# **Cillion** Cardiac Rehabilitation

### Saving Lives • Restoring Health • Preventing Disease



# Referral

#### Many People Who Can Benefit Are Not Being Referred



Minority status predicts lower referral and participation rates.

Women, minorities, older people, and those with other medical conditions are under-referred to cardiac rehab.



One of the best predictors of cardiac rehab referral is whether the eligible person speaks English.

Asian Americans are 18 times more likely to speak limited English, compared to white people.



Black women are 60% less likely to be referred and enroll in cardiac rehab programs, compared to white women.

#### We Know What Works to Improve Referral Rates



Automatic, systematic referral to cardiac rehab at discharge can help connect eligible people with these programs.



Strong coordination among inpatient, home health, and outpatient cardiac rehab programs boosts referral rates as well as participation rates and outcomes.



Patients' medical teams and families can support and encourage participation in cardiac rehab programs.

Awareness campaigns should be aimed at people and caregivers.





## Participation and Completion

#### **Reaching the Threshold** of 36 Sessions Is Challenging

#### We Know from Research How to Eliminate Barriers



Longer wait times following discharge reduce cardiac rehab enrollment.

For every day a person waits to start cardiac rehab, that person is 1% less likely to enroll.



The greatest predictor of participation is the strength of the physician's recommendation.

Reduce the interval between

hospital discharge and cardiac

rehab program orientation by

formalizing enrollment practices.



People who live outside of metropolitan areas are 30% less likely to participate in cardiac rehab programs.

#### **Cardiac Rehab Participation Rates by Race** (601,000 Medicare Patients)





7.8% of eliaible participate



Support participation in cardiac rehab through community health workers, home health aides, and visiting nurses.



Design culturally and linguistically appropriate programs.

Increase use of translation services by physicians and participants.



People who make more than \$75,000 per year are twice as likely to participate than individuals with annual incomes below \$15,000.



Ensure access to services through transportation options and extended hours.

Where possible, reduce or eliminate financial burden on cardiac rehab participants.



Lack of Diversity in Cardiac Rehab Programs

Minority populations in the U.S. 29%





Diversify cardiac rehab teams.

Research shows that minority physicians are more likely to care for minority, poor, uninsured, and underserved people, compared to white physicians.



**Other strategies** are being considered to improve participation and completion:





Develop telemedicine-monitored cardiac rehab programs for people unable to access traditional programs.



For people unable to attend all 36 sessions in a cardiac rehab facility, conduct baseline assessment in a cardiac rehab clinic followed by a nurse-monitored home exercise program.

# Viability and Sustainability

#### Limited Capacity, Limited Number of Eligible People Served

Although cardiac rehab programs are underutilized, some fear that the existing number of programs would be insufficient to serve all eligible people.

Geographic variations in the number of

- cardiac rehab programs,
- eligible people, and
- referred and participating people
- complicate the story of program capacity.

#### New Delivery Models and Other **Strategies Have Promise**



Reward eligible people for completing cardiac rehab programs.





Share best practices and lessons learned, including innovations.

#### Sources

Ades PA, Huang D, Weaver SO. Cardiac rehabilitation participation predicts lower rehospitalization costs. Am Heart J. 1992;123(4 Pt 1):916-21.

Allen JK, Scott LB, Stewart KJ, Young DR. Disparities in women's referral to and enrollment in outpatient cardiac rehabilitation. J Gen Intern Med. 2004;19(7):747-53.

Dunlay SM. Pack QR. Thomas RJ, Killian JM, Roger VL. Participation in cardiac rehabilitation, readmissions, and death after acute myocardial infarction. Am J Med. 2014;127(6):538-46.

Golwala H, Pandey A, Ju C, Butler J, Yancy C, Bhatt DL, et al. Temporal trends and factors associated with cardiac rehabilitation referral among patients hospitalized with heart failure: findings from Get With The Guidelines-Heart Failure Registry. J Am Coll Cardiol. 2015;66:917–26.

Hammill BC, Curtis LH, Schulman KA, Whellan, DJ. Relationship between cardiac rehabilitation and long-term risks of death and myocardial infarction among elderly Medicare beneficiaries. Circulation. 2010;121(1):63–70.

Johnson DA, Sacrinty MT, Comadam PS, Mehta HJ, Brady MM, Douglas CJ, et al. Effect of early enrollment on outcomes in cardiac rehabilitation. Am J Cardiol. 2014;114(12):1908–11.

Menezes AR, Lavie CJ, DeSchutter A, Milani RV. Gender, race and cardiac rehabilitation in the United States: is there a difference in care? Am J Med Sci. 2014;348(2):146-52.

Menezes AR, Lavie CJ, Milani RV, Forman DE, King M, Williams MA. Cardiac rehabilitation in the United States. *Prog Cardiovasc Dis.* 2014;56(5):522–9.

Mozaffarian D, Benjamin EJ, Go AS, Arnett DK, Blaha MJ, Cushman M, et al. Heart disease and stroke statistics—2015 update: a report from the American Heart Association. Circulation. 2015;131(4):e29–322.

Park LG, Schopfer DW, Zhang N, Shen H, Whooley MA. Participation in cardiac rehabilitation among patients with heart failure. J Card Fail. 2017;23(5):427-31.

Russell KL, Holloway TM, Brum M, Caruso V, Chessex C, Grace SL. Cardiac rehabilitation wait times: effect on enrollment. J Cardiopulm Rehabil Prev. 2011;31(6):373-7.

Valencia HE, Savage PD, Ades PA. Cardiac rehabilitation participation in underserved populations. Minorities, low socioeconomic, and rural residents. J Cardiopulm Rehabil Prev. 2011;31(4):203-10.

