

HealthCall®

Dynamic Results in Reducing Readmissions
in Patients with COPD:
A National Analysis of the HealthCall Care
Coordination Platform

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Executive Summary

The main concern of this paper is the Hospital Readmission Reduction Program (HRRP) established through Section 3025 of the ACA that reduced payments to hospitals with excess readmissions beginning with discharges on October 1, 2012. The payment reductions for excess readmissions were implemented over a three-year period following a three-year collection and analysis of discharge data. Most relevant to the topic of this paper is the FY 2014 IPPS final rule. This rule, going into effect FY 2015, expanded applicable conditions for the readmissions measures to include COPD exacerbations along with a few other conditions.

Mean COPD readmission rates across the nation range from 17-28% with the national average at 20.2%. The critical issue is that these readmission rates have remained stable since 2010, to the tune of an estimated \$1.7B each year. With hospitals receiving an average reimbursement from Medicare of \$0.88 for every dollar spent, it would appear that there is an increasing urgency to reduce admissions of this population as well as readmissions, for which a facility can be penalized.

Research on HealthCall suggests that its patented device-free Automated Patient Response™ assessments are a key component to transitional care and population management programs. HealthCall has demonstrated that its patented system, coupled with a clinical component, can reduce disease-specific admissions by 88%, and reduce readmissions in COPD patients 65% lower than the national median rates of the “Top 15 Health Systems” in America.

Criticality of Reducing Readmissions

Brief History of the Hospital Readmission Reduction Program

2010 marked the year the Patient Protection and Affordable Care Act (ACA) was signed into law. This law created incentives for healthcare organizations to put into action numerous quality initiatives promoting cost-containment through graduated mandates by the Centers for Medicare and Medicaid Services (CMS).

The main concern of this paper is the Hospital Readmission Reduction Program (HRRP) established through Section 3025 of the ACA that reduced payments to hospitals with excess readmissions beginning with discharges on October 1, 2012 (Centers for Medicare and Medicaid Services, 2014). The payment reductions for excess readmissions were implemented over a three-year period following a three-year collection and analysis of discharge data. Medicare reimbursements were adjusted each fiscal year (FY) for excess readmissions as follows (Centers for Medicare and Medicaid Services, 2014):

- FY 2013 – 1% reduction – in this first round of penalties, CMS charged 64% of eligible hospitals about \$280 million.
- FY 2014 – 2% reduction – in this round, CMS charged 66% of eligible hospitals about \$227 million.
- FY 2015 – 3% reduction – 78% of eligible hospitals were fined to a total of about \$428 million.
- FY 2016 – 3% reduction – an estimated 2,665 hospitals penalized totaling \$420 million (Boccuti & Casillas, 2015).

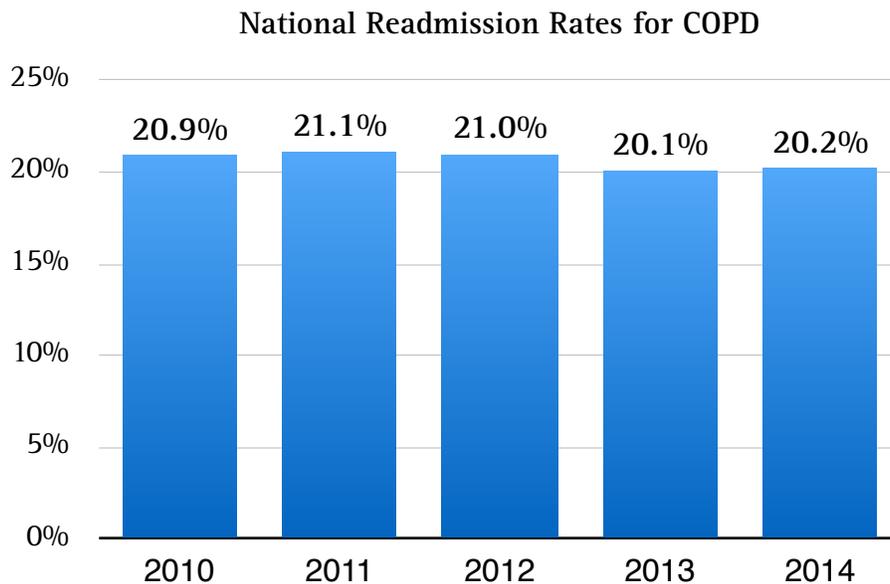
These reductions in payments are for all hospital-specific Medicare payments, not just payments related to readmissions.

Most relevant to the topic of this paper is the FY 2014 Inpatient Prospective Payment Systems (IPPS) final rule. This rule, going into effect FY 2015, expanded applicable conditions for the readmissions measures to include COPD exacerbations along with a few other conditions (Centers for Medicare and Medicaid Services, 2014).

COPD Readmissions

Chronic Obstructive Pulmonary Disease is the fourth leading cause of death in the U.S. and is responsible for over 700,000 hospitalizations (Brown, Croft, Greenlund, & Giles, 2011) and over 1.5 million emergency department visits every year (Feemster & Au, 2014). It is suggested that more often the majority of COPD cases are situated in low socioeconomic demographics (Thomashow, Walsh, & Malanga, 2014) or hospitals with a large share of low socioeconomic patients, high-volume hospitals and major teaching hospitals (Sjoding & Crooke, 2014).

Mean COPD readmissions rates across the nation range from 17-28% across hospitals and referral regions (Sjoding & Crooke, 2014). A statistical study conducted by the Agency for Healthcare Research and Quality (2013) stated that the national readmission rate for COPD in 2010 was 20.9%. The following chart demonstrates the stability of COPD readmissions over time and the inability of the healthcare system as a whole to create marked improvements in reducing this metric (Centers for Medicare and Medicaid Services, 2015).



The average cost (to Medicare) of a COPD readmission is \$11,861 (Hines, Barrett, Jiang, & Steiner, 2014). With the current readmission rate at 20.2%, this would cost Medicare, and therefore the American taxpayers, roughly \$1.7 billion each year.

COPD readmissions also pose a considerable financial risk to hospitals. According to the American Hospital Association (2015), "...hospitals received payment of only 88 cents for every dollar spent by hospitals caring for Medicare patients in 2013." Using this data, it cost hospitals on average \$13,478 for every COPD readmission. For a large academic medical center in the mid-west that cared for 1,014 COPD patients in 2014 this equated to a \$2.7 million loss in revenue.

HealthCall's Transitional Care Programs

HealthCall is a medical communications company and the first provider of patented Automated Patient Response™ (APR™) assessments. Healthcare professionals throughout the United States use HealthCall's cloud-based solutions to enable more timely communication between healthcare professionals and patients.

For over a decade and millions of patients, Healthcall has been advancing medical communications by bringing together care collaboration, patient engagement innovations and behavioral science to foster healthier self-care behaviors and quality outcomes.

HealthCall solutions enable a continuum of care throughout healthcare including health systems, hospitals, large physician groups, heart failure clinics, home health organizations, hospice, and home medical equipment providers.

A Decade of Research

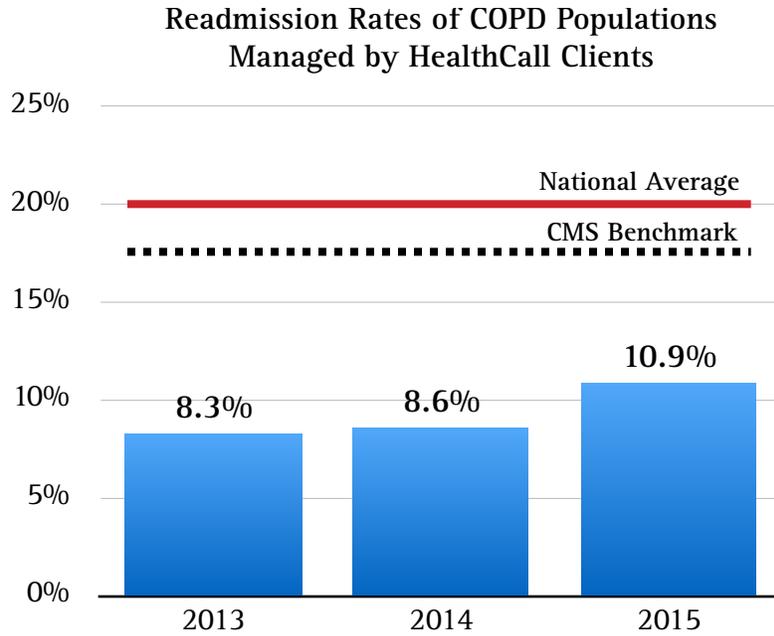
There have been numerous research studies conducted on HealthCall's approach to transitional care and reducing hospital readmissions (Gambetta et al, 2006; Dunn et al, 2006 & 2007; Gambetta et al, 2007; Heinzman et al, 2008 & 2009; Hayes, 2013). All of these studies suggest that HealthCall's cloud-based communication software is an important component of disease management.

In 2007, the journal *Progress in Cardiovascular Nursing* published an article discussing data discovered during research conducted on the benefits of using telemanagement (HealthCall's device-free APR™ assessments) in managing a hospital's population of patients with heart failure. This study's results suggest that the inclusion of HealthCall's APR™ assessments coupled with the heart failure clinic's normal programmatic offerings reduced initial hospitalizations in this population by 88% compared with the control group, which were not enrolled in the HealthCall program (Gambetta, Dunn, Nelson, Herron, & Arena, 2007).

Gambetta et al's (2007) study was published, presented at the American Association of Cardiovascular and Pulmonary Rehabilitation annual conference, as well as the Heart Failure Society of America meetings in Seattle and Washington, D.C., and broadened to show the benefits of this same HealthCall program to track changes in brain natriuretic peptides to assist caregivers in predicting hospitalizations in persons with heart failure.

HealthCall Care Coordination Platform

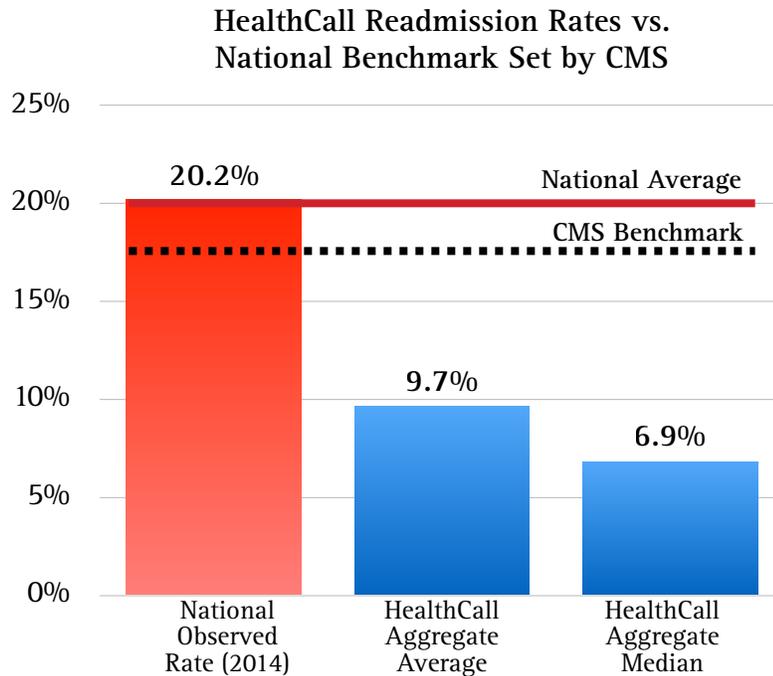
Since launching the COPD-specific Care Plans on the already successful HealthCall platform, the company has grown its client base by 68% in the last year, and they are making a dramatic impact on the COPD population health for their clients (Fig. 2).



(Figure 2)

A current analysis of programs utilizing HealthCall’s patented system and method in the management of COPD patients demonstrates that this program continues to have a positive impact on the readmission rates in this growing population.

HealthCall's aggregate average and median readmission rates are 9.74% and 6.9%, respectively (N = 7978, n = 3995). These rates are in contrast to the national average of 20.2%, as the graph below demonstrates. HealthCall's aggregate average readmission rate is over 50% lower than the national average and 44% lower than the current national benchmark mandated by CMS.



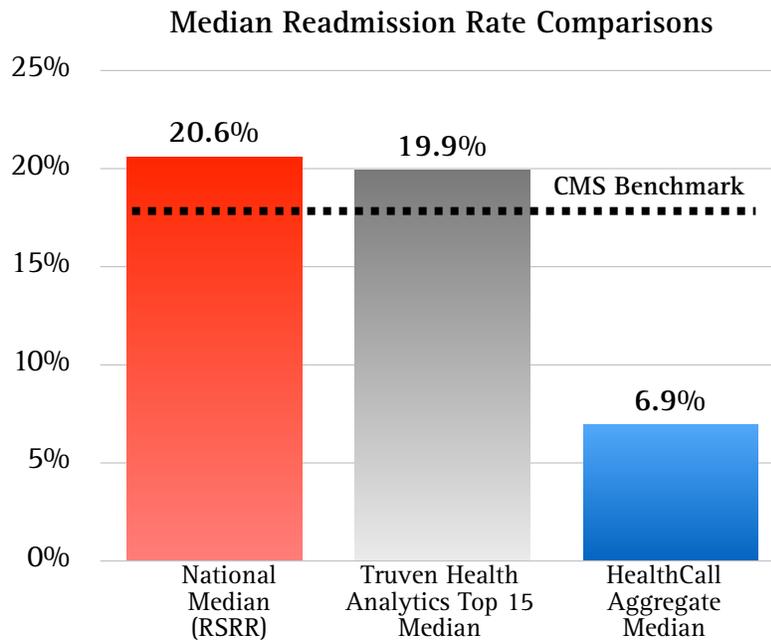
(Figure 3)

This analysis of the HealthCall platform encompasses COPD Care Plans first used in 2013. The mean days any user has been utilizing the platform is 545 days. For those clients who have been enrolling patients into a HealthCall COPD Care Plan for an average of one year or less, their readmission rates average 13.67%. For those clients who have been enrolling patients into HealthCall COPD Care Plan for over a year, their readmission rates average is 9.89%. These statistics suggest two things: 1) There is not a great learning curve to reduce readmissions immediately to far below the national average; and 2) The longer a client utilizes the program, the greater their capacity is to lower their readmission rates to single digits.

Comparison of HealthCall Clients Readmission Rates vs. Top 15 Health Systems

Truven Health Analytics has developed an objective set of criteria to rank America's top 100 hospitals according to quality metrics across a balanced scorecard. Along with other quality metrics, 30-day readmission rates were noted in their most recent publication of the 15 Top Health Systems (2015). It was noted that these top 15 health systems "outperformed their nonwinning peers" on this measure. "Winner system median 30-day readmission rates for COPD...were lower than rates in nonwinning systems by 0.9 percentage points" (Truven Health Analytics, 2015).

The top 15 "winner" systems in the nation have a median 30-day readmission rate for COPD of 19.9% compared to their "nonwinner" system's rates of 20.8% (Truven Health Analytics, 2015). Demonstrated in the graphic below, HealthCall consistently outperforms this benchmark median by over 65%.



(Figure 4)

Conclusion

Since the Patient Protection and Affordable Care Act of 2010, hospitals and other healthcare facilities have been determined to meet the new standards of quality built into the law, and mitigate the risks associated with the financial penalties mandated within the law's enforcement. Although 30-day all-cause readmission rates are decreasing, COPD rates remain stable, above the CMS benchmark.

Not only are the national 30-day readmission rates for COPD remaining high, the nation's "Top 15 Health Systems" have not made significant progress towards reducing this discrete number, although they are lower than the national average.

HealthCall has a distinct network of providers utilizing its patented cloud-based system that is proving to break through the long-standing barrier. 30-day COPD readmission rates among this network of providers is 65% less than the "Top 15 Health Systems" and 67% less than the national average. This study suggests that the patented system and method delivered to this network of providers are the keystone to success in moving readmission rates lower.

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