TAKE heart

AHRQ's Initiative To Increase Use of Cardiac Rehabilitation

Using Hybrid Cardiac Rehabilitation to Expand System Capacity and Patient-Centeredness

Module 10

Steven Keteyian, PhD
Anne M Gavic-Ott, MPA, RCEP, MAACVPR

Agency for Healthcare Research and Quality

TAKEheart Training and Technical Assistance Components

Training sessions guided by the Million Hearts®/AACVPR Cardiac Rehabilitation Change Package (CRCP), located in the Resource Center at: CRCP link

CRCP Resources: Page 12, Table 3

Million Hearts Cardiac Rehabilitation Think Tank: Accelerating New Care Models

Monthly Training Sessions: What to do and Why -- Last of 10 modules

Implementation Guide (IG): Focus on the How
Supplemental documents which outline the content, and provide specific actions, steps and resources designed to assist with integrating the training material

Partner Hospital Peer Action Groups (PH PAGs): Discussion of the HOW
Meet with coaches to discuss module content, share ideas and offer support to other hospitals in the group

American Hospital Association (AHA)/Health Research and Education Trust (HRET): TAKEheart AHRQ's Initiative to Increase Use of Cardiac Rehabilitation

Using Hybrid Cardiac Rehabilitation to Expand System Capacity and Patient-Centeredness

Feb. 24, 2022

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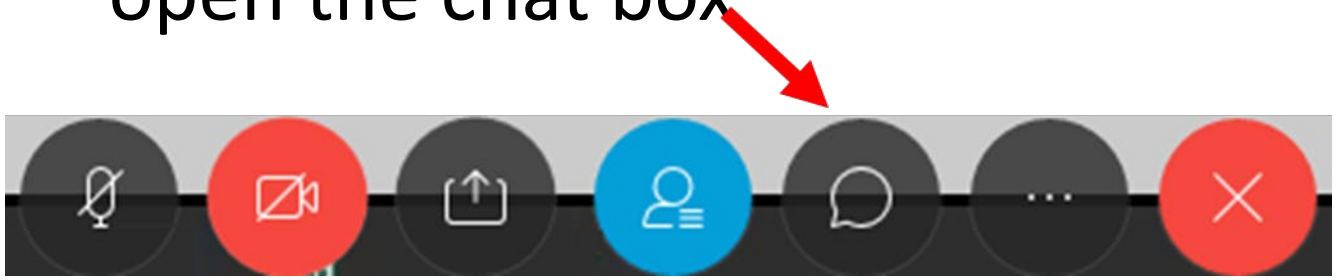
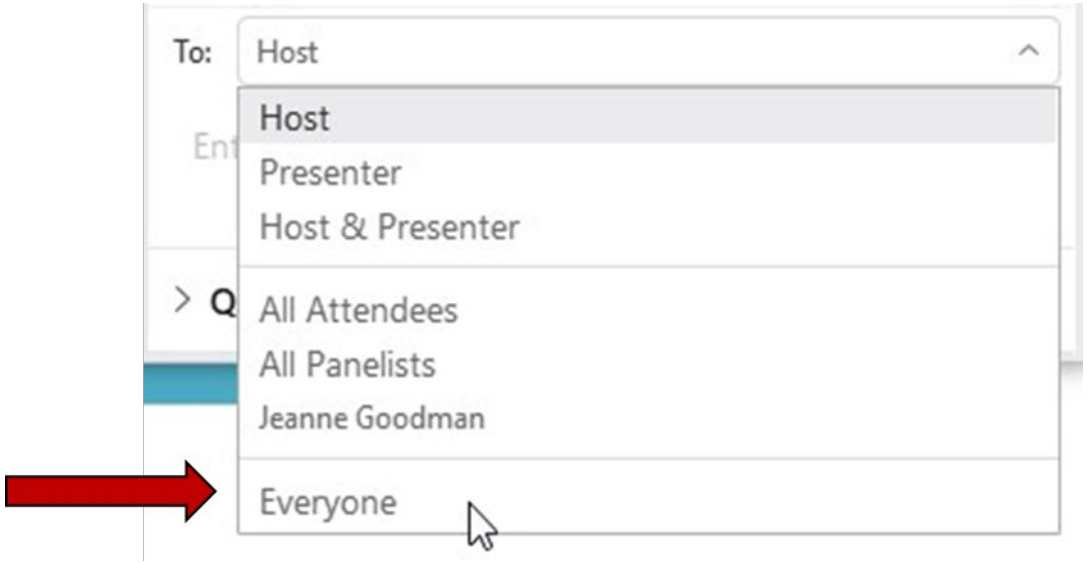
Chat Function

HOW TO ASK QUESTIONS

To ask a question or make a comment open the chat box

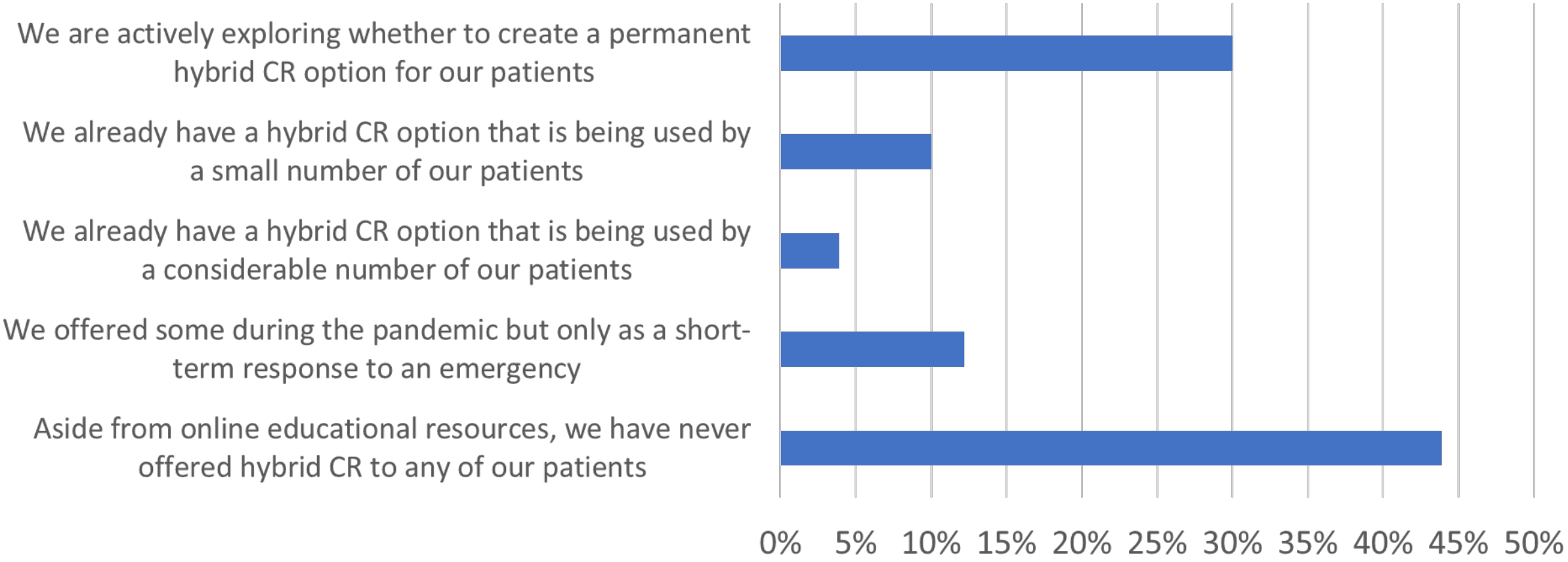


Set the TO: field to **Everyone** so that we can all see your question



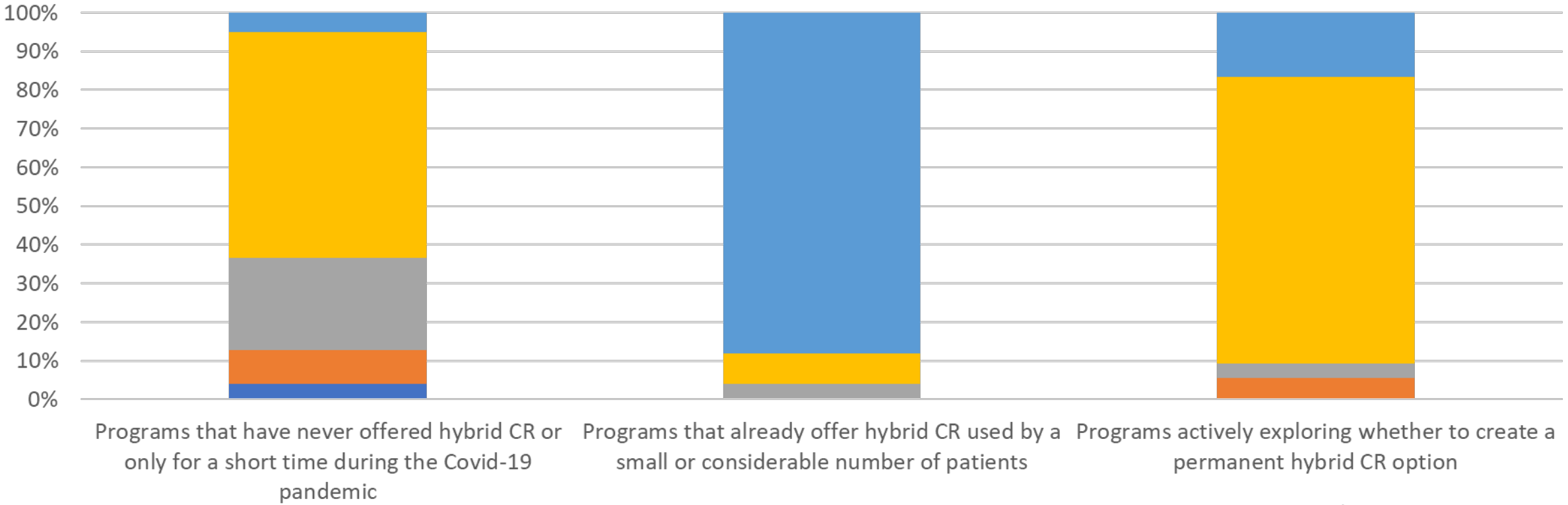
Try the chat function now by sharing one thing you hope to learn today.

How extensively are programs using hybrid CR?*



*Based on 180 responses from event registrants affiliated with a US-based CR program. Some programs had more than one respondent.

How extensively are programs using hybrid CR?*



*Based on 180 responses from event registrants affiliated with a US-based CR program. Some programs had more than one respondent.

Learning Goals

Upon completion of this module, attendees will be able to:

1. **Understand WHAT hybrid CR is** and how it compares to onsite CR.
2. **Understand WHY hybrid CR is a valuable option** for many eligible patients.
3. **Identify important factors you should consider** when assessing whether adding a hybrid CR option may benefit your patients and program.

Today's Presenters

Steven Keteyian, PhD
Director
Preventive Cardiology Unit
Henry Ford Hospital, MI

Anne M Gavic-Ott, MPA, RCEP, MAACVPR
Manager, Cardiopulmonary Rehab / Diabetes Services
Northwest Community Healthcare, IL

How We'll Achieve These Goals

- What hybrid CR is
- Why every CR program should understand hybrid CR
- How programs should evaluate their need for adding a hybrid CR option

Brief Overview of Key Terms

Facility-based CR (FBCR)

- Traditional, early outpatient Phase II CR, provided onsite at a defined location that includes the equipment, staff, resources and procedures necessary to offer all expected components of CR. Exercise sessions are directly observed in real time (synchronous) by clinicians.

Synchronous/real-time audiovisual CR

- CR patients and clinicians are in different locations and engaging in real-time, two-way audio-visual communication. CR clinicians observe patient exercise in real-time over video.

Asynchronous, offsite CR activities

- These can include exercise performed remotely that is not directly supervised by a CR clinician or other activities such as independently watching videos about nutrition or wellness or having a telehealth visit to discuss CR-specific material or review patient reported or uploaded data.

Brief Overview of Key Terms

Hybrid CR

A combination of:

- Facility-based CR **PLUS**
- Synchronous/real-time audiovisual CR exercise sessions and all other required components of CR provided either synchronously or asynchronously

Other Terms

- **Remote, virtual and home-based** CR have been defined in different ways and sometimes used interchangeably. Due to definitional confusion, we are **avoiding the use** of these terms in the training

Definitions

- Definitions in this section and additional guidance on key terms are informed by:

Million Hearts Cardiac Rehabilitation Think Tank: Accelerating New Care Models

What Hybrid CR Is (and Is Not)

What it isn't:

- A temporary stop-gap for when onsite CR isn't possible
- An offsite CR program that lacks one or more required components of CR
- A home exercise program without direct, audiovisual supervision of exercise sessions by a clinician

What it is:

- A multidimensional intervention that includes ALL components of onsite CR:
  - Baseline patient assessment
  - Nutritional counseling
  - Risk factor management
  - Psychosocial interventions
  - Physical activity counseling and directly supervised exercise training
  - Some CR occurs onsite; other exercise sessions are directly supervised audio visually by a CR clinician

How Facility-Based and Hybrid CR Compare

Facility-Based CR

In-person-only, synchronous supervised exercise sessions

Other CR components (e.g., patient education/counseling) provided EITHER on-site or via web- or phone-based support

Hybrid CR: Includes

Some Facility-Based CR
In-person- only, synchronous supervised exercise sessions

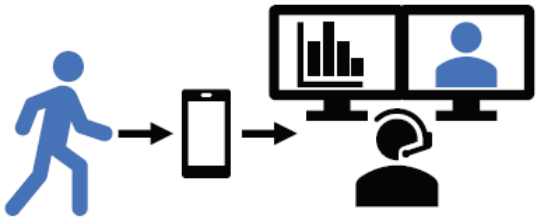
Other CR components (e.g., patient education/counseling) provided EITHER on-site or via web- or phone-based support

AND

Synchronous/Real-time audio-visual supervised exercise sessions

PLUS

Synchronous or asynchronous delivery of all other CR components, using audio visual, phone- or digital device-based communications

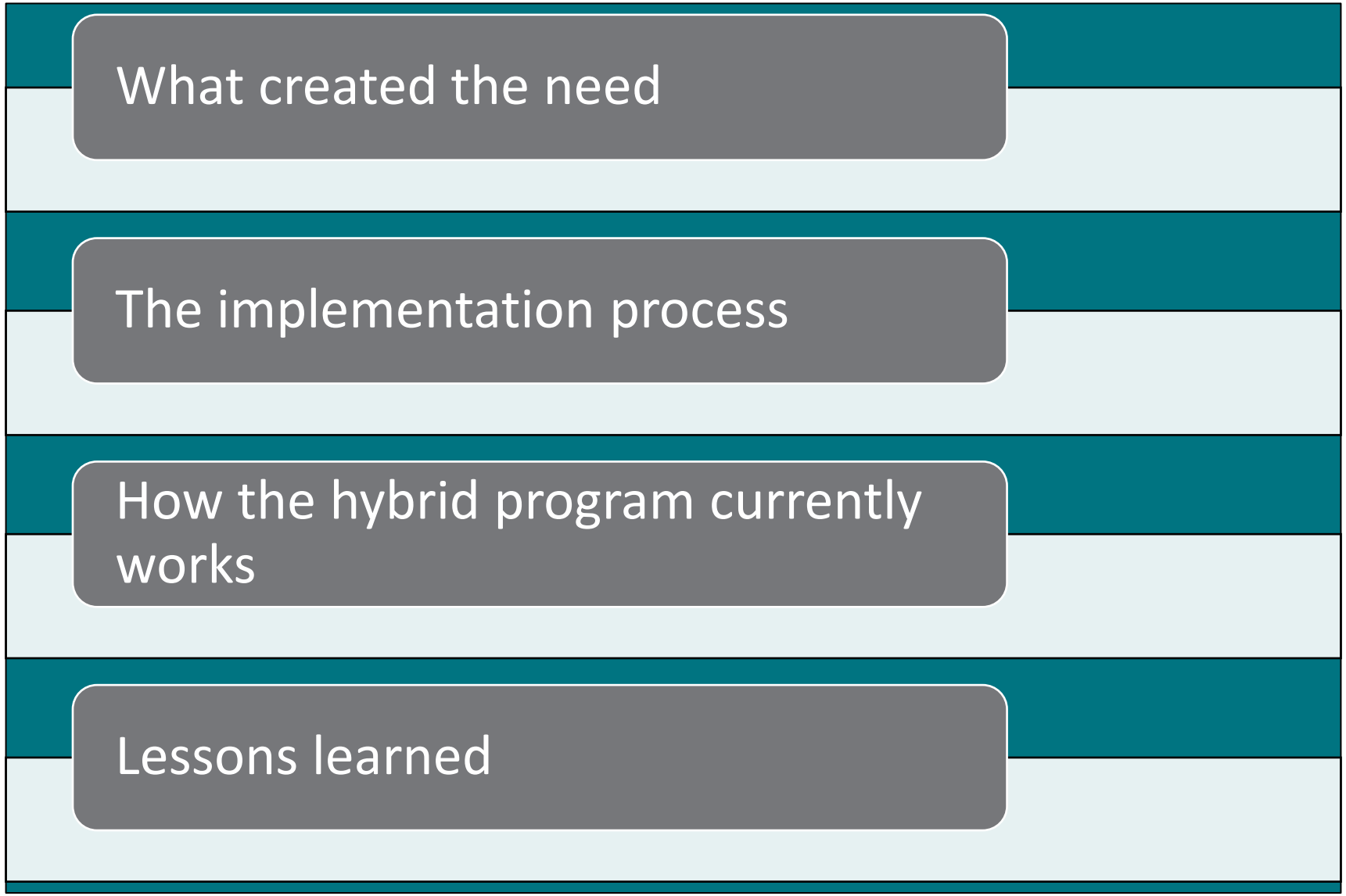


See Keteyian et al. J Cardiov Pulm Rehab Prev. 2021 Aug 24. doi: 10.1097/HCR.0000000000000634 and Million Hearts Cardiac Rehabilitation Think Tank: Accelerating New Care Models for additional discussion.

How Henry Ford Health System Provides Hybrid CR

Hybrid CR	
Programming for 36 stated CR sessions	- 2 to 3 sessions/wk - 1 - 12 sessions will be facility-based CR (FBCR) visits - 24-35 sessions of synchronous/real-time audio-visual supervised exercise - Asynchronous phone or web-based interactions, as needed
Patient monitoring	- ECG telemetry, blood glucose, and exercise BP = 1-6 FBCR visits - Wrist/chest/finger HR monitor for telehealth visits
Patient education	- 28, seven to 15 min audio PDF's accessed on-line (see resource slides, entry 1)
Individualized treatment plan	- Baseline; 30, 60, and 90 days; and at discharge from CR. Link with a facility-based CR visit

How Northwest Community Hospital Introduced Hybrid CR



Changing the CR Paradigm to Benefit Patients

Why hybrid CR can benefit patients
AND programs

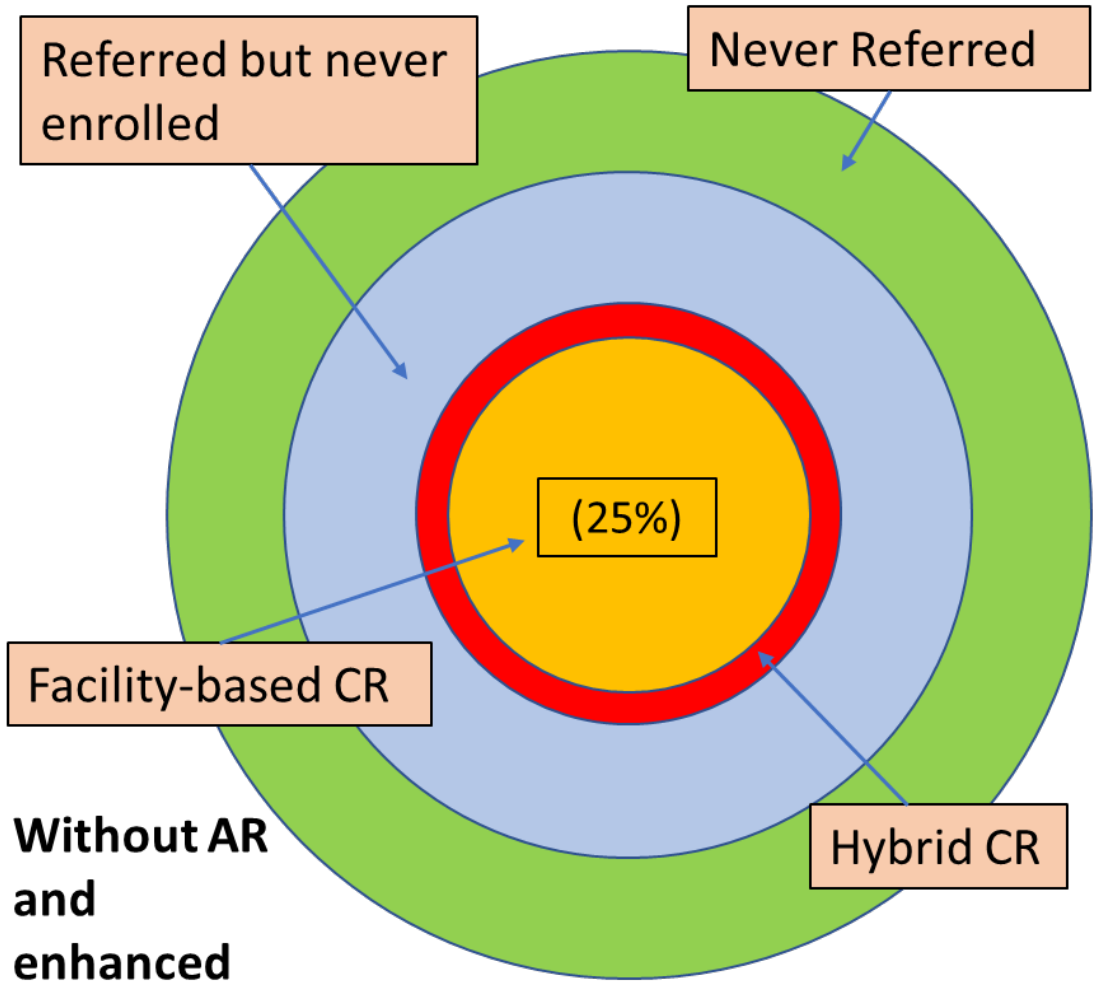
Benefits to Patients: Avoiding Challenges of Onsite CR

Conflicting work schedules	Transportation	Anxiety about group settings or infection risk
Dependent care responsibilities	Live in a CR desert	Homebound

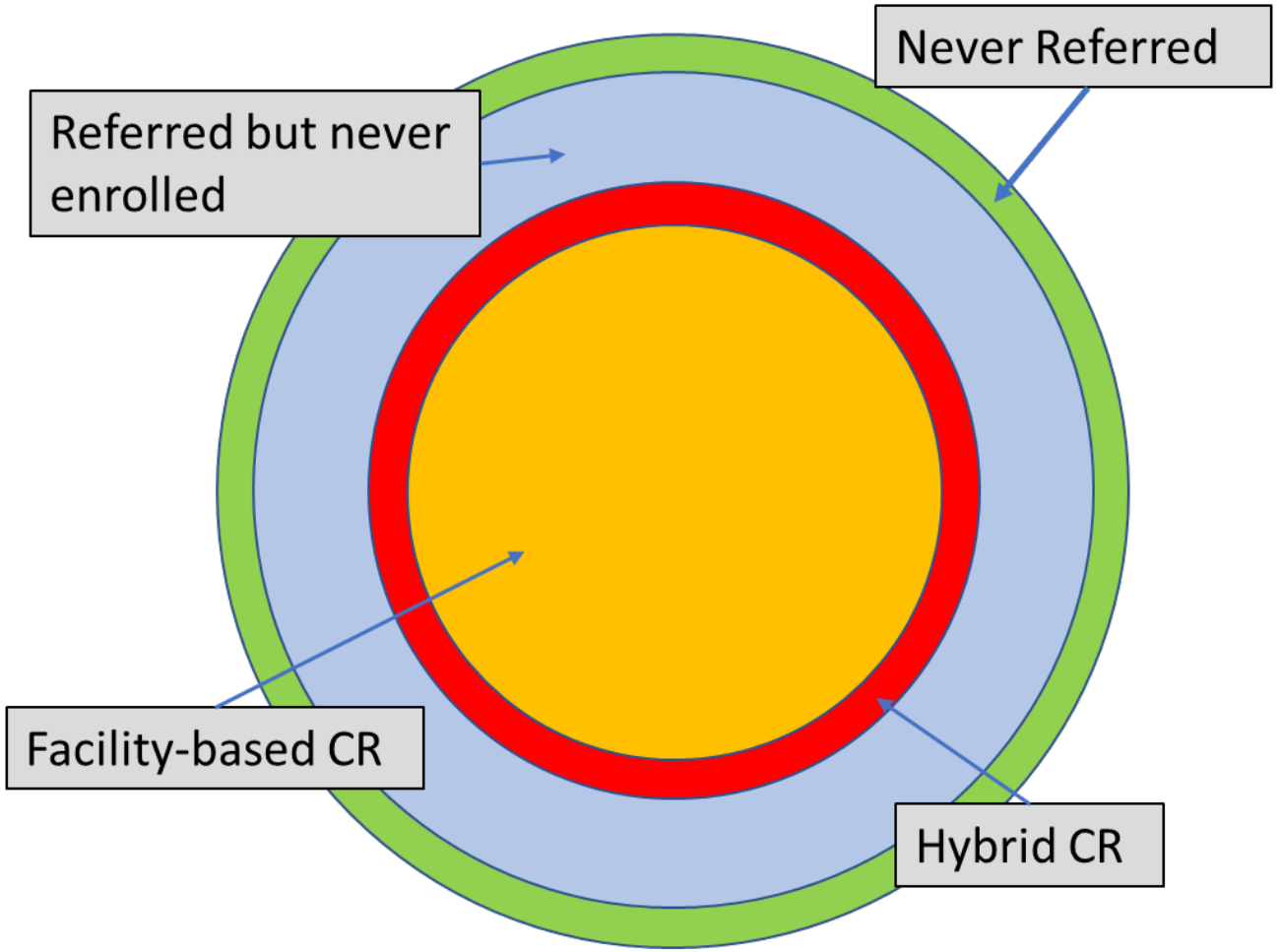
Automatic referral and improved care coordination cannot fully overcome many of these obstacles. An additional option is needed.

(see resource slides, entry 2)

Changing the CR Paradigm: From the Present to Better



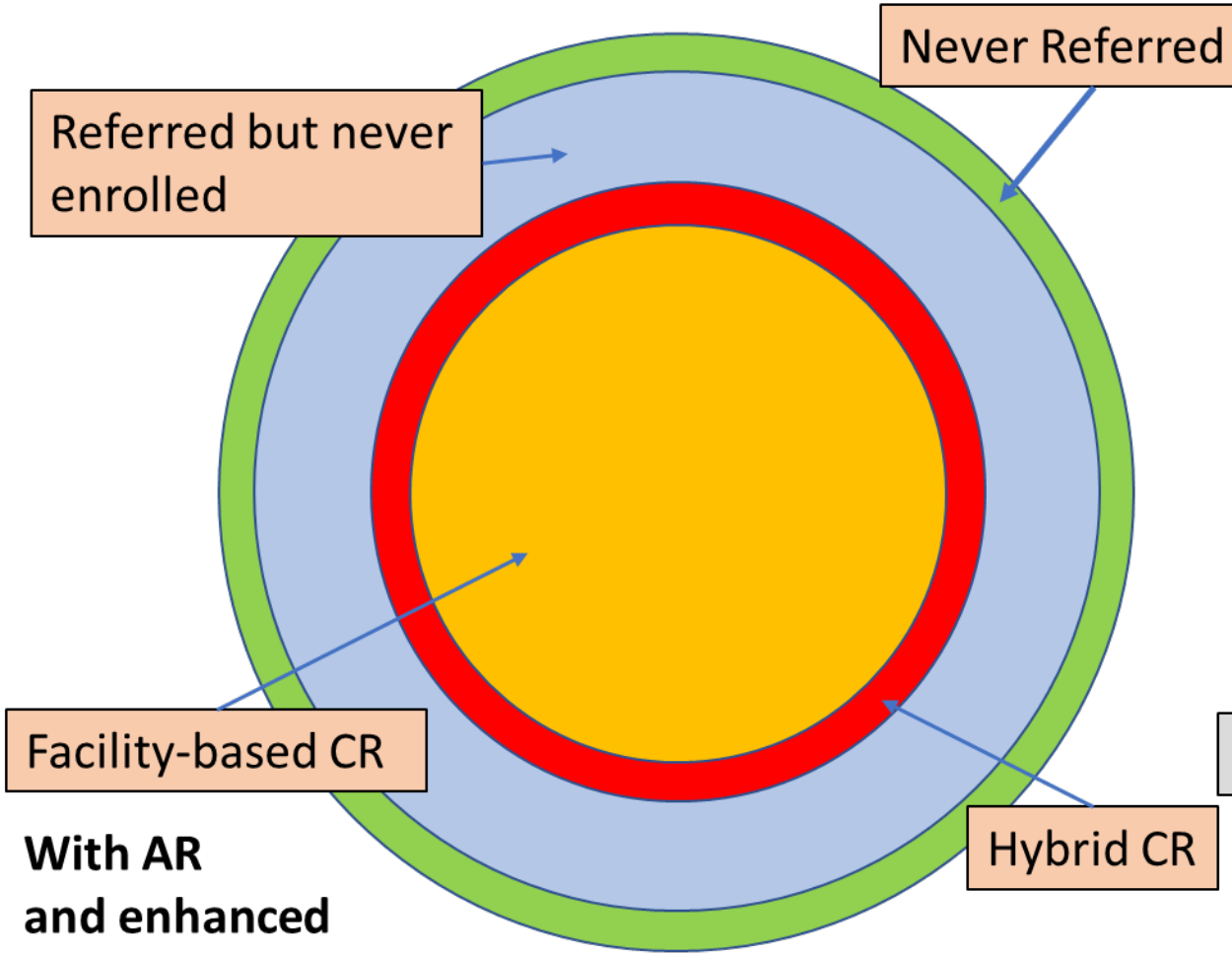
Without AR and enhanced care coordination



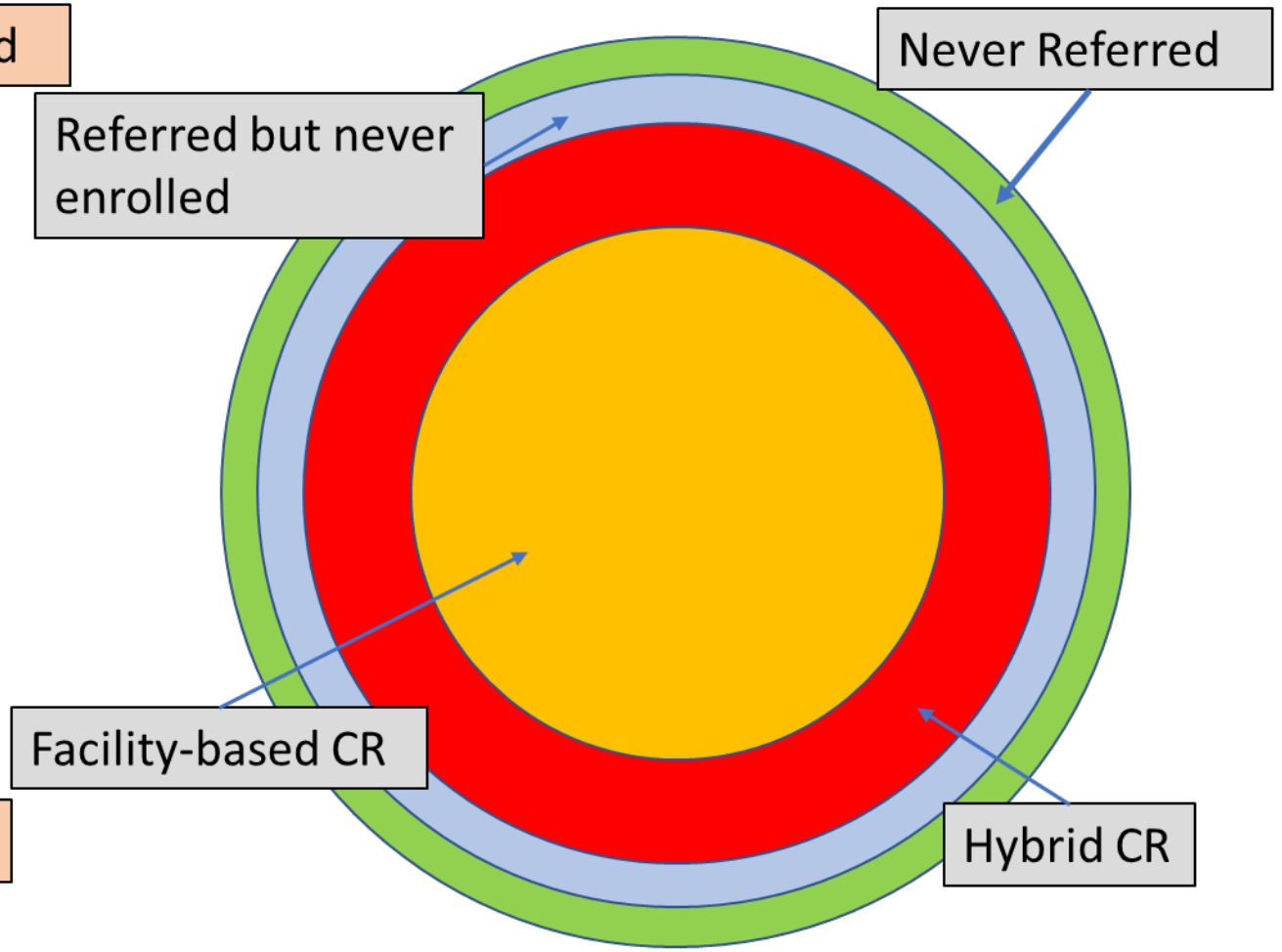
With AR and enhanced care coordination

Adapted from Olson, T. Balancing Technology with the Human Touch to Promote Exercise is Medicine. AACVPR 2018

Changing the CR Paradigm: From Better to Best



With AR and enhanced care coordination



With AR, enhanced care coordination & expanded use of hybrid CR

Adapted from Olson, T. Balancing Technology with the Human Touch to Promote Exercise is Medicine. AACVPR 2018

Benefits to Patients—What About Risks?

Processes for helping ensure patient safety for hybrid CR

- If possible, stress test to screen for symptoms, and any ECG and blood pressure issues
- Direct supervision on-site for initial CR sessions and continued direct audio-visual supervision by CR staff during exercise sessions conducted off-site
- Monitor patient's heart rate, rate of perceived exertion, and symptoms (and blood pressure and body weight, if needed) during all exercise sessions (on- and off-site)
- Establish an agreed-on emergency plan for off-site exercise; incorporate a support person, if needed

Benefits to Patients—What About Risks?

Is it safe? – Reviewing the evidence

No large safety trials comparing hybrid to onsite

In general, major adverse events are rare in facility-based CR.

(see resource slides, entry 3)

Among patients with stable heart failure, CR is **NOT** associated with an increased risk of events.

(see resource slides, entry 4)

Henry Ford and Northwest Community share their experiences

Benefits to Patients—What About Effectiveness?

Processes to ensure effectiveness

Promoting exercise at home is a key element of facility-based CR

Viable methods for exercise at home include:
• Walking • Cycling • Home exercise equipment (treadmill, rowing machine) • Resistance bands/tubes • Body weight exercises

Benefits to Patients—What About Effectiveness?

Is it as rigorous and effective?— Evidence for rigor and effectiveness

No observable differences in exercise training intensity between supervised exercise onsite and exercise supervised audio-visually

(see resource slides, entry 5)

Outcomes for hybrid and onsite CR are comparable.

(see resource slides, entries 6 7)

Henry Ford and Northwest Community share their experiences

Benefits to Programs: Coping with Additional Demand

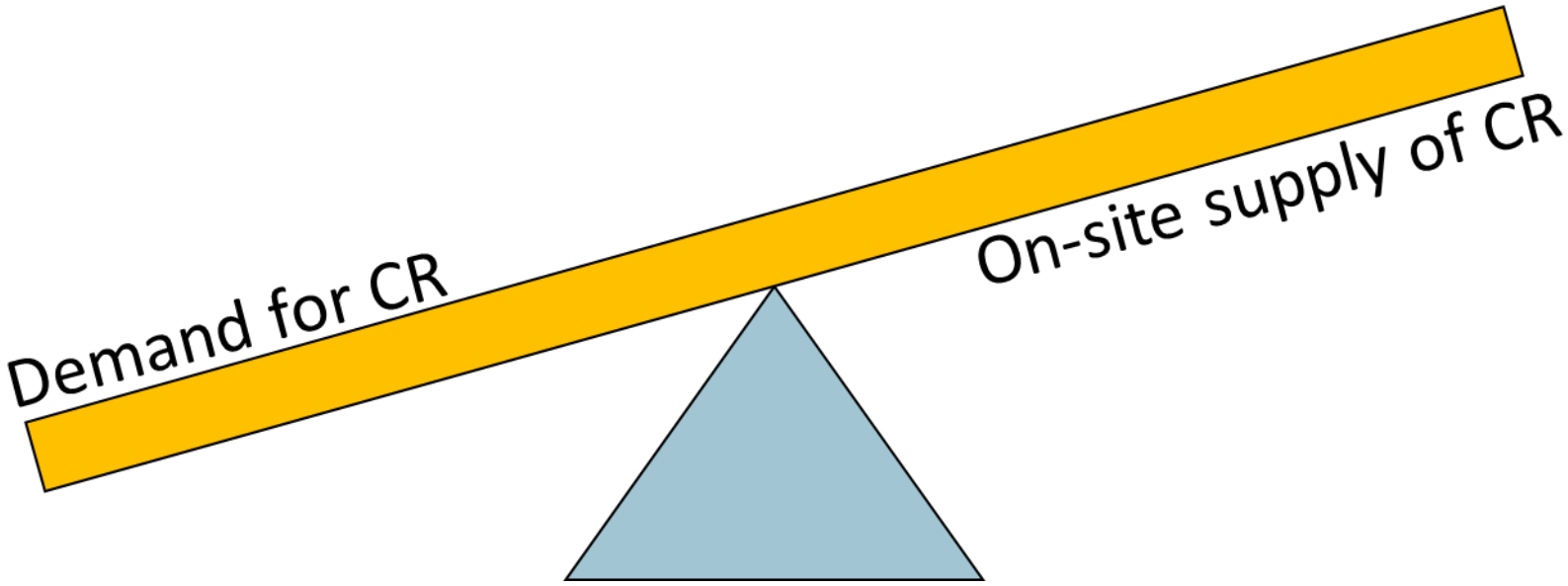
CR qualifying events are increasing as the population ages

Efforts to promote greater CR participation through AR and improved care coordination increase referrals to CR

Pandemic-linked factors

- Disruptions in patient care system may cause additional CR qualifying events
- Reductions in facility-based program capacity to comply with distancing recommendations
- Staff shortages and reassignments in CR units
- Future pandemics are also possible *(see resource slides, entry 10)*

Benefits to Programs: Coping with Additional Demand



"If all of the "brick and mortar" CR programs operating today reached full capacity, fewer than 50% of the likely eligible patients could be cared for."

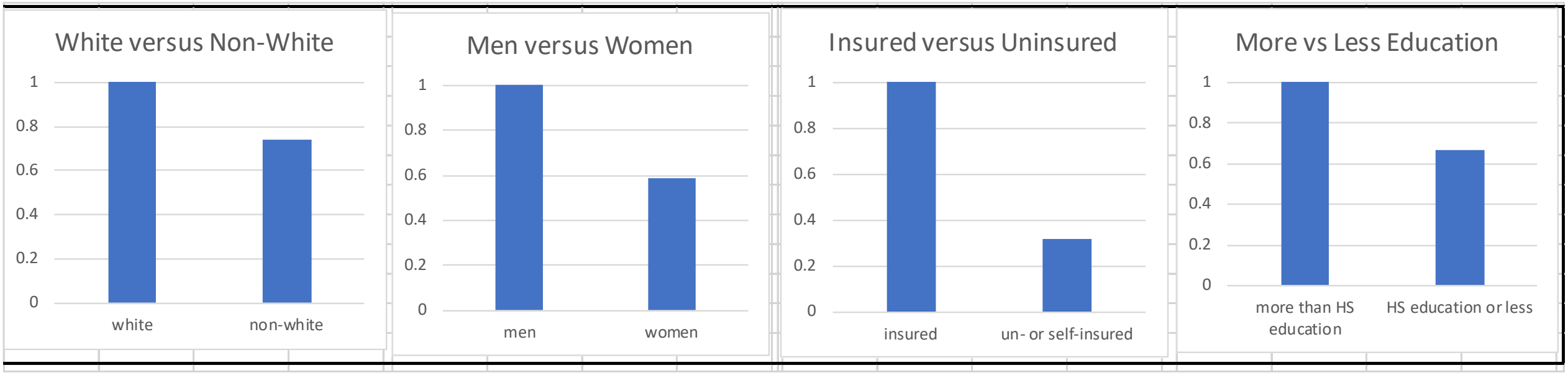
(See resource slides, entries 8-9)

Benefits to Programs: Improving Population Health

- Hybrid CR may improve access for women, persons of color, and other groups underrepresented in on-site CR
- Increasing CR participation also can reduce rehospitalizations for heart failure

(see resource slides, entry 12)

Odds Ratios Reflecting Current Gaps in CR Participation



(see resource slides, entry 11)

Benefits to Programs: Finances???

Potential Cost Savings

- Avoiding financial impacts of readmissions for heart conditions
- Reducing costs of caring for populations (especially for Accountable Care Organization participants)
- Reduced operating costs for hybrid CR

(see resource slides, entry 12)

Benefits to Programs: Finances???

Potential Reimbursement for Eligible Patients

- Onsite CR sessions for patients in a hybrid program are reimbursable by Medicare and other insurers
- Fee-for-service Medicare reimbursement: For hospitals, billing for synchronous audio-visual CR sessions will end when the Public Health Emergency expires. When this will happen or whether Medicare changes its billing policies are unknowns.
- Medicare Advantage plans and private insurers: These plans may continue or begin to reimburse for audio-visual CR exercise sessions if they see benefits to patients and finances. **Data demonstrating positive outcomes will be essential.**
- Information on which insurers will cover which remote services is fluid. AACVPR and other sources should be monitored for changes. Regular communication with other insurers is also beneficial.

Should YOUR Program Explore a Hybrid CR Option?

Six questions every program should ask

Key Questions 1 & 2

Question	Points to Consider
1. Does your program have low enrollment rates? If so, why?	It's key to consider both your current patient population AND eligible patients your program could be serving (e.g., eligible patients from other hospitals without an outpatient CR program, heart failure patients treated outside the hospital, etc.)
	Understanding WHY eligible patients don't enroll (or quickly drop out) is also key
	If transportation, distance, work schedules, or family responsibilities are common reasons, hybrid CR may be a solution
2. Are you in or near a CR desert, where eligible patients have no feasible access to an onsite CR program?	Identify CR facilities available in your region: How to Find Cardiac Rehabilitation Programs in the United States Refer to figures of CR deserts: The Million Hearts Initiative: Catalyzing Utilization of Cardiac Rehabilitation and Accelerating Implementation of New Care Models

Key Questions 3 & 4

Question	Points to Consider
3. Do you have capacity issues leading to delays in enrollment?	Some programs welcome waiting lists since they show evidence of demand and value
	Scheduling delays in starting CR are never beneficial to patients
4. Do you have strong financial incentives to avoid hospitalizations and readmissions of CR-eligible patients?	High readmission rates for AMI or heart failure can impact Medicare payments
	If your hospital or health system is in an accountable care organization, then increased CR participation can reduce patient costs and directly improve financial performance.

Key Questions 5 & 6

Question	Points to consider
5. Will key payers reimburse you for synchronous/real time audio-visual CR sessions?	Answers can change so asking, re-asking, and educating payers has value
	Making the case to payers may require efforts at the health system or association levels
6. Can you do it well?	Safe, high-quality CR is non-negotiable, regardless of the setting in which it is provided. And because social support is critical to many CR patients, you also need to incorporate methods to ensure social support for hybrid CR patients.

(see resource slides, entry 13)

Assessment Takeaway

If:

- You don't know the answers to these questions, you should obtain them to make an informed decision.
- You answered most or all the questions "**no**" then hybrid CR may not be a priority.
- You answered most or all the questions "**yes**" then you may want to actively explore a hybrid option.

How Do You Introduce a Hybrid CR Option?

Thoughtfully, cautiously, and guided by data

Strategic Next Steps

1. Review the emerging literature, including references mentioned in this training

2. Lay relevant groundwork within your organization

- Identify one or more key decision makers open to exploring the idea further
- Assess physician and administrator support for a hybrid option
- If in a system or ACO, coordinate with other CR programs

3. Perform a more rigorous needs assessment to quantify which and how many patients would benefit from hybrid CR.

4. Assess your implementation options

Implementation Options

Alternative	Potential Advantages	Potential Drawbacks
Creating Your Own Hybrid Program	Total control over its design and implementation	Set-up costs may be too high for smaller programs
	Tailored to needs of your community and patients	Inefficient to "reinvent the wheel" independently
		Implementation errors may compromise patient care or security
Partnering with Other CR Programs in Your System or Area	Gain efficiencies and economies of scale	Requires system- or area-level support
	Promote better coordination of patient care	Potential implementation delays
	Greater available resources for implementation	Failure to adapt to needs of specific CR programs
	More leverage working with payers on reimbursement	
Using a Vendor	Experience operating hybrid CR	Variability in vendor cost and quality
	Tested and patient-friendly technologies	Lost connections with patients and care providers
	Ability to negotiate reimbursement and copay issues with payers	Lost revenue for onsite CR sessions
	Experience enrolling and supporting CR patients	Loss of control over patient care and experience

Strategic Next Steps

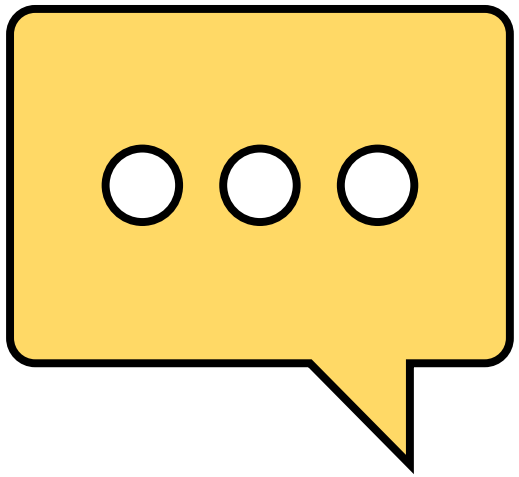
5. Collect and use relevant data

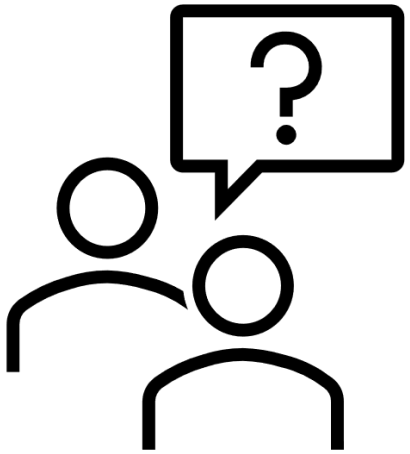
- Data should support continuous improvements in care quality and operational efficiency
- Data should help make the case for hybrid CR to key decision makers and payers

6. Keep the patient first in everything you do

7. Get advice from people and programs that are further ahead in their use of hybrid CR.

Audience Sharing and Questions





Key Insight: **In the chat box, tell us one useful insight you will take away from today's training session.**

Questions: **In the chat box, also share any questions you have for today's panelists.**

Resources Referenced During the Training

1) Online educational resources used in the Henry Ford Health System available at: www.henryford.com/creducation

2) Keteyian et al. (2021). A Review of the Design and Implementation of a Hybrid Cardiac Rehabilitation Program. *Journal of Cardiopulmonary Rehabilitation and Prevention*. Full citation and abstract available at: **https://journals.lww.com/jcrjournal/Abstract/9000/A_Review_of_the_Design_and_Implementation_of_a.99396.aspx**

3) Snoek et al. (2021). Effectiveness of Home-Based Mobile Guided Cardiac Rehabilitation as Alternative Strategy for Nonparticipation in Clinic-Based Cardiac Rehabilitation Among Elderly Patients in Europe. *JAMA Cardiology.* Full citation and article available at: https://jamanetwork.com/journals/jamacardiology/fullarticle/2772381

4) O'Connor et al. (2009). Efficacy and safety of exercise training in patients with chronic heart failure: HF-ACTION randomized controlled trial. *JAMA*. Full citation and abstract available at: https://pubmed.ncbi.nlm.nih.gov/19351941/

5) Keteyian et al. (2021). A Comparison of Exercise Intensity in Hybrid Versus Standard Phase Two Cardiac Rehabilitation. *Journal of Cardiopulmonary Rehabilitation and Prevention*. Full citation and abstract available at: https://pubmed.ncbi.nlm.nih.gov/33351540/

6) Anderson et al. (2017). Home-based versus centre-based cardiac rehabilitation. *Cochrane Database Systematic Review*. Full citation and abstract available at: https://pubmed.ncbi.nlm.nih.gov/28665511/

7) Thomas et al. (2019). Home-Based Cardiac Rehabilitation: A Scientific Statement from the American Association of Cardiovascular and Pulmonary Rehabilitation, the American Heart Association, and the American College of Cardiology. *Circulation*. Full citation and article available at: https://www.ahajournals.org/doi/10.1161/CIR.0000000000000663

Resources Referenced During the Training

8) Pack et al. (2014). The Current and Potential Capacity for Cardiac Rehabilitation Utilization in the United States. *Journal of Cardiopulmonary Rehabilitation and Prevention.* Full citation and article available at: http://www.arena-design.com/emc2/resources/Pack_2014_The%20current%20and%20potential%20capacity%20for%20cardiac%20rehabilitation%20utilization%20in%20the%20United%20States.%20-%20Journal%20of%20cardiopulmonary%20rehabilitat.pdf

9) Balady et al. (2011). Referral, Enrollment, and Delivery of Cardiac Rehabilitation/Secondary Prevention Programs at Clinical Centers and Beyond. *Circulation*. Full citation and article available at: https://www.ahajournals.org/doi/full/10.1161/CIR.0b013e31823b21e2

10) Penn (2021). Statistics Say Large Pandemics Are More Likely Than We Thought. *Duke Global Health Institute Research News*. Full citation and article available at: https://globalhealth.duke.edu/news/statistics-say-large-pandemics-are-more-likely-we-thought

11) Sun et al. (2017). Disparities in Cardiac Rehabilitation Participation in the United States: A systematic review and meta-analysis. *Journal of Cardiopulmonary Rehabilitation and Prevention.* Full citation and article available at: https://journals.lww.com/jcrjournal/Fulltext/2017/01000/Disparities_in_Cardiac_Rehabilitation.2.aspx

12) Patel et al. (2021). Optimizing the Potential for Telehealth in Cardiovascular Care (in the Era of COVID-19): Time Will Tell. *American Journal of Medicine*. Full citation and article available at: https://www.amjmed.com/article/S0002-9343(21)00218-7/fulltext

13) Heindl et al. (2022). Hybrid cardiac rehabilitation – The state of the science and the way forward. *Progress in Cardiovascular Diseases.* Abstract available online at: *https://www.sciencedirect.com/science/article/pii/S0033062021001365?via%3Dihub*

Action Steps

Feel free to contact coaches with questions

Continue	Working to implement the care coordination improvements and automatic referral implementation activities for your program
Explore	Steps, actions and resources available in the Module 10 Implementation Guide
Discuss	Progress, challenges and solutions in an upcoming peer action group