State of the State:
REDUCING
READMISSIONS
IN MASSACHUSETTS

M|H|A Massachusetts Hospital Association

The leading voice for hospitals.

Incentives targeting readmission reduction are intended to improve the delivery of care across settings and over time, and to reduce the losses and inefficiencies created by avoidable returns to the hospital.

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Letter from the President

Colleagues:

As part of the Massachusetts Hospital Association's (MHA's) ongoing healthcare quality improvement efforts, we've set a goal of reducing readmissions at our acute care hospitals. Our member hospitals have pursued this goal not only because it is in the best interests of the patients they serve, but because readmission reduction is built into payment models and federal and state cost-containment strategies. Hospitals must reduce readmissions or face payment penalties.

It is without dispute that the very idea of using readmissions data as a quality-of-care indicator has been the topic of discussion among health policy experts. Readmissions, the argument runs, track utilization and not necessarily care quality. There is a raging debate about how patient and community socioeconomic factors (rather than the quality of care provided) influence individual hospital performance on various readmission quality measures and penalty programs. And there is recognition that while successful readmission programs require the participation of the entire care continuum, the current system is flawed in that only hospitals are financially penalized when any component of that continuum fails.

Although we can easily tease out data that demonstrates Massachusetts hospital improvement in addressing readmissions, the blunt data that government and payers use to assess penalties paint Massachusetts in a relatively poor light.

These facts contributed to the purpose of this report: to analyze the generally accepted data, to use that data to identify actionable opportunities for improvement, and to detail some of the best practices now underway at Massachusetts hospitals and across the nation.

Our goal is to further stimulate a continuing focus among hospital leaders on the patterns and root causes of readmissions through an all-payer, all-cause lens so as to support the development of a robust portfolio of strategies to reduce readmissions. A robust portfolio is one designed to meet current financial incentives, prepare for rapidly changing future incentives and, most importantly, develop the organizational capabilities to reduce readmissions through delivering better care for individuals across settings and over time.

Through the MHA Board-endorsed SPIA goals (Statewide Performance Improvement Agenda), to our coordinating role through STAAR (STate Action on Avoidable Rehospitalizations) and the Hospital Engagement Network (HEN 1.0 and 2.0), MHA has assisted hospitals to improve their readmission rates. But has it been enough?

Our analysis of "Medicare 30-Day, Risk Standardized Readmission Measures" that have been collected for sequential three-year periods since 2005 demonstrated that in both Massachusetts and the United States, readmission rates for these conditions increased slightly or were unchanged over the three-year measure periods spanning 2005-2011. Commencing in the three-year period ending in 2012, and continuing in 2013 and 2014, rates declined distinctly in both Massachusetts and the United States.

But other readmissions data – which we detail in this report – show us holding steady since 2013 when it comes to reducing readmissions. And that data shows that Massachusetts lags the rest of the U.S. We chose to detail this particular data, because we want to set an aggressive benchmark.

Lowering readmissions is not easy. Patients move from one setting of care to another or from one set of care providers to another during an episode of illness. As patients and families navigate across new care settings and among different care providers, they often encounter communication challenges and confusion around who is clearly accountable for their care. This can lead to medical errors, duplication, increased costs and, sometimes, higher rates of re-hospitalization. It must be noted, however, that all parts of the U.S. face these same issues.

One takeaway from the following report is that caregivers must develop a "portfolio of strategies" to achieve readmission reduction goals. It is MHA's hope that this report spurs renewed thought among hospital leaders about how they can reassess their current portfolio to undertake new strategies, or further invest in current strategies, that will benefit patients and communities.

Sincerely,

Lynn Nicholas

Lynn Nicholas, FACHE
MHA President & CEO

About the Authors

Amy E. Boutwell, MD, MPP
*President, Collaborative Healthcare Strategies*

Boutwell works with hospitals, states, and the federal government to design and advise on approaches to improve care across settings. She founded Collaborative Healthcare Strategies to pursue work aligned with healthcare delivery redesign policies of the Affordable Care Act. A co-designer of the Institute for Healthcare Improvement's (IHI's) STate Action on Avoidable Rehospitalizations, Boutwell currently is strategic and technical advisor for the Massachusetts Health Policy Commission's $120 million CHART program, and an expert advisor to stakeholders in New York and Maryland on efforts to reduce readmissions. Boutwell is a graduate of Stanford University, Brown University School of Medicine, and the Harvard Kennedy School of Government. She trained in Internal Medicine-Primary Care at Massachusetts General Hospital and practices as a hospitalist at Mass. General and Newton-Wellesley Hospitals.

Patricia M. Noga, PhD, RN, MBA, NEA-BC
Vice President, Clinical Affairs, Massachusetts Hospital Association

Noga leads clinical and health system-related programs that support Massachusetts hospitals in continually improving patient safety, the quality of care, the healthcare workforce, and emergency preparedness. She leads the evolving quality and safety initiative, *PatientCareLink*, and heads up implementation of MHA's Statewide Performance Improvement Agenda focusing on initiatives to improve quality, improve efficiency, and improve safety. She leads the Massachusetts Hospital Engagement Network and also co-chairs MHA's Substance Use Disorder Prevention and Treatment Task Force. Noga received her Associate in Liberal Arts from Elmira College, her BS in Nursing from Skidmore College, her MBA from Suffolk University, and her PhD in health policy from the University of Massachusetts.
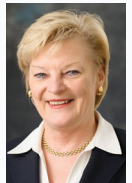
Steven M. Defossez, MD, EMHL
Vice President, Clinical Integration, Massachusetts Hospital Association

Defossez was a multi-term Medical Staff President at Northeast Hospital Corporation and led physician engagement during Northeast's affiliation with Lahey Clinic, and was subsequently a founding board member at Lahey Health. At MHA, he leads physician engagement while providing value to, and enhancing collaboration with, hospital-affiliated medical practices. He received his BA and MD from Tufts University and an Executive Master's in Healthcare Leadership from Brown University. He completed a surgical internship at Duke University Medical Center and a Radiology residency and MRI fellowship at Massachusetts General Hospital. He continues to practice MRI part time.

Executive Summary

The public and private sector call for hospitals to reduce readmissions is not new. Incentives targeting readmission reduction are intended to improve the delivery of care across settings and over time, and to reduce the losses and inefficiencies created by avoidable returns to the hospital.

Over the past several years, incentives to reduce readmissions have been introduced into the Massachusetts market in payer- and diagnosis-specific ways. Individually, these incentives have served to stimulate improvements in care for some groups of patients. An unfortunate consequence of payer-specific and diagnosis-specific incentives has been the emergence of balkanized efforts to find and serve certain patients with readmission risks – but not others. As a result, readmission rates have not dramatically improved, and the pace of improvement is not quick enough.

It is now clear that financial success under a wide variety of payment models and performance incentives will reward providers for minimizing hospital utilization – whether through population management in accountable care organizations, bundled payments for 90-day episodes of care, or value-based purchasing.

Beyond their motivation to provide high-quality patient care, Massachusetts hospitals are responding not only to payer-specific incentives and adjusting to new payment models, but are also being held accountable for the growth in healthcare costs in the state market, as a whole, given our legislative mandate of a 3.6% annual cost growth benchmark. Taken together, these market forces represent a tipping point for Massachusetts hospitals. It's time to understand readmissions from an all-cause, all-payer perspective and to take a strategic, delivery-system redesign lens to the challenge of reducing avoidable hospital utilization.

Isolated projects have been tried. Best practices have emerged from those projects. Important lessons and valuable expertise have been developed from the cauldron of trial and error. Readmission reduction efforts – including those that focus on improving hospital-based care, collaborating with post-acute care providers, deploying enhanced post-hospital transitional care, managing episodes of care under bundled payment, improving community based care and supportive services, and using technology to support delivery system improvement – are being implemented every day in Massachusetts.

▶ Our Key Observation

is that this wealth of best practice and implementation experience exist as "bright spots" within organizations and across the state. The challenge is that these bright spots are currently in place for some patients, of some payers, at some hospitals.

▶ A Second Observation

is that delivery systems and providers cannot simply flip a switch and have immediate success in implementing new processes and service models; the organizational capability and operational expertise required to launch, improve and optimize the effectiveness of these programs takes some time to develop.

▶ A Third Observation

is that delivery systems and providers appear to manage readmission reduction as a project distinct from strategic initiatives such as population health and efforts driven by risk-based contracting. Efforts to reduce avoidable utilization and manage care across settings and over time should be managed as an inter-related portfolio of strategies.

KEY RECOMMENDATIONS INCLUDE:

CONCEPTUALIZE READMISSION REDUCTION

Conceptualize readmission reduction efforts as an essential component of efforts to achieve high-value healthcare. Readmission reduction is a core competency of all risk-based population health payment models, including bundled payment for episodes of care, value-based purchasing formulae, and penalty programs.

DEVELOP A "PORTFOLIO OF STRATEGIES"

To achieve readmission reduction goals, develop a portfolio of strategies such as: improving transitions in care for all patients, collaborating with "receivers" of care following hospitalization, and providing enhanced services to cohorts of individuals with high readmission rates.

EXPAND EFFORTS TO ALL-PAYERS

Strategies that focus on specific payer contracts may be rational in the short term and may facilitate capability building, but will not support broad organization-wide or state-wide change.

USE DATA - QUANTITATIVE AND QUALITATIVE

Entities should use their data – quantitative and qualitative – to define hospital and community-specific readmission patterns. Instead of relying solely on discharge diagnosis, consider alternative ways of identifying high-risk features, such as discharge disposition, history of repeated hospitalizations, co-morbid behavioral health or substance use, frailty, medical complexity and/or social complexity.

INVEST IN THE TECHNOLOGY TOOLS

Invest in the technology tools to support robust programs of aligned efforts to manage care across settings and over time.

State of the State:
Market Incentives and the Case for Accelerating Progress

In 2014, there were approximately 484,000 adult, non-childbirth related discharges in Massachusetts and roughly 74,000 readmissions, yielding an all-cause, all-payer readmission rate of 15.3%. Individuals covered by Medicaid or Medicare had the highest readmission rates (17% and 17.4%, respectively), whereas individuals covered by commercial payers had the lowest (10.3%). Individuals discharged to skilled nursing facilities or to home healthcare had higher readmission rates (18.3%) than those discharged to home (12.1%). Readmission rates were highest in Fall River and lowest on Cape Cod. Disproportionate share hospitals (DSH) had slightly lower readmission rates (15.3%) than non-DSH hospitals (15.5%).[1]

Efforts to reduce readmissions in Massachusetts have been part of the healthcare landscape in Massachusetts for many years.[2] Over the years, these efforts have involved the leadership and support of the Massachusetts Hospital Association; the Massachusetts Coalition for the Prevention of Medical Errors; the Massachusetts Senior Care Association; the Massachusetts Health Policy Commission; CMS-based programs such as the Medicare Readmissions Reduction Program, Community-based Care Transitions, Pioneer Accountable Care Organizations, Medicare Shared Savings, Bundled Payment for Care Improvement Initiative, the Duals demonstration, and the Quality Improvement Organization program; commercial payers through pay for process and risk-based contracting, in addition to many other organizations.

Various provider types are engaged in efforts to reduce readmissions, including hospitals, physician organizations, accountable care organizations, bundled payment initiators, skilled nursing facilities, home health agencies, hospice and palliative care providers, aging service access points, community behavioral health organizations, social service agencies, and others.

Medicare Readmission Penalties

As a market, and despite various hospital initiatives, Massachusetts hospitals have among the highest Medicare readmission rates in the nation. Consequentially, Massachusetts hospitals have received – and continue to receive – among the most readmission penalties in the nation. In the most recent fiscal year, 55 Massachusetts hospitals – 78% of all eligible hospitals in the state – received readmission penalties. (Nationally, 54% of all eligible hospitals received such readmission penalties.) The average readmission penalty for Massachusetts hospitals was a 0.7% reduction in total Medicare fee-for-service Diagnosis-Related Group (DRG) payments. Massachusetts had the seventh highest percentage of hospitals receiving any penalty and the eleventh highest average magnitude of penalty per hospital in the nation.

Some would argue that the incomplete alignment of financial incentives to systematically reduce readmissions is a root cause of minimal change at the organizational and, therefore, the state level. That is, the rational responses to heterogeneous financial incentives have resulted in pockets of contract-specific efforts to reduce hospital utilization, rather than an all-patients, all-the-time strategy. It is demonstrably true that incentives have been rolled out in a piecemeal manner. For instance, "population health" efforts only focus on specific subgroups of patients, often with specific conditions, risk scores, and cost or utilization parameters. The creative 90-day management strategies employed by bundled payment initiators to manage care over time and across settings are also narrowly focused on patients of certain payers, with certain diagnoses. Readmission reduction efforts often focus specifically on Medicare patients with the "penalty condition" diagnoses.

1. Massachusetts Center for Health Information and Analysis (CHIA). Hospital-Wide Adult All-Payer Readmissions In Massachusetts: 2011-2014. Boston, MA. February 2016. Available at: http://www.chiamass.gov/assets/docs/r/pubs/16/chia-readmissions-report-2011-2014.pdf
2. Boutwell AE, Johnson MB, Rutherford PR, Watson S, Vecchioni N, Auerbach B, Griswold P, Noga P, Wagner C. An Early Look at a Four-State Intervention to Reduce Avoidable Hospital Readmissions. Health Affairs, 30(7):1272-80. July 2011

Hence, while some focused efforts have resulted in measureable improvement for well-defined sub-populations, the overall all-cause, all-payer Massachusetts readmission rate remains at 15%. Although these dynamics describe the past five years, they do not predict the next five years. The pace of change in financial incentives is accelerating, not diminishing. CMS intends to move quickly from 20% (end of 2014) to 30% (end of 2016) to 90% of all payments as value-based by 2018.[3]

Cost Growth Benchmarking

At the state level, market forces (and, in some cases, regulatory forces) advance healthcare reform through a focus on quality and safety metrics, the cost of readmissions, a cost growth benchmarking goal, and increased adoption of risk contracts and various alternative payment systems.

A key provision of the 2012 Massachusetts healthcare cost containment law, Chapter 224 of the Acts of 2012, was to establish a benchmark against which the annual change in healthcare spending growth can be measured. In 2014, healthcare cost growth exceeded this cost-growth benchmark. It should be noted that this occurred not because of total medical expense growth at hospitals or physicians' practices, but due to one-time MassHealth changes and escalating pharmaceutical costs. The statewide total healthcare expenditure growth benchmark applies to individual healthcare entities; payers and providers whose cost growth threatens achieving statewide healthcare cost containment goals may be required by the state to develop plans to control costs.

Efforts to control statewide cost growth rely on reducing hospital utilization; efforts to succeed in risk-based payment contracts rely on reducing hospital utilization; efforts to succeed in bundled payments rely on reducing hospital utilization; and efforts to transform the delivery system to better manage care across settings and over time will be determined to have been successful if hospital utilization declines. And, in fact, hospital utilization *is* declining.

3.   Centers for Medicare and Medicaid Services. Better Care. Smarter Spending. Healthier People: Paying Providers for Value, Not Volume. January 26 2015. Available at: https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2015-Fact-sheets-items/2015-01-26-3.html
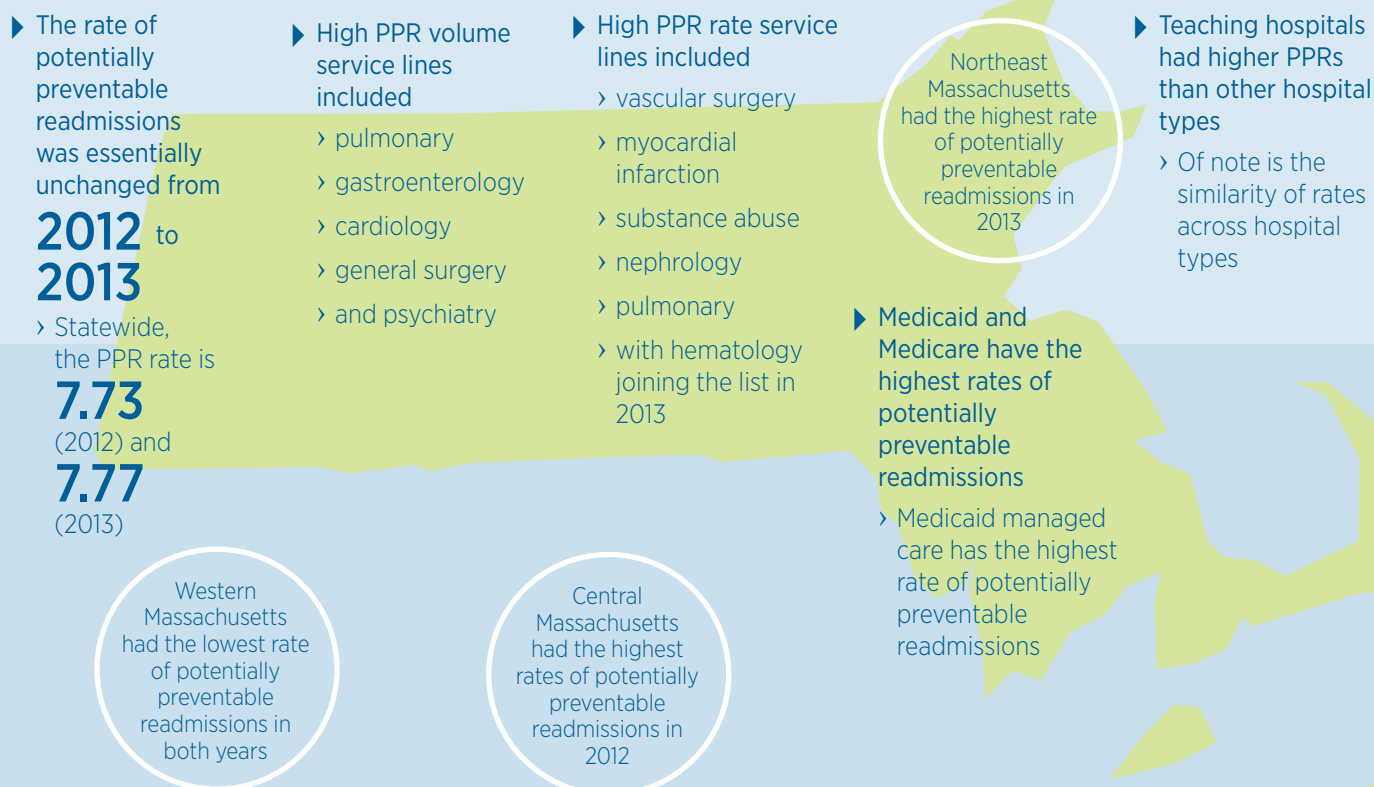
To date, providers and healthcare stakeholders in Massachusetts have relied on payer-specific readmissions analyses, primarily on information CMS provided regarding Medicare fee-for-service beneficiaries only and, secondarily, via confidential reports commercial payers provided based on a limited subset of readmissions. Some payer-specific analyses, including those from CMS, focus providers on a set of diagnoses pre-determined by the payer to be a priority. However, readmissions occur across all payer types and following discharges for all conditions. For the purposes of providing a fresh, updated understanding of the opportunities to reduce readmissions in Massachusetts, we will provide a brief overview of the available data reports and the insights each offers hospital and health system leaders in understanding the issue.

Insights from the MHA 3M Potentially Preventable Readmission (PPR) Project

The Massachusetts Hospital Association uses the 3M potentially preventable algorithm to analyze readmissions. The potentially preventable algorithm attempts to limit readmission analysis to measure only those readmissions that might reasonably be expected to be "potentially preventable," according to the clinical judgment of the method developers.[4]

RESULTS OF ANALYSES FY 2012 and FY 2013 SHOW THE FOLLOWING:

▶ The rate of potentially preventable readmissions was essentially unchanged from
2012 to 2013
› Statewide, the PPR rate is
7.73
(2012) and
7.77
(2013)

▶ High PPR volume service lines included
› pulmonary
› gastroenterology
› cardiology
› general surgery
› and psychiatry

▶ High PPR rate service lines included
› vascular surgery
› myocardial infarction
› substance abuse
› nephrology
› pulmonary
› with hematology joining the list in 2013

Northeast Massachusetts had the highest rate of potentially preventable readmissions in 2013

▶ Teaching hospitals had higher PPRs than other hospital types
› Of note is the similarity of rates across hospital types

▶ Medicaid and Medicare have the highest rates of potentially preventable readmissions
› Medicaid managed care has the highest rate of potentially preventable readmissions

Western Massachusetts had the lowest rate of potentially preventable readmissions in both years

Central Massachusetts had the highest rates of potentially preventable readmissions in 2012

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4.   Goldfield NI, et. al. Identifying Potentially Preventable Readmissions. *Health Care Financing Review, Volume 30, Number 1. Fall 2008*

MEDICARE FFS BENEFICIARY ACUTE CARE HOSPITAL 30-DAY ALL CAUSE READMISSION RATES, ALL AGES, MASSACHUSETTS & UNITED STATES

◆ Massachusetts ■ United States
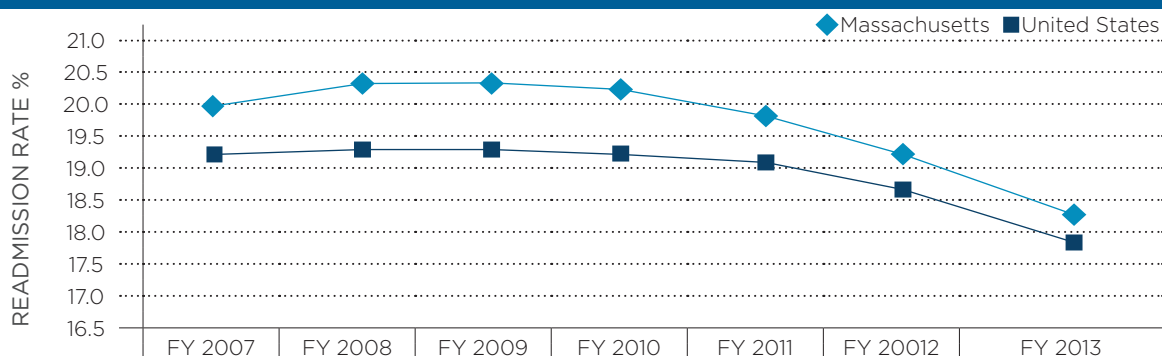
Source: MHA analysis of CMS Variation Public Use File, https://www.cms.gov/Research-Statistics-Data-and-Systems/ Statistics-Trends-and-Reports/Medicare-Geographic-Variation/GV_PUF.html (State/County Table—All Beneficiaries)

Insights from MHA Analysis of 30-Day Unadjusted All Cause Readmission Measures for Medicare Fee for Service (FFS) Beneficiaries of All Ages

As part of MHA's Board-approved Statewide Performance Improvement Agenda (SPIA), MHA has been working with hospitals since 2009 to reduce preventable readmissions. In addition to the 3M PPR measure, MHA has tracked 30-day unadjusted all-cause readmission rates for Medicare FFS beneficiaries of all ages in Massachusetts and the U.S. from the CMS Geographic Variation Public Use File.[5]

▸ Readmission rates have declined at the national and state level since 2008.
  › The rates of change in readmission rates in both Massachusetts and the U.S from 2007 through 2013 dropped for five consecutive years and more rapidly in Massachusetts than the national rate decline in four of the five years until 2013 when the U.S. dropped by 6.7% versus 5.0% in Massachusetts.

▸ The pace of reduction was more rapid in Massachusetts, reducing the difference between Massachusetts and the national average from 8.1% in 2008 to 2.3% in 2013.
  › Of note, Massachusetts hospitals began focusing their efforts on reducing readmissions through multiple interventions and initiatives beginning in 2009.

While some in the past have wondered if the substitution of observation stays for readmissions accounts for any of the improvement in hospitals nationwide and in Massachusetts have made in reducing hospital readmissions, a recent *New England Journal of Medicine* article that analyzed data from 3,387 hospitals, stated, "Within hospitals, there was no significant association between changes in observation-unit stays and readmissions after implementation of the ACA ... Readmission trends are consistent with hospitals' responding to incentives to reduce readmissions, including the financial penalties for readmissions under the ACA. We did not find evidence that changes in observation-unit stays accounted for the decrease in readmissions." [6]

Insights from the CHIA Statewide All Payer Readmission Report

The Center for Health Information and Analysis (CHIA) in February 2016, published its second annual all–payer, all-condition analysis of readmissions in Massachusetts. CHIA adapted the Hospital-Wide All Cause Unplanned 30-Day Readmission Measure developed by CMS and the Yale Center for Outcomes Research and Evaluation. Hospital leaders are encouraged to read the full report and to reference their hospital-specific report.[7]

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5. MHA, unpublished data. 2015

6. Zuckerman RB, et. al., Readmissions, Observation, and the Hospital Readmissions Reduction Program. New England Journal of Medicine. February 24, 2016

7. CHIA. Hospital-Wide Adult All-Payer Readmissions In Massachusetts: 2011-2014. February 2016

KEY FINDINGS FROM FY 2014 CHIA REPORT INCLUDE:

▶ There were approximately 484,000 discharges and 74,000 readmissions.

› Readmission analysis focuses on the adult, non-obstetric population.

▶ The all-payer all-cause readmission rate in Massachusetts is 15.3%.

› FY2014, all cause; from any Massachusetts hospital to any Massachusetts hospital.

▶ Since 2011, the statewide all payer readmission rate has decreased by 5%.

› In FY2011 the rate was 16.1%, in 2012 15.5% and in 2013 the rate was 15.2%

› Readmissions from 2011 to 2014 decreased by 13,354 or 15.26%

▶ Medicare and Medicaid readmission rates are high – and essentially the same.

› The all cause readmission rate for Medicare was 17.4% and the all cause readmission rate for Medicaid was 17.0%. The commercial rate was 10.3%.

▶ Patients covered by public payers accounted for 81% of all readmissions.

› There were 49,155 Medicare readmissions, and 10,951 Medicaid readmissions.

▶ Over one-third of all readmissions occur within a week of discharge.

› 37% of all readmissions occurred within 7 days and 61% occurred within 2 weeks.

▶ Only 1/3 of all readmissions occur following a "top 10" diagnosis.

› The top 10 discharges diagnoses that resulted in the most readmissions include: heart failure, COPD, sepsis, pneumonia, renal failure, kidney and urinary tract infections, arrhythmia, cellulitis, alcohol abuse and dependence, and digestive system diagnoses.

› All those readmissions combined accounted for <24,000 of the 74,000 readmissions.

▶ 7% of hospitalized patients accounted for 25% of all hospitalizations and 58% of all readmissions.

› The readmission rate for people with four or more hospitalizations in a year is 36%.

› The readmission rate for people with three or fewer hospitalizations in a year is 8.5%.

▶ Fall River was the region with the highest observed (unadjusted) readmission rate at 18.4%.

› The region with the lowest readmission rate was Cape Cod & the Islands at 13.3%.

▶ Readmission rates for hospitals in systems are not better than hospitals that are not in systems, with the singular exception of Cape Cod Healthcare.

▶ Disproportionate share hospitals do not have higher readmission rates once patient case mix and hospital service mix are taken into account.

› DSH hospitals (39) account for 57% of discharges and 58% of readmissions in the state.

› DSH hospitals' risk standardized readmission rates were lower (15.3%) than non-DSH hospitals' rates (15.5%).

▶ There is wide variability in readmission patterns for individual hospitals in Massachusetts.

› Variation exists in top diagnoses associated with readmissions, the proportion of readmissions that go to other hospitals, and the proportion of patients who are high utilizers.

› Hospitals should reference their CHIA hospital-specific reports and use their own data to understand patterns of readmissions at their organizations.

Insights from Medicare QIO Reports

INSIGHTS

CMS funds Quality Improvement Organizations (QIOs) to support quality improvement in the Medicare program on a regional basis. Massachusetts' QIO, Healthcentric Advisors, produces quarterly statewide and regional analyses of readmissions for the Medicare fee-for-service beneficiary population. Given that most readmissions occur among the Medicare population, these analyses offer additional insights into Medicare readmissions patterns in Massachusetts. The period for these Massachusetts Medicare fee-for-service readmission rates is Quarter 3 2013 through Quarter 2 2015. We encourage hospital leaders to request reports for their region.[8]

▶ Medicare readmission rates are unchanged from 2013-2015 (Q3 2013-Q2 2015).

› The Medicare all-cause readmission rate is 18%.

› In 2014 there were about 255,000 Medicare discharges and about 47,000 readmissions.

▶ Proportions associated with "penalty condition" readmissions are low.

› In 2014 there were 988 readmissions following discharge for heart attack; 1,574 for pneumonia and 3,478 for heart failure – 2%, 3%, and 7% of total readmissions, respectively.

› The 3 diagnoses resulted in 6,000 of the 47,000 readmissions – or only 12% of all readmissions.

▶ Most Medicare patients are discharged to post- acute care (skilled nursing facilities and home health).

› In Q1 2015, 61% of Medicare discharges were to post-acute care.

› Almost 70% of all readmissions occurred among patients discharged to post-acute care.

▶ Readmission rates among patients discharged to post-acute care are high.

› In Q1 2015, the readmission rate among patients discharged to home health or to skilled nursing facilities (SNF) was 20%. The readmission rate among Medicare patients discharged home was 16%.

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8. New England Quality Innovation Network-Quality Improvement Organization (Healthcentric Advisors). Massachusetts Medicare Fee-For-Service Readmission Rates. Unpublished Data Report. 2015

Qualitative Insights from Patients and Providers

As important as it is to maintain an updated understanding of the patterns of readmissions as revealed through data analyses, data analytics alone do not suffice to provide a complete understanding of the circumstances of the individuals who experience readmissions. Qualitative information – obtained by asking patients, their caregivers, and their providers – yields actionable and locally relevant insights into the human and systems factors that contribute to readmissions.

Readmission reduction teams must directly engage the experience and perspective of patients, their caregivers, and community-based providers to accurately understand the root causes of readmissions.[9] Directly examining and analyzing readmissions substantially deepens teams' understanding of the issues patients, their caregivers, and their outpatient providers encounter in the days to weeks following a hospitalization. "Readmission reviews" are a best practice of numerous hospitals across the nation. The principles of the readmission interview or readmission review have been outlined in quality improvement guides and are operationalized in a wide variety of ways.[10] The regular practice of examining readmission events creates and reinforces an environment of learning and continuous improvement; this characterizes the best readmission reduction efforts nationally.

Readmission reviews reveal why the patient, caregiver, and/or community-based provider decided on a return to the hospital soon after discharge. Hospitals across Massachusetts have conducted such reviews. Here are some examples of readmission stories from Massachusetts hospitals and their patients:

41 YEAR OLD WOMAN with long-standing, stable HIV presented to the hospital with pneumonia. Diagnosed with an AIDS-definition condition and started on antibiotics for the pneumonia and antiretrovirals for the HIV. She returned to the hospital eight days later with cough. When asked what could have been done to avoid a readmission, the woman, who had neither a PCP nor an infectious disease physician, said, "It would have been helpful if you had scheduled a follow-up appointment for me."

» Readmission contributing factors: new diagnosis, new medications, lack of primary care, lack of specialty care, lack of diagnosis-appropriate social support.

47 YEAR OLD WOMAN with multiple psychiatric and medical comorbidities has more than 100 ED visits and 10 hospitalizations in the past year. She has a prescribing psychiatrist, behavioral health therapist, primary care physician, and lives in a group home that is staffed 16 hours a day. Staff at the group home and the patient were interviewed and found that the patient calls 911 at 9 p.m. out of anxiety when the group home staff goes off duty.

» This anecdote suggests that the common belief that frequently readmitted persons lack access to community-based primary, behavioral, and social support services may not represent a complete picture of the challenge. While access to these enhanced services is often necessary, it alone is not sufficient to ensure a reduction in potentially preventable readmissions.

9. Jiang J, Boutwell AE, et. al. *Understanding Patient, Provider and System Factors Related to Medicaid Readmissions. Joint Commission Journal on Quality and Patient Safety. March 2016*

10. Boutwell AE, et. al. *AHRQ Hospital Guide to Reducing Medicaid Readmissions. Also, Boutwell AE. Transitions: Handle With Care Readmission Reduction Playbook. Maryland Hospital Association. June 2014 and IHI STAAR 2009*

61 YEAR OLD MAN with a history of seven readmissions in four months was hospitalized for shortness of breath and was readmitted for shortness of breath. He has numerous conditions that could contribute to shortness of breath, including: heart failure, COPD, ongoing tobacco use, anxiety, depression, morbid obesity, deconditioning and obstructive sleep apnea. When asked what can be done to help reduce the frequency with which he is hospitalized, he replied he's in the hospital every month for a 4- or 5-day tune-up and that's just the way it is.

» Softens a common belief that frequently readmitted persons are fundamentally dissatisfied with being readmitted; the clinician who interviewed the patient realized the patient is comforted and comfortable in the hospital setting, especially as compared to his daily life with one meal a day in a single-room occupancy apartment.

» Suggests that persons with multifactorial symptomatic presentations may be readily (re)admitted to the inpatient setting when they present to the ED. Even when "complex" with numerous comorbidities and possible etiologies for the presenting symptom, the clinical team confirms the management required was not complex.

88 YEAR OLD MAN returned to the hospital one day after discharge because the medications on his discharge list were different from his home medications. His primary care physician was unable to provide the rationale or clarifications on the changes the hospital staff had made and referred the patient back to the ED.

» Reminds us of the importance of best practices in medication reconciliation, documentation of the reasons for medications, and the rationale for changes. It is important to provide receiving clinicians with real-time information as well as a mechanism for responding to clarifications rather than readmission.

32 YEAR OLD MAN with consequences of a lifetime of poorly controlled Type 1 diabetes, (including heart attack, transient ischemia attacks, advanced renal failure, amputation) and comorbid mood disorder, substance use disorder, homelessness, and a criminal history presented to a hospital with chest pain for the first time in that hospital's medical record. An extensive, multi-specialty workup of his numerous comorbidities was launched. The inpatient team came to discover that the patient had been in a hospital or ED bed in the greater metro area at least 120 days of his 180 days of freedom since being released from prison. When asked, the patient stated, "I need a stable residence. I need someone to help me take my medicines. In a shelter they don't do that and they kick you out every morning. I need a stable residence and no one is able to help with that."

» This person is seeking shelter. The root cause of his recurrent readmissions is not the acute, but rather ongoing, management of his medical, behavioral, and social needs.

A team a Kaiser Permanente in Northern California conducted readmission interviews on hundreds of readmitted patients across more than a dozen Kaiser Hospitals.[11] Rather than identify "the" reason for readmission, this team captured "all the" factors that contributed to the readmission event. Taking this approach, they found an average of nine factors contributed to each readmission that they considered potentially avoidable.

A team at a Philadelphia hospital adapted the readmission interview approach and applied it to interview individuals who experienced ED revisits within 30 days of a prior ED visit.[12] These interviews revealed an unexpected profile of individuals who returned to the ED soon after a visit: average age was 43, most had a primary care physician, most cited no challenges accessing or affording medications. The authors' synthesis of the factors contributing to the revisits was "fear and uncertainty about their condition," and suggested that "patients need more reassurance during and after episodes of care…and access to advice between visits."

These examples demonstrate the importance of seeking to enhance data analyses with the voice of the patient, their caregivers, and providers as hospitals seek to refresh their understanding of readmissions in Massachusetts.

11. Feingenbaum, et. al. Factors contributing to all-cause 30-day readmissions: a structured case series across 18 hospitals. Medical Care, 50(7):599-605. July 2012

12. Rising KL, et. al. Return Visits to the Emergency Department: The Patient Perspective. Annals of Emergency Medicine, Volume 65, No. 4. April 2015

State of the State:
Best Practices

There is no shortage of ways in which hospitals and health systems are working to reduce readmissions. At this point in the field, it is heterogeneity that best characterizes hospital and health system efforts to reduce readmissions. For the purposes of discussion we will discuss these diverse efforts in the following categories:

▶ Improving Hospital-Based Care

▶ Collaborating with Providers/Agencies Across the Continuum

▶ Providing Enhanced Services

Improving Hospital-Based Care

The published literature on readmissions is replete with descriptions of the ways in which hospital-based processes governing the transition from the hospital to the next setting of care demonstrate opportunities for improvement.[13] This literature documents the following safety and quality issues hospitals must address:

› Lack of consistent screening for readmission risk factors

› Lack of sufficiently robust assessment of readmission risks and/or post-hospital needs

› Lack of effective communication with patients and their caregivers

› Lack of timely communication with the next provider of care

› Poorly executed medication management across settings and providers

› Lack of discussion of goals of care

› Underutilized palliative care and hospice

Because there are numerous ways in which current hospital-based practices and processes need to be improved, an AHRQ–funded research team at Boston University articulated the innovative concept, "when discharge is everyone's job, it's no one's job." This concept led to the development of a "discharge checklist" with the important designated role of "discharge advocate." It is not just the checklist that improves care, but rather assigning a person the role of being accountable for ensuring that all items on the checklist are reliably and consistently delivered for each individual.[14] Improved hospital-based transitional care practices and processes are a requisite for all patients. They should not be limited to patients determined to have high-risk of readmission or those Medicare patients discharged with "penalty" conditions. CMS has recently made these expectations clear in the updated discharge planning Conditions of Participation.[15]

13. Boutwell AE, Jencks, Nielsen, Rutherford. *Reducing Avoidable Rehospitalizations: Applying early evidence and experience in front-line process improvements to develop a state-based strategy. IHI White Paper Series. 2009*

14. Jack, et. al. *A Reengineered Hospital Discharge Program to Decrease Rehospitalization. Annals of Internal Medicine, 150:178-187. 2009*

15. Centers for Medicare and Medicaid Services. *Medicare and Medicaid Programs: Revisions to Requirements for Discharge Planning for Hospitals, Critical Access Hospitals and Home Health Agencies. November 2015. Available at https://www.federalregister.gov/articles/2015/11/03/2015-27840/medicare-and-medicaid-programs-revisions-to-requirements-for-discharge-planning-for-hospitals*

Massachusetts hospitals have learned a great deal about implementing safer, more reliable and higher-quality transitional care practices. Lessons learned from testing and re-evaluating practice changes include:

IDENTIFYING READMISSION RISK FACTORS

- A Massachusetts hospital team used the BOOST "8P" tool that reminds clinicians of eight domains of readmission risk, such as polypharmacy or poor social support, to create a risk score for readmissions. They only executed an "enhanced discharge" for patients with a "BOOST 8P score" above a certain threshold. Ultimately, they realized that this was not the way the tool was intended to be used when they conducted a one-week survey of all inpatients at the hospital and realized that 75% of all inpatients had at least one readmission risk factor according to the tool. They learned that this – and other – readmission risk assessment tools are to identify any and all readmission risks, so as to prompt the team to address and mitigate those issues. [16]

INCLUDING THE "CARE PLAN PARTNER" IN EDUCATION AND ONGOING CARE PLANNING

- A Massachusetts hospital identified the "care plan partner" on the white board in the patient's room. The staff consistently ask who the "care plan partner" is, using this inclusive term – rather than family member or healthcare proxy – in recognition of the fact that the key support person may not be a nuclear family member.

IDENTIFYING READMITTED PATIENTS IN REAL-TIME THROUGH IT FLAGS

- In 2009, a Massachusetts hospital periodically generated reports to identify readmitted patients. They identified patients who had been readmitted within 4-5 days of discharge. That list would be the work list for post-hospital follow up. Today, the hospital has an automated icon visible to all on the ED tracking board that the patient is returning within 30-days of a prior visit. This allows for real-time awareness that the patient is a potential 30-day readmission, facilitating alternative assessments and decisions in real-time, prior to a readmission event.

IMPLEMENTING NURSE-LED "WARM HAND-OFFS" TO SKILLED NURSING FACILITY PROVIDERS

In 2014 a Massachusetts hospital instituted a new policy that nurses would conduct a "warm hand off" of all patients who were being discharged to a skilled nursing facility. From conception to training to sustaining the initiative took approximately nine months. This represents a substantial workflow change for bedside nurses, but the practice change was supported by training, clear scripting, and clear instructions of who to call and how. Auditing and feedback was provided until the practice was "hard-wired." Bedside nurses report this is a value-added effort that improves patient care and allows important information to be transferred that might otherwise be lost.

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16. Risk Assessment - 8P Project BOOST® Implementation Toolkit. Available at: http://www.hospitalmedicine.org/Web/Quality_Innovation/Implementation_Toolkits/Project_BOOST/Web/Quality____Innovation/Implementation_Toolkit/Boost/BOOST_Intervention/Tools/Risk_Assessment.aspx

CHANGING PHYSICIAN PRACTICE TO ACHIEVE SAME-DAY DISCHARGE SUMMARIES

- A Massachusetts hospital system has successfully changed physician workflow to achieve the completion of discharge summaries on the day of discharge. This workflow change was supported by modest incentive payments combined with auditing and feedback to individual physicians, groups, and chiefs of service. This represents a significant change for many physicians whose former expectation was to complete a discharge summary within 30 days of discharge.

RAISING PHYSICIAN AWARENESS OF READMISSIONS THROUGH READMISSION ALERTS

A Massachusetts physician organization is raising physician awareness of readmissions by sending real-time readmission alerts to the discharging physician (including residents) when a patient they cared for is readmitted within 30 days.

The physicians are encouraged to see the patient and communicate with the current inpatient providers to promote continuity. A modest incentive is provided.

SCHEDULING FOLLOW-UP APPOINTMENTS AT A TIME CONVENIENT FOR THE PATIENT PRIOR TO DISCHARGE

- A Massachusetts hospital achieved success in scheduling follow-up appointments prior to discharge by engaging unit secretaries to complete the task. Unit secretaries ask the patient to confirm who their primary care physician is and identify times that would be acceptable to the patient for the post-hospital appointment. The unit secretaries quickly established back office lines at physician offices to reduce wait time and delays in accomplishing the task.

NOTIFYING THE PCP OF THE ADMISSION AND "ONE-LINER" AT THE TIME OF ADMISSION, AT THE TIME OF DISCHARGE, AND PROVIDING A HOSPITAL-BASED PHYSICIAN NAME AND CONTACT INFORMATION

- A Massachusetts hospital that has 100% of its medical admissions admitted to an inpatient hospitalist service uses an internal and external handoff communication tool to provide real-time information to primary care physicians and all relevant specialists. The communication identifies the current hospitalist of record and provides the attending's name, e-mail, and the hospitalist service phone number.

Collaborating Across the Continuum

Equally important as work to improve hospital-based care processes is the need to improve the actual transition of care from the hospital to the next setting.[17] Specific effort should be made to conduct more than just a handoff, or the provision of a timely discharge summary.

For most hospitals, developing outcomes-oriented cross-setting partnerships, systems and processes is new work requiring dedicated effort, collaboration between "senders" and "receivers," and continuous cycles of testing and improvement.

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17. Boutwell AE. Transitions: Handle With Care Readmission Reduction Playbook. Maryland Hospital Association. June 2014. And Boutwell AE, Maxwell J, Bourgoin A, Genetti S. Hospital Guide to Reducing Medicaid Readmissions. Agency for Healthcare Research and Quality. Bethesda MD. August 2014

Here are some examples of cross-continuum collaborations that are reducing readmissions:

CONVENE A REGULAR MEETING OF CROSS-CONTINUUM PROVIDERS

- A Massachusetts hospital started hosting a meeting of post-acute and community-based providers and social service agencies in 2009. Over years, the meeting has maintained a quarterly schedule and routinely draws more than 40 participants. The large cross-continuum meeting serves as a regional forum to update awareness of each other's efforts to respond to common market incentives – specifically, reducing avoidable hospitalizations, improving patient experience at time of transitions, engaging patients and caregivers in care, etc. This hospital has meetings with subgroups of the larger group to advance detailed transitional care process improvement topics, such as hospital-to-SNF transitions.

- A Massachusetts hospital meets with the 5-8 highest volume skilled nursing facilities in its referral market. These meetings are foundational meetings prior to the potential development of a preferred-provider network of SNFs. Meetings include readmission or acute care transfer data sharing from each facility and the hospital, a review of a small number of recent SNF-to-hospital transfers, and a review of a small number of hospital-to-SNF transfers. These meetings have led to a series of improvements and a stronger collaboration to reduce avoidable readmissions.

REVIEW READMISSION EVENTS FROM A CROSS-CONTINUUM PERSPECTIVE

- Readmissions are rarely the linear result of a singular gap or unmet need, but rather the convergence of several challenges in the post-hospital time period. Reviewing readmission events with a cross-continuum team can greatly accelerate a hospital teams' understanding of the numerous transitions in care that occur during a 30-day period. Consider the patient who transitions from hospital to SNF to home care to PCP to resumption of dialysis and initiation of anticoagulation and home-based services all within a 30-day period. Or consider the transition of hospital to "home" when the home environment is a group home with behavioral health staff who have a strong relationship with behavioral health prescribers but varied connections with their clients' primary care physicians.

- A Massachusetts hospital "high utilizer" team identified all the providers associated with the care of a young adult with behavioral health needs who had been hospitalized more than 10 times and seen in the ED more than 30 times in the past year. Although everyone in the hospital's emergency department and psychiatry unit knew this patient, it wasn't until 2015 – and with the encouragement to meet with "cross-continuum providers" of shared patients – that the hospital held a meeting with all the providers involved in this individual's care. Interestingly, hospital providers thought that perhaps this individual was not well connected to community-based services and supports. However, they learned it was quite the opposite; the individual was actively being serviced by a wide variety of behavioral health, housing, social services, and medical providers. This insight meaningfully changed the problem-solving discussion from "linking to comprehensive services" to "coordinating about the specific care plan" among all providers. Further discussions revealed patient-specific strategies to attempt to reduce the frequency of the patient calling Emergency Services in a low-acuity situation.

ARTICULATE "SHARED EXPECTATIONS" BETWEEN THE "SENDERS" AND "RECEIVERS" OF CARE

In Massachusetts and healthcare markets nationwide, individual hospitals, systems, ACOs, and bundled payment providers are engaging in very similar conversations about shared objectives, alignment of systems and process, all to essentially the same end of reducing avoidable readmissions. Massachusetts has provided a nationally recognized blueprint for streamlining some basic components of improved interdependent processes to achieve better clinical and financial outcomes.

- The Massachusetts Senior Care Association and the Boston-area Pioneer Accountable Care Organizations engaged in a nationally-renowned process of establishing "shared expectations" between "senders" (the hospitals/ACOs) and "receivers" (the SNFs) for the specific purposes of improving the transition in care to reduce readmissions among patients discharged to skilled nursing facilities. The Shared Expectations document was developed iteratively, with transparency, and shepherded through numerous revisions by trusted leaders from the ACO and SNF communities. [18]

- Building on this process, the Home Care Alliance of Massachusetts developed a proposed set of "shared expectations" to define an improved standardized baseline in care transitions between hospitals and home care and between SNFs and home care. Additionally, the document articulates practices the hospital and home care agency would engage in should a patient be transferred from home to the emergency department. [19]

UNDERSTAND THAT THE "RECEIVER" GETS TO DEFINE WHAT AN EFFECTIVE TRANSITION IS

- A maxim to adopt is "the receivers get to define what constitutes an effective transition." This perspective really turns the classic referral relationship dynamic on its head. Several Massachusetts hospitals participated in a Worcester-based collaborative with 16 post-acute and community-based providers to identify the elements of an improved transition of care. A series of detailed meetings convened to identify the information that receivers need revealed several insights: receivers of care do not need, nor can they effectively use, the virtual or real reams of information that are bluntly compiled and transmitted in their current forms. Receivers require information that is tailored to the care setting. For example, skilled nursing facilities require much more detailed information regarding personal, nursing, therapies and cognitive and behavioral health status than is transmitted to them in standard hospital discharge paperwork. Particularly important are elements that are consistently needed but often missing, such as: time of last pain medication administration, "sundowning" behaviors and effective management strategies, conflicts or unresolved issues about goals of care, radiographic confirmation of picc line placement, advanced communication regarding medications that may not be on a SNF's formulary, and detailed and accurate transmission of behavioral health comorbidities.

- This work in Massachusetts was foundational to the IMPACT (Improving Medicare Post-Acute Transformation Act) of 2014 thanks to several champions in Massachusetts.[20]

18. http://www.mhaonline.org/docs/default-source/presentations-and-talking-points/a-boston-pioneer-aco-39-s-shared-expectations---building-from-the-ground-up.pdf

19. http://www.nehcc.com/_documents/_session_handouts/Amy-Boutwell-Establishing-Shared-Expectations-with-ACOs-and-Bundled-Payment-Providers.pdf

20. http://www.mehi.masstech.org/press-releases/successful-health-care-pilot-central-massachusetts-shows-potential-national-model

DEVELOP SHARED TRANSITIONAL CARE PROCESSES, SUCH AS WARM HANDOFFS

- Provider-to-provider handoffs allow for a semi-standardized handoff of pertinent clinical information, provide an opportunity for clarification and further queries. This is the clinical standard of care within hospitals when shifts change or services change; thus it is logical to consider the value of a warm handoff – or at least providing a meaningful opportunity to seek timely, verbal clarification or seek additional information – to the receiver of care. Efforts to implement warm handoffs have largely started with handoffs to skilled nursing facilities, which makes good sense. Other provider types may also meaningfully benefit from warm handoffs.

- In North Carolina, a universal warm handoff protocol was developed at Carolinas Healthcare System when it noted a high rate of readmissions among patients discharged to skilled nursing facilities. Starting with one patient, a social worker at one hospital was charged to develop a feasible strategy for conducting warm handoffs. After a series of small-scale tests, the strategy was deployed and adopted across the multi-hospital system for all patients discharged to SNF. The elements of their handoff process include the bedside nurse calling to give a verbal nurse-to-nurse report once the patient has been accepted to the facility and a bed is available. Within 3-24 hours – depending on time of day and workflow – the nurse calls the facility back and asks a series of brief questions, including whether the hospital has provided the SNF everything it needs to provide excellent care of the patient. This exemplifies the new, collegial, interdependent and mutually accountable relationship that senders and receivers must establish when they are accountable for co-producing an effective transition and avoiding readmissions.

IDENTIFY CROSS-CONTINUUM PARTNERS THAT SHARE ACCOUNTABILITY IN PRODUCING OUTCOMES

Hospital readmission reduction teams should be aware of the non-hospital entities in the market that have the same, or very similar, pressing incentives to reduce readmissions.

- Skilled nursing facilities will be subject to readmission penalties in FY18 (October 2017). Interestingly the "SNF readmission penalty" will not start with a few select diagnoses, as did the hospital readmission penalty program, but rather will start as an all-cause, all-condition readmission measure. Home healthcare agencies in Massachusetts are subject to value-based purchasing incentives similar to hospital value-based purchasing incentives. Specifically, unplanned hospitalizations within the first 60 days of home health (again, non-condition specific), ER utilization without hospitalization (non-condition specific), and a measure called "discharge to the community" (opposite of admitted to inpatient) are all components of the value-based purchasing performance calculations. Finally, physician-led accountable care organizations, bundled payment providers, and other entities that are at risk for total cost of care are all entities that are aligned with Massachusetts hospitals' incentives to reduce avoidable hospital utilization.

EXPAND CROSS-CONTINUUM PARTNERSHIPS TO SPECIFICALLY INCLUDE PROVIDERS OF SOCIAL, BEHAVIORAL, AND AGING CLINICAL AND NON-CLINICAL SERVICES

- Many hospitals start their cross-continuum teams by engaging with providers of post-acute care. This is logical, and a good place to start. Once these collaborations are underway, consider the numerous other providers and agencies with whom collaborations would improve transitions to the community, including: social service agencies, aging service access points, behavioral health providers, group homes, assisted living facilities, other supportive housing providers, community health centers, community behavioral health providers, mobile outreach and/or crisis teams, legal advocates, and faith-based organizations. Providers need to use data analysis, patient interviews, and cross-continuum team relationships to identify the highest leverage community providers and agencies with whom to actively collaborate.

DEVELOP ACTIVE, ONGOING CLINICAL COORDINATION IN THE POST-HOSPITAL PHASE

- Hospitals, bundled payment providers, or accountable care organizations that have a clear incentive to minimize avoidable (re)admissions have rapidly innovated new practices to "reach in" to the post-acute and home-based environments to actively monitor and virtually collaborate with the direct providers of care so as to more effectively respond to patient needs as they evolve over the post-hospital phase. An ACO in Massachusetts hosts weekly virtual rounds on ACO patients in skilled nursing facilities and/or home with home healthcare services. A Massachusetts hospital–based high-risk care team follows patients throughout the 30-day transitional period, including into and during a skilled nursing facility stay, and continues monitoring the patient as an adjunctive collaborator even when there is a an active home healthcare episode underway.

Providing Enhanced Services

For some patients, high-quality inpatient care and a good handoff to the next setting of care may not suffice to ensure post-hospitalization recovery. For this subgroup of individuals, additional post-hospital – or transitional care – services are required to minimize the risk of readmission. Transitional care services range from shorter-term to longer-term and from low-intensity to high-intensity and from low-cost to high-cost. Regardless of the time course, service intensity, or cost, transitional care services are intended to be deployed to improve patient care, reduce readmissions, and thus reduce the total cost of care. Examples of enhanced services include:

SELF-MANAGEMENT COACHING

* The Care Transitions Intervention (CTISM) has been widely disseminated as a low cost, short term cost-efficient and clinically effective transitional care model. In brief, the CTI model uses coaches to deliver a structured series of four interactions in the transitional care period comprised of a home visit and three phone calls. CTI coaches are trained to promote patient and caregiver self-management skills. [21]

"COACHING-PLUS"

* Although not endorsed by the developer of the CTISM model, some providers deliver modified versions of self-management coaching. Some programs build on the coaching model by providing additional needs assessments, social work assessments, goals of care counseling, navigation services, and direct provision of other social services. [22]

NURSE PRACTITIONER PROVIDED TRANSITIONAL CARE

* The Transitional Care Model (TCM) has also been disseminated widely as a higher-intensity, cost-efficient, and clinically effective transitional care model for medically complex patients at very high risk of readmission. The TCM uses a nurse practitioner as a transitional care clinician. [23]

SOCIAL WORKER PROVIDED TRANSITIONAL CARE

* The Bridge model of transitional care uses a masters-prepared social worker as a transitional care clinician. Using the skill set of a social worker in motivational interviewing, needs assessment, advocacy, navigating, and awareness of community-based services and supports, the Bridge model is distinguished by focusing on whole-person needs and serial reassessment of needs as they change over time. [24]

PALLIATIVE CARE

* Hospitals and providers increasingly recognize that chronic, recurrent symptomatic conditions are a key driver of recurrent acute care utilization for some patients. Providers are developing inpatient and outpatient palliative care services and/or including palliative care providers on interdisciplinary transitional care teams.

21. Coleman EA, et. al. The Care Transitions Intervention Results of a Randomized Controlled Trial. JAMA Internal Medicine, Vol. 166, No. 17. Sept. 25, 2006. Available at: http://archinte.jamanetwork.com/article.aspx?articleid=410933

22. See Community-based Care Transitions Program (CCTP) site summaries at: https://innovation.cms.gov/initiatives/CCTP/CCTP-Site-Summaries.html

23. Naylor MD, et. al. Transitional Care of Older Adults Hospitalized with Heart Failure: A Randomized Clinical Trial. Journal of the American Geriatric Society, 52(5), 675-684. 2004

24. Boutwell AE, et.al. An Analysis of a Social Work-based Model of Transitional Care to Reduce Hospital Readmissions: Preliminary Data. Journal of the American Geriatrics Society. Accepted for publication October 20, 2015; also, see the Illinois Transitional Care Consortium's Bridge Model at: http://www.asaging.org/blog/integrating-care-across-settings-illinois-transitional-care-consortium's-bridge-model

PHARMACIST PROVIDED TRANSITIONAL CARE

- Pharmacists are also engaged either as transitional care providers or as a part of an interdisciplinary transitional care team. Pharmacists may provide a wide range of services, including medication reconciliation; medication dose adjustment recommendations; medication regimen optimization, and recommendations to adjust regimens to promote adherence, reduce side effects, and ensure affordability. Pharmacists act as transitional care providers, meeting patients in the inpatient setting prior to discharge and following up via phone or in the home within days of discharge.

INTERDISCIPLINARY TRANSITIONAL CARE TEAM

- Some providers have assessed their patients to have heterogeneous clinical, behavioral and social needs that place them at increased risk of readmission. Interdisciplinary transitional care teams include any of a variety of skill sets, including lay navigators, community health workers, pharmacists, nurse navigators, social workers, behavioral health providers, nurse practitioners, and/or physician medical directors.

OTHER ENHANCED SERVICES

- There are some readmission risks that can be addressed directly by providing resources to address specific needs that, if unmet, present risks of readmission. Examples include: lack of transportation, inability to pay for medications, lack of in-home monitoring, lack of timely post-discharge clinical follow up, etc. Entities that are financially accountable for utilization find it cost-effective to provide:

  - Transportation
  - Initial and recurrent 30-day refills of medications if needed
  - In-home services such as home keeping support
  - Home safety or other equipment
  - In-home, face-to-face, telephonic, or virtual checks, remote monitoring, and/or in-home clinical follow up
  - Telemedicine consults to reduce barriers to travel or reduce wait times
  - Post-discharge transitional care clinics to reduce wait times

Enhanced Services Provided by Non-Hospital Entities

TRANSITIONAL CARE MANAGEMENT (TCM) BY PRIMARY CARE

- Practices that serve as a primary care provider to Medicare fee-for-service beneficiaries can be compensated for providing a suite of post-hospital transitional care services. These services leverage the practice-based team, and include early post-discharge contact and follow up and services that demonstrate the team has reviewed, re-assessed, educated, and coordinated care following a hospitalization. Specifically, the codes require post-discharge contact with the patient or caregiver within two business days of discharge, and a face-to-face visit within 7 or 14 days.

PATIENT-CENTERED MEDICAL HOME-PROVIDED TRANSITIONAL CARE

- Patient-centered medical homes (PCMH) have care managers and additional practice-based team members to engage in transitional care for their patients. Best practices include running daily reports of patients who have been in the ED or admitted to the hospital, as well as "reaching in" to the inpatient setting to collaborate with inpatient teams and to participate in discharge planning. Best practices include using e-mail, phone, virtual and in-home contact during the transitional care period; providing teaching and medication review; ensuring medications are obtained, regimens are clear, and needed clinical and supportive services are in place. In the best examples, the patient and caregivers recognize the PCMH care manager as their comprehensive resource, and proactively contact that manager with questions, concerns, or emerging symptoms that can allow for a timely intervention to avoid readmissions.

INTENSIVE CARE MANAGEMENT

- Intensive care management is typically delivered by nurse care managers over a longer time period than 30-days post discharge. Ongoing care management is most commonly seen as an investment by an entity that is financially accountable for the total cost of care of a group of patients over time, such as an insurer or an ACO. Services are most commonly delivered telephonically. Patients are usually targeted based on predictive models that attempt to identify which patients have future utilization or cost risks that are amenable to care management.

EPISODE-BASED CARE MANAGEMENT (BUNDLES)

- Entities that are financially accountable for a 30-, 60-, or, most commonly, 90-day episodes of care directly engage in post-hospital transitional care. Bundled payment providers are among the leading innovators in redesigning and reorganizing care across settings and over a defined time period, and notably work to proactively and comprehensively identify and address "whole-person" needs. Bundled payment providers – especially for planned episodes of care – assess post-hospital transitional care, recovery and support needs during the planning period prior to a planned event, such as surgery. Bundled payment providers fluidly use devices, technologies, in-home providers and move patients "up" the care continuum to intensify clinical supports if needed via home health or skilled nursing facilities. They take care to reduce avoidable emergency department and hospital utilization whenever safe and appropriate.

Emerging Practices

Massachusetts providers are actively innovating and testing new methods, developing new tools, adopting new technologies, and deploying new management efforts to reduce readmissions. Efforts to reduce re-admissions increasingly include strategies deployed in the Emergency Department.[25, 26, 27] In addition, numerous teams are focused on improving care for high utilizers of the ED or the inpatient setting.

Because hospitals are managing multifaceted strategies and deploying enhanced services to manage care across settings and over time, technology-enabled performance management assists teams to identify, implement, and assess program success in real-time. New leadership roles are emerging that define the delivery system capabilities of tomorrow.

The Emergency Department

REAL-TIME IDENTIFICATION

- The emergency department is the entry point of care for the vast majority of hospitalized patients. Identifying patients who have been recently discharged when they arrive in the emergency department offers a valuable opportunity to avoid a readmission. Develop an alert in the emergency department to identify patients who are returning to the hospital within 30 days of a prior visit. For some hospitals, such flags already exist on ED tracker boards. For other Massachusetts hospitals, information technology staff have created alerts in existing electronic systems.

- Hospitals in Massachusetts are using real-time identification flags to provide dedicated readmission reduction or high-utilizer care teams with the real-time information they need to identify a patient at the moment they present to the facility. The dedicated care team can collaborate with ED providers to identify whether alternatives to (re)admission can be mobilized.

TREAT-AND-RETURN

- A great opportunity in emergency departments across Massachusetts is to take advantage of the INTERACT (Interventions to Reduce Acute Care Transfers) process that many skilled nursing facilities have adopted. The purpose of INTERACT is to identify and respond to changes in clinical status earlier in an effort to avoid a transfer from a skilled nursing facility. When an ED transfer does occur, nursing facilities send a standardized transfer form and a packet of information. The one-page transfer form includes the reason for transfer, a name and contact number for a clinician at the nursing facility, information about baseline functional and cognitive status, and code status, among other items. An additional INTERACT tool is the "Nursing Home Capabilities List" which enumerates clinical capabilities of the facility.

- The chief of an emergency department in Massachusetts noted that readmission rates among patients from SNFs was very high. He asked the ED providers to reflect on why such high proportions of patients transferring to their ED from a SNF were admitted. Responses reflected a belief that if the patient was sent from the SNF to the ED then clearly the SNF couldn't take care of the patient. They reviewed local SNF capabilities, using the tool from INTERACT, and set a goal of returning more patients from the ED to the SNF, when safe and appropriate. Over a measurement period of 12 weeks, the ED retuned 300% more patients to a SNF after evaluation in the ED. This is readmission reduction at the "front door" of the hospital.

25. Rising KL, White LF, Fernandez WG, Boutwell AE. *Emergency Department Visits After Hospital Discharge: A Missing Part of the Equation. Annals of Emergency Medicine, 62(2):145-50. August 2013*

26. Boutwell AE, New York State Partnership for Patients. *The Role of the Hospitalist in Reducing Readmissions. Healthcare Association of New York State and Greater New York Hospital Association. Albany, New York. January 2015*

27. Boutwell AE, Silber S, Nguyen D, Ryan L, Melville L. *Post-Acute Care: What Does it Have to Do With Me? Current Emergency and Hospital Medicine Reports, 2(1):9-15. March 2014*

Improving Care for Individuals who Frequent the Acute Care Setting

DEFINE AND QUANTIFY HIGH UTILIZERS

- Not only do individuals with a personal history of repeated hospitalizations comprise a large proportion of readmissions, but they are among the patients at greatest need of enhanced services and support to break a cycle of repeated (re) admissions. Massachusetts hospitals have identified high utilizers as patients with four or more admissions in the past 12 months. Other Massachusetts hospitals identify high utilizers as individuals who have had several (e.g. 10 or more) ED visits in the past 12 months.

- Hospitals in Massachusetts have defined their high utilizer populations, quantifying the number of individuals who meet high-utilizer criteria and their total number of ED visits or admissions. Once annual utilization is established, teams estimate the number of high-utilizer encounters that will occur on a monthly and daily basis. This helps teams accurately estimate daily and weekly volume.

DEVELOP "CARE PLANS"

- The term "care plan" is a heterogeneous term that doesn't necessarily convey the varied content and use of a plan. Massachusetts hospital teams are developing a wide variety of care plans – some are brief "patient summaries," others are "patient profiles" and others include a medical psycho-social needs assessment and patient-focused action plan. Massachusetts hospital teams are using care plans as a tool to guide individualized approaches to slowing a cycle of repeated hospital utilization.

- ED care plans can be helpful to quickly summarize to an ED-based clinician the utilization history and repeated presentation profile. ED care plans are typically a paragraph to one page, and at minimum include a summary of prior repeated presentations, repeated testing, focused recommendations, and the name and contact information of the high-utilizer care team. It does not attempt to summarize an entire medical history or social needs assessment.

- Comprehensive care plans include medical history, including medications, behavioral health, and social needs assessments. Also included are the full range of clinical and supportive service providers, goals of care, and MOLST forms. Often the patients' specific goals are used to guide which needs or what supports are prioritized.

Technology-enabled Performance Management and Program Analytics

Once a multi-faceted portfolio of strategies is developed, it is important to track and manage the implementation and outcomes of the programs and services in place.

PERFORMANCE MANAGEMENT

- Key items to measure and optimize include: how many target population patients presented? How many were engaged prior to discharge? What proportion of planned tasks were completed prior to discharge? What proportion of patients were contacted within a certain amount of time following discharge? What proportion of planned tasks were completed following discharge? What is the readmission rate for patients who received all planned services? Only part of planned services? Among eligible patients who refused or received no planned services?

- The use of a shared implementation platform is especially helpful when transitional care services are delivered by different organizations and/or providers over time. Consider the case of a transitional care program in which certain assessments are performed prior to discharge by the inpatient team, medications are delivered by an on-site pharmacy, and post-hospital transitional care is delivered by a community-based service agency. Capturing implementation of each element allows the program manager to identify opportunities to optimize the reliable delivery of each program element.

- Multi-faceted strategies that serve a number of different target populations with different interventions benefit from automated methods for identifying target population patients and assigning them to the appropriate intervention within the portfolio. One Massachusetts hospital is implementing post-ED supports and services in four strata of intensity. They intend to serve hundreds of individuals a month, and find the process of automating patient identification, eligibility, and triage to the appropriate service intensity saves time that can be best used by conducting assessments and delivering services.

ANALYTICS

- As hospitals continue to innovate and develop effective strategies to reduce readmissions, it is essential to collect data to analyze program effectiveness. Similarly it is essential to have the support or the tools required to track outcomes. Hospital teams need to have access to data analysts and/or access to data analytics tools that can produce frequent analysis of readmission patterns in a variety of ways: by payer, by discharge disposition, by day of week, time of day, by service, by floor, by clinical diagnosis, etc.

State of the State:
Implementation Challenges And What's *Not* Working

Although Massachusetts hospitals have been working on efforts to reduce readmissions in a variety of ways, few individual hospitals have enjoyed hospital-wide readmission reductions, and the performance of all hospitals collectively has not improved recently, despite years of effort. [28]

Time and effort is precious, and if current efforts are not producing the results expected, it is prudent to consider why this might be the case.

> ▶ **Consideration 1**: Readmission reduction efforts are too narrowly focused

The CMS readmission penalty program has focused hospitals on reducing readmissions for Medicare patients discharged with heart failure, heart attack, pneumonia, COPD, and following hip or knee replacements. Consider the following calculations from a hospital that has responded to these incentives by hiring a heart failure nurse care manager.

The heart failure nurse care manager ensures that a comprehensive set of clinical issues and teaching points are addressed during the hospitalization, provides telephonic contact within 24-48 hours post-discharge whether to SNF, home health or to home, ensures services and follow up appointments are made and kept, and reviews and clarifies medications at every point of contact. As needed, this clinician can mobilize a 30-day supply of medications at discharge, transportation, and/or a home visit from the system's home health agency.

The heart failure nurse care manager is expected to serve two new patients daily, follow up with existing patients in-house, and follow up with recently discharged patients. Under this scenario, the clinician is expected to serve:

- 2 new patients daily x 225 work days per year = 450 "heart failure discharges" per year

The hospital's Medicare heart failure readmission rate is 25%. Thus, they can expect:

- .25 x (450) = 112 heart failure readmissions per year

The heart failure nurse care manager service is expected to reduce readmissions by 20%. Thus they expect the intervention will result in:

- .2 x (112) = 22 fewer heart failure readmissions per year
- 90 remaining heart failure readmissions
- This would bring the new heart failure readmission rate to = 90 / 450 = 20%

The heart failure nurse care manager does his job exceptionally well. Patients and families respond very well to his outreach and support; clinicians in the inpatient and outpatient settings value his contributions to elevating the quality of transitional care for these patients.

However, this successful, targeted program only reduced the hospital's Medicare readmission rate from 16% to 15.8%. The hospital leadership was under the impression that a focused investment to reduce heart failure readmissions should mitigate the hospital's Medicare readmission problem. The following calculations demonstrate why this targeted effort did not translate into significant hospital-wide results:

- Total Medicare discharges: 9,000 per year
- Medicare readmission rate: 16%
- Total Medicare readmissions (.16 x 9000) = 1,440
- Number of readmissions averted by intervention = 22
- Readmission rate following intervention: (1440-22)/9000 = 15.8%
- Intervention yielded a 1.5% reduction in hospital-wide Medicare readmission rates

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28. *CHIA, 2016; New England Quality Innovation Network-Quality Improvement Organization, 2015; Rau, J. Half of nation's hospitals fail again to escape Medicare's readmission penalties. Kaiser Health News. August 3, 2015. Available at http://khn.org/news/half-of-nations-hospitals-fail-again-to-escape-medicares-readmission-penalties/*

▶ **Consideration 2**: Readmission reduction efforts not deployed for "scale"

Another scenario is that a readmission reduction effort may not be deployed to meet the volume of the target population. Take the same example of the above-described heart failure nurse care manager. He is scheduled to see two new patients a day, 225 working days per year. Thus, he is expected to serve 450 heart failure patients (discharges) annually.

In the above scenario, there were exactly 450 heart failure discharges per year. However, it is more common to find that a readmission reduction initiative under-performs because it is designed to target more patients than staffing levels can accommodate.

If a hospital has 1,000 heart failure related discharges per year and is staffed to serve 450, the intervention may be perfectly effective in reducing readmissions by 20% for the patients that are served. However, the impact on heart failure readmissions is much less because it was inadequately staffed:

- 1,000 heart failure related discharges per year

- 25% heart failure readmission rate

- Expect .25 * 1,000 = 250 readmissions

- Intervention is expected to reduce heart failure readmissions by 20%

- .2 * 250 = 50 fewer readmissions

- However only 450 heart failure related discharges are served

- Expect (450 * .25) = 112 readmissions will be reduced by 20% = 22 fewer readmissions

- Note, this is "half" of the expected impact of the program (22 v. 50 fewer readmissions)

- Results 250-22 = 228 readmissions/1000 discharges = 22.8% readmission rate

- Readmission rate decreased by 9% instead of 20%

▶ **Consideration 3**: Readmission reduction resources (staff) are diluted over time

Another scenario is that the heart failure nurse care manager, although staffed appropriately to allow for sufficient time to manage transitional care for 450 heart failure patients per year, is asked over time to assume more and more responsibilities within his department. This results in an appropriately designed and resourced intervention under-performing due to lack of sustained dedication of resources.

For example, if in the first quarter of the program, the heart failure care manager saw exactly as many patients as predicted, the second quarter 20% less, the third quarter 25% less and the fourth quarter 30% less, the heart failure care manager will have only seen 366 discharges instead of 450 and thus the impact of the program would accordingly be less than predicted.

> ▶ **Consideration 4**: Readmission reduction efforts are not focused on a target population so measuring impact of interventions is impossible

Commonly, hospital teams are unable to quantify the impact of readmission reduction efforts because the efforts are deployed in a non-systematic manner.

An example of this may be: "best practices" are taught and clinicians are encouraged to provide best practice services as often as possible for all patients determined by either a risk score or clinical judgment to be at high risk of readmission. Best practices include: identifying a care plan partner with whom to discuss post-hospital care plans, conducting a comprehensive post-hospital needs assessment, contacting the ambulatory provider(s) to collaborate on the plan of care, offering bedside delivery of medications prior to discharge, making a post-hospital follow up appointment prior to discharge, and using the teach-back technique to improve patient and care plan partner understanding of key items.

Any of these strategies deployed in isolation is not likely to be singularly effective in reducing readmissions. These strategies in consistent combination are likely to reduce readmissions. However, when the parameters of implementation are not known – neither implemented for a consistently identifiable population, nor implemented in a consistently thorough manner – it will likely appear that these strategies are ineffective in reducing readmissions.

> ▶ **Consideration 5**: The readmission reduction strategy is ineffective

Finally, we consider the possibility that the readmission reduction strategy is ineffective in reducing readmissions. This conclusion is able to be made if:

- The target population is defined and able to be quantified (e.g. all Medicare FFS patients discharged with heart failure, or all patients discharged from 4 West)

- The intervention is deployed to meet the volume of patients in the target population

- The intervention is sustained at the intended level of intensity/effort/volume

There are many reasons why a given readmission reduction strategy may be ineffective. Continuous improvement techniques should be used to regularly monitor for program impact, elicit root causes of failure of implementation or in outcomes, and to stimulate insights to make iterative modifications to both the intervention offered and the manner in which it is implemented.

State of the State:
Readmissions, Socioeconomic Status and Social Needs

Readmissions and Social Needs: Current Trends in the Field

A data-informed and patient-centered interpretation of the root causes of readmissions suggests that a wealth of non-clinical factors contribute to readmission events.

- The Centers for Medicare and Medicaid Services (CMS) Innovation Center (CMMI) has funded and continues to fund hundreds of millions of dollars' worth of contracts and demonstrations aimed at reducing total costs of care and avoidable acute care utilization through better linkage to, and coordination with, social and personal support services.

- The most recent of these CMMI initiatives is called the Accountable Health Communities Model, about which CMS states, "many of the biggest drivers of health and healthcare costs are beyond the scope of healthcare alone. Health-related social needs often are left undetected and unaddressed. Unmet health-related social needs…lead to avoidable healthcare utilization." The AHC model seeks to address "a critical gap between clinical care and community services in the current delivery system…The foundation of the AHC model is universal, comprehensive screening for health-related social needs…aim[ing] to identify and address beneficiaries' health-related social needs." [29]

- The $8 billion Medicaid transformation effort in New York state specifically requires hospitals and healthcare providers to partner with, collaborate with, and build formal infrastructure to support better coordination between clinical and social service providers in order to reduce avoidable hospitalization by 25%.[30]

The newly proposed CMS Conditions of Participation for Discharge Planning (COPS) – compliance with which is required to receive Medicare and Medicaid payments – now requires hospitals to provide behavioral health-specific discharge instructions for any patient with a behavioral health comorbidity leaving the hospital.

- The new COPS further require that hospitals must customize discharge plans to the specific needs of individuals, stating that, "the discharge needs of patients with…mental health and substance use disorders, socio-economic and literacy barriers…would require a more extensive discharge plan that takes into account these factors." [31]

29. CMS, Accountable Health Communities Model, at https://innovation.cms.gov/initiatives/ahcm/

30. New York State, Delivery System Reform Incentive Payment (DSRIP), at https://www.health.ny.gov/health_care/medicaid/redesign/dsrip/overview.htm

31. Medicare and Medicaid Programs; Revisions to Requirements for Discharge Planning for Hospitals, Critical Access Hospitals, and Home Health Agencies. Federal Register, Vol. 80, No. 212. November 3 2015

Readmissions and Social Needs: Best Practices and Resources

Over the past several years, resources have been developed to assist hospitals and hospital-based providers in providing improved transitional care services to individuals and populations that are socioeconomically disadvantaged or diverse in language, culture, literacy, health literacy, and/or income. A brief selection of these resources include:

- The AHRQ Hospital Guide to Reducing Medicaid Readmissions *(http://www.ahrq.gov/professionals/systems/hospital/medicaidreadmitguide/index.html)*

- The CMS Guide to Preventing Readmissions Among Racially and Ethnically Diverse Medicare Beneficiaries *(https://www.cms.gov/About-CMS/Agency-information/OMH/Downloads/OMH_Readmissions_Guide.pdf)*

- The AHRQ Health Literacy Universal Precautions Toolkit (http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/index.html)

- How to Deliver the Re-Engineered Discharge to Diverse Populations, Project RED *(http://www.ahrq.gov/professionals/systems/hospital/red/toolkit/redtool4.html)*

- The American Hospital Association's Caring For Vulnerable Populations, focused specifically on populations dually eligible for Medicare and Medicaid; 55% of whom have annual incomes under $10,000 *(http://www.aha.org/research/cor/caring/index.shtml)*

- The BRIDGE model of social worker-provided transitional care *(http://www.asaging.org/blog/integrating-care-across-settings-illinois-transitional-care-consortium's-bridge-model)*

- The American Institutes for Research's Measuring Triple Aim in the Safety Net Toolkit *(http://measuretripleaim.org)*

Currently, dozens of hospitals in Massachusetts have developed and launched outcomes-oriented efforts to reduce avoidable hospital utilization, specifically among the most vulnerable populations, including patients with behavioral health issues, patients with complex social needs, and patients with a personal history of high utilization.

These resources identify practice-tested, feasible and effective methods to better identify and meet the needs of socioeconomically diverse populations. In many cases they provide case examples of improvement from safety net and/or high-volume Medicaid hospitals.

All of these efforts are unified in their acknowledgement of the social and behavioral factors that drive hospital utilization, and all of these efforts are unified in their approaches to better identify patients with complex social and behavioral health needs, assess their "whole person needs," mobilize an interdisciplinary, cross-setting team to provide high-touch, personalized support after the hospitalization, and to attend to individuals' needs for assistance with legal, economic, housing, safety, security, food, transportation, sequencing, logistics, and navigating care as much as the clinical aspects of care. [32]

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32. *Massachusetts Health Policy Commission. Chart Phase 2 Awardees Preliminary Descriptions. Available at: http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/chart/phase-2/chart-phase-2-award-list.pdf*

Despite these efforts in research and practice to better identify and address social needs as a core component of an effective strategy to reduce readmissions, uncertainty exists regarding whether payment policy should be subject to variation in socioeconomic factors. Some research has suggested that large hospitals, teaching hospitals and safety net hospitals were most likely to receive high readmission penalties from CMS.[33] Information from the annual CMS readmission penalty assessments reveals that some safety net hospitals in the US do not receive high readmission penalties.[34]

The American Hospital Association and others in the hospital sector[35] argue that the readmission penalty program, and other payment policies, should be risk-adjusted based on socioeconomic factors. The argument centers on the premise that hospitals should not be accountable for factors outside a hospital's control. Hospital sector advocates argue that the socioeconomic status of their catchment area is beyond their control. Readmission rates, it is argued, should be adjusted to account for the differences in populations from hospital to hospital, just as readmission rates are adjusted to account for differences in patients' age, gender, and comorbidities.

There is no universally accepted method established to risk-adjust for socioeconomic status. Several factors that are readily available in hospital administrative and/or claims data could be used.

Among the factors that could be used are Medicaid payer status and poverty rate of the zip code (census tract) of the patient's residence.[36] A much more robust method uses the Area Deprivation Index, which includes several variables about a community, such as: median family income, median home value, median rent, percent of single-parent households, percent of the population 25 and older with less than 9 years of education, etc. [37] The readmission risk of an individual from a zip code with a high deprivation index can be estimated using an online calculator (http://www.hipxchange.org).

The Institute of Medicine has convened an expert panel to evaluate the evidence in order to make a recommendation to the US Department of Health and Human Services regarding accounting for social factors in Medicare payment. The Committee recently released the first of a five-part series of reports. [38]

33. Joynt KE, et. al. Characteristics of Hospitals Receiving Penalties Under the Hospital Readmissions Reduction Program. JAMA, Vol. 309, No. 4. January 23/30, 2013

34. Rau, J. Kaiser Health News. Already cited

35. Reidhead, M. Including Sociodemographic Factors in Risk-Adjusted Readmission Measures. HIDI HealthStats. Missouri Hospital Association. Hospital Industry Data Institute. February 2016. Available at http://web.mhanet.com/hidi. ALSO, Sociodemographic Factors Affect Health Outcomes. America's Essential Hospitals. February 2016. Available at: http://essentialhospitals.org/institute/sociodemographic-factors-and-socioeconomic-status-ses-affect-health-outcomes/

36. Reidhead, M. Including Sociodemographic Factors in Risk-Adjusted Readmission Measures. Already cited

37. Kind AJH, Neighborhood Socioeconomic Disadvantage and 30-Day Rehospitalization: A Retrospective Cohort Study. Annals of Internal Medicine, Vol. 161, No. 11. Dec. 2, 2014 And: http://www.hipxchange.org/ADI

38. Institute of Medicine. Accounting for Social Risk Factors in Medicare Payment: Identifying Social Risk Factors. January 2016

Synthesis and Recommendations

Recent all payer and Medicare-specific analyses from a variety of sources show that readmission rates in Massachusetts have not improved since 2013.[39] Although many Massachusetts providers have implemented some strategies, for some patients, the data suggest that not enough patients are being served or the strategies that have been implemented are not effective enough.

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39. *New England Quality Innovation Network-Quality Improvement Organization [Healthcentric Advisors], 2015; MHA, 2015, CHIA, 2016*

As financial and regulatory pressures continue to quickly change the landscape of hospital care in Massachusetts, the time is right to reexamine the root causes of readmissions, develop strategies based on the data, and develop and deploy a range of medical, behavioral, and social interventions to more effectively address patients' post-hospital needs.

In years past, it may have made strategic sense for hospitals to narrowly focus readmission reduction efforts on the small proportion of Medicare discharges for the penalty conditions outlined by the federal government. Hospitals were incentivized to reduce readmissions, for some patients, with some conditions, to follow agreed-upon clinical best practices and to avoid penalties.

It may not be surprising that narrowly focused efforts to reduce readmissions for some patients with some conditions has not resulted in reduced readmission rates for most Massachusetts hospitals nor at the state level. Narrowly deployed service models do not support robust practice or delivery system change. Furthermore, even if narrowly deployed improvements are successful, the impact on readmissions at the hospital or state level is too small to detect.

Payment systems can make a difference. The advent of new models of accountable care, where the payment system is aligned with the delivery system, gives us hope for continued improvements in the future.

Reducing readmissions is a core capability of all accountable care organizations, bundled payment initiators, and risk-based or capitated contracts. Reducing all-cause readmissions is a core strategy of efforts to reduce total cost of care, which both Medicare (value-based purchasing program) and the Commonwealth of Massachusetts (cost growth benchmark) are holding hospitals accountable for doing.

There are a small number of hospitals that have achieved measurable hospital-wide readmission reduction. Hospitals that have reduced readmissions overall appear to have the following common features.

DATA INFORMS THEIR STRATEGY AND DRIVES THEIR WORK DAY-TO-DAY
- As one program manager stated, "data is oxygen for our program." Successful hospitals have a fluid, working command of their data. They post data, they share data, they create customized reports for floors, services, providers, teams. They track and trend patients served, services delivered and results on a weekly and monthly basis.

THEY ADOPT A BROAD CONCEPT OF READMISSION RISK
- Hospitals with hospital-wide readmission reductions abandoned payer- and disease-specific case-finding tactics long ago. Alternative ways of identifying drivers of readmissions are used, such as cognitive impairment, behavioral health comorbidities, substance use disorder, economic stress, social complexity, living alone, unstable housing, limited functional status, polypharmacy, and/or inadequately addressed palliative care or end-of-life goals.

THEY EMPLOY A ROBUST "PORTFOLIO OF STRATEGIES"

- Successful hospitals have a multiplicity of interventions. They improve hospital-based practices and processes to improve standard care for all patients – not just those determined to be at high risk of readmission. They actively collaborate with providers and service agencies to ensure accurate and effective handoffs, timely post-hospital contact and effective linkage to services – going well beyond a unilateral referral. And for those patients for whom improved standard care and improved cross-continuum collaboration will not suffice, they deliver enhanced services to address needs and services that would otherwise go unaddressed.

Thanks to the newly developed all-payer all-cause readmission analysis conducted by the Center for Health Information and Analysis, Massachusetts hospitals now have new information that can help guide efforts to reduce readmissions, based not on national statistics or payer-identified priorities, but on the actual patterns of readmissions at the local and state level. Hospitals may want to consider targeting efforts on the following groups of patients with very high readmission rates:

HIGH UTILIZERS

- Defined simply by 4+ hospitalizations/12 months. This population – regardless of payer, discharge disposition, diagnoses and comorbidities or any other risk feature – is readily quantified and identified, reducing waste in case-finding efforts. It is a small population (8% of people) who use 25% of all hospitalizations and 60% of all readmissions. Recurrent utilization can been seen as a manifestation of clinical, social and behavioral healthcare that is inadequate or inadequately managed. In short, our current delivery system is failing them.

DISCHARGES TO POST-ACUTE CARE

- On an all-payer and Medicare-specific basis, patients discharged to post-acute care settings, specifically to skilled nursing facilities or to home health services, have the highest readmission rates of any group other than high utilizers – all-payer rates at 18% and Medicare rates at 20% compared to patients discharged to home (all payer 12%, Medicare 16%).

ADULT MEDICAID PATIENTS

- Front-line clinicians intuitively know that individuals with economic stress, complex social needs, behavioral health comorbidities, substance use disorder are at high risk of readmission. However, Medicare-focused readmission reduction and transitional care strategies by definition categorically exclude Medicaid patients. Our statewide data show that Medicaid adults hospitalized for reasons other than childbirth are just as high a risk of readmission as Medicare adults.

CATEGORIZE RISK BROADLY, SUCH AS "COMPLEX MEDICAL," "COMPLEX SOCIAL," "FRAILTY," ETC.

- Think beyond specific payer-diagnoses pairings. Although heart failure is the leading cause of readmissions among Medicare beneficiaries, heart failure accounts for only 5% of all Medicare discharges. A 20% improvement on 5% of total readmission volume results in a 1% improvement; barely detectable.

In summary, based on this review of data, root causes, best practices, emerging practices, new tools and success factors of hospitals that have already achieved measurable readmission reductions, Massachusetts hospitals and providers may wish to consider the following recommendations as they reexamine their current readmission reduction efforts:

KEY RECOMMENDATIONS INCLUDE:		
	CONCEPTUALIZE READMISSION REDUCTION	Conceptualize readmission reduction efforts as an essential component of efforts to achieve high-value healthcare. Readmission reduction is a core competency of all risk-based population health payment models, including bundled payment for episodes of care, value-based purchasing formulae, and penalty programs.
	DEVELOP A "PORTFOLIO OF STRATEGIES"	To achieve readmission reduction goals, develop a portfolio of strategies such as: improving transitions in care for all patients, collaborating with "receivers" of care following hospitalization, and providing enhanced services to cohorts of individuals with high readmission rates.
	EXPAND EFFORTS TO ALL-PAYERS	Strategies that focus on specific payer contracts may be rational in the short term and may facilitate capability building, but will not support broad organization-wide or state-wide change.
	USE DATA - QUANTITATIVE AND QUALITATIVE	Entities should use their data – quantitative and qualitative – to define hospital and community-specific readmission patterns. Instead of relying solely on discharge diagnosis, consider alternative ways of identifying high-risk features, such as discharge disposition, history of repeated hospitalizations, co-morbid behavioral health or substance use, frailty, medical complexity and/or social complexity.
	INVEST IN THE TECHNOLOGY TOOLS	Invest in the technology tools to support robust programs of aligned efforts to manage care across settings and over time.

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