Today, patients often require a diverse array of services to treat major health episodes, manage chronic disease and pursue independent, healthy living. While many patients receive care in the physician’s office or inpatient hospital settings, a variety of other settings are available to patients who need certain specialized follow-up care. These services, described collectively as post-acute care (PAC), support patients who require ongoing medical management, therapeutic, rehabilitative or skilled nursing care. Although this care is provided in a variety of different settings, this report will focus on care provided in long-term acute-care hospitals (LTACHs), inpatient rehabilitation facilities (IRFs), skilled nursing facilities (SNFs), and at home through home health agencies (HHAs).

Each of the multiple PAC settings specializes in certain types of care and therapies, allowing patients to receive a diverse array of services ranging from intensive medical, rehabilitation and respiratory care to in-home follow-up, such as changing dressings or administering medication. (Chart 1). Research suggests that patients who receive PAC following a major health episode see greater and more rapid clinical improvements compared to patients discharged to their homes without follow-up.¹ PAC services are covered by Medicare and other public and private payers. The availability, volume of patients and spending on PAC vary significantly by provider type. (Chart 2).

**Patient severity of illness varies by PAC setting.**

Chart 1: Short Term Acute-care Hospital (STACH) and PAC Severity of Illness (SOI), in Prior STACH Stay

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute-care Hospital</td>
<td>9.0%</td>
<td>31.8%</td>
<td>42.4%</td>
<td>16.9%</td>
</tr>
<tr>
<td>LTACH</td>
<td>43.3%</td>
<td>16.4%</td>
<td>14.3%</td>
<td>2.4%</td>
</tr>
<tr>
<td>IRF</td>
<td>12.3%</td>
<td>38.0%</td>
<td>40.7%</td>
<td>8.6%</td>
</tr>
<tr>
<td>SNF</td>
<td>12.5%</td>
<td>37.1%</td>
<td>41.8%</td>
<td>46.7%</td>
</tr>
<tr>
<td>HHA</td>
<td>4.0%</td>
<td>21.3%</td>
<td>44.0%</td>
<td>28.0%</td>
</tr>
</tbody>
</table>

Source: Analysis of the 2008 100% Medicare Standard Analytical Files by The Moran Company. Note: SOI is measured by the 3M APR-DRG Grouper.

**The number of facilities and patient volume differ by PAC setting.**

Chart 2: Medicare Patient Volume and Spending for Fee-for-Service Beneficiaries, by PAC Provider Type

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Number of Facilities (2009)</th>
<th>Number of Beneficiaries Treated (2008)*</th>
<th>Estimated Medicare Spending (2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term Acute Care Hospital</td>
<td>432</td>
<td>115,000</td>
<td>$4.9 billion</td>
</tr>
<tr>
<td>Inpatient Rehabilitation Facility</td>
<td>1,196</td>
<td>332,000</td>
<td>$5.7 billion</td>
</tr>
<tr>
<td>Skilled Nursing Facility</td>
<td>15,053</td>
<td>1.6 million</td>
<td>$25.5 billion</td>
</tr>
<tr>
<td>Home Health Agency</td>
<td>10,422</td>
<td>3.2 million</td>
<td>$18.3 billion</td>
</tr>
</tbody>
</table>

Post-acute care accounted for approximately 12% of all Medicare spending in 2008.


*Data from Medicare Payment Advisory Commission. (March 2010). Report to the Congress: Chapter 3. Washington, DC. Includes fee-for-service beneficiaries only.
Policymakers and health care providers increasingly recognize that coordination between acute-care hospitals and PAC providers is essential to improving overall quality of care and reducing health spending. Partnerships across settings not only benefit patients transitioning to a post-acute site, but can also benefit general acute-care hospitals referring to and receiving referrals from post-acute care. For example, the recently enacted Affordable Care Act of 2010 (ACA) reduces payments to hospitals for greater than expected readmissions, decreasing payments for all Medicare discharges in the prior year. Acute-care hospitals and PAC providers are working together to reduce re-hospitalizations; combining expertise from both settings could improve care for patients and help hospitals avoid penalties.

Patients with Diverse Health Needs Benefit from PAC

Patients receive a unique set of services in each PAC setting, though some services may be available in more than one setting. Selecting the most appropriate setting for a given patient may involve multiple factors.

Some patients may benefit from care at multiple PAC settings during a single episode of illness. For example, a medically complex, post-surgical patient may require intensive wound care in an LTACH immediately after an acute-care hospitalization. Following that, the patient may need home health visits to ensure proper wound dressing and prevent re-infection. (Chart 3).

Patients Who Need the Most Intensive Care Are Often Discharged to LTACHs

Patients who require intensive, long-term services for complex medical problems, including those with multi-system organ failure or who are ventilator-dependent, may receive care in LTACHs following an acute-care hospitalization. Medicare data indicate that LTACH patients have an overall severity of illness that is greater than that at other PAC sites. For example, LTACHs treat long-stay patients with complex respiratory problems, severe post-surgical wounds, renal failure and other infections and complications. (Chart 4). While these patients may no longer need surgical interventions or other procedures, they require frequent physician oversight and advanced nursing care. LTACHs deliver high-acuity services over a much longer period of time than is typical in an acute-care hospital. Accordingly, Medicare payment rules require that the average length of stay at LTACHs be greater than 25 days.

LTACHs have developed specialized programs to improve outcomes for the extended-stay, medically complex patients they serve. A multi-year demonstration initiated by the Connecticut Office of Health Care Access, which advises the state on health care access issues, measured functional

Many patients receive care in multiple PAC settings during a given episode.

Chart 3: Analysis of Selected Discharge Patterns among Medicare PAC Users, 2006


Note: Percentages indicate share of beneficiaries who completed transition through that point. Includes only patterns representing more than 1.3% of all transitions.
outcomes among all patients treated at the participating LTACH, Hospital for Special Care (HSC) in New Britain, CT. Thirty-two percent of HSC patients were discharged with “good” functionality, indicating that the patients were either fully active except in strenuous activity or were capable of self-care – a rate slightly above the national average but notable given the higher severity of patients treated at HSC. The demonstration project also measured resource use among HSC patients and found that LTACH care was cost-effective compared to longer stays in acute-care hospitals.

HSC leaders note that the demonstration’s success stemmed from both experience treating the most common conditions among LTACH patients and a singular focus on outcomes. A high volume of severe respiratory, complicated wound, and other medically complex cases has allowed HSC to develop standardized approaches to and experience with these cases. President and Chief Executive Officer John Votto, DO, FCCP, explains that the entire care team is oriented toward the desired goal – for example, weaning a particular patient off a ventilator – which keeps the focus on outcomes.

Individuals Achieve Important Functional Gains with Inpatient Rehabilitation

Patients may need rigorous rehabilitation following a variety of health events, including brain and spinal cord injuries, stroke and traumatic injuries. (Chart 5). Medicare beneficiaries treated at inpatient rehabilitation facilities, or IRFs, must require the care of specialty physicians, registered nurses, therapists and other members of the interdisciplinary team. Further, IRF patients must require and benefit from at least three hours of rehabilitative care per day, following a plan of care that is approved and overseen by a rehabilitation physician. IRF-level care focuses on restoring the highest level of physical and cognitive function to patients and helps many patients return to their homes and communities.

Many IRFs have developed targeted programs to help their patients recover and regain optimal function. For example, Valir Health Care, an IRF in Oklahoma City, OK, developed a partnership with Oklahoma University Medical Center to accept many of the hospital’s trauma patients. Valir estimates that over 80 percent of its IRF patients are discharged to their homes. Valir collects quality and length of stay data for major diagnoses, including stroke, major medical trauma and fracture; their data demonstrate significant functional improvements for patients with a variety of diagnoses. For example, patients

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percent of LTACH Discharges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory System Diagnosis with Ventilator Support for 96+ Hours</td>
<td>11.5%</td>
</tr>
<tr>
<td>Pulmonary Edema and Respiratory Failure</td>
<td>6.7%</td>
</tr>
<tr>
<td>Septicemia or Severe Sepsis with Major Complications</td>
<td>5.0%</td>
</tr>
<tr>
<td>Respiratory Infections and Inflammations with Major Complications</td>
<td>3.3%</td>
</tr>
<tr>
<td>Skin Ulcers with Major Complications</td>
<td>3.1%</td>
</tr>
<tr>
<td>Aftercare with Complications</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

admitted after major joint replacements gain an average of nearly five points of functional capacity per day. Patients with major trauma and brain or spinal cord injuries gain an average of three points per day.8 (Chart 6).

Using its outcomes, length-of-stay and patient satisfaction data, which are collected by all IRFs, Valir successfully negotiated a rate increase with the state Medicaid agency. In addition, the agency removed an existing cap on inpatient benefit days. Valir used the same data-driven approach to negotiate favorable rates with several large private insurers. Staff leaders note that the higher Medicaid and commercial rates allow Valir to continue to treat many uninsured patients.

Patients who have suffered a stroke account for one fifth of all Medicare IRF admissions.

Ongoing Skilled Nursing Care Is Provided to Patients in SNFs

Patients who do not require or cannot tolerate the highly intensive services provided by LTACHs and IRFs, but who do need ongoing skilled nursing care, may be discharged to SNFs. SNFs are the most commonly used PAC setting; almost half of all Medicare PAC users received SNF care, according to a 2006 analysis of claims data.9 These facilities treat a broad range of patients; respiratory, kidney and other infections are common diagnoses among SNF patients, as are joint replacements. (Chart 7). Because of the diversity of needs among SNF patients, these facilities offer a broad variety of services. For example, SNFs also provide rehabilitative therapy to some patients, such as those who have

Valir Health Care demonstrated its value and negotiated higher payments from a state Medicaid program and multiple private payers using benchmarked IRF outcomes, length of stay, and patient satisfaction data.

Patients who receive appropriate rehabilitation therapy can make substantial functional gains.
undergone joint replacement surgery. Typically, such therapy is less intensive than the rehabilitative therapy provided in IRFs.

SNFs and other PAC providers have developed programs to reduce readmissions among their patients. Kindred Healthcare, which provides SNF, LTACH and rehabilitative care, is pursuing relationships with certain acute-care hospitals, physician specialty groups and other partners in a variety of locations like California, Indiana and Ohio to encourage follow-up after patients are discharged from an acute setting.10

When a patient is admitted from a partner provider to one of its PAC sites in these locations, Kindred works to align communication protocols so acute and post-acute care providers can communicate as seamlessly as possible. These protocols guide providers in discussing patient status, particularly when a patient’s condition changes. Clear channels of communication, a common approach for discussing patients and the information technology infrastructure to exchange clinical information are helping reduce readmissions and emergency department visits. Referring or attending providers feel more comfortable providing clinical guidance to PAC staff instead of requesting that the patient be sent to the emergency room.

Certain Patients May Benefit Most from Home Visits
Patients who need ongoing follow-up care but who cannot leave their homes without significant effort and assistance may require home health visits. (Chart 8). HHAs deliver this physician-prescribed care, which can include medication administration, changing dressings and physical or occupational therapy, among other services. Patients receiving home health visits typically have fewer acute medical needs than patients in other PAC settings, but require ongoing support to maintain clinical or functional gains, or to ensure a good clinical outcome. HHAs care for patients referred following a

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**Chart 7: Leading Diagnoses Among Medicare SNF Patients, 2007**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Percent of SNF Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Joint and Limb Reattachment of Lower Extremity</td>
<td>5.5%</td>
</tr>
<tr>
<td>Simple Pneumonia and Pleurisy</td>
<td>3.7%</td>
</tr>
<tr>
<td>Heart Failure and Shock</td>
<td>3.6%</td>
</tr>
<tr>
<td>Hip and Femur Procedures Except Major Joint</td>
<td>2.9%</td>
</tr>
<tr>
<td>Septicemia without Ventilation</td>
<td>2.9%</td>
</tr>
<tr>
<td>Kidney and Urinary Tract Infection</td>
<td>2.5%</td>
</tr>
</tbody>
</table>


Note: Major joint replacement includes hip and knee replacements.

---

"If we can anticipate and prepare the information attending physicians most need to know upon a change of patient condition, we can keep more patients in the PAC setting, reducing avoidable readmissions."

Dr. Sean Muldoon, M.D., Medical Director, Kindred Healthcare

"Communication among acute and post-acute providers is all about avoiding those readmissions and stabilizing the patient."

Dr. Steven Samuels, M.D., St. Frances Hospital, Indianapolis, IN (also has privileges at nearby Kindred LTACH)
hospitalization, as part of a multi-setting course of treatment or directly from the community with a physician’s order. Thirty-seven percent of Medicare beneficiaries who receive PAC are discharged from a general acute-care hospital to an HHA, and 60 percent of all PAC users ultimately receive some home health care.11

Like other PAC settings, HHAs are exploring innovative quality improvement programs. Christiana Care Health System’s Visiting Nurse Association in Christiana, DE, recently initiated a pilot program targeting Medicaid beneficiaries with heart failure. Working with the state’s largest Medicaid managed care organization, Delaware Physicians Care (DPC), Christiana used remote monitoring technology to track patients with a diagnosis of heart failure and a history of high hospital and emergency department use.12

The program combined patient education and support – to promote self-management and empowerment – with careful monitoring by clinical staff. A Christiana nurse monitored each patient’s vital signs on a daily basis; patients whose reports were of concern received a phone call to discuss medication use and other medical and non-medical issues.13 Each patient also received a minimum of four in-home visits. Both a Christiana and a DPC case manager were assigned to each patient, and were available to offer referrals or additional services if needed. Pilot program leaders note that constant communication

Home health services are beneficial for patients with a variety of conditions.

Chart 8: Leading Diagnoses among Medicare Home Health Patients, 2006


Chart 9: Total Hospitalizations and Emergency Department Visits, Pilot Program Participants vs. Controls, Christiana-DPC Pilot

Source: Delaware Physician Care and Christiana Care Visiting Nurse Association. Note: Each group included 11 patients.
between the case managers, with the patient, and with treating physicians was critical to the success of the project.¹⁴

Inpatient hospital costs declined 85 percent among program participants, compared to 25 percent among a control group. Emergency department costs declined by 73 percent for participants but rose 11 percent for the control group. In addition, pilot program participants increased their primary care visits by 38 percent following the intervention, while primary care visits declined in the control group. (Chart 9). Overall, patients were satisfied with the program, with 100 percent stating they would recommend the program to peers.¹⁵ Christiana and DPC intend to make the program a permanent offering, and report that the state Medicaid agency also has discussed the initiative as a quality improvement model.

Selecting the Most Appropriate PAC Setting Is Essential but Challenging

Choosing the appropriate PAC setting is a critical step in ensuring optimal care over the course of an episode, and in maximizing the efficiency of that episode. To select the best possible PAC setting for a given patient, the discharging provider needs to understand both the services offered by each setting and the particular clinical and non-clinical needs of individual patients.

The availability of different types of facilities can vary by region. For example, LTACHs are more prevalent in northeastern and southern states, while IRFs are concentrated in the south and southwest.¹⁶ Some states and rural areas may not have access to all provider types; in these areas, SNFs and HHAs often provide post-acute coverage. In general, PAC providers are clustered in the Northeast, Midwest and South; relatively fewer providers are located in the Northwest and plains states.¹⁷

Certificate of Need (CON) programs, which require health care providers to demonstrate a need before expanding capacity, impact the supply of post-acute providers in many states. For example, Delaware requires CON approval for new LTACH capacity, but not for home health capacity.¹⁸ Certain types of PAC providers also may have unique relationships with acute-care providers. While acute-care hospitals may not operate LTACH units, independent LTACHs operating as “hospitals within hospitals” are permitted on medical campuses.

Currently, there is no standardized process for placing each patient in the appropriate PAC setting. (Chart 10). Patients with the same acute-care hospital discharge diagnosis may be referred to different PAC settings.¹⁹ For example, patients who have undergone joint replacement surgery may be treated at a SNF, IRF or HHA after discharge from the hospital.²⁰ In these cases, patients’ clinical and non-clinical factors help determine the best PAC setting for a given patient.

Chart 10: Factors Influencing PAC Setting Selection

<table>
<thead>
<tr>
<th>Clinical</th>
<th>PAC Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>• Current health status</td>
</tr>
<tr>
<td>• Psychosocial support</td>
<td></td>
</tr>
<tr>
<td>• Ability/willingness for self-care</td>
<td></td>
</tr>
<tr>
<td>• Treatment preferences</td>
<td></td>
</tr>
<tr>
<td>Referring Provider</td>
<td>• Comorbidities</td>
</tr>
<tr>
<td>• Prognosis</td>
<td></td>
</tr>
<tr>
<td>• Payer coverage rules</td>
<td></td>
</tr>
<tr>
<td>• Relationships with local PAC Providers</td>
<td></td>
</tr>
<tr>
<td>• Practice Patterns</td>
<td></td>
</tr>
<tr>
<td>• Specialization</td>
<td></td>
</tr>
<tr>
<td>• Proximity</td>
<td></td>
</tr>
<tr>
<td>• Capacity</td>
<td></td>
</tr>
<tr>
<td>• Relationship with acute sites</td>
<td></td>
</tr>
</tbody>
</table>
functional status, clinical complications and comorbidities, as well as non-clinical factors such as a patient’s family support, home environment or care preferences, may influence selection. For instance, a medically complex stroke patient may require hospital-level rehabilitative care typically provided by IRFs, while a frail, elderly stroke patient may need to remain in a SNF to ensure his or her safety, and a more stable stroke patient could be treated through home visits.

The PAC landscape will continue to evolve as providers experiment with new models and greater integration. The Drake Center, a Cincinnati, OH, provider of LTACH, SNF and assisted-living services, illustrates the benefits of multi-setting integration. The Drake Center has developed unique LTACH programs that treat high-severity patients, including many who need intensive rehabilitation. In addition to interdisciplinary nursing and therapy, the Drake Center medical staff includes internists, rehabilitation physicians and many subspecialty physicians. Drake also staffs full-time case managers to assist in care planning and to help choose the most appropriate setting for each patient. The scope of services provided at Drake reflects Cincinnati’s unique continuum of post-acute care. Other providers in the community, as well as payers who work closely with Drake, note the Center’s ability to treat the highest-acuity patients.

The selection of a particular treatment setting has cost implications for payers – particularly the Medicare and Medicaid programs – so policymakers want to better understand patient characteristics and outcomes by setting. As policy changes place more account-ability for the selection of the most appropriate PAC setting on referring providers, it will be increasingly important to support these providers in making the best choices for patients. As a first step, referring providers need more information on available PAC options and data indicating the unique clinical capacities and quality outcomes for PAC providers in the community. Once an individual patient has been admitted to the appropriate PAC setting, acute-care clinicians need access to complete patient data that can be shared across settings, including from the PAC setting back to the referring provider. Many of these data-sharing goals require a robust health information technology infrastructure that some facilities are just beginning to build.

To help measure patients’ clinical status, treatment cost and outcomes, as well as providers’ referral patterns across settings, the Centers for Medicare & Medicaid Services (CMS) developed the Continuity Assessment Record and Evaluation (CARE) tool for use at acute-care hospital discharge and PAC admission and discharge.22 As of June 2010, 150 acute and post-acute providers were collecting CARE assessment data as part of the CMS demonstration to evaluate the tool.23 The CARE tool measures health and functional status, changes in severity, and other indicators for Medicare patients. To help facilitate reporting, this tool was established as an inter-operable, web-based data reporting system.24 While a variety of stakeholders recognize the need for a common assessment tool, users have suggested some improvements to the CARE tool. Some providers find that it can be lengthy and have questioned the burden of documentation required to demonstrate medical necessity, comply with CMS and health plan rules and defend against retroactive denials.25

A Common Assessment Tool
Could Help Providers Make the
Best Decisions for Patients
Policymakers and providers agree on the need for a single assessment tool that uses common data metrics for all PAC settings. A uniform tool could not only help providers and patients work together to select the most appropriate PAC setting and encourage efficient data sharing among providers, but also could improve data analysis. Currently, each PAC setting has its own methods and tools for admitting and discharging patients, as well as a unique payment system; patients who receive care in multiple settings may receive redundant – and typically incompatible – evaluations.21

Any standard PAC referral tool will create new challenges for policymakers and providers. For example, PAC providers treat a highly heterogeneous population of patients who may be difficult to assess with one tool. Furthermore, patients’ medical information will need to be shared electronically across the care continuum. Reliable quality and cost measures that span care settings do not yet exist, and policymakers will need to decide what quality information is most important and effectively yields a global picture of the individual patient’s care experience. It also may be challenging to incorporate into a standardized tool all factors that influence PAC selection for particular patients, such as family support, proximity of care sites, and patient out-of-pocket cost. Finally, shifting patient assessment from a siloed to a continuum-based perspective will highlight the need for treatment protocols that provide the best clinical and cost outcomes over an entire episode of care.
Effective coordination of care between acute and post-acute settings has benefits for patients and providers. Such coordination can reduce hospital readmissions—thereby reducing spending and improving patient experiences. Hospitals seeking to reduce or eliminate re-hospitalizations may find answers in partnering with local PAC providers. HealthSouth Rehabilitation Hospital in Toms River, NJ, engages in a substantive review of all readmissions to general acute-care hospitals. Acute and post-acute providers review readmissions to identify the root cause of each, including whether individual patients were discharged prematurely or whether the collection of additional clinical information during the hospital stay could have prevented the readmission. In March and April 2010, HealthSouth reported that this initiative reduced their readmission rate at this site from 16 to 9 percent.

Partners HealthCare in Boston, which includes eight PAC sites and the state’s largest homecare agency, has implemented many complementary initiatives that improve communication and coordination across the continuum. For example, Partners is participating in the Institute for Healthcare Improvement’s State Action on Avoidable Re-hospitalizations (STAAR) initiative. As part of this effort, a combined acute and post-acute team is working to reduce readmissions by 30 percent over 3 years by exchanging targeted patient information, educating and coaching patients and engaging acute providers during the post-acute stage.

Through several separate initiatives, Partners has piloted new communication tools designed to improve care transitions. For example, a physician-led group identified key data elements needed to smooth transfers to PAC providers. These elements have been incorporated into new discharge forms that facilitate care management and collaboration among acute and PAC partners. By September 2008, 96 percent of discharge packets included all of the 12 essential data elements. The State of Massachusetts is planning to use on a statewide basis some of the tools tested and refined by Partners.

Partners also has established communication channels among physician and hospital leaders throughout the system. All PAC chief medical officers within the system meet monthly to discuss common concerns and formulate solutions; the group currently is focused on reducing 72-hour readmissions. Acute-PAC communication also has been facilitated through quarterly quality and strategy meetings by leaders from across the organization.

Johns Hopkins Bayview Medical Center in Baltimore, MD, which provides a variety of PAC services including LTACH, IRF, skilled nursing care and home health care, also uses several strategies to coordinate information and care across settings. Advanced practice nurses at Bayview review all pending PAC admissions to ensure that patients are ready to transition from acute to post-acute care, and PAC staff often participate in the decision to discharge a patient from the acute setting. Once a patient is admitted to PAC, Bayview staff use electronic health records to monitor patient data such as medication lists and recent treatment history. The electronic health record is synchronized across the acute and PAC settings to maximize compatibility; for example, all Bayview settings use the same template for clinical progress notes. Staff at the acute and post-acute sites communicate regularly to coordinate care and smooth transitions. All acute-care specialists have privileges at Bayview’s post-acute sites, allowing referring physicians to follow their patients along the care spectrum. Hospital leaders note that the high degree of connectedness between the acute and post-acute teams has yielded several benefits for patients and for Bayview. The hospital reports a readmission rate of about 10 percent—which Bayview states is approximately half the rate observed for freestanding PAC providers in the community. The Bayview team also has achieved several patient-centered milestones in coordination. For example, Bayview staff are able to transition patients receiving continuous pain medication from acute to post-acute care without disrupting medication administration. Bayview’s acute and post-acute sites are linked in terms of ownership and physical proximity; Bayview believes both features support the organization’s success.
Spotlight on: Rural Providers

For rural providers, coordinating and integrating care across settings poses unique opportunities and challenges. Medicare beneficiaries in rural America are, on average, older, lower income, and more likely to suffer from chronic illness than their urban counterparts. The rural network of health providers also is unique, with a greater dependence on Medicare revenue due to the larger proportion of beneficiaries relative to the overall population. Much of the post-acute care in rural areas is provided by home health agencies, skilled-nursing facilities and “swing beds” – acute-care hospital beds that may also be used for SNF care.

The Medicare program allows rural and critical access hospitals to provide both acute and SNF-level care in “swing beds” to ensure beneficiary access to SNF care and to promote efficiency in care delivery. The Medicare Payment Advisory Commission reports that most acute beds in critical access hospitals are designated as swing beds. Glendive Medical Center, a 25-bed critical access facility in Glendive, MT, relies heavily on its swing bed capacity to provide the SNF care that many patients require following acute treatment. Because many of Glendive’s more complex patients receive tertiary and other care in Billings, MT – approximately three hours away – anticipating the need for acute versus SNF care can be challenging. All of Glendive’s 25 acute beds can swing to SNF care, allowing Glendive to be flexible in meeting individual patient needs. For example, patients who receive their acute-care services at Glendive can transition seamlessly to SNF-level care when needed; often, patients receive both acute and post-acute services in the same hospital bed. Glendive has developed its own staffing model to guarantee the appropriate mix of staff for these beds.

In addition to capitalizing on unique delivery strategies like swing beds, rural PAC providers are using many of the same strategies as their urban counterparts to coordinate care and smooth transitions. However, rural providers may need to incorporate additional elements or protocols to address the particular needs of their geographies and patients. For example, Big Sandy Medical Center (BSMC) in Big Sandy, MT, worked with its main tertiary care partner, Benefis Hospital, to develop a standard protocol for patient transfers. Many patients travel 80 miles to Benefis in Great Falls, MT or to other urban areas to access more complex acute care such as surgery and related LTACH or IRF care. Often, these patients then return to BSMC for any additional PAC, typically through a swing bed or home care, depending on clinical need. To facilitate care coordination, BSMC and Benefis have established a “one call” protocol to ensure that BSMC – a critical access provider with 22 SNF beds and eight inpatient beds – and Benefis exchange not only the necessary patient information, but also products and supplies needed for patient care. For example, Benefis sometimes discharges complex wound patients with the specialized equipment needed to continue their care. To ensure sufficient lead time for BSMC to stock equipment or prescriptions for transferred patients, the two providers exchange information well in advance of any transfers, typically 10 to 20 hours before discharge. Leaders at BSMC identify open communication, including regular multi-site meetings and understanding of the providers’ mutually reliant relationship as keys to success.

Transition Coaching Can Reduce Readmissions by Smoothing Care Transitions

Transitioning patients across care settings can reveal vulnerabilities in the delivery system and in patients’ care plans, especially when providers are geographically distant. Providers are testing multiple models to support patients and providers across care transitions, with the goal of realizing the seamless care continuum envisioned by policymakers, providers and patients alike.

One model includes a designated care coordinator, such as a physician, nurse or social worker, who can ensure a smooth transition across settings. A study based at the University of Colorado examined the impact of a “transition coach” on re-hospitalizations among patients admitted for any of 11 specific diagnoses. Advanced practice nurses worked with patients and caregivers to address medication management, electronic data transfer, follow-up care and clinical warning signs, and also conducted home or site visits after discharge to assess patients’ status. Patients
who received transition coaching were less likely to have reentered the hospital than those who did not at 30, 90 and 180 days after discharge.38 (Chart 11).

The HealthEast Care System in St. Paul, MN, is working to smooth transitions throughout the system, which includes acute care, LTACH, SNF, home health care and outpatient settings. Coordination begins at the time of inpatient admission, when a dedicated inpatient care manager is responsible for receiving relevant clinical information from the patient’s primary care physician. The inpatient care manager passes that information — along with relevant information from the inpatient stay — to the next setting of care. Inpatient care managers also follow up with the receiving PAC provider to confirm that all needed information has been received and understood. The model, called Care Navigation, was initially piloted for patients with congestive heart failure, but has since expanded significantly.

Supporting patients through care transitions can reduce re-hospitalizations.

Chart 11: Re-hospitalization Rates for Patients Who Received Care Transition Coaching and Patients Who Did Not

HealthEast leaders have observed significant reductions in both readmissions and medication discrepancies as a result of the effort. HealthEast plans to evaluate the cost-effectiveness of the effort in the future, anticipating that Care Navigation will achieve cost savings by eliminating duplicative or less valuable services.

The Affordable Care Act Encourages Coordination, Accountability across the Care Continuum

The newly passed health reform law introduces important changes for acute and PAC providers. (Chart 12). Many of these activities are meant to enhance collaboration and promote mutual accountability, ideally smoothing care transitions by aligning incentives. The law also will create opportunities to test payment concepts such as bundled payments.

The ACA specifically establishes a national, voluntary bundled payment pilot program for acute and PAC services. The demonstration will apply to 10 conditions to be selected by the Secretary of Health and Human Services (HHS).39 Upon completion of the initial five-year demonstration period, the Secretary may expand the scope or duration of the program if it is shown to improve quality and reduce costs.

Bundled payments could encourage acute and post-acute providers to work together by aligning incentives, but many questions remain unanswered at this time. In implementing the bundling demonstration, it will be important for CMS to identify and

“We recognize that the patient’s care experience doesn’t end when he or she leaves the hospital. We aren’t ‘discharging’ patients, we’re transitioning them to the next setting of care.”

Rahul Koranne, M.D., MBA, Medical Director, HealthEast Care Navigation
modify many coverage or payment rules that limit the movement of patients across settings. CMS also will have many operational decisions to make regarding this demonstration. For example, in its early stages, payment bundles will apply only to a subset of conditions. Implementing a different set of coverage and payment rules for a subset of their patient populations could be challenging for providers, who will have to operate parallel systems during the demonstration, and could also limit the overall effectiveness of the demonstration.

The ACA separately requires HHS to test a continuing care hospital (CCH) model. Under this model, the CCH will accept payment for services typically provided by IRFs, LTACHs and hospital-based SNFs. CCHs must cover all PAC services, directly or through contractual arrangements, for a patient’s initial CCH stay and 30 days post-CCH discharge. A CCH will be considered a single provider from a payment perspective. CMS will have to develop unique approaches to measure quality and pay for the care delivered in CCHs. HHS also will need to determine how to design the payment bundle to incorporate care provided in the 30-day window following CCH discharge, and related care provided outside of the CCH.

The ACA makes payment and other changes that directly impact acute and PAC providers. All facilities will see reduced payment updates. In addition, the law requires CMS to create a value-based purchasing program (VBP) for hospitals by 2013. As part of this effort, the Secretary of HHS must

**“Hospitals are not going to achieve meaningful reductions in readmissions unless they are partnered with post-acute care.”**

Terry O’Malley, M.D., Medical Director, Non-Acute Care Services, Partners HealthCare

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**ACA makes substantial changes to acute and post-acute provider operations and payment.**

Chart 12: Summary of Selected ACA Provisions that Impact Acute and PAC Providers

<table>
<thead>
<tr>
<th>Provision</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center for Medicare and Medicaid Innovation</td>
<td>Awards broad authority to Secretary to test innovative payment and delivery models. Allows Secretary to expand demonstrations if proven successful (proven to improve quality, reduce costs or both).</td>
</tr>
<tr>
<td>Accountable Care Organizations</td>
<td>Requires Secretary to implement a Shared Savings (or ACO) program by 2012. ACOs are groups of providers that voluntarily meet quality and organizational requirements, and may share in any savings with the government.</td>
</tr>
<tr>
<td>Bundling</td>
<td>Establishes an acute/post-acute bundled payment demonstration for 10 conditions to be selected by the Secretary.</td>
</tr>
<tr>
<td>Readmissions</td>
<td>Reduces payments to hospitals if 30-day readmission rates for specific conditions are higher than thresholds set by the Secretary.</td>
</tr>
<tr>
<td>Continuing Care Hospitals</td>
<td>Establishes demonstration program to test concept of CCH, or hospitals that provide services typically delivered in IRF, LTACH and SNF settings.</td>
</tr>
<tr>
<td>Value-based Purchasing Program</td>
<td>Beginning in 2013, establishes a value-based purchasing program for most hospitals. Secretary will award incentive payments to hospitals based on performance scores as determined to be appropriate. Also strengthens quality reporting requirements. Requires Secretary to pilot-test VBP for LTACH, IRF and hospice providers before 2016.</td>
</tr>
</tbody>
</table>

Source: Affordable Care Act, Public Law 111-148 and Public Law 111-152.
Post-aggregated, facility-specific quality information on its public website, Hospital Compare. To bolster current quality measurement activities and support future VBP programs, the law requires the refinement and development of outcomes measures for resource-intensive conditions and for preventive and primary care. The law also requires that LTACHs, IRFs and hospice programs report quality data or face payment reductions beginning in rate year/fiscal year (FY) 2014; pilot programs testing VBP in these settings will begin by 2016. Finally, as discussed above, the law will reduce Medicare payments to most acute-care hospitals for readmissions beginning in FY 2013. The program will focus initially on three conditions but will expand in future years. PAC providers and the quality improvement programs they are pioneering will be important pieces of hospitals’ efforts to reduce readmissions, control costs and improve patient care. (Chart 13).

**What Is Payment Bundling?**

Bundling is one approach to align payment incentives and encourage efficiencies between acute and post-acute providers. Currently, the Medicare fee-for-service system has unique payment rules and amounts for each provider type. Under a bundled payment, a single entity would receive a sum of money to cover the costs of an episode of care spanning two or more providers.

Bundled payments could reduce unnecessary physician and ancillary services, compensate physicians and hospitals for efficient resource use and reduce complications and readmissions. Bundled payments also raise operational challenges for providers: a single payment will be very difficult to implement if there is not an organizational and legal structure in place to accept and divide it appropriately among various providers. Creating such relationships could be challenging for independent providers. CMS will need to address legal and regulatory barriers to clinical integration.

Providers will need to work together to determine how to overcome barriers to integration and how bundled payments should be shared; in particular, how the payments will be received and distributed. For example, this function could be performed by a hospital, consortium of post-acute providers, or some other entity.

**ACRA encourages multiple strategies to break down barriers between care settings.**

Chart 13: Strategies to Promote Integration across Settings

- Information and data exchange
- Episode-based quality metrics
- Partnerships to reduce readmissions
- Bundled payments

- Acute-care hospital
- LTACHs
- IRFs
- SNFs
- HHAs
Looking Ahead

PAC providers deliver a wide array of specialized services following treatment in a general acute-care hospital. In addition to offering these essential services to their patients, PAC providers can serve as important partners – both for acute-care hospitals and for one another – in improving quality and reducing costs over an episode of care.

Policymakers, providers and other health care stakeholders envision a future health care system that promotes seamless coordination across the care continuum and takes a global view of a patient’s care. To ensure the success of this vision, CMS should review its policies and remove regulatory, legal and financial barriers to collaboration and integration. Already, acute and PAC providers are beginning to move toward this goal with innovative initiatives. Recently enacted health reform legislation will accelerate these activities, making it increasingly important for providers to be proactive in testing collaborative models and solutions. Acute and post-acute providers, by working together, can lead in these efforts.

**POLICY QUESTIONS**

- How can acute and PAC providers share best practices or novel approaches to optimizing patient outcomes and reducing avoidable utilization?
- Which models of integration across the care spectrum should be tested, and in which populations?
- What legal, financial, regulatory or other barriers could impede collaboration among providers?
- How can payment reform concepts such as bundling strike the appropriate balance between encouraging the judicious use of resources and promoting high-quality care?

- How can policymakers and providers develop episode-based metrics to encourage a more global view of quality and efficiency across the care continuum?
- Which clinical interventions are most effective in an episode framework?
- How will acute and post-acute partners share clinical and non-clinical patient information?
ENDNOTES


2. Ibid.


5. Personal communication with John Votto, President and CEO, Hospital for Special Care. 21 June 2010.


7. Personal communication with Stacy Smith, Chief Operating Officer, Valir Health. 16 June 2010.

8. Ibid. The Functional Independence Measure, or FIM, scale is the most widely used assessment tool for rehabilitation patients. The scale measures patient independence in key areas such as self-care, sphincter control, transfers, locomotion, communication, and social cognition. The patient receives a score in each category, with one denoting total reliance on others for assistance and seven denoting total independence. Total scores range from 18 to 126 points, with 126 denoting the highest level of independence.


10. Personal communication with Steven Ager, Vice President of Business Development for Kindred Healthcare. 1 June 2010.


12. Personal communication with Christiana Care Health System and Delaware Physician Care staff. 22 June 2010.

13. Ibid.

14. Ibid.

15. Ibid.


17. Ibid.


20. Ibid.

21. Ibid.


24. Ibid.


27. HealthSouth Rehabilitation Hospital of Toms River. *Interdisciplinary Acute Care Transfer Process/Review*. Toms River, NJ.

28. Personal communication with David Storto, President, Partners Continuing Care & Spaulding Rehabilitation Network. 24 June 2010.

29. The STAAR initiative aims to reduce avoidable re-hospitalizations by engaging all healthcare stakeholders, including providers, patients, and payers. The program is currently being piloted in three states: Massachusetts, Michigan, and Washington. More information is available at: http://www.ihi.org/IHI/Programs/StrategicInitiatives/StateActiononAvoidableRehospitalizations/STAAR.htm.

30. Personal communication with Terry O’Malley, M.D., Medical Director, Non-acute Services, Partners HealthCare. 22 July 2010.


32. Personal communication with Partners Continuing Care leadership. 22 July 2010.

33. Personal communication with Michele Bellantoni, M.D., Medical Director, Johns Hopkins Geriatrics Center. 1 June 2010.

34. Ibid.

35. Ibid.


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