

# Cardiac Rehab Referral- After the Click

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- No Disclosures

# Learning Objectives



Understand the impact *referring and receiving sites* have on timely access to Cardiac Rehab



Demonstrate *Data Perspective* and how it can potentially impact our decision making



Understand how the delivery of *QUALITY Cardiac Rehab* impacts participation and adherence

# Million Hearts Focus Areas (1)



System Change



Referrals



Enrollment and Participation



Adherence



Cardiac Rehabilitation Change Package (Second Edition) | Million Hearts®

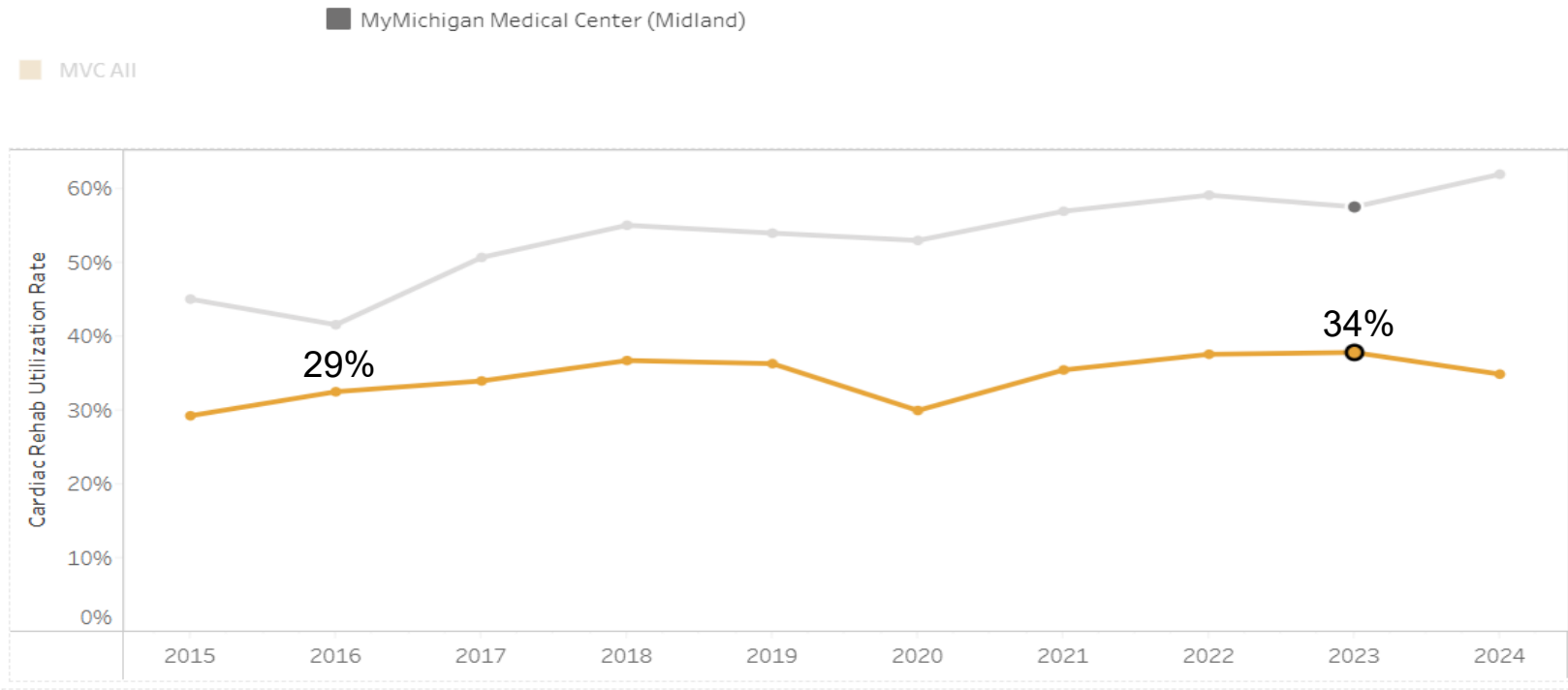
# Referrals

## BMC2 2019 (PCI Only)

|                                 | Collaborative |       |       | Hospital |       |        |
|---------------------------------|---------------|-------|-------|----------|-------|--------|
|                                 | n             | Denom | Pct.  | n        | Denom | Pct.   |
| Cardiac Rehabilitation Referral | 5,101         | 5,573 | 91.5% | 184      | 185   | 99.5%  |
| Surgical Consult                | 109           | 203   | 53.7% | 1        | 1     | 100.0% |
| Same Day Discharge              | 595           | 3,552 | 16.8% | 18       | 84    | 21.4%  |
| Current Smoker                  | 1,389         | 6,090 | 22.8% | 64       | 199   | 32.2%  |
| Smoking Cessation Counselling   | 1,259         | 1,351 | 93.2% | 63       | 64    | 98.4%  |

# Participation Trend

## MVC Trends (PCI only)



Surgical Site

Cardiac Rehab

- System Change
- Referral

• Enrollment  
• Participation

- Adherence

<https://www.fox2detroit.com/news/gordie-howe-bridge-85-feet-short-from-being-connected-as-2025-finish-line-comes-into-focus>



# Closing the Gap

- Multi-Facet problem
  - Operational
    - Inconsistent referral management process/expectations
    - Unintended/unknown hidden barriers between referral and enrollment
    - Data Perspective
  - Clinical
    - Variability in Cardiac Rehab quality (2)

# What's in a referral



Indicating **Phase II/Outpatient** Cardiac Rehab



Contains an indicated **Dx** for Cardiac Rehab



Signed or Co-signed by **MD/DO**

# CMS Dx

- An acute myocardial infarction
  - within the preceding 12 months
- Coronary artery bypass surgery
- Current stable angina pectoris
- Heart valve repair or replacement
- Percutaneous transluminal coronary angioplasty (PTCA) or coronary stenting
- A heart or heart-lung transplant
- Stable, chronic heart failure

# Referring Site



<https://www.mlive.com/lions/2021/12/qb-jared-goff-back-at-detroit-lions-practice-as-team-continues-to-play-it-safe-with-illness-issues.htm>

# Scorecards

**BMC2: Cardiac rehab referral – numerator includes discharges with documented cardiac rehabilitation referral. The denominator includes all discharges with a successfully treated lesion discharged alive to home.**



Pay for Performance  
(P4P) Scorecard

PCI

| 2026 BMC2 Collaborative Quality Initiative Performance Index Scorecard<br>PCI Sites                                                                                   |                  |                    |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------|----|
|                                                                                                                                                                       | Points<br>Earned | Points<br>Possible |    |
| <b>Measure 1: PCI Meeting Participation – Clinical Lead</b>                                                                                                           |                  |                    |    |
| Yes/No                                                                                                                                                                |                  |                    |    |
| PCI Virtual Physician Meeting – 2/26/26                                                                                                                               |                  |                    |    |
| PCI Annual In-Person Collaborative Meeting – 4/11/26                                                                                                                  |                  |                    |    |
| PCI In-Person Physician Meeting – 9/26/26                                                                                                                             |                  |                    |    |
| Total Meetings Attended:                                                                                                                                              |                  |                    |    |
| Attended 2-3 meetings = 10 points                                                                                                                                     |                  |                    |    |
| Attended 1 meeting = 5 points                                                                                                                                         |                  |                    | 10 |
| <b>Measure 2: PCI Data Coordinator Expectations and Participation</b>                                                                                                 |                  |                    |    |
| Yes/No                                                                                                                                                                |                  |                    |    |
| Submitted 2 QI project forms                                                                                                                                          |                  |                    |    |
| Cases were submitted on time                                                                                                                                          |                  |                    |    |
| Peer review uploads were completed on time                                                                                                                            |                  |                    |    |
| Submitted report distribution attestation                                                                                                                             |                  |                    |    |
| Yes/No                                                                                                                                                                |                  |                    |    |
| PCI Recurring Virtual Coordinator Meeting – 1/22/26                                                                                                                   |                  |                    |    |
| PCI Annual In-Person Coordinator Meeting – 4/10/26                                                                                                                    |                  |                    |    |
| PCI Annual In-Person Collaborative Meeting – 4/11/26                                                                                                                  |                  |                    |    |
| PCI Recurring Virtual Coordinator Meeting – 7/23/26                                                                                                                   |                  |                    |    |
| PCI Recurring Virtual Coordinator Meeting – 11/5/26                                                                                                                   |                  |                    |    |
| Total Meetings Attended:                                                                                                                                              |                  |                    |    |
| Meets all expectations = 10 points                                                                                                                                    |                  |                    |    |
| Meets most expectations = 5 points                                                                                                                                    |                  |                    | 10 |
| <b>Measure 3: PCI Physician Peer Review of assigned cases for procedural indications &amp; technical quality</b>                                                      |                  |                    |    |
| Percentage                                                                                                                                                            |                  |                    |    |
| Reviewed and submitted 100% of PCI cases = 10 points                                                                                                                  |                  |                    |    |
| Reviewed and submitted < 100 PCI cases = 0 points                                                                                                                     |                  |                    | 10 |
| <b>Measure 8: PCI Performance Goal – Use of IVUS / OCT* for stent optimization. Measurement period: 1/1/2026 – 6/30/2026. Baseline period: 1/1/2024 – 12/31/2024.</b> |                  |                    |    |
| Percentage                                                                                                                                                            |                  |                    |    |
| ≥ 60% in EITHER all cases OR ≥ 75% in cases involving the left main coronary artery, in-stent re-stenosis, or stent thrombosis = 10 points                            |                  |                    |    |

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|                                                                                                                                                                                                                                                                                                   |            |  |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--|----|
| ≥ 10 percentage points absolute increase in all cases* from Q4 YTD 2025 = 5 points                                                                                                                                                                                                                |            |  |    |
| < 10 percentage points absolute increase in all cases from Q4 YTD 2025 = 0 points                                                                                                                                                                                                                 |            |  | 10 |
| <b>Measure 9: PCI Performance Goal – Composite, inclusive of risk-adjusted mortality, risk-adjusted AKI, risk-adjusted major bleeding, guideline medications prescription at discharge (aspirin, statin, P2Y12), and referral to cardiac rehab.</b>                                               |            |  |    |
| Risk-adjusted mortality                                                                                                                                                                                                                                                                           | Percentage |  |    |
| A/P ≤ 1                                                                                                                                                                                                                                                                                           |            |  |    |
| A/P > 1, ≤ 1.5                                                                                                                                                                                                                                                                                    |            |  |    |
| A/P > 1.5                                                                                                                                                                                                                                                                                         |            |  |    |
| Risk-adjusted acute kidney injury                                                                                                                                                                                                                                                                 |            |  |    |
| A/P ≤ 1                                                                                                                                                                                                                                                                                           |            |  |    |
| A/P > 1, ≤ 1.5                                                                                                                                                                                                                                                                                    |            |  |    |
| A/P > 1.5                                                                                                                                                                                                                                                                                         |            |  |    |
| Risk-adjusted major bleeding                                                                                                                                                                                                                                                                      |            |  |    |
| A/P ≤ 1                                                                                                                                                                                                                                                                                           |            |  |    |
| A/P > 1, < 1.5                                                                                                                                                                                                                                                                                    |            |  |    |
| A/P > 1.5                                                                                                                                                                                                                                                                                         |            |  |    |
| Guideline medications prescription at discharge                                                                                                                                                                                                                                                   |            |  |    |
| ≥ 95%                                                                                                                                                                                                                                                                                             |            |  |    |
| 90% - < 95%                                                                                                                                                                                                                                                                                       |            |  |    |
| < 90%                                                                                                                                                                                                                                                                                             |            |  |    |
| Referral to cardiac rehabilitation                                                                                                                                                                                                                                                                |            |  |    |
| ≥ 95%                                                                                                                                                                                                                                                                                             |            |  |    |
| 90% - < 95%                                                                                                                                                                                                                                                                                       |            |  |    |
| < 90%                                                                                                                                                                                                                                                                                             |            |  | 50 |
| <b>Measure 10: PCI Performance Goal – Cardiac rehabilitation utilization within 90 days after PCI discharge. Measurement period: 1/1/2024 – 12/31/2025. Baseline period: 10/1/2022 – 9/30/2023.</b>                                                                                               |            |  |    |
| Percentage                                                                                                                                                                                                                                                                                        |            |  |    |
| Site performance ≥ 40% or absolute increase of ≥ 5 points in the measurement period (CY2025) compared with the immediate prior 12 month period (CY2024). Scored in 2026; = 10 points                                                                                                              |            |  |    |
| Site performance ≥ 37% or absolute increase of ≥ 3 points in the measurement period (CY2025) compared with the immediate prior 12 month period (CY2024). Scored in 2026; = 5 points                                                                                                               |            |  |    |
| Site performance < 37% and absolute increase of < 3 points from baseline site performance. Scored in 2026; = 0 points                                                                                                                                                                             |            |  | 10 |
| <b>Measure 11: Extra Credit – 1 point per approved activity (maximum of 5 points) Examples include: Physician attendance at the collaborative-wide meeting; presenting at a meeting; engagement in a work group/committee; referral of an engaged patient advisor; special initiatives (TBD).</b> |            |  |    |
| 1 point per activity                                                                                                                                                                                                                                                                              |            |  |    |

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## MISHC TAVR 2025 VBR Metrics

| Measures                                                                | Measurement Period   | Target Performance |
|-------------------------------------------------------------------------|----------------------|--------------------|
| 1 Increase referral to cardiac rehabilitation after TAVR                | 1/1/2024 – 6/30/2024 | ≥ 90%              |
| 2 Increase rate of mean gradient documentation at TAVR 1 year follow up | 1/1/2024 – 6/30/2024 | ≥ 75%              |
| 3 Site-specific measure                                                 | 1/1/2024 – 6/30/2024 | Site-specific      |

### MISHC scoring methodology

- MISHC TAVR uses a site level scoring model to measure performance.
- The site average must meet the target for 2 of 3 measures for practitioners to be eligible for VBR. Eligible practitioners may receive up to 103% of the Standard Fee Schedule.
- Practitioners may receive an additional 102% of the Standard Fee Schedule for performance > 1 CQI (BMC2 PCI or MSTCVS-QC; total = 105%).
- The measurement period uses 2024 data and will be paid out in 2025.

### CQI VBR selection process

For a practitioner to be eligible for CQI VBR, they must:

- Meet the performance targets set by the coordinating center
- Be a member of a PGIP physician organization for at least one year
- Have contributed data to the CQI's clinical data registry for at least two years, including at least one year of baseline data

A physician organization nomination isn't required for CQI VBR. Instead, the CQI coordinating center will determine which practitioners have met the appropriate performance targets and will notify Blue Cross. Each physician organization will notify practitioners who will receive CQI VBR, as it does for other specialist VBR.

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# Action Required “Referrals”

## ■ Phase I – Inpatient – Consult Orders

### Order Requisition

### Patient Care

Order: Cardiac Rehab Phase I Eval and Treat (Inpatient)

## ■ No Signature / NPP Order

#### Referral Details

Medical Service: Cardiac Rehab (External)

Referral Reason: post TAVR

Codified Reason: Z95.2 s/p tavr

Refer from Provider:

Refer from Location:

Referral Written Date: 08/11/2025

Requested Start Date: 08/11/2025

Priority: Routine

Instructions to Staff: please send to MyMichigan Alpena cardiac rehab.

Authorizing Provider: [REDACTED] PA-C

## • Dx

#### Ambulatory referral to Cardiac Rehab [REDACTED]

Diagnosis: Chest pain, unspecified type (R07.9); Unstable angina pectoris (CMS/HCC) (I20.0)

Referred to:

Priority: Routine

Referral Type: Rehabilitation - Outpatient

Referral Reason: Specialty Services Required

# Other “Referral” Methods

- Discharge Summary/Notes
- Inpatient Face Sheet

Comments:

This patient has been referred for Cardiac Rehabilitation and has expressed interest in enrolling in your CR Program.

Attached is patient’s contact information. Please contact the patient regarding enrollment.

Please note: All requests for written MD referral and/or medical records need to be obtained from the patient’s physicians and we have provided their contact information as well.

Thank you

- ***Patient provided site information***
  - ***Walk-ins***
  - ***Patient calls***

# Outbound Referral Delivery

## Internal

- Fully Electronic?
- Contain all required components?
- Dedicated staff managing referrals?

## External

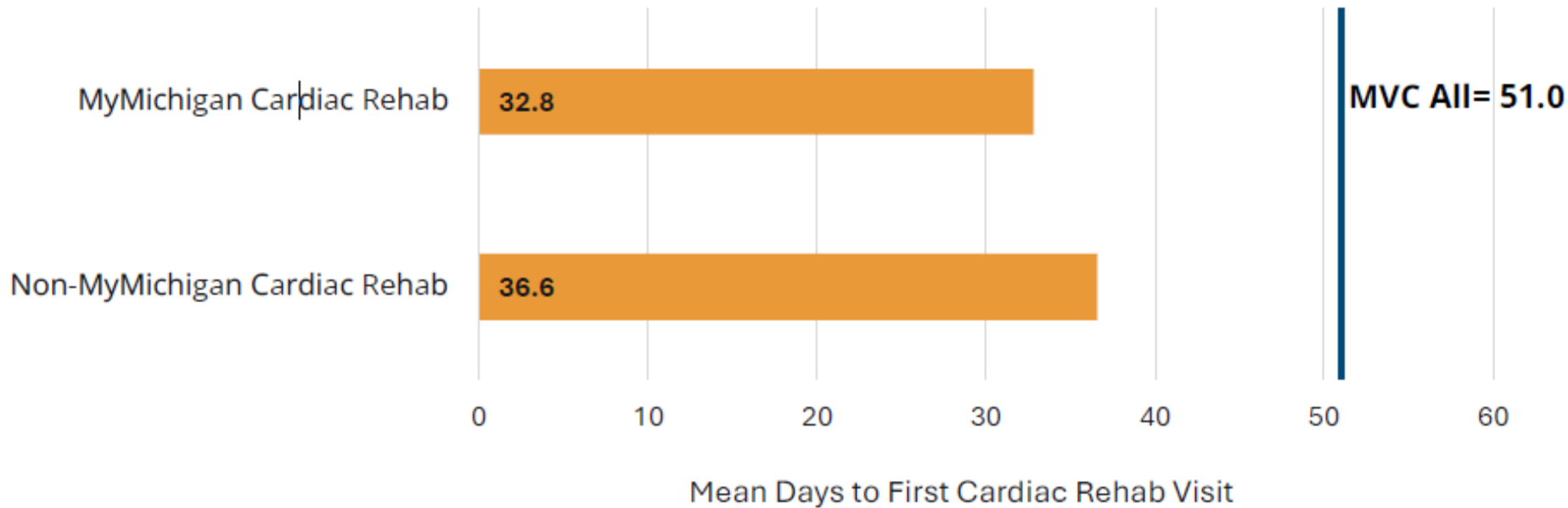
- Who is sending out external referrals?
  - Inpatient
  - Cardiac Rehab
- Contain all required components?
  - Different from internal?
- CR site selection process?
- Delivery method
  - Electronic
  - Fax (Batched)
  - Mail
  - Having the patient call local CR

# Where are your patients receiving CR

**Table 2. Distribution of CR Locations Utilized by Patients Discharged from MyMichigan Medical Center Midland for any MiCR Main 5 Condition (July 1, 2021 – June 30, 2024)**

| NPI Number | CR Location Name                        | Percentage |
|------------|-----------------------------------------|------------|
| 1902841414 | MyMichigan Medical Center - Midland     | 30.1%      |
| 1568414589 | MyMichigan Medical Center - Clare       | 11.9%      |
| 1023097771 | MyMichigan Medical Center - Alma        | 11.6%      |
| 1619914652 | MyMichigan Medical Center - Alpena      | 8.4%       |
| 1376973149 | MyMichigan Medical Center - Midland     | 7.3%       |
| 1235248071 | MyMichigan Medical Center - Gladwin     | 6.9%       |
| 1538566765 | MyMichigan Medical Center - West Branch | 5.5%       |
|            |                                         | 2.8%       |
|            |                                         | 1.7%       |
|            |                                         | 1.5%       |

**Figure 1. Mean Days to First CR Visit for Patients Discharged from MyMichigan Medical Center Midland for any MiCR Main 5 Condition, by CR Location (July 1, 2021 – June 30, 2024)**



# CR Referring Action Items

- Follow the referrals (internal and external) from the point of creation until the patient is scheduled
- Identify the number of departments and/or individuals (with job titles) that facilitate this process
- Identify the all steps needed and timeline within each stage of the referral process
- Determine if “in-system” referrals are truly all internally processed
- Determine the top 5 CR locations where your patients are receiving CR and % of Internal and External and is there any variance in mean days to 1<sup>st</sup> CR session between internal and external

# Ask this question?

If the patient walked into the patient selected CR site, would that site be able to start CR today with the referral/documentation we have provided?

# Differences in Cardiac Rehabilitation Enrollment by Referral Setting (3)

- “Over half (54%) of all patients with in-network referrals ultimately enrolled into CR. Notably, only 40% of patients with inpatient referrals decided to enroll, compared to 70% of patients with outpatient referrals and 60% of those with dual referrals .”

# Receiving Site



<https://a57.foxnews.com/static.foxnews.com/foxnews.com/content/uploads/2023/10/1200/675/Jahmyr-Gibbs-1.jpg?ve=1&tl=1>

<https://img.apmcdn.org/22688c5761ad14a5ae111493bbbe158c4ef9cddb/widescreen/47db26-20220923-aptopix-commanders-lions-football-webp2000.webp>

# Inbound Referral

- How are inbound referrals managed?
  - Central Scheduling
  - In-Department
    - Admin Assistance
    - Clinical Staff

# Self-imposed barriers

**Please provide the following medical records. The patient cannot be admitted to Cardiac Rehabilitation until records are received.**

**\_\_\_ Discharge summary**

**\_\_\_ ETT**

**\_\_\_ Patient is scheduled for an ETT on \_\_\_\_\_ OR please arrange ETT at MGH (imaging/non-imaging) please indicate.**

**\_\_\_ Current lipid profile**

**\_\_\_ Pertinent diagnostic tests (cardiac cath, ECHO etc)**

**\_\_\_ Recent office note**

- Generic (non-clinical) restriction(non-clinical) on timelines for starting Cardiac Rehab
  - 4 wks post procedure
  - After follow up
- Requiring Ordering Physician to sign initial treatment plan
- Requiring patient to be discharged from Home Care

**Table 3. Distribution of Index Event Hospital System of Patients Attending MyMichigan Cardiac Rehab Within 90 Days Post-Discharge from Cardiac Care Encounter for any MiCR Main 5 Condition, by Index Condition (July 1, 2021 – June 30, 2024)**

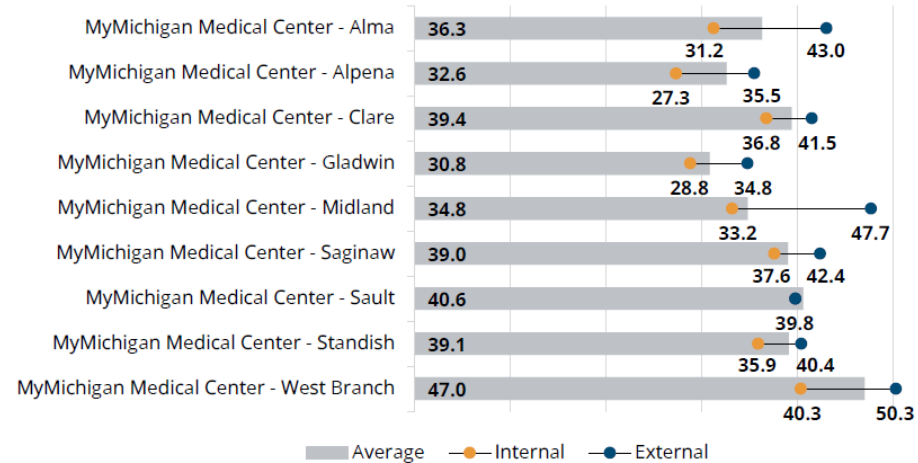
| Conditions | Proportion of MyMichigan CR Patients | Distribution of Index Event Location, by Condition |          |
|------------|--------------------------------------|----------------------------------------------------|----------|
|            |                                      | External                                           | Internal |
| AMI        | 33.4%                                | 33.0%                                              | 67.0%    |
| CABG       | 19.5%                                | 60.6%                                              | 39.4%    |
| PCI        | 28.6%                                | 34.6%                                              | 65.4%    |
| TAVR       | 11.0%                                | 39.9%                                              | 60.1%    |
| SAVR       | 7.6%                                 | 54.4%                                              | 45.6%    |
| Main 5     | 100%                                 | 41.2%                                              | 58.8%    |

# Where are the referrals coming from?

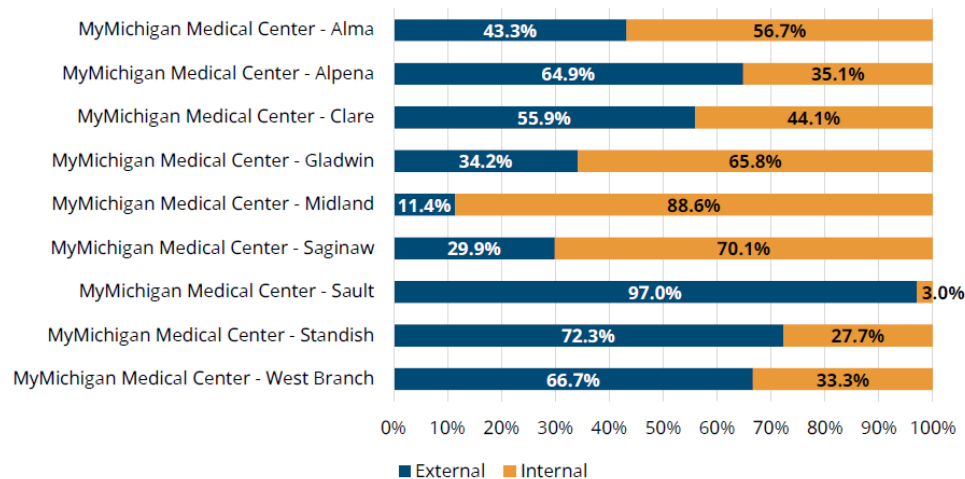
**Table 4. Distribution of External Index Hospitals Among Patients Attending MyMichigan Cardiac Rehab Within 90 Days Post-Discharge from Cardiac Care Encounter for any MiCR Main 5 Condition (July 1, 2021 - June 30, 2024)**

| Hospital Name                                                                       | Percentage |
|-------------------------------------------------------------------------------------|------------|
|  | 27.7%      |
|                                                                                     | 20.1%      |
|                                                                                     | 16.5%      |
|                                                                                     | 10.1%      |
|                                                                                     | 9.2%       |
|                                                                                     | 3.4%       |
|                                                                                     | 2.0%       |
|                                                                                     | 1.9%       |
|                                                                                     | 1.5%       |
|                                                                                     | 7.7%       |
| Other Hospitals                                                                     |            |

**Figure 8. Mean Days to First CR Visit of Patients Attending MyMichigan Cardiac Rehab Within 90 Days Post-Discharge from Cardiac Care Encounter for any MiCR Main 5 Condition, by MyMichigan Cardiac Rehab Location and Patient Origin (July 1, 2021 – June 30, 2024)**



**Figure 5. Distribution of Index Event Hospital System of Patients Attending MyMichigan Cardiac Rehab Within 90 Days Post-Discharge from Cardiac Care Encounter for any MiCR Main 5 Condition, by Cardiac Rehab Location**



# CR Receiving Action Items

- Follow the referrals (internal and external) from the point of receipt until the patient is scheduled
- Identify the methods of receiving referrals
- What % of referrals require additional action
- Identify the number of departments and/or individuals (with job titles) that facilitate this process
- Identify the all steps needed and timeline within each stage of the referral process
- Determine % of Internal and External referrals and is there any variance in mean days to 1<sup>st</sup> CR session
- Identify your top 5 referring sites

# Why Data Perspective Matters

## Midland CardioVascular Service

- Only 30% of patients go to Midland CR

## Midland Cardiac Rehab

- 89% of patients in Midland CR are referred from Midland

# Why Perspective Matters

## Referring (Midland Surgical)

- ~3% of referrals go to Hospital A
  - 45-60 patients annually

## Receiving (Hospital A)

- Have no clue what % of their patients come from Midland
- All we know is that there is a <4-day difference in days to starting CR for patients then MyMichigan CR.
- This indicates that they are able to process our surgical patients with similar consistency as we do internally!

# Take Aways

- Understand all the positions in the Cardiac Rehab Access Playbook
- Review your referral process from **start to FINISH** assessing for barriers and process improvements
- Use your available resources/data
  - All of the data used in the presentation was created by the MVC Analytics Team per request

# Variability in Quality Cardiac Rehab (2)

## Adherence to Guidelines

- Inconstant guidelines and benchmarking

## Data collection

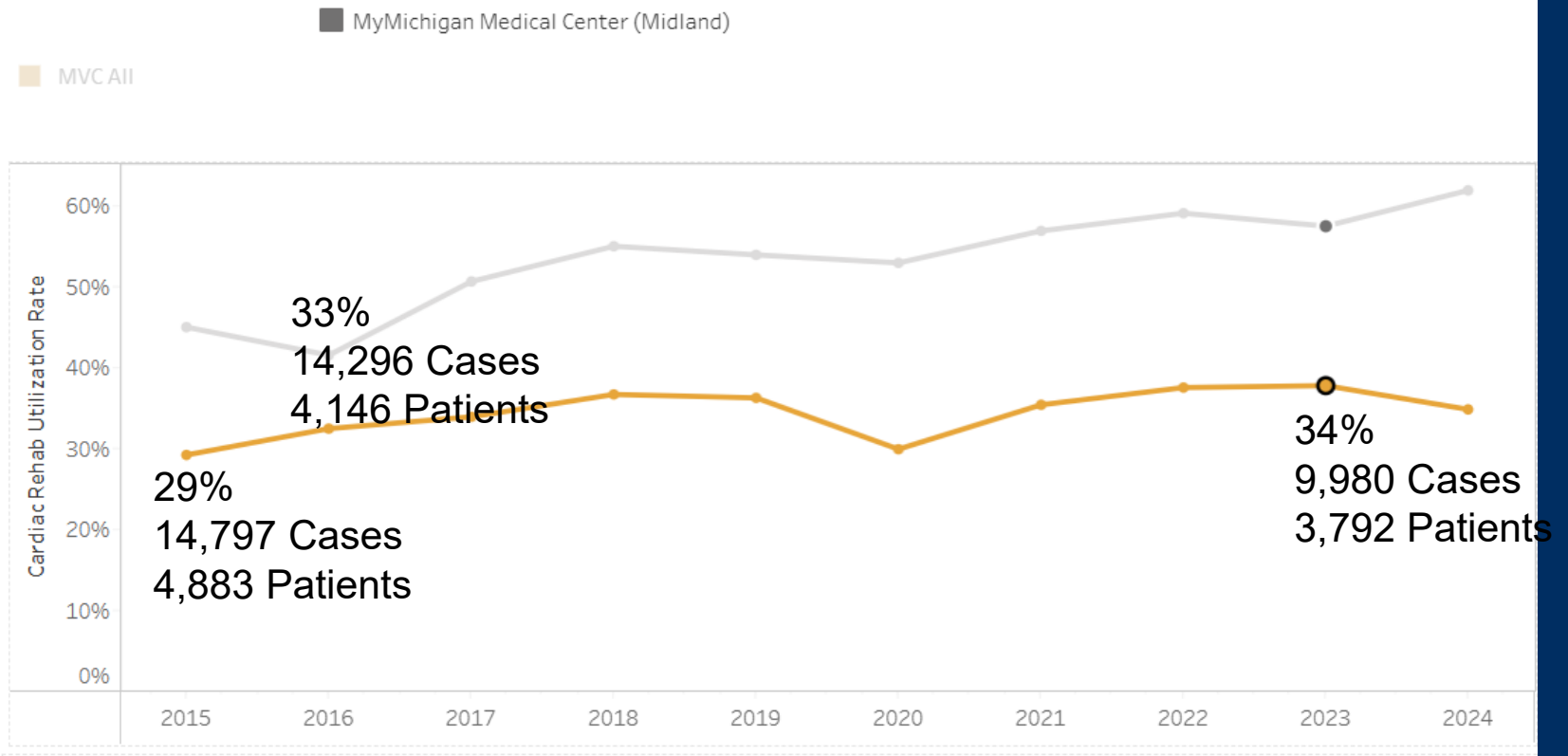
- Inefficient process of collection
- Lack of data outside of clinical trials

## Workforce Challenges

- Turnover
- Staffing levels
- Compensation
- Clinical expertise

## Leveraging Technology

- Access



# Call To Action

“Cardiac rehabilitation can transform patients' lives, especially if it is of high quality and delivered universally. Currently, many CR programs lack systematic data collection processes, and most have varying adherence to established standards, which limits their effectiveness. Ensuring that all patients can access evidence-based, comprehensive CR services is essential. Addressing the inconsistencies in CR delivery is a necessary step to fully leverage its benefits in reducing the global burden of heart disease. The focus should now be on prioritizing quality improvement in CR. The question is not whether we can afford to improve the quality of CR, but whether we can afford not to.” (2)

# References

- (1) Centers for Disease Control and Prevention. Cardiac Rehabilitation Change Package, Second Edition. Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2023.
- (2) Candelaria, Dion PhD, RN; Keteyian, Steven J. PhD; Gallagher, Robyn PhD, RN; Pack, Quinn R. MD, MSc. Cardiac Rehabilitation Quality Matters: Promoting Standards, Optimizing Outcomes. Journal of Cardiopulmonary Rehabilitation and Prevention 45(5):p 308-310, September 2025. | DOI: 10.1097/HCR.0000000000000984
- (3) Chen, Kevin MD; DeAngelis, Julianne MS, CCRP, FAACVPR; Antinozzi, Dana MPH; Berkowitz, Julia MD; Kerwin, Joanne PhD; Wu, Wen-Chih MD, MPH. Differences in Cardiac Rehabilitation Enrollment by Referral Setting. Journal of Cardiopulmonary Rehabilitation and Prevention 45(4):p 265-270, July 2025. | DOI: 10.1097/HCR.0000000000000947