Million Hearts®
Private Partner Call

July 18, 2017
1:00pm ET

Introductions and Overview

Robin Rinker, MPH, CHES
Health Communications Specialist,
Division for Heart Disease and Stroke Prevention

Agenda

• Welcome
• Cardiac Rehabilitation in the Million Hearts® Framework
• Cardiac Rehabilitation Overview and Actions You Can Take
• Discussion/Q & A*
• Share Your Commitment*
• Partner Updates*
• Closing

Welcome

Janet S. Wright, MD, FACC
Executive Director
Million Hearts®

Cardiac Rehab: Getting to 70% Participation

Haley Stolp, MPH
Public Health Analyst, IHRC Inc.
Centers for Disease Control and Prevention

Disclaimer

The opinions expressed by authors contributing to this project do not necessarily reflect the opinions of the US Department of Health and Human Services, the Public Health Service, the Centers for Disease Control and Prevention, or the authors’ affiliated institutions. Use of trade names is for identification only and does not imply endorsement by any of the groups named below.
Cardiac Rehab: What is it?

Comprehensive, team-delivered programs designed to
• Limit the effects of cardiac illness
• Reduce the risk for another heart attack or sudden death
• Control cardiac symptoms
• Stabilize or reverse the atherosclerotic process
• Enhance the psychosocial and vocational status of patients

Typically administered in 36 sessions over ~12 wks

Cardiac Rehab: Who Benefits?

For whom is there strong evidence of benefit---and good insurance coverage---for cardiac rehabilitation?

• Those with a prior heart attack or stable angina
• Systolic heart failure and EF < 35%
• Stent or angioplasty
• Bypass, valve, or heart or lung transplant surgery

Cardiac Rehab: What is the Evidence?

• Reduces
  • Death from all causes by 11-24%
  • Death from cardiac causes by 26-31%
  • Hospitalizations by 31%

• Improves
  • Adherence to medications by 31%
  • Functional status, mood, and Quality of Life scores

• More is Better
  • 36 vs fewer sessions reduces risk of heart attack and death

Use among Medicare Fee-for-service Beneficiaries

~450,000 beneficiaries were eligible in 2013
• 20% used CR at least once in 12 months
• 57% of CR users completed 25 or more sessions

Cardiac Rehab Use by Race/Ethnicity

Source: Centers for Medicare and Medicaid Services' Chronic Conditions Data Warehouse

Eligible for CR and initiated
Increasing Cardiac Rehabilitation Participation from 20% to 70%: A Road Map From the Million Hearts Cardiac Rehabilitation Collaborative

Abstract
The primary aim of the Million Hearts Initiative is to prevent 1 million heart attacks and strokes in 5 years. Connections with the Million Hearts Initiative of achieving this goal are ongoing. Among the strategies that would be pursued as part of Million Hearts Initiative of achieving this goal is the improvement of cardiac rehabilitation (CRR). CRR is a complex and multifaceted intervention that requires the coordinated efforts of health care professionals and organizations to improve patient outcomes. A variety of challenges, including access to rehabilitation services, financial barriers, and patient reluctance, contribute to low participation in CRR. This article describes the strategies that can be used to increase CRR participation and provides examples from Million Hearts Initiative of achieving this goal. The article also highlights the importance of community engagement and the role of health care providers in promoting CRR as a key component of cardiovascular care.

Key Findings
- Increasing CR participation from 20% to 70% would save 25,000 lives and prevent 180,000 hospitalizations annually in the United States.
- Effective Public Health Strategies
  - Reduce Sodium Intake (Target: 20%)
    - Enhance consumers' options for lower sodium foods
    - Institute healthy food procurement and nutrition policies
  - Decrease Tobacco Use (Target: 20%)
    - Enact smoke-free space policies that include e-cigarettes
    - Use pricing approaches
    - Conduct mass media campaigns
  - Increase Physical Activity (Target: 20%)
    - Create or enhance access to places for physical activity
    - Design communities and streets that support physical activity
    - Develop and promote peer support programs
- Effective Health Care Strategies
  - Improve ABCS* (Target: 80%)
    - Teams—Including pharmacists, nurses, community health workers, and cardiac rehab professionals
    - Technology—Decision support, patient portals, e- and default referrals, registries, and algorithms to find gaps in care
    - Processes—Treatment protocols; daily huddles; ABCS scorecards; proactive outreach; finding patients with undiagnosed hypertension, high blood pressure, or tobacco use
  - Increase Use of Cardiac Rehab (Target: 70%)
    - Patient and Family Supports—Training in home blood pressure monitoring; problem-solving in medication adherence; counseling on nutrition, physical activity, tobacco use, risks of particulate matter; referral to community-based physical activity programs and cardiac rehab
- Priority Populations
  - Blacks/African Americans
    - Improving hypertension control
  - 35- to 64-year-olds, because event rates are rising
    - Improving hypertension control and statin use
    - Increasing physical activity
  - People who have had a heart attack or stroke
    - Increasing cardiovascular referral and participation
    - Avoiding exposure to particulate matter
  - People with mental illness or substance use disorders
    - Reducing tobacco use
Million Hearts® 2022
Clinical Quality Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Measure Number</th>
<th>Measure Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirin Use When Appropriate</td>
<td>NQF 0068</td>
<td>Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic</td>
</tr>
<tr>
<td>Blood Pressure</td>
<td>NQF 0018</td>
<td>Hypertension: Controlling High Blood Pressure</td>
</tr>
<tr>
<td>Cholesterol Management</td>
<td>PQRS 438</td>
<td>Statin Therapy for the Prevention or Treatment of Cardiovascular Disease</td>
</tr>
<tr>
<td>Smoking Cessation</td>
<td>NQF 0028</td>
<td>Preventive Care and Screening: Tobacco Use</td>
</tr>
<tr>
<td>Cardiac Rehab Referral</td>
<td>NQF 0642</td>
<td>Referral to CR from Inpatient or Outpatient Setting</td>
</tr>
<tr>
<td>BMI</td>
<td>NQF 0421</td>
<td>Screening and Follow-Up</td>
</tr>
</tbody>
</table>

Getting to 70% CR Participation

Cardiac Rehab Work Flow

Stay tuned for the cardiac rehab webpage!

Cardiac Rehabilitation Overview and Actions You Can Take

Steven J. Keteyian, PhD  Henry Ford Hospital
Kimberly Newlin, ANP, Sutter Roseville Medical Center
Randal J. Thomas, MD, MS, Mayo Clinic

Why Cardiac Rehabilitation is So Important

Steven J. Keteyian, PhD
Director, Preventive Cardiology Unit
Henry Ford Hospital
Detroit

No conflicts to disclose
© Henry Ford Health System 2012. All Rights Reserved.
Definition: Cardiac Rehabilitation (CR)

- CR is a multidisciplinary, systematic approach to applying secondary prevention therapies of known benefit to patients with certain cardiovascular disease. Strategies include:
  - Regular exercise
  - Nutrition therapy/counseling
  - Medication management/compliance
  - Tobacco counseling
  - Counseling/therapy for emotional well-being and mood disturbance

Relevant Professional Guidelines Addressing CR

2. 2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines
4. 2013 ACCF/AHA Guideline for the Management of Heart Failure
5. 2012 ACCF/AHA/ACP-MAS/PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease
7. 2011 ACCF/AHA Guideline for Coronary Artery Bypass Graft Surgery

Summary of the Effectiveness of CR/Exercise Training in Secondary Prevention

- Improved disease-related symptoms
  - Definite
  - Improved exercise capacity, 10%-30%
  - Definite
- Improved resting blood pressure
  - Definite
  - Anti-inflammatory effect
  - Probable
- Improved blood triglyceride
  - Definite
  - Improved endothelial function
  - Definite
- Improved high density lipoprotein
  - Probable (mild)
  - Improved skeletal muscle strength
  - Definite
- Improved blood glucose
  - Definite
  - Improved skeletal muscle endurance
  - Definite
- Reduction in body weight
  - Partially
  - Decreased risk all-cause mortality
  - Definite/Probable
- Improved mood (depression/anxiety)
  - Definite
  - Decreased risk all-cause hospitalization
  - Definite

AACVPR/AHA: 2010 Update: Performance Measures on Cardiac Rehabilitation for Referral to Cardiac Rehabilitation/Secondary Prevention Services

A Report of the American Association of Cardiovascular and Pulmonary Rehabilitation and the American College of Cardiology Foundation/American Heart Association Task Force on Performance Measures (Writing Committee to Develop Clinical Performance Measures for Cardiac Rehabilitation)

Cardiac Rehabilitation Patient Referral Flow:
Inpatient Setting (Measure A-1)
Outpatient Setting (Measure A-2)

Meta-Analysis of Exercise Training in Patients with Coronary heart disease

- All-cause mortality (>12 mo follow up)
  - N = 16 trials; n = 5,790 subjects
  - ↓ 13% (RR 95% CI = 0.75, 0.99)

- Cardiovascular mortality (>12 mo f/up)
  - n = 12 trials; n = 4,757 subjects
  - ↓ 26% (RR 95% CI = 0.63, 0.87)

- Hospital readmission (6 - 12 mo follow up)
  - n = 4 trials; n = 463 subjects
  - ↓ 31% (RR 95% CI = 0.51, 0.93)
Coronary heart disease, exercise cardiac rehabilitation, and ...

Cardiovascular Mortality

RR: 0.74; 95% CI: 0.64 to 0.86

Hospitalization

RR: 0.82; 95% CI: 0.70 to 0.96


Increasing Cardiac Rehabilitation Participation From 20% to 70%; A Road Map From the Million Hearts Cardiac Rehabilitation Collaborative

The primary aim of the Million Hearts initiative is to prevent 1 million cardiovascular events over 5 years. Consistent with Million Hearts’ focus on achieving more than 75% performance in the “ABCS” of aspirin for those at risk, statin, blood pressure control, cholesterol management, and smoking cessation, we outline the cardiometabolic events that would be prevented and a road map to achieve more than 75% participation in cardiac rehabilitation (CR). Secondary prevention programs for the new 2012 Cardiac Rehabilitation is a class IIa recommendation of the American Heart Association and the American College of Cardiology. It is now time to move full steam ahead toward the goal of bringing CR participation to 70%. This will result in an estimated 25,000 survivors annually in the United States.


Summary

1. CR is a multidisciplinary, systematic approach to applying secondary prevention therapies of known benefit to patients with certain cardiovascular disease.
2. CR represents guideline-based care
3. CR is effective, associated with:
   - improving many physiologic and behavioral outcomes
   - reducing all-cause mortality, cardiovascular mortality and re-hospitalization

Current Participation & Capacity

- Current participation rates for CR in the U.S. generally range only from 20% to 30%
- Participation rates depend somewhat upon cardiac diagnosis: patients after surgical revascularization have higher participation rates than patients after MI or percutaneous revascularization
- Even with modest expansion of all existing programs operating at capacity, a maximum of 47% of qualifying patients in the United States could be serviced by existing CR programs
  - This limit probably contributes to CR underutilization and has important policy implications

How are We Doing with CR Delivery?

Kim Newlin, MS, ANP-C, FPCNA, FAHA
PCNA Board Member
Sutter Heart and Vascular Institute
**Current Referral Process**

- Low referral rate for women, older adults and ethnic minorities, lower socioeconomic status
  - Women and minorities are significantly more likely to die within 5 years after a first MI compared with white male patients
- For every 1 day delay to start CR, there is an approximate 1% less likelihood of the patient enrolling

**Current Referral Process**

- Referrals are not always automatic and often CR is not offered to patient at time of event
  - Automatic referral alone increased the referral rate to 70%
  - Automatic referral combined with a liaison attained referral rates of 86% compared to 32% in controls who received neither intervention
- CR Referral is not a mandatory quality performance measure
  - Studies show an increase in referral rate at hospitals participating in quality improvement activities

**Standard Model**

- Outpatient and/or hospital based exercise program
  - Often far from where patients live without good parking or public transportation access
  - 2-3 times per week
  - Class times throughout day, most often 7 AM – 3 PM on weekdays
  - Lack of diversity among patients and clinicians
  - Physician supervision required
  - Expensive to operationalize
  - Many patients have copay of $20-$40 per visit
  - Reimbursement has improved

**Standard Model**

- Alternative Models: A Few Out There!
  - Home Based or Hybrid Programs
    - Data supports efficacy and safety of programs
    - Reimbursement doesn’t support these programs
  - Kaiser MULTIFIT: Patients attend a 2-hour class and then are monitored by a nurse over the phone

**Cardiac Rehabilitation**

- How Can We Work Together To Improve Delivery?
Disclosures

No relevant financial relationship(s) with industry

No off-label use of treatments to be discussed

Future of Cardiac Rehabilitation

• CR will grow in importance and impact
  • Growing evidence, need, policy support
  • High value service (outcomes/cost)
  • Largest performance gap in cardiology today

Future of Cardiac Rehabilitation

• CR will grow in importance and impact
• CR will continue to evolve

Cardiac Rehabilitation Evolution

• New Populations
  • PAD: Approved by CMS 2017, Class IA rec*
  • HFpEF: Strong evidence, private insurance
  • Afib: Growing evidence
  • Cancer: Growing evidence
  • Pediatric CR: Few studies
  • Non-CV Transplant: Few studies

• New Delivery Models
  • Optimize center-based CR capacity
  • Different models: Home-based and eHealth models

*JACC 2017;69(11):1465–1508

What Can We Do To Improve Cardiac Rehabilitation Delivery?

• Implement tools that work
• Provide ongoing, updated evidence for new delivery models
• Push for policy change
Cardiac Rehabilitation Improvement
Win-Win-Win

- If CR use increases from 20% to 70% (USA)
  - 180,000 fewer hospital admissions/year
  - 25,000 lives saved/year
- Other benefits
  - Functional status
  - Quality of life
  - Symptom control
  - Financial benefits

Exercise Capacity: Home-Based vs Center-Based CR 3-12 Month Follow-Up

<table>
<thead>
<tr>
<th>Follow-Up</th>
<th>Home-Based CR</th>
<th>P-value</th>
<th>Center-Based CR</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Months</td>
<td>7.2 (0.1)</td>
<td>0.00</td>
<td>7.1 (0.8)</td>
<td>0.00</td>
</tr>
<tr>
<td>6 Months</td>
<td>7.0 (0.3)</td>
<td>0.00</td>
<td>6.9 (0.9)</td>
<td>0.00</td>
</tr>
<tr>
<td>12 Months</td>
<td>6.9 (0.6)</td>
<td>0.00</td>
<td>6.8 (2.4)</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Financial benefits

- Quality of life
- Symptom control
- Financial savings

Cardiac Rehabilitation Centers for Medicare and Medicaid Services Pilot Studies

- Starting in January 2018

  - Selected geographic areas will be assigned to “usual care” or to either or both of the following:
    - Financial incentive Model
      - Large incentive for referring providers
      - Aimed at helping to reduce barriers to CR
      - Incentivizes center-based CR care
    - Bundled payment (episode payment)
      - Bundled payment for CABG and MI care
      - Incentivizes lower cost CR care (home-based?)
Cardiovascular Rehabilitation
Paradigm Shift

Current Paradigm
- No CR
- "Home" CR
- Traditional CR

New Paradigm
- No CR
- "Home" CR
- Traditional CR

Future Paradigm
- New Model of CR Delivery

Discussion/Q & A

April Wallace, Program Initiatives Manager
Million Hearts® Collaboration

Do you have a question for one of the panelist?
Please submit your questions in writing using the Q&A Panel located at the bottom right of your screen.
Following the online questions, we will open the phone lines for additional questions.

Share Your Commitment to Million Hearts® 2022

How do your organization’s mission and goals align with Million Hearts® 2022?
What strategies will you implement to help prevent one million events by 2022?

Key Updates and Questions from Partners

April Wallace, Program Initiatives Manager
Million Hearts® Collaboration

Please “raise your hand” by clicking on the hand icon.
When recognized, please share your name, organization name, and a brief update.
Following the online requests, we will open up the phone lines for additional updates from partners.

Next Partner Call
October 31, 2017, 1 p.m. EST

Please submit any comments or feedback to millionhearts@cdc.gov.