



 Mike Thompson and Devraj Sukul each receive funding from Blue Cross Blue Shield of Michigan for their roles with the Michigan Value Collaborative and BMC2, respectively

 Mike Thompson receives grant funding from the Agency for Healthcare Research and Quality (K01HS027830, R01HS028397)



Welcome

- Devraj Sukul, MD, MSc, Associate Director, BMC2 PCI
- Mike Thompson, PhD, MPH, Co-Director, MVC

Cardiac Rehabilitation at Baystate Hospital

 Quinn R. Pack, MD, MSc, FAACVPR, FACC, FAHA, Baystate Medical Center & University of Massachusetts Chan Medical School-Baystate

2024 Legislative Updates

- Jenna Scott, BS, ACSM-CEP, EIM, Michigan Society for Cardiovascular and Pulmonary Rehabilitation (MSCVPR)
- Gregory Scharf, BS, CEP, CCRP, MyMichigan Health

Closing

- Devraj Sukul, MD, MSc, Associate Director, BMC2 PCI
- Mike Thompson, PhD, MPH, Co-Director, MVC



MiCR Leadership Team



Devraj Sukul, MD, MSc Associate Director – PCI, Blue Cross Blue Shield of Michigan Cardiovascular Consortium (BMC2); Co-Director, MiCR



Mike Thompson, PhD, MPH
Co-Director,
Michigan Value Collaborative (MVC);
Co-Director, MiCR



Mary Casey, MPA
Project Manager,
Blue Cross Blue Shield of
Michigan Cardiovascular
Consortium (BMC2)



Jana Stewart, MPH
Project Manager,
Michigan Value
Collaborative (MVC)



Housekeeping

- This session is being recorded
- Slides will be shared with attendees
- Add questions to the chat there will also be time for questions during each presentation
- Your participation and feedback is essential





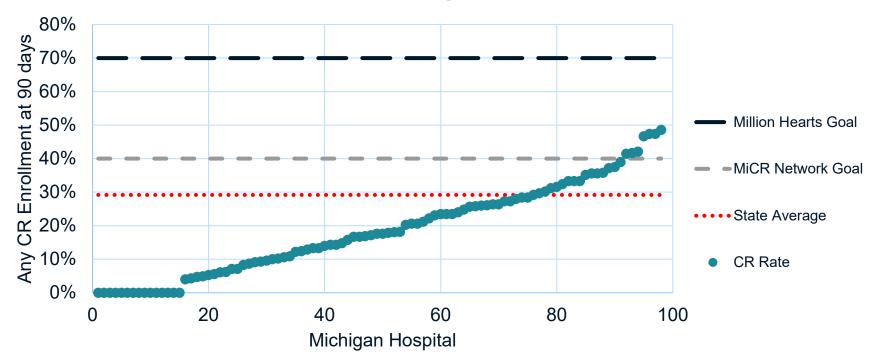
Network Updates

- NewBeat orders shipped out. Next order available in late-summer.
- CR Utilization QI Award (minigrant) accepting applications until May 10th.
- MiCR's support of CR legislation





GOAL: Increase CR participation to 40% by 2024 for all eligible conditions*



^{*} Excludes CHF

Cardiac Rehabilitation at Baystate Hospital

Quinn R. Pack, MD, MSc, FAACVPR, FACC, FAHA

Associate Professor, University of Massachusetts Chan Medical School-Baystate Non-Invasive and Preventive Cardiologist Medical Director, Cardiac Rehabilitation and Wellness Program Director, Cardiovascular Disease Fellowship Baystate Medical Center Springfield, MA

Conflicts

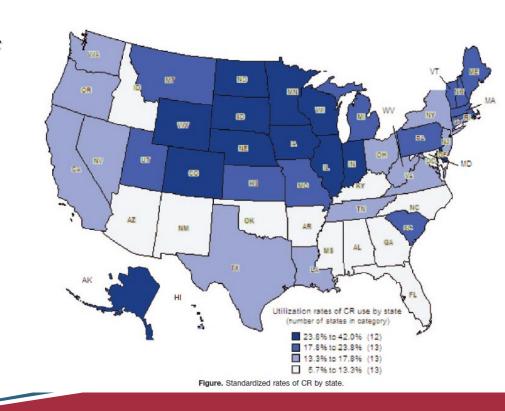
- No conflicts of interest
- I am supported by:
 - NHLBI grant #R01 HL156851-01 Studying the implementation and effectiveness of a hospital-based tobacco treatment team
 - NIA grant #AG077179-01 Comparing two exercise methods on fitness outcomes in cardiac rehabilitation
 - NHLBI grant #R01HL146884 Evaluating methods to increase cardiac rehabilitation enrollment among patients with heart failure
 - NHLBI grant #R34 HL156920 Evaluating a stepped care model for cardiac rehabilitation recruitment and adherence

National Guidelines and Gap

- However, only a minority of eligible patients attend
 - 14% for MI
 - 31% for CABG
- 9-fold variation across states
- Despite some improvement in referral, participation is still around ~30%

Suaya et al, Circulation, 2007

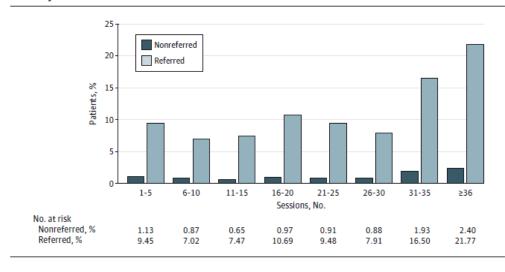
Beaty et al, JACC, June 2014



Completion

- Medicare linked NCRD-GWTG, 2007 to 2010
- 62% referral
- 23% enrollment
- 3% attended <u>without</u> initial referral
- Only 5% completed CR by attending all 36 sessions

Figure. Cardiac Rehabilitation Sessions Attended Among Patients 65 Years or Older After Acute Myocardial Infarction



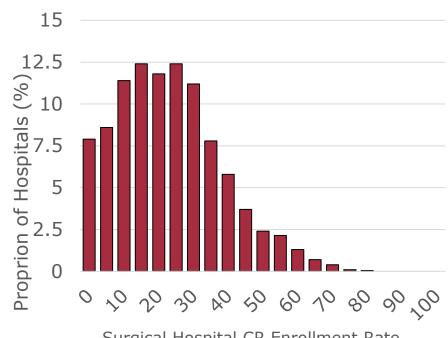
Doll et al., JAMA-IM, Aug 2015

What is the Ideal Rate?

- ❖ Top-performing systems are able to achieve participation rates of ~70%.
- This some points to ponder:
 - Some patients will come regardless (5%)
 - Some patients will <u>not</u> come regardless (30%)
 - <u>All</u> other patients need <u>facilitation and encouragement</u> (65%) and would probably attend if informed and motivated
- The Million Hearts Cardiac Rehabilitation has set a goal of 70% enrollment.

Hospital Effects

- 2017 Medicare Data
- MI, CABG, PCI, Valve
- 3420 Hospitals; 264,970 patients; 25% attended CR
- 92% of all eligible patients were at surgical hospitals
- In multi-variable model the hospital median OR was 2.1



Surgical Hospital CR Enrollment Rate

Pack et al; AHA 2022

How to Improve CR Utilization?

- Systematic referral
 - Opt out > Opt in > Routine "paper" referral
- Liaison-facilitated referral
 - Inpatient cardiac rehabilitation, navigators, liaisons
 - Maps, contact information, encouragement
- Early appointments to CR
 - Eliminate restrictive policies
- Reminder phone calls
- Strength of physician referral

Is Cardiac Rehab Improving?

- Survey in Nov 2012
 - 290 program directors within the AACVPR
 - Email survey
- Quality Improvement
 - 49% (21-74%) reported measuring enrollment rates
 - 53% (42-62%) of programs reported doing QI projects

- Survey in 2021
 - 316 hospitals across US
 - Mixed-mode survey
- Quality Improvement
 - 49% reported measuring enrollment rates
 - 71% aware of the Million Hearts campaign
 - 28% reporting doing QI projects

Pack et al; *JCRP* 2015:35:173-180

Pack et al; AACVPR 2022

How to Improve CR Utilization?

- 76%
 - **26%**
 - **50%**
 - **46%**
- 62%
 - **23**%
 - **38%**

- Any kind of systematic referral
 - Some
 - All patients
 - "Opt out" systematic referral
- Any kind of liaison-facilitated referral
 - Some patients
 - All patients
 - 22 ± 26 hours per week per hospital

Hospital Culture

Question	Rarely/Some of the time	Often	Always/ Almost Always
Physicians at our hospital discuss cardiac rehabilitation with eligible patients prior to discharge.	20%	41%	39%
General floor nurses at our hospital encourage our eligible patients to attend cardiac rehabilitation.	37%	32%	31%
Hospital administrators support cardiac rehabilitation with adequate resources.	12%	25%	64%

Reminder Phone Calls after Discharge

- 83%
 - **22%**
 - **61%**

- **32**%
- **64**%
- 21 ± 23

- Reminder phone calls
 - Some
 - All their patients
- Who makes these phone calls?
 - Secretary/Clerical
 - Nurse/Exercise physiologist
- Phone call length (min)

Requirements prior to Enrollment

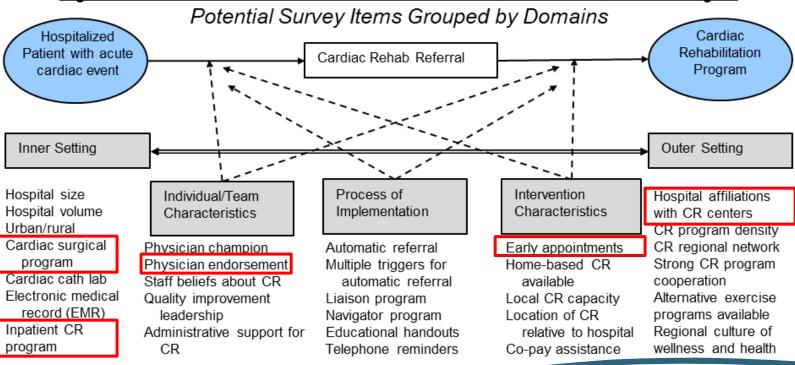
- 8%
- 41%

- **40**%
- **56%**

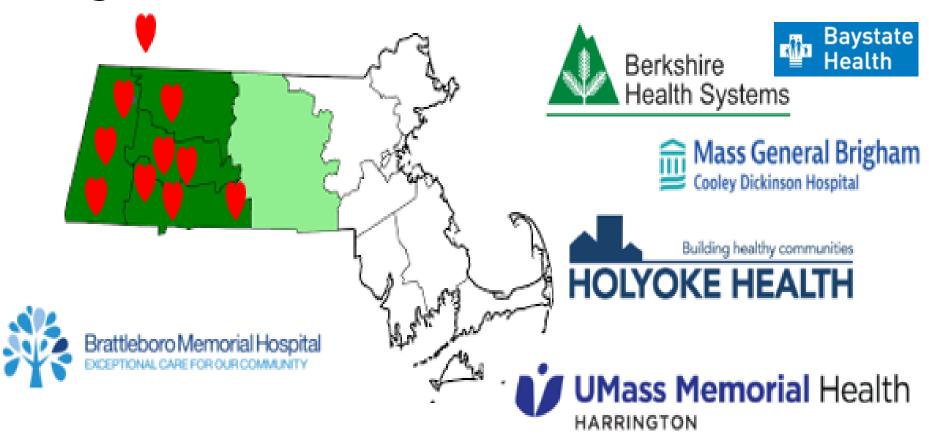
- Exercise testing prior to CR
- Post-hospital f/u physician visits prior to CR
- Time policies prior to CR
 - >2 weeks wait time for PCI
 - >4 weeks wait time for CABG/valve

K23 – Conceptual Model - CFIR

Figure 3. Cardiac Rehabilitation Contextual Factors, Facilitators, and Strategies

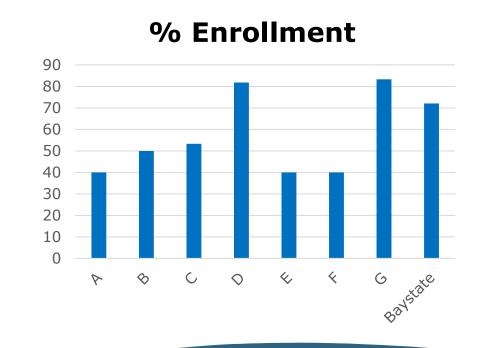


Regional Network - Cardiac Rehab Referral



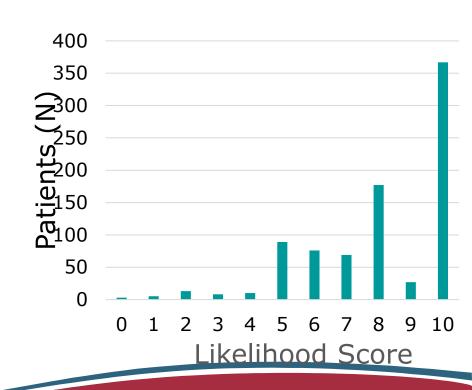
Baystate Enrollment Rates

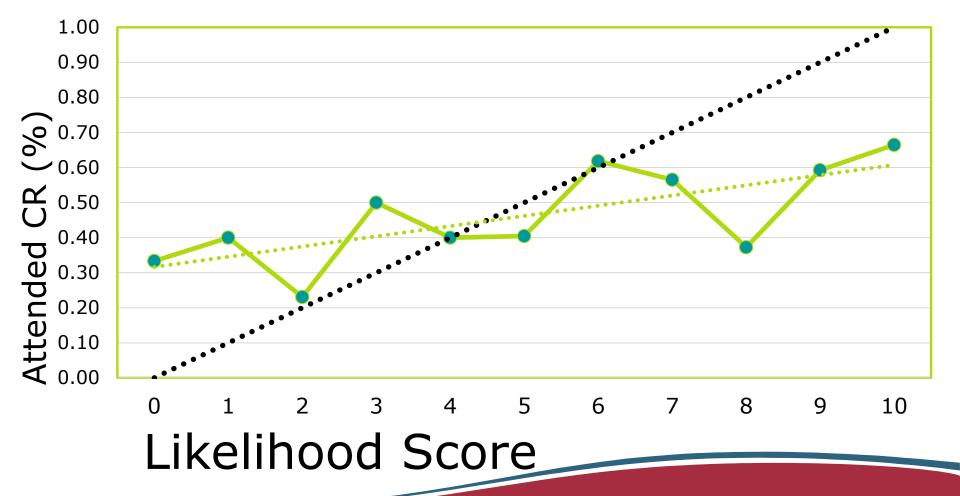
- March/April 2021
- Called our regional partners
 - Asked about enrollment
 - 1 center refused to participate
- 277 patients referred
 - 172 enrolled
 - 60% enrollment
 - Did not include patients who refused referral in the hospital
- Discovered lots of gaps!



Likelihood Score

- Median likelihood score 8 (IQR 7, 10)
 - Staff ranged from 6.9 to 8.8
- Each additional point was associated with higher odds of attendance
 - OR 1.2 (95% CI 1.1 to 1.3)
 - p < 0.001
- Poor discrimination
 - C-statistic 0.59





Staff Members Effect at Baystate

- Summer/Fall 2021
 - 11 staff members
- Large variations
 - 18% difference between best worst staff member, p = 0.04
- Ability to predict enrollment varied significantly between staff
 - Individual C-statistic (ROC) ranged from 0.49 to 0.67



*C = Combined 6 staff members with typically ~10 patients each

Staff Member Shadowing

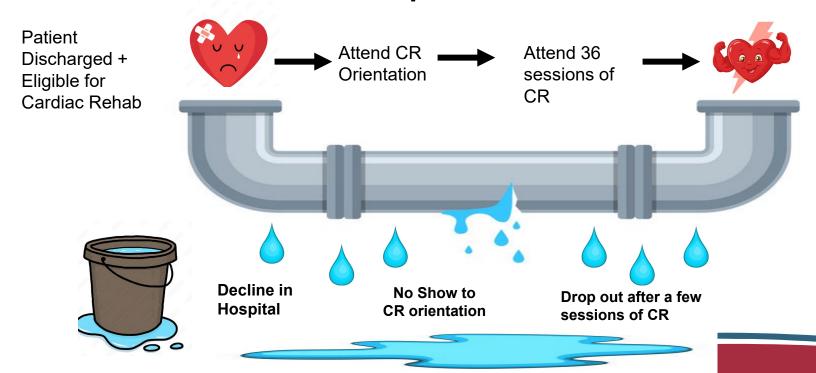
Staff Member E

- Asked lots of questions
 - Assessed patient understanding of disease
 - Assessed risk factors, exercise history
 - Personal hobbies, goals
 - "Meet them where they are at"
- Explained CAD as a progressive disease
- "I will refer you and make an appointment"
 - Could be changed if needed
- Improved patient experience
 - Got water, chair, pillow; helped get changed into clean gown; assisted nursing

Staff Member F

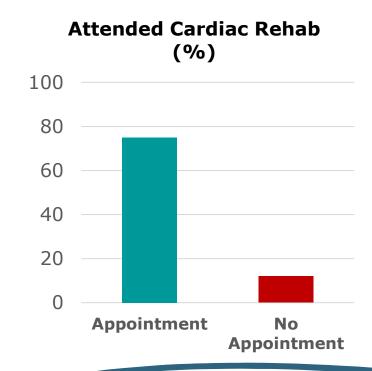
- Assessed knowledge and lifestyle habits
- Asked questions:
 - "Do you think you're going to go?
 - "Do you have any questions?"
 - Addressed family questions/needs
- Specific statements
 - "No cure for CAD"
 - CR is "part of your recovery"
- Assured appointment for everyone
 - Still sends referral if patient uncertain
- Patient experience champion
 - Gentle, direct, calm manner, eye contact

Cardiac Rehabilitation (CR) "Leaky Pipe"



Appointments Prior to Discharge

- February April 2019
- Chart Review (<u>not</u> randomized)
 - Referred to Baystate CR program
 - Appointment prior to discharge (yes/no)
- 229 patients
 - 171 (75%) appointment
 - 160 (70%) attended CR
- OR **61** (24 to 156), p < 0.001



Patients who Decline CR

- April –June 2023
- 675 patients
 - 551 accepted an appointment
 - 124 declined
- Called all who declined
 - Reached 72 (58%)
 - 5-minute conversation

- Of the 72 we reached:
 - 33 (45%) were interested
 - 8 were already in CR
 - 25 changed their mind and were interested. Referrals sent!
 - 39 (55%) declined again
 - 20 (50%) cited a different reason than in the hospital to decline CR

Patients who No Show

- October-June 2023
- 576 scheduled an appt.
 - In-hospital appointment
 - Reminder mailing
 - Portal message
 - Phone call reminders (x2)
- 44 (8%) no-showed
 - 80% re-scheduled
 - Only 3 patients eventually attended a single session

- Patients who no-showed:
 - Younger (55 vs 66 yrs.)
 - Puerto Rican (45% vs 16%)
 - Single (65% vs 35%)
 - Language/Hearing impairment (14% vs 5%)

Two Recent Strategies

Phase 1.5 mobile App

- Presented at Beginning Investigator Award yesterday
- Phone App
 - Education mini-lessons, exercise diary, chat board
 - 15-minute start-up needed
- 34 patients
 - 20 accepted (57% accept)
 - Engagement was modest
 - Usability was high
 - 75% vs 33% enrollment for refused group

Family Intervention

- Inspired by COVID visiting restrictions
- Medical student called family members of every patient
- 10± 5 minutes intervention to encourage family member's support
- 223 patients
 - 63 control = 40% enrolled
 - 47 refused = 34% enrolled
 - 113 intervention = 62% enrolled

Improving Participation in PR through Peer Support and Storytelling



- Hybrid Implementation-Effectiveness trial to answer whether
 - Telephonic Peer Support
 - Video narratives (aka Storytelling)
- Targeting a population of patients
 - With COPD who have been referred to Pulmonary Rehabilitation after an exacerbation
- Leads to
 - Higher degree of participation in PR within 6 months of enrollment compared to enhanced usual care alone



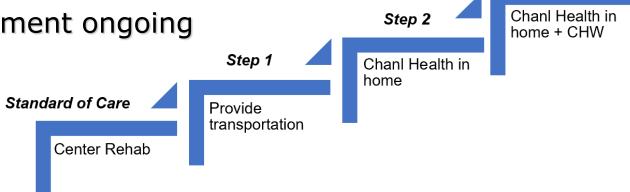






Stepped Care for CR and PR

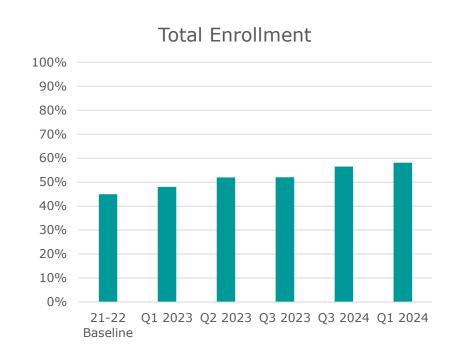
- Berkshire Medical Center
- 120 patients randomized to:
 - Usual Care
 - Stepped Care
- Intensity tailored to patient needs
- Enrollment ongoing

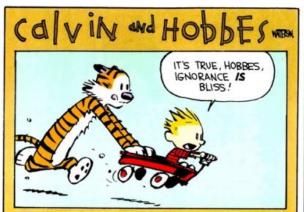


Step 3

Continued Improvement With a Long Way to Go!

- 9 Regional Centers
- All patients seen by Phase 1 CR over 15 months
- 2,919 patients
 - 576 declined (19.7%)
- Enrollment increased from
 ~45% → 58%
- This puts Baystate in top~10% of hospitals
- This is a lot of work!

















Thank you!

Quinn.PackMD@baystatehealth.org

2024 Legislative Updates

- Jenna Scott, BS, ACSM-CEP, EIM
 MSCVPR Treasurer / HPR co-chair
- Gregory Scharf, BS, CEP, CCRP
 MyMichigan Health CardioPulmonary Rehab
 System Manager



No Disclosures



Sustainable Cardiopulmonary Rehabilitation Services in the Home Act H.R. 1406 / S. 3021

- Permanently allowing Medicare patients to receive cardiopulmonary rehabilitation services via virtual telecommunications technology (real-time, audio video) in the beneficiary's home.
- Virtual direct supervision would be allowed through twoway audio-visual communications technology.



H.R. 1406 / S. 3021

The PHE expired on May 11, 2023, and virtual delivery of CRPR services in the hospital setting also ceased. Congress, through passage of the Consolidated Appropriations Act, 2023, ensured that patients maintain access to virtual "telehealth" CRPR services through December 31, 2024. However, this telehealth extension only services provided in physician offices, which represents less than 5% of programs.



SOS: Sustaining Outpatient Services Act H.R. 955 / S. 1849

Improve Medicare beneficiary access to certain hospital outpatient department (HOPD) services, including CRPR, by providing an exception to the current Medicare payment for certain off-campus outpatient department services when payments to physician specialists (under the Medicare physician fee schedule) did not exceed \$2 million during the previous year.



H.R. 955 / S. 1849

Medicare payment for services often differs based on the location where the service is furnished. Services provided in a physician office are paid differently from services provided in a hospital outpatient department (HOPD). Both Congress and the Centers for Medicare and Medicaid Services (CMS) recognized that this differential payment was creating strong incentives for some to game the system. In other words, some hospitals were buying practices and enrolling them in the Medicare program not as a physician office but as a provider-based department of an outpatient hospital resulting in the ability to submit a facilitylevel claim to Medicare for the same service that had been previously billed only as a physician office service.



Limitations of status quo

- Limited patient access due to impractical distances/drive times from a medical center
- Requires programs in higher population areas to serve an increasing number of patients within no ability to increase or expand services to more patient focused off-campus locations
- Off-site locations challenges to meet supervision requirements
- When programs are already at capacity, growth initiatives can actually impact them negatively by increasing wait times, increasing patient to staff ratios, decreased individualized care/safety
- Program start ups and expansion require upfront capital and with reduced reimbursements creates a diminished return on investment and additional years until programs become profitable.
- Expansion in medical centers limited space, lose out to services with higher revenue or inpatient based services.



How much longer can we sustain status quo?

- Million Hearts®, set a national goal of 70% participation in CR for eligible patients
- It is estimated that the current capacities of CR programs can only handle 30-40%
- Meeting this target would mean doubling the number of patients

Day on the Hill (DOTH)

- March 4-5, 2024
 - Met with 11 state legislators
 - Follow-ups to be scheduled for April
 - Looking for programs/patients willing to:
 - Join MSCVPR on virtual follow ups
 - Meet with your representatives
 - Host on-site visit
 - If you are interested in DOTH now is the time to get involved for upcoming years!



Taking Action!

- Ways to connect with your representative
 - Letter
 - Call
 - Meeting
 - Virtual
 - Upcoming MSCVPR Follow-Up virtual meetings
 - Request for in-person on-site

- Staff
- Patients
 - Share with patient at discharge
- Clinical Care Team
 - Providers
 - Nursing staff
- Hospital Leadership



Tools/Resources/Examples

- Hospital teams that might be able to support
 - Leadership
 - Marketing
 - Physician liaison
 - Legislative advocacy representative

<u>Advocating for Access: MiCR's Push for CR Legislation - Michigan Cardiac Rehab Network (michigancr.org)</u>



https://michigancr.org/wp-content/uploads/2024/04/CR-Legislative-Advocacy-Packet.pdf



Template-CR-Legislative-Support-Letter

[Add your organization's letterhead]

[Representatives Name] [Address Line 1] [Address Line 2] [City, State, Zip Code]

Dear [Representative's Name]

[Introduction paragraph describing your organization and explaining your role in cardiac rehab

Unfortunately, many CR programs are currently operating at capacity, resulting in excessively long waiting lists for patients. Under the current policy, CR centers are unable to expand to off campus locations without a 60% reduction to CMS reimbursement, thus adding to space constraints and patient wait lists. Additionally, the Consolidated Appropriations Act that extended CMS reimbursement for virtual (real-time audio/visual) CR services expired December 31, 2023, as CR does not fall under CMS telehealth services. Studies have found hybrid and virtual CR to be equivalent alternative to in-person CR1, and eliminating the option of telehealth has left patients who live in rural communities or rehab deserts, or face transportation barriers, without access to this important treatment.

We are writing to request your support for HR 955/S. 1849 and HR 1406/S. 3021, two legislative bills that address these challenges and aim to increase rehab capacity, reduce wait times, and allow for flexibility in care delivery to meet the unique needs of our patients2:

HR955/ S 1849

- Allow hospital-based CR programs to be reimbursed at the same rate on and off the main hospital
- . Ensure CR accessibility by incentivizing investments into expanded or new physical spaces that could mitigate current capacity shortages.

- · Permanently extend Medicare reimbursement for virtual CR, which was allowed due to the COVID-19 pandemic but expired December 31, 2023.
- Permanently extend Medicare regulations for virtual (real-time audio/visual) CR physician supervision, which was allowed due to COVID-19 and is due to expire December 31, 2024.
- Allow facilities to expand capacity through virtual CR access without requiring additional capital investments in new facilities and providing flexibility to patients with geographic or social barriers to participation.

[Your organization's name] supports the passage of HR 955/S. 1849 and HR 1406/S. 3021 and urges you to consider the merits of these bills and vote in their favor.

Kind regards.

[Add signature(s)]

¹ Ganeshan S, Jackson H, Grandis DJ, et al. Clinical outcomes and qualitative perceptions of in-person, hybrid, and virtual cardiac rehabilitation. Journal of Cardiopulmonary Rehabilitation and Prevention. 2022;42(5):338-346. doi:10.1097/hcr.000000000000000688 ² Pedamallu H, Brown TM, Keteylan SJ, Thompson MP. A bipartisan path for Congress to expandicardiac rehabilitation capacity and access. Health Affairs Forefront. October 2023. doi:10.1377/forefront.20231023.918





MyMichigan Cardiology Heart and Vascular Center 2660 W. Sugnet Road Midland, Michigan 48670 Phone (989) 832-0900 Fax (989) 633-0349

March 25, 2024

Dear Colleague,

As a neferring cardiologist and advocate for Cardiac Rehabilitation, I am encouraging your support for legislative bills HR 955 / S.1494 - Sustaining Outpatient Services Act and H.R. 1406 / S. 3021 - Sustainable Cardiooulmonary Rehabilitation Services in the Home Act.

Cardiac Rehab was included in Section 603 of the BBA of 2015 which resulted in a 60 percent reimbursement reduction for Cardiac Rehab services not provided within the boundaries of a Medical Center/Hospital. CMS has acknowledged this was an unintended consequence and H.R. 955 will allow low-reimbursed services including Cardiac Rehab to return to be reimbursed under OPPS rates. H.R. 1406 provides the opportunity for Cardiac Rehab to utilize virtual (real-time, audio/visual) technology to improve patient access. This bill will allow patients to receive Cardiac Rehab services via virtual services and it will allow for virtual supervision to be provided by physician, physician assistant, or muse practitioner.

Cardiac Rehab is a Class 1a indication (strong secommendation); with evidence demonstrating a reduced cardiac mortality by ~ 25 percent. Cracently less than 50 percent of the eligible patients in the State of Michigan attend just one session of Cardiac Rehab. Cardiac Rehab is a recurring service with 18-36 appointments over the course of 9-12 weeks. Without appropriate access to Cardiac Rehab we cannot expect these patients to endue long wait times and/or long travel times/distances that this limited access creates. Many patients live > 50 miles (or in urban areas > 30 mins) to the closest Cardiac Rehab facility.

Without a sustainable pathway to expand Cardiac Rehab services patients will continue to experience access issues and participation rates will remain low, thus negatively impacting patient outcomes in the patients we serve.

Your support of these bills will have a positive impact on improving access to Cardiac Rehab and patient outcomes after a cardiac event or procedure for those in your communities.

Thank you for your time and support,

William Felten, M.D., F.A.C.C. Cardiovascular Service Line Chief Interventional Cardiology

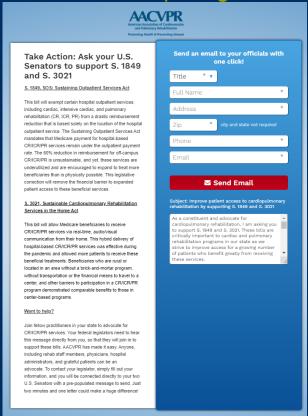


Support for Legislative Bills HR 955/S. 1849 and HR 1406/S. 3021

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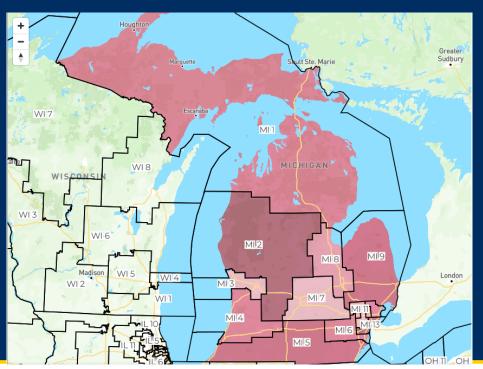
https://www.aacvpr.org/Take-Action





https://www.govtrack.us/congress/members/MI#map

MSCVPR_118th-US-MI-Congress-Senate-Contact-List







CR Utilization Quality Improvement Award



Up to \$5,000 available for innovative proposals



Application due May 10th



Eligibility, requirements, and application instructions available at www.michigancr.org



Next Steps

- Follow-up items
- MiCR cardiac rehab interactive registry reports coming this month
 - May 22, 12-1pm: MVC webinar to demo new CR reports
 - Request MVC registry access for your hospital's patients from michiganvalue.org
- Summer virtual meeting save the date coming soon



