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Ohio Cardiovascular and Diabetes Health Collaborative

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Ohio Department of Medicaid

Project ECHO®

Cardi-OH ECHO

Innovations in Diabetes and Cardiovascular Health

February 9, 2023

Today's Presenters

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Disclosure Statements

- The following speakers have a relevant financial interest or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of their presentation*:
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* These financial relationships are outside the presented work.
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Advances in Telehealth

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Learning Objectives

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1. In general terms, describe the recent growth in telehealth for diabetes care and related conditions.
2. Describe how to prepare patients for a telehealth visit.
3. Summarize the evidence for the benefits of telehealth in cardiovascular prevention.

What is “Telehealth”?

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- Telemedicine / telehealth / virtual care / e-health /m-health
- Synchronous, real-time communication
- Both an audio and visual component

- With a patient and a medical professional
- In separate locations, connected by technology

- https://www.jmir.org/2020/3/e16791/
- https://pubmed.ncbi.nlm.nih.gov/34306296/

Rise in Telehealth
VA—weekly visits January-April 2020

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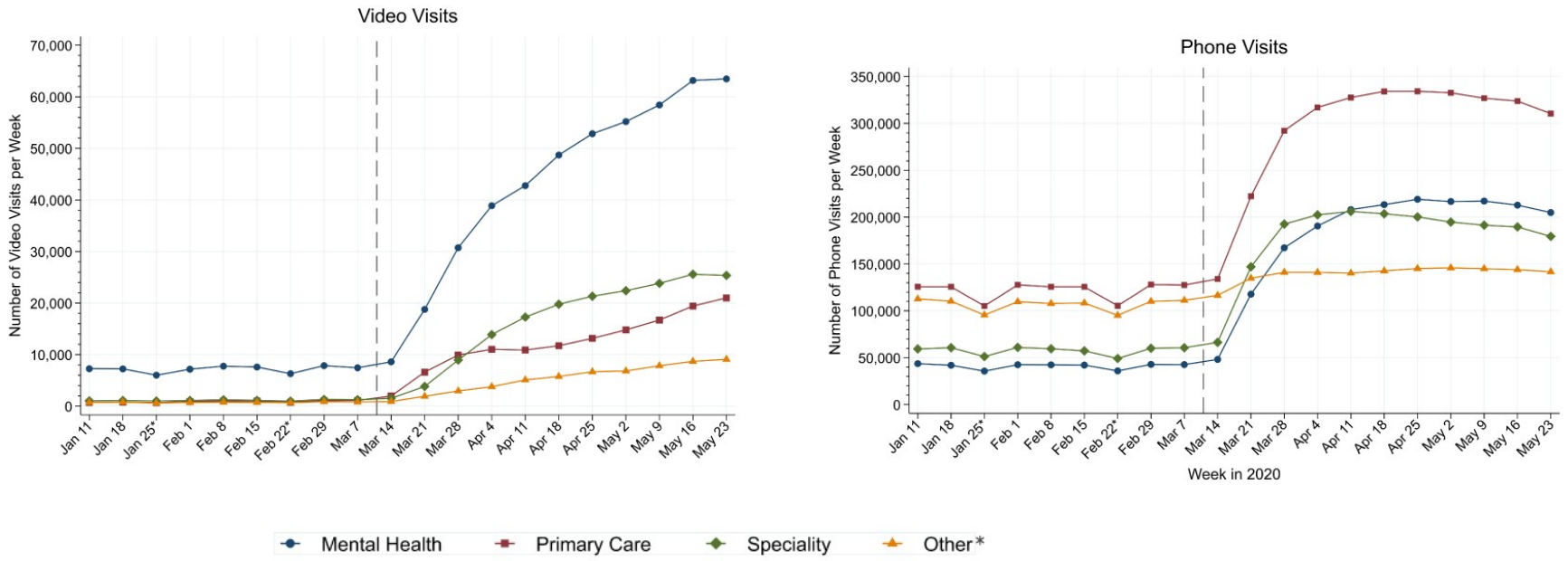


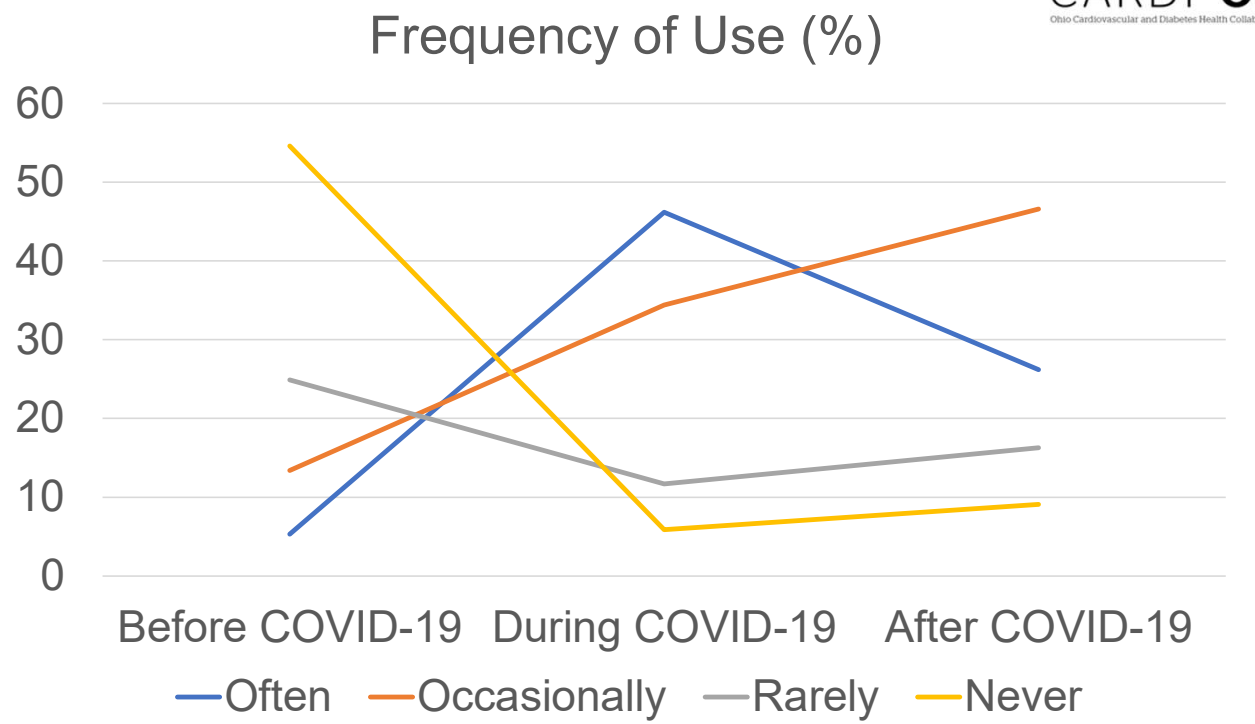
*Other includes social work, and some other non-physician visits

Source: Veterans Affairs Virtual Access QUERI

NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

Primary Care Physician Survey

- Survey of 625 PCP
- Conducted by Dynata
- Sample approximates population benchmarks
- May 14-25, 2021



Callaghan et al. J Prim Care Community Health. 2022 Jan-Dec;13:21501319221110418. doi: 10.1177/21501319221110418.

Telehealth Expansion was Limited

- Trilliant Health report
- 56 million telehealth patients from all-payer claims database between 3/1/2020-11/30/2021
  - Only 25% of Americans used telehealth
  - 80% of patients received only in-person care
  - 75% of physicians and 60% of patients said telehealth is more convenient for consumers
  - Only 36% of physicians find it more convenient

https://www.aha.org/aha-center-health-innovation-market-scan/2022-03-08-3-takeaways-recent-telehealth-analyses

Considerations for use of Telemedicine in Care of Patients with Diabetes

- Cultural competency
- Digital literacy
- Physician practice
- Psychosocial
- Systemic: access to cellular or internet, lack of interoperability

https://www.aafp.org/pubs/afp/issues/2022/0300/p281.html

Pilot Study on Telemedicine Readiness in Seniors

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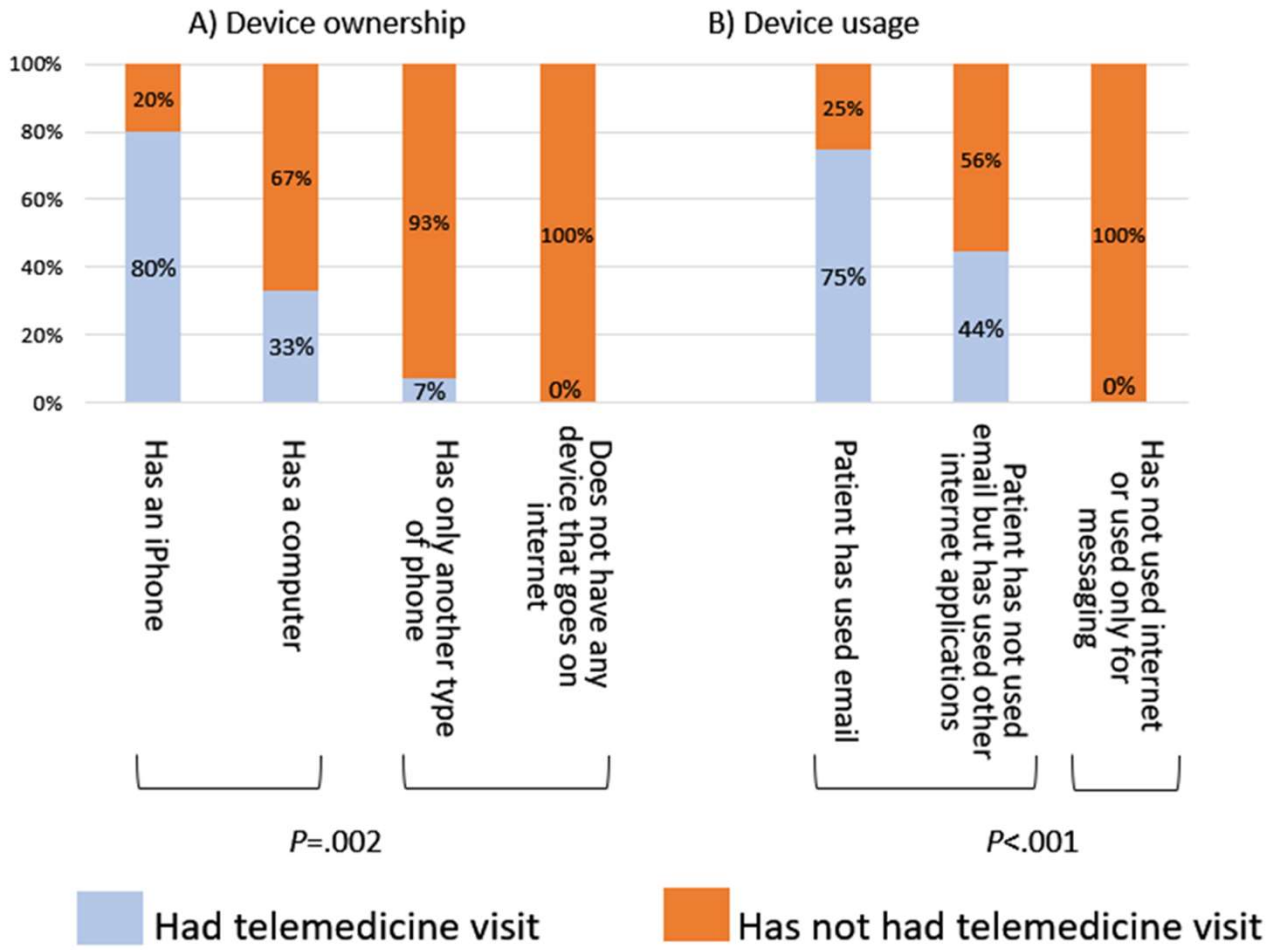
- 30 primary care patients (aged 65-81) with a chronic condition
- February - June 2021
- Survey during an in-person visit at UH
- 10 questions on devices, digital skills, telemedicine experience

How they use the internet

- Telemedicine visit 23%
- Video calls 30%
- Entertainment 17%
- Email 13%
- Messaging only 40%
- Never use the internet 17%
- Work, shopping, banking 0%

Device Ownership

- iPhone 17%
- Other smartphone 47%
- Computer/tablet 20%
- No device 17%
- >2 devices 13%



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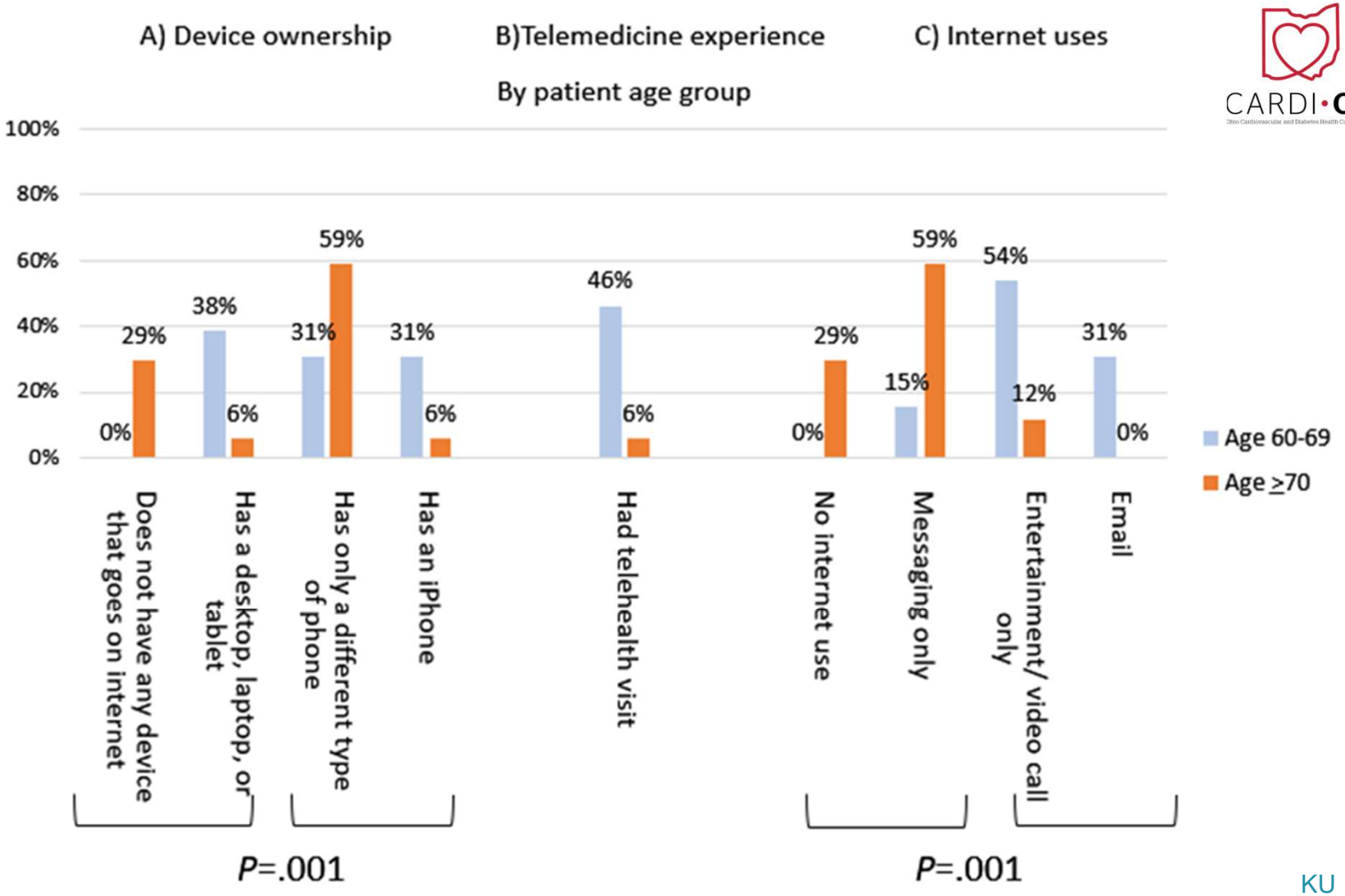

A) Device ownership
B)Telemedicine experience
C) Internet uses
By patient age group
100%
80%
60%
40%
20%
0%
0%
29%
38%
6%
31%
59%
31%
6%
46%
6%
0%
29%
15%
59%
54%
12%
31%
0%
Does not have any device that goes on internet
Has a desktop, laptop, or tablet
Has only a different type of phone
Has an iPhone
Had telehealth visit
No internet use
Messaging only
Entertainment/ video call only
Email
P=.001
P=.001
Age 60-69
Age ≥70

Overall Findings

- Patients liked that they could avoid Covid and skip the drive
- They were most concerned about losing their connection with their doctor and care quality
- Adults over age 70 are least comfortable with technology
- Cannot assume patients have or can use an internet-capable device

Traits of Successful Telemedicine

- Heterogeneity makes it difficult to draw broad conclusions
- Self-monitoring increases intervention success
- Different modalities
- Videoconferencing is preferred but relatively understudied
- For weight loss: portion control, increased PA, relapse prevention

1. https://www.jmir.org/2020/3/e16791/
2. https://pubmed.ncbi.nlm.nih.gov/34306296/

Virtual Care Preparation

- Choose well-lit quiet, private location
- Have camera held steady
- Wear comfortable clothes. Be ready if there is a body part you need to show the provider
- Focus on the appointment. Don’t take an appointment with TV on or in the car
- Have questions, medication, and self-monitoring devices ready

- Close other apps on phone/computer
- Charge device before appointment
- Check internet connection

https://telehealth.hhs.gov/patients/preparing-for-a-video-visit/

Telehealth Team

- Schedulers:
  - ✓ Review expectations
  - ✓ Provide logs or device-specific instructions
  - ✓ Contacts the patient to schedule follow-up
- Nurses/Medical Assistants:
  - Pre-call: reduces failed video visits by half[1]
    - ✓ Tech check
    - ✓ Medication reconciliation
    - ✓ Updates the chart with standard elements
    - ✓ Obtains glucose monitoring data
  - Rooming:
    - ✓ Tech check
    - ✓ Keeps informed of the status in the queue

Status	Patient	Info
○	Suzie Q	Send link to 614-123-4567, 1st attempt 1/2/23, 2nd attempt 1/3/23
🔴	Cardi O	Send link to 890-123-4567; patient to send log via portal
🟢	Echo T	Send link to cardio@yahoo.com. Download in Media tab
🔴	Tele H	Send link to 987-654-3210; sent invitation to link to clinic

○ Not contacted
🔴 Roomed, need data
🟢 Rooming complete
● Visit complete

1. Gusdorf et al. J Telemed Telecare. 2021. doi: 10.1177/1357633X211008786

Obtaining Glucose Data

- A formal process for implementing remote glucose monitoring within a clinic is recommended[1,2]
- Consider focusing on 1 or 2 devices or platforms

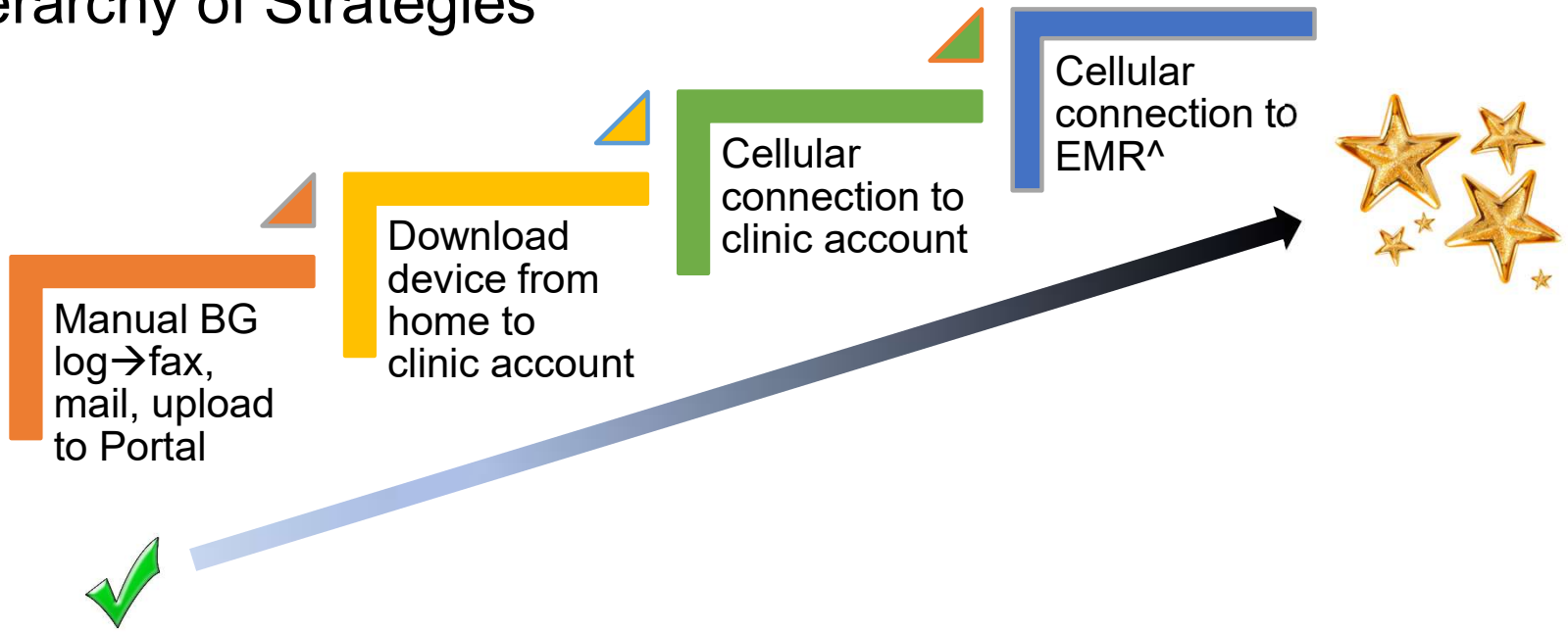
Step	Role	Responsibilities
Set-up/training	CDCES*, PharmD, other trained staff	• Assess readiness/barriers • Set up apps/connect to clinic • Document how patient is connected • Maintain clinic's device portals
Device download	CDCES*, PharmD, nurse/MA	• Retrieve glucose monitoring reports • Upload to EMR • Communicate to provider

*CDCES: Certified Diabetes Care & Education Specialist

1. Isaacs D, Cox C, Schwab K, et al. Diabetes Educ. 2020;46(4):323–34
2. Gusdorf et al. J Telemed Telecare. 2021;1357633X211008786

Obtaining Glucose Monitoring Data

Hierarchy of Strategies



^Not widely available

American Diabetes Association Professional Practice Committee; Diabetes Care 2022;45:S83–S96.

Telehealth: Benefits in Diabetes Management

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- Telehealth interventions improve A1C, body mass index, quality of life[1,2]
- Systematic review (17 studies): best A1C when used in conjunction with **automatic mobile transmission of data** or real-time feedback to patients[3]

Table 2. Subgroup Analysis of Mean Difference of Pre-Post reduction in Hemoglobin A1c (%) Between the Telehealth and the Comparison Groups

SUBGROUPS	NO. OF SUBJECTS (STUDIES)	MEAN DIFFERENCE	I^2, %	*P*-VALUE FOR HETEROGENEITY IN SUBGROUPS	*P*-VALUE FOR HETEROGENEITY B/W SUBGROUPS
Transmission methods					<0.001
Automatic transmission	558 (5)	−0.57 (−0.60, −0.54)	94	<0.001	
Automatic mobile transmission	473 (3)	−0.61 (−0.65, −0.56)	94	<0.001	
Internet/web	1,181 (7)	−0.24 (−0.25, −0.23)	99	<0.001	
Feedback methods					<0.001
Real time	479 (3)	−0.77 (−0.82, −0.72)	93	<0.001	
Asynchronous	1,077 (8)	−0.23 (−0.24, −0.22)	98	<0.001	
Combination	656 (4)	−0.55 (−0.57, −0.52)	98	<0.001	
Lifestyle modification					<0.001
PA + nutrition	891 (9)	−0.48 (−0.52, −0.45)	96	<0.001	
PA + nutrition + medication management	1,173 (5)	−0.28 (−0.29, −0.27)	100	<0.001	
Nutrition + medication management	148 (1)	−0.70 (−0.77, −0.63)	–	–	

1. De Groot et al. World J Diabetes. 2021;12(2):170–97
2. Eberle C, Stichling S. J Med Internet Res. 2021;23(2):e23244
3. Michaud et al. Telemed J E Health. 2021;27(2):124–36

Cardiovascular Risk Factors

- Systematic review[1]
  - Few studies comparing synchronous telemedicine versus in-person visits.
  - However, in the primary care setting, telemedicine was not inferior to in-person visits for diabetes, hypertension, and hyperlipidemia

Mabeza et al. BMC Prim Care. 2022;23(1):52.

Thank you!

Questions/Discussion