



Past, Current, and Future State of Telehealth

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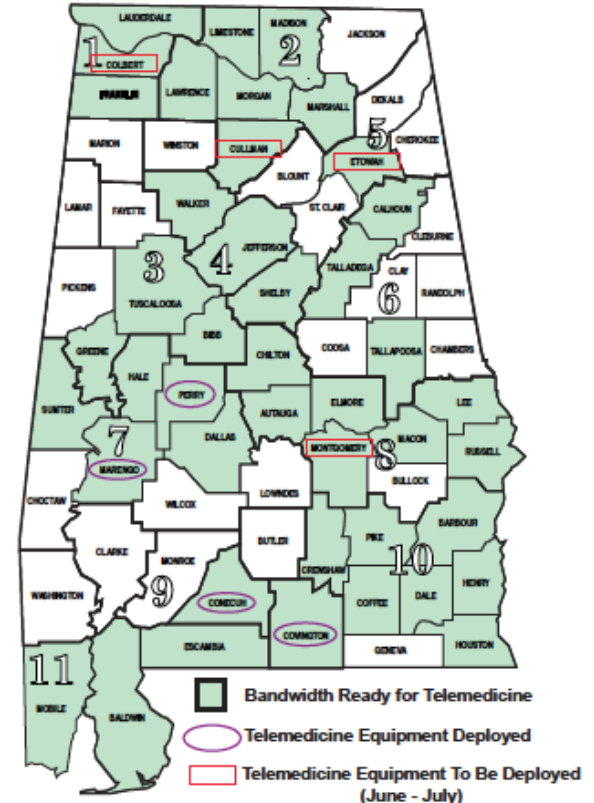
The View from 2018



Past

- 2015
 - Medicare and Medicaid with reimbursement for telehealth
 - BCBS-December begins reimbursement
 - 4 ADPH sites with 4 about to start
 - Nephrology Pilot/Genetics/Cardiopulmonary Rehab

Telemedicine eHealth Clinics At County Health Departments Alabama Department of Public Health (As of April 6, 2015)



- 2016
 - Reimbursement expands to include nephrology
 - UAB makes telehealth a strategic priority
 - UAB Hires Executive Director of Telehealth



- 2017
 - UAB Hires Medical Director and Director of Operations
 - UAB completes design of internal videoconferencing infrastructure
 - HSIS-Patrick Fisher, Jeff Mize, Bradley Stephenson
 - Security/Clinical Informatics
 - Webex, Webex Teams, Avizia, and Zipnosis

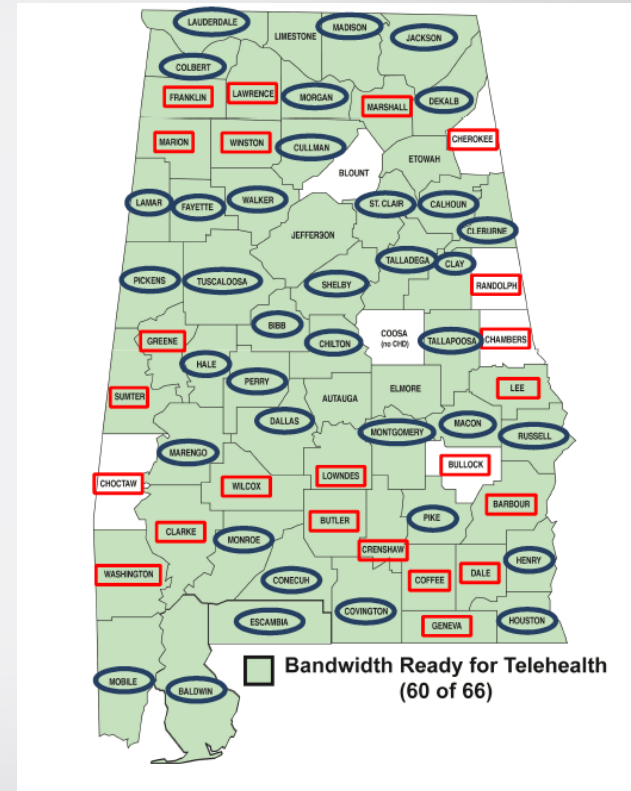


- 2017
 - Privileging process defined/Credentialing by proxy
 - Billing processes and implementation begun
 - **First billable telehealth visit in July**

2017: Lots of preparation with little delivery of care

Current

- 2018
 - February-USDA Grant Awarded
 - March- Videoconferencing Infrastructure Installed and Tested
 - UAB eMedicine Coordinating Center Started
 - Jamie Slatsky and Lynn Watson



2018 Telehealth News

- 2018
 - CHRONIC Act Passed
 - FAST Act Passed
 - BCBS continues to add telehealth subspecialty coverage

Current Inpatient

- 2018
 - April-Telestroke initiated at Bryan Whitfield Memorial
 - June- Critical Care initiated at Vaughn Regional Medical Center
 - July UAB Medical West-Telestroke

Current Inpatient

38 stroke consults so far

Led by Dr. Toby Gropen, UAB Dept Of Neurology

118 tele-critical care encounters

Led by Dr. James Johnson and Dr. Steve Stigler
UAB Dept. of Medicine, Division of Pulmonary/CC

Current Ambulatory

- 47 fully privileged providers
- Active Outpatient Clinics
 - Congenital Adult Cardiology
 - Pediatric Nephrology
 - Pediatric Epilepsy
 - Nephrology
 - Transplant Nephrology
 - Cardiopulmonary Rehab
 - Genetics

Ambulatory Visits

- 92 total visits
- 13878 miles of driving saved
- 198 hours of patient driving
- 5704 kg of CO2 emissions -1 vehicle off the road for 1 year

- eMedicine Visits last 12 months-8793

Future

- Future 2018 Outpatient
 - Adult Epilepsy
 - General Neurology
 - Maternal Fetal Medicine
 - Advanced Cardiology
 - Palliative Care



What is the future of healthcare?



State of Alabama 2015

COMMUNITY HEALTH ASSESSMENT



Stroke

Target

- Highest stroke mortality than any other state
- 25 highest stroke mortality counties are rural

Action

- Continue to expand tele-stroke services across the state
- Couple this with tele-critical care to ensure open beds for those most critical in our state

Mental Health/ Substance Abuse

Target

- Rank 41/50 for Number of Adults with Mental Illness and low access to care¹
- #1 Opioid prescriptions/100 persons²

Action

- Begin tele-behavioral health inpatient consults
- Work towards project ECHO (funding)

Poor Pregnancy Outcomes

Target

- Rank 49/50 for infant mortality¹
- 3rd highest percentage of low birth weight

Action

- Start Maternal Fetal Medicine (first visit planned)

Diabetes/Obesity

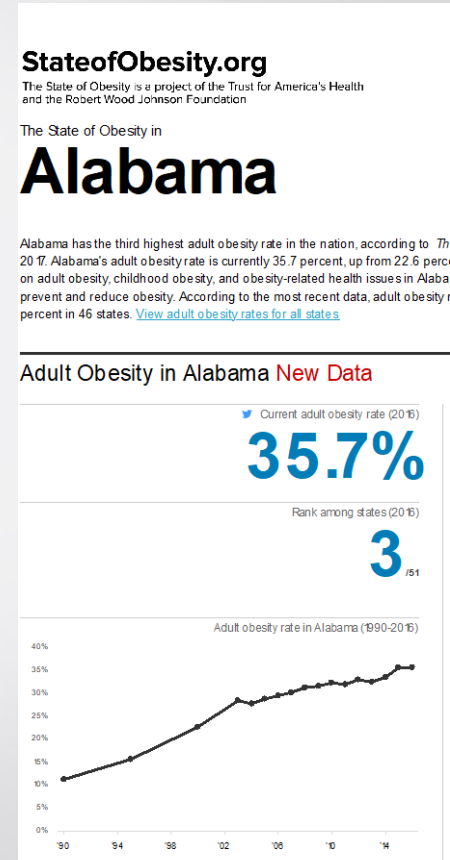
Target

- 2nd highest rate of diabetes in the country
- 3rd highest obesity ranks

Action

- Remote patient monitoring of diabetes
- Direct to consumer obesity management
- Nutritional visits prior to gastric bypass

1. stateofobesity.org/diabetes



Home Bound/ Home Health Patients

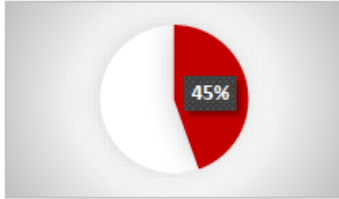
Target

Disabled and Blind

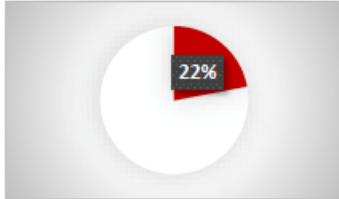
Any Age

Determined by the Social Security Office and have automatic Medicaid eligibility.

% of Expenditures



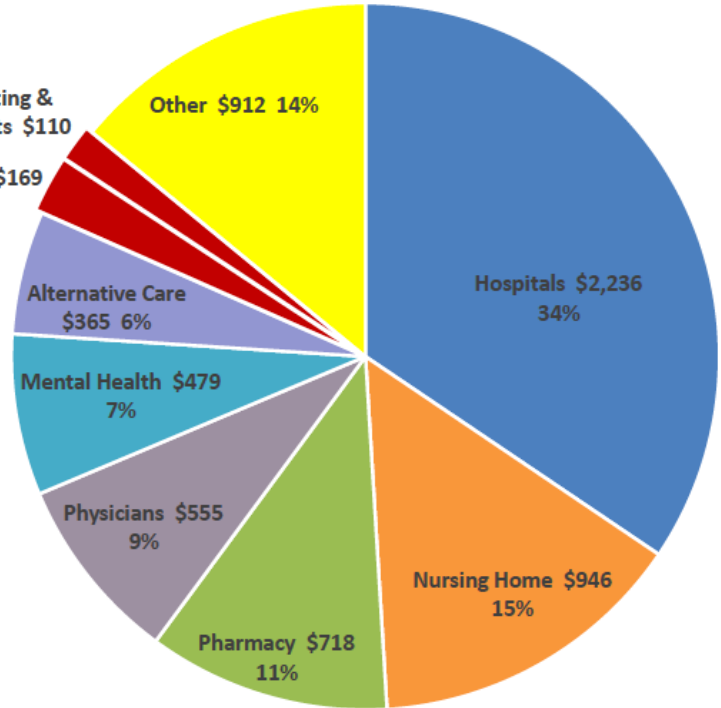
% of Members



\$10,644
Per Member Per Year

Admin
\$279
4%

Non Operating &
Major Projects \$110
Operating Costs \$169



Total Expenditures
\$6.490 Billion

Home Bound/Disabled /Blind/ Home Health Patients

Target

- Home Bound/Home Health patient by definition have trouble getting to physicians appointments

Action

- First home health assisted comprehensive visit for post CHF follow up
 - Home health nurse/care manager equipped with surface book, mifi, and telestethoscope
 - Full telehealth visit / Standardize equipment
 - Medicare will have to recognize this as an originating site

Changing the the target treatment location

Vision

- Design of an integrated network to provide care and interventions in the home before hospitalizations thus reducing cost
- Direct-to-consumer

Action

- Remote patient monitoring
 - CHF, Diabetes, COPD, Weights for Obesity management and CHF
- Nursing/physician protocols to intervene on data



Future???

Let's imagine how we think our
healthcare should be delivered...
And let's work together to make it
happen

Barriers



Barriers

- Personal Opinion
 - Single biggest thing that could be done to improve operations and back end efficiency of telehealth is for Medicare to **REMOVE THE RURAL/URBAN RESTRICTION**

Bare minimum reimbursement changes needed

- Home Bound patients
- Rare Disease
- Transplant

Proposed CMS Changes

- Brief Communication Technology-Based Service
 - 5-10 minutes home based video check in
- Remote Evaluation of Pre-Recorded Patient Information
 - Dermatology, Ophthalmology

Proposed CMS Changes- eConsults

- 994X0 is Interprofessional Telephone/Internet/Electronic Health Record Referral Service(s) Provided by a Treating/Requesting Physician or Qualified Health Care Professional, 30 Minutes.
- Code 994X6 is Interprofessional Telephone/Internet Assessment and Management Service Provided by a Consultative Physician Including a Verbal and Written Report to the Patient's Treating/Requesting Physician or Other Qualified Health Care Professional, 5 or More Minutes of Medical Consultative Time.

- **eConsult—Transforming Primary Care or Exacerbating Clinician Burnout?**
- [Nathaniel Gleason, MD¹](#); [Sara Ackerman, PhD, MPH²](#); [Scott A. Shipman, MD, MPH³](#)
- Author Affiliations
- *JAMA Intern Med.* 2018;178(6):790-791.
doi:10.1001/jamainternmed.2018.0762

***CMS documentation changes

- Time based billing:
 - Documentation of the duration of face-to-face time with the patient and greater than 50 percent of the visit must be spent in counseling or coordination of care. Medicare's proposal would eliminate this second requirement, simply allowing physicians to select a code based on the total length of the visit even if counseling did not dominate the service time.

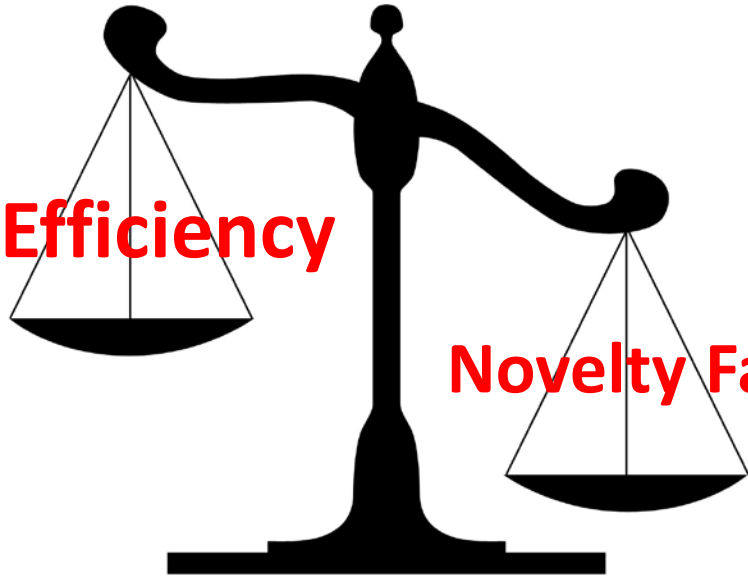
Future Reimbursement for Primary Care

- How do we reimburse primary care physicians for doing telehealth visits with their own patients?
- Telephone?
- Videoconferencing?
- Patient portal reimbursement?

Barriers: Wearing off of the Novelty Factor

Provider Efficiency

Novelty Factor



Funding

- Costs
 - Providers will not earn their salaries until critical mass of patients achieved (estimated 3 years)
 - Start up cost of equipment and software
 - Grants (require a match)
 - USDA is only for the rural
- Operations
 - Coordinating Center Staffing
 - Schedulers
 - IT

Broadband

Wireline

Download Upload

Speed	Percent Population	Nationwide
Dn>3Mbps Up>768kbps	89.8%	94.8%
Download > 3Mbps	91.0%	95.4%
Download > 6Mbps	90.0%	94.2%
Download > 10Mbps	87.5%	92.9%
Download > 25Mbps	76.6%	85.3%
Download > 50Mbps	69.5%	83.2%
Download > 100Mbps	67.7%	64.8%
Download > 1Gbps	8.1%	7.9%

Source API Call

Wireline

Download Upload

Speed	Percent Population	Nationwide
Upload > 768kbps	90.5%	95.1%
Upload > 1.5Mbps	82.1%	90.7%
Upload > 3Mbps	73.0%	86.0%
Upload > 6Mbps	35.3%	64.2%
Upload > 10Mbps	33.7%	62.1%
Upload > 25Mbps	10.4%	27.5%
Upload > 50Mbps	10.3%	20.9%
Upload > 100Mbps	10.2%	18.3%
Upload > 1Gbps	8.1%	7.2%

Source API Call

Wireless

Download Upload

Speed	Percent Population	Nationwide
Dn>3Mbps Up>768kbps	99.8%	99.3%
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Download > 6Mbps	98.3%	98.5%
Download > 10Mbps	98.3%	98.2%
Download > 25Mbps	0.0%	14.0%
Download > 50Mbps	0.0%	6.6%
Download > 100Mbps	0.0%	4.3%
Download > 1Gbps	0.0%	0.1%

Source API Call

Wireless

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Upload > 6Mbps	60.7%	75.5%
Upload > 10Mbps	0.0%	16.6%
Upload > 25Mbps	0.0%	9.3%
Upload > 50Mbps	0.0%	5.7%
Upload > 100Mbps	0.0%	3.9%
Upload > 1Gbps	0.0%	0.1%

Source API Call

Broadband

- Not just infrastructure external to medical facilities
- Outpatient
 - Access to smart phone and mobile devices with adequate bandwidth and cameras
- Inpatient
 - Adequate networking, limited devices per access point
 - Network stability

Conclusions

1. We as a state should be proud of what we have accomplished in 2 years
2. Plenty of work left to be done
3. We have tremendous people in our state dedicated to bringing care to where it's needed most

