

**Beyond Reducing Hospital Readmissions:
The Thirty-First Day**

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Executive Summary

Thank you, Mr. Chairman, for the invitation to testify about hospital readmissions and the opportunity for improving care for Medicare patients.

At Dartmouth we have studied variation in the care of Medicare beneficiaries, and unnecessary readmissions stands out as a \$15 billion problem. Readmissions, however, should not be viewed as a discrete problem in quality, but connected to larger structural deficits in care delivery and financing.

UNNECESSARY HOSPITAL READMISSIONS ARE A KNOWN, COSTLY, AND LARGELY PREVENTABLE PROBLEM.

No Medicare patient should have to be readmitted to the hospital because of poor quality of care during the initial hospitalization, inadequate discharge planning, or a lack of care coordination with community providers.

What is often ignored in the focus on improving coordination in the care of patients after they leave the hospital is that patients often experience similar problems in fragmented care before they are initially admitted.

HOSPITAL READMISSIONS: WHY IS THIS IMPORTANT TODAY?

Interest in readmissions has been longstanding but has increased recently because rates are now publicly reported and many sections of The Patient Protection and Affordable Care Act (PL111-48) are concerned reducing rehospitalization. The ACA also mandates penalties, as much as 1% of a hospital's total base operating DRG payments.

WHAT IS KNOWN ABOUT UNNECESSARY READMISSIONS IN MEDICARE PATIENTS?

Through funding from the Robert Wood Johnson Foundation, the Dartmouth Atlas released a report this month, *"The Revolving Door: A Report on U.S. Hospital Readmissions"*.

For common causes of medical hospitalization, such as congestive heart failure, almost one in five Medicare patients are rehospitalized in thirty days. Despite the high rates of readmissions nationally, there is marked variation across hospitals. Patient factors explain only about 10% of these differences. While some hospitals have high rates, there are many with relatively low rates. For example, while the national rate for thirty-day readmissions for medical discharges was 15.9% in 2010, the NCH Health System in Naples, FL had a rate of 14.2%, and the three largest hospitals in Maine had rates below the national average, including only 13.9% of patients readmitted at Maine General in Augusta. [The percent of patients rehospitalized at St. Charles Medical Center in Bend, OR was 13.2%, 12.6% at St. Marks Hospital in Salt Lake City, 14.1% at St. Johns Hospital in Springfield, MO, and at Banner Del E. Webb Medical Center in Sun City West, AZ the rate was 14.1%.] Overall readmission rates were virtually unchanged from 2004 to 2010, although some hospitals demonstrated notable reductions.

CONNECTING THE READMISSION PROBLEM TO THE LARGER WEAKNESSES IN MEDICARE.

Our failure to address high rates of rehospitalization is rooted in improvement efforts that are too narrowly focused and are unconnected with the larger problems in Medicare. Efforts to reduce unnecessary rehospitalizations are concentrated on care improvements around the time of discharge with little attention to the care of patients before the first hospitalization or after the thirtieth day.

WE ARE MISSING AN IMPORTANT CAUSE OF READMISSIONS.

The chances that patients are readmitted to the hospital in a given location (i.e. region or hospital) are closely linked to the chances that they are initially hospitalized. We have known for almost forty years that hospitalization rates vary markedly across areas even after controlling for patient differences. This dramatic variation in the care of patients is strongly affected by long embedded practice styles couple with financial incentives to fill hospital beds.

HOW TO IMPROVE THE CARE OF MEDICARE PATIENTS BEFORE, DURING, AND AFTER HOSPITALIZATION.

Pay for good care, not more care.

Incentives to improve community-based care that keeps patients healthy and out of the hospital whenever possible need to replace fee-for-service payments that reward higher volumes of care. The specific penalty for excessive readmissions ignores the pervasive incentives in the Medicare program for the initial hospitalization.

Accountable care organizations (ACOs) and other forms of shared savings and population-based payments are promising innovations in the way that we pay and organize health care. The incentives in these models encourage integrated delivery systems that tie together the fragmented set of providers found in many communities. These and other new payment models need to be coupled with an expanded set of quality indicators that guide providers and patients in their search for quality.

Measure care quality with metrics that are meaningful to patients.

The focus on thirty day readmission rates is useful only when accompanied by a full set of indicators that track the experiences of Medicare patients with chronic illness. At present ACOs are monitored on 33 quality metrics. This list needs to evolve, as there is a better understanding of the short list of the most important measures. If we don't continue to expand the breadth and depth of quality indicators, we will not recognize the most important opportunities to improve care and save needless expenditures.

The coupling of robust health care measures with broad population-based payment models will help ensure that quality care *every day* is as good as the care thirty days after hospital discharge.

Beyond Reducing Hospital Readmissions:

The Thirty-First Day

Thank you, Mr. Chairman, for the invitation to testify about hospital readmissions and the opportunity to improve care for Medicare patients. I am a physician who has practiced in primary and specialist care in urban, rural, and academic settings. I still provide care for patients. Most importantly for this hearing, for more than twenty years I have studied regional and provider variation in the health care with my collaborators John Wennberg and Elliott Fisher at the Dartmouth Institute for Health Policy and Clinical Practice. I am the Director for the Center for Health Policy Research at the Institute and lead the *Dartmouth Atlas of Health Care*.

In our studies of the variation in medical care among Medicare patients, unnecessary readmissions stand out as a problem. Readmissions should not be viewed as a discrete problem in quality, but connected to larger structural deficits in the delivery and financing of care.

UNNECESSARY HOSPITAL READMISSIONS ARE A KNOWN, COSTLY, AND LARGELY PREVENTABLE PROBLEM.

No Medicare patient should have to be readmitted to the hospital because of poor quality of care during the initial hospitalization, inadequate discharge planning, or a lack of care coordination with community providers. Unfortunately, many patients face diminished prospects of recovery due to the failure of hospital-based clinicians to develop a care plan that is coordinated with the next care providers, those in community clinics and practices. Many patients leave the hospital without a list of medications, or an understanding of when the medications need to be taken. Others have no way to get to a pharmacy for the medications or were not scheduled for follow-up care with a doctor or a nurse.

The failure of good discharge planning and care coordination leads to needless misery for patients. No one wants to become sick again and land back in a hospital bed when it could have been prevented with better care. As the most expensive venue of medical care, unnecessary hospital readmissions cost patients and the public over \$15 billion per year.¹ Improving the care of patients leaving the hospital is a clear win for patients, their families, and the Medicare program.

Patients leaving the hospital have just completed the first step in their treatment. Full convalescence after a major acute illness can take weeks or months, and many patients with chronic illness require life-long coordinated care from primary care and specialist physicians, home health nurses, and other providers. The successful outcome of hospitalized patients requires that hospitals expand their traditional role of inpatient treatment to include a seamless transition with community providers.

The focus on reducing fragmentation in care after hospitalization ignores the uncoordinated care many patients experience before they are initially admitted. The current payment model, with some exceptions, incentivizes hospitals as the site of care, and hinders the effective delivery of the care that can keep patients in the community during an acute illness.

HOSPITAL READMISSIONS: WHY IS THIS IMPORTANT TODAY?

Unnecessary hospital readmissions have long been a concern of clinicians and health policy analysts, but interest has increased recently for two reasons: First, the variation in the performance of hospitals in good care transition has become visible to the public with reporting of thirty day readmission rates by the Dartmouth Atlas and CMS. Second, many sections of The Patient Protection and Affordable Care Act (PL111-148) are concerned with unnecessary readmissions. The implementation of the ACA has begun to bring some hospitals, community providers, and researchers together to address the problem.

¹ Medicare Payment Advisory Commission. 2007. Report to the Congress: Promoting Greater Efficiency in Medicare. Washington, DC: Medicare Payment Advisory Commission, p. 103.

The ACA requires a wide range of reporting and improvement activities to prevent readmissions, specifically “the implementation of activities to prevent hospital readmissions through a comprehensive program for hospital discharge that includes patient-centered education and counseling, comprehensive discharge planning, and post discharge reinforcement by and appropriate health care professionals.” Most notably, Section 3025 (i.e. Hospital Readmission Reduction Program) requires the penalization of hospitals with excessively high rates through payment cuts as high as 1% of a hospital’s total base operating DRG payments. This penalty can increase to as much as 3% in FY 2015. The attention of the ACA to readmissions is explicit. The remedies for poor and inefficient care that leads to needless hospitalization in many regions is less obvious but is of even greater importance.

Reducing readmission rates is possible through well-tested strategies that have been known for many years. The combination of improved communication between physicians and patients, better patient adherence to care plans including medications, and the consistent application of evidenced-based medical care has been shown to reduce readmissions in clinical trials.¹ The best way to extend these improvement methods broadly to thousands of hospitals is not as clear, and many questions remain about the importance of focusing on readmissions compared to other problems in care delivery and financing of Medicare, such as the unwarranted variation in overall hospitalization rates.

WHAT IS KNOWN ABOUT UNNECESSARY READMISSIONS IN MEDICARE PATIENTS?

Through funding from the Robert Wood Johnson Foundation, the Dartmouth Atlas has extensively studied the care provided to Medicare patients after hospitalization and has issued two reports.² The most recent report, “*The Revolving Door: A Report on U.S. Hospital*

¹ Peikes D, Chen A, Schore J, Brown R. Effects of care coordination on hospitalization, quality of care, and health care expenditures among Medicare beneficiaries: 15 randomized trials. *JAMA* 2009;301(6):603-18.

² Goodman DC, Fisher ES, Chang CH and the Dartmouth Atlas of Health Care. *After Hospitalization: A Dartmouth Atlas Report on Post-Acute Care for Medicare Beneficiaries*. Hanover, NH: Dartmouth College. 2011. and Goodman DC, Fisher ES, Chang CH; and The Dartmouth Atlas of Health Care. *After Hospitalization: A Dartmouth Atlas Report on Readmissions in Medicare Beneficiaries in Robert Wood Johnson Foundation*. The

Readmissions” was issued this month and is available from the Robert Wood Johnson Foundation web site. (<http://www.rwjf.org/en/research-publications/find-rwjf-research/2013/02/the-revolving-door--a-report-on-u-s--hospital-readmissions.html>) The Atlas also provides extensive data on its web site about thirty day readmissions and the use of ambulatory care after discharge (e.g. visits to primary care clinicians, to any clinician, and to emergency rooms). (www.dartmouthatlas.org)

For common causes of medical hospitalization, such as congestive heart failure, almost one in five Medicare patients are rehospitalized in thirty days. The chances of coming back into the hospital depend on where the patient lives and which hospital provides the initial care. Thirty-day readmission rates for medical and surgical discharges varied markedly across Hospital Referral Regions and hospitals in 2010 (Figure 1, Table 2). Patient factors explain only about 10% of these differences according to analyses done at Dartmouth.¹ A much greater proportion of the variation can be explained by a complicated set of factors related to quality of care and health system capacity within the hospital and the community.² These are the same factors that explain the variation in overall hospital use.

Despite the overall high rates of readmissions in the U.S. (Table 1), there are many hospitals that have relatively low readmission rates. Although the national rate for thirty-day readmissions for medical discharges was 15.9% in 2010, there were pockets of improvement and excellence. The NCH Health System in Naples, FL had a rate of 14.2%, and the three largest hospitals in Maine had rates below the national average, including only 13.9% of patients readmitted at Maine General in Augusta. The percent of patients rehospitalized at St. Charles Medical Center in Bend, OR was 13.2%, 12.6% at St. Marks Hospital in Salt Lake City, 14.1% at St. Johns Hospital in Springfield, MO, and at Banner Del E. Webb Medical Center in Sun City West, AZ the rate was 14.1%.

Revolving Door: A Report on U.S. Hospital Readmissions. Princeton, NJ: Robert Wood Johnson Foundation. 2013.

¹ These unpublished analyses were conducted using CMS risk adjustment methods for acute myocardial infarction discharges.

² Epstein AM, Jha AK, Orav EJ. The relationship between hospital admission rates and rehospitalizations. *The New England Journal of Medicine.* Dec 15 2011;365(24):2287-2295.

Although national readmission rates were virtually unchanged from 2004 to 2010, (Table 2) some hospitals demonstrated notable reductions. St Francis Hospital in Hartford, CT had a 8.9% reduction in surgical readmissions, Concord Hospital in NH had a 32% decrease while Mt Sinai in Manhattan had a 16% decline and St. Vincent in Indianapolis, IN had a 7.8% decrease. Brigham and Women's in Boston, MA had an 8.4% decrease in medical readmissions. Improvements in readmission rates also occurred at hospitals in Illinois, South Carolina, Tennessee, Texas, and West Virginia and many other states.

The Dartmouth Atlas also reports other care indicators for Medicare beneficiaries after hospitalization. Fifty seven percent of patients had no primary care visit within 14 days of hospital discharge for a medical condition, and almost 19% had an emergency room visit within thirty days. Just as with readmission rates, there was substantial variation in these rates across regions and hospitals. Little improvement was noted between 2004 and 2010 in primary visits while the percent of patients visiting the emergency room increased nationally by 9%. (www.dartmouthatlas.org)

We have a persistent problem in the care of patients when they leave the hospital. The problem is of tremendous importance to patients, seemingly difficult and expensive to remedy, and is part of a larger problem in health care capacity and financial incentives.

CONNECTING THE READMISSION PROBLEM TO THE LARGER WEAKNESSES IN MEDICARE.

Our failure to address high rates of re-hospitalization is rooted in improvement efforts that are too narrowly focused and are unconnected with the larger problems in Medicare. The hospital payment penalty mandated by the Affordable Care Act is viewed by some as a laudable incentive towards better care transitions. But it may have unintended consequences by overemphasizing a single, albeit an important, dimension of care. Efforts to reduce unnecessary re-hospitalizations are concentrated on care improvements around the time of discharge with little attention to the care of patients before the first hospitalization or after the thirtieth day.

WE ARE MISSING AN IMPORTANT CAUSE OF READMISSIONS.

The chances that patients are readmitted to the hospital in a given location (i.e. region or hospital) are closely linked to the chances that they are initially hospitalized. We have known for almost forty years that hospitalization rates vary markedly across areas, even after controlling for differences in patient health and socio-economic status.¹ For patients with medical conditions, such as congestive heart failure or pneumonia, these dramatic differences in the care of patients are strongly affected by the per capita supply of hospital beds. Well-meaning doctors tend to use whatever beds are available even when there are reasonable community-based treatment options. Hospitals are incentivized to fill beds with fee-for-service payments that reimburse with little regard to the quality of care provided.

The connection of thirty-day readmissions to the more general use of hospitals as a site of care is seen in Figures 2 and 3. Across the 306 Hospital Referral Regions, readmission rates correlate with the overall number of medical discharges per 1,000 beneficiaries. There is a similarly high correlation with the number of days patients with chronic illness spend in the hospital in the last six months of life. Readmissions are connected to the larger problem of excessive hospitalization that occurs in many areas of the country.

HOW TO IMPROVE THE CARE OF MEDICARE PATIENTS BEFORE, DURING, AND AFTER HOSPITALIZATION.

Pay for good care, not more care.

Much of the attention on reducing readmissions has been in the direction of better transitional care. CMS will begin this year to provide bundled payment to physicians for transitional care services after discharge from a health care facility, such as an acute care hospital. The estimated payments for the first year of these services are \$600 million.²

¹ Wennberg J. *Tracking Medicine: A Researcher's Quest to Understand Health Care*. New York: Oxford University Press; 2010.

² Bindman AB, Blum JD, Kronick R. Medicare's transitional care payment – A step toward the medical home. *New England Journal of Medicine* 2013; 368:692-694.

These types of payment are a step in the right direction, but fail to change the underlying incentives that are permissive of needless hospital-based care.

Incentives to improve community-based care that keep patients healthy and out of the hospital whenever possible need to replace fee-for-service payments that reward higher volumes of care. The specific penalty for excessive readmissions ignores the incentives in the Medicare program for the initial hospitalization. Some of the most effective methods for reducing the *number of rehospitalizations* also reduce the *number of initial hospitalizations*. This improvement can occur *without any change in the readmission rate*, as the number of initial and subsequent hospitalizations decreases proportionately.¹ These are the type of effective community-based interventions that should be incentivized.

Accountable care organizations (ACOs) and other forms of shared savings and population-based payments are promising innovations in the way that we pay and organize health care.² The incentives are strongly in the direction of the care that patients want and need, which means high quality ambulatory care, inpatient care coordinated with community services, and patient-centered shared decision making that keeps the patient at the center of health care decisions. The incentives in these models encourage integrated delivery models that ties together the fragmented set of providers found in many communities. These and other new payment models need to be coupled with an expanded set of quality indicators that guide providers and patients in their search for quality.

Measure care quality with metrics that are meaningful to patients.

The U.S. health care system has traveled a long journey from John Wennberg's 1973 *Science*³ paper on medical practice variation in Vermont to today's assortment of publicly available measures of health quality and utilization reported by the Dartmouth Atlas, CMS,

¹ Brock J, Mitchell J, Irby K, et al. Association between quality improvement for care transitions in communities and rehospitalizations among Medicare beneficiaries. *JAMA*. 2013;309(4):381-391.

² Fisher ES, Shortell SM, Kreindler SA, Van Citters AD, Larson BK. A framework for evaluating the formation, implementation, and performance of accountable care organizations. *Health affairs (Project Hope)*. Nov 2012;31(11):2368-2378.

³ Wennberg J, Gittelsohn. Small area variations in health care delivery. *Science*. Dec 14 1973;182(117):1102-1108.

and others. Measuring health care has been of extraordinarily high value in identifying what work's well and poorly, and has helped point us to solutions. But, the work on measuring and understanding health care is incomplete.

The focus on thirty day readmission rates is useful only when accompanied by a full set of indicators that track the experiences of Medicare patients with chronic illness. At present ACOs are monitored on 33 quality metrics. Many of these are familiar, such as control of diabetes, others such as functional health status, are less used today, but of central importance to monitoring care. The all-condition readmission rate is one of the measures. This list will need to evolve further, as there is a better understanding of the short list of the most important metrics.

For anyone who is outside of the health care policy "beltway," the follow-up question to learning about thirty day readmission rates is "What about the 31st day?" To this we might add questions about the days before the patient first came into the hospital and their care and outcomes six months after they left. If we don't continue to expand the breadth and depth of quality indicators, we will not recognize the most important opportunities to improve care and save needless expenditures. The coupling of robust health care measures with broad population-based payment models will help ensure that quality care every day is as good as the care thirty days after hospital discharge.

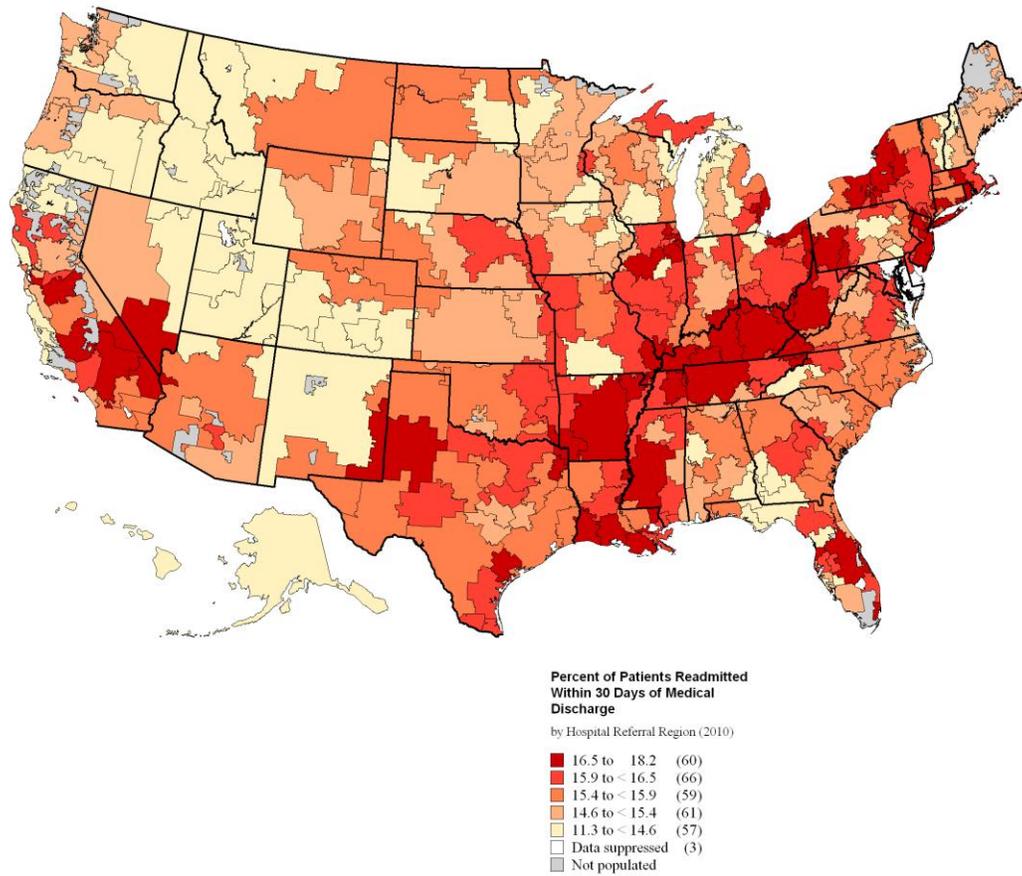


Figure 1. Thirty day readmission rates after medical hospitalization by Hospital Referral Regions, 2010 fee-for-service Medicare beneficiaries > 65 years.

Table 1. United States 30 day readmission rates for Medicare beneficiaries.

Condition	Percent Readmitted	
	2004	2010
Medical	15.9	15.9
CHF	20.9	21.1
AMI	19.4	18.1
Pneumonia	15.1	15.3
Surgical	12.7	12.4

Table 2. Readmission Rates for the Three Largest Hospitals (by Combined Medical and Surgical Discharges) for Selected States. Shaded Cells Indicate Better than Average Performance in 2010 Readmissions or in lowering Readmissions from 2004 to 2010.

State	Hospital	City	Medical 30-day readmissions			Surgical 30-day readmissions			Combined cohort size		
			2010	2004-		2010	2004-				
				U.S. rank	2010 change		U.S. rank	2010 change			
Arizona	Banner Boswell Medical Center	Sun City	15.3	1,164	7.8%	474	12.3	811	8.9%	469	4909
Arizona	Mayo Clinic Hospital	Phoenix	16.8	515	15.6%	164	10.7	1,235	-7.6%	1,081	4036
Arizona	Banner Del E. Webb Med Ctr	Sun City West	14.1	1,541	2.6%	799	11.7	962	9.0%	465	3687
Connecticut	Hartford Hospital	Hartford	15.6	1,016	0.9%	920	12.3	835	-5.6%	1,009	6149
Connecticut	St. Francis Hospital and Med Ctr	Hartford	16.8	525	11.2%	302	12.2	861	-8.9%	1,124	5559
Connecticut	Yale-New Haven Hospital	New Haven	18.8	79	5.3%	635	15.0	270	3.8%	634	5521
Florida	Florida Hospital Orlando	Orlando	17.3	350	4.5%	679	14.9	288	-3.3%	905	16083
Florida	NCH Downtown Naples Hospital	Naples	14.2	1,517	-2.0%	1,121	8.9	1,599	-24.7%	1,583	8648
Florida	Orlando Regional Medical Center	Orlando	17.1	397	1.3%	888	15.7	201	-0.5%	799	7086
Illinois	North Shore Evanston Hospital	Evanston	15.7	984	9.6%	376	12.3	823	-6.4%	1,041	7753
Illinois	Northwest Community Hospital	Arlington Heights	16.4	656	4.2%	709	13.5	528	10.1%	429	6526
Illinois	Advocate Christ Medical Center	Oak Lawn	17.1	435	-2.8%	1,174	15.9	177	1.5%	723	5856
Indiana	St. Vincent Indianapolis Hosp	Indianapolis	14.9	1,292	-1.3%	1,066	10.6	1,265	-7.8%	1,086	5128
Indiana	Indiana Univ Health University Hosp	Indianapolis	18.6	102	18.1%	118	17.0	105	23.5%	199	4946
Indiana	Deaconess Hospital	Evansville	15.3	1,156	6.8%	539	13.0	630	27.9%	147	4462
Maine	Maine Medical Center	Portland	14.7	1,365	-0.9%	1,046	12.8	686	-5.0%	982	5730
Maine	Eastern Maine Medical Center	Bangor	15.3	1,160	-12.6%	1,633	13.9	449	-2.7%	870	3379
Maine	Maine General Med Ctr - Waterville	Augusta	13.9	1,572	-0.4%	1,013	9.8	1,455	-8.7%	1,120	1890
Massachusetts	Massachusetts General Hospital	Boston	17.3	358	10.5%	329	13.9	456	-3.0%	888	7478
Massachusetts	Southcoast Hospitals Group	Fall River	16.0	872	0.6%	934	11.5	1,012	-13.4%	1,272	7252
Massachusetts	Brigham and Women's Hospital	Boston	18.8	78	-8.4%	1,475	15.7	191	2.4%	691	5354
Missouri	Barnes-Jewish Hospital	St. Louis	19.9	30	-0.6%	1,028	17.3	85	-2.6%	866	6531
Missouri	St. John's Hospital Springfield	Springfield	14.1	1,543	2.6%	800	10.0	1,414	-13.9%	1,299	5213
Missouri	Missouri Baptist Medical Center	Town and Country	15.5	1,052	-2.6%	1,154	13.0	638	-13.9%	1,296	5060
Nevada	Reno Regional Medical Center	Reno	17.0	469	10.8%	316	11.9	917	5.8%	565	3425
Nevada	Mountain View Hospital	Las Vegas	17.1	427	4.2%	705	13.8	478	18.5%	263	2796
Nevada	Sunrise Hospital and Med Ctr	Las Vegas	17.6	265	4.0%	723	16.8	118	31.7%	123	2782
New Hampshire	Dartmouth-Hitchcock Med Ctr	Lebanon	14.8	1,335	-1.9%	1,113	12.3	827	4.9%	600	3639
New Hampshire	Concord Hospital	Concord	15.4	1,100	17.0%	132	7.7	1,701	-31.8%	1,670	2710
New Hampshire	Catholic Medical Center	Manchester	15.0	1,260	7.6%	497	11.5	1,011	-13.8%	1,294	1991
New York	New York-Presbyterian Hospital	New York	16.4	702	7.2%	513	15.6	207	16.4%	298	12347
New York	North Shore Univ Hosp - Manhasset	Manhasset	15.3	1,121	-8.1%	1,463	15.7	197	24.3%	187	8859
New York	Mount Sinai Hospital	New York	17.4	319	-5.4%	1,327	15.0	267	-16.5%	1,395	7823
Oregon	Providence St. Vincent Med Ctr	Portland	14.7	1,373	-3.1%	1,195	10.7	1,224	-5.5%	1,001	2769
Oregon	Rogue Valley Medical Center	Medford	14.4	1,457	1.5%	880	9.3	1,533	-14.6%	1,325	2488
Oregon	St. Charles Med Ctr @ Bend	Bend	13.2	1,689	-7.2%	1,424	6.9	1,739	-31.6%	1,666	2294
Pennsylvania	Lehigh Valley Hosp - Allentown	Allentown	16.3	719	12.0%	274	12.9	644	3.5%	646	6819
Pennsylvania	Lancaster General Health	Lancaster	13.0	1,703	-2.8%	1,175	10.4	1,308	0.8%	747	6799
Pennsylvania	St. Luke's Hosp @ Bethlehem Campus	Bethlehem	15.9	919	1.6%	868	14.8	294	15.3%	315	5958
Rhode Island	Rhode Island Hospital	Providence	17.6	279	9.9%	358	14.3	374	5.5%	575	3474
Rhode Island	Miriam Hospital	Providence	18.5	107	18.2%	115	14.0	439	15.1%	323	2446
Rhode Island	Kent County Memorial Hospital	Warwick	18.0	178	12.8%	250	13.8	469	14.1%	344	1822
South Carolina	Spartanburg Regional Med Ctr	Spartanburg	15.1	1,219	10.3%	338	10.9	1,190	2.7%	678	4565
South Carolina	Greenville Memorial Hospital	Greenville	15.3	1,147	13.2%	232	12.5	767	1.5%	722	4410
South Carolina	McLeod Regional Med Ctr - Florence	Florence	15.4	1,112	-8.8%	1,491	10.8	1,210	-13.5%	1,279	3994
Tennessee	Methodist Healthcare - Memphis Hosps	Memphis	15.8	952	9.5%	382	11.7	975	-13.1%	1,262	8053
Tennessee	Memorial HealthCare System	Chattanooga	14.9	1,301	2.4%	821	10.1	1,376	-16.8%	1,401	7234
Tennessee	Baptist Memorial Hosp - Memphis	Memphis	14.7	1,361	0.2%	960	11.6	983	3.9%	630	6923
Texas	Methodist Hospital - San Antonio	San Antonio	16.1	830	4.5%	676	13.4	538	12.3%	385	9114
Texas	Baptist Health System - San Antonio	San Antonio	16.3	708	-3.2%	1,200	12.2	862	-15.3%	1,355	7601
Texas	Memorial Hermann - Northwest Hosp	Houston	14.3	1,484	-5.6%	1,336	11.3	1,071	-8.2%	1,102	7354
Utah	Dixie Regional Medical Center	St. George	11.9	1,781	-7.7%	1,449	11.8	949	11.8%	389	2822
Utah	Intermountain Medical Center	Murray	12.1	1,769	1.9%	846	10.5	1,281	-16.4%	1,393	2716
Utah	St. Mark's Hospital	Salt Lake City	12.6	1,743	7.6%	494	10.2	1,366	14.6%	335	2188
West Virginia	Charleston Area Medical Center	Charleston	16.4	688	-3.3%	1,207	14.4	369	-1.7%	829	5138
West Virginia	St. Mary's Medical Center	Huntington	15.8	947	2.3%	827	11.2	1,116	-23.9%	1,563	2635
West Virginia	Camden-Clark Memorial Hospital	Parkersburg	16.9	497	-2.7%	1,172	12.0	888	-21.0%	1,508	2041
Wisconsin	Aurora St. Luke's Medical Center	Milwaukee	16.3	711	1.6%	876	13.1	601	-10.1%	1,164	7431
Wisconsin	Waukesha Memorial Hospital	Waukesha	14.8	1,339	-8.3%	1,471	10.9	1,185	-11.1%	1,200	3366
Wisconsin	Univ of Wisconsin Hosp and Clinics	Madison	15.5	1,064	-9.2%	1,513	12.6	739	-2.0%	844	3030

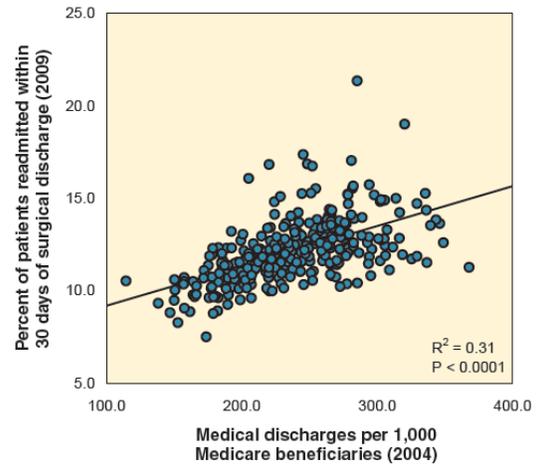
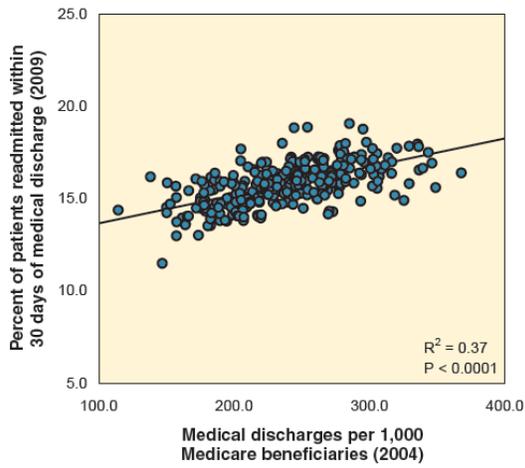


Figure 2. Thirty-day readmission rates are correlated with medical discharge rates, by Hospital Referral Regions.

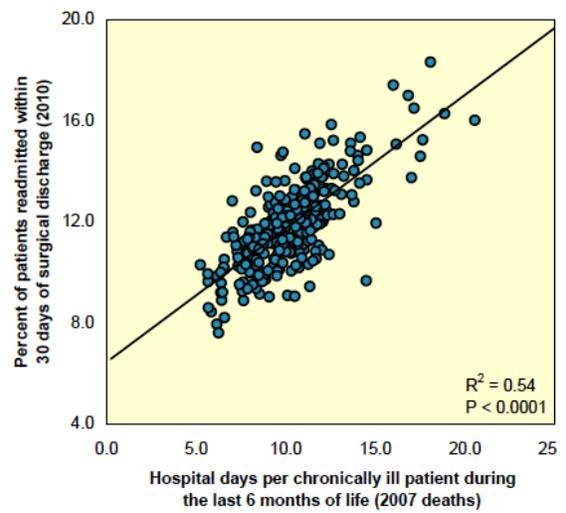
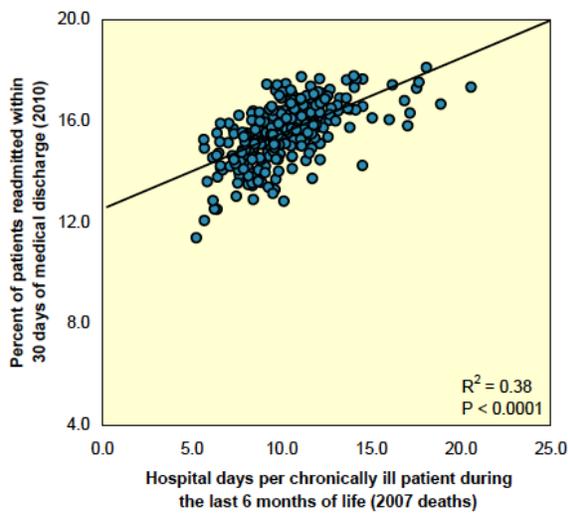


Figure 3. Thirty-day readmission rates are correlated with the number of hospital days of chronically ill patients in the last six months of life, by Hospital Referral Regions.