



# Tackling Disparities in Access & Technology: Promoting Access During Rapid Digital Evolution

June 6, 2025

#### Helen Hughes, MD, MPH

Medical Director, Office of Telemedicine | Johns Hopkins Medicine
Medical Director, Pediatric Telemedicine | Johns Hopkins Children's Center
Co-Chair Patient Family Centered Design (MyChart) Committee
Associate Professor of Pediatrics, General Pediatrics | The Johns Hopkins University School of Medicine

### **Objectives**

- Describe the digital health transformation that occurred in the setting of the COVID pandemic
- 2) Discuss disparities in digital health access across populations in Baltimore
- 3) List potential intervention that support older adults with electronic portal use and telemedicine access

### Organizational Structure and Mission Statement

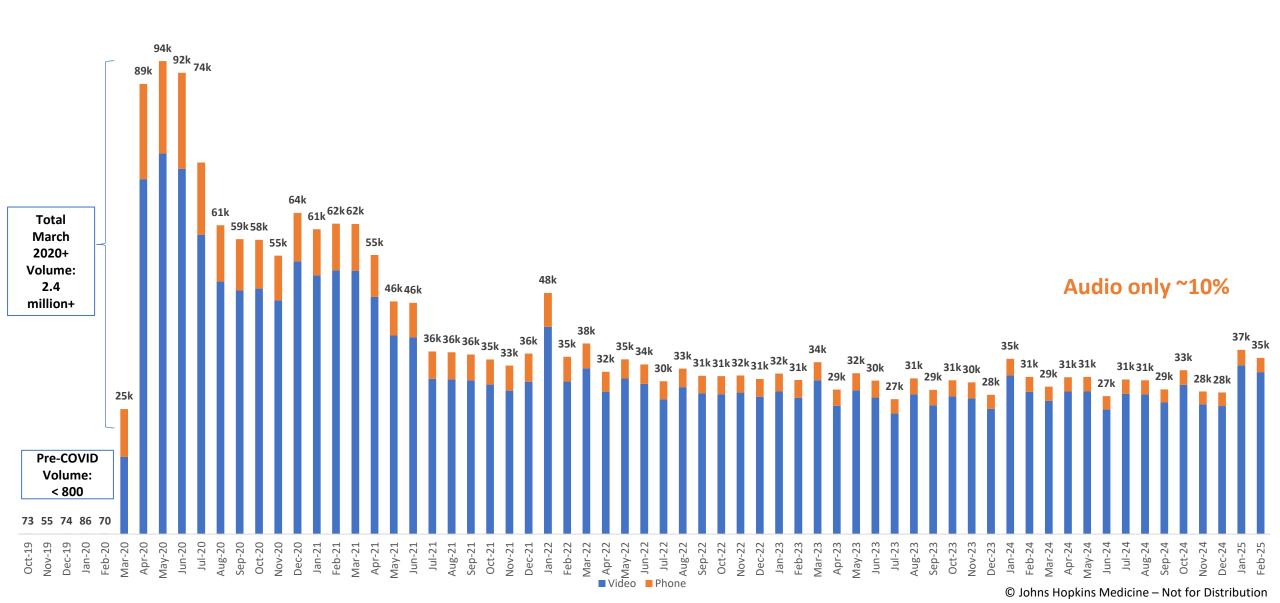


#### The Office of Telemedicine

- Manages the coordination and strategic deployment of all Johns Hopkins Medicine programs that deliver clinical services using virtual modalities.
- Works closely with across stakeholders to ensure high quality care including:
  - Johns Hopkins Health IT/Epic and JH@IT
  - Billing
  - Compliance
  - Legal
  - Marketing & Communications
  - Governmental Affairs (State and Federal)
  - Data Analytics
  - IRB



### Video and Audio-Only Volumes



### Telemedicine vs. In-Person Visits

#### Ambulatory Volume

- Telemedicine visits are approximately 12% of "telemedicine sensitive" ambulatory care in CY24
- > Care remains distributed across multiple primary care and subspecialty verticals
- High users include advanced specialties like genetics, anesthesia/pre-operative medicine, neurology, and neurosurgery





### Benefits of Federal PHE for Telemedicine

#### March 2020

# Medicare and Medicaid Video Visits

- √ Video visits permitted when Medicare or Medicaid beneficiary located in the home
- √ Flexibility on provider location

### Telephone Coverage

✓ Enhanced telephone payment rates

Expanded Codes /
Provider Types for
Video Visits

- Expanded CPTs permitted by video (148 new codes, to the previous 103 codes)
- Expanded provider roles (i.e., therapists, counselors, SLP, etc)

Video Platform HIPAA nonenforcement

 Increased flexibility for provider and patient to choose video platform that works for each situation

Cross-state Healthcare

 States passed waiver to allow cross state healthcare via telemedicine

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✓ Increased flexibility for provider and patient to choose video platform that works for each

HIPAA compliant platform required

Cross-state Healthcare

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 Providers generally need to be licensed where the patient is located

### Addressing Digital Health Equity



DOI: 10.1353/HPU.2021.0058 · Corpus ID: 235869993

#### A Process for Developing a Telehealth Equity Dashboard at a Large Academic Health System Serving Diverse Populations

Helen K. Hughes, Brian W. Hasselfeld, L. Cooper, Rachel L. J. Thornton, Y. Commodore-Mensah less • Published 2021 • Medicine, Political Science • Journal of Health Care for the Poor and Underserved

Johns Hopkins Medicine (JHM) rapidly implemented telehealth system-wide as part of its COVID-19 pandemic response In a four-month period (January–May, 2020), video visits across the system increased more than 1,000-fold (from approximately 80 to 80,000 per month) For vulnerable populations, telehealth may reduce or exacerbate disparities in access to and quality of care To enhance equity in telehealth access, we must assess, in the moment, how system-wide digital health strategies affect... Expand

 > Telemed J E Health. 2023 Jun 30. doi: 10.1089/tmj.2023.0050. Online ahead of print.

### Individual – and Neighborhood–Level Disparities in Audio–Only Telemedicine Utilization Across a Large Academic Health System

Lilija Sadauskas <sup>1</sup>, Yvonne Commodore-Mensah <sup>2</sup> <sup>3</sup>, Colin Wu <sup>3</sup>, Casey Overby Taylor <sup>4</sup> <sup>5</sup>, Jeremy A Epstein <sup>4</sup>, Brian K Stackhouse <sup>6</sup>, Brian W Hasselfeld <sup>1</sup> <sup>4</sup> <sup>6</sup>, Helen K Hughes <sup>1</sup> <sup>6</sup>

Affiliations + expand

PMID: 37389845 DOI: 10.1089/tmj.2023.0050

### Johns Hopkins Telehealth Equity Working Group Established 2020





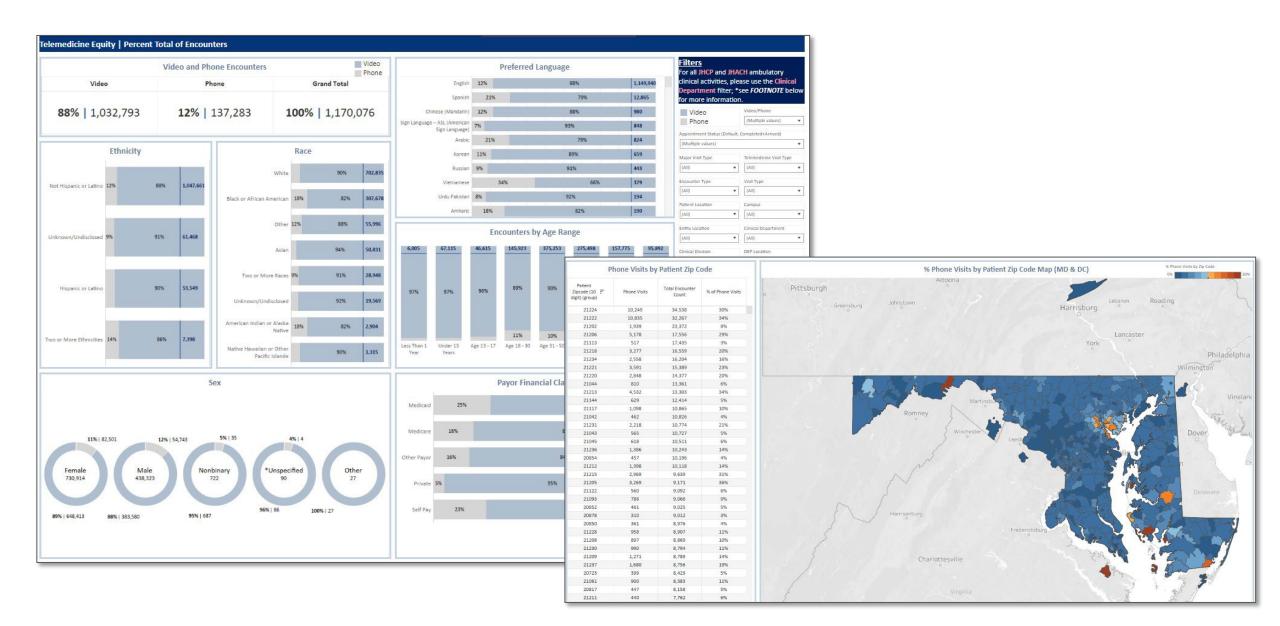






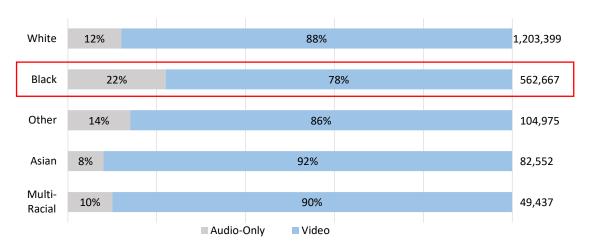


### Telehealth Equity: Dashboard

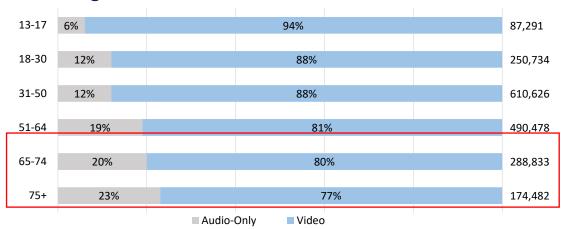


### Video vs. Phone: Inequities

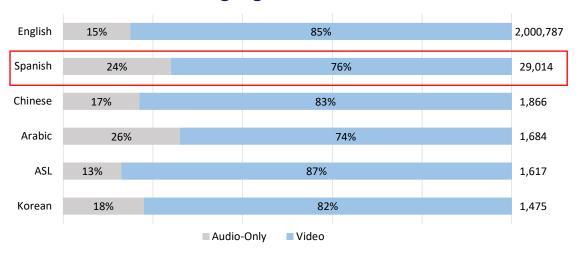
#### I. Race



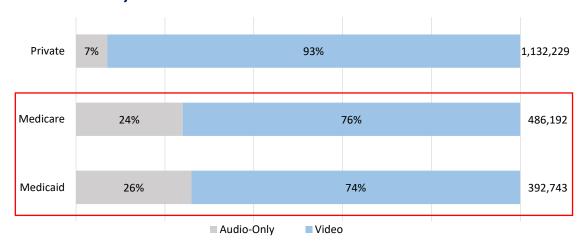
### 3.Age



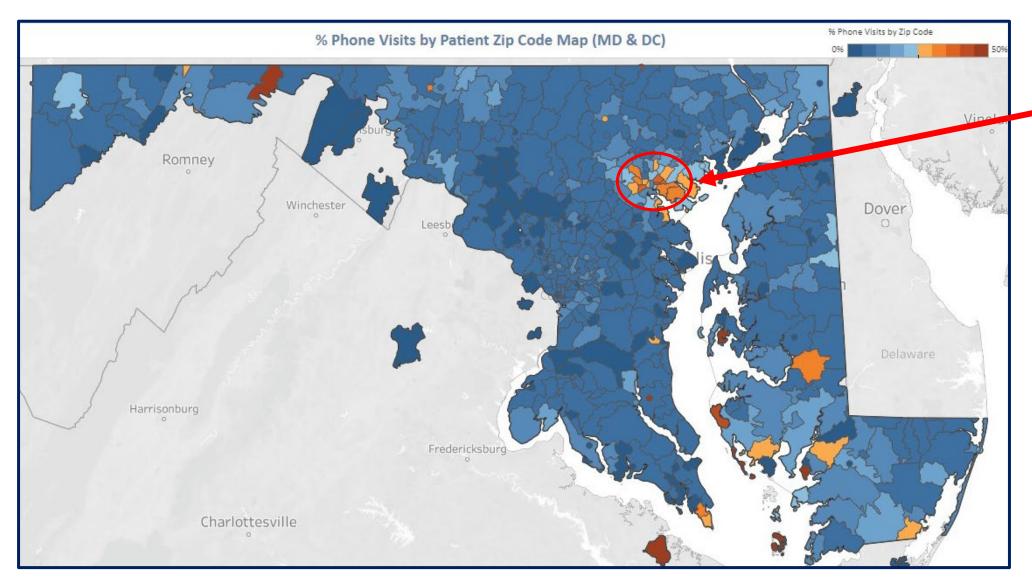
### 2. Preferred Language



#### 3. Payor



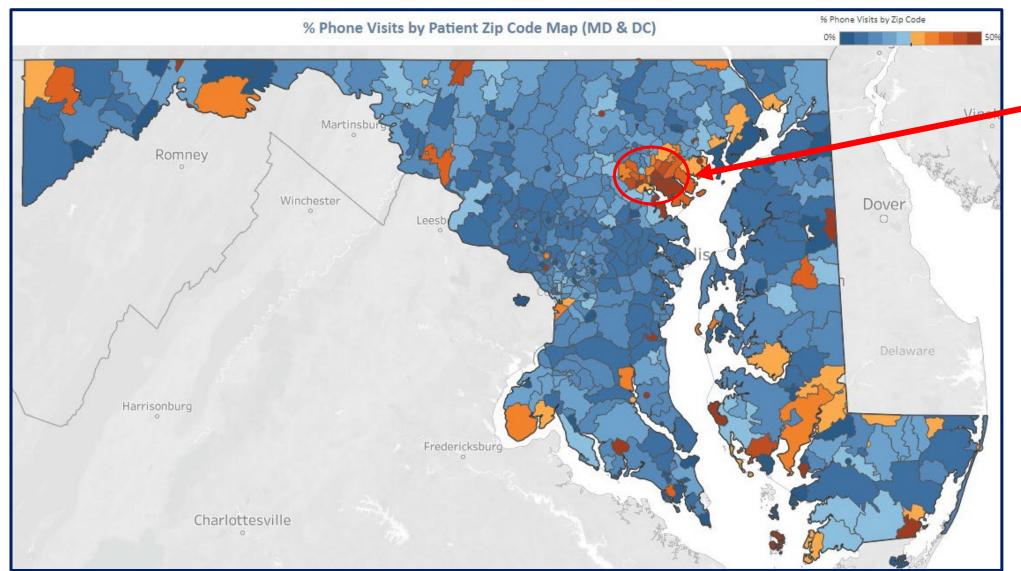
# Video vs. Phone: Zip Code Map



**Baltimore City** 

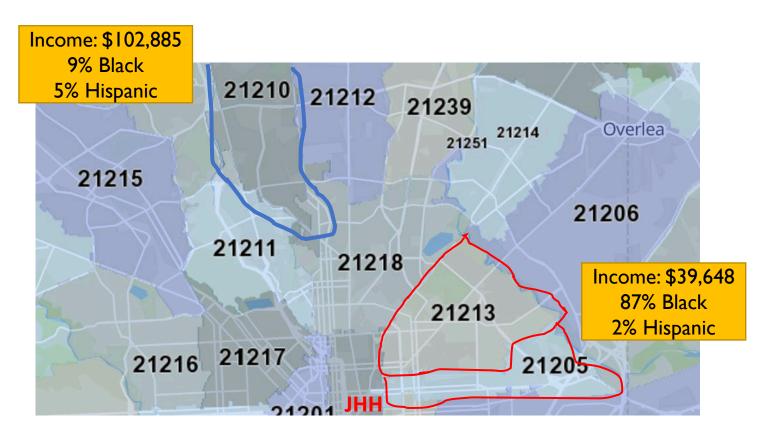


## Video vs. Phone: Zip Code Map, 65yo+



**Baltimore City** 

# Video vs. Phone: Specific Zip Codes



### July 2020 – February 2024 All Ages

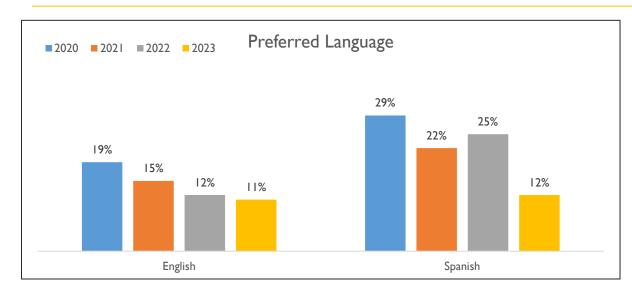
Zip Code	% TM/All	%Phone/TM
All	13%	14%
21213	16%	37%
21205	17%	36%
21210	14%	9%

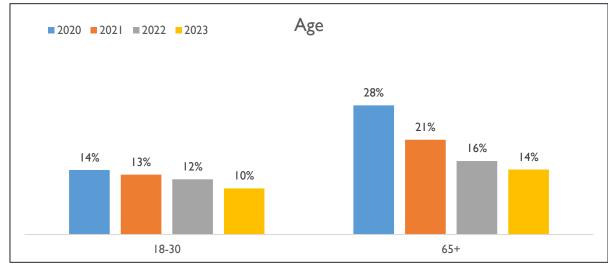
### 65yo+

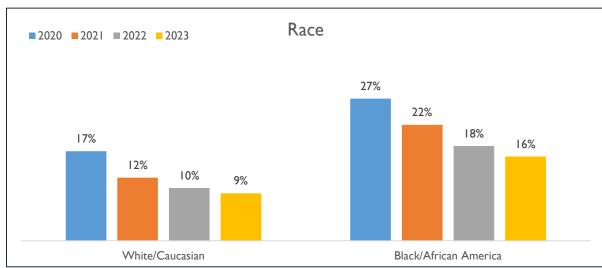
Zip Code	% TM/All	%Phone/TM
All	10%	18%
21213	9%	<b>52%</b>
21205	9%	50%
21210	11%	11%

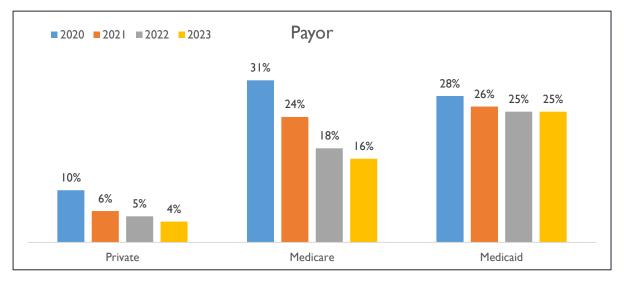
### Trends in % Audio-Only Over Time









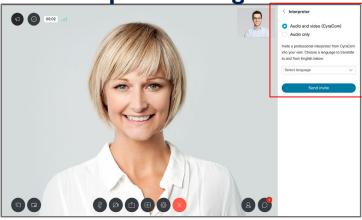


Note: Excludes radiology/pathology © Johns Hopkins Medicine

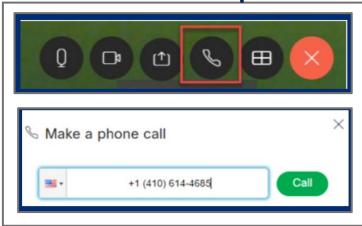
### Accessibility by Language and Ability



**Interpreter Integration** 

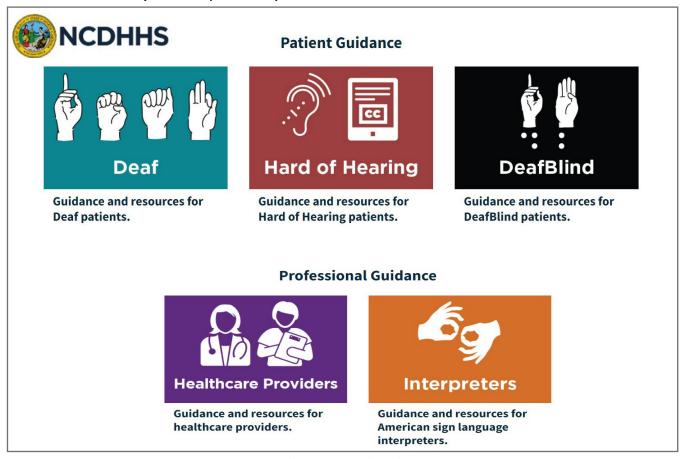


#### **Dial Out for Interpreter**



# Telehealth for Deaf, Hard of Hearing, and DeafBlind Patients and their Providers

Tony Davis | NC Dep. Of Health and Human Services



https://www.ncdhhs.gov/dsdhh/telehealth-resources

### AAMC Telehealth Equity Catalyst Awards



#### 2022 Award: Convening Session

- ➤ Hosted a session with local and regional stakeholders (76+ groups represented) to connect each other, discuss existing efforts around Baltimore telehealth equity, and plan partnerships for collaboration
- > Outcomes include an asset map of local resources, best practices document, policy planning, and collaborative partnerships

#### **2023 Award:** Continued Convening

- Continuing efforts from the 2022 award with additional convening sessions
- Refined and distributed a dynamic asset for stakeholders; refined digital equity training program in East Baltimore

#### **2024 Award:** MyChart Simulation

- Partnering with Epic to develop and pilot a Health System agnostic MyChart simulation aimed at teaching patient digital health literacy
- Simulation in English and Spanish

#### Equitable Access to Telehealth in Baltimore City June 6, 2023

Hosted by the Office of Telemedicine

### dr. lisa cooper professor of Equity in Health & HealthCare,

CELEBRATE TELEHEATH OPTIONS

> ACKNOWLEDGE NOT EVERYONE HAS ACCESS

#### 2022

INDIVIDUALS WITH THE LOWEST INCOMES & EDUCATION + OLDER ADULTS FROM BLACK, ASIAN & LATINO COMMUNITIES WERE LEAST LIKELY TO BENEFIT FROM TELEHEALTH SERVICES

POLICYMAKERS, HEALTHCARE PROVIDES. TECHNOLOGY INNOVATORS COMMUNITY LEADERS, & RESIDENTS

MUST WORK TOGETHER TO ACHIEVE THIS GOAL

# cheryl washington



COVID-19 EMPHASIZED THE NEED TO ADDRESS THE DIGITAL EQUITY GAP IN EAST BALTIMORE



EBDI + MICROSOFT DEVELOPED A BLUEPRINT FOR ACHIEVING DIGITAL EQUITY IN URBAN REVITALIZATION PROJECT AREAS

### community-driven aurveys in east baltimore showed:

85 / CITED AFFORDABILITY 66 / REQUESTED TRAININGS ON USING TELEHEALTH APPS & OTHER DIGITAL LITERACY SKILLS

#### NEXT STEPS REQUIRE paytherships

RELATIONSHIP

NOT THE

- · COMMUNITY ORGANIZATIONS
- ANCHOR INSTITUTIONS
- BUSINESSES
- GOVERNMENT
- BALTIMORE TECH ECOSYSTEM

DIRECTOR OF BROADBAND & DIGITAL EQUITY,
BALTIMORE CITY OFFICE OF INFORMATION TECHNOLOGY





rebecca canino

EXECUTIVE DIRECTOR OF TELEMEDICINE

#### 2023 DIGITAL EQUITY FRAMEWORK GOALS

DEVELOP COMMUNITY BROADBAND SYSTEM

digital literacy

this is not a new challenge, just another layer on an existing challenge

devices

4 technical support

TO INCREASE EQUITY, REDUCE FINANCIAL BURDEN, & IMPROVE PROVIDER-PATIENT RELATIONS

JMH OUTPATIENT TELEMEDICINE VISITS

PRE-COVID

HIGHER RATES OF TELEPHONE VISITS AMONG BLACK, SPANISH-SPEAKING, & OLDER POPULATIONS

MODEL FOR ADDRESSING BARRIERS TO TELEHEALTH ACCESS

va anywhere to anywhere program



DIGITALLY SCRIBED BY CAITLIN MURRAY I dancing with markers



### East Baltimore Digital Equity Needs

- East Baltimore Development Inc. (EBDI) partnered with Microsoft Airband to analyze digital equity gaps and opportunities
- Surveyed 178 residents

10 COMMUNITY PARTNERS

Eager Park Neighborhood Association
Johnston Square Neighborhood Association
Bea Gaddy Family Center
Midtown East Community Association
Historic East Baltimore Community Action Coalition New
Broadway East Neighborhood Association
Sisters Together and Reaching
Charm City Land Trust
Rebuild Metro
Open Works

#### **RESPONSES**

The survey process generated 178 unique responses from the following zip codes: 21202, 21205, 21213, 21224, 21231

178

85%

#### MORE AFFORDABLE SERVICE

- 85% of residents cited a cheaper monthly service cost would improve their internet experience
- · 49% said it is the most important factor
- 49% said fewer service interruptions would improve their internet experience
- 49% cited faster downloading speeds

#### TARGETED TRAININGS THAT MEET IMMEDIATE NEEDS

66% of residents cited one of the following types of training resources:

- 44% data security and privacy
- 36% how to use computers
- . 29% how to use telehealth applications
- 26% spotting mis/disinformation
- · 20% improving computer job skills or applying online



55%

#### FREE OR LOW-COST COMPUTERS

More than half (55%) of residents said having a chance to receive free or low-cost computers would help their access to the internet

#### **ACCESSIBLE COMMUNITY WI-FI**

- 44% of residents said free Wi-Fi, particularly in areas like parks, would improve their internet experience
- 63% of residents said it was either "very" or "somewhat" difficult to fit the internet bill into their household budget



63%

#### SUPPORT FOR LOW-COST PROGRAMS

- 63% had not signed up for the Affordable Connectivity Program (ACP)
- 26% said they had not heard of the program

### East Baltimore Coalition Building





Community and Outreach
Partners



- Baltimore Digital Equity Coalition

Baltimore City IT (BCIT)

- East Baltimore
   Development, Inc
- JHU Schools
- JH GCE Office
- JH C-RAC
- Senior Living (2)
- Churches (I)
- Deutsch foundation

**Internet Access** 



- Project Waves
- Port Networks

**Device Access** 



NEMICORP

Digital Skills Training



- JH Heat Corp
- JH Telemed + IT
- Epic

**Funding** 



- Baltimore city grants
- NTIA grant

### What: Digital Access Projects



National Telecommunications and Internet Administration Grant

East Baltimore
Devices + Internet + Skills

**TBD** 

Baltimore Civic Fund Community

**Digital Skills Training** 

April 2025

MyChart and Telemedicine Training
Pilot for Feedback

Now

Impact: 4000+ People
Johns Hopkins
KKI
BMS (EMBC and Yard56)
Community Sites

Baltimore City Funded
Impact: 300 adults age 60+
Adults Age 60+ at:
Latrobe (HABC)
Parkview at Ashland
Southern Baptist Senior Living

AAMC Funded Impact: 20+ people Johns Hopkins Patients

Create and Lead Digital Skills

### Community Consultants Supporting Two Projects



Develop MyChart and **Telemedicine Training Module** 



Michelle Stevens



Sumana Kondle, MD

Molly Filler Digital Instructional Designer

Epic



Juliette Dixon LCSW-C



**Crystal Evans** Community Relations Coordinator



**Barbara Bates-Hopkins** Community Consultant



Melanie A. Reese Community Consultant







Alicia Wilson VP of Civic Engagement



Meghan Brown



Jackie Bryan

Health Education and Training Corp



**Training Consultant** 



### MyChart and Telemedicine Simulation Training

- Pilot usability effort designed to evaluate the acceptability of a MyChart and telemedicine training curriculum for patients
- Simulations available in English and Spanish for both mobile and desktop
- Engagement sessions will include 10 participants with balanced sample of English and Spanish speaking people
- Participants to provide feedback on curriculum's usability, comprehension, and overall satisfaction



In collaboration with Epic education team

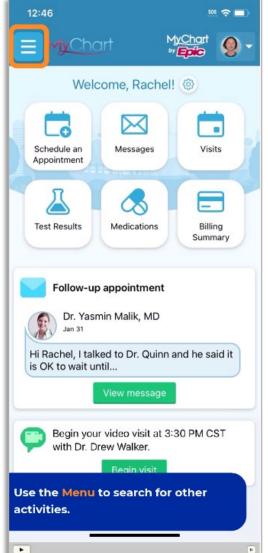


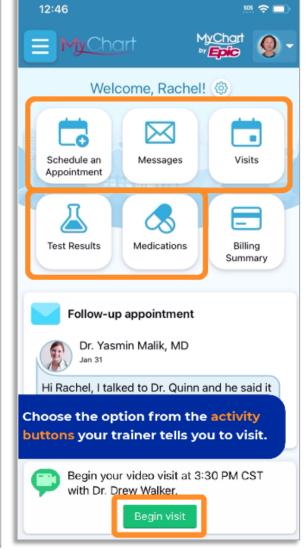
Molly Filler
Digital Instructional Designer
Epic















**Baltimore City Awards Ceremony with** Mayor Brandon Scott

- Conduct monthly digital skills training classes (MyChart and Telemedicine) at 3 community sites
  - Southern Baptist
  - Parkview at Ashland
  - Latrobe Homes
- Evaluate the feasibility, acceptability, and impact of the training sessions



**Tracey Chambers Thomas** Sr. Research Coordinator



Alicia Wilson VP of Civic Engagement



Meghan Brown



Jackie Bryan Health Education and Training Corp (HEAT)

### When: High Level Timeline

Summer 2024

Fall 2024 Winter 2025

Spring 2025

Summer 2025

Fall 2025

Winter 2026

Spring 2026

#### **AAMC**

MyChart and Telemedicine Training Feedback Pilot

Grant #1 Funds pilot Feedback from Consultants and C-RAC Feedback from
Patients in Transplant
Clinic

#### Community Digital Skills Classes

Grant #2
Funds Community
Training

Hire Staff Consultant Feedback IRB Design and Planning Weekly Consultant Meetings (?)

\_\_\_\_\_ Monthly Training and Evaluation

# MyChart and Telemedicine Training Feedback and Improvements



Feedback	Improvements
Lecture format did not work well	Pivoting to more interactive, try-it-out format
Too much jargon (e.g. two factor authentication)	Used software to ensure wording is more literacy friendly using less technical Jargon
Need some fundamental review of skills (logging in etc)	Hiring consultant from Baltimore City Digital Equity coalition (Lo Smith) for basic digital skills training

## Community Digital Skills Classes Feedback and Improvements

	Feedback	Improvements
	In depth flyer feedback (C-RAC, consultants, ICTR consult)	Significant changes, still need to make text bigger and have less text
	Don't make the class too long	Will be on site 2 hours once a month with 30 minutes set up/lunch, 30 minutes of formal interactive class, 1 hour of individual Q&A
	Have enough people to support individual needs	Will have 3-5 trainers per session





### Do you want to learn skills to help you manage your health using technology?

Join the Johns Hopkins team for a free lunch at community sites and learn how to:

- Download and use health care apps
- Save passwords securely
- Have a video visit with your doctor from your phone or computer
- Make your smartphone or computer more userfriendly
- Avoid scams and stay safe online
   You will be asked to share your opinions in a short survey at the end of the session.

#### Who Should Join Us?

- · Must be 60 years or older
- Classes will be in English

Please bring a smartphone or computer if you have one.

NEXT MEETING DATE:

#### Research Study Details

Principal Investigator: Helen Hughes, MD, MPH IRB Study Number: JHM IRB #00483494 Contact Information: Phone: 443-488-2072 Email: digitalskills@jh.edu

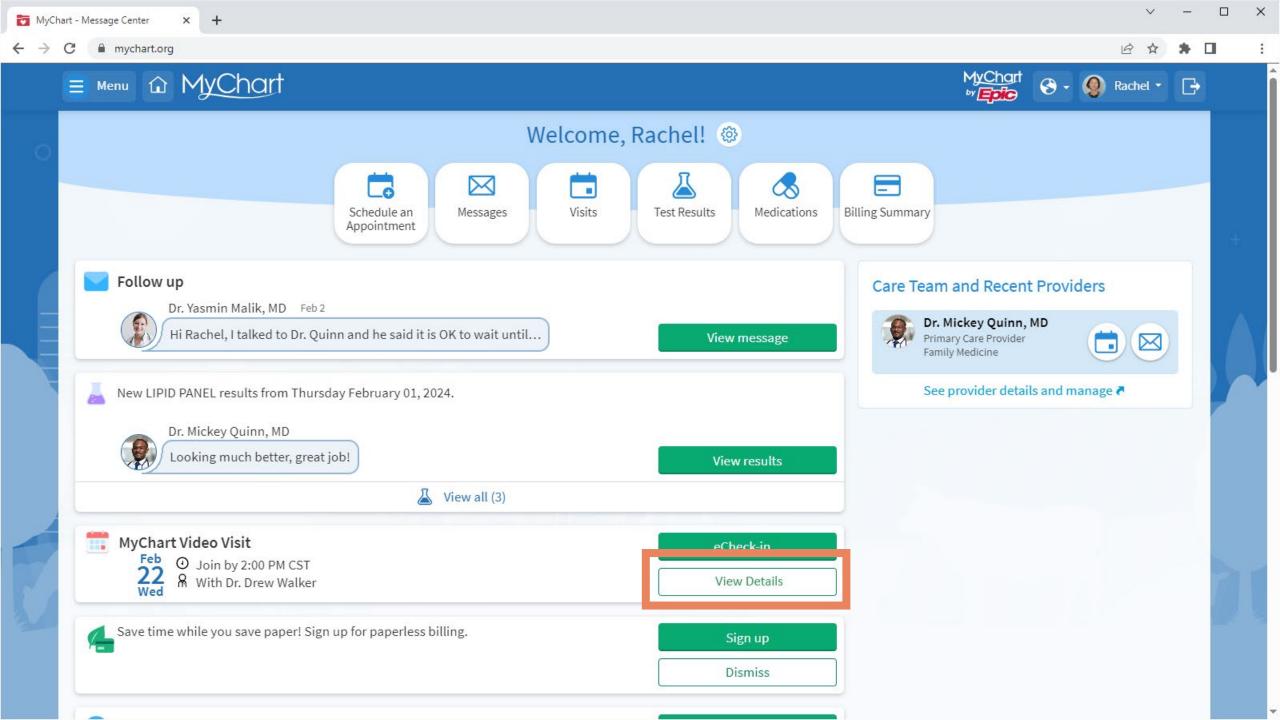
Contact us at 443-488-2072 or email digitalskills@jh.edu.

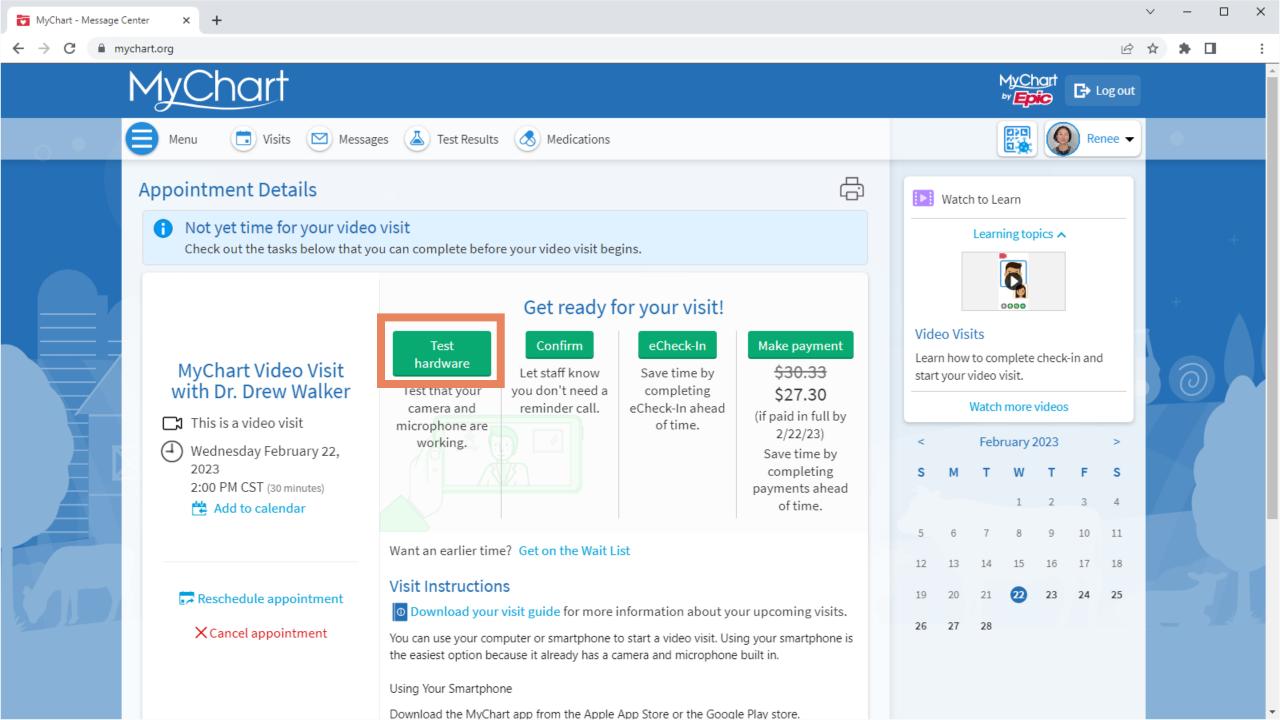
Visit [short link] or scan the QR code to learn more.

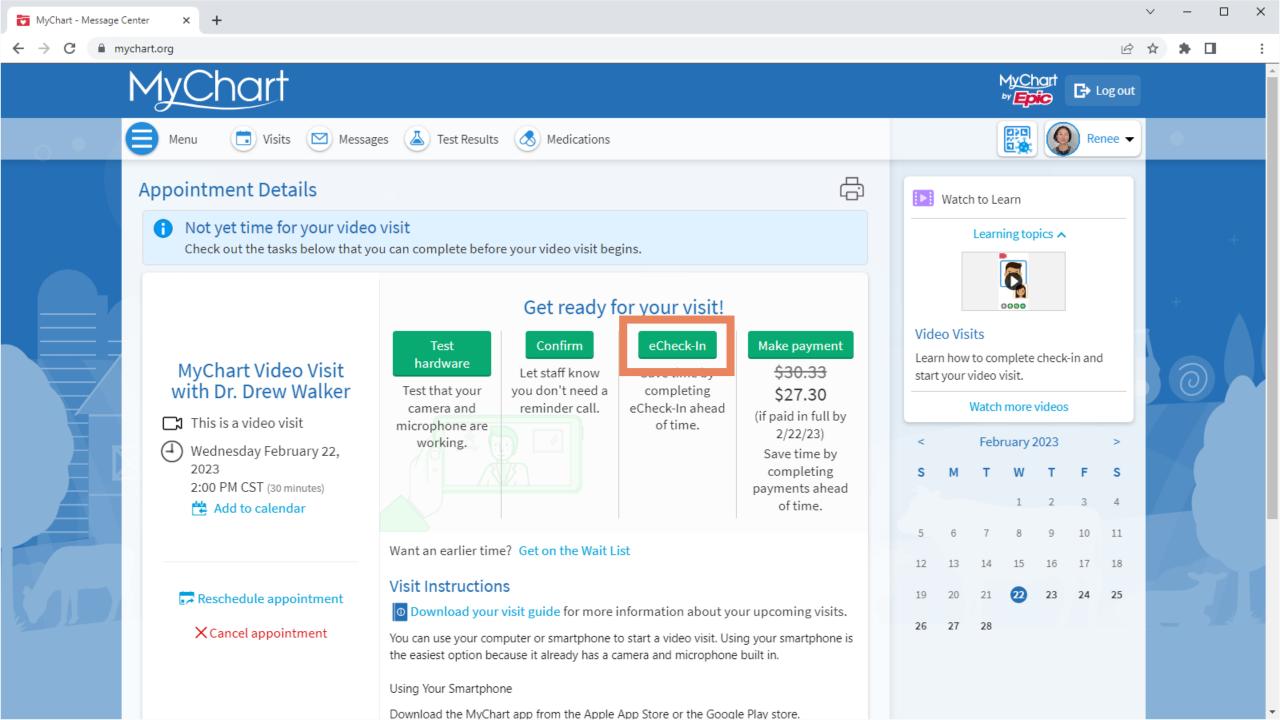
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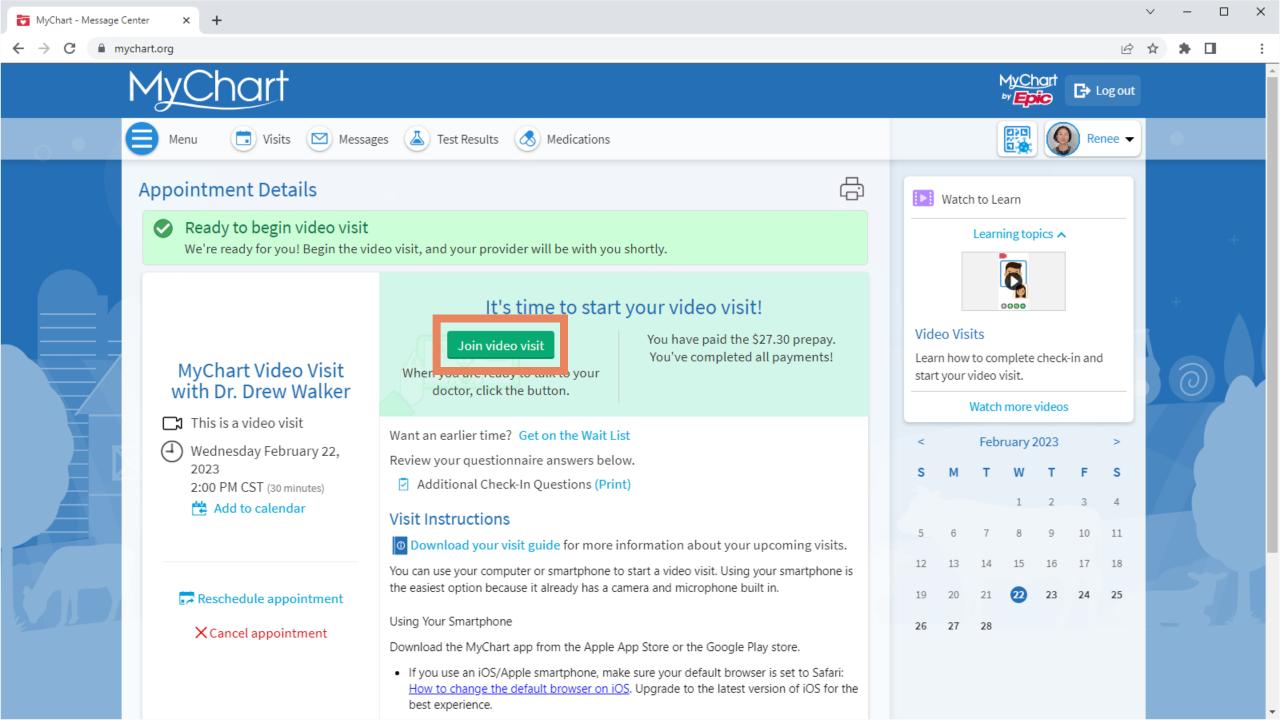
These classes are being offered by Johns Hopkins Medicine. You do not have to be a Johns Hopkins patient to participate.

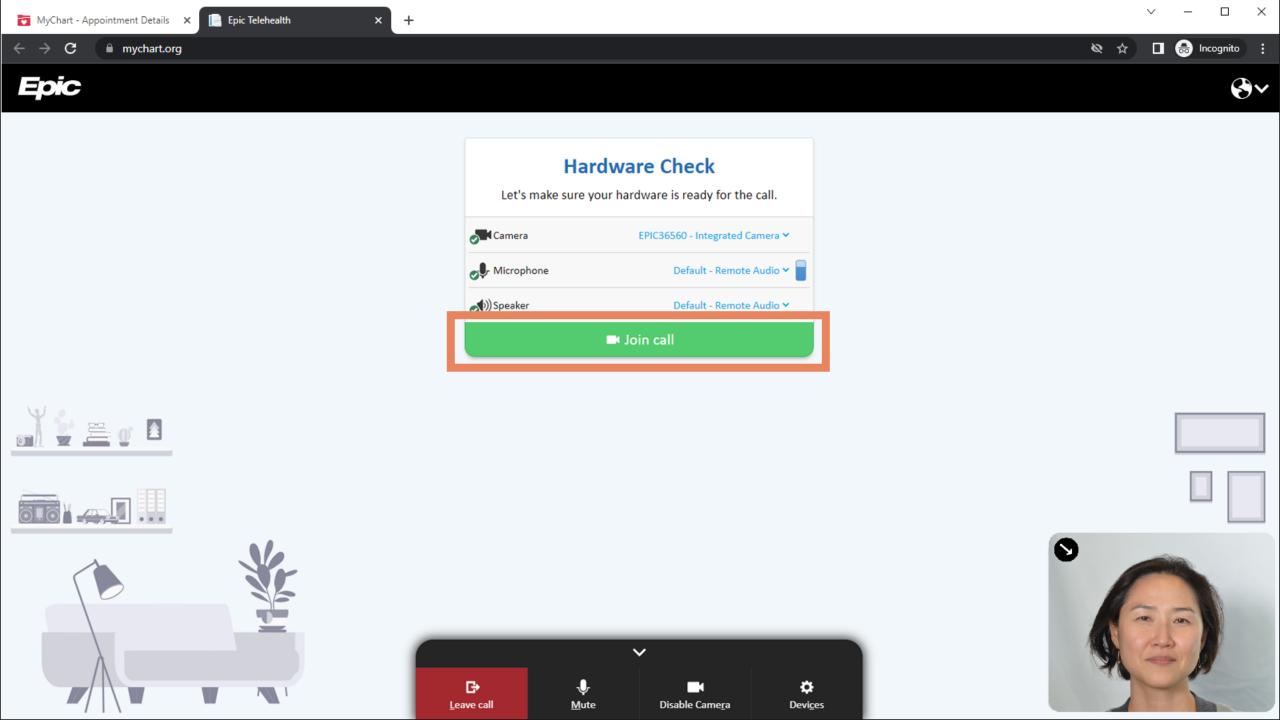


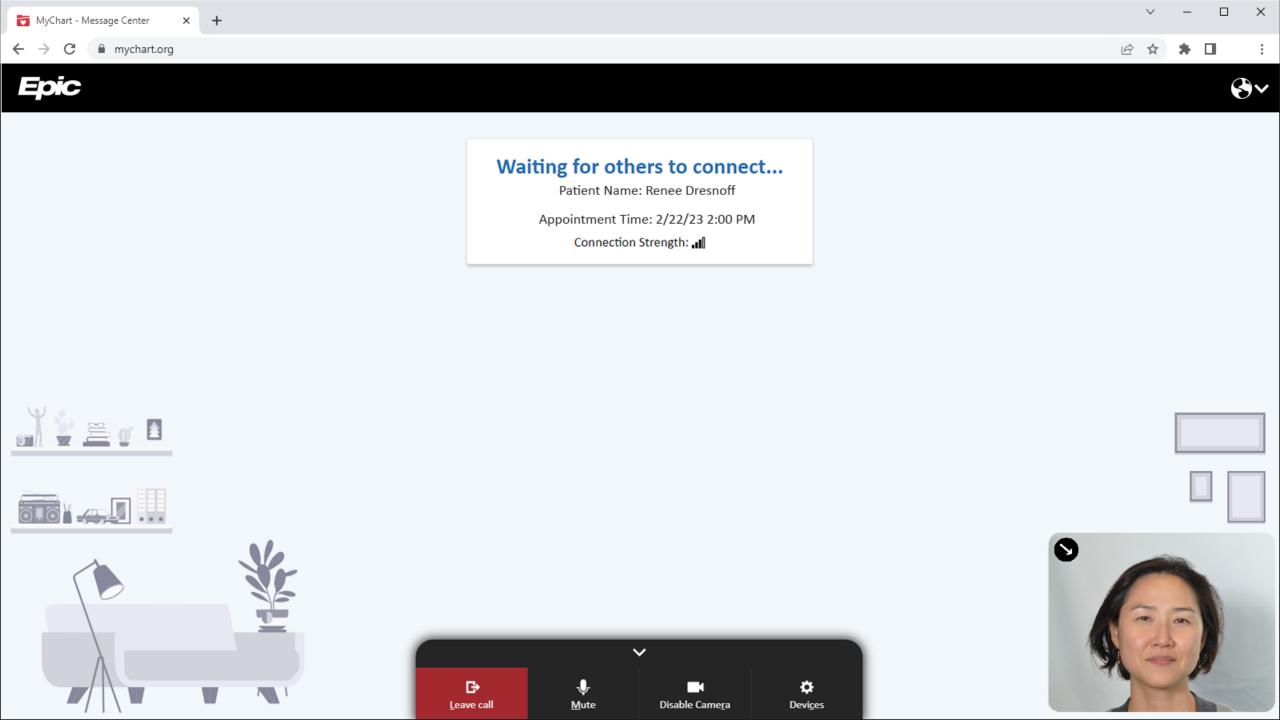


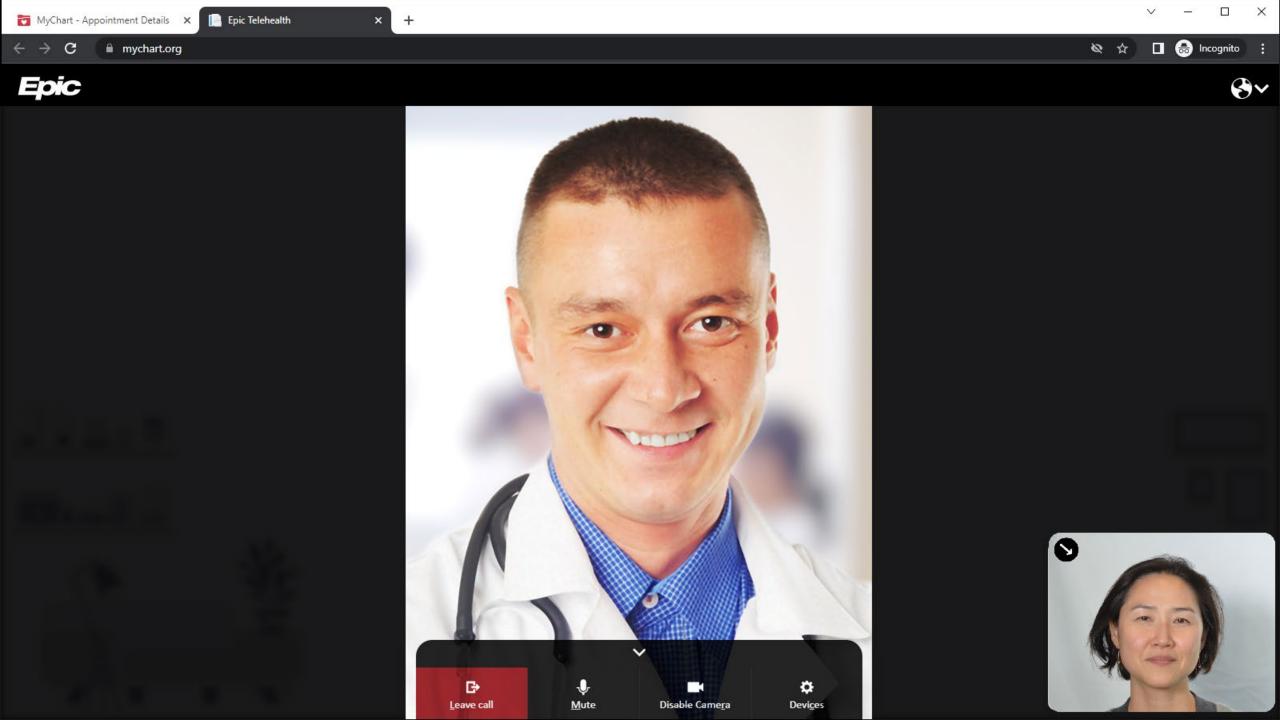












### Early Feedback

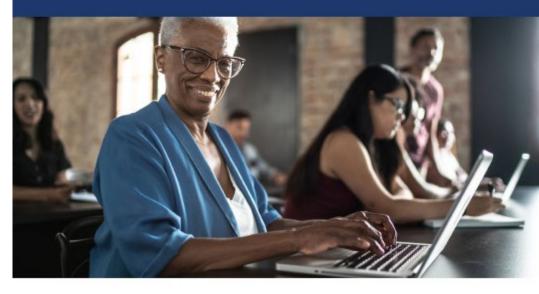
- First class held 5/29 with 5 people in attendance
- Likelihood to recommend 4.4 out of 5
- What went well
  - Size of class, 3 instructor: 5 student ratio
  - Magnifying glasses
  - Range of skill levels
- Needed improvements
  - Decrease length of survey
  - Decrease amount of material
  - Decision about repeated sessions

to improve your digital health skills!

PARTICIPANTS NEEDED

### Digital Skills Classes

Free Lunch Provided



#### Are you 60 years old or older?

Do you want to learn skills to help you manage your health using technology?

If yes, join the Johns Hopkins team for a free lunch and learn about:

- · How to use MyChart and telemedicine visits
- · Wi-Fi and safely storing password information
- · Setting up devices with user friendly features
- Have a chance to ask questions about your technology needs.

#### Classes will be in English

Please bring a smartphone or computer if you have one.

#### CONTACT INFORMATION

For more details, contact us at Phone: 667-306-6696 Email: digitalskills@jh.edu Visit digitalskills.jhmi.edu to learn more.

These classes are being offered by Johns Hopkins Medicine. You do not have to be a Johns Hopkins patient to participate.



### Longer Term Vision

NTIA Digital Equity Proposal

This project aims to build partnerships between digital equity-focused community organizations and healthcare systems in East Baltimore to create a **National Blueprint** for integrating digital equity into healthcare and community ecosystems.

East Baltimore Healthcare Institution

JOHNS HOPKINS

JHM Telehealth

**Equity Working** 

Group

Office of

Research Expertise

### Telemedicine & IT

- Tech Expertise MyChart Training
- · Project with Epic

#### Hopkins Community Connection

 In-Clinic Social Needs Navigation to 5k+ Patients per Year (Not Digital) at 15+ Clinics (JH, JHBMC & BMS)

#### **HEAT Corps & Community Affairs**

· Community Based Health Education Classes

East Baltimore Healthcare Institution

KENNEDY KRIEGER

#### Telemedicine Team

 Previous FCC Grant to Deploy 5G and to Patients

#### KKLIT

· On Epic EHR, Uses My Chart **Community Based** Internet Access and **Digital Navigation** 

WAVES

#### Free Internet

 Has Provided Free Internet to 3k Households

#### Technical Support

 Has 27/4 Technical Support Line Established

#### Digital Navigation

 Partnership with Harbor Navigators at Digital Harbor Foundation to Leverage 25 AmeriCorps Navigators

Community Based Tech Related Workforce Dev. & Device Refurbishment

NEMICORPS

#### Technical Workforce Development

 Established workforce development program

Tech-related

#### Employment Opportunities

 Employs community members in tech field including device refursbhisment

#### Wrap-Around Social Services

Provides psychosocial support and financial coaching to employees

**Digital Equity** Capacity Building

ROBERT W. DEUTSCH FOUNDATION

#### Philanthropic Experience

Well established foundation with experience launching and scaling innovation projects in Baltimore City

#### Strong Network

Strong local and national network of CBOs and funding partners

### Longer Term Vision

#### NTIA Digital Equity Proposal

This project aims to build partnerships between digital equity-focused community organizations and healthcare systems in East Baltimore to create a **National Blueprint** for integrating digital equity into healthcare and community ecosystems.

#### **Future State with Grant Funding**

Collaboration and Connection Across Silos
Comprehensive, Person-Centered Interventions
National Blueprint for Healthcare and Community Digital Equity Solutions

#### Goal 1

Implement and evaluation two models for connecting individuals/ households with community-based digital access resources.





#### Goal 2

To strengthen the digital equity ecosystem in East Baltimore through workforce development and roadmap development across healthcare and community partners.

#### New Jobs and Youth Tech Pipeline

East Baltimore workforce development to train residents and youth digital navigation skills, computer refurbishment, provide CompTia A+, Google Plus, and Security Plus technical certifications

NEMICORP

#### Roadmap Development

Explore new opportunities between JHU and community organizations including developing new 5G or fixed wireless offerings









#### Goal 3

Develop a national blueprint so that other healthcare systems and communities can replicate these efforts.



# telemedicine



## Thank you!

Office of Telemedicine Team



# Thank you!



Questions? HH@jhmi.edu