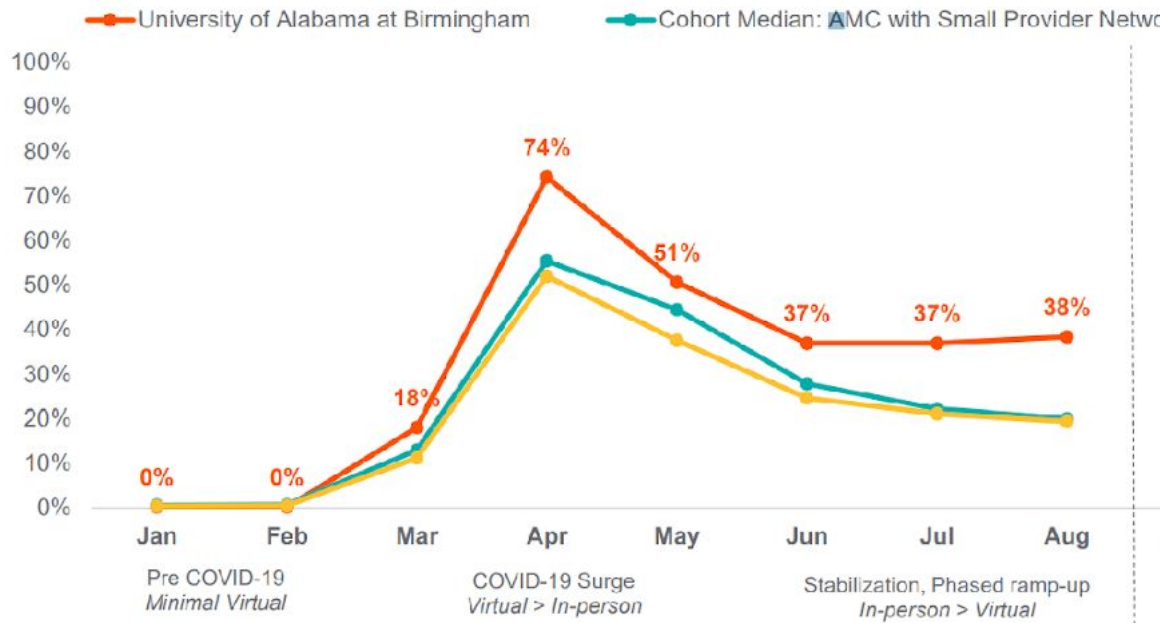# TELEHEALTH NOW AND FUTURE STATE

Eric Wallace, MD, FASN

Medical Director of UAB eMedicine

Revised October 2020

Percent of Total Visits Occurring Virtually
January - August 2020

Legend: University of Alabama at Birmingham — Cohort Median: AMC with Small Provider Netwo...

UAB values: Jan 0%, Feb 0%, Mar 18%, Apr 74%, May 51%, Jun 37%, Jul 37%, Aug 38%

Pre COVID-19 *Minimal Virtual*
COVID-19 Surge *Virtual > In-person*
Stabilization, Phased ramp-up *In-person > Virtual*

*Footnote: 47 organizations submitted historical utilization visit volume data.

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280,668 SCHEDULED/ARRIVED TELEHEALTH APPOINTMENTS

91% OF ALL PROVIDERS ARE USING TELEHEALTH

TELEHEALTH VISITS ACCOUNT FOR 32% OF ALL EVALUATION AND MANAGEMENT VISITS AT UAB MEDICINE

APPROXIMATELY 235,620 BILLED VISITS / TOTAL CHARGES: APPROXIMATELY $47 MILLION

PATIENT TIME SAVED: APPROXIMATELY 263,000 DRIVING HOURS

VALUE OF PRODUCTIVITY GAINED FROM TIME SAVED: $5.68 MILLION
(based on the 2019 Alabama median hourly wage from the Bureau of Labor Statistics)

https://view.joomag.com/emedicine-2020-accomplishments-report-for-web/0076837001614621995

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WHAT CHANGED?

1. Originating Site could be the patient's residence

2. Geographic distinctions removed

3. Audio Only allowed

   Definition of telemedicine for CMS was changed only for   the PHE to include Audio only.

4. Coverage for telehealth became universal (non-Medicare)

5. Some leeway with state licensure

6. Physician and patient acceptance increased

- Why continue telehealth and what is the problem we are trying to solve?
  - Illness Intrusiveness
- Can we redesign healthcare delivery to be more efficient?
  - For patients
  - For providers
  - Reductions in cost
- What are the tools at our disposal?

OBJECTIVES

- Learn all the different types of eMedicine programs that have started at UAB

- Discuss initial eMedicine impact

- Reveal that our world as providers is changing very rapidly

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DEFINITIONS

- Telehealth-Any healthcare enabled by technology to care for patients when the patient is not physically in the same room as the patient

- Telemedicine-CMS Definition-Interactive video and audio

- Audio only-What is it?

- Asynchronous- Patient and Provider not speaking to the patient in real time

- Synchronous-Patient and provider are talking in real time.

OUTLINE

- Direct-to-Consumer
  - eVisit/Asynchronous
  - Video Visit
  - Second Opinions
- Provider-to-Clinical Setting
  - eConsults
  - Virtual Video Consult
  - eICU/Acute
- Other
  - Project ECHO
  - Remote Patient Monitoring
- The Changing Landscape of Healthcare

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E-VISIT/ ASYNCHRONOUS TELEHEALTH

Provider and Patient do not interact in real time
- Patient Portal
- UAB eMedicine Urgent Care
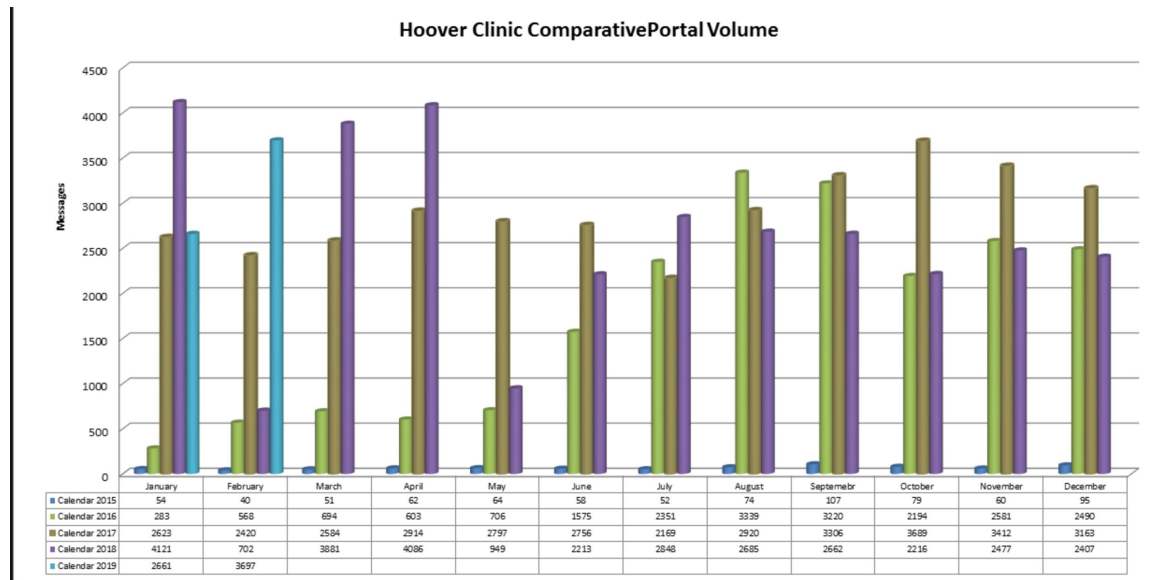
Welcome to myUAB Medicine - Patient Portal

Access your UAB Medicine electronic health records.

Convenient. Free. Secure. 24/7.

myUABMEDICINE
| PATIENT PORTALS |

Knowledge @ your fingertips.

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PATIENT PORTAL VOLUMES

- Average time to answer a message 2.3 minutes
- 9600 Minutes
- 19 full business days to respond

Hoover Clinic ComparativePortal Volume

	January	February	March	April	May	June	July	August	Septemebr	October	November	December
Calendar 2015	54	40	51	62	64	58	52	74	107	79	60	95
Calendar 2016	283	568	694	603	706	1575	2351	3339	3220	2194	2581	2490
Calendar 2017	2623	2420	2584	2914	2797	2756	2169	2920	3306	3689	3412	3163
Calendar 2018	4121	702	3881	4086	949	2213	2848	2685	2662	2216	2477	2407
Calendar 2019	2661	3697										

Kummervold et al. J Med Internet Res. 2011

UAB EMEDICINE URGENT CARE

Clinician hours: 8:00AM - 3:00PM ⌄

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How it Works   Conditions We Treat   FAQ   LOG IN

Welcome to UAB eMedicine!

We're here to help you feel better...fast. Our team of clinicians treats more than 20 common medical conditions virtually. Create an account, complete a short online interview, and our team will review your information and send you a treatment plan generally within an hour.

I would like to...

START A VISIT   LEARN MORE

You'll receive quality care from a trusted UAB eMedicine clinician

Most visits take just 15 minutes

Online visits are $25, similar to an insurance co-pay

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ON-DEMAND: DIRECT TO CONSUMER

On-Demand Urgent Care

UAB eMedicine offers two types of online urgent care for common conditions such as cold/flu, sinus infection, female bladder infection, pink eye, vaginal yeast infection, back pain, skin conditions, and more.

Learn about these options and which is right for you >>>

Scheduled Clinic Video or Phone Visit

UAB Medicine primary care or specialty care providers can perform basic physical exams, diagnose common medical conditions, manage complex care, and provided personalized treatment plans "face to face" using video technology or, in some cases, over the phone.

Learn More >>>

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DIRECT-TO-CONSUMER VIDEO VISIT

SCHEDULED: DIRECT TO CONSUMER:

- Schedule directly with the provider

- Largest growth in telehealth during COVID

- Patient's own device

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SECOND OPINIONS

- Patient sends records, images, notes
- Specialist renders and opinion on those records
- Self pay

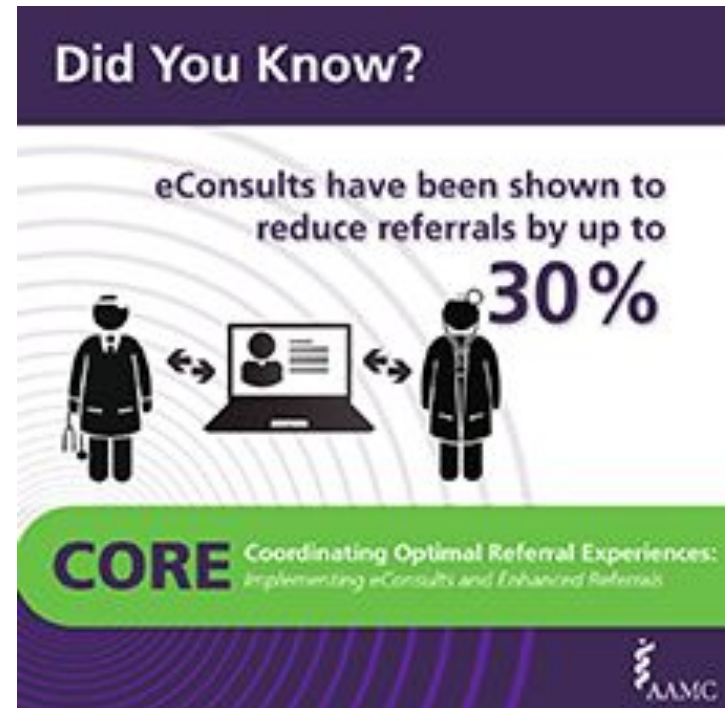THE UNIVERSITY OF
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E-CONSULTS

- Peer-to-Peer

- Structured questions answered by specialist

- Hematology e-Consult experience
  - 14% resulted in face-to-face
  - 15% reduction in face-to-face visits

Meparidze et al. Blood 2014

Did You Know?

eConsults have been shown to reduce referrals by up to 30%

CORE Coordinating Optimal Referral Experiences: Implementing eConsults and Enhanced Referrals

AAMC

OUTLINE

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- Clinic Based
    - Used to be the only visits covered by insurance
    - Better imaging/ Eliminates disparities
    - Largest pre-COVID

VIRTUAL VIDEO VISIT:CLINIC BASED

- Originating Site
  - Outpatient Clinic
  - Hospital Based Ambulatory Site
  - Home (Home Health)
- Physical Exam
  - Telestethoscope
  - Handheld High Definition Camera
  - Nurse/Telepresenter

VIRTUAL VIDEO VISIT: CLINIC BASED

UAB Subspecialties

- Cardiology-Wilcox County
- Rheumatology/ Lung Nodule clinic at Whitfield Regional
- Maternal Fetal Medicine: North Alabama Medical Center
- Transplant/ Metabolic Genomics at North Baldwin Infirmary

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EICU AND ACUTE CARE

- Tele-neurology
  - Stroke
  - General
- Tele-Critical Care
- Tele-Nephrology
- Tele-ICU
- Tele-Infectious Disease

# UAB EMEDICINE CART

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REMOTE PATIENT MONITORING

- Implemented

- Vital monitoring

- Patient reported outcomes monitoring

- Other?
  - Rehab monitoring
  - Home wearable monitoring (such as fit bit)
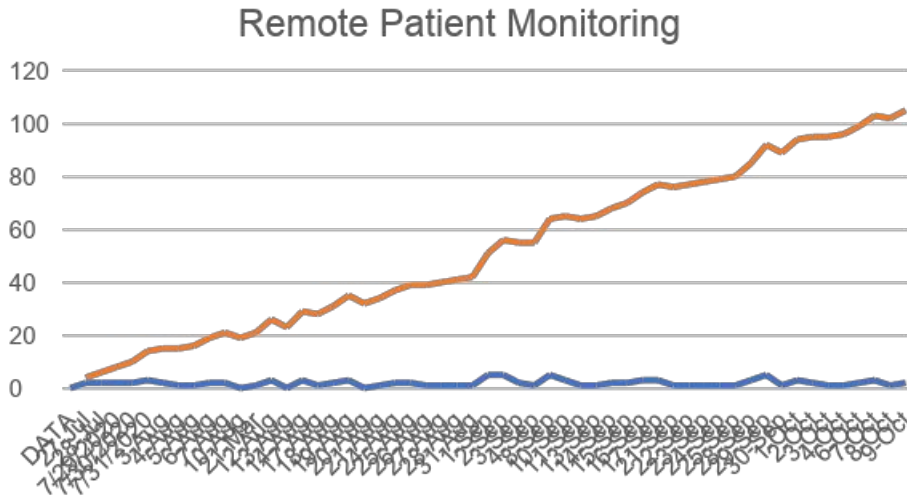
ARTIFICIAL INTELLIGENCE
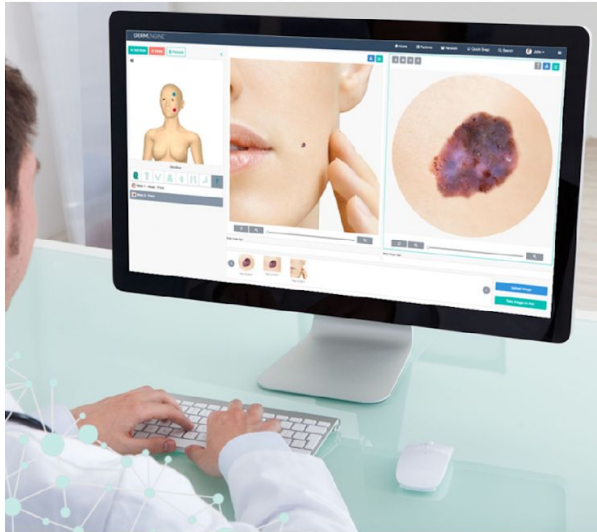
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OUTLOOK · 25 MARCH 2020

How AI is improving cancer diagnostics

Artificial intelligence can spot subtle patterns that can easily be missed by humans.

Neil Savage

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REGULATIONS AND REIMBURSEMENT

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TELEHEALTH REIMBURSEMENT BEFORE AND AFTER

- Before
  - Originating Site Couldn't be the patients home
  - Medicare
    - Originating site had to be a on a rural area
  - Medicaid
    - Had to be a physician
    - Had to register each physician and each site
  - BCBS
    - Easiest but had to register the site
- After
  - Home was OK
  - All insurers covered it
  - Audio and Video OK
  - Pretty much all providers
  - HIPAA waived

LICENSURE AND PRIVILEGING

- Licensure
  - State licensure
  - What is practicing without a license versus continuation of care
- Privileging
  - JCAHO requires providers to be privileged in outside hospitals
  - Good in general but what about Trauma and Burn?
  - Credentialing by Proxy Agreements

TELEHEALTH IS NOT ALL ROSES

2020 National Health Care Fraud TAKEDOWN

The Department of Health and Human Services Office of Inspector General, along with our state and federal law enforcement partners, participated in a nationwide health care fraud takedown in September 2020.

SCOPE

The takedown focused on several schemes to include alleged telefraud, or scams that leverage aggressive marketing and so-called telehealth services to commit fraud. This fraudulent activity resulted in charges for **345 defendants in 51 judicial districts**, including telemedicine executives, the owners of durable medical equipment (DME) companies, genetic testing laboratories, pharmacies, and more than **100 medical practitioners,** for their alleged participation in health care fraud schemes involving **more than $6 billion in alleged loss**. In addition, federal health care billing privileges were revoked for **256 medical professionals** for their involvement in the schemes. Federal and state law enforcement personnel took part in this operation, including **175 OIG special agents.**

2020 National Health Care Fraud TAKEDOWN By The Numbers
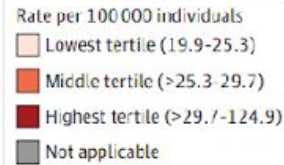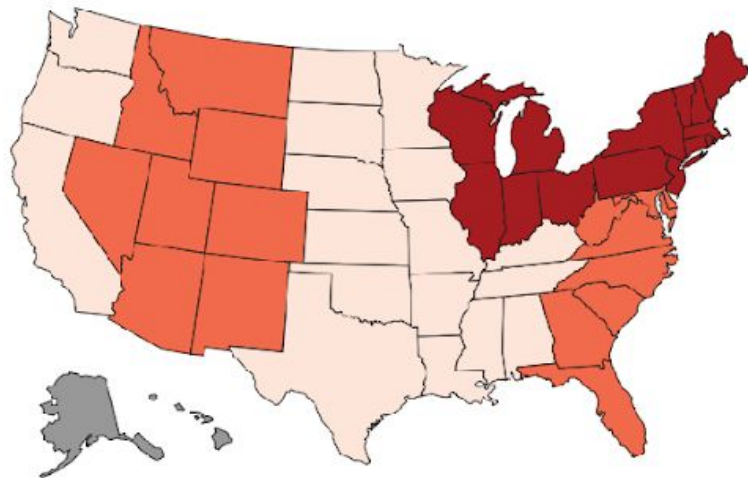
345	Defendants Charged, Including
100+	Licensed Medical Professionals
51	Judicial Districts
175	HHS-OIG Agents & Analysts
$6+	Billion in Alleged Losses

Source: DOJ and HHS OIG

The largest amount of alleged fraud loss charged in connection with the cases announced – **$4.5 billion in allegedly false and fraudulent claims submitted by more than 86 criminal defendants in 19 judicial districts** – relates to schemes involving telemedicine: the use of telecommunications technology to provide health care services remotely.

TELEFRAUD SCHEME

Since 2016, HHS OIG has seen a significant increase in telefraud. The alleged scheme involves a marketing network that lured **hundreds of thousands of unsuspecting individuals** into a criminal scheme through telemarketing calls, direct mail, television advertisements, and internet pop-up advertisements. The
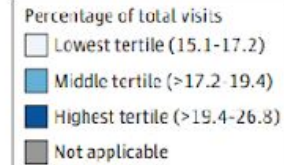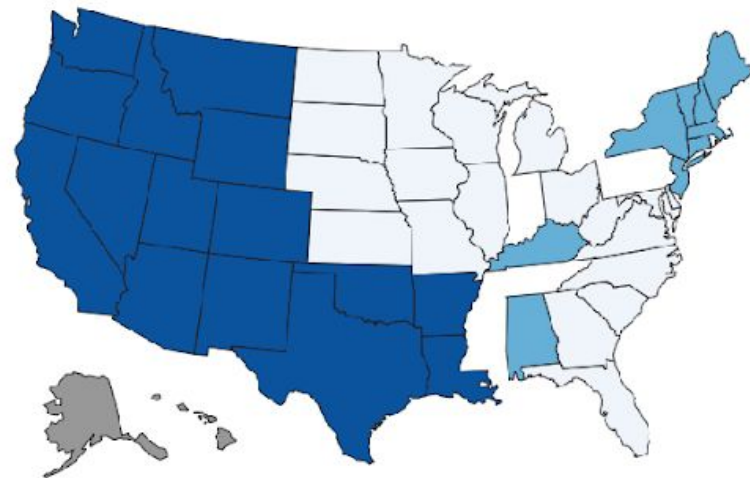
Figure. Geographic Variation in COVID-19 Burden and Telemedicine Adoption in the First 2 Quarters of 2020

A | COVID-19 death rate

Rate per 100 000 individuals
- Lowest tertile (19.9-25.3)
- Middle tertile (>25.3-29.7)
- Highest tertile (>29.7-124.9)
- Not applicable

B | Telemedicine adoption

Percentage of total visits
- Lowest tertile (15.1-17.2)
- Middle tertile (>17.2-19.4)
- Highest tertile (>19.4-26.8)
- Not applicable

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DISPARITIES

Race

- Black: 28% Less likely to use video
- Hispanics: 33% Less likely to use video

Age

- 60-69-42% Less likely to use video
- 70-79- 49% Less Likely to use video

Payor

- Medicare- 37% less likely
- Medicaid- 55% Less likely to use video

FUTURE

- We must start to harness technology to improve healthcare outcomes before they happen
  - Remote patient monitoring
  - Patient engagement platforms
- We must continue current reimbursement for telehealth
  - Video in the home
  - But also must think about continuing audio only while we improve the digital divide.
- We must get better at using force multipliers
  - Artificial Intelligence
  - Automated Triage
- We have to get telehealth out to all of our rural hospitals and fund the rural hospitals to get these programs up and running
  - Improve the care of the patient
  - Improve the Bottom Line of those hospitals

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