CARDI·OH

Ohio Cardiovascular and Diabetes Health Collaborative

CASE WESTERN RESERVE UNIVERSITY
School of Medicine

In partnership with

University of Cincinnati College of Medicine
Northeast Ohio Medical University
Ohio Heritage College of Osteopathic Medicine
The Ohio State University College of Medicine
University of Toledo College of Medicine and Life Sciences
Boonshoft School of Medicine Wright State University
Government Resource Center
medtapp
Ohio Department of Medicaid

May 28, 2026

About Cardi-OH

CARDI·OH

Ohio Cardiovascular and Diabetes Health Collaborative

Founded in 2017, the mission of Cardi-OH is to improve cardiovascular and diabetes health outcomes and eliminate disparities in Ohio's Medicaid population.

WHO WE ARE: An initiative of health care professionals across Ohio's seven medical schools.

WHAT WE DO: Identify, produce, and disseminate evidence-based cardiovascular and diabetes best practices to primary care teams.

HOW WE DO IT: Online library of best practices resources available at Cardi-OH.org and via our web app, including monthly newsletters, podcasts, webinars, and quality improvement using the Project ECHO® virtual training model.

Learn more at Cardi-OH.org

A Statewide Collaborative

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative

OHIO COLLEGES OF MEDICINE
GOVERNMENT RESOURCE CENTER

medtapp
Medicaid Technical Assistance & Policy Program

Ohio
Department of Medicaid

CASE WESTERN RESERVE UNIVERSITY
School of Medicine

University of CINCINNATI
COLLEGE OF MEDICINE

Northeast Ohio
MEDICAL UNIVERSITY

OHIO UNIVERSITY
Heritage College of Osteopathic Medicine

THE OHIO STATE UNIVERSITY
COLLEGE OF MEDICINE

COLLEGE OF MEDICINE AND LIFE SCIENCES
THE UNIVERSITY OF TOLEDO

Boonshoft School of Medicine
WRIGHT STATE UNIVERSITY

Agenda

Topics	Presenter(s)	Timing
Welcome and Overview	Michael W. Konstan, MD Shari Bolen, MD, MPH	5 mins.
ODM Remarks	Mary Applegate, MD Jacqueline Morse, MD, MPH	5 mins.
Cardi-OH Over Time and Shared Successes	Michael W. Konstan, MD Shari Bolen, MD, MPH Cardi-OH Team	45 mins.
Cheers to 9 Great Years!	Michael W. Konstan, MD Shari Bolen, MD, MPH	5 mins.

CARDI·OH

Ohio Cardiovascular and Diabetes Health Collaborative

ODM Remarks

Mary Applegate, MD, FAAP, FACP
Medical Director
Ohio Department of Medicaid

Jacqueline Morse, MD, MPH
Assistant Medical Director
Ohio Department of Medicaid

CARDI·OH

Ohio Cardiovascular and Diabetes Health Collaborative

Cardi-OH Over Time and Shared Successes

Michael W. Konstan, MD
Shari Bolen, MD, MPH
Cardi-OH Team

Cardi-OH Trivia – Chat Activity #1

Can You Name the Original PI at your SOM?

Cardi-OH PIs: In the Beginning

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative

Case Western Reserve University
Michael Konstan, MD

Shari Bolen, MD, MPH

Ohio University
Elizabeth Beverly, PhD

University of Cincinnati
Michael Holliday, MD

Barbara Tobias, MD

The Ohio State University
Randy Wexler, MD

Northeast Ohio Medical University
Stacey Gardner-Buckshaw, PhD

University of Toledo
Lance Dworkin, MD

Wright State University
Roberto Colón, MD

Cardi-OH PIs: Today

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative

Case Western Reserve University
Michael Konstan, MD Shari Bolen, MD, MPH


Ohio University
Elizabeth Beverly, PhD

University of Cincinnati
Chris Bernheisel, MD Saundra Regan, PhD


Wright State University
Jim Lamb, MD

The Ohio State University
Kathleen Dungan, MD, MPH Ayo Adesanya, MD, PhD


Northeast Ohio Medical University
Kris Baughman, PhD

University of Toledo
Lance Dworkin, MD Hoda Shabpiray, MD

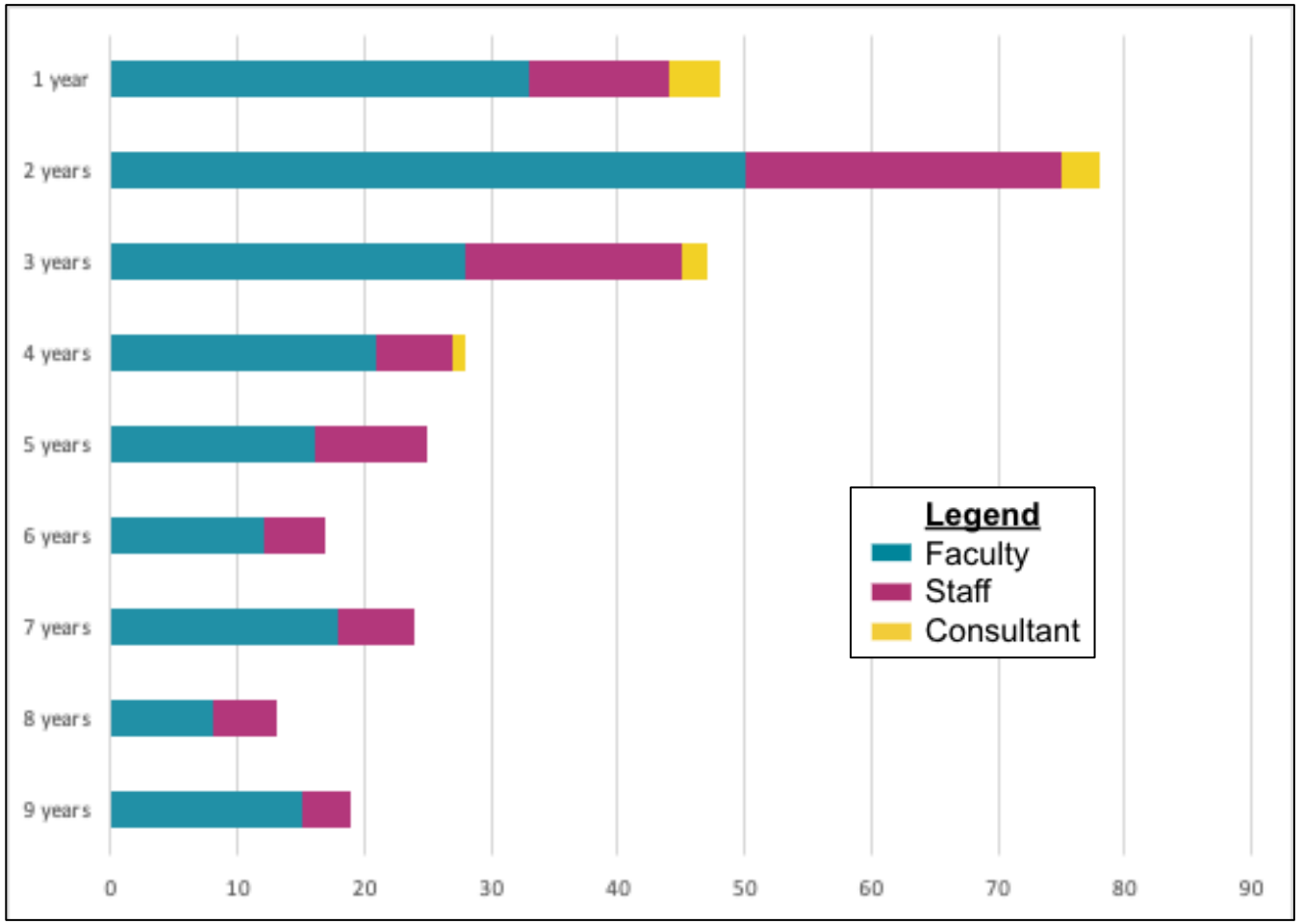

Chat Activity #2

What is the one thing that impacted you the most as part of this collaborative?

SFY17-SFY26
Mutual Investment and Commitment

Funding Source	Investment
Ohio Department of Medicaid/MedTAPP	$21,315,454 (49%)
Ohio's 7 Medical Schools	$22,185,947 (51%)
Total Investment	**$43,501,401**

Cardi-OH Team Members Over Time

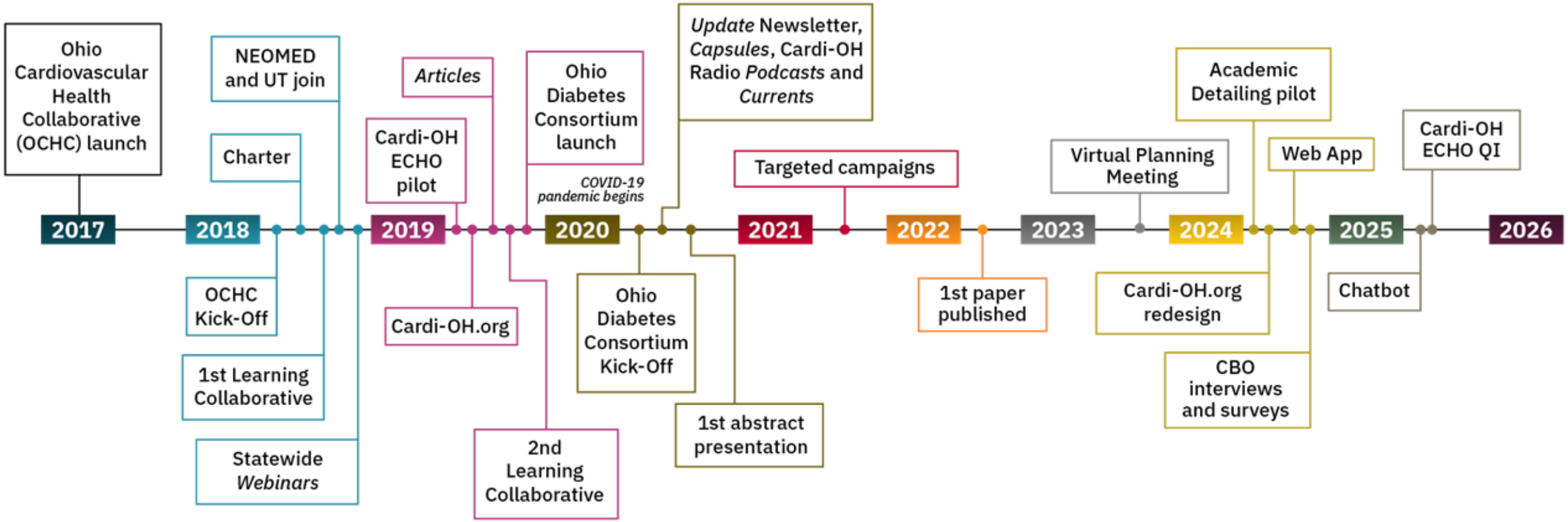


From 2017-2026,
Cardi-OH had a total of
300 team members
from 7 Schools of Medicine:

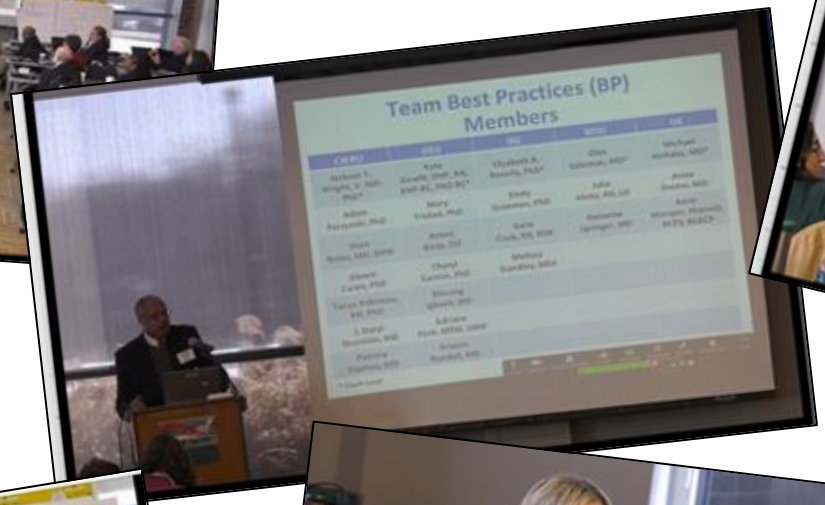
- 202 faculty
- 88 staff
- 10 consultants

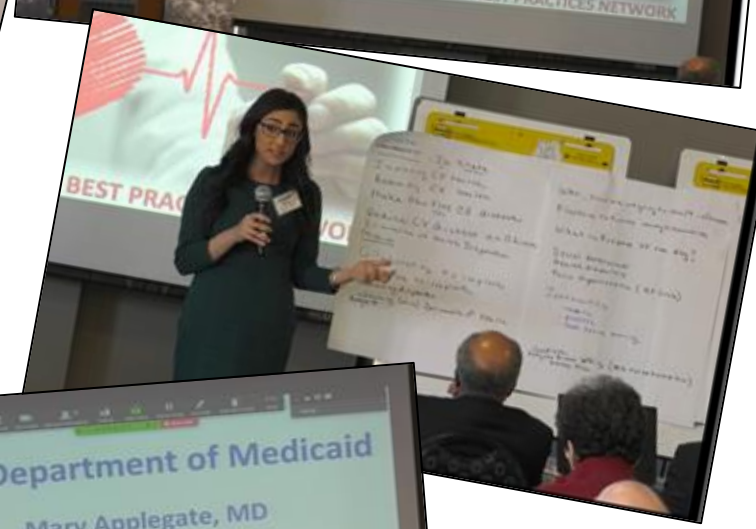
Faces of Cardi-OH: 2017-2026

Timeline: Growth and Achievements



Cardi-OH Kick-Off: January 2018





Charter Approved: 2018

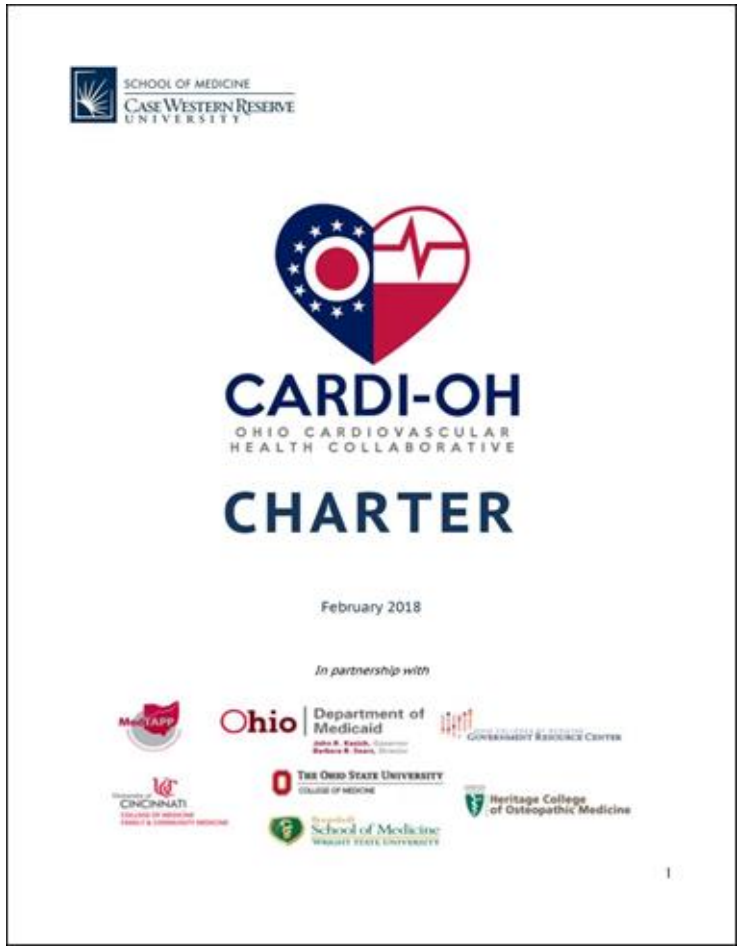
CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative

Our Mission

To improve cardiovascular and diabetes health outcomes and eliminate health disparities, while improving patient and provider experiences.

Our Vision

For all Ohioans to reach their highest potential for cardiovascular and diabetes health.



Cardi-OH Success Metrics

1) Growth of a diverse group engaged with Cardi-OH in terms of geographic region and professional roles, disciplines, and sectors
2) Reach and quality of educational events and materials
3) Improvement in cardiovascular health metrics

Cardi-OH Name and Brand

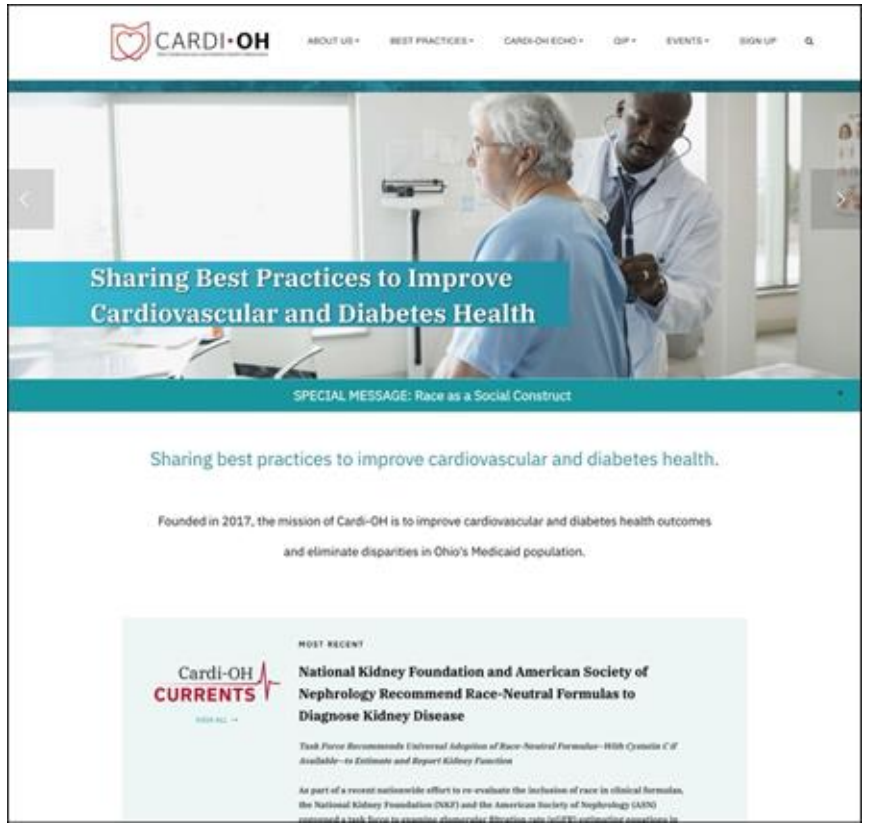
CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative

CARDIOVASCULAR DISEASE BEST PRACTICES NETWORK

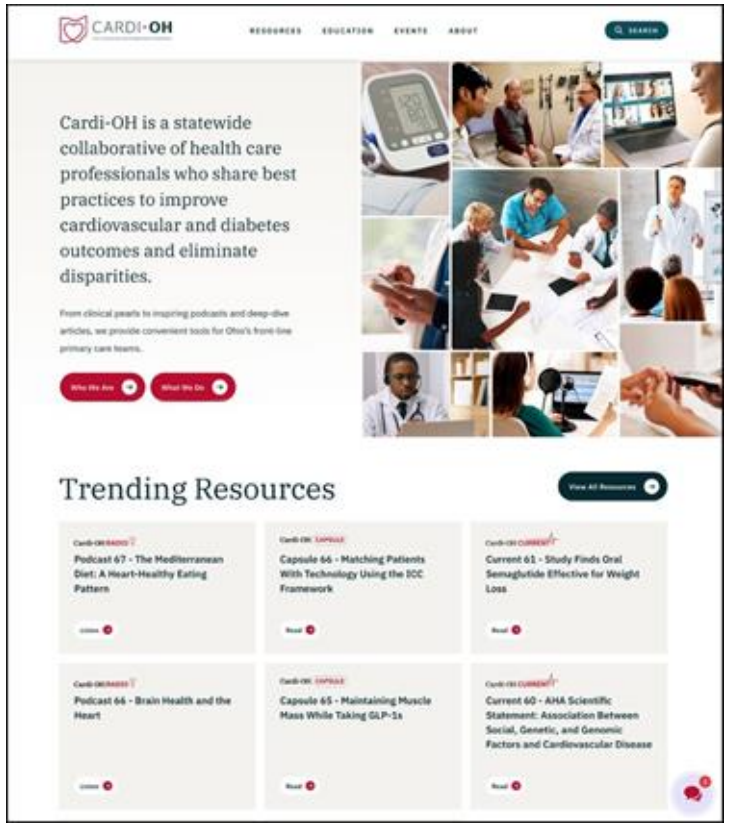
CARDI-OH
OHIO CARDIOVASCULAR HEALTH COLLABORATIVE

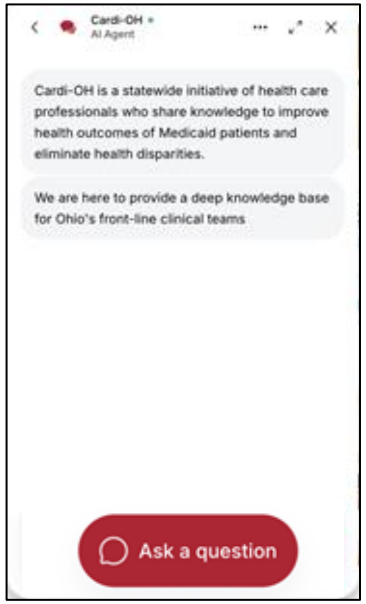
CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative

Cardi-OH.org: Then and Now

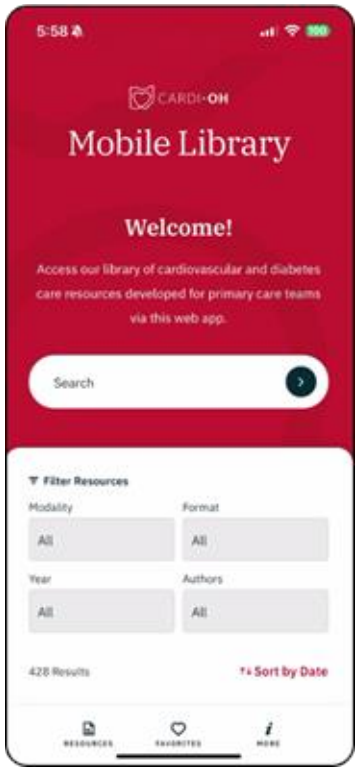


Then





Chatbot



Web App

Now

Cardi-OH Learning Collaborative: June 2018

Cardi-OH Learning Collaborative: May 2019

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative

Diabetes Consortium Kick-Off: January 2020

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative







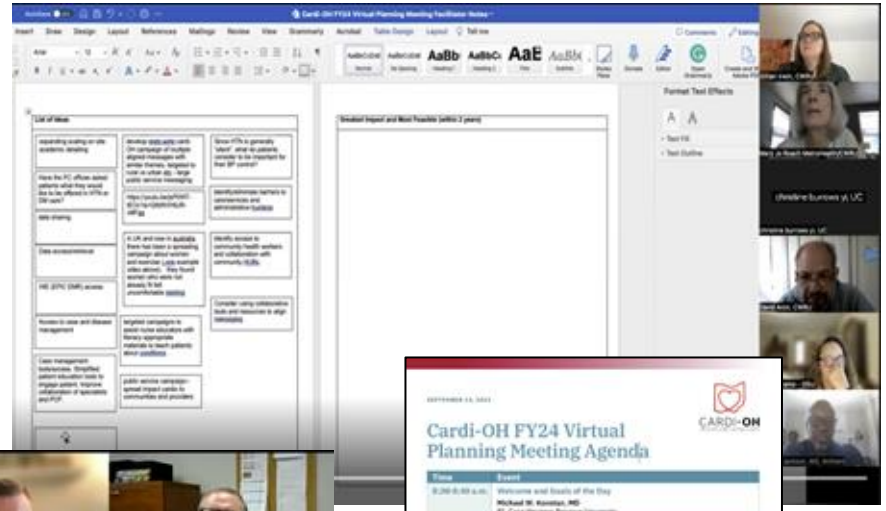



Cardi-OH Virtual Planning Meeting: September 2023

Convened 130 stakeholders for a FY24 Virtual Planning Meeting to identify high priority activities for the Statewide Collaborative over a two-year period.

Attendees represented:

- All 7 SOMs
- Regional Quality Improvement Hubs
- Ohio Department of Medicaid
- Ohio Colleges of Medicine Government Resource Center
- Ohio Medicaid Managed Care Plans
- Key community and professional organizations



Cardi-OH ECHO Hub Established: 2018

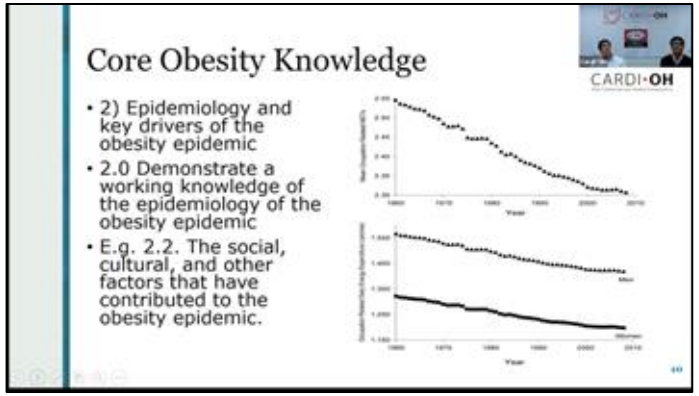
Cardi-OH ECHO Series: 2019-2026

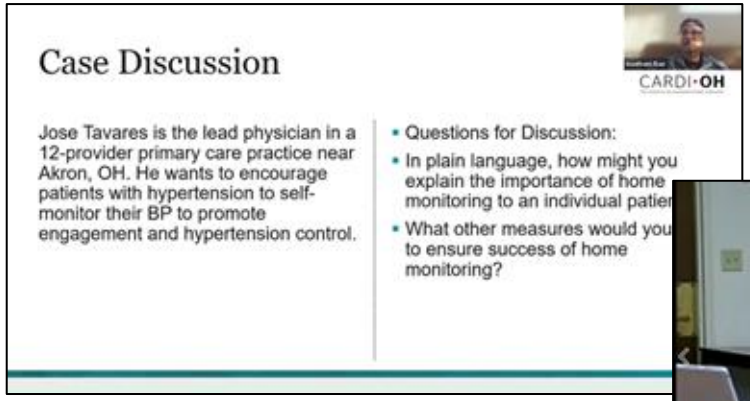
Cardi-OH ECHO Series: 2019-2026 By the Numbers

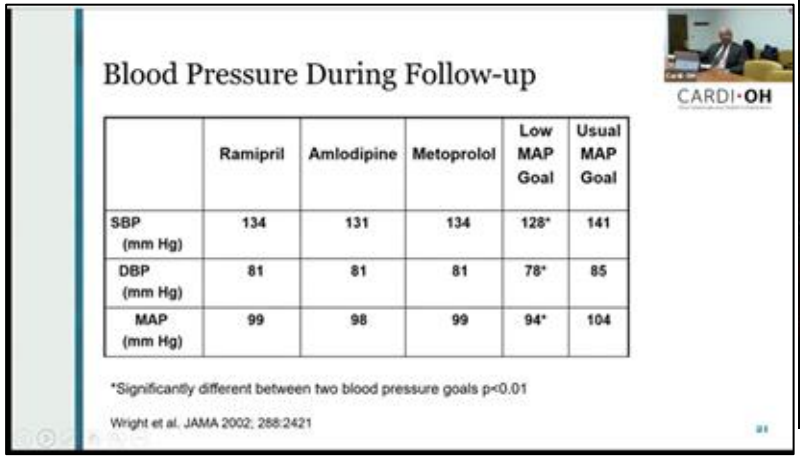
- 12 Cardi-OH ECHO Series
- Participation
  - 71 unique primary care practices
  - 184 primary care team members
  - 41 subject matter experts
  - Representing all SOM regions
- 144 total hours spent in ECHO clinics

Cardi-OH ECHO Health Systems and Practices

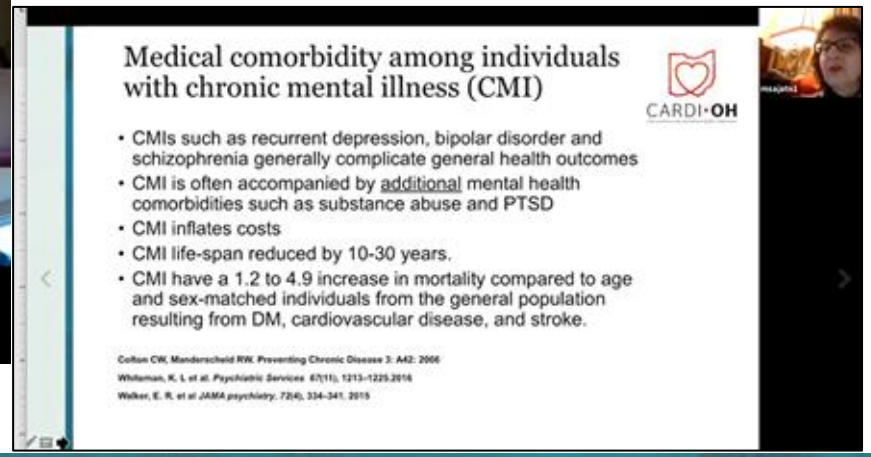
Cardi-OH ECHO Clinics





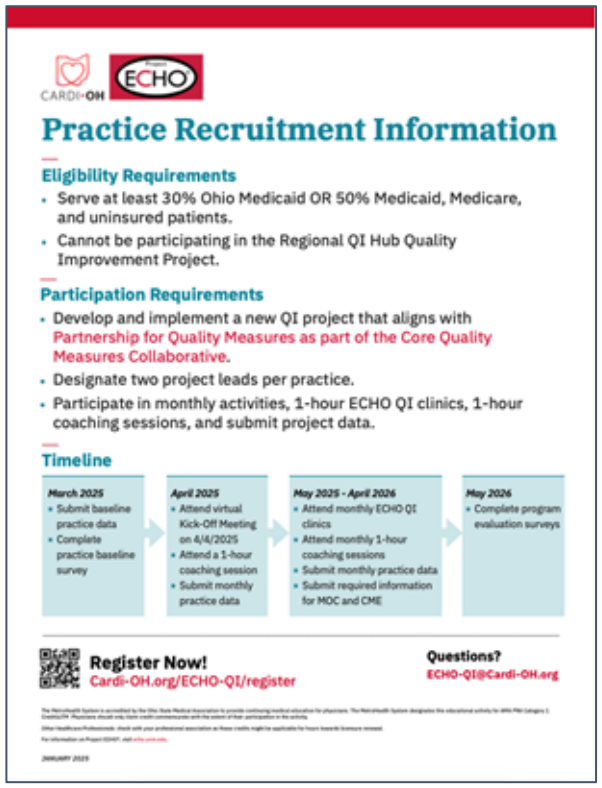


	Ramipril	Amlodipine	Metoprolol	Low MAP Goal	Usual MAP Goal
SBP (mm Hg)	134	131	134	128*	141
DBP (mm Hg)	81	81	81	78*	85
MAP (mm Hg)	99	98	99	94*	104

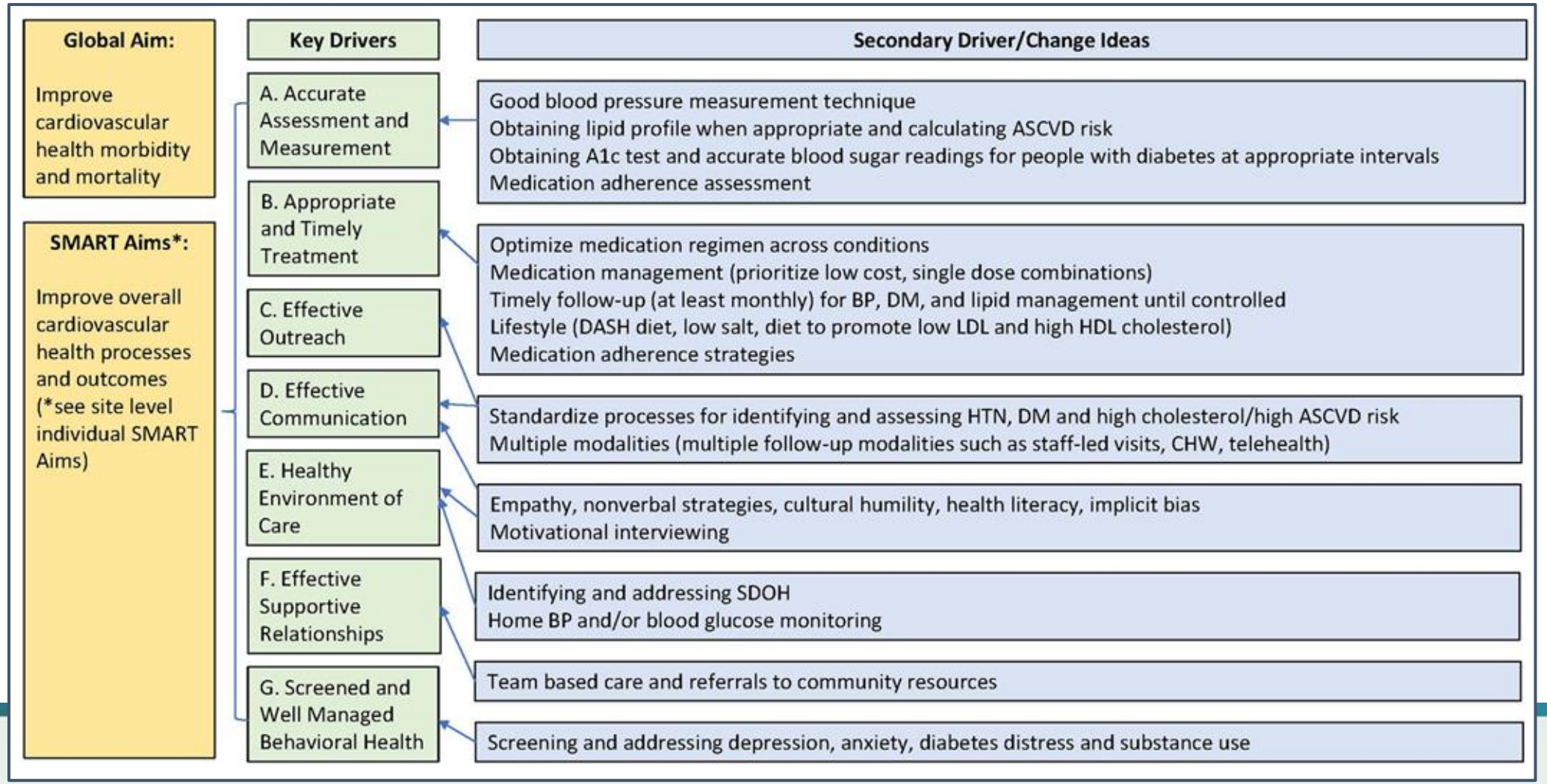


Cardi-OH ECHO QI Series

Kick-Off Meeting: April 2025
ECHO QI Monthly Clinics: May 2025-April 2026

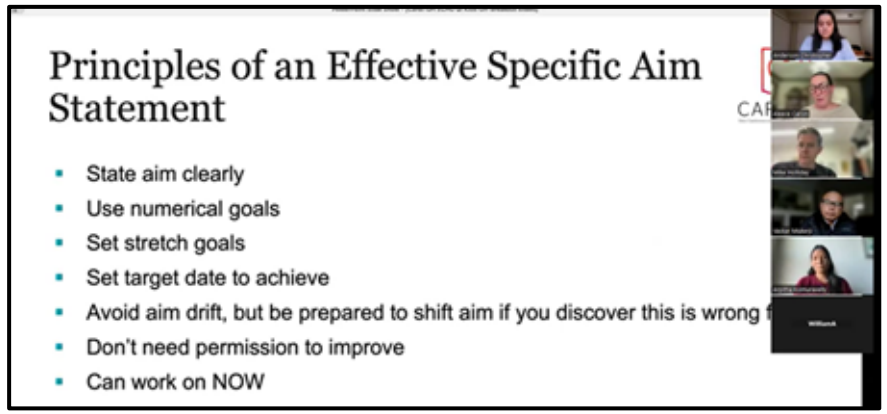


Overall Key Driver Diagram

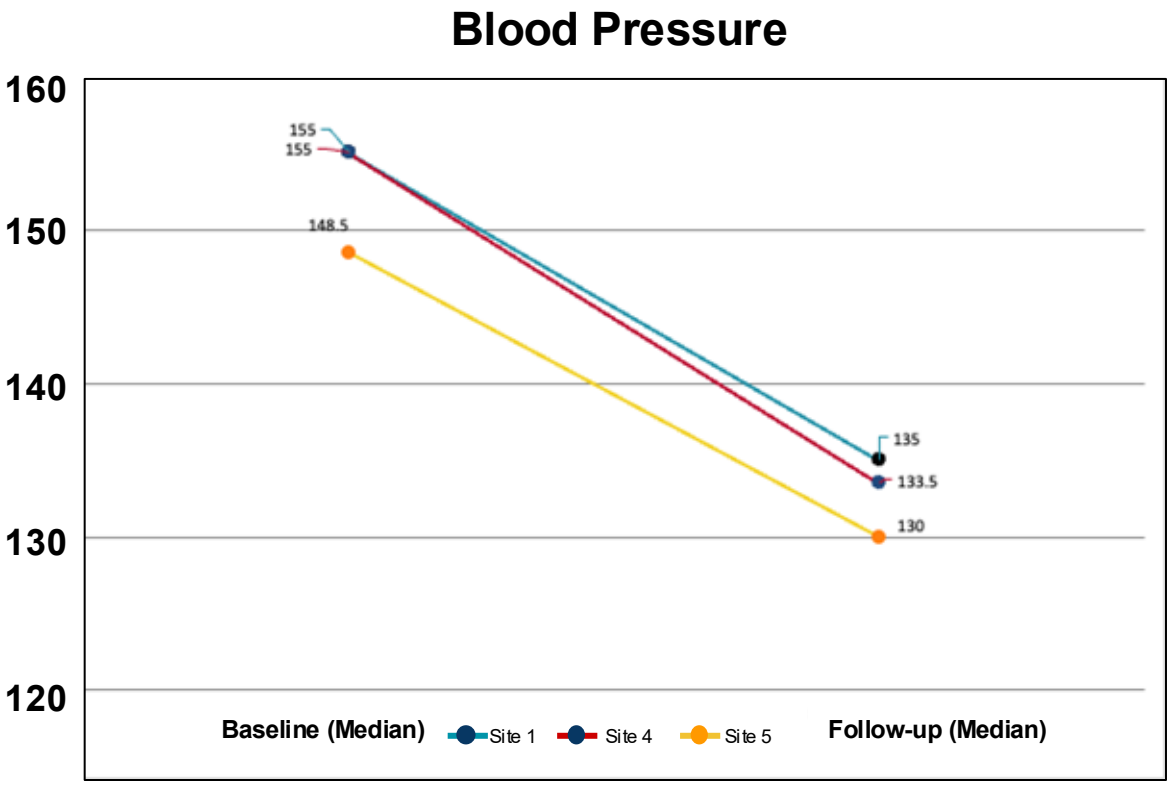


ECHO QI Implementation & Innovations

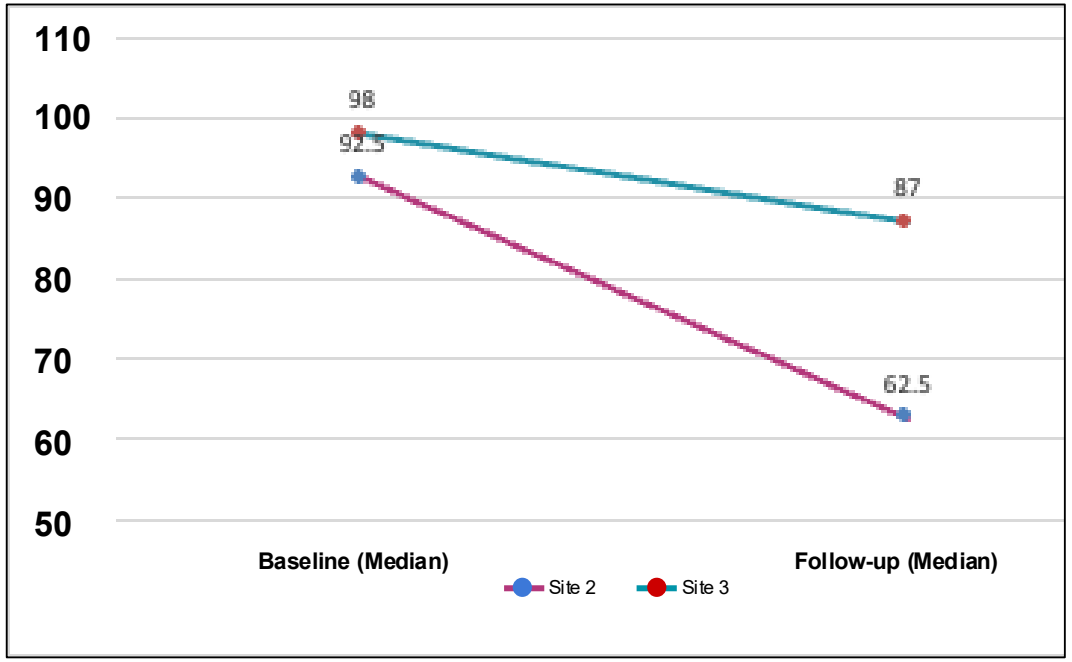
- Virtual Kick-Off Meeting
- Monthly:
  - ECHO QI Clinics
  - QI Coaching w/Clinical QI Coaches
  - Manual Data Submission
- Practices design their own QI projects on a range of CVD topics



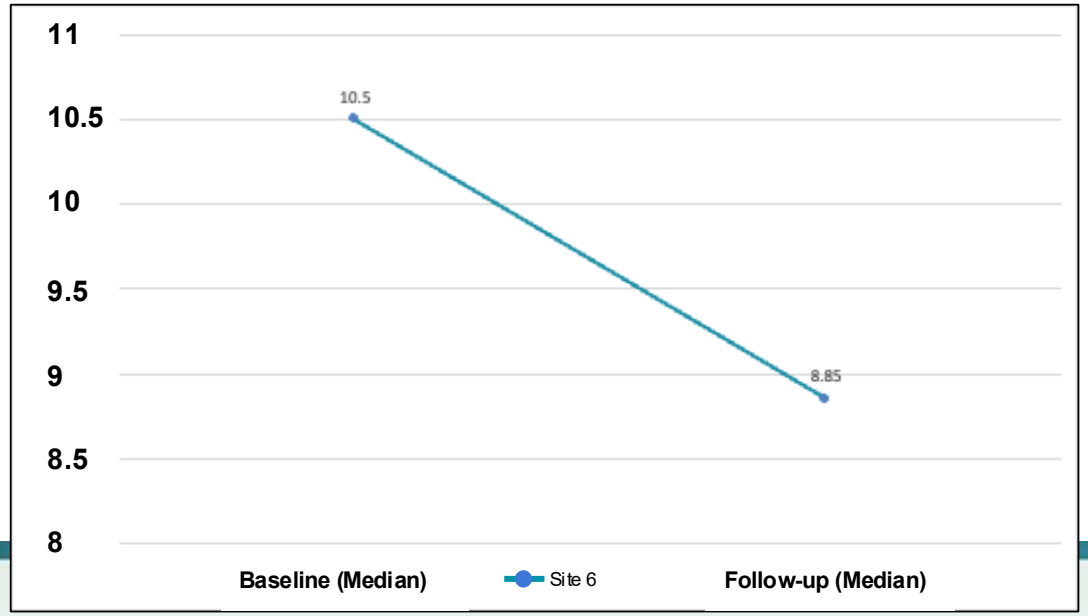
Outcome Measures



LDL



A1C



Note: downward trend shows improvement for all three clinical outcome measures

ECHO QI Participant Testimonials

"I always like it when providers when they ask why we have such good hypertension or diabetes rates. I like to tell that providers do follow the cardiovascular best practices and standard of care guideline. And I've said that since we've participated in our first Cardi-OH project. That's why our hypertension and diabetes numbers are so great is because of Cardi-OH's evidence-based practices."

"…one of the positive things about the QI project was the Coach's leadership in it and challenging us, and it was always very professional, very timely. I thought it was a great experience."

"I felt like we got a lot of different perspectives. So, I thought that it was very helpful and I liked listening to everyone's ideas."

Building QI Capacity: Increased Knowledge of Clinical QI Coaches

"Learned much about QI process again, but also by working with [lead coach] was able to see in action the best practices used for QI in today's world. The ECHOs were so useful to hear how others were tackling similar issues. Cardi-OH provided outstanding preparation, regularly teaching and feedback, and great relationships with our clinical partners. Thank you for doing this - will be utilizing within our own Medicaid-serving clinics."

QI Coaching Skill Domain	Baseline Survey Mean	Exit Survey Mean
Considering local context for data and evaluation needs	3.5	4.8
Executing effective interpersonal skills for key stakeholder engagement	4.1	5.2
Motivating QI in a practice and among QI team members	4.0	5.3
Teaching and/or sharing QI tools and methods	3.3	5.1
Assisting practices in obtaining and using data to evaluate QI	3.1	4.9
Supporting QI spread	3.7	5.2

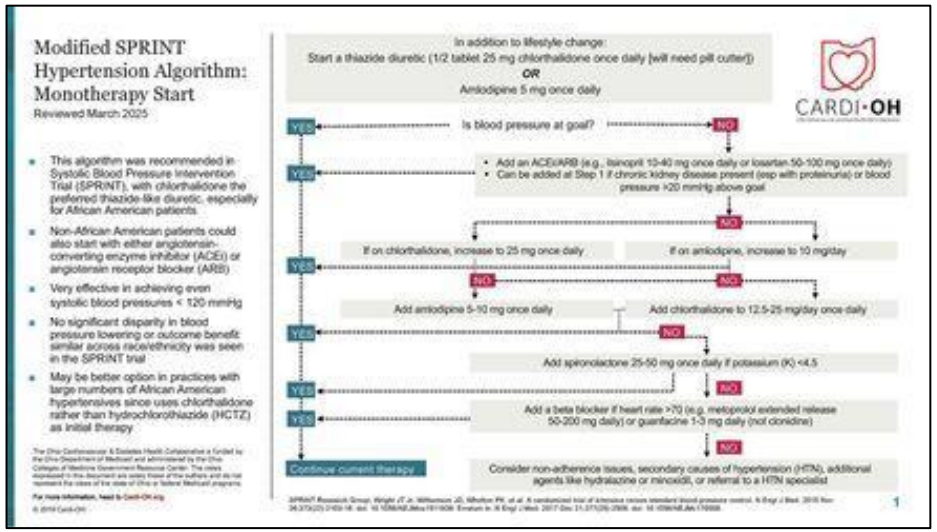
Note: scores could range from 1 "not at all comfortable or knowledgeable" to 6 "extremely comfortable or knowledgeable"

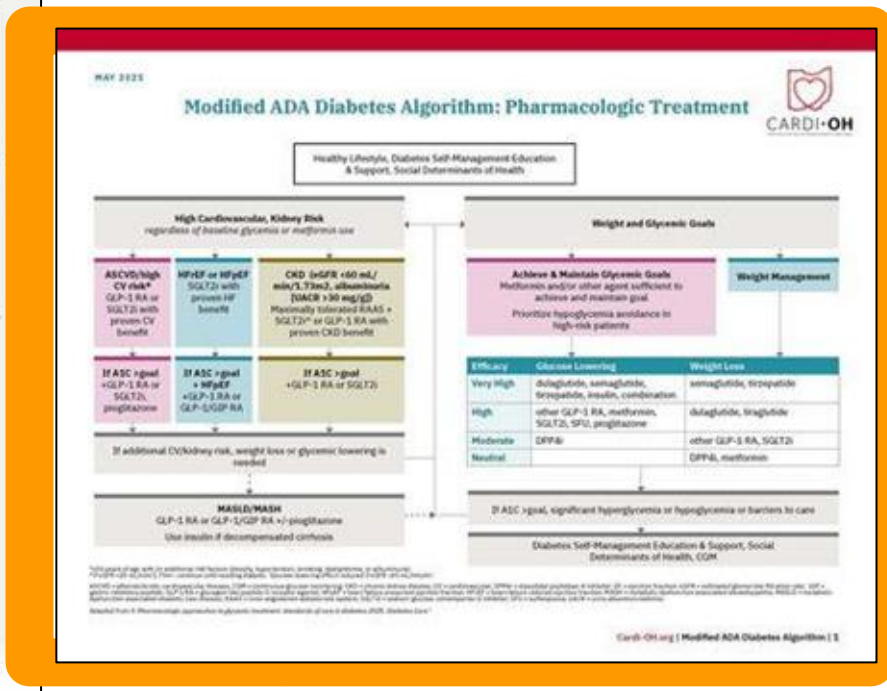
Team Best Practices

A curated library with hundreds of cardiovascular and diabetes best practices

Cardi-OH Trivia: Can You Name the Most Downloaded *Article*?

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative





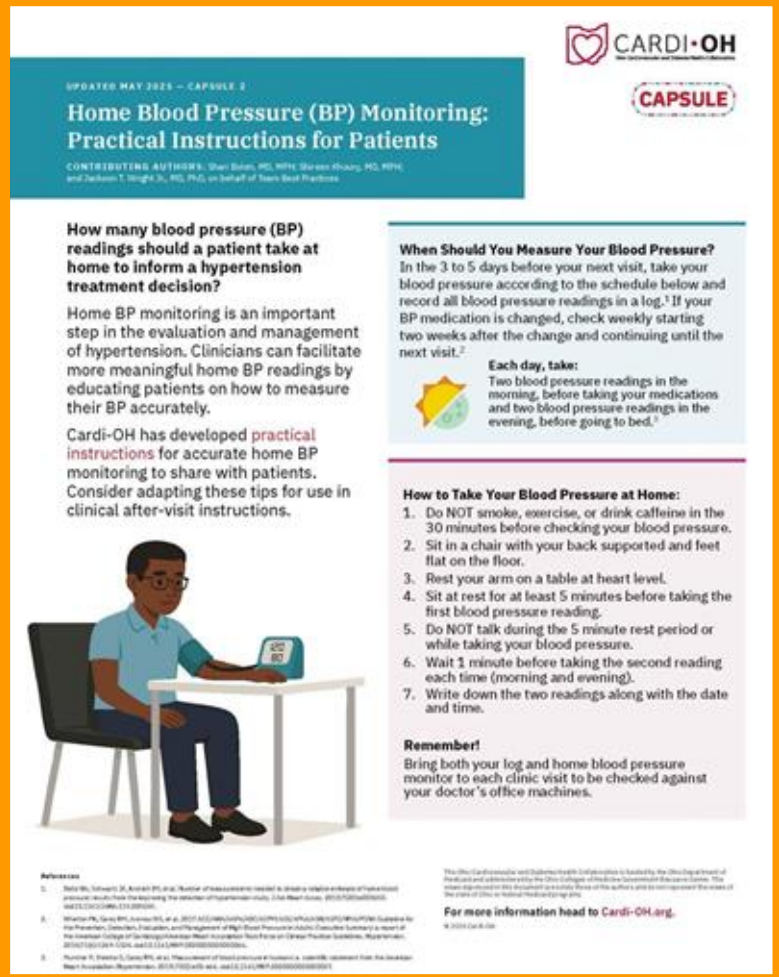
102 *Articles* Since February 2019

45,490 Total Lifetime Downloads

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative

Cardi-OH Trivia: Can You Name the Most Downloaded *Capsule*?

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative



CARDI·OH
CAPSULE

UPDATED MAY 2025 — CAPSULE 2

Home Blood Pressure (BP) Monitoring: Practical Instructions for Patients

CONTRIBUTING AUTHORS: Shari Bolen, MD, MPH; Sherein Khoury, MD, MPH; and Jackson T. Wright Jr., MD, PhD, on behalf of Team Best Practices

How many blood pressure (BP) readings should a patient take at home to inform a hypertension treatment decision?

Home BP monitoring is an important step in the evaluation and management of hypertension. Clinicians can facilitate more meaningful home BP readings by educating patients on how to measure their BP accurately.

Cardi-OH has developed practical instructions for accurate home BP monitoring to share with patients. Consider adapting these tips for use in clinical after-visit instructions.

When Should You Measure Your Blood Pressure?
In the 3 to 5 days before your next visit, take your blood pressure according to the schedule below and record all blood pressure readings in a log.[1] If your BP medication is changed, check weekly starting two weeks after the change and continuing until the next visit.[2]

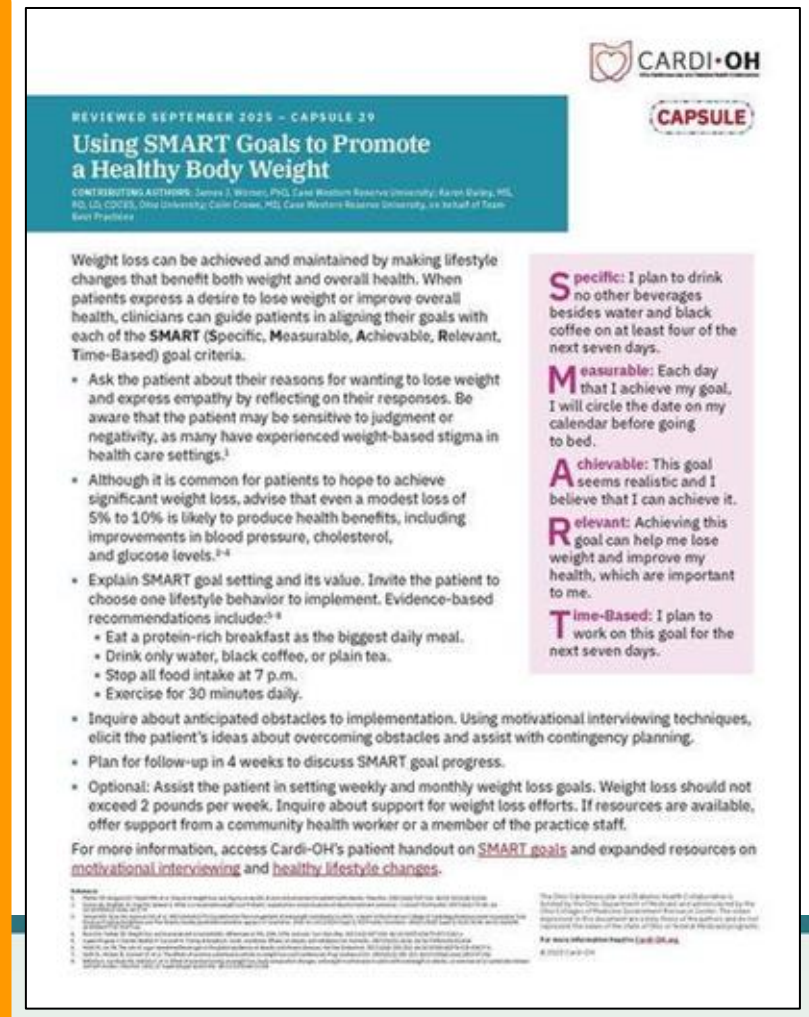
Each day, take:
Two blood pressure readings in the morning, before taking your medications and two blood pressure readings in the evening, before going to bed.[3]

How to Take Your Blood Pressure at Home:

1. Do NOT smoke, exercise, or drink caffeine in the 30 minutes before checking your blood pressure.
2. Sit in a chair with your back supported and feet flat on the floor.
3. Rest your arm on a table at heart level.
4. Sit at rest for at least 5 minutes before taking the first blood pressure reading.
5. Do NOT talk during the 5 minute rest period or while taking your blood pressure.
6. Wait 1 minute before taking the second reading each time (morning and evening).
7. Write down the two readings along with the date and time.

Remember!
Bring both your log and home blood pressure monitor to each clinic visit to be checked against your doctor's office machines.

For more information head to Cardi-OH.org.



CARDI·OH
CAPSULE

REVIEWED SEPTEMBER 2025 – CAPSULE 29

Using SMART Goals to Promote a Healthy Body Weight

CONTRIBUTING AUTHORS: James J. Warren, PhD, Case Western Reserve University; Karen Bailey, MS, RD, LD, CDCES, Ohio University; Colin Crowe, MD, Case Western Reserve University, on behalf of Team Best Practices

Weight loss can be achieved and maintained by making lifestyle changes that benefit both weight and overall health. When patients express a desire to lose weight or improve overall health, clinicians can guide patients in aligning their goals with each of the **SMART** (**S**pecific, **M**easurable, **A**chievable, **R**elevant, **T**ime-Based) goal criteria.

- Ask the patient about their reasons for wanting to lose weight and express empathy by reflecting on their responses. Be aware that the patient may be sensitive to judgment or negativity, as many have experienced weight-based stigma in health care settings.[1]
- Although it is common for patients to hope to achieve significant weight loss, advise that even a modest loss of 5% to 10% is likely to produce health benefits, including improvements in blood pressure, cholesterol, and glucose levels.[2-4]
- Explain SMART goal setting and its value. Invite the patient to choose one lifestyle behavior to implement. Evidence-based recommendations include:[5-8]
  - Eat a protein-rich breakfast as the biggest daily meal.
  - Drink only water, black coffee, or plain tea.
  - Stop all food intake at 7 p.m.
  - Exercise for 30 minutes daily.
- Inquire about anticipated obstacles to implementation. Using motivational interviewing techniques, elicit the patient's ideas about overcoming obstacles and assist with contingency planning.
- Plan for follow-up in 4 weeks to discuss SMART goal progress.
- Optional: Assist the patient in setting weekly and monthly weight loss goals. Weight loss should not exceed 2 pounds per week. Inquire about support for weight loss efforts. If resources are available, offer support from a community health worker or a member of the practice staff.

Specific: I plan to drink no other beverages besides water and black coffee on at least four of the next seven days.

Measurable: Each day that I achieve my goal, I will circle the date on my calendar before going to bed.

Achievable: This goal seems realistic and I believe that I can achieve it.

Relevant: Achieving this goal can help me lose weight and improve my health, which are important to me.

Time-Based: I plan to work on this goal for the next seven days.

For more information, access Cardi-OH's patient handout on SMART goals and expanded resources on motivational interviewing and healthy lifestyle changes.

CARDI·OH
CAPSULE

REVIEWED DECEMBER 2024 — CAPSULE 5

5 Pearls for Motivational Interviewing

CONTRIBUTING AUTHORS: Dawn Bricker, MD, Wright State University; James J. Warren, PhD, MSSA, Case Western Reserve University; Sherein Khoury, MD, MPH, Case Western Reserve University, on behalf of Team Best Practices

The foundation of cardiovascular health improvement consists of healthy lifestyle behaviors such as getting regular exercise, avoiding smoking, eating a healthy diet, and taking medications as prescribed. However, it can often be challenging to guide patients toward meaningful behavior changes.

Motivational interviewing is an evidence-based conversational approach used to explore and strengthen a patient's own motivating factors toward behavior change.[1]

Motivational interviewing seeks to understand circumstances from the patient's point of view, because providing information to patients is important but not typically sufficient to drive behavior change.[2] Change is driven by the patient's desire for consistency between their goals and values and their behavior. In motivational interviewing, the clinician guides the patient in resolving their ambivalence by eliciting their motivation for healthy behavioral changes.

For more information, access Cardi-OH's expanded resource on motivational interviewing.

Consider incorporating these skills into your clinical conversations as you work with patients toward better cardiovascular health:

Open-Ended Questions
These cannot be answered with a simple "yes" or "no"
TRY ASKING: What is your understanding of how smoking affects your blood pressure?
INSTEAD OF: Do you see a connection between your smoking and your recent high blood pressures?

Evoke Change Talk
Change talk is any argument the patient makes for change
TRY ASKING: If you really decided to quit smoking, how could you do it? What's the downside of how things are now?
INSTEAD OF: Why haven't you changed? Why do you have to smoke?

Ask-Tell-Ask
This elicits patient thoughts or concerns both before and after providing a key message
TRY ASKING: How do you feel about your smoking? Quitting smoking is one of the best ways you can reduce your risk of heart attack and stroke. What questions or concerns do you have for me?
INSTEAD OF: You need to quit smoking.

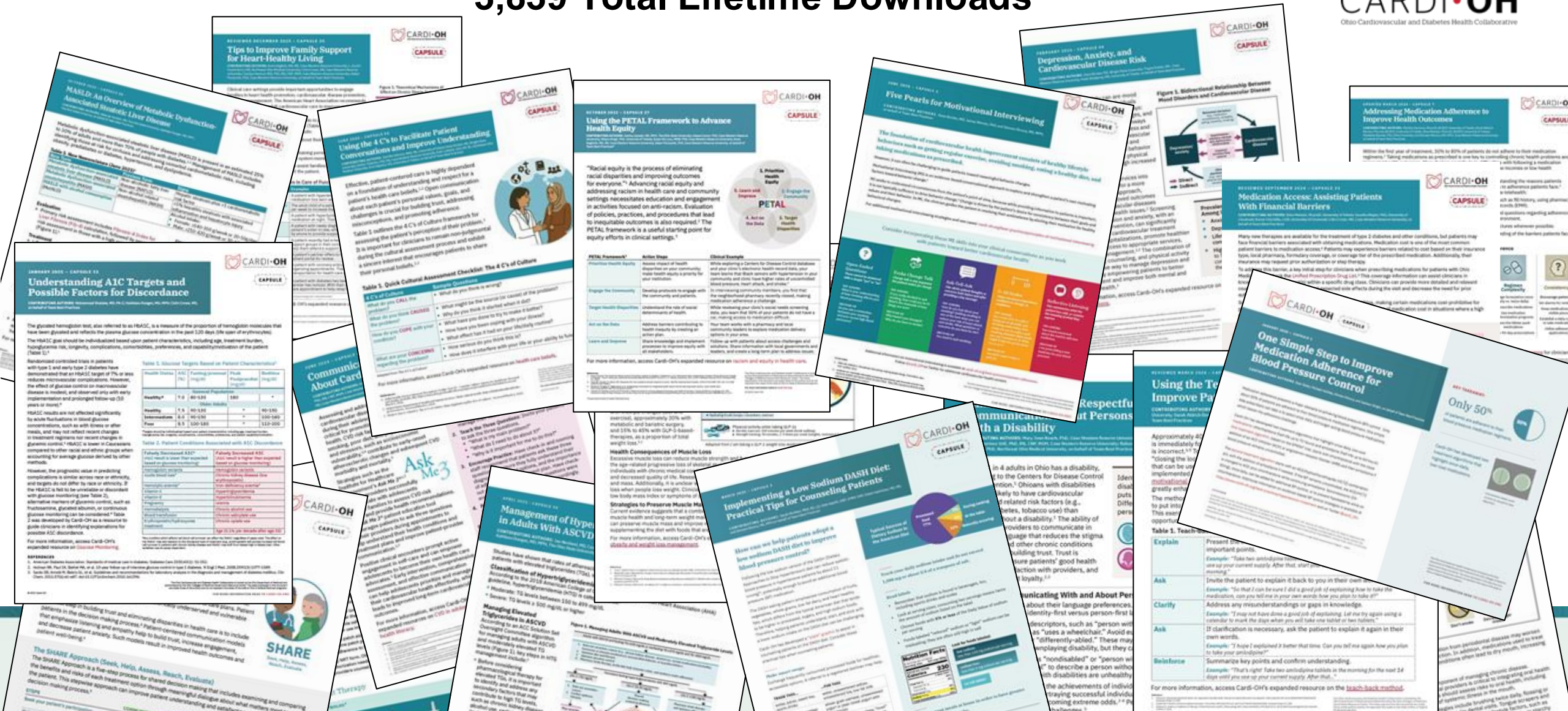
0-10 Scales
0 10
These can assess importance, readiness to change, or confidence
TRY ASKING: On a scale of 0-10, with 0 being not at all ready, and 10 being ready today, how ready are you to make a quit-smoking attempt? What made you say 5 instead of 3? What might it take for you to move to a 6 or 7?
INSTEAD OF: You don't seem ready to quit yet.

Reflective Listening
This summarizes what the patient has said, or restates the meaning of what they express
TRY STATING: You sound concerned about the need to add new medicines.
INSTEAD OF: I am prescribing a new medicine for your blood pressure.

69 *Capsules* Since January 2020

3,839 Total Lifetime Downloads

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative



Cardi-OH Trivia: Can You Name the *Cardi-OH Radio* Podcast with the Most Listens?

Peter Pronovost, MD, MPH

Marilee Clemons, PharmD
Sarah Aldrich Renner, PharmD
Nicholas Horen, MD

520 total listens

Peter Pronovost, MD, MPH

69 *Cardi-OH Radio* Podcasts Since March 2020

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative

15,372 Total Lifetime Listens

Cardi-OH RADIO
Podcast 49 - Understanding the Link Between Migraine and Cardiovascular Disease

Cardi-OH RADIO
Podcast 4 - Disparities in Cardiovascular Disea and Diabetes: Implications for Prac

Cardi-OH RADIO
Podcast 30 - Air Pollution Exposure and the Heart

Cardi-OH RADIO
Podcast 67 - The Mediterranean Diet: A Heart-Healthy Eating Pattern

Cardi-OH RADIO
Podcast 57 - Pediatric Hypertension: An Overview for Primary Care

Cardi-OH RADIO
Podcast 42 - Mindful Medicine: Integratin Mindfulness and Meditation in Primar Care

Cardi-OH RADIO
Podcast 21 - Talking With our Patients: Insulin itiation and ministra

Cardi-OH RADIO
Podcast 10 - Taking Care f the Heartland: Rural elehealth During COVID-9

Cardi-OH RADIO
Podcast 3 - Hypertension Management in the Era of Telehealth

cast 44 - Obesity and ght Loss agement: Surgical rventions, Part 2

Podcast 35 - Sleep Disorders and the Heart

Cardi-OH RADIO
Podcast 14 - The Top Six Things Endocrinologists Wish Every Primary Care Provider Knew

Cardi-OH RADIO
Podcast 23 - Quali Improvement in Cli Practice: How to Tel Story

Cardi-OH RADIO
Podcast 47 - Overcoming Barriers to Continuous Glucose Monitoring Use h Your Patients

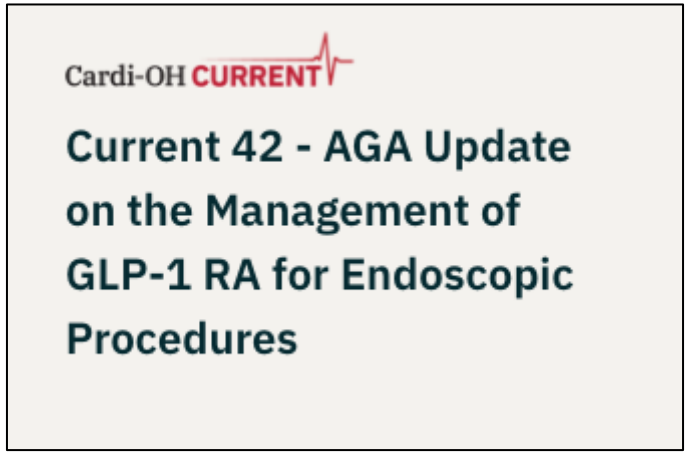
each-Back Metho mprove Patient nderstanding

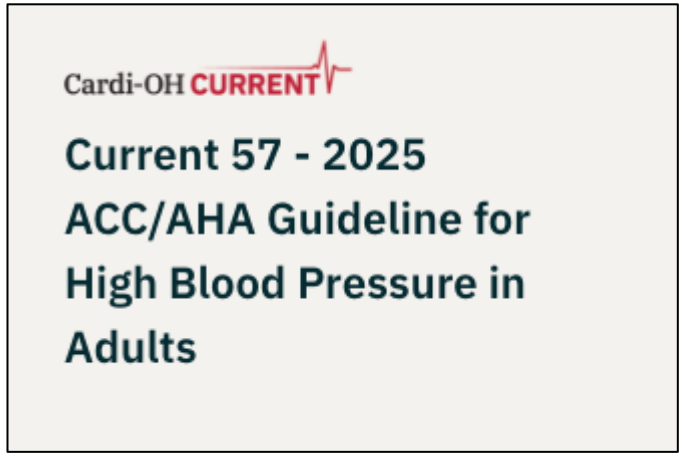
H RADIO
Podcast 37 - What I Want My Health Care Team to Know About Having a Disability

RADIO
Podcast 26 - Kicking the Habit: Partnering With Patients to Treat Tobacco Dependence

cast 62 - Updates in SLD and MASH: What roviders Need to Know

Cardi-OH Trivia: Can You Name the Most Viewed *Current*?

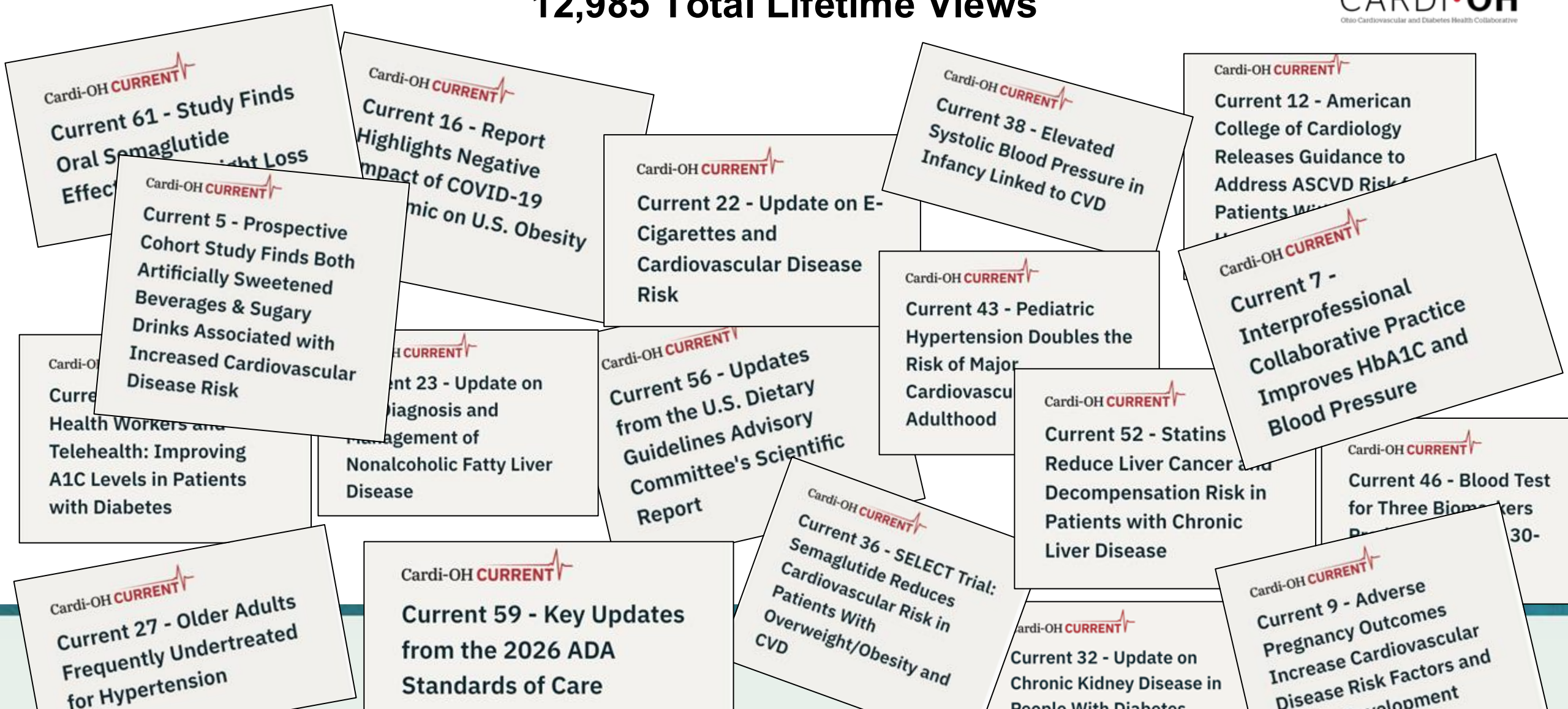




63 *Currents* Since July 2020

12,985 Total Lifetime Views

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative



16 Statewide Webinars Since November 2018

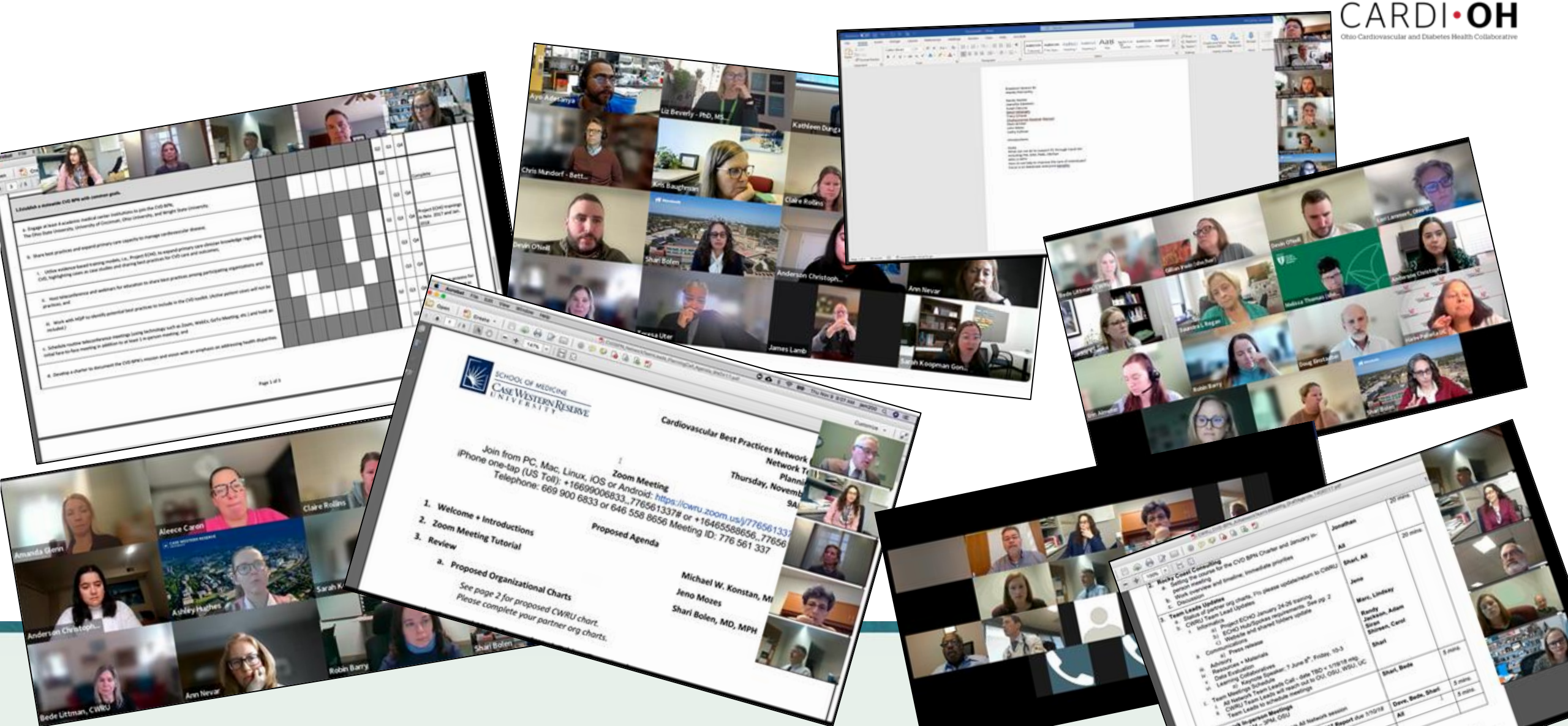
Cardi-OH Trivia: Can You Name the Webinar With the Highest Attendance?

1. **DASH Diet**
   Randy Wexler
2. **Behavioral Health**
   Trygve Dolber
3. **Community Health Workers**
   Elizabeth A. Beverly & Melissa K. Thomas
4. **T2D in Adolescents**
   Rose Gubitosi-Klug & Erika Lundgrin
5. **Race and Cardiovascular Health**
   Herman A. Taylor, Jr.
6. **Remote Monitoring for Diabetes**
   Kathleen Dungan
7. **COVID-19 and Cardiovascular Health**
   Tamanna K. Singh
8. **Weight Management and Diabetes**
   Benjamin O'Donnell
9. **Heart Health and Sleep**
   Jennifer Molano
10. **Heart Failure**
    Mark E. Dunlap
11. **Fatty Liver Disease**
    Lanla F. Conteh
12. **Social Determinants of Health**
    Rachel Gold
13. **Prevention of CVD in Women**
    Leslie Cho
14. **Food Insecurity**
    David H. Holben
15. **Brain Health**
    Robert B. Saper
16. **Tackling Adherence Challenges**
    M. Robin DiMatteo

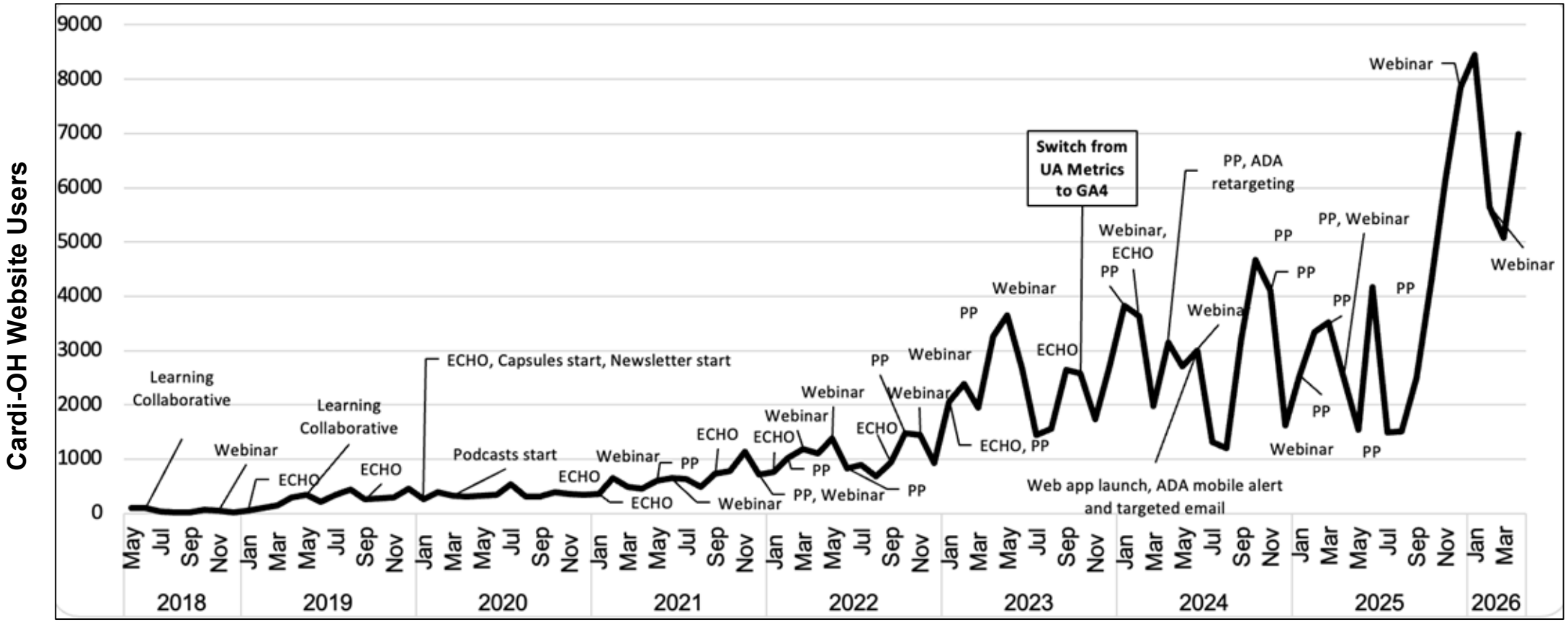
336 attendees

So Many Zoom Meetings!

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative



Cardi-OH.org Reach and Engagement



Reach and Engagement in Ohio Over Time

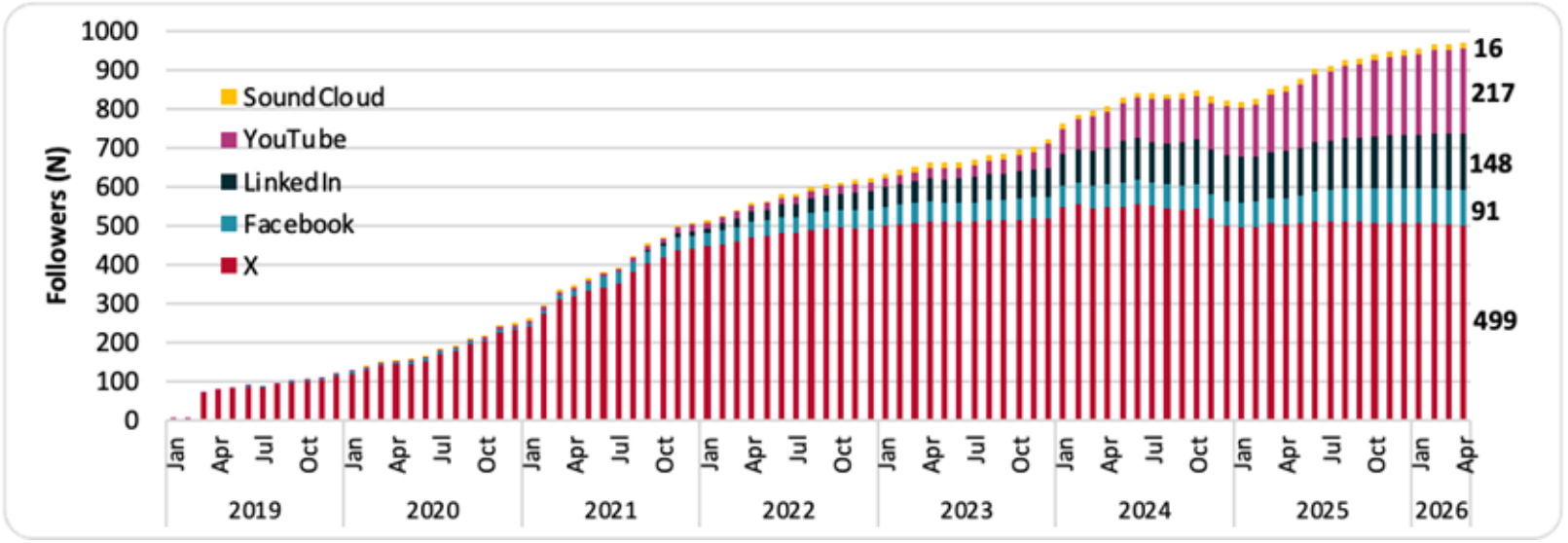
Legend

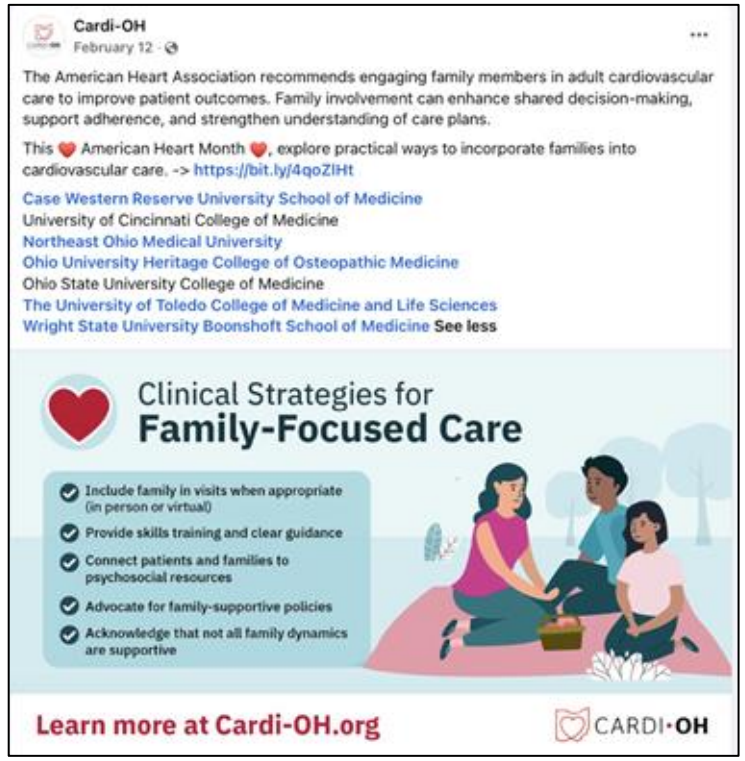
School of Medicine

REDCap user added after engaging with Cardi-OH at least once (i.e., attended event, ECHO clinic, or took the annual needs assessment)

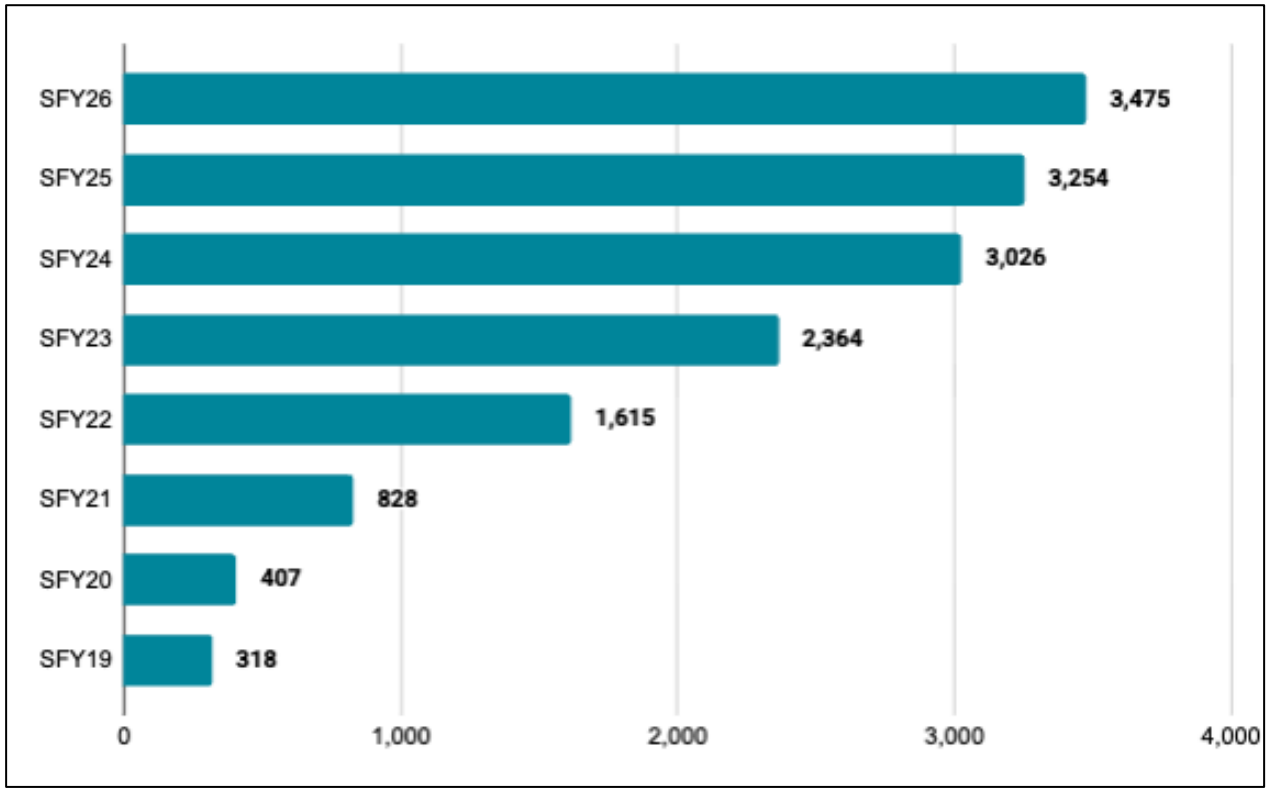
n=1,335 out of 3,475 total records

Social Media Followers by Month





Cardi-OH Database: Growth Over Time



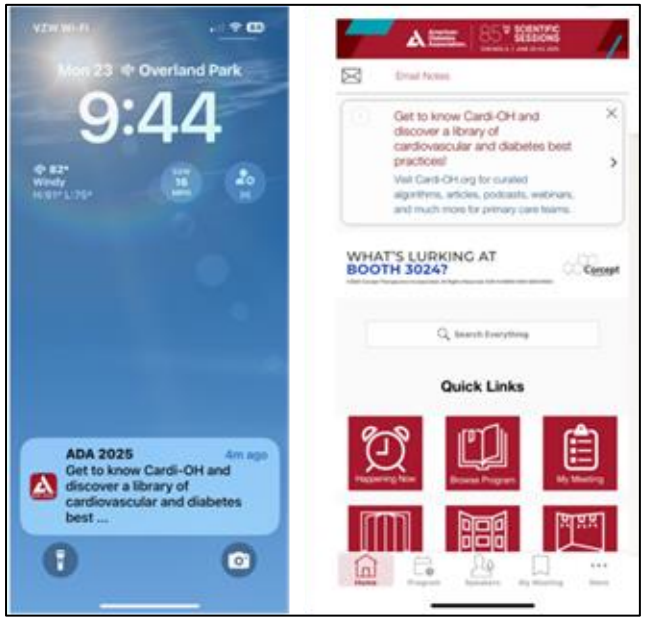
Contacts in the Cardi-OH REDCap Database

74 *Update* Newsletters Since 2020

33,627 Lifetime Email Opens

Reaching HCPs Where They Practice: PatientPoint

Reaching HCPs: ADA, OAFP, OOA



Download the NEW! Cardi-OH Web App

Paid Sponsorship by Cardi-OH

Access Cardi-OH's library of cardiovascular and diabetes care resources on your mobile device by downloading the app today! Read More

Webinar: Identifying and Addressing Food Insecurity in the Medical Setting

Paid Sponsorship by Cardi-OH

Register for the upcoming Cardi-OH webinar on April 30. Earn CME credit at no cost. Read More

Register for the Cardi-OH ECHO QI Cardiovascular Series

Paid Sponsorship by Cardi-OH

Register your practice for the upcoming Cardi-OH ECHO QI Cardiovascular Series. Earn CME credits at no cost. Read More

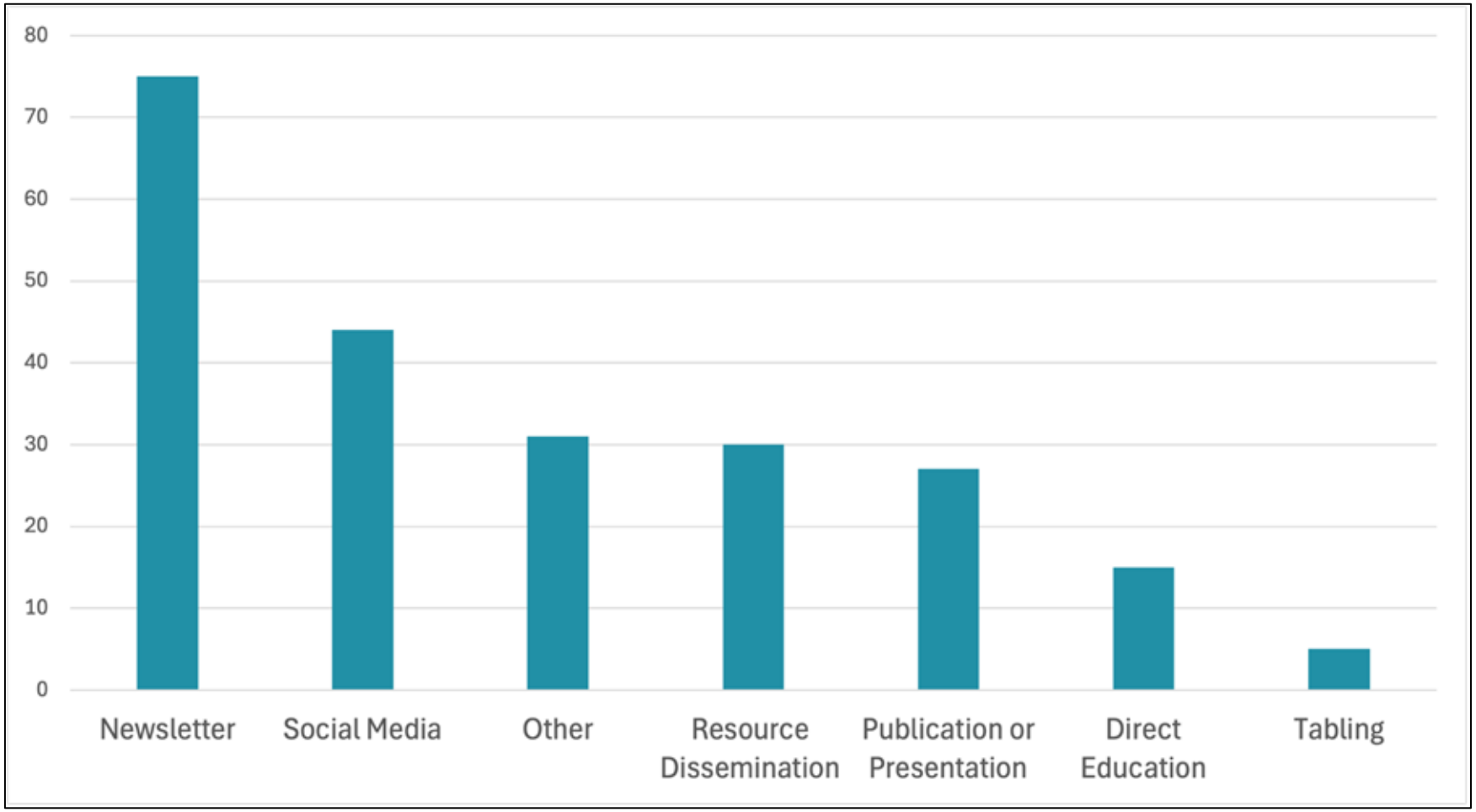
Tune in to Cardi-OH's Podcast for Primary Care Teams

Paid Sponsorship by Cardi-OH

Access Cardi-OH's monthly podcasts filled with expert-led discussions on timely topics on the Cardi-OH website or via your favorite podcast platform. Read More

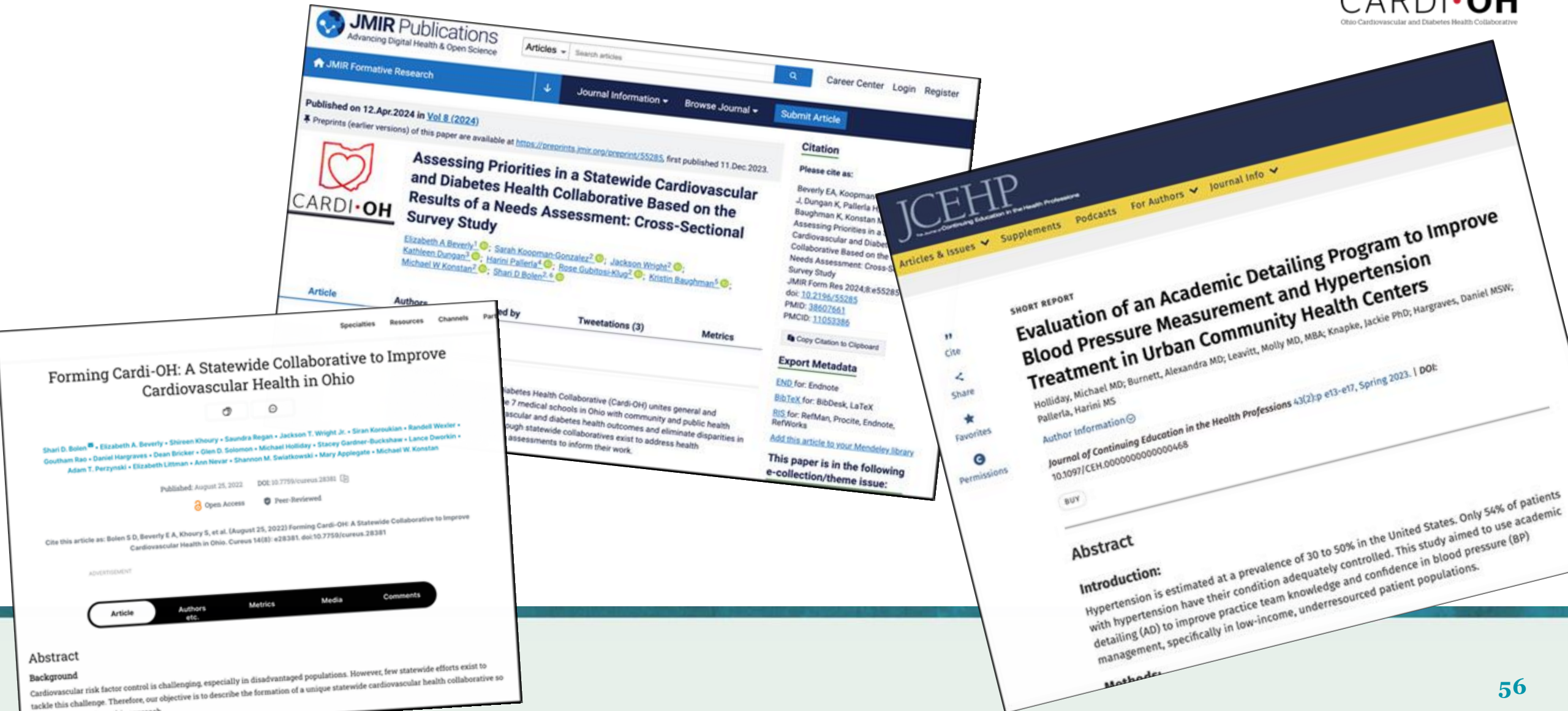
Outreach Events

SFY25 Regional Dissemination Activities

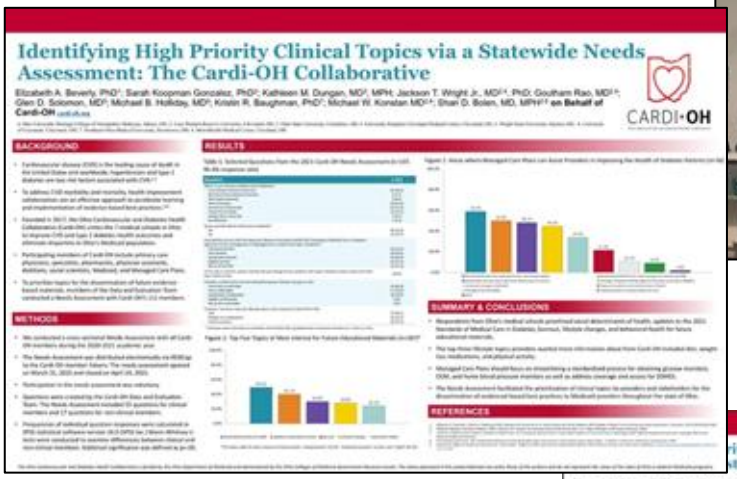


Publications

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative



Presentations



- Identifying High Priority Cardiovascular and Diabetes Topics for the Dissemination of Evidence-Based Best Practices: Results from a Statewide Needs Assessment (ADA 83rd Annual Scientific Sessions; June 2023, San Diego, CA)
- Expanding a Medicaid-Funded Statewide Collaborative to Include Diabetes Outcomes (SGIM Annual Meeting; May 2023, Aurora, CO)
- Cardi-OH Formation and Reach: A Statewide Cardiovascular and Diabetes Health Collaborative (AcademyHealth Annual Research Meeting; June 2022, Washington, DC)
- Cardi-OH Formation and Reach: A Statewide Cardiovascular Health Collaborative (SGIM Annual Meeting; April 2022, Orlando, FL)
- Identifying High Priority Clinical Topics via a Statewide Needs Assessment: The Cardi-OH Collaborative (Association of Diabetes Education and Care Specialists Annual Conference; August 2021, Virtual Conf)
- A Statewide Needs Assessment to Inform Best Practices for the Ohio Cardiovascular and Diabetes Health Collaborative (ADA 81st Scientific Sessions; June 2021, Virtual Conf)
- Ohio Cardiovascular Health Collaborative Needs Assessment Results (SGIM Annual Meeting; May 2020, Virtual Conf)

In Summary

- Cardi-OH's ECHO Clinics and evidence-based library has built capacity to manage cardiovascular conditions for Medicaid enrollees.
- The Cardi-OH ECHO QI Series has further demonstrated successful improvement in cardiovascular outcomes and coaching skills.
- Cardi-OH has successfully reached and engaged thousands of primary care team members using multiple dissemination modalities.
- The impact of this work will reverberate for many years to come and seed other initiatives for even greater impact.

CARDI·OH

Ohio Cardiovascular and Diabetes Health Collaborative

Chat Activity #3

What's one thing from Cardi-OH
that you will carry forward in your future work?

Words of Wisdom

"Ultimately, the secret of quality [or a good collaborative] is love . . . If you have love, you can then work backward to monitor and improve the system."

- Avedis Donabedian, MD, MPH
  health systems research pioneer

https://www.michiganmedicine.org/health-lab/how-love-and-landmark-paper-improved-health-care

CARDI·OH
Ohio Cardiovascular and Diabetes Health Collaborative

Regional Celebrations

Stay Connected

Visit Cardi-OH.org
Learn more about the collaborative and read up on the latest best practices.

Follow Us

@cardiohio @cardi-OH @cardi_oh

@cardi-oh @cardi-oh

Contact Us
Info@Cardi-OH.org

Thank You!

CARDI·OH