

# GUIDE TO REDUCING DISPARITIES

READMISSIONS

# Guide to Reducing Disparities in Readmissions

# **Acknowledgments**

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# **Table of Contents**

Introduction	1
Overview of Key Issues & Strategies	2
High Level Recommendations for Reducing Readmissions among Diverse Populations	6
Conclusion	9
Resources for Reducing Readmissions among Diverse Populations	10
Appendix A: Disparities in Top Conditions in CMS Hospital Readmissions Reduction Program	17
Appendix B: Disparities in Top Chronic Conditions	20
References	22

### Introduction

Guided by The Institute of Medicine (IOM) Report *Crossing the Quality Chasm*, our nation charts a path to deliver equitable care that is safe, efficient, effective, and patient-centered. *Equity* is the principle that quality of care should not vary based on patient characteristics such as race and ethnicity, gender, or socioeconomic status. Recent years have seen a significant transformation of the health care system. An entire set of structures has been developed to facilitate increased access to cost-effective and high-quality care. Pursuing *high-value* health care is the ultimate goal, and health care provider organizations across the country are faced with the daunting challenge of succeeding—and perhaps just surviving—while delivering care to increasingly diverse populations.

One major part of the move towards value-based care—paying for quality, rather than quantity, of services—is a set of financial incentives and disincentives designed to drive quality improvement and control costs for hospitalbased care. Preventing avoidable hospital readmissions has become one such cost-controlling priority. It is estimated that roughly two million patients are readmitted a year, costing Medicare \$26 billion. Officials estimate \$17 billion of that comes from potentially avoidable readmissions. 2 To address this issue, the Centers for Medicare & Medicaid Services (CMS)—through Congressional direction and Administration initiatives—implemented the Hospital Readmission Reduction Program (HRRP) in 2012. The CMS program sets up financial penalties for hospitals with relatively higher rates of Medicare readmissions.<sup>3</sup> To determine each hospital's penalty in the first phase of the program, CMS looked at readmission rates of patients who initially went into the hospital for heart failure, heart attack, and pneumonia but returned within 30 days of discharge. Two conditions were added in FY 2015, elective hip and knee replacements and chronic obstructive pulmonary disease (COPD, which can involve bronchitis and emphysema). In FY 2017 CMS added Coronary Artery Bypass Graft surgery to the HRRP measures and expanded the types of pneumonia cases that are assessed. Currently, hospitals can lose as much as three percent of their Medicare payments under the program.<sup>4</sup> The HRRP is one of several programs included in the U.S. Department of Health and Human Services 2016 Report to Congress: Social Risk Factors and Performance Under Medicare's Value-Based Purchasing Programs. Findings of this report revealed that beneficiaries with social risk factors (including low income, Black race, Hispanic ethnicity, and rural residence), experience worse outcomes on quality measures and that providers serving a disproportionate number of beneficiaries with social risk factors are subject to higher penalties under certain programs like the HRRP. The reasons for this are multifactorial and necessitate efforts to measure and report on performance and quality of care, including disparities in readmissions.5

Additionally, studies have shown that certain patient characteristics, such as race, ethnicity, language proficiency, age, socioeconomic status, place of residence, and disability, among others—may predict readmission risk and readmissions, particularly for costly and complicated medical conditions such as heart failure, pneumonia, and acute myocardial infarction. Research has demonstrated—and evaluations of the HRRP to date have found—that minority and other vulnerable populations are more likely than their white counterparts to be readmitted within 30 days of discharge for chronic conditions, such as congestive heart failure. While not all readmissions are avoidable, a portion of unplanned readmissions may be prevented by addressing the barriers patients face prior to, during, and after admission and discharge.

Given the cost and quality implications of these findings, addressing readmissions while caring for an increasingly diverse population has become a significant concern for hospitals and hospital leaders. This is one part of a larger national effort to address disparities and achieve equity in health care, exemplified by the #123forEquity Campaign spearheaded by the American Hospital Association and several partners (<a href="http://www.equityofcare.org/pledge/index.shtml">http://www.equityofcare.org/pledge/index.shtml</a>). State-level initiatives also present opportunities for hospitals to pledge their commitment to addressing factors associated with readmissions, including the Alliance for a Healthier South Carolina's Call to Action for Health Equity (<a href="http://healthiersc.org/the-alliance/dashboard-call-to-action/">http://healthiersc.org/the-alliance/dashboard-call-to-action/</a>) and the National CLAS Standards Pledge in Wisconsin (<a href="https://www.thinkculturalhealth.hhs.gov/assets/pdfs/CLASCompendiumWisconsin.pdf">https://www.thinkculturalhealth.hhs.gov/assets/pdfs/CLASCompendiumWisconsin.pdf</a>). Hospitals have

1

requested additional guidance on how to implement both system-wide redesign as well as specific efforts on preventing readmissions among minority populations.

The goals of the guide are to provide:

- An overview of key issues related to disparities in readmissions
- A set of activities that can help hospital leaders address readmissions in this population
- Strategies aimed at reducing readmissions in diverse populations

This guide provides clear, concise, practical, and actionable recommendations for hospital leaders such as CEOs, VPs, team leads, and others who focus on health care quality, safety, and redesign. Recommendations and improvement activities can also be shared and spread by organizations who provide support to hospitals, including Hospital Improvement Innovation Networks (HIINs), Quality Improvement Network-Quality Improvement Organizations (QIN-QIOs), and other stakeholders engaged in readmissions-related quality improvement activities. This guide is aligned with the goals of the CMS Partnership for Patients focused on improving care transitions, reducing 30-day hospital readmissions, making care safer, and reducing costs (https://partnershipforpatients.cms.gov/).

The recommendations included in this guide apply to all types of hospitals, including rural, urban, public, and private (among others), and are closely aligned with the *CMS Quality Strategy Goals*. These recommendations can help support a culture of safety; strengthen patient and family engagement in care; encourage effective communication and care coordination; promote effective chronic disease prevention and treatment; foster community cooperation to promote healthy living; and make care more affordable.

To maximize use of this guide, hospitals may:

- 1. Complete a Disparities Action Statement (<a href="https://www.cms.gov/About-CMS/Agency-Information/OMH/Downloads/Disparities-Action-Statement.pdf">https://www.cms.gov/About-CMS/Agency-Information/OMH/Downloads/Disparities-Action-Statement.pdf</a>) to learn how to identify, prioritize, and take action on health disparities.
- 2. Develop or enhance a hospital's existing strategies to include equity as an essential component. <sup>16</sup> The CMS Equity Plan for Improving Quality in Medicare (<a href="https://www.cms.gov/About-CMS/Agency-Information/OMH/OMH\_Dwnld-CMS\_EquityPlanforMedicare\_090615.pdf">https://www.cms.gov/About-CMS/Agency-Information/OMH/OMH\_Dwnld-CMS\_EquityPlanforMedicare\_090615.pdf</a>) is a helpful resource and provides an action oriented, results-driven approach for advancing health equity by improving the quality of care provided by hospitals and other healthcare providers.
- 3. Develop a "Transitions/Readmissions Care Redesign Team" (details below) or have an existing team review the information included here.
- 4. Conduct a gap analysis to determine whether the transition/readmission process incorporates recommended strategies and issues.
- 5. Apply the recommendations presented here for impactful short-term results, as well as for all-encompassing, long-term plans.

In this time of health care transformation and reform, strategies to prevent readmissions among minority populations will be necessary if we are to realize the promise of value in healthcare going forward.

# Overview of Key Issues & Strategies

Data from the Agency for Healthcare Research and Quality indicate that black and Hispanic patients experience higher rates of potentially avoidable readmissions than white patients.<sup>17</sup> Among Medicare beneficiaries, readmission rates for the top conditions in the CMS Hospital Readmissions Reduction Program are higher for black

patients and higher for Hispanic patients with congestive heart failure and acute myocardial infarction (see Appendix A). 7,18, 19-22

Several factors contribute to disparities in readmission rates for racially and ethnically diverse Medicare beneficiaries. While some of the issues and strategies outlined in the table below (Table 1) are relevant to preventing readmissions in any population, they are particularly important to consider when examining the drivers of readmission and opportunities to eliminate disparities in readmission rates for diverse populations. Along with implementing these strategies, hospitals should systematically examine what they can do to improve care in accordance with the National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care by reviewing A Practical Guide to Implementing the National CLAS Standards: For Racial, Ethnic and Linguistic Minorities, People with Disabilities and Sexual and Gender Minorities (https://www.cms.gov/About-CMS/Agency-Information/OMH/Downloads/CLAS-Toolkit-12-7-16.pdf).

Research has shown that combining strategies has greater potential for impact, whereas single-component interventions are unlikely to result in a significant change in readmission rates.<sup>23</sup>

Table 1. Relevant Topics, Key Issues and Recommended Strategies to Reduce Readmissions Among Diverse Populations

Topic	Key Issues and Recommended Strategies
Discharge and	Racial and ethnic minorities are less likely than white patients to follow up with a primary care
care transitions	provider or an appropriate specialist after discharge. <sup>24</sup>
	<ul> <li>Provide early discharge planning and follow-up for patients at high risk for readmission.<sup>25</sup></li> </ul>
	<ul> <li>Communicate with patients about the importance of early follow-up. Support may be needed to schedule appointments and address potential barriers to follow-up (e.g., lack of usual source of care, transportation issues, language barriers).<sup>26</sup></li> </ul>
Usual Source of	Racial and ethnic minorities are less likely to be linked to a primary care provider or have a usual
Care/Linkage to	source of care. Lack of this linkage leads to lower quality care. <sup>27-29</sup>
Primary Care	• Determine whether the patient is linked to a primary care provider or has a usual source of care.
	<ul> <li>If no linkage exists, attempt to provide a referral and ensure the patient gets connected to a primary care provider.<sup>30,31</sup></li> </ul>
Language barriers	Limited English proficiency is associated with several factors that contribute to avoidable
and access to	readmissions, including lower rates of outpatient follow-up, use of preventive services, medication
interpreter	adherence, and understanding discharge diagnosis and instructions. 32,33
services	<ul> <li>Ensure that patients with limited English proficiency are aware of and have access to professional medical interpreter services during inpatient stays, during discharge, and when accessing post-hospital care.<sup>34</sup></li> </ul>
	<ul> <li>Communicate discharge instructions in the patient's preferred language. Provide written materials at an appropriate literacy level (5<sup>th</sup> grade or lower, as recommended by the Joint Commission) and in the preferred language of the patient and/or caregiver.<sup>35</sup> Simply translating written instructions may be insufficient to ensure patient understanding.<sup>36</sup></li> </ul>
	<ul> <li>Include family members and/or caregivers in care as appropriate, work with members of the extended care team (such as community health workers), and coordinate with traditional healers to help facilitate culturally competent care for patients with limited English proficiency.<sup>37</sup></li> </ul>

Topic	Key Issues and Recommended Strategies
Health literacy	Many factors that contribute to readmissions for racial and ethnic minority populations are associated with health literacy (e.g., limited knowledge of medical condition, poor ability to manage medications and self-care, non-adherence to treatment plans). 38-40
	<ul> <li>Conduct early screening and documentation of literacy and health literacy, and ensure providers are aware of the patient's level of health literacy at all stages of care.<sup>39</sup></li> </ul>
	<ul> <li>Provide discharge instructions and educational materials at an appropriate literacy level, and incorporate adult learning principles to facilitate patient understanding of diagnosis and treatment regimen.<sup>40</sup></li> </ul>
	Simplify self-care instructions provided to patients. <sup>40</sup>
	<ul> <li>Use common words. Avoid medical jargon. Using relatable language is vital when working with patients with limited English proficiency who may experience additional communication barriers.<sup>36</sup></li> </ul>
Culturally competent	Cultural beliefs and customs influence patients' health behaviors, perceptions of care, and interpretation of medical information or advice. 41-43
patient education	<ul> <li>Facilitate trust with patients by demonstrating respect for cultural practices and beliefs that may impact understanding of the disease, treatment, self-management, and possible outcomes and risks, and tailor patient education accordingly.<sup>44</sup></li> </ul>
	<ul> <li>Engage families in care transitions, as appropriate, and leverage cultural beliefs or practices that promote self-care and family or social support.<sup>43,45</sup></li> </ul>
	<ul> <li>Link patients to community-based educational programs offered by trusted institutions (e.g., faith organizations, cultural organizations)<sup>44</sup></li> </ul>
	<ul> <li>Address cultural factors that may predict medication non-adherence, such as patient perceptions regarding the benefits of Western vs. Eastern medicine and perceptions of susceptibility to disease/harm. 41</li> </ul>
Social determinants	Factors linked to lack of socioeconomic resources are associated with higher readmission rates for patients at minority-serving hospitals. 20,46
	<ul> <li>Connect patients with community-based resources such as adult day health programs, personal care, home-delivered meals, and services that address social determinants of health (e.g., housing and food security, transportation, employment) and financial barriers that disproportionately affect racial and ethnic minorities.<sup>20,47</sup></li> </ul>
	<ul> <li>Connect uninsured and underinsured patients with supplemental health insurance, when possible. 48,49</li> </ul>
	<ul> <li>Encourage social support through community connections, use of health information technology, and community-based interventions that reduce social isolation and loneliness.<sup>43,50</sup></li> </ul>
Mental health	Anxiety and depression disproportionately impact certain minority groups (e.g., black patients with heart failure), and poor mental health has been shown to affect access to services and self-care after discharge. <sup>51</sup>
	<ul> <li>Assess patients for depression, assist them in accessing culturally competent mental health services, and support culturally-relevant coping mechanisms (e.g., spirituality, mindfulness).</li> <li>Stigma about diagnosis and variation in the cultural meaning of depression for minority populations may pose challenges to diagnosis and treatment.<sup>51</sup></li> </ul>

Topic	Key Issues and Recommended Strategies
Comorbidities	Racial and ethnic minorities commonly have multiple comorbidities, resulting in higher readmission risk.
	<ul> <li>Focus on the full spectrum of the patient's health, not just the admitting diagnosis, especially for patients with multiple chronic conditions.<sup>52</sup></li> </ul>
	Ensure appropriate referral to specialty care for comorbidities.  53
	<ul> <li>Implement policies that foster the use of multi-disciplinary disease management teams and provide payment for care coordination.<sup>53</sup></li> </ul>

# High Level Recommendations for Reducing Readmissions among Diverse Populations

Extensive research and guidance are available on how to prevent avoidable readmissions. Less information exists about barriers faced specifically by minority populations and how health systems are overcoming these challenges to address preventable readmissions in the overall population. However, there are several themes that emerge when examining factors that facilitate the prevention of readmissions for *all* patients, regardless of their race, ethnicity, culture, class, language proficiency, or level of health literacy. These include:

#### 1. Collect Critical Data

Collecting data on who is readmitted, for what condition, from what location, due to what factors, and at what cost helps develop a better understanding of specific risk populations, settings, and individual characteristics and how they relate to readmissions. The more detailed the data, the better the foundation for interventions. As we consider addressing readmissions among diverse populations, tracking certain types of information is critical. These include:

- Race and Ethnicity: Racial and ethnic minority populations are more likely to be readmitted for chronic
  conditions than whites. Collection of standardized race and ethnicity data helps identify these groups.
   Self-reported data are considered most reliable.
- Language: Patients with limited-English proficiency are at higher risk for preventable readmission than English-speaking patients. Collect data on language by asking the patient's preferred spoken language for care, as well as preferred written language.
- **Education:** Patients with low health literacy are at risk for readmissions. Assessing patients' ability to understand health information and responding appropriately to patients' level of health literacy is essential.
- **Social Determinants:** Social supports, home and community-based services, access to healthy foods, safe housing, transportation, etc., are determinants of readmissions, and patients can be screened in clinical settings.
- **Disability:** People with disabilities have more complex admissions. Knowing this early on, and preparing accordingly, can help ensure appropriate care and a smooth transition after hospitalization.
- Linkage to Primary Care/Usual Source of Care: Minorities are less likely to be linked to a primary care provider or usual source of care, and this can affect readmissions. Gathering data on patients' providers helps identify which patients need referrals to primary care.

Information can be gathered routinely at registration, updated at regular intervals, and used to do predictive modeling for readmissions (also called readmission "hot spotting") to address factors that influence readmissions in diverse populations. In the absence of standardized data collection systems, this information can be gathered from individuals who are routinely readmitted via chart review, focus groups, structured interviews, and through multicultural advisory boards and/or patient/family councils. Data collection is an important foundation of addressing health care disparities, but difficulties collecting data should not preclude efforts to reduce readmissions. A comprehensive collection of resources and guidance to support data collection efforts is available in the *Compendium of Resources for Standardized Demographic and Language Data Collection* (<a href="https://www.cms.gov/About-CMS/Agency-Information/OMH/Downloads/Data-Collection-Resources.pdf">https://www.cms.gov/About-CMS/Agency-Information/OMH/Downloads/Data-Collection-Resources.pdf</a>).

#### 2. Identify the Root Causes

Analyzing demographics and risk data enables the identification of root causes and characteristics associated with readmission. With this information, a process can be initiated to address barriers and develop systems to overcome or prevent them. Stratifying data and analyzing quality measures, such as 30-day readmission rates, by race, ethnicity, and language allows organizations to measure the equity of care provided. Presenting data clearly

and efficiently allows leadership to understand gaps in care. To support this process, the American Hospital Association offers a framework and guidance for collecting and stratifying race, ethnicity, and language data, including: assembling a disparities-focused working group; ensuring the quality and accuracy of race, ethnicity, and language data; identifying high-priority quality metrics; determining if stratification is possible; and stratifying the data.<sup>54</sup> This framework and related resources are available in the resource list at the end of this guide.

Systems innovations and improvement become natural next steps following the collection of demographic and risk data and identification of root causes. If it is determined that certain racial and ethnic groups are more likely to be readmitted, factors such as mistrust, different cultural beliefs, language barriers, or health literacy can be addressed through tailored interventions, including provider training, organizational trust-building, interpreter services, navigators, health coaches, and simpler discharge information, etc.

## 3. Start from the Beginning

Create systems that assess risk prior to admission, and continue to address risk factors before, during, and after a hospital stay. Strategies implemented midway through a hospital stay or at discharge are rarely effective. Early intervention is especially important for minority populations because it may require more time to communicate effectively and to address patients' needs. Social and cultural factors, dietary patterns, language barriers, low health literacy, and social determinants all converge to create risk for readmission. Working to address potential issues before they emerge as problems is essential to reduce the risk of readmission. For example, hospitals may use data on the languages most commonly spoken in their service area or among their patient population to implement or improve systems that facilitate the use of interpreter services. Hospitals may also address risks associated with language barriers by training providers and staff on how to work effectively with professional medical interpreters. Building trust, bridging cross-cultural divides, and effectively educating all take time. The sooner this starts, the better.

# 4. Activate a Multidisciplinary Team

The multifactorial risks involved in readmissions cannot be addressed solely by doctors, nurses, or social workers. Success requires a multidisciplinary team with clear leadership and roles that can communicate quickly, effectively, and respectfully with each other and with patients. Hospitals can create teams charged with the redesign of transitions or have existing teams focus their efforts on assuring best practices are incorporated into transition processes. Teams may include quality and safety leaders, doctors, nurses, and social workers. When caring for patients with limited English proficiency, professional medical interpreters should be considered as part of the multidisciplinary team. Many effective teams also include allied health professionals such as pharmacists, nutritionists, mental health providers, and substance abuse services and "non-traditional" team members such as community health workers, navigators, and health coaches. Investing in these resources will be essential. For example, hiring and training coaches and navigators who are multilingual, culturally competent, and familiar with the community will provide a leg up in anticipating and addressing barriers that lead to readmissions such as connecting patients to community resources. These team members need to be able to perform in both inpatient and outpatient setting.

### 5. Systematically Respond to Social Determinants

Developing interventions to prevent readmissions, especially in vulnerable minority populations, requires focus in two areas— (1) creating systems responsive to the needs of diverse populations and (2) addressing the social determinants that put them at continued risk for readmissions. Identifying the specific social determinants that impact patients and their care processes is key to understanding how to support patients at greatest risk of readmission. Social determinants such as transportation to attend appointments; access to healthy, affordable foods; and housing status can be addressed with the support of navigators and links to community resources. Social isolation and a lack of social support are other key factors in readmission risk. Assuring that patients have the social supports and home and community-based services they need to manage their condition can be

assessed and addressed by social workers and community health workers. Hospitals should provide easy-to-read patient information that is culturally and linguistically appropriate and reinforced by a multidisciplinary inpatient team of educators and interpreters. In the end, a patient's ability to engage in their care is influenced by their clinical, physical, and emotional status; the support system available to them; and their capacity to overcome the social obstacles present in their lives and environment.

## 6. Focus on Providing Culturally Competent Communication

Effective clinician-patient communication is directly linked to improved patient satisfaction, adherence, and health outcomes. <sup>55</sup> Communication is essential to the care process and to preventing avoidable readmissions. However, providers often have limited time to develop a personal connection with patients and ensure appropriate patient-provider communication during the inpatient stay. The goal of effective communication is patients' ability to understand three things: (1) their diagnosis and its implications for care, (2) care choices, including what requires attention, and (3) discharge instructions, including what signs and symptoms trigger a return visit, when to return for a routine follow-up, and how to take the prescribed medications. <sup>36</sup> Low health literacy, mistrust, or language barriers can influence a patient's understanding. <sup>36,56-59</sup> Patients from minority racial and ethnic backgrounds, as well as patients with disabilities, are often dissatisfied in their experiences with communicating with their clinicians. <sup>60,61</sup>

While providing culturally competent communication is essential at all times, communication in "high-risk scenarios," such as reconciling medications, explaining surgical procedures, and providing discharge instructions, is particularly important for preventing readmissions. Successful communication requires ensuring patients' understanding and ability to act on the instructions provided. These are considered communication-sensitive scenarios, meaning they rely on effective patient-provider communication to avoid harm.<sup>36</sup> Addressing these factors using culturally, linguistically, and educationally appropriate communication is a key element of strategy to prevent readmissions in minority populations. Examples of strategies include using interpreters at discharge, writing discharge instructions for a low literacy level and in languages other than English, and training staff on team communication, interpreter use, and cultural competency. For additional guidance on addressing communication challenges, refer to the resource list at the end of this guide, which includes tools on the teachback method, cross-cultural communication, health literacy universal precautions, and providing safe care for patients with limited English proficiency.

### 7. Foster External Partnerships and Community Linkages to Promote Continuity of Care

Reducing avoidable readmissions requires that hospitals build partnerships with other providers and the community to address social risk factors and promote continuous care when a patient is discharged from the hospital. Partnerships with community service providers can facilitate the transition of patients back into the community and ensure continuity of care for patients following hospitalization. Many hospitals already have relationships within their communities through community benefit activities associated with non-profit status. Hospitals may leverage and build on their community benefits activities and programs to address social determinants that lead to readmissions by connecting patients to community programs. For example, a referral to a community-based organization may ensure that a patient has transportation access for a follow-up visit postdischarge. This can be supported through informal or formal agreements with primary care providers and practices that promote data-sharing and cooperation. These are essential to maintaining the continuity of care. They will ensure that the next care provider is aware of the patient's status and care information. Community partners can direct at-risk patients to needed care following hospitalization. Community partners can also address other non-medical factors that could lead to readmissions such as issues related to social support, health literacy, and food and housing security. In addition, hospitals may benefit from developing or strengthening their relationship with public health officials. These partnerships can increase access to local level data to inform readmission reduction efforts. In places where these partnerships already exist, hospitals could focus on strengthening them.

## Conclusion

Our nation is becoming increasingly diverse, and as part of care redesign, hospitals should take steps to ensure that they are prepared to deliver high-value health care to a diverse patient population. Addressing disparities in readmissions is key to delivering on the promise of high-value care for all patients, families, and caregivers. To effectively address readmissions in diverse populations, hospitals should consider the strategies outlined in this report:

- Use data to identify disparities and the root causes of these disparities,
- Build multi-disciplinary teams to address the needs of diverse patients,
- Prepare to address social risk factors for readmissions,
- Tailor care to be culturally sensitive with a focus on effective communication, and
- Expand patient care beyond the four walls of the institution by linking and coordinating with community based organizations.

Learn how to identify, prioritize, and take action on health disparities by championing the Disparities Action Statement in your organization. Participants receive personalized technical assistance focused on strengthening your quality improvement program through a series of consultations from subject matter experts. To learn more, contact <a href="https://example.com/HealthEquityTA@cms.hhs.gov">HealthEquityTA@cms.hhs.gov</a>.

# **Resources for Reducing Readmissions among Diverse Populations**

This table offers resources, tools, and further guidance for implementing the high-level recommendations in the guide which are numbered below. This list also includes resources for securing leadership buy-in and promoting the organizational change necessary to support and sustain readmission reduction efforts for diverse populations.

1	2	3	4	5	6	7	8
Collect Critical Data	Identify Root Causes	Start from the Beginning	Activate a Multidisciplinary Team	Systematically Respond to Social Determinants	Focus on Providing Culturally Competent Communication	Foster External Partnerships and Community Linkages to Promote Continuity of Care	Secure Leadership Buy-in and Promote Organizational Change

Resources			Recommendations		
Race, Ethnicity, and Language Data: Standardization for Healthcare Quality Improvement  Source: Institute of Medicine	1				
Reducing Health Care Disparities: Collection and Use of Race, Ethnicity, and Language Data  Source: American Hospital Association, Equity of Care	1				
Ask Every Patient REAL: Interactive Course on Race, Ethnicity, and Language  Source: America's Essential Hospitals	1				

Resources					Recommendations		
A Framework for Stratifying Race, Ethnicity, and Language Data  Source: American Hospital Association, Equity of Care	1	2					
HRET Disparities Toolkit  Source: Health Research and Educational Trust	1	2					
Creating Equity Reports: A Guide for Hospitals  Source: The Disparities Solutions Center,  Massachusetts General Hospital	1	2					
Tools to Address Disparities in Health: Data as Building Blocks for Change  Source: America's Health Insurance Plans	1	2					
Health Disparities Measurement  Source: The Disparities Solutions Center, Massachusetts General Hospital	1	2	3				
Improving Health Equity through Data Collection and Use: A Guide for Hospital Leaders  Source: The American Hospital Association	1	2	3			7	8
Building an Organizational Response to Health Disparities  Source: Centers for Medicare & Medicaid Services	1	2	3	4			8

Resources					Recommendations			
Implementing Multicultural Health Care Standards: Ideas and Examples  Source: National Committee for Quality Assurance	1	2				6		
A Leadership Resource for Patient and Family Engagement Strategies  Source: American Hospital Association				4			7	8
Building a Culturally Competent Organization: The Quest for Equity in Health Care  Source: American Hospital Association, Equity of Care	1	2		4		6	7	
Capturing Social and Behavioral Domains and Measures in Electronic Medical Records: Phase 2  Source: Institute of Medicine	1	2	3		5			
Compendium of Resources for Standardized Demographic and Language Data Collection  Source: Centers for Medicare & Medicaid Services	1	2	3		5			
Equity of Care: A Toolkit for Eliminating Health Care Disparities  Source: The American Hospital Association	1	2	3	4		6	7	8
Guide to Patient and Family Engagement in Hospital Quality and Safety  Source: Agency for Healthcare Research and Quality			3			6		

Resources					Recommendations			
Healthcare Disparities and Cultural Competency Consensus Standards  Source: National Quality Forum			3			6		
LACE Index Scoring Tool  Source: Ottawa Hospital Research Institute			3					
International Validity of the HOSPITAL Score to Predict 30-Day Potentially Avoidable Hospital Readmissions  Source: Jacques D. Donzé, MD, MSc; Mark V. Williams, MD; Edmondo J. Robinson, MD, MBA, MSHP.			3					
Making CLAS Happen: Chapter 3 – Collect Diversity Data  Source: Massachusetts Department of Public Health, Office of Health Equity	1					6	7	
National Standards for Culturally and Linguistically Appropriate Services in Health and Healthcare: A Blueprint for Advancing and Sustaining CLAS Policy and Practice  Source: Office of Minority Health, U.S. Department of Health and Human Services	1			4		6	7	
Multicultural Health Care: A Quality Improvement Guide  Source: National Committee for Quality Assurance	1	2	3	4		6	7	

Resources			Recommendations			
Re-Engineered Discharge (RED) Toolkit  Source: Agency for Healthcare Research and Quality	3	4		6		
Risk Assessment – 8P Project Boost Implementation Toolkit Source: Society of Hospital Medicine	3			6		
PRAPARE (Protocol for Responding to and Assessing Patient Assets, Risks, and Experiences)  Source: National Association of Community Health Centers	3		5			
A Framework for Educating Health Professionals to Address the Social Determinants of Health  Source: National Academy of Sciences	3		5		7	
Social Needs Screening Toolkit  Source: Health Leads			5			
Tools for Putting Social Determinants of Health into Action  Source: Centers for Disease Control			5			
Compendium of State-Sponsored National CLAS Standards Implementation Activities Tracking CLAS Tool  Source: U.S. Department of Health and Human Services, Office of Minority Health				6		

Resources			Recommendations		
Cross-Cultural Care and Communication (Online Only)  Source: Up-to-Date, Joseph R. Betancourt, Alexander Green, and J. Emilio Carrillo				6	
The SHARE Approach: Using the Teach-Back Technique: A Reference Guide for Healthcare Providers  Source: Agency for Healthcare Research and Quality				6	
The SHARE Approach – 5 Essential Steps of Shared Decision Making  Source: Agency for Healthcare Research and Quality				6	
AHRQ Health Literacy Universal Precautions Toolkit, 2 <sup>nd</sup> Ed  Source: Agency for Healthcare Research and Quality				6	
Health Literacy Universal Precautions Toolkit, 2nd Edition (Tool # 5, Teach-Back method)  Source: Agency for Healthcare Research and Quality				6	
The Teach Back Method  Source: NC Program on Health Literacy				6	
Always Use Teach-back! Training Toolkit  Source: Always Use Teach-back!				6	

Resources			Recommendations		
Improving Patient Safety Systems for Patients with Limited English Proficiency: A Guide for Hospitals and Team STEPPS Enhancing Safety For Patients with Limited English Proficiency Module  Source: The Disparities Solutions Center,				6	8
8-Step Process for Leading Change Source: John Kotter, Kotter International					8
Improving Quality and Achieving Equity: A Guide for Hospital Leaders					
Source: The Disparities Solutions Center, Massachusetts General Hospital					8

# Appendix A: Disparities in Top Conditions in CMS Hospital Readmissions Reduction Program

The table below provides an overview of the epidemiology of the top conditions in the CMS Hospital Readmission Reduction Program, as well as racial and ethnic disparities for each condition, the 30-day readmission rate, disparities in readmission rates, and the estimated cost associated with excess readmissions among Medicare beneficiaries overall. The annual cost of readmissions is \$26 billion, and potentially avoidable readmissions account for an estimated \$17 billion of that cost.<sup>2</sup>

Condition	Overall U.S. Prevalence	Racial and Ethnic Disparities by Condition*	Overall 30-Day Readmission Rate	Racial and Ethnic Disparities in 30-Day Readmission Rates*	Total cost of all- cause, 30-Day Readmissions
Congestive Heart Failure (CHF)	6.5 million U.S. adults ≥ 20 years <sup>62</sup>	Highest incidence rate among African Americans and Hispanics (4.6 and 3.5 per 1,000 person years, respectively, compared with 2.4 among whites). <sup>63</sup> The higher incidence of CHF among African Americans is related to differences in the prevalence of hypertension and diabetes, as well as socioeconomic status. Lack of insurance was not found to be a significant contributor. <sup>63</sup>	22.7% <sup>64</sup>	A 2011 study found higher readmission rates among black patients, with highest rates among black patients treated at minority-serving institutions. <sup>7</sup> A study of Medicare Provider Analysis Review data from 2006-2008 found higher readmission rates among Hispanics. Higher readmission rates were also found at Hispanic-serving hospitals. <sup>18</sup> A recent study found that foreign-born patients with LEP had higher risk of readmission, independent of clinical factors and race and ethnicity. <sup>37</sup> Hospitals serving the highest proportion of African American Medicare fee-for-service patients had a higher heart failure readmission rate than hospitals serving the lowest proportion of African American patients. <sup>19</sup>	\$1.7 billion <sup>65</sup>

Condition	Overall U.S. Prevalence	Racial and Ethnic Disparities by Condition*	Overall 30-Day Readmission Rate	Racial and Ethnic Disparities in 30-Day Readmission Rates*	Total cost of all- cause, 30-Day Readmissions
Acute Myocardial Infarction (AMI)	7.6 million (2.8% of U.S. adults ≥ 20 years)	In 2014, prevalence for AMI was 5.9 percent in whites, 5.6 percent in African Americans, and 5.2 percent in Mexican Americans. <sup>66</sup> A 2009 study found that blacks had a higher mortality rate and worse quality of life after MI. These differences did not persist after adjusting for patient factors and site of care. <sup>67</sup> A 2014 study found that older blacks with AMI initially exhibited lower mortality rates, but higher mortality rates long term. This increase in mortality rate may be due to differences in post-discharge care or comorbidities. <sup>68</sup>	17.8% <sup>69</sup>	A 2011 study found higher readmission rates among black patients, with highest rates among black patients treated at minority-serving institutions.   A study of Medicare Provider Analysis Review data from 2006-2008 found higher readmission rates among Hispanics. Higher readmission rates were also found at Hispanic-serving hospitals.   Hospitals serving the highest proportion of African American Medicare fee-for-service patients had a higher AMI readmission rate than hospitals serving the lowest proportion of African American patients.   19	\$693 million <sup>66</sup>
Pneumonia	1.1 million hospital discharges in 2010 <sup>70</sup> (In the absence of ongoing surveillance of pneumonia cases, hospital discharges are used as an indicator for estimating prevalence)	From 2003 to 2004, the average annual incidence of bacteremic pneumonia was 24.2 episodes per 100,000 black adults versus 10.1 per 100,000 white adults. The Among Medicare beneficiaries in 2010, 49 percent of African American and 39 percent of Hispanic Medicare beneficiaries reported receiving a pneumonia vaccine compared with 65 percent of whites. Low immunization rates may be attributed to cultural and linguistic barriers, lack of awareness, and distrust of immunizations. The Consumer of Medicare beneficiaries in 2009 study and Hispanics are 46 percent less likely to be vaccinated against pneumonia than whites. The vaccinated against pneumonia than whites. The lack of the vaccinated against pneumonia and Hispanic patients were less likely to receive pneumonia and influenza vaccinations, smoking cessation counseling, and antibiotics within four hours than white patients.	17.3%85	A 2011 study found higher readmission rates among black patients, with highest rates among black patients treated at minority-serving institutions. <sup>7</sup> Hospitals serving the highest proportion of African American Medicare fee-for-service patients had a higher median pneumonia readmission rate than hospitals serving the lowest proportion of African American patients. <sup>19</sup>	\$1.1 billion <sup>66</sup>

Condition	Overall U.S. Prevalence	Racial and Ethnic Disparities by Condition*	Overall 30-Day Readmission Rate	Racial and Ethnic Disparities in 30-Day Readmission Rates*	Total cost of all- cause, 30-Day Readmissions
Chronic Obstructive Pulmonary Disease (COPD)	13.7 million (6.5% of adults ≥ 25years) <sup>75</sup>	Highest incidence rate among American Indian/Alaska Natives (11%), followed by whites (6.9%), blacks (6.5%), Hispanics (4.1%), and Asian/Pacific Islanders (2.5%) <sup>75</sup> In a 2009 study, African American patients used 17 percent fewer medical services, 18 percent less outpatient services, and 15 percent less inpatient services for COPD than white patients. Other races were 26 percent less likely to use outpatient services than white patients. <sup>76</sup>	20.7% 65	African Americans hospitalized with COPD have a higher 30-day readmission rate compared with white patients (23.1% vs. 20.5%). <sup>20</sup> Among Medicare beneficiaries, readmission rates are highest for African Americans at minority-serving institutions (26%) and lowest for whites at non-minority-serving institutions (21%) <sup>20</sup> In 2008, black patients were readmitted at higher rates (8%) than whites (7.2%), Hispanics (6.1%), and Asian/Pacific Islanders (6.1%). <sup>21</sup> Hospitals serving the highest proportion of African American Medicare fee-for-service patients had a higher median COPD readmission rate than hospitals serving the lowest proportion of African American patients. <sup>19</sup>	\$924 million <sup>66</sup>
Total Hip Arthroplasty (THA) Total Knee Arthroplasty (TKA)	22.7 million (9.8% of adults ≥ 18 years) have arthritis and arthritis-related limitations, for which THA/TKA is a treatment option. <sup>77</sup> TKA: 6.7 million (6.7% of adults ≥ 50 years) THA: 4.5 million (4.4% of adults ≥ 50 years) <sup>78</sup>	Higher prevalence of osteoarthritis (OA) among African Americans and Hispanics than whites, but African Americans and Hispanics report OA-related total joint arthroplasty 2/3 less frequently than whites. 44,79  Disparities between black and white patients in primary and revision TKA and THA persisted or worsened from 1991-2008. In 2008, utilization of primary TKA was 40 percent lower for blacks than whites (41.5 per 10,000 vs. 68.8 per 10,000, respectively). 22  Black patients experience longer length of stay (LOS) and are less likely to be discharged home. 22	5.2% <sup>65</sup> TKA: 2.4% rTKA: 11.9% THA: 2.4% rTHA: 9.5% <sup>80</sup>	2006-2008 Medicare data show higher readmission rates for African Americans than whites:  • TKA (8.8% vs. 6.7%)  • rTKA (13.6% vs. 11.2%)  • THA (9.0% vs. 7.6%)  • rTHA (17.1% vs. 14.5%) <sup>22</sup> Hospitals serving the highest proportion of African American Medicare fee-for-service patients had a higher THA/TKA readmission rate than hospitals serving the lowest proportion of African American patients. <sup>19</sup>	Data not available

<sup>\*</sup>Compared to non-Hispanic whites unless otherwise indicated

# **Appendix B: Disparities in Top Chronic Conditions**

The table below provides an overview of the epidemiology of the three top chronic conditions prioritized by CMS OMH, as well as racial and ethnic disparities for each condition, the 30-day readmission rate, disparities in readmission rates, and (where available) the estimated cost associated with excess readmissions among Medicare beneficiaries overall.

Condition	Overall U.S. Prevalence	Racial and Ethnic Disparities by Condition*	Overall 30-Day Readmission Rate	Racial and Ethnic Disparities in 30-Day Readmission Rates*	Total cost of all- cause, 30-Day readmissions
Diabetes	29.1 million (9.3% of U.S. population) <sup>81</sup>	Highest incidence rate among American Indian/Alaska Natives (15.9%), followed by Non-Hispanic blacks (13.2%), Hispanic Americans (12.8%), Asian Americans (9.0%), and whites (7.6%) <sup>81</sup> Hispanics, African Americans, and American Indian/Alaska Natives are all more than twice as likely as non-Hispanic white adults to die from diabetes. <sup>82-84</sup> African Americans are also more likely to have lower extremity amputations. <sup>82</sup>	20.3%85	A 2013 study found that African Americans were as likely as white patients to be readmitted within 30-days, but more likely to be readmitted within 180-days of discharge. <sup>86</sup> A 2010 study showed that patients with unscheduled readmissions within 90 days of discharge were more likely to be ethnic minorities. <sup>87</sup>	251 million <sup>66</sup>
End Stage Renal Disease (ESRD)	636,905 (0.19% of U.S. population) <sup>88</sup>	African Americans are nearly 3.5 times more likely to develop ESRD than whites. <sup>89</sup> Hispanics are nearly 1.5 times more likely to develop ESRD than whites. <sup>89</sup> Native Americans are 1.3 times more likely to develop ESRD than whites. <sup>85</sup>	35.2% <sup>88</sup>	The US Renal Data System 2014 Annual Data Report indicates that blacks/African Americans have a higher rate of rehospitalization within 30 days (38%) when compared with whites (36%). 88	Data not available

Condition	Overall U.S. Prevalence	Racial and Ethnic Disparities by Condition*	Overall 30-Day Readmission Rate	Racial and Ethnic Disparities in 30-Day Readmission Rates*	Total cost of all- cause, 30-Day readmissions
Chronic Kidney Disease (CKD)**	31 million (10% of U.S. population) 90	CKD prevalence is greatest in non-Hispanic blacks (17.0%), followed by non-Hispanic whites (14%). 91 (This only includes prevalence data for stage 1 – 4 of CKD. Does not include stage 5 (ESRD) data.) Blacks/African Americans are three times more likely than white Americans to develop kidney failure due to high rates of diabetes and high blood pressure. 92 (May include prevalence data for all five stages of CKD.)	24% 88	The US Renal Data System 2014 Annual Data Report indicates that black/African American CKD patients have higher overall rates of 30-day readmission for CKD (26.2%) when compared with white patients (23.8%). 88  A 2012 study found that African Americans were more likely to be readmitted within 30-days of kidney transplantation. 93	Data not available

<sup>\*</sup>Compared to non-Hispanic whites unless otherwise indicated; \*\* As End Stage Renal Disease is stage 5 of Chronic Kidney Disease, CKD statistics may include ESRD data.

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