

GUIDE FOR **REDUCING** DISPARITIES IN **READMISSIONS**

CMS Office of Minority Health
Revised April 2024

Introduction to Guide for Reducing Disparities in Readmissions



GOALS OF THIS GUIDE



1 Highlight the importance of social determinants of health (SDOH)



2 Recommend strategies to establish a multidisciplinary team



3 Provide resources organizations can leverage to enact solutions and collect data to measure

HOW TO USE THIS GUIDE

This **Guide for Reducing Disparities in Readmissions** is a resource for health care practitioners, leaders, and community partners focused on quality, safety, and care design in health systems to drive change and deploy interventions that advance equity and reduce disparities in readmissions and associated health outcomes. The Guide has been designed to assist users in understanding root causes of avoidable readmissions and identifying solutions for preventing and addressing avoidable readmissions and disparities in avoidable readmissions among individuals with Medicare coverage. Throughout the Guide, key issues, strategies, and implementation examples are provided to guide organizations along their path to advancing health equity in the communities that they serve.

WHERE TO GO

Understand Importance of SDOH

pages 5 – 8

Strategies to Establish a Solution

pages 9 – 21

Key Takeaways and Next Steps

page 22

Resources for Reducing Readmissions among Diverse Populations

pages 23 – 31

Table of Contents



Medicare Readmissions: Quick Facts

Page 4

Background

Root Causes of Avoidable Readmission

Page 5

Disparities in Readmission

**The Impact of the COVID-19 Public Health
Emergency on Readmission Disparities**

Page 6

**Social Determinants of Health as Drivers of
Readmissions**

Pages 7 – 9

Route to Reducing Disparities in Readmissions

Pages 10 – 13

Multidisciplinary Care Team Roles

Pages 14 – 15

**Strategies & Key Areas for Reducing
Readmissions**

Pages 16 – 19

**Other Valuable Strategies to Advance Health
Equity and Reduce Readmissions**

Pages 20 – 21

CMS Readmissions Guide Key Takeaways

Page 22

**Resources for Reducing Readmissions Among
Diverse Populations**

Pages 23 – 31

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

Pages 32 – 33

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

Pages 34 – 35

References

Pages 36 – 45

MEDICARE READMISSIONS: QUICK FACTS



IN 2018, THERE WERE
2.3 MILLION
READMISSIONS
WITHIN 30 DAYS OF DISCHARGE
COSTING ROUGHLY
\$35.7 BILLION

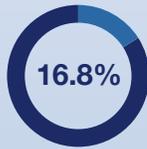


AN ESTIMATED
10%
OF THESE READMISSIONS
COULD HAVE BEEN
PREVENTED

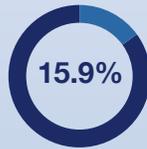
OF ALL RACIAL AND ETHNIC GROUPS, NON-HISPANIC BLACK PATIENTS EXPERIENCED THE HIGHEST RATE OF UNPLANNED 30-DAY READMISSIONS IN 2016.⁴



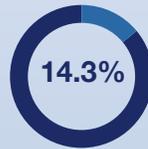
Non-Hispanic Black



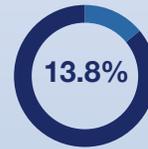
Hispanic,
any race



American Indian/
Alaska Native



Asian



Non-Hispanic
White



HOW DID COVID-19 AND THE PUBLIC HEALTH EMERGENCY IMPACTED DISPARITIES IN UNPLANNED 30-DAY READMISSIONS?

Based on data from March to July 2020, readmission risk for patients hospitalized with COVID-19 increased for those over the age of 65, with certain chronic conditions, a hospital stay in the preceding three months, and if discharged to a Skilled Nursing Facility or home health.¹⁴⁷

- Based on Medicare data from April to September 2020, use of telehealth may help increase follow-up and reduce 30-day readmissions among underserved populations.¹⁴⁸

In response to the COVID-19 Public Health Emergency, CMS expanded telehealth services under the CARES Act to increase access to care for Medicare enrollees.¹⁴⁸ While many providers successfully deployed telehealth for continuity of care, many individuals with Medicare faced barriers to telehealth engagement, including ¹⁴⁹:



41.4%
LACKED ACCESS
TO A COMPUTER
WITH HIGH-
SPEED INTERNET
CONNECTION

40.9%
LACKED A
SMARTPHONE
WITH A WIRELESS
DATA PLAN

26.3%
LACKED BOTH
FORMS OF
DIGITAL ACCESS



30-DAY POST-DISCHARGE MORTALITY RATES ROSE ¹⁹

While increases were observed across all groups, historically underserved populations saw disproportionate increases after implementation of COVID-19 emergency measures:

1.2 – 1.5%
INCREASE FOR
HISPANIC
MEDICARE
ENROLLEES

0.7 – 1%
INCREASE FOR
MEDICARE
ENROLLEES IN
RURAL AREAS

0.5 – 1.4%
INCREASE FOR
MEDICARE ENROLLEES
IN AREAS WITH SOCIAL
DEPRIVATION

Background

Since the Centers for Medicare & Medicaid Services (CMS) introduced the Hospital Readmissions Reduction Program (HRRP) in 2012, the overall rate of unplanned 30-day readmissions for targeted conditions among Medicare enrollees has appreciably declined.¹ Additionally, research shows that disparities in unplanned 30-day readmission rates have narrowed since HRRP's implementation, such as those between non-Hispanic White and Black patients.² However, despite this narrowing of racial disparities in unplanned 30-day readmissions, there remain higher base levels of readmissions for Black patients as compared to White patients.³ Broadly, a number of sociodemographic-related readmission rate disparities persist, with general patterns of underserved populations, including racial and ethnic minorities, individuals residing in rural and remote communities, individuals with disabilities, and lesbian, gay, bisexual, transgender, queer, and intersex (LGBTQI+) individuals, often experiencing higher rates of unplanned 30-day readmissions than their counterparts.⁴

Identifying and addressing the factors that drive these sociodemographic-related disparities in unplanned 30-day readmissions is at the heart of the 2022 [CMS Strategic Plan](#) and the [CMS Framework for Health Equity 2022-2032](#).⁵ Both frameworks put advancing health and health care equity at the forefront of the agency's goals and core functions, deeming it necessary to address the disparities that underlie our health care system. The CMS Office of Minority Health (CMS OMH) has created this Guide to aid health care organizations, health care providers, and their community partners in reducing avoidable 30-day readmissions and disparities in these readmissions with an emphasis on early identification of and intervention with associated social determinants – or drivers – of health (SDOH). This is part of a larger CMS effort to address SDOH and aligns with goals to incorporate screening for and access to health-related social needs demonstrated across CMS programs and activities through greater adoption of related quality measures, coordination with community-based organizations, and collection of social needs data in standardized formats.⁶ While this Guide discusses readmissions in the context of Medicare, many of the recommendations and best practices can be applied broadly to other populations.

Root Causes of Avoidable Readmission

Thirty-day readmission rates represent an important health care quality indicator as they are partly driven by substandard quality of hospital care, poor discharge planning, and ineffective coordination of post-discharge services. There are well-known clinical interventions and care transition strategies to reduce preventable readmissions. Evidence has shown that providing multifaceted intervention bundles, which include components such as pre-discharge patient education, implementation of a discharge checklist, medication reconciliation, and post-discharge follow-up, are necessary to decrease readmission rates. This Guide builds on existing evidence-based strategies to further improve care by focusing on SDOH.

Links between SDOH such as income, education,⁹ geography,¹⁰ and disparities in readmission rates have been well established. These disparities exist across race and ethnicity,⁴ gender identity and sexual orientation,¹⁰ disability status, and level of English proficiency.⁴

Disparities in Readmissions



In 2018, people with Medicare accounted for 2.3 million readmissions within 30 days of discharge, costing roughly \$35.7 billion.¹¹ Four years after the implementation of HRRP penalties in 2016, the Medicare Payment Advisory Commission (MedPAC) estimated that approximately 1 in 10 readmissions could be prevented.¹² While both 30-day readmission rates and readmission disparities have been reduced since HRRP implementation, Non-Hispanic Black Medicare FFS patients continue to experience the highest 30-day readmission rates at 19.4%, followed by Hispanic patients at 16.8%. Sixteen percent of American Indian/Alaska Native patients, 14.3% of Asian patients, and 13.8% of non-Hispanic White patients experience readmissions within 30 days of discharge.⁴

The Impact of the COVID-19 Public Health Emergency on Readmission Disparities

The COVID-19 pandemic had an impact on all Americans and perhaps most prominently on individuals who are underserved by our healthcare system.¹³ For example, Hispanic and Black people saw not only an increased incidence of COVID-19 infection but also higher mortality rates.¹⁴ The disproportionate burden of the pandemic on racial and ethnic minorities highlighted the inequities deeply embedded in the health care system, and will inform how our health care system responds to future public health emergencies.

At the individual and community level, people already at high risk for experiencing poorer health outcomes were at higher risk of contracting COVID-19 due to inequities impacting the ability to social distance, obtain timely medical care, and access personal protective equipment, testing, and treatment.¹³ As shelter-in-place restrictions went into effect, many providers successfully deployed telehealth across Medicare and Medicaid programs to maintain continuity of care.¹⁵ This use of telehealth was associated with better outcomes, particularly after a hospital admission. However, 63% of people residing in tribal lands and rural areas and 56% of people earning less than \$30,000 annually lack broadband internet access,¹⁶ limiting the ability of telehealth visits to prevent readmissions for these underserved groups.

The pandemic reduced the health care system's capacity to deliver high quality care because of severe resource limitations. In March 2020, CMS released recommendations to delay elective surgeries to free up hospital beds for COVID-19 patients. An unintended result of this recommendation was a backlog of cases of all other non-COVID-19 or emergent health conditions.¹⁴ This backlog, in combination with changes in health-seeking behaviors due to fear of COVID-19, led to about 20% of adults not getting care for serious health conditions during the pandemic.¹⁷ This led to increased average patient acuity and complexity, and ultimately an increase in post-discharge mortality rates.¹⁸

COVID-19 did not appear to have exacerbated disparities in 30-day readmission rates or 30-day readmissions for HRRP target health conditions (such as heart failure, pneumonia, acute myocardial infarction and chronic obstructive pulmonary disease). However, there were notable increases in 30-day post-discharge mortality rates between April and September 2020 for patients who lived in rural areas, areas with the highest levels of social disadvantage, Black patients and Hispanic patients.¹⁹ While 30-day readmission rates remain an important quality indicator, in the case of the COVID-19 pandemic, interpreting rates the context of this competing mortality risk is critical when considering the full impact of the COVID-19 pandemic (and future public health emergencies) on historically underserved populations.¹⁹



Social Determinants of Health as Drivers of Readmissions



The social, economic, and environmental conditions in which people are born, live, work, learn, worship, play, and age²⁰ strongly affect their health care experiences and health outcomes.⁵ The United States (U.S.) Department of Health and Human Services' (HHS) [Healthy People 2030 Framework](#) has an overarching focus on SDOH due to their contribution to health disparities and inequities. It is estimated that 50% of all health outcomes can be attributed to SDOH, while clinical care impacts only 20% of county-level variation in health outcomes.²¹ Healthy People 2030 groups SDOH into five broad domains: economic stability, education access and quality, healthcare access and quality, neighborhood and built environment, and social and community context.²² Each SDOH domain has implications for how people live their lives outside of a clinical setting and can contribute to their risk for readmission and poorer health outcomes. The HHS Strategic Plan (FY 2022 – 2026) highlights the need to invest in strategies to expand equitable access to comprehensive, community-based, innovative, and culturally- and linguistically-appropriate healthcare services while addressing SDOH (Objective 1.3).²³

Several factors contribute to the disparities associated with hospital readmission, and perhaps the most significant factor is insurance status.²⁴ Lack of insurance can increase readmission risk because of poorer access to outpatient care.^{25,26} Although individuals with Medicare are insured, various other SDOH can influence readmission rates. Lower education and income,⁹ lack of access to transportation,²⁷ lack of access to stable housing and food,²⁸ as well as lack of social support,^{9,28} have all been linked to increased readmission rates. These SDOH are influenced by political, economic, and cultural drivers that determine how power and resources are allocated.²⁸ Significant research suggests that inequitable distribution of these resources has led to unequal and disproportionately poor outcomes for racial and ethnic minority groups.^{10,29} As a result, there have been concerted efforts by researchers and clinicians to advocate for SDOH consideration in CMS hospital readmission calculations and associated penalties.^{30,31}

In addition to the direct impact of COVID-19 infection on individual health, the pandemic highlighted the importance of SDOH in exacerbating health disparities.³² Black, Hispanic, and Asian American and Native Hawaiian or Pacific Islander (AA and NHPI) individuals had much higher rates of COVID-19 infection, hospitalization, and early mortality compared to their White counterparts.¹³ The underlying causes of these disparities were complex, and included historical, structural, and institutional factors, such as racism and discrimination, economic and educational disadvantage, health care access, and neighborhood context (housing, food security, and transportation).^{14,32} Because of these systemic inequities, racial and ethnic minorities were more likely to have a disproportionate burden of underlying conditions, including diabetes, cardiovascular disease, kidney disease, and obesity.^{14,33} Racial and ethnic minorities were also more likely to live in crowded conditions, both in the context of their neighborhood and their household,³³ which made it more likely for COVID-19 to spread within a household. They were also more likely to be employed in essential jobs, which were more likely to be low wage and may have not allowed for social distancing. These factors and the aforementioned underlying conditions have been associated both with more severe cases of COVID-19¹⁴ and hospital readmissions for non-COVID-19 conditions and procedures.



Considering SDOH in Readmission Intervention Design²⁰

Education Access & Quality

- A higher level of education correlates with longer and healthier lives¹⁵⁰
- Low income, a disability, or discrimination can lead to math and reading challenges¹⁵⁰

Potential Intervention: Provide patient discharge materials that are written at a fourth to sixth-grade level, using short sentences and simple words, and including pictures.³⁴

Health Care Access & Quality

- 1 in 7 adults in the U.S. experience barriers to timely medical care³⁵
- Without primary care, important preventative measures like cancer screenings are missed¹⁵¹
- Dually eligible Medicare members experience lower quality of care in almost 40% of quality indicators, compared to the national average³⁶

Potential Intervention: Improve follow-up after hospital discharge by offering assistance with connecting to health insurance options, community based services, health care providers and multiple modalities to meet patients' needs (e.g., in- person, telehealth).

Social & Community Context

- Positive relationships at home, in the community, and at work can reduce the negative impacts of SDOH¹⁵²
- Social and community supports are critical to living a healthy life¹⁵²

Potential Intervention: Link patients to community-based programs that can enhance healthy habits at home and create a supportive environment.



Economic Stability

- 1 in 10 people in the U.S. can't afford housing, health foods, or health care¹⁵³
- Stable employment lowers chances of poverty & improves health¹⁵⁴

Potential Intervention: Screen for and connect patients to career services, and subsidies for housing, food, childcare, and health care during primary care visits as an element of care coordination.

Neighborhood & Built Environment

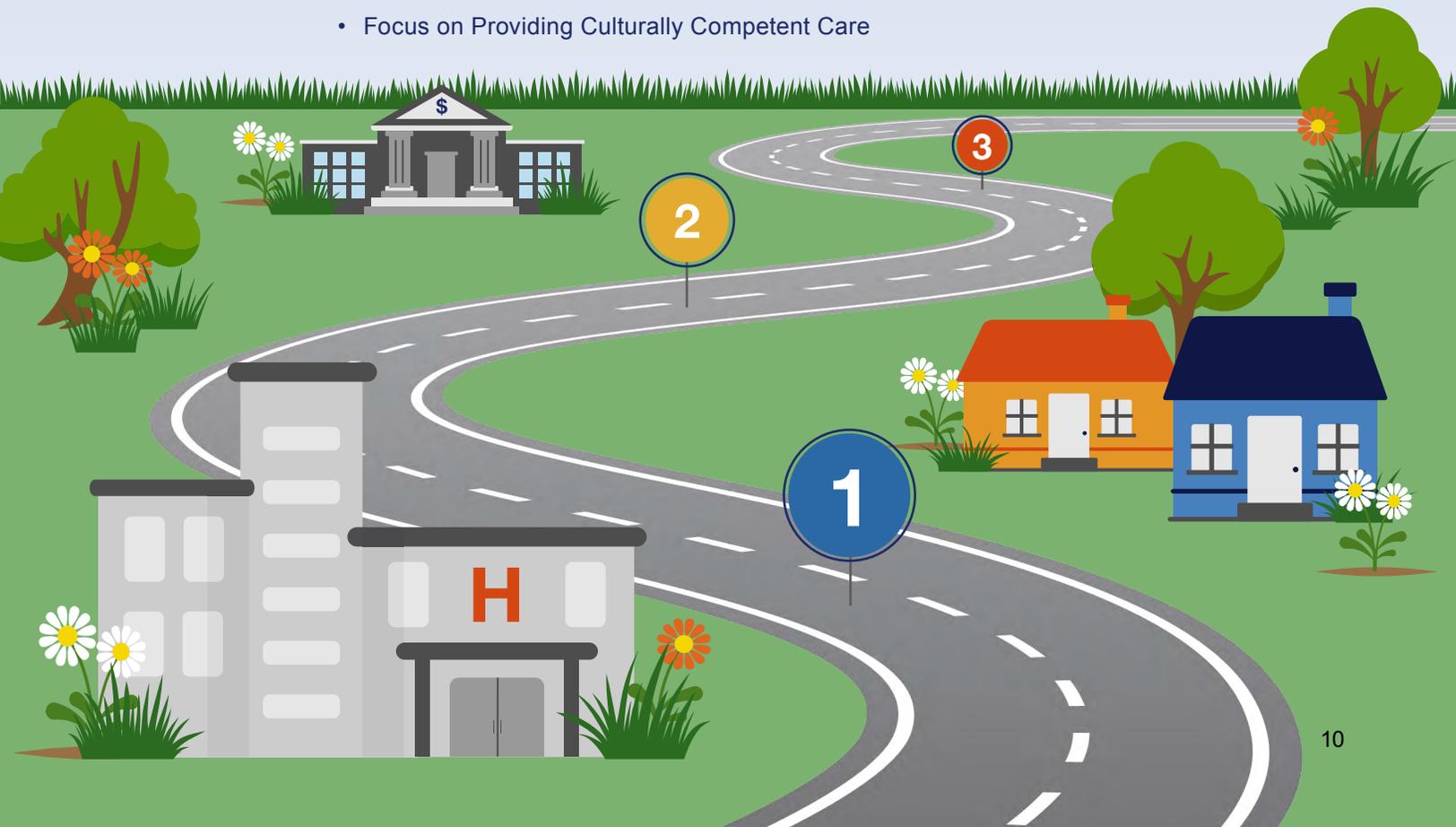
- Where people live is a determining factor for health and can enhance or inhibit your opportunities to be healthy³⁷
- Racial/ethnic minorities and those with low income are more likely to live in areas of high violence and unsafe water and/or air¹⁵⁶

Potential Intervention: Partner with programs and initiatives that aim to create safer communities where the patient population resides.

Route to Reducing Disparities in Readmissions

Where an organization is along their journey to advancing health equity and reducing disparities is influenced by a multitude of factors. The actions and strategies required at each stage of the journey vary, and it is important for an organization to understand which stage they are presently in. This section has been designed to provide guidance to health care leaders based on the present state of their organization, and to help them construct a strategy for reducing readmissions across diverse populations. While presented as a path to show how steps can and should build on each other, this is expected to be an iterative process and it is important to build in learning feedback loops at every stage.

- 1 Secure Buy-In and Develop an SDOH Data Infrastructure**
 - Secure Leadership Buy-In & Promote Organizational Change
 - Collect Critical Data
 - Identify Root Causes
- 2 Build Teams & Partnerships to Support SDOH**
 - Activate a Multidisciplinary Team
 - Foster External Partnerships and Community Linkages to Promote Continuity of Care
- 3 Implement Patient-Centered Systems and Processes**
 - Start From the Beginning
 - Respond Systematically to Social Determinants of Health
 - Focus on Providing Culturally Competent Care



Step 1

Secure Buy-In and Develop an SDOH Data Infrastructure



It is imperative to secure buy-in from leadership to establish and promote a tailored SDOH infrastructure for a community. To better understand which persons are at higher risk for readmission, it is important to collect data beyond standard clinical and demographic information. As the level of detail of the data increases, so can the specificity of any prescribed intervention.



Secure Leadership Buy-In & Promote Organizational Change

- Support from leadership at every level will be required for successful organizational change. Buy-in most commonly occurs when individuals understand what they and their organization will receive in return for their support.^{38, 39}



Collect Critical Data

- Type – At a minimum, organizations must collect Race, Ethnicity, and Language (REaL) data to meet federal guidelines.^{40, 41} In addition to REaL data, consider collecting patient-reported information in the social, behavioral, and community-level domains.⁴²
- How – Standardize the process for when you will collect the data and who will be responsible for collection.⁴³ Provide additional and ongoing training for those tasked with collecting data. This training should include content on helping the patient understand why these questions are being asked and how the information will be protected.^{42, 43}
- Z-Codes – The International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) included a set of codes to be used when psychosocial risk and economic determinant-related conditions are identified. Standardize SDOH and health-related social needs recorded within a patient's chart through the assignment of the appropriate Z-Code(s) to enable data analysis to improve care coordination, quality, and patient experience.^{44, 45} Effective January 1, 2024, under the CY 2024 Physician Fee Schedule Final Rule, clinicians can bill for SDOH risk assessments, including reporting Z-Codes, for Medicare beneficiaries.⁴⁶



Identify Root Causes

- Metrics – The selection of appropriate readmission and disparity metrics is key to understanding the current and future states of the organization. Metric selection should be arrived at through consensus and validated prior to implementation.^{47, 48} In the early stages, consider selecting fewer metrics to avoid stretching resources too thin.⁴⁹
- Root Cause Analysis (RCA) – A RCA aids organizations in understanding the “why” of readmission disparities and is essential to strategy formulation.⁵⁰⁻⁵² RCAs should be conducted by a multidisciplinary team covering a patient's full care continuum and that understands the complexities of SDOH and health care equity.^{51, 52}
 - Examples of root causes of readmission include disease-related factors, such as clinical deterioration, human-related factors such as poor care coordination, or patient-related factors such as access to transportation or nutrition.⁵³

Step 2

Building Teams & Partnerships to Support SDOH



Activate a Multidisciplinary Team

- Multidisciplinary care teams have been shown to reduce readmission rates and, ultimately, early mortality.⁵⁴ To generate involvement by potential partners or colleagues, you must highlight the importance of participation and describe the potential impact care teams can have on patient outcomes.⁵⁴⁻⁵⁶
- Patients, families, and caregivers are a valuable part of the multidisciplinary care team. Patient and Family Advisory Councils (PFACs) are groups that help bring patients, providers and family/caregiver perspectives to improve care. As the COVID-19 pandemic reduced hospital visitation, conducting PFACs meetings in a virtual environment provided an opportunity for continued family/caregiver involvement (as appropriate) in patient care.^{19, 57}



Foster External Partnerships and Community Linkages to Promote Continuity of Care

- Research consistently demonstrates the relationship between continuity of care and readmission rates.⁵⁸⁻⁶¹ Maintaining a robust network of clinical providers and health organizations in the community will be central to any strategy designed to reduce readmissions. Community-based organizations can often assist with non-medical needs, such as food, housing security, and transportation.⁶² Health care organizations can leverage CMS policies such as Ad-vance Investment Payment in the Medicare Shared Savings Program to support partnerships to address enrollees' holistic needs.

Step 3

Implement Patient-Centered Systems & Processes



Start From the Beginning

- Early identification of risk factors for readmission allows for a greater impact from intervention. Data collected during outpatient encounters or preadmission testing can provide insight into which patients are at greatest risk. Once a patient is admitted, consider preadmission data in conjunction with the patient's hospital records to create a holistic picture of readmission risk.⁶⁴



Respond Systematically to Social Determinants

- Initiate the referral process early for in-home health care for patients with limited access to post-discharge care due to mobility issues, lack of transportation, or residency in a health care desert.^{60,61,65,66}
- Engage navigators, social workers, and community health organizations in multidisciplinary care meetings and discharge planning to support patients and foster trust through enhanced experience and outcomes.^{61,62,66,67}



Focus on Providing Culturally Competent Communication

- Form a person-centered care plan that adapts to a patient's cultural beliefs to increase patient and family/caregiver satisfaction and reduce avoidable readmissions.^{68, 69}
- Communicate with a patients and their families/caregivers in the language of their choice and at an appropriate health-literacy level to improve patient outcomes and foster trust.⁷⁰⁻⁷⁴

Multidisciplinary Team Roles



The multidisciplinary team plays a critical role in organizational planning, assessing a patient's physical, social, economic, and environmental needs and coordinating care appropriately to meet those needs during and after a hospital stay. Engaging the **multidisciplinary team** has been shown to positively affect factors associated with readmission, including identifying and addressing SDOH and health-related social needs that may impact a patient's readmission risk, improving both patient and provider satisfaction and patient-provider communications, and decreasing the number of adverse events and average length of hospital stay.⁵⁴ Addressing the factors associated with readmission **requires knowledge and experience** that exceeds the resources found within a single health care discipline.

Presented below are examples of **specific roles and associated responsibilities commonly found** on a multidisciplinary team.⁷⁵ The composition of the team and the responsibilities of the team must **adapt** to the needs of each patient and resources available. Because the care team may vary from **patient to patient**, it is critical to team success that **responsibilities be explicitly defined** at the outset.⁶⁷



SYSTEM/ HOSPITAL LEADERSHIP

(CEOs, Presidents, Vice Presidents, Service Line Leaders)

- Gathers organizational buy-in, commits resources, and structures operations to reduce avoidable readmissions and disparities in avoidable readmissions
- Sets mission, vision, and values of organization to drive culture and ensure the delivery of high-quality care
- Called upon as resource to the rest of the care team when needed



UNIT LEADERSHIP

(Unit Managers, Clinical Educators/Specialists, Shift Leaders)

- Provides training to staff on early identification of risk factors associated with readmission and ensures resources are available to coordinate patient's care plan post-discharge
- Provides staff with access to patient education and discharge instructions in multiple languages to support patient comprehension and ability to continue care and services at home



PHYSICIANS/ ADVANCED PRACTICE PROVIDERS

(MDs/DOs, Advanced Practice Nurses, Physician Assistants)

- Functions as an advisor across the multidisciplinary team, not leader
- Oversees medical care management, coordinating with nurses and other clinical staff to ensure high-quality care and improved patient outcomes
- Screens patient for SDOH and coordinates with care team to address health-related social needs



NURSES

(Outpatient & Inpatient)

- Administers clinical care to patient during inpatient stay and outpatient visits
- Advocates for patient needs and preferences to the multidisciplinary team so needs and preferences are being met
- Educates patient, caregiver, and family to help patient continue appropriate care at home
- Screens patient for SDOH needs and coordinates with Case Manager/Social Worker to address those needs outside of the clinical setting



CASE MANAGEMENT/ SOCIAL WORK

- Manages care transition from clinical setting to home or to post-acute care setting (e.g. nursing home)
- Advocates for the patient, connecting to resources appropriate for patient's psychological and social needs
- Screens patient and caregiver for SDOH and health-related social needs and connects and refers to community-based organizations and necessary resources
- Coordinates discharge plan and services and oversees follow-up care



BEHAVIORAL HEALTH SPECIALIST

(Psychiatrists, Social Workers, Addiction Counselors)

- Identifies mental and behavioral health barriers to patients' post-discharge adherence to care instructions
- Supports patient's emotional and mental health needs
- Screens patient and caregiver for SDOH and connects and refers to necessary resources



COMMUNITY- BASED ORGANIZATION

(Community Health Workers, Care Navigators, Peer Support Workers)

- Assists with housing, nutrition, primary care, or other post-discharge services at the community level
- Provides ongoing support post-discharge
- Connects patient to transportation services, medication maintenance, nutrition, personal care, and other services

Strategies & Key Areas for Reducing Readmissions



Each member of the multidisciplinary care team plays an important role in implementing strategies to address risk factors for readmission. This section highlights key issues that lead to readmissions, recommended strategies and tools, and the team members who play a role in implementing interventions. Examples of these strategies in practice are provided to support health care leaders in translating these recommended strategies into actionable change in their organizations.



DISCHARGE & CARE INSTRUCTIONS:

Understanding discharge instructions and follow-up visits has been shown to reduce readmissions^{15,65,76}

ROLES IN IMPLEMENTATION

Hospital Leadership, Unit Leadership, Providers, Nurses, Case Management

RECOMMENDED STRATEGIES

- Provide discharge materials in an appropriate manner for patient and caregiver (e.g., provided in the preferred language, use of interpreter), and conduct the teach-back method^{70,77}
- Engage patient and/or caregiver (as appropriate) as full partners in discussions around discharge planning to meet unique needs ([AHRQ IDEAL Discharge Planning](#)) throughout admission^{8,78}
- Engage multidisciplinary team to address patients' care transition needs during clinical rounds prior to discharge^{54,79,80}
- Develop strategies for medication management to support medication reconciliation and medication adherence⁸¹⁻⁸⁴
- Acknowledge health care deserts and access issues in rural areas and consider including strategies and resources on how to address health care access issues^{8,66,85,86}

STRATEGIES IN ACTION

[Project BOOST](#) is designed to reduce avoidable readmissions, improve provider workflow, reduce medication-related errors, and prepare and empower patients, families, and caregivers to improve discharge education. The BOOST approach focuses on improving patient care transitions through patient risk assessments and follow-up after discharge. This includes assessments for poor health literacy, social isolation and absence of support care. Project BOOST has been implemented in more than 200 hospitals across the U.S. and Canada. CMS recommends Project BOOST as one of the care transition models for their community-based transitions program.⁸⁷⁻⁸⁹



USUAL SOURCE OF CARE/LINKAGE TO PRIMARY CARE:

People who are medically underserved are less likely to be linked with a primary care provider⁹⁰

ROLES IN IMPLEMENTATION

Providers, Nurses, Case Management, Community Health Organizations

RECOMMENDED STRATEGIES

- Consider geographic accessibility to providers, access to transportation, patient's prior experience with health care providers, and how these factors may affect receiving care after discharge^{71,90,91}
- Identify a primary care provider and initiate referral early in discharge planning⁷¹
- Ensure primary care providers receive complete documentation of the patient's diagnostic tests, procedures, and any medication changes during hospitalization⁹²

STRATEGIES IN ACTION

The [GRACE program](#) uses a team-oriented approach to provide services to low-income older adults to ensure that they receive critical preventive care and to help them manage their chronic conditions. Proper preventive care and management services through this program has shown to improve patient outcomes, such as reducing unplanned hospital admissions and emergency department visits. As of 2021, the GRACE program has been successfully implemented within 26 health care systems other than the original site.⁹³



LANGUAGE BARRIERS AND ACCESS TO INTERPRETER SERVICES:

Limited English proficiency is correlated with multiple factors contributing to avoidable readmissions^{72,94,95}

ROLES IN IMPLEMENTATION

Hospital Leadership, Unit Leadership, Providers, Nurses, Case Management

RECOMMENDED STRATEGIES

- Notify Interpreter Services of patient needs at admission. In addition, indicate in the patient record the patient's preferred spoken and written language for providers to be aware of when engaging with the patient^{71,96,97}

STRATEGIES IN ACTION

The Wisconsin Department of Health Services developed the Culturally and Linguistically Appropriate Services (CLAS) Standards Pledge, website, and training programs to support the adoption of [CLAS standards](#). Signing the pledge demonstrates organizational commitment and provides organizations with a large network of non-profit organizations, advocacy groups, foundations, faith-based organizations, professional societies, government agencies, corporations, businesses, industry groups, colleges and universities, and individuals committed to eliminating health disparities and achieving health equity in Wisconsin.⁹⁸



HEALTH LITERACY:

Low health literacy contributes to multiple factors that increases likelihood of readmission⁹⁹⁻¹⁰¹

ROLES IN IMPLEMENTATION

Unit Leadership, Providers, Nurses, Case Management, Behavioral Health Specialists, Community Health Organizations

RECOMMENDED STRATEGIES

- Use plain language while speaking with and in discharge instructions for all patients so they can fully participate in their health care^{71,100,101}
- Share patient education resources designed to improve health literacy, such as [CMS](#) [OMH's Coverage to Care](#)¹⁰²

STRATEGIES IN ACTION

Hawaii's [Kuleana Health](#) is an initiative developed to bring together community health centers and community organizations to partner on a health literacy program for underserved populations. Supported by an HHS grant, the program uses Project Champions to lead and facilitate the collaboration and Consortium Partners to develop and deliver programs to promote literacy on health topics including vaccination and telehealth.¹⁰³



CULTURALLY COMPETENT PATIENT EDUCATION:

Patients' cultural beliefs and customs impact how they receive and participate in their care^{68,104}

ROLES IN IMPLEMENTATION

Hospital Leadership, Unit Leadership, Providers, Nurses, Case Management, Behavioral Health Specialists, Community Health Organizations

RECOMMENDED STRATEGIES

- Assess patient's cultural beliefs and values at admission and integrate into the care plan. Providing care and education in a manner that reflects cultural beliefs and customs will support patient and caregivers' ability to provide care at home, improve patient satisfaction, and lowers risk of readmission.^{68,101,105}

STRATEGIES IN ACTION

A critical access hospital in Jefferson County, Oregon established the [Transcultural Care Project](#), funded through HRSA, to improve culturally competent patient care. In addition to incorporating cultural competency training requirements into nursing job descriptions, the hospital leadership proactively engaged with local Tribal leaders by including them in the Patient Family Advisory Council. Additionally, the hospital worked with providers from Indian Health Services (IHS) and Tribal leaders to host a summit on culturally competent patient care. Since implementing the program, survey response rates and patient satisfaction have increased, and there was a significant decrease in complaints.¹⁰⁶



SOCIAL DETERMINANTS:

Higher readmission rates are associated with restricted access to socioeconomic resources^{104,107,108}

ROLES IN IMPLEMENTATION

Hospital Leadership, Unit Leadership, Providers, Nurses, Case Management, Behavioral Health Specialists, Community Health Organizations

RECOMMENDED STRATEGIES

- Define social determinants and incorporate a SDOH framework, such as the [Healthy People 2030 SDOH](#)^{20,44,107-109}
- Conduct an analysis of resources in the community and engage in partnerships^{66,78,86}
- Engage social workers, peer support workers, and community health workers (as appropriate) in care management to connect patients to resources^{54,75,78}
- Incorporate SDOH into provider annual trainings to support knowledge on caring for the whole person¹⁰⁹

STRATEGIES IN ACTION

Health Partners Plus, a Medicaid plan in Pennsylvania, partnered with [Metropolitan Area Neighborhood Nutrition Alliance \(MANNA\)](#) to implement an evidence-based nutrition program for chronically ill Medicaid members in Philadelphia who struggle with food-related social needs. Participants receive home-delivered meals that are medically tailored to their health conditions and dietary counseling.^{62,110}



MENTAL HEALTH:

People with mental illness can experience difficulties accessing services with self-care post-discharge^{111,112}

ROLES IN IMPLEMENTATION

Providers, Nurses, Case Management, Behavioral Health Specialist, Community Health Organizations

RECOMMENDED STRATEGIES

- Include a behavioral health assessment early in the hospital admission to identify persons at increased risk of readmission due to mental or behavioral health needs^{111,112}
- Engage mental health resources including for substance use disorders, if appropriate, in discharge planning to identify outpatient sources of care to ensure continuity post-discharge^{79,113}

STRATEGIES IN ACTION

The Permanent Supportive Housing ([PSH program](#)) aids individuals with serious mental illness (SMI) enrolled in the Mercy Maricopa Medicaid managed care plan in Maricopa, Arizona. PSH offers housing vouchers that enable homeless members with an SMI who qualify through the Vulnerability Index-Service Prioritization Decision Assistance Tool (VI-SPDAT) to choose from one of Mercy Maricopa's permanent supportive housing options.^{114,115}



COMORBIDITIES:

The presence of comorbidities correlates with a rise in readmission risk¹¹⁶⁻¹¹⁸

ROLES IN IMPLEMENTATION

Providers, Nurses, Case Management, Community Health Organizations

RECOMMENDED STRATEGIES

- Calculate a comorbidity index upon admission to aid in early identification of patients at high risk for readmission^{117,119,120}
- Tailor multidisciplinary care team to include appropriate specialist and sub-specialist providers based on patient's comorbidities, and provide referrals upon discharge^{54,65,67,71,78}

STRATEGIES IN ACTION

Comorbidity indexes, such as the [National Cancer Institute \(NCI\) Comorbidity Index](#), have been shown to accurately predict an increased risk of 30-day readmission.¹¹⁷ The integration of comorbidity indexes early in discharge planning can allow for the identification of those at risk for readmission and allow for mitigation measures to be implemented.

Other Valuable Strategies to Advance Health Equity and Reduce Readmissions

To realize the full potential of this Guide and maximize your impact, health care leaders and community partners should consider taking the following steps:

1

Develop a *Disparities Action Plan*

Consider developing a disparities impact statement or action plan using a five step process:

- Identify health disparities and populations
- Define your goals
- Establish your organization's health equity strategy
- Determine what your organization needs to implement its strategy
- Monitor and evaluate your progress.

2

Design organizational strategies and mission to include health equity

Embed advancing health equity in your organization's strategies and mission. The CMS Strategic Plan on Health Equity is a helpful resource when looking to create a results-driven approach.⁷ CMS OMH offers the [Health Equity Technical Assistance Program](#), which provides coaching and resources on embedding health equity into your organization's strategies. The Health Equity Technical Assistance program also provides guidance on how to improve health equity, data collection and analysis, and communication through language access programs.¹²¹

3

Create a multidisciplinary care transition working group

Examine current care transition and readmission prevention processes. Identify potential opportunities for creating additional impact and recommend strategies for reducing readmissions to leadership.



4

Conduct a gap analysis to understand the change needed

A gap analysis will aid your organization in identifying the necessary steps to achieve the goal of advancing health equity and reducing readmissions. The Agency for Healthcare Research and Quality's [Gap Analysis Facilitator's Guide](#) provides direction on the process and which partners to include.¹²²

5

Create and execute both short-term and long-term readmission reduction strategies

Advancing health equity and reducing readmissions is an ongoing and dynamic process. Metrics and goals should be periodically reassessed for their continued validity. The implementation of quality improvement programs has been shown to reduce admissions.¹²³ Frameworks such as *DMAIC (Define, Measure, Analyze, Improve and Control)* can be used to guide your organization's quality improvement program.¹²⁴

6

Disseminate important information internally and externally

This Guide will only be effective if its information reaches all partners and providers with a role in reducing readmissions. To have the most significant impact on advancing health equity and reducing readmissions, care should be taken to include external partners such as community-based organizations. The approach or framework used to disseminate information should be customized to the organization, the type and quantity of information being disseminated, and the intended audience. Consider reaching smaller audiences with each effort so that messages can be tailored to the intended recipients.^{125, 126}

STRATEGIES

1. Identify a patient's risk factors for readmission early in admission to allow for early intervention and greatest impact
2. Collect and analyze critical data to form the basis of understanding the current state of your organization and identify areas on which to focus strategy
3. Use and tailor multidisciplinary teams with internal and external providers and partners to successfully reduce readmissions
4. Implement the National Standards for Culturally and Linguistically Appropriate Services (CLAS) to meet unique patient population needs and reduce disparities
5. Create programs, policies and practices that address SDOH to put health equity at the forefront of your organization

NEXT STEPS

1. Devise a plan to collect critical data
2. Engage internal and external partners
3. Create a manageable strategy for success
4. Consider creating a [Disparities Impact Statement and Plan](#)
5. Revisit often – whenever there is a question or when looking for guidance on measuring progress or setting strategy



Remember

Implementation is a dynamic and continual process that is contextual to your organization. Ongoing evaluation of process, outcomes, and goals is required.

Resources for Reducing Readmissions Among Diverse Populations



Please note that CMS does not endorse the outside resources provided here. CMS does not intend to suggest that it is endorsing the information or resources provided by these organizations over information or resources that might be provided by other organizations.

| <i>Resource</i> | <i>Description</i> | <i>Source</i> | <i>Resource Type</i> | <i>Recommendation</i> |
|---|---|---|----------------------|---|
| <u>Race, Ethnicity, and Language Data: Standardization for Healthcare Quality Improvement</u> | Helps primary care practices reduce the complexity of health care, increase patient understanding of health information, and enhance support for patients of all health literacy levels. Broken down into various tools for ease of implementation. | Institute of Medicine | Report | Collect Critical Data |
| <u>Reducing Health Care Disparities: Collection and Use of Race, Ethnicity, and Language Data</u> | Roadmap to increase the collection and use of race, ethnicity, and language (REaL) data to drive elimination of disparities in care. | American Hospital Association | Guide | Collect Critical Data |
| <u>A Framework for Stratifying Race, Ethnicity, and Language Data</u> | Guide with framework for hospitals and care systems to stratify patient data for the purpose of identifying health care disparities. | American Hospital Association | Guide | Collect Critical Data Identify Root Causes |
| <u>AHA Disparities Toolkit</u> | Designed to help hospitals, health systems, community health centers, medical group practices, health plans, and other users understand the importance of collecting accurate data on race, ethnicity, and primary language of persons with limited English proficiency and/or who are deaf or hard of hearing. | American Hospital Association and Health Research and Educational Trust | Toolkit | Collect Critical Data Identify Root Causes |
| <u>Creating Equity Reports: A Guide for Hospitals</u> | Guide to creating equity reports: leading the effort, collecting the data, measures, presenting data, using the report. | The Disparities Solutions Center, Massachusetts General Hospital | Guide | Collect Critical Data Identify Root Causes |
| <u>Tools to Address Disparities in Health: Data as Building Blocks for Change</u> | Provides the rationale and importance of collecting and analyzing data on race, ethnicity, and primary language, an in-depth view about how to collect and analyze the data, and examples of innovative strategies and models being implemented by health insurance plans. | America's Health Insurance Plans | Toolkit | Collect Critical Data Identify Root Causes |

| <i>Resource</i> | <i>Description</i> | <i>Source</i> | <i>Resource Type</i> | <i>Recommendation</i> |
|--|---|--|----------------------|--|
| <u>Health Disparities Measurement</u> | Report provides guidance to NQF Steering Committee charged with selecting and evaluating disparity-sensitive quality measures, describe methodological issues with disparities measurement, and identify cross-cutting measurement gaps in disparities. | The Disparities Solutions Center, Massachusetts General Hospital | Report | Collect Critical Data Identify Root Causes Start from the Beginning |
| <u>Improving Health Equity through Data Collection and Use: A Guide for Hospital Leaders</u> | Guide for hospital leaders including key strategies for collecting patient race, ethnicity, and language data and leading practices for using the data. | Hospitals in Pursuit of Excellence | Guide | Collect Critical Data Identify Root Causes Start from the Beginning Foster External Partnerships Secure Buy-In |
| <u>Building an Organizational Response to Health Disparities</u> | Short guide on tips and tricks to reducing health disparities and lowering costs through data collection, data analysis, culture of equity, and quality improvement with key interventions and resources. | Centers for Medicare & Medicaid Services | Guide | Collect Critical Data Identify Root Causes Start from the Beginning Foster External Partnerships Secure Buy-In |
| <u>A Leadership Resource for Patient and Family Engagement Strategies</u> | Provides hospital and health system leadership with practical steps to improve patient and family engagement in their organization. Generalized guide, not focused on health disparities. | American Hospital Association | Guide | Multidisciplinary Team Foster External Partnerships Secure Buy-In |
| <u>Building a Culturally Competent Organization: The Quest for Equity in Health Care</u> | Guide explores the concept of cultural competency and builds the case for the enhancement of cultural competency in health care. Tips include: collect REaL data, identify, and report disparities, providing culturally and linguistically competent care, develop culturally competent disease management programs, increase diversity and minority workforce pipelines, involve the community, make cultural competency an institutional priority. | American Hospital Association, Equity of Care | Guide | Collect Critical Data Identify Root Causes Multidisciplinary Team Culturally Competent Care Foster External Partnerships |

| <i>Resource</i> | <i>Description</i> | <i>Source</i> | <i>Resource Type</i> | <i>Recommendation</i> |
|--|--|--|----------------------|---|
| <u>Capturing Social and Behavioral Domains and Measures in Electronic Medical Records: Phase 2</u> | Identifies domains and measures that capture the social determinants of health to inform the development of recommendations for the meaningful use of EHRs. This report is the second part of a two-part study. The Phase 1 report identified 17 domains for inclusion in EHRs. This report pinpoints 12 measures related to 11 of the initial domains and considers the implications of incorporating them into all EHRs. | Institute of Medicine | Report | Collect Critical Data Identify Root Causes Start from the Beginning Respond to SDOH |
| <u>Inventory of Resources for Standardized Demographic and Language Data Collection</u> | List of resources organized by resource type (e.g., webinar, report, guide) highlighting data collection, best practices, and guidelines for organizations to implement standardized data collection, training tools and webinars to educate staff on best practices and articles and books that provide in-depth discussion of issues, challenges, recommendations, and best practices. | Centers for Medicare & Medicaid Services | Catalog of Resources | Collect Critical Data Identify Root Causes Start from the Beginning Respond to SDOH |
| <u>Equity of Care: A Toolkit for Eliminating Health Care Disparities</u> | “How-to” guide to help accelerate the elimination of health care disparities and ensure leadership teams and board members reflect the communities we serve. Framework of next steps and resources to guide work. | American Hospital Association | Toolkit | Collect Critical Data Identify Root Causes Start from the Beginning Multidisciplinary Team Culturally Competent Care Foster External Partnerships Secure Buy-In |
| <u>Guide to Patient and Family Engagement in Hospital Quality and Safety</u> | Guide to help hospitals develop effective partnerships with patients and family members, implement IDEAL Discharge Planning strategy, bring the perspectives of patients and families directly into the planning, delivery and evaluation of care | Agency for Healthcare Research and Quality | Guide | Start from the Beginning Culturally Competent Care |

| <i>Resource</i> | <i>Description</i> | <i>Source</i> | <i>Resource Type</i> | <i>Recommendation</i> |
|--|--|---|----------------------|--|
| <u>Healthcare Disparities and Cultural Competency Consensus Standards</u> | Report on the 2011 project for development of a commissioned paper focused on measurement implications for healthcare disparities and identifying performance measures for healthcare disparities and cultural competency. | National Quality Forum | Report | Start from the Beginning |
| <u>LACE Index Scoring Tool</u> | Risk assessment scoring tool for death and readmission | Ottawa Hospital Research Institute | Tool | Start from the Beginning |
| <u>International Validity of the HOSPITAL Score to Predict 30-Day Potentially Avoidable Hospital Readmissions</u> | Report externally validates the HOSPITAL score in an international multicenter study to assess its generalizability. | JAMA | Report | Start from the Beginning |
| <u>Making CLAS Happen: Chapter 3 – Collect Diversity Data</u> | Presents tools to assist agencies in the process of collecting diversity data. | Massachusetts Department of Public Health, Office of Health Equity | Guide | Collect Critical Data Competent Care Foster External Partnerships |
| <u>National Standards for Culturally and Linguistically Appropriate Services in Health and Healthcare: A Blueprint for Advancing and Sustaining CLAS Policy and Practice</u> | Provide guidance on each national CLAS standard with the ultimate goal of reducing racial and ethnic health care disparities. | U.S. Department of Health and Human Services, Office of Minority Health | Guide | Collect Critical Data Multidisciplinary Team Culturally Competent Care Foster External Partnerships |
| <u>Re-Engineered Discharge (RED) Toolkit</u> | A set of activities and materials for improving the discharge process, called the Re-Engineered Discharge (RED). This toolkit was developed to assist hospitals to replicate the RED. Finding showed RED was effective at reducing readmissions and post-hospital ED visits. | Agency for Healthcare Research and Quality | Toolkit | Start from the Beginning Multidisciplinary Team Culturally Competent Care |
| <u>Risk Assessment – 8P Project Boost Implementation Toolkit</u> | Toolkit to assist hospitals implement an evidence-based approach to improving care transitions and reducing readmissions. | Society of Hospital Medicine | Toolkit | Start from the Beginning Culturally Competent Care |

| <i>Resource</i> | <i>Description</i> | <i>Source</i> | <i>Resource Type</i> | <i>Recommendation</i> |
|---|--|---|----------------------|---|
| <u>PRAPARE (Protocol for Responding to and Assessment Patient Assets, Risks, and Experiences)</u> | Nationally standardized and stakeholder-driven, the Protocol for Responding to & Assessing Patients' Assets, Risks & Experiences (PRAPARE) is designed to equip healthcare and their community partners to better understand and act on individuals' SDOH. PRAPARE, when paired with the Implementation and Action Toolkit, empowers users to leverage data to improve health equity at the individual, community, and systems levels. | National Association of Community Health Centers | Tool | Start from the Beginning Respond to SDOH |
| <u>A Framework for Educating Health Professionals to Address the Social Determinants of Health</u> | A Framework for Educating Health Professionals to Address the Social Determinants of Health that also puts forth a conceptual model for the framework's use with the goal of helping stakeholder groups envision ways in which organizations, education, and communities can come together to address health inequalities. | National Academy of Sciences | Framework | Start from the Beginning Respond to SDOH Foster External Partnerships |
| <u>Social Needs Screening Toolkit</u> | Shares the latest research on how to screen patients for social needs. | Health Leads | Toolkit | Respond to SDOH |
| <u>Tools for Putting Social Determinants of Health into Action</u> | Centers for Disease Control and Prevention (CDC) tools and resources that can help practitioners take action to address SDOH. | Centers for Disease Control and Prevention | Tools and Resources | Culturally Competent Care |
| <u>Compendium of State-Sponsored National CLAS Standards Implementation Activities Tracking CLAS Tool</u> | Compendium of CLAS standards implementation resources and activities support and undertaken by state government agencies. Highlights different state findings. | U.S. Department of Health and Human Services, Office of Minority Health | Catalog of Resources | Culturally Competent Care |
| <u>The SHARE Approach: Using the Teach-Back Technique: A Reference Guide for Healthcare Providers</u> | Reference guide for health care providers on using the teach-back method. | Agency for Healthcare Research and Quality | Guide | Culturally Competent Care |

| <i>Resource</i> | <i>Description</i> | <i>Source</i> | <i>Resource Type</i> | <i>Recommendation</i> |
|---|--|--|----------------------|--|
| <u>The SHARE Approach: 5 Essential Steps of Shared Decision Making</u> | Five-step process for shared decision-making that includes exploring and comparing the benefits, harms, and risks of each option through meaningful dialogue about what matters most to the patient. | Agency for Healthcare Research and Quality | Framework | Culturally Competent Care |
| <u>AHRQ Health Literacy Universal Precautions Toolkit, 2nd Edition</u> | Helps primary care practices reduce the complexity of health care, increase patient understanding of health information, and enhance support for patients of all health literacy levels. Broken down into various tools for ease of implementation. | Agency for Healthcare Research and Quality | Toolkit | Culturally Competent Care |
| <u>Health Literacy Universal Precautions Toolkit, 2nd Edition (Tool #5, Teach-Back Method)</u> | Teach-back method tool within the Health Literacy Universal Precautions Toolkit. | Agency for Healthcare Research and Quality | Toolkit | Culturally Competent Care |
| <u>Always Use Teach-back! Training Toolkit</u> | To help all health care providers learn to use teach-back—every time it is indicated—to support patients and families throughout the care continuum, especially during transitions between health care settings. Includes an introduction, an interactive learning module, tips and tools and other resources. | Always Use Teach-back! | Toolkit | Culturally Competent Care |
| <u>Improving Patient Safety Systems for Patients with Limited English Proficiency: A Guide for Hospitals with Team STEPPS Enhancing Safety for Patients with Limited English Proficiency Module</u> | Guide to help leaders better understand how to address the issue of patient safety for limited-English-proficient and culturally diverse patients. | Agency for Healthcare Research and Quality, The Disparities Solutions Center, Massachusetts General Hospital | Guide | Culturally Competent Care Secure Buy-In |
| <u>8-Step Process for Leading Change</u> | Framework for 8 steps to leading change in an organization. | Kotter International | Framework | Secure Buy-In |

| <i>Resource</i> | <i>Description</i> | <i>Source</i> | <i>Resource Type</i> | <i>Recommendation</i> |
|---|--|--|----------------------|---|
| <u>Improving Quality and Achieving Equity: A Guide for Hospital Leaders</u> | Guide aims to present evidence for racial and ethnic disparities in health care and provide rationale for addressing them, highlight model practices, and recommend a set of activities and resources to initiate an agenda for action in this area. | The Disparities Solutions Center, Massachusetts General Hospital | Guide | Secure Buy-In |
| <u>Disparities Impact Statement</u> | Worksheet to support organizations in defining goals and establishing a strategy. | CMS Office of Minority Health | Tool | Collect Critical Data Multidisciplinary Team Secure Buy-In |
| <u>CMS Framework for Health Equity 2022–2032</u> | Provides action oriented, results-driven approach for advancing health equity by improving the quality of care provided by hospitals and other healthcare providers. | CMS Office of Minority Health | Framework | Collect Critical Data Identify Root Causes Respond to SDOH Culturally Competent Care |
| <u>Screening for Social Determinants of Health in Populations with Complex Needs: Implementation Considerations</u> | Examines organizations participating in Transforming Complex Care (TCC) Initiative considerations for using SDOH data to improve patient care. | Center for Health Care Strategies Inc. | Report | Collect Critical Data |
| <u>ICD-10-CM Coding for Social Determinants of Health</u> | Information on guidance for using Z codes, including additional tools and resources to improve health equity. | Centers for Medicare & Medicaid Services | Tool | Collect Critical Data |
| <u>Using Z Codes: The Social Determinants of Health (SDOH) Data Journey to Better Outcomes</u> | Steps for providing SDOH Z Code Data. | CMS Office of Minority Health | Tool | Collect Critical Data |
| <u>A Practical Guide to Implementing the National CLAS Standards: For Racial, Ethnic and Linguistic Minorities, People with Disabilities and Sexual and Gender Minorities</u> | Toolkit provides practical tools and examples of CLAS and enables health-care organizations to implement the National CLAS Standards. | CMS Office of Minority Health | Toolkit | Culturally Competent Care |

| <i>Resource</i> | <i>Description</i> | <i>Source</i> | <i>Resource Type</i> | <i>Recommendation</i> |
|--|--|--|----------------------|--|
| <u>Guide to Providing Effective Communication and Language Assistance Services</u> | Free online educational program designed for health care administrators and providers to help implement effective communication and language assistance services. | Department of Health and Human Services | Learning Module | Culturally Competent Care |
| <u>Promoting Health Equity: A Resource to Help Communities Address Social Determinants of Health</u> | Workbook for community organizations to assist in addressing health disparities and develop and test interventions that address social determinants of health equity. | Centers for Disease Control and Prevention | Guide | Collect Critical Data Multidisciplinary Team Secure Buy-In |
| <u>Health Equity Organizational Assessment</u> | Assessment tool to understand hospitals' health equity efforts, address potential gaps and disparities in care, and focus efforts and technical assistance. | Michigan Health & Hospital Association | Tool | Collect Critical Data Multidisciplinary Team Secure Buy-In |
| <u>Health Equity Organizational Assessment</u> | Assessment tool to understand health care organization's level on various strategies to implement and determine next steps for improving health equity. | Health Quality Innovation Network | Tool | Collect Critical Data Multidisciplinary Team Secure Buy-In |
| <u>Accountable Health Communities Health-Related Social Needs Screening Tool</u> | Provides guidance on the health-related social needs (HRSN) Screening. Tool from the Accountable Health Communities (AHC) Model and share promising practices for universal screening. | Centers for Medicare & Medicaid Services | Tool | Collect Critical Data |
| <u>Resources for Integrated Care</u> | A collection of resources and products including briefs, concept guides, learning collaboratives, tip sheets, assessment tools, podcasts, videos, and webinars on issues related to integrated and coordinated care. Topics include care coordination, disability competent care, cultural competency, patient and family engagement, identifying root causes. | CMS Medicare-Medicaid Coordination Office | Tools and Resources | Identify Root Causes Start from the Beginning Multidisciplinary Team Respond to SDOH Culturally Competent Care Foster External Partnerships |

| <i>Resource</i> | <i>Description</i> | <i>Source</i> | <i>Resource Type</i> | <i>Recommendation</i> |
|---|--|-------------------------------------|----------------------|---|
| <u>Advancing Partnerships to Align Health Care and Human Services</u> | Resources for community-based organizations to build successful partnerships for delivering social services. | Administration for Community Living | Tools and Resources | Respond to SDOH Foster External Partnerships |
| <u>Health Equity Technical Assistance</u> | CMS OMH offers health equity technical assistance resources, aimed to help health care organizations take action against health disparities. | CMS Office of Minority Health | Tools and Resources | Collect Critical Data Identify Root Causes Multidisciplinary Team Respond to SDOH Culturally Competent Care |
| <u>Coverage to Care Consumer Resources</u> | Set of resources for consumers to promote understanding of health coverage, including posters, brochures, and fact sheets in 9 languages. | CMS Office of Minority Health | Tools and Resources | Foster External Partnerships |

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



Below you will find an overview of the epidemiology of the conditions in the CMS Hospital Readmission Reduction Program. You will also find information on racial and ethnic disparities in condition prevalence and 30-day readmission rates, along with the cost associated with avoidable readmissions among people enrolled in Medicare.

| <i>Condition</i> | <i>Overall U.S. Prevalence</i> | <i>Racial and Ethnic Disparities by Condition</i> | <i>Overall 30-Day Readmission Rate</i> | <i>Racial and Ethnic Disparities in 30-Day Readmission Rates</i> | <i>Total Cost of All-Cause, 30-Day Readmissions</i> |
|--|--|--|--|--|---|
| Acute Myocardial Infarction (AMI) | 8.8 million (3.1% of adults ≥20 years) ¹²⁷ | AMI highest prevalence is among non-Hispanic White males (4.4%) followed by non-Hispanic Black males (3.9%), Hispanic males (3.7%), non-Hispanic Asian males (2.7%), non-Hispanic Black females (2.3%), Hispanic females (2.1%), non-Hispanic White females (2.0%), and non-Hispanic Asian females (0.7%) ¹²⁷ 30-day mortality rate post-AMI is higher among Black individuals (5.0%) vs non-Black individuals (4.0%) ¹²⁸ | 15% ¹²⁸ | One study found that while 30-day readmission rates have declined since HRRP implementation, Black patients continue to experience readmission rate at a higher rate (17.4%) compared to non-Black patients (14.5%) ¹²⁹ | No data available |
| Chronic Obstructive Pulmonary Disease (COPD) | 15.7 million (6.4% of total population) ¹³⁰ | African Americans are at a higher risk of having undiagnosed COPD vs non-Hispanic Whites ¹³¹ | 19.8% ¹²⁸ | Non-Hispanic Blacks experienced readmission at the highest rate (21.5%), followed by Hispanics (19.5%) and non-Hispanic Whites (19.1%) ¹³² | \$1.2 billion ¹¹ |

| 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) | ≈6.0 million (2.4% adults ≥20 years) ¹²⁷ | Highest prevalence is among non-Hispanic Black males (3.6%) and non-Hispanic Black females (3.3%) ¹²⁷ Age-adjusted incidence for hospitalization was found to be higher in Black males (38 per 1000) and Black females (31 per 1000) compared to White males (12.3 per 1000) and White females (9.9 per 1000) ¹²⁷ | 21.3% ¹²⁸ | A study examining heart failure patients from 2010 through 2018 in a Southeastern U.S. health system found Black patients were more likely to have a 30-day readmission compared to White patients (20.6% vs 13.5%) ¹³³ | \$2.8 billion ¹²⁷ |
| Pneumonia | 1.5 million diagnoses in the U.S. each year ¹³⁴ | No data available | 16.7% ¹³⁵ | A study found that Black patients were more likely to be readmitted within 30-days after pneumonia diagnosis compared to White patients ¹³⁶ | \$1.1 billion ¹¹ |
| Total Hip Arthroplasty (THA) Total Knee Arthroplasty (TKA) | THA: 2.5 million (0.83% of total population) TKA: 4.7 million (1.52% of total population) ¹³⁷ | Age and sex-standardized rates of THA vary greatly by race with White patients having the highest incidence at 140 per 100,000 followed by Black patients at 89 per 100,000 and Hispanic patients at 49 per 100,000 ¹³⁸ One study found Black and Hispanic patients to have a TKA rate 22% and 32%, respectively, lower than White patients ¹³⁹ | 4% ¹³⁵ | After TKA, Black patients have been found to be at increased risk for readmission, complications, mortality, and requiring revision compared to White patients. ¹⁴⁰ | No data available |

Appendix B: Disparities in Top Three Chronic Conditions



Below you will find an overview of the epidemiology of the three top chronic conditions prioritized by CMS OMH. You will also find information on racial and ethnic disparities in condition prevalence and 30-day readmission rates. Additionally, the cost associated with avoidable readmissions among people enrolled in Medicare.

| <i>Condition</i> | <i>Overall U.S. Prevalence</i> | <i>Racial and Ethnic Disparities by Condition</i> | <i>Overall 30-Day Readmission Rate</i> | <i>Racial and Ethnic Disparities in 30-Day Readmission Rates</i> | <i>Total Cost of All-Cause, 30-Day Readmissions</i> |
|------------------------------|---|--|--|---|---|
| Chronic Kidney Disease (CKD) | 37 million (15% of US adults) ¹⁴¹ | CKD is most common in non-Hispanic Black patients (16.3%) followed by Hispanic patients (14%), non-Hispanic Asian patients (13%), and non-Hispanic White patients (13%) ¹⁴¹ | 28.6% ¹¹ | Black patients were readmitted at a rate of 25.3% compared to 22.3% for White patients. ¹⁴² | \$538 million ¹¹ |
| Diabetes | 37.3 million (11.3% of population) ¹⁴³ | The highest prevalence of newly diagnosed cases is with Hispanic males (15.3%) followed by non-Hispanic Asian males (14.3%), non-Hispanic Black females (13.2%), Hispanic females (13.1%), non-Hispanic Black males (12.8%), non-Hispanic White males (10.8%), non-Hispanic Asian females (10.1%) and non-Hispanic White females (7.5%) ¹²⁷ | 26.4% ¹⁴⁴ | A study of Medicare participants with Type 2 found non-Hispanic Black patients to have the highest readmission rate (12.2%), followed by Hispanic patients (10.9%), non-Hispanic White patients (10.2%), and Asian patients (9.9%) ¹²⁷ | No data available |

| <i>Condition</i> | <i>Overall U.S. Prevalence</i> | <i>Racial and Ethnic Disparities by Condition</i> | <i>Overall 30-Day Readmission Rate</i> | <i>Racial and Ethnic Disparities in 30-Day Readmission Rates</i> | <i>Total Cost of All-Cause, 30-Day Readmissions</i> |
|--------------------------------|---|--|--|---|---|
| End Stage Renal Disease (ESRD) | 809,103 (0.23% of total population) ^{145, 146} | <p>3 times more likely than White people to develop ESRD, and for every 3 non-Hispanic people who develop ESRD 4 Hispanic people will develop the disease</p> <p>Black patients wait longer for transplant (59.9 months) compared to White patients (41.3 months). Non-Hispanic patients wait only 47.4 months for transplant compared to Hispanic patients who wait on 55.8 months on average^{141,142}</p> | 31.2% ¹⁴⁶ | Of adult patients on dialysis, readmissions rates were highest in Black patients (36.4%) compared to White patients (34.9%), Hispanic patients (33.8%), and Asian patients (29.6%) ¹⁴⁶ | No data available |

References



1. Zuckerman RB, Sheingold SH, Orav EJ, Ruhter J, Epstein AM. Readmissions, Observation, and the Hospital Readmissions Reduction Program. *N Engl J Med*. 2016;374(16):1543-1551. doi:10.1056/NEJMsa1513024
2. Figueroa JF, Zheng J, Orav EJ, Epstein AM, Jha AK. Medicare Program Associated With Narrowing Hospital Readmission Disparities Between Black And White Patients. *Health Aff Proj Hope*. 2018;37(4):654-661. doi:10.1377/hlthaff.2017.1034
3. Rodriguez-Gutierrez R, Herrin J, Lipska KJ, Montori VM, Shah ND, McCoy RG. Racial and Ethnic Differences in 30-Day Hospital Readmissions Among US Adults With Diabetes. *JAMA Netw Open*. 2019;2(10):e1913249. doi:10.1001/jamanetworkopen.2019.13249
4. Mills C, Gaiser M, Saunders R, Scholle SH. Impact of Hospital Readmissions Reduction Initiatives on Vulnerable Populations. Published online September 2020. Accessed August 17, 2022. <https://www.cms.gov/files/document/impact-readmissions-reduction-initiatives-report.pdf>
5. Centers for Medicare and Medicaid Services. CMS Framework for Health Equity 2022–2032. Published online 2022. Accessed July 27, 2022. <https://www.cms.gov/files/document/cms-framework-health-equity.pdf>
6. Centers for Medicare and Medicaid Services. CMS Strategic Plan Health Equity Fact Sheet. Published online May 2023. Accessed February 9, 2024. <https://www.cms.gov/files/document/health-equity-fact-sheet.pdf>
7. Kripalani S, Theobald CN, Anctil B, Vasilevskis EE. Reducing Hospital Readmission Rates: Current Strategies and Future Directions. *Annu Rev Med*. 2014;65:471-485. doi:10.1146/annurev-med-022613-090415
8. Pugh J, Penney LS, Noël PH, Neller S, Mader M, Finley EP, Lanham HJ, Leykum L. Evidence Based Processes to Prevent Readmissions: More is Better, A Ten-Site Observational Study. *BMC Health Serv Res*. 2021;21(1):189. doi:10.1186/s12913-021-06193-x
9. Jencks SF, Schuster A, Dougherty GB, Gerovich S, Brock JE, Kind AJH. Safety-Net Hospitals, Neighborhood Disadvantage, and Readmissions Under Maryland’s All-Payer Program: An Observational Study. *Ann Intern Med*. 2019;171(2):91-98. doi:10.7326/M16-2671
10. National Academies of Sciences E, Division H and M, Practice B on PH and PH, et al. The State of Health Disparities in the United States. National Academies Press (US); 2017. Accessed July 25, 2022. <https://www.ncbi.nlm.nih.gov/books/NBK425844/>
11. Weiss AJ, Jiang, H Joanna. Overview of Clinical Conditions With Frequent and Costly Hospital Readmissions by Payer, 2018. *HCUP Stat Brief* 278. Published online July 2021:19.
12. Medicare Payment Advisory Commission. Mandated Report: The effects of the Hospital Readmissions Reduction Program. Published online 2018. Accessed August 17, 2022. https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/jun18_ch1_medpacreport_rev_nov2019_v2_note_sec.pdf
13. Lopez L III, Hart LH III, Katz MH. Racial and Ethnic Health Disparities Related to COVID-19. *JAMA*. 2021;325(8):719-720. doi:10.1001/jama.2020.26443
14. Webb Hooper M, Nápoles AM, Pérez-Stable EJ. COVID-19 and Racial/Ethnic Disparities. *JAMA*. 2020;323(24):2466-2467. doi:10.1001/jama.2020.8598

15. Xu H, Granger BB, Drake CD, Peterson ED, Dupre ME. Effectiveness of Telemedicine Visits in Reducing 30-Day Readmissions Among Patients With Heart Failure During the COVID-19 Pandemic. *J Am Heart Assoc.* 2022;11(7):e023935. doi:10.1161/JAHA.121.023935
16. Early J, Hernandez A. Digital Disenfranchisement and COVID-19: Broadband Internet Access as a Social Determinant of Health. *Health Promot Pract.* 2021;22(5):605-610. doi:10.1177/15248399211014490
17. Findling MG, Blendon RJ, Benson JM. Delayed Care with Harmful Health Consequences—Reported Experiences from National Surveys During Coronavirus Disease 2019. *JAMA Health Forum.* 2020;1(12):e201463. doi:10.1001/jamahealthforum.2020.1463
18. Fu SJ, George EL, Maggio PM, Hawn M, Nazerali R. The Consequences of Delaying Elective Surgery: Surgical Perspective. *Ann Surg.* 2020;272(2):e79-e80. doi:10.1097/SLA.0000000000003998
19. Centers for Medicare & Medicaid Services. COVID-19 National Emergency: Early Trends in Hospitalizations for Hospital Readmissions Reduction Program Health Conditions and 30-day Readmission Rates. Published online 2021. Accessed July 25, 2022. <https://www.cms.gov/files/document/omh-data-highlight-2021-12.pdf>
20. U.S. Department of Health and Human Services: Office of Disease Prevention and Health Promotion. Healthy People 2030. Accessed August 10, 2022. <https://health.gov/healthypeople>
21. Whitman A, Lew ND, Chappel A, Aysola V, Zuckerman R, Sommers BD. Addressing Social Determinants of Health: Examples of Successful Evidence-Based Strategies and Current Federal Efforts. Published online 2022. <https://aspe.hhs.gov/sites/default/files/documents/e2b650cd64cf84aae8ff0fae7474af82/SDOH-Evidence-Review.pdf>
22. U.S. Department of Health and Human Services: Office of Disease Prevention and Health Promotion. Social Determinants of Health - Healthy People 2030. Accessed July 27, 2022. <https://health.gov/healthypeople/priority-areas/social-determinants-health>
23. U.S. Department of Health and Human Services. Strategic Plan FY 2022-2026 - Strategic Goal 1: Objective 1.3. Accessed February 9, 2024. <https://www.hhs.gov/about/strategic-plan/2022-2026/goal-1/objective-1-3/index.html>
24. Basu J, Hanchate A, Bierman A. Racial/Ethnic Disparities in Readmissions in US Hospitals: The Role of Insurance Coverage. *Inq J Med Care Organ Provis Financ.* 2018;55:0046958018774180. doi:10.1177/0046958018774180
25. Mainous AG, Diaz VA, Everett CJ, Knoll ME. Impact of insurance and hospital ownership on hospital length of stay among patients with ambulatory care-sensitive conditions. *Ann Fam Med.* 2011;9(6):489-495. doi:10.1370/afm.1315
26. Southern WN, Arnsten JH. Increased Risk of Mortality among Patients Cared for by Physicians with Short Length-of-Stay Tendencies. *J Gen Intern Med.* 2015;30(6):712-718. doi:10.1007/s11606-014-3155-8
27. Warchol SJ, Monestime JP, Mayer RW, Chien WW. Strategies to Reduce Hospital Readmission Rates in a Non-Medicaid-Expansion State. *Perspect Health Inf Manag.* 2019;16(Summer):1a.
28. Lax Y, Martinez M, Brown NM. Social Determinants of Health and Hospital Readmission. *Pediatrics.* 2017;140(5):e20171427. doi:10.1542/peds.2017-1427
29. Williams DR, Cooper LA. COVID-19 and Health Equity—A New Kind of “Herd Immunity.” *JAMA.* 2020;323(24):2478-2480. doi:10.1001/jama.2020.8051

30. Cantor MN, Thorpe L. Integrating Data On Social Determinants Of Health Into Electronic Health Records. *Health Aff Proj Hope*. 2018;37(4):585-590. doi:10.1377/hlthaff.2017.1252
31. Krumholz HM, Bernheim SM. Considering the role of socioeconomic status in hospital outcomes measures. *Ann Intern Med*. 2014;161(11):833-834. doi:10.7326/M14-2308
32. Srivastav A, Richard CL, McRell AS, Stropolis M. The Unintended Consequence of Novel Coronavirus (COVID-19) Pandemic on Racial Inequities Associated With Adverse Childhood Experiences (ACEs): Findings From a Population-Based Study. *Front Public Health*. 2021;9:701887. doi:10.3389/fpubh.2021.701887
33. Yancy CW. COVID-19 and African Americans. *JAMA*. 2020;323(19):1891-1892. doi:10.1001/jama.2020.6548
34. Agency for Healthcare Research and Quality. Health Literacy. Patient Saf Netw Collect - AHRQ. Published online September 7, 2019. Accessed January 27, 2023. <https://psnet.ahrq.gov/primer/health-literacy>
35. Caraballo C, Ndumele CD, Roy B, et al. Trends in Racial and Ethnic Disparities in Barriers to Timely Medical Care Among Adults in the US, 1999 to 2018. *JAMA Health Forum*. 2022;3(10):e223856. doi:10.1001/jamahealthforum.2022.3856
36. Centers for Medicare & Medicaid Services Office of Minority Health and The RAND Corporation. Disparities in Health Care Medicare Advantage Associated with Dual Eligibility or Eligibility for a Low-Income Subsidy and Disability. Centers for Medicare and Medicaid; 2023. Accessed February 9, 2024. <https://www.cms.gov/files/document/2023-disparities-health-care-medicare-advantage-associated-dual-eligibility-or-eligibility-low.pdf>
37. Public Health Institute. Making the Case for Linking Community Development and Health. Accessed January 27, 2023. <https://www.phi.org/thought-leadership/making-the-case-for-linking-community-development-and-health/>
38. French-Bravo M, Crow G. Shared Governance: The Role of Buy-in in Bringing About Change. *OJIN Online J Issues Nurs*. 2015;2015(No 2). doi:10.3912/OJIN.Vol20No02PPT02
39. Errida A, Lotfi B. The determinants of organizational change management success: Literature review and case study. *Int J Eng Bus Manag*. 2021;13:18479790211016270. doi:10.1177/18479790211016273
40. Centers for Medicare & Medicaid Services. Inventory of Resources for Standardized Demographic and Language Data Collection. Published online 2022. Accessed August 17, 2022. <https://www.cms.gov/About-CMS/Agency-Information/OMH/Downloads/Data-Collection-Resources.pdf>
41. Institute of Medicine. Race, Ethnicity, and Language Data: Standardization for Health Care Quality Improvement. Institute of Medicine; 2009:287. Accessed July 26, 2022. <https://www.ahrq.gov/sites/default/files/publications/files/iomracereport.pdf>
42. Thomas-Henkel C, Schulman M. Screening for Social Determinants of Health in Populations with Complex Needs: Implementation Considerations. Published online 2017. Accessed July 26, 2022. <https://www.chcs.org/media/SDOH-Complex-Care-Screening-Brief-102617.pdf>
43. Massachusetts Department of Public Health. Making CLAS Happen: Chapter 3 - Collect Diversity Data. Published online 2013. Accessed July 26, 2022. <https://www.mass.gov/doc/chapter-3-collect-diversity-data-0/download>

44. Centers for Medicare & Medicaid Services Office of Minority Health. Using Z Codes: The Social Determinants of Health (SDOH) Data Journey to Better Outcomes. Published online 2021. Accessed July 26, 2022. <https://www.cms.gov/files/document/zcodes-infographic.pdf>
45. Centers for Medicare and Medicaid Services Office of Minority Health. Utilization of Z Codes for Social Determinants of Health among Medicare Fee-for-Service Beneficiaries, 2019. Published online 2021. Accessed August 17, 2022. <https://www.cms.gov/files/document/z-codes-data-highlight.pdf>
46. Centers for Medicare and Medicaid Services Office of Minority Health. Calendar Year (CY) 2024 Medicare Physician Fee Schedule Final Rule. Published online November 2, 2023. Accessed February 9, 2024. <https://www.cms.gov/newsroom/fact-sheets/calendar-year-cy-2024-medicare-physician-fee-schedule-final-rule>
47. Agency for Healthcare Research and Quality. Uses of Quality Measurement. Published June 2020. Accessed July 27, 2022. <https://www.ahrq.gov/patient-safety/quality-resources/tools/ctoolbx/uses/index.html>
48. Prentice JC, Frakt AB, Pizer SD. Metrics That Matter. *J Gen Intern Med*. 2016;31(Suppl 1):70-73. doi:10.1007/s11606-015-3559-0
49. Agency for Healthcare Research and Quality. Choosing Quality Measures. Published June 2020. Accessed July 27, 2022. <https://www.ahrq.gov/patient-safety/quality-resources/tools/ctoolbx/choosing/index.html>
50. Singh G, Patel RH, Boster J. Root Cause Analysis and Medical Error Prevention. *StatPearls Publishing*; 2022. Accessed July 27, 2022. <https://www.ncbi.nlm.nih.gov/books/NBK570638/>
51. U.S. Department of Veteran Affairs. Root Cause Analysis - VHA National Center for Patient Safety. Accessed July 27, 2022. <https://www.patientsafety.va.gov/professionals/onthejob/rca.asp>
52. Agency for Healthcare Research and Quality. Root Cause Analysis. Published 2019. Accessed July 27, 2022. <https://psnet.ahrq.gov/primer/root-cause-analysis>
53. Fluitman KS, van Galen LS, Merten H, et al. Exploring the preventable causes of unplanned readmissions using root cause analysis: Coordination of care is the weakest link. *Eur J Intern Med*. 2016;30:18-24. doi:10.1016/j.ejim.2015.12.021
54. Epstein NE. Multidisciplinary in-hospital teams improve patient outcomes: A review. *Surg Neurol Int*. 2014;5(Suppl 7):S295-S303. doi:10.4103/2152-7806.139612
55. Akwanalo C, Njuguna B, Mercer T, et al. Strategies for Effective Stakeholder Engagement in Strengthening Referral Networks for Management of Hypertension Across Health Systems in Kenya. *Glob Heart*. 2019;14(2):173-179. doi:10.1016/j.gheart.2019.06.003
56. Agency for Healthcare Research and Quality. Section 2: Engaging Stakeholders in a Care Management Program. Published October 2014. Accessed July 27, 2022. <https://www.ahrq.gov/patient-safety/settings/long-term-care/resource/hcbs/medicaidmgmt/mm2.html>
57. American Hospital Association Physician Alliance. Patient and Family Advisory Councils Blueprint. Published online January 2022. Accessed July 27, 2022. <https://www.aha.org/system/files/media/file/2022/01/alliance-pfac-blueprint-2022.pdf>
58. Dyer SM, Suen J, Williams H, et al. Impact of relational continuity of primary care in aged care: a systematic review. *BMC Geriatr*. 2022;22(1):579. doi:10.1186/s12877-022-03131-2

59. Facchinetti G, D'Angelo D, Piredda M, et al. Continuity of care interventions for preventing hospital readmission of older people with chronic diseases: A meta-analysis. *Int J Nurs Stud*. 2020;101:103396. doi:10.1016/j.ijnurstu.2019.103396
60. Santomassino M, Costantini GD, McDermott M, Primiano D, Slyer JT, Singleton JK. A systematic review on the effectiveness of continuity of care and its role in patient satisfaction and decreased hospital readmissions in the adult patient receiving home care services. *JBI Libr Syst Rev*. 2012;10(21):1214-1259. doi:10.11124/01938924-201210210-00001
61. Arbaje AI, Wolff JL, Yu Q, Powe NR, Anderson GF, Boulton C. Postdischarge environmental and socioeconomic factors and the likelihood of early hospital readmission among community-dwelling Medicare beneficiaries. *The Gerontologist*. 2008;48(4):495-504. doi:10.1093/geront/48.4.495
62. Gurvey J, Rand K, Daugherty S, Dinger C, Schmeling J, Laverty N. Examining Health Care Costs Among MANNA Clients and a Comparison Group. *J Prim Care Community Health*. 2013;4(4):311-317. doi:10.1177/2150131913490737
63. Centers for Medicare and Medicaid Services. Medicare Shared Savings Program Advance Investment Payments (AIP) Roles for Community Based Organizations. Accessed February 9, 2024. <https://www.cms.gov/files/document/mssp-aip-glance-cbos.pdf>
64. Flaks-Manov N, Topaz M, Hoshen M, Balicer RD, Shadmi E. Identifying patients at highest-risk: the best timing to apply a readmission predictive model. *BMC Med Inform Decis Mak*. 2019;19:118. doi:10.1186/s12911-019-0836-6
65. Tong L, Arnold T, Yang J, Tian X, Erdmann C, Esposito T. The association between outpatient follow-up visits and all-cause non-elective 30-day readmissions: A retrospective observational cohort study. *PLoS ONE*. 2018;13(7):e0200691. doi:10.1371/journal.pone.0200691
66. Carter J, Hassan S, Walton A, Yu L, Donelan K, Thorndike AN. Effect of Community Health Workers on 30-Day Hospital Readmissions in an Accountable Care Organization Population: A Randomized Clinical Trial. *JAMA Netw Open*. 2021;4(5):e2110936. doi:10.1001/jamanetworkopen.2021.10936
67. Nancarrow SA, Booth A, Ariss S, Smith T, Enderby P, Roots A. Ten principles of good interdisciplinary team work. *Hum Resour Health*. 2013;11:19. doi:10.1186/1478-4491-11-19
68. Rayan-Gharra N, Balicer RD, Tadmor B, Shadmi E. Association between cultural factors and readmissions: the mediating effect of hospital discharge practices and care-transition preparedness. *BMJ Qual Saf*. 2019;28(11):866-874. doi:10.1136/bmjqs-2019-009317
69. American Hospital Association. Building a Culturally Competent Organization: The Quest for Equity in Health Care. Published online 2011. Accessed July 26, 2022. <https://www.aha.org/system/files/hpoe/Reports-HPOE/cultural-competency2011.pdf>
70. Lindholm M, Hargraves JL, Ferguson WJ, Reed G. Professional language interpretation and inpatient length of stay and readmission rates. *J Gen Intern Med*. 2012;27(10):1294-1299. doi:10.1007/s11606-012-2041-5
71. U.S. Department of Health and Human Services. Overview: HHS Strategic Plan FY 2022–2026. Published March 18, 2022. Accessed July 27, 2022. <https://www.hhs.gov/about/strategic-plan/2022-2026/overview/index.html>

72. Malevanchik L, Wheeler M, Gagliardi K, Karliner L, Shah SJ. Disparities After Discharge: The Association of Limited English Proficiency and Postdischarge Patient-Reported Issues. *Jt Comm J Qual Patient Saf.* 2021;47(12):775-782. doi:10.1016/j.jcjq.2021.08.013
73. U.S. Department of Health and Human Services. Compendium of State-Sponsored National CLAS Standards Implementation Activities. Accessed August 17, 2022. <https://thinkculturalhealth.hhs.gov/assets/pdfs/CLASCompendiumWisconsin.pdf>
74. The Joint Commission. Advancing Effective Communication, Cultural Competence, and Patient- and Family-Centered Care: A Roadmap for Hospitals. Published online 2010. Accessed July 26, 2022. <https://www.jointcommission.org/-/media/tjc/documents/resources/patient-safety-topics/health-equity/roadmapforhospitalsfinalversion727pdf.pdf>
75. Center for Health Care Strategies. Interdisciplinary Care Teams for Medicare-Medicaid Enrollees: Considerations for States. Accessed July 25, 2022. <https://www.chcs.org/resource/interdisciplinary-care-teams-for-medicare-medicicaid-enrollees-considerations-for-states/>
76. Anderson A, Mills CW, Willits J, et al. Follow-up Post-discharge and Readmission Disparities Among Medicare Fee-for-Service Beneficiaries, 2018. *J Gen Intern Med.* Published online March 30, 2022:1-9. doi:10.1007/s11606-022-07488-3
77. Yen PH, Leasure AR. Use and Effectiveness of the Teach-Back Method in Patient Education and Health Outcomes. *Fed Pract.* 2019;36(6):284-289.
78. Agency for Healthcare Research and Quality. Strategy 4: Care Transitions From Hospital to Home: IDEAL Discharge Planning. Published 2017. Accessed July 26, 2022. <https://www.ahrq.gov/patient-safety/patients-families/engagingfamilies/strategy4/index.html>
79. Mendelev E, Mazumdar M, Keefer L, Gorbenko K. Physicians as Advisors Not Leaders of Multidisciplinary Teams: A Qualitative Study of an Innovative Practice. *Crohns Colitis* 360. 2019;1(3):otz040. doi:10.1093/crocol/otz040
80. O'Horo JC, Cerhan JR, Cahn EJ, et al. Outcomes of COVID-19 With the Mayo Clinic Model of Care and Research. *Mayo Clin Proc.* 2021;96(3):601-618. doi:10.1016/j.mayocp.2020.12.006
81. Agency for Healthcare Research and Quality. Implementation Quick Start Guide Medication Management. Published 2017. Accessed February 9, 2024. https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/patient-family-engagement/pfprimarycare/medmanage_quickstartfull.pdf
82. Ptasinski C. Develop a medication reconciliation process. *Nurs Manage.* 2007;38(3):18. doi:10.1097/01.NUMA.0000262921.31939.c5
83. Chan AHY, Horne R, Hankins M, Chisari C. The Medication Adherence Report Scale: A measurement tool for eliciting patients' reports of nonadherence. *Br J Clin Pharmacol.* 2020;86(7):1281-1288. doi:10.1111/bcp.14193
84. Bielsten T, Odzakovic E, Kullberg A, Marcusson J, Hellström I. Controlling the Uncontrollable: Patient Safety and Medication Management From the Perspective of Registered Nurses in Municipal Home Health Care. *Glob Qual Nurs Res.* 2022;9:23333936221108700. doi:10.1177/23333936221108700
85. Catalyst N. Hospital Readmissions Reduction Program (HRRP). *NEJM Catal.* Published online April 26, 2018. Accessed July 26, 2022. <https://catalyst.nejm.org/doi/full/10.1056/CAT.18.0194>

86. Wiest D, Yang Q, Wilson C, Dravid N. Outcomes of a Citywide Campaign to Reduce Medicaid Hospital Readmissions With Connection to Primary Care Within 7 Days of Hospital Discharge. *JAMA Netw Open*. 2019;2(1):e187369. doi:10.1001/jamanetworkopen.2018.7369
87. Hansen LO, Greenwald JL, Budnitz T, et al. Project BOOST: effectiveness of a multihospital effort to reduce rehospitalization. *J Hosp Med*. 2013;8(8):421-427. doi:10.1002/jhm.2054
88. Lee GA, Freedman D, Beddoes P, Lyness E, Nixon I, Srivastava V. Can we predict Acute Medical readmissions using the BOOST tool? A retrospective case note review. *Acute Med*. 2016;15(3):119-123.
89. Williams MV, Li J, Hansen LO, et al. Project BOOST implementation: lessons learned. *South Med J*. 2014;107(7):455-465. doi:10.14423/SMJ.0000000000000140
90. Corscadden L, Levesque JF, Lewis V, Strumpf E, Breton M, Russell G. Factors associated with multiple barriers to access to primary care: an international analysis. *Int J Equity Health*. 2018;17:28. doi:10.1186/s12939-018-0740-1
91. Smedley BD, Stith AY, Nelson AR, eds. Read “*Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*” at NAP.Edu. The National Academies Press; 2003. doi:10.17226/12875
92. Mansukhani RP, Bridgeman MB, Candelario D, Eckert LJ. Exploring Transitional Care: Evidence-Based Strategies for Improving Provider Communication and Reducing Readmissions. *P T*. 2015;40(10):690-694.
93. Vaughan CP, Fowler R, Goodman RA, Graves TR, Flacker JM, Johnson II TM. Identifying Landmark Articles for Advancing the Practice of Geriatrics. *J Am Geriatr Soc*. 2014;62(11):2159-2162. doi:10.1111/jgs.13087
94. Foiles Sifuentes AM, Robledo Cornejo M, Li NC, Castaneda-Avila MA, Tjia J, Lapane KL. The Role of Limited English Proficiency and Access to Health Insurance and Health Care in the Affordable Care Act Era. *Health Equity*. 2020;4(1):509-517. doi:10.1089/heq.2020.0057
95. Karliner LS, Pérez-Stable EJ, Gregorich SE. Convenient Access to Professional Interpreters in the Hospital Decreases Readmission Rates and Estimated Hospital Expenditures for Patients with Limited English Proficiency. *Med Care*. 2017;55(3):199-206. doi:10.1097/MLR.0000000000000643
96. Massachusetts Department of Public Health. Making CLAS Happen: Chapter 3 - Collect Diversity Data. Published online 2013. Accessed July 26, 2022. <https://www.mass.gov/doc/chapter-3-collect-diversity-data-0/download>
97. Hospitals in Pursuit of Excellence. Reducing Health Care Disparities: Collection and Use of Race, Ethnicity and Language Data. Published online 2013. Accessed July 26, 2022. <http://www.hpoe.org/resources/ahahret-guides/1431>
98. U.S. Department of Health and Human Services. Compendium of State-Sponsored National CLAS Standards Implementation Activities. Accessed August 17, 2022. <https://thinkculturalhealth.hhs.gov/assets/pdfs/CLASCompendiumWisconsin.pdf>
99. Bailey SC, Fang G, Annis IE, O’Conor R, Paasche-Orlow MK, Wolf MS. Health literacy and 30-day hospital readmission after acute myocardial infarction. *BMJ Open*. 2015;5(6):e006975. doi:10.1136/bmjopen-2014-006975
100. Deshpande OA, Tawfik JA, Namavar AA, et al. A Prospective Observational Study Assessing the Impacts of Health Literacy and Psychosocial Determinants of Health on 30-day Readmission Risk. *J Patient Exp*. 2022;9:23743735221079140. doi:10.1177/23743735221079140

101. Becker C, Zumbrunn S, Beck K, et al. Interventions to Improve Communication at Hospital Discharge and Rates of Readmission. *JAMA Netw Open*. 2021;4(8):e2119346. doi:10.1001/jamanetworkopen.2021.19346
102. Centers for Medicare and Medicaid Services Office of Minority Health. Coverage to Care Resources. Accessed June 16, 2023. <https://www.cms.gov/about-cms/agency-information/omh/health-equity-programs/c2c/consumer-resources>
103. Kuleana Health. Resources. Accessed July 24, 2023. <https://www.kuleanahealth.org/>
104. Hernandez LM, Blazer DG, Institute of Medicine (US) Committee on Assessing Interactions Among Social B. *The Impact of Social and Cultural Environment on Health*. National Academies Press (US); 2006. Accessed July 27, 2022. <https://www.ncbi.nlm.nih.gov/books/NBK19924/>
105. Santacroce D. Culturally Diverse Discharge Planning and Education. *Iris J Nurs Care*. 2019;1. doi:10.33552/IJNC.2019.01.000509
106. Canga-Picar C. Case Study: Advancing Transcultural Care through Cultural Competency. Accessed August 16, 2022. <https://www.aha.org/system/files/media/file/2022/01/case-study-advancing-transcultural-care-through-cultural-competency.pdf>
107. Zhang Y, Zhang Y, Sholle E, et al. Assessing the impact of social determinants of health on predictive models for potentially avoidable 30-day readmission or death. *PLoS ONE*. 2020;15(6):e0235064. doi:10.1371/journal.pone.0235064
108. Baker MC, Alberti PM, Tsao TY, Fluegge K, Howland RE, Haberman M. Social Determinants Matter For Hospital Readmission Policy: Insights From New York City. *Health Aff (Millwood)*. 2021;40(4):645-654. doi:10.1377/hlthaff.2020.01742
109. Thomas-Henkel C, Schulman M. Screening for Social Determinants of Health in Populations with Complex Needs: Implementation Considerations. Published online 2017. Accessed July 26, 2022. <https://www.chcs.org/media/SDOH-Complex-Care-Screening-Brief-102617.pdf>
110. Health PartnersPlans. Food as Medicine Model: A Framework for Improving Member Health Outcomes and Lowering Health Costs. Published online 2017. Accessed July 27, 2022. <https://www.healthpartnersplans.com/media/100225194/food-as-medicine-model.pdf>
111. Greenwood KL, LaMori JC, Smith B, Doshi D, Davis C. Impact of Behavioral Health Screening on Proactive Identification of Patients at Risk for Hospital Readmission. *Popul Health Manag*. 2019;22(3):196-204. doi:10.1089/pop.2018.0074
112. Benjenk I, Chen J. Effective mental health interventions to reduce hospital readmission rates: a systematic review. *J Hosp Manag Health Policy*. 2018;2:45. doi:10.21037/jhmhp.2018.08.05
113. Keisler-Starkey K, Bunch LN. Health Insurance Coverage in the United States: 2019. *US Census Bur*. Published online September 2020:60-271.
114. NORC at the University of Chicago. Supportive Service Expansion for Individuals with Serious Mental Illness: A Case Study of Mercy Maricopa Integrated Care. Published online 2017. Accessed July 27, 2022. <https://www.mercycareaz.org/assets/pdf/news/NORC-MercyMaricopa-CaseStudy.pdf>
115. Hertel M. *The Impact of Housing Programs and Services on Health Care Costs, Quality, and Member Experience*. NORC at the University of Chicago; 2018. Accessed July 27, 2022. <https://www.mercycareaz.org/assets/pdf/news/Housing-Report.pdf>

116. Kwok CS, Martinez SC, Pancholy S, et al. Effect of Comorbidity On Unplanned Readmissions After Percutaneous Coronary Intervention (From The Nationwide Readmission Database). *Sci Rep*. 2018;8:11156. doi:10.1038/s41598-018-29303-y
117. National Institute for Health, National Cancer Institute. History of the NCI Comorbidity Index. Last Updated April 26, 2023. Accessed July 24, 2023. <https://healthcaredelivery.cancer.gov/seermedicare/considerations/comorbidity.html>.
118. Kadri AN, Abuamsha H, Nusairat L, et al. Causes and Predictors of 30-Day Readmission in Patients With Syncope/Collapse: A Nationwide Cohort Study. *J Am Heart Assoc*. 2018;7(18):e009746. doi:10.1161/JAHA.118.009746
119. Moore BJ, White S, Washington R, Coenen N, Elixhauser A. Identifying Increased Risk of Readmission and In-hospital Mortality Using Hospital Administrative Data: The AHRQ Elixhauser Comorbidity Index. *Med Care*. 2017;55(7):698-705. doi:10.1097/MLR.0000000000000735
120. Spece LJ, Epler EM, Donovan LM, et al. Role of Comorbidities in Treatment and Outcomes after Chronic Obstructive Pulmonary Disease Exacerbations. *Ann Am Thorac Soc*. 2018;15(9):1033-1038. doi:10.1513/AnnalsATS.201804-255OC
121. Centers for Medicare & Medicaid Services. Health Equity Technical Assistance | CMS. Published 2022. Accessed July 29, 2022. <https://www.cms.gov/About-CMS/Agency-Information/OMH/equity-initiatives/Health-Equity-Technical-Assistance>
122. Agency for Healthcare Research and Quality. Gap Analysis Facilitator's Guide. Published 2017. Accessed July 28, 2022. <https://www.ahrq.gov/patient-safety/capacity/candor/modules/facguide3.html>
123. Meehan TP, Qazi DJ, Van Hoof TJ, et al. Process Evaluation of a Quality Improvement Project to Decrease Hospital Readmissions From Skilled Nursing Facilities. *J Am Med Dir Assoc*. 2015;16(8):648-653. doi:10.1016/j.jamda.2015.02.015
124. Fadol A, Estrella J, Shelton V, et al. A quality improvement approach to reducing hospital readmissions in patients with cancer and heart failure. *Cardio-Oncol*. 2019;5(1):5. doi:10.1186/s40959-019-0041-x
125. Agency for Healthcare Research and Quality. Communication and Dissemination Strategies To Facilitate the Use of Health-Related Evidence| Effective Health Care (EHC) Program. Published online 2012. Accessed July 28, 2022. <https://effectivehealthcare.ahrq.gov/products/medical-evidence-communication/research-protocol>
126. Brownson RC, Eyler AA, Harris JK, Moore JB, Tabak RG. Getting the Word Out: New Approaches for Disseminating Public Health Science. *J Public Health Manag Pract*. 2018;24(2):102-111. doi:10.1097/PHH.0000000000000673
127. Tsao CW, Aday AW, Almarzooq ZI, et al. Heart Disease and Stroke Statistics—2022 Update: A Report From the American Heart Association. Published online February 22, 2022. doi:10.1161/CIR.0000000000001052
128. Centers for Medicare & Medicaid Services. 2022 Condition-Specific Readmissions Measures Updates and Specifications Report. Published online May 2022. Accessed July 29, 2022. <https://qualitynet.cms.gov/inpatient/measures/readmission/reducing-readmissions>
129. Pandey A, Keshvani N, Khara R, et al. Temporal Trends in Racial Differences in 30-Day Readmission and Mortality Rates After Acute Myocardial Infarction Among Medicare Beneficiaries. *JAMA Cardiol*. 2020;5(2):136-145. doi:10.1001/jamacardio.2019.4845

130. Centers for Disease Control and Prevention. Basics About COPD - Chronic Obstructive Pulmonary Disease (COPD). Published June 9, 2021. Accessed August 17, 2022. <https://www.cdc.gov/copd/basics-about.html>
131. Mamary AJ, Stewart JI, Kinney GL, et al. Race and Gender Disparities are Evident in COPD Underdiagnoses Across all Severities of Measured Airflow Obstruction. *Chronic Obstr Pulm Dis J COPD Found.* 5(3):177-184. doi:10.15326/jcopdf.5.3.2017.0145
132. Goto T, Faridi MK, Gibo K, Camargo CA, Hasegawa K. Sex and racial/ethnic differences in the reason for 30-day readmission after COPD hospitalization. *Respir Med.* 2017;131:6-10. doi:10.1016/j.rmed.2017.07.056
133. Patel SA, Krasnow M, Long K, Shirey T, Dickert N, Morris AA. Excess 30-Day Heart Failure Readmissions and Mortality in Black Patients Increases With Neighborhood Deprivation. *Circ Heart Fail.* 2020;13(12):e007947. doi:10.1161/CIRCHEARTFAILURE.120.007947
134. Centers for Disease Control and Prevention. Disease of the Week - Pneumonia. Published October 8, 2021. Accessed August 17, 2022. <https://www.cdc.gov/dotw/pneumonia/index.html>
135. Yale New Haven Health Services Corporation - Center for Outcomes Research and Evaluation. 2021 Condition-Specific Readmissions Measures Updates and Specifications Report. Published online April 2021. Accessed August 16, 2022. <https://qualitynet.cms.gov/inpatient/measures/readmission/resources#tab3>
136. Downing NS, Wang C, Gupta A, et al. Association of Racial and Socioeconomic Disparities With Outcomes Among Patients Hospitalized With Acute Myocardial Infarction, Heart Failure, and Pneumonia: An Analysis of Within- and Between-Hospital Variation. *JAMA Netw Open.* 2018;1(5):e182044. doi:10.1001/jamanetworkopen.2018.2044
137. Maradit Kremers H, Larson DR, Crowson CS, et al. Prevalence of Total Hip and Knee Replacement in the United States. *J Bone Joint Surg Am.* 2015;97(17):1386-1397. doi:10.2106/JBJS.N.01141
138. Farley KX, Dawes AM, Wilson JM, et al. Racial Disparities in the Utilization of Shoulder Arthroplasty in the United States: Trends from 2011 to 2017. *JBJS Open Access.* 2022;7(2):e21.00144. doi:10.2106/JBJS.OA.21.00144
139. Cavanaugh AM, Rauh MJ, Thompson CA, et al. Racial and ethnic disparities in utilization of total knee arthroplasty among older women. *Osteoarthritis Cartilage.* 2019;27(12):1746-1754. doi:10.1016/j.joca.2019.07.015
140. Hu DA, Hu JB, Lee A, et al. What Factors Lead to Racial Disparities in Outcomes After Total Knee Arthroplasty? *J Racial Ethn Health Disparities.* Published online October 12, 2021. doi:10.1007/s40615-021-01168-4
141. Centers for Disease Control and Prevention. Chronic Kidney Disease in the United States, 2021. Published online 2021. Accessed August 17, 2022. <https://www.cdc.gov/kidneydisease/pdf/Chronic-Kidney-Disease-in-the-US-2021-h.pdf>
142. United States Renal Data System. 2020USRDS Annual Data Report: Epidemiology of kidney disease in the United States. Accessed August 17, 2022. <https://adr.usrds.org/>
143. Centers for Disease Control and Prevention. National Diabetes Statistics Report. Published January 20, 2022. Accessed July 29, 2022. <https://www.cdc.gov/diabetes/data/statistics-report/index.html>

144. Ostling S, Wyckoff J, Ciarkowski SL, et al. The relationship between diabetes mellitus and 30-day readmission rates. *Clin Diabetes Endocrinol*. 2017;3:3. doi:10.1186/s40842-016-0040-x
145. National Institute of Diabetes and Digestive and Kidney Diseases. Kidney Disease Statistics for the United States. Published September 2021. Accessed August 17, 2022. <https://www.niddk.nih.gov/health-information/health-statistics/kidney-disease>
146. United States Renal Data System. 2021 Annual Data Report: Epidemiology of Kidney Disease in the United States. Published online 2021. Accessed August 16, 2022. <https://adr.usrds.org/>
147. Center for Disease Control and Prevention. Characteristics of Hospitalized COVID-19 Patients Discharged and Experiencing Same-Hospital Readmission. *Morbidity and Mortality Weekly Report*. Published November 13, 2020. Accessed April 4, 2023. <https://pubmed.ncbi.nlm.nih.gov/33180754/>
148. Centers for Medicare & Medicaid Services Office of Minority Health. CARES Act Telehealth Expansion: Trends in Post-Discharge Follow-Up and Association with 30-Day Readmissions for Hospital Readmissions Reduction Program Health Conditions. Published January 2022. Accessed January 30, 2023. <https://www.cms.gov/files/document/omh-data-highlight-2022-1.pdf>
149. Roberts ET, Mehrotra A. Assessment of Disparities in Digital Access Among Medicare Beneficiaries and Implications for Telemedicine. *JAMA Intern Med*. 2020;180(10):1386-1389. doi:10.1001/jamainternmed.2020.2666
150. U.S. Department of Health and Human Services: Office of Disease Prevention and Health Promotion. Healthy People 2030 – Education Access and Quality. Accessed March 18, 2024. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/education-access-and-quality>
151. U.S. Department of Health and Human Services: Office of Disease Prevention and Health Promotion. Healthy People 2030 – Health Care Access and Quality. Accessed March 18, 2024. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/health-care-access-and-quality>
152. U.S. Department of Health and Human Services: Office of Disease Prevention and Health Promotion. Healthy People 2030 – Social and Community Context. Accessed March 18, 2024. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/social-and-community-context>
153. Semega J, Kollar M, Creamer J, Mohanty A. Income and Poverty in the United States: 2018. United States Census Bureau. Published September 2019. Accessed March 18, 2024. Income and Poverty in the United States: 2018 ([census.gov](https://www.census.gov))
154. U.S. Department of Health and Human Services: Office of Disease Prevention and Health Promotion. Healthy People 2030 - Economic Stability. Accessed March 18, 2024. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/economic-stability>
155. U.S. Department of Health and Human Services: Office of Disease Prevention and Health Promotion. Healthy People 2030 - Neighborhood and Built Environment. Accessed March 18, 2024. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/neighborhood-and-built-environment>