popular solution nationwide. According to [Wired](#), Massachusetts has budgeted \$44 million to hire 1,000 contact tracers. New York State, with funding from Bloomberg Philanthropies, said it plans to hire as many as 17,000. California is soon expected to announce plans to hire as many as 20,000 contact tracers.



## Companies mentioned in the full report:

23andMe	Carbon Health	Eko	Health EC	Medecision	Orbita	TensorMark
98point6	Caregility	Enli	HealthVault	MEDHOST	Owkin	Tia
AiCure	CAREMINDr	Epic	Hers	MedImmune	Particle Health	TimeDoc
Allscripts	Cariloop	Eg Health Solutions	Higi	MEDITECH	Pathology Watch	Tissue Analytics
Altruista Health	Cerner	eRx Network	Hims	Mend	Phable	Tomorrow Health
Amazon	Change Healthcare	Everlywell	Hinge Health	Meru Health	Philips	Ultromics
American Well	Chronolife	Every Mother	I2I	Microsoft	Physera	Vida
Ancestry.com	Clara	Evident	IBM Watson Health	Mindpax	PointClickCare	Vidyo
Apple	Collective Health	Evolut Valence	Innovaccer	Mindset	Premier	VitalConnect
Arcadia	COMPASS Pathway	Facebook	Intel	Mindstrong Health	Propeller Health	VSee
Arterys	Consonus	Fitbit	InTouch Health	Monument	Redox	Walkwise
Athenahealth	Corilus	GDPQ	Kaufman Hall	My Pain Sensei	Science37	Wellth
Ayin Health	Cotiviti Verscend	GE healthcare	Kyruus	Nanit	Siren Care	Welltok
Ayogo Health	CPSI	Genetesis	LetsGetChecked	Navenio	SnapMD	WOOM
Babylon Health	CVS	Genomic Health	LifeLink	NaviHealth	SPH Analytics	ZeOmega
Big Sky Health	Dascena	Gilde	Lightbeam	Net Health	Stellar Health	Zipnosis
BioIntellisense	Deloitte	GlobalMed	Limbix	ObvioHealth	Stork Club	
Braid Health	The DNA Company	Goodpath	Lucid Lane	Omada	SwervePay	
Bright.MD	DocsApp	Google	Lumeris	Oncology Analytics	swyMed	
Butterfly Network	Doctor on Demand	GRAIL	McKesson	Ontario Systems	Syapse	
BurnAlong	Dokter.se	Harris QuadraMed	MDLIVE	Ophelia	Tava	
Capsule Technologies	EClinicalWorks	Health Catalyst	Medable	Optum	Teladoc	



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