

Home-to-Home Time — Measuring What Matters to Patients and Payers

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Ever since Medicare's inpatient prospective payment system was implemented in 1983, U.S. hospitals have been trying to find ways to reduce the average length of stay. This payment model flipped the status quo: instead of being paid for each day that a patient spent in the hospital, hospitals were typically reimbursed a fixed amount per episode of care according to the patient's diagnosis, regardless of length of stay. Hospitals responded as expected: average length of stay plummeted from 10.0 days in 1983 to 5.1 in 2013.^{1,2} Despite concerns that discharging patients "quicker and sicker" would be harmful, a large body of research found no evidence of negative health consequences from the new payment model.³

More than 30 years later, average length of hospital stay continues to fall for Medicare beneficiaries. This persistent downward trend won't surprise physicians working in hospitals, who face constant pressure to discharge patients as quickly as possible. Emergency departments are often bursting with patients waiting for a bed, and administrators emphasize the increased profits that come with reducing length of stay.

How have hospitals continued to shorten stays? It's likely that the first changes made under the reformed payment system were also the easiest: hospitals began to send clinically stable patients home earlier. The challenge now is managing care for patients who

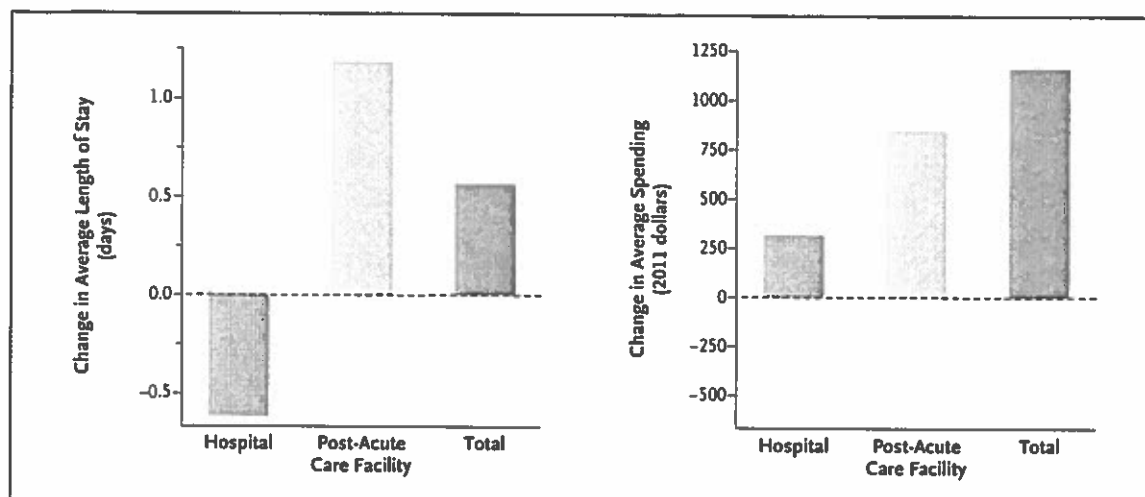
aren't ready to care for themselves at home but are no longer acutely ill. Hospitals have addressed this challenge in part by increasing the use of post-acute care facilities, such as skilled nursing facilities, to help patients return home safely. Over the past 30 years, the proportion of Medicare patients discharged from the hospital to a skilled nursing facility has increased from approximately 5% to 20%.^{4,5} Time that patients would formerly have spent in the hospital is therefore now being spent in other institutional settings. As a result, the familiar metric of length of hospital stay is no longer an accurate reflection of how patients experience an episode of inpatient care. From the patient's perspective, time spent in a post-acute care facility must be added to time spent in the hospital to capture the true span of a hospitalization episode — the "home-to-home" time.

Focusing on this metric substantially changes the standard narrative of the decreasing length of hospital stay. We assessed trends in home-to-home time using Medicare administrative claims for 81.6 million hospitalizations in the United States between 2004 and 2011. As expected, average length of hospital stay decreased — from 6.3 to 5.7 days (see graph). Meanwhile, the average length of stay at post-acute care facilities across all hospitalizations increased from 4.8 days to 6.0 days, and total home-to-home time increased from 11.1 days to 11.7 days. Most patients were dis-

charged home after a hospital stay, but those who went to a post-acute care facility spent an average of 35.3 days there (according to analyses that excluded a small number of patients with stays exceeding 100 days). More recent data confirm our findings of shorter inpatient admissions combined with lengthening post-acute care facility stays among Medicare beneficiaries.²

This shift in where care is provided has both positive and negative implications. In many ways, spending less time in the hospital is better for patients. Shorter hospital stays mean a lower risk of iatrogenic harm, and overall inpatient mortality has continued to fall among Medicare beneficiaries, suggesting that discharging patients earlier hasn't had a negative effect on mortality. Use of post-acute care also facilitates more aggressive rehabilitation for Medicare patients with functional limitations. From a societal perspective, we want patients to be cared for in the lowest-resource setting that is safe.

But although discharging patients to a post-acute care facility might help hospitals reduce their average length of stay, it's unclear when post-acute care improves patient outcomes and when it doesn't — and there is mounting concern that it may be overused. Replacing hospital days with days spent in another facility increases Medicare spending, because hospitals receive the same prospective payment regardless of length of stay but skilled nursing facili-



Changes in Average Length of Stay and Spending among Medicare Beneficiaries, by Setting, 2004–2011.

Changes in length of stay (in days) and spending (in 2011 dollars) were estimated using a 20% sample of Medicare administrative claims from 2004 to 2011. We calculated the annual average length of stay and inflation-adjusted Medicare payments for all hospitalized beneficiaries by setting in three categories: hospital, post-acute care facility (including skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals), and total. Because a small number of extremely long stays at skilled nursing facilities might bias our estimates, we excluded beneficiaries with post-acute care facility stays exceeding 100 days.

ties, which account for more than 80% of stays in post-acute care facilities by Medicare beneficiaries,⁴ are reimbursed for each day that patients spend there. From 2004 to 2011, Medicare's combined payments to hospitals and post-acute care facilities (adjusted for inflation) increased by 9.9% — from \$11,674 to \$12,835 — per hospital admission.

Our increasing reliance on post-acute care highlights the need to broaden the way we measure and pay for hospitalizations. Commercial and government payers are moving forward with new payment models such as bundled payment and global risk contracts. Under these models, insurers pay providers a fixed amount for either a single episode of care or a patient's care for the entire year. These models will again change incentives for hospitals regarding length of stay by putting them on the hook for time that patients spend in post-acute

care facilities. Home-to-home time will therefore become an important financial metric for providers.

Thinking about episodes of care in terms of home-to-home time will require hospitals and post-acute care facilities to form meaningful clinical relationships in order to coordinate patient care and measure important outcomes. Currently, discharging clinicians and primary care providers rarely receive detailed follow-up or feedback after patients are sent to post-acute care facilities. This lack of reporting makes it difficult to hold facilities accountable for appropriate lengths of stay and other outcomes.

Using a home-to-home framework will also encourage health systems to start measuring a wider selection of outcomes for individual episodes of care. For example, instead of documenting only length of hospital stay and discharge information, hospitals will have incentives to capture

data on the care provided by post-acute care facilities, including length of stay, rates of emergency department visits, functional improvements, and rates of timely outpatient follow-up. Post-acute care facilities already measure some of these outcomes for reporting to Medicare. But feeding that information back to hospitals or discharging clinicians in a timely manner will require better systems for data exchange as well as new analytic capabilities. Hospitals may try to discharge more patients to home-based health care rather than post-acute care facilities if home-to-home time becomes more salient, so understanding how home health care affects outcomes will also be important.

There are many unanswered questions about home-to-home time and its relationship to new payment models and patient outcomes. Foremost is whether home-to-home time can be safely

reduced without increasing readmissions. The second is whether new payment models can encourage safe reductions in home-to-home time and how health systems will achieve such reductions (by limiting discharges to post-acute care facilities, reducing length of stay at such facilities, or both). These questions are particularly relevant for health systems operating under bundled-payment models, such as the Comprehensive Care for Joint Replacement model, which adjust payments solely on the basis of average regional spending. Hospitals that care for patients with complex conditions who need more post-acute care may struggle to respond to this new payment model. More sophisticated risk adjustment could mitigate the potential danger from hospitals working aggressively to reduce home-to-home time for vulnerable patients. The third question is what patients want, given the po-

tential trade-offs between more time in a facility and more time at home.

Together, these questions recapitulate the concerns about discharging patients “quicker and sicker” that arose when the inpatient prospective payment system was introduced in the 1980s. A single-minded focus on reducing overall post-acute care use and home-to-home time could easily backfire, since patients using post-acute care are among the sickest and most vulnerable in the whole health system. When done responsibly, however, shifting the conversation from length of hospital stay to home-to-home time could drive meaningful conversation about how to reconcile new payment models, efficiency of care, and the goal of improving patient care.

Disclosure forms provided by the authors are available at NEJM.org.

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Patient-Reported Outcomes — Are They Living Up to Their Potential?

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As part of a nationwide movement toward giving patients more of a voice in their health care, an increasing number of organizations are collecting and assessing patient-reported outcomes (PROs). There is a growing chorus of support from clinicians, researchers, and payers for embracing PRO measurement instruments in clinical care. But there are still important practical questions about how data on these

outcomes should be collected, visualized, shared, and used to improve the quality of care.

At the orthopedic surgery department at the University of Rochester Medical Center, we have collected PROs during every outpatient clinic visit for the past 2 years, a practice that was expanded throughout 30 departments and divisions over the past year.¹ Our decision to commit to PRO assessments was inspired by a

study that compared physical function scores obtained in the office using the Patient-Reported Outcomes Measurement Information System (PROMIS) with the GAITRite temporal and spatial gait-analysis system, which measures walking speed, cadence, stride length, and other gait parameters directly — and costs \$52,000.^{2,3} The study included 106 patients who underwent knee-ligament reconstruction. It showed