Improving efficiency and preserving access to emergency care in rural areas

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Chapter summary

Efficiently providing access to inpatient and emergency services is a growing challenge in sparsely populated rural areas. Declining populations can lead to fewer admissions, greater inefficiencies, and increased financial difficulties. For example, it is difficult to efficiently staff a hospital that has less than one admission per day. Low inpatient volume may also make it hard for clinicians at rural hospitals to have enough experience with different types of patients and clinical situations to provide outcomes equal to neighboring higher volume facilities.

Most rural hospitals are critical access hospitals (CAHs), which receive costbased payment for Medicare inpatient and outpatient services. However, costbased models have three limitations. First, cost-based payments favor hospitals with high cost structures over hospitals in poorer communities that are forced to have lower cost structures. Second, they favor the expansion of services with high shares of Medicare and privately insured patients rather than emergency services, which often have higher shares of uninsured patients. Third, cost-based payments reduce the incentive to control costs.

At most CAHs, cost-based payments are well above the rates the hospital would otherwise receive if it were paid under Medicare's prospective payment systems (PPSs). Among CAHs that closed in 2014, the median aggregate Medicare payments for acute and post-acute inpatient services

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were \$500,000 above PPS rates in aggregate. Despite the relatively high Medicare payment rates, these facilities were not able to stay open. The question is whether the existing Medicare supplemental payments (the \$500,000) could preserve access and generate more value for the beneficiary if the supplemental dollars were used to preserve access to emergency services rather than being used to support inpatient services.

New options for rural communities

The purpose of this chapter is to discuss giving isolated rural hospitals the option of converting to an outpatient-only model that would be sustainable in a community with declining inpatient volumes. The objectives of a new outpatient-only option would be to:

- Ensure access—Allow isolated hospitals (CAHs and PPS hospitals) that are not financially viable to convert to outpatient-only facilities that would preserve access to outpatient and emergency care in their community.
- **Promote efficiency**—Allow isolated hospitals the option of converting to an outpatient model if they believe that model would create more value for their community without increasing the overall cost of care.

The chapter outlines two potential outpatient-only options for communities that lack the population to support efficient high-quality inpatient services: a 24/7 emergency department (ED) model and a clinic with ambulance services model.

Model 1: 24/7 emergency department

Under the first outpatient-only model, if an isolated rural hospital chooses to give up acute inpatient services and cost-based payment, Medicare would give the facility an annual grant or fixed payment to help cover the standby costs of 24/7 emergency services. The facility would also continue to receive Medicare outpatient hospital PPS rates for outpatient services (including emergency care, radiology services, lab services, and telehealth services). The facility would receive Medicare skilled nursing facility (SNF) PPS rates if it chooses to convert inpatient beds to post-acute SNF beds. In short, the supplemental payments hospitals currently receive for maintaining CAH inpatient services could be redirected to support stable access to emergency care. Only isolated providers that do not have competing nearby hospitals with a 24/7 ED would be eligible for a supplemental fixed payment under this model.

Model 2: Clinic and ambulance

The second model is for communities that cannot support a 24/7 ED and may have to rely on an ambulance service to stabilize and transfer patients. These

communities could opt to convert their existing inpatient facilities into a primary care clinic with an affiliated ambulance service. Similar to the federally qualified health center model, Medicare could provide prospective rates for primary care visits and ambulance transports, but also provide grant funds or other fixed payment to support the fixed costs of having a primary care practice, the standby costs of the ambulance service, and uncompensated care costs. Compared with the model in which a hospital becomes a stand-alone emergency facility, the clinic and ambulance model may be more problematic to execute. It will be more challenging to describe exactly what level of primary care and ambulance access is required. In addition, there could be a large number of isolated communities with primary care practices and ambulance services that do not have a hospital. These communities may feel they should also receive a fixed payment similar to the payment given to clinics in communities where a hospital is closing. The pressure to expand the program to include areas without a hospital closure could cause Medicare to "buy out the base" (i.e., support the primary care infrastructure across a large number of rural communities), which would raise the cost of this policy.

Why create one more special payment program for rural providers?

Medicare has several special payment models for rural hospitals. About 60 percent of rural hospitals are CAHs (1,300), and most are expected to remain in the CAH program. This chapter is not about changing the CAH program. However, the CAH model—which requires a hospital to maintain acute inpatient services—is not the best solution for all rural communities. Many small towns do not have the population to support efficient, high-quality inpatient services. However, they may be reluctant to cease inpatient services because doing so would also mean giving up the higher payment rates that they receive through the CAH cost-based payment model. The two options discussed in this chapter would allow facilities to shift to an outpatient-only model while maintaining some supplemental Medicare funding that could keep them financially viable and able to continue to serve the community.

Why limit eligibility to isolated hospitals?

As the Commission has maintained in previous reports, supplemental payments beyond the standard PPS rates should be targeted to isolated rural providers. Thirtyfour percent of rural hospitals are 25 or more miles from other hospitals. Some are more than an hour from other hospitals. The emergency access provided by these hospitals needs to be preserved in some form. However, there is great diversity among rural hospitals. Many rural hospitals—including CAHs—are 2, 5, or 10 miles from another acute care hospital. Keeping an ED open that is 2 or 10 miles away from a competitor is not the same public policy priority as keeping a hospital

open that is 30 or 60 miles away from all other providers. Therefore, a new program to support stand-alone EDs in rural areas could be limited to facilities that would be at least some minimum number of road miles from the nearest hospital, meaning the Medicare program would not provide special support to EDs that are, for example, 5 or 10 road miles from a hospital. ■

Introduction

Rural and urban beneficiaries receive similar volumes of care

In our 2012 mandated report on rural health care, we found significant regional variation in the overall volume of services used by rural beneficiaries. Medicare beneficiaries with similar health status had significantly higher use of certain services in some states than in other states. Despite differences in practice patterns among states, we found little difference in service use between isolated rural beneficiaries and urban beneficiaries in the same state. In states where service use was high for urban beneficiaries, service use also tended to be high for rural beneficiaries. Similarly, in states where urban beneficiaries used fewer services, rural beneficiaries also used fewer services. This pattern suggests that rural patients in communities with few local providers traveled for their care, resulting in rural and urban patients having similar volumes of physician visits, hospital admissions, skilled nursing facility (SNF) days, and prescription fills (Medicare Payment Advisory Commission 2012). Our 2012 report examined data through 2010. Since 2010, large changes have not occurred in Medicare payment policy or in the level of spending per beneficiary in rural or urban areas.

Quality of care and hospital volume

As the populations in rural communities decline and the remaining patients often bypass their local rural hospitals, inpatient volumes in those hospitals decline. In many cases, the bypass occurs even when the services are available locally (Liu et al. 2008, Medicare Payment Advisory Commission 2012, UnitedHealth Center for Health Reform & Modernization 2011). Declining volume is a concern because low-volume rural hospitals tend to have worse mortality metrics and worse performance on some process measures (Durairaj et al. 2005, Institute of Medicine 2000, Joynt et al. 2013, Joynt et al. 2011a, Joynt et al. 2011b, Medicare Payment Advisory Commission 2012, Ross et al. 2010, Silber et al. 2010). Given the research on volume and outcomes, there may be value for beneficiaries in maintaining local emergency access while giving rural communities the option of consolidating inpatient services at a subset of existing rural hospitals.

There is also a concern that smaller rural hospitals have been left out of national efforts in quality reporting and improvement. Unlike prospective payment system

(PPS) hospitals, critical access hospitals (CAHs) are not required to publicly report their outcomes data on Hospital Compare, though a significant share voluntarily report some data. In 2015, a panel of providers and other rural advocates was convened by the National Quality Forum to address quality improvement in rural areas. The panel recommended requiring CAHs to track their quality metrics and start participating in a limited set of CMS quality measures within two to four years (National Quality Forum 2015). These measures could focus on services frequently provided in small rural hospitals; for example, they could focus on heart failure patients' outcomes rather than acute myocardial infarction (AMI) outcomes because AMI patients are often helicoptered to larger hospitals with cardiac catheterization labs. To help overcome the issue of low case volume in payfor-performance models, the panel also considered encouraging groups of hospitals to pool their data to generate a large enough volume of cases to evaluate performance. While the movement of small hospitals into the CMS quality improvement programs may help measure performance, concerns remain regarding patient outcomes at low-volume facilities where the staff does not have the benefit of experiencing a large number of similar clinical situations.

Declining rural hospital volume and workforce changes

While the overall volume of care received and total per capita spending remain similar for rural and urban beneficiaries, rural beneficiaries' care patterns have changed in two ways. First, rural hospitals' volume of inpatient admissions has declined at a faster rate than urban hospitals. Between 2013 and 2014, the volume of Medicare discharges from rural hospitals with fewer than 50 beds declined by 8.4 percent compared with a 3.9 percent decline at urban hospitals (Medicare Payment Advisory Commission 2016). This decline reflects a shift in care from inpatient to outpatient services and an increase in the share of patients who bypass rural hospitals and use urban hospitals for care. Between 2006 and 2014, occupancy at small rural hospitals declined from 47 percent to 37 percent. In 2014, on average, urban hospital occupancy was 64 percent compared with 37 percent at small rural hospitals and 41 percent for all rural hospitals (Medicare Payment Advisory Commission 2016).

The second change has been the greater specialization of the rural clinical workforce. Historically, primary

care physicians in rural communities had a broad scope of practice, seeing patients in their office, covering the emergency department (ED), and seeing patients in the hospital. In more recent years, rural clinicians have become more specialized. From 2005 to 2009, the share of rural hospitals using hospitalists increased from 19.8 percent to 41.2 percent (Casey and Moscovice 2012). Our site visits and interviews with rural hospital administrators suggest that this trend has accelerated since 2009. Interviewees report that increasingly fewer clinicians want the lifestyle associated with having an office-based clinical practice, covering the ED, and covering inpatient concerns at night. Some larger CAHs employ physicians just to cover the ED, hospitalist physicians to cover inpatient services, and clinicians to cover services provided in outpatient settings. The pool of clinicians now includes more physician assistants (PAs) and nurse practitioners (NPs). However, even with the lower cost of NPs and PAs, it can be difficult for smaller CAHs to finance separate clinicians for inpatient, outpatient, and emergency care as patient volumes decline. Therefore, low-volume CAHs have the difficult job of competing with each other for a shrinking pool of clinicians who want the lifestyle of operating an outpatient practice during the day, covering inpatient issues that arise at night, and covering the emergency department.

Medicare's special payments to rural hospitals

The Medicare program has several payment programs designed to preserve access to rural hospitals. Most of these programs are inpatient-centric models. The Sole Community Hospital (SCH) Program increases inpatient and outpatient payments by about \$900 million to over 300 SCHs. The Medicare-Dependent Hospital (MDH) Program increases inpatient payments by about \$100 million to about 150 rural hospitals. Sixty percent of rural hospitals (1,300) receive cost-based payment through the CAH program. This cost-based payment program increases payments to CAHs by about \$2 billion per year relative to inpatient prospective payment system (IPPS) payments for acute care hospitals (Medicare Payment Advisory Commission 2012).

Despite the SCH, MDH, and CAH programs, rural hospital closures have increased in the last three years. Some closures reflect excess capacity, but in other instances, the closed hospitals were the sole provider of emergency services in the area. From 2013 through March 2016, 43 rural hospitals closed (55 if we include rural

areas of metropolitan counties). Among the closures were 21 CAHs (Young 2016). While 27 of the closures were less than 20 miles from the nearest hospital, 13 were 20 to 30 miles from the nearest hospital and 3 were over 30 miles from the nearest hospital. Given that 16 of the 41 closures were more than 20 miles from the nearest acute care hospital, some have questioned whether Medicare's current rural payment models are effective in preserving access to emergency services. In particular, there is an interest in payment models that are focused on preserving outpatient access rather than maintaining inpatient services (Thompson 2015).

Different payment models for rural hospitals have been debated since the start of the prospective payment system (PPS) (Christianson et al. 1990). The Congress created the SCH program before the start of the PPS in 1983. The SCH program provides higher prospective inpatient operating payments to rural hospitals that historically had high inpatient operating costs. Originally, the SCH program was limited to rural hospitals that were more than 35 miles from another acute care hospital (or 25 miles in special circumstances). However, currently, SCHs are allowed to be any distance from CAHs, meaning the program is less targeted at isolated hospitals than it was in the 1980s. Similar to the SCH program, the Congress instituted the MDH program in 1989; it provided a blended payment that was equal to 50 percent of PPS operating payment rates and 50 percent of the hospital's historic inpatient operating costs trended forward.² Qualifying hospitals are required to be small and rural and to have a high share of Medicare patients, but they do not need to be isolated. In the 1980s, the Congress also authorized the Rural Primary Care Hospital (RPCH) Program, and the Montana Medical Assistance Facility (MAF) Program was started. The RPCH and MAF programs provided cost-based payment to small hospitals that agreed to not keep patients for more than three or four days. The inpatient focus of these payment programs reflects the dominance of inpatient services in the financing of hospitals in the 1980s. In 2011, the Congress reinforced the inpatient focus of Medicare payment by enacting a generous low-volume add-on payment for inpatient care at hospitals with fewer than 1,600 Medicare discharges that are more than 15 miles away from another PPS hospital (Medicare Payment Advisory Commission 2012). Under current policy, hospitals receiving SCH and MDH payments can also receive a low-volume adjustment.

In the 1990s, the Congress expanded special payments beyond inpatient services. In 1997, the RPCH program was transformed into the CAH program. CAHs receive cost-based payments for inpatient and outpatient services. The program was later expanded to include cost-based payment for post-acute care in swing beds, on-call payments, and a 15 percent add-on to physicianfee-schedule payments (Medicare Payment Advisory Commission 2005). To qualify for CAH status, a hospital must have 25 or fewer acute care beds, maintain inpatient services, maintain an emergency department (with clinicians available within 30 minutes), and have an average length of stay of 96 hours or less.

Unlike the MAF program, the Congress initially did not require that CAHs be 35 or more miles from another hospital. The Congress permitted states to designate hospitals as "necessary providers" to make them eligible for the program and let the states determine whether a small hospital was rural or urban. The Congress later eliminated the "necessary provider" exception but grandfathered in about 800 hospitals that entered the program through the "necessary provider" exception. Given the program's initial lack of targeting, 1,300 small rural hospitals eventually entered the program and received Medicare payment equal to 101 percent of operating and capital costs for inpatient, outpatient, laboratory, and swing bed skilled nursing post-acute services. As a result, CAHs received about \$9 billion in payments in 2012, which was about \$2 billion more than these hospitals would have received under PPS rates (Medicare Payment Advisory Commission 2012). The additional Medicare dollars helped many rural communities build new hospitals, and it almost eliminated rural hospital closures for several years. However, limitations of the CAH financing mechanism have become apparent in recent years.

Six CAHs closed in 2013, and another seven closed in 2014, despite having received cost-based Medicare payment. The financial challenges faced by CAHs can include factors such as declining populations, declining patient volume from commercial insurers, continued difficulty recruiting physicians, continued uncompensated care costs, and patients bypassing the local CAH for larger hospitals. In particular, the decline in admissions is difficult for hospitals built on an inpatient payment model. From 2003 to 2014, the median number of annual all-payer discharges among CAHs fell from over 600 to under 400, and 10 percent of CAHs had 86 or fewer discharges in 2014 (Figure 7-1, p. 210). Despite having

25 or fewer beds per CAH, the average CAH occupancy rate (including post-acute swing bed patients) fell to 35 percent in 2014.

When CAHs face a decline in the number of patients with commercial insurance, they can face financial difficulties despite receiving cost-based payments from Medicare. Medicare pays CAHs roughly their costs for Medicare patients, and Medicaid also pays costs in many states. As a result, CAHs need to make enough profit on commercially insured patients or receive enough local government support to cover losses on the uninsured and bad debts. The current Medicare inpatient-centric payment models, in which hospitals must rely on crosssubsidizing uncompensated care costs with profits from commercially insured patients, may not work in all rural communities.

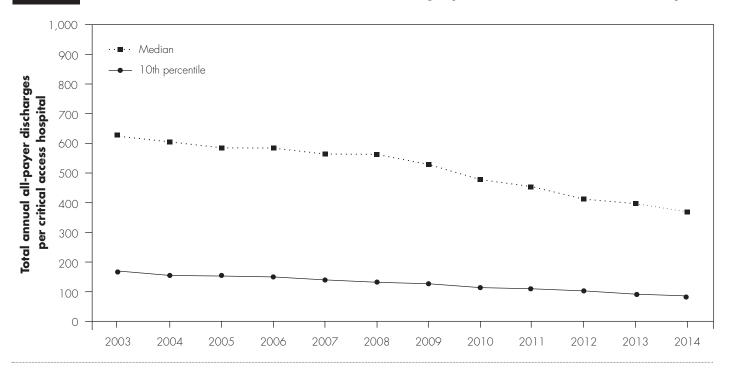
Inefficiency of inpatient-centric models

To qualify for the special payments in the SCH program, the MDH program, or the CAH program, a hospital must provide inpatient services. In the SCH and MDH programs, the amount of supplemental dollars received depends on the hospital's volume of Medicare inpatient discharges. In the CAH program, supplemental dollars increase with the volumes of Medicare admissions, postacute days in swing beds, and other Medicare services. Medicare will pay its share of costs (no matter how high those costs go), but the hospital must keep costs low enough so that profits on privately insured patients (plus local government and charitable contributions) cover the costs of uncompensated care. To keep unit costs sufficiently below private insurer prices, hospitals need to have a certain volume of paying cases. A fundamental problem is that costs per inpatient day rise as CAH volume falls, which results in higher losses per uninsured day and lower profits per privately insured day. For example, it is difficult to efficiently staff a hospital with an average census of two patients, especially if a hospital has a census of four inpatients one day and zero the next.

A key question is whether a rural hospital could stop providing inpatient services and still generate enough outpatient revenue to maintain an ED. This approach has been successful in some communities, but they are generally rural communities with a fairly high ED volume and payer mixes that include a large share of privately insured patients. Operators of stand-alone emergency facilities have told us that these facilities can be profitable in markets with 20 or more ED visits per day when most patients have private insurance (see text box, pp. 212–213,

FIGURE

Declining inpatient use of critical access hospitals



Source: MedPAC analysis of cost report data from CMS

for a discussion of urban stand-alone EDs). Some rural communities will have too few ED patients and too few private-pay patients to make the stand-alone ED model work without some federal or local support. For example, after three rural Georgia hospitals closed, Georgia legislators discussed operating them as stand-alone emergency facilities. However, a committee formed by the state concluded that the facilities would not have enough volume to be viable without additional financial support (Rural Hospital Stabilization Committee 2015).

The threat of closure is not the only reason a hospital would prefer an outpatient-only care model. Some financially viable hospitals may only keep their inpatient service open to qualify for CAH status and the associated higher post-acute and outpatient payment rates. If those hospitals could remain financially viable under a new outpatient-only model, they could choose to eliminate their inpatient services (and the associated costs).

Community concerns regarding the loss of local inpatient services

Discontinuing local inpatient services would be a difficult process for rural communities that have long been served

by hospitals that focused on inpatient care. Care patterns could change, and some local hospital employees would have to find work with other health care providers. While a recent study suggests that most closures do not have significant effects on the health of the community, some more isolated communities would be concerned about access to emergency services if their hospital closed (Joynt et al. 2015). Communities are also concerned about the economic effects of a closure (Thomas et al. 2015). Data on past closures show a small negative economic effect when the only hospital in a county closes, but no material economic effect when one of two hospitals in a county closes (Holmes et al. 2006). The combination of discomfort with changing care delivery patterns and concerns about the local economy (even if unfounded) can make the closure of a rural hospital a difficult decision for a rural hospital board. These hospital boards may be more receptive to adopting outpatient-only payment models of care that allow hospitals to convert into outpatient facilities with emergency capabilities.

Hospital boards may be more likely to convert to an outpatient-only facility if, for a limited number of years, they had the option of converting back to CAH status.

While all converting facilities that are more than 35 miles away from another hospital could convert back to CAH status under current regulations, most CAHs were grandfathered into the program and do not meet the 35mile criteria. These converting facilities that are less than 35 miles from another hospital would need a special waiver of CAH rules to convert back to CAH status. The Congress could give them a limited time frame (e.g., five years) to convert back to CAH status (or SCH or MDH status if they are PPS hospitals). That option would make conversion an easier decision for the board but would still place some limit on a facility's ability to convert back to CAH status when a competing hospital is located in a neighboring town.

Three ways cost-based payment models misdirect Medicare dollars

While the CAH program has helped many hospitals and has strong support among rural providers, it uses a cost-based model that has three main limitations. First, cost-based payments fail to direct payments toward isolated hospitals having the greatest financial difficulty. Instead, hospitals in high-income areas with higher non-Medicare margins tend to have higher costs and thus receive higher Medicare payments. Second, cost-based payments encourage providers to expand service lines with high Medicare and private-payer shares rather than primarily focus on services that are needed on an emergency basis. Thus, cost-based services can lead, for example, to expansion of post-acute swing bed services and outpatient services (e.g., mobile MRI services) that are not needed on an emergency basis. Third, cost-based models reduce the incentive for hospitals to control their costs and can lead to unnecessary growth in capital costs, despite declining volumes. Before we discuss alternatives to cost-based reimbursement, we will review how costbased reimbursement under the CAH program helps wealthier hospitals, affects service offerings at small rural hospitals, affects hospital cost structures, and preserves some hospitals but fails to preserve others.

Problem 1: Cost-based payment favors hospitals that can afford high cost structures

Cost-based payments do less to help poor communities with low cost structures than communities with high cost structures. Poor communities tend to have fewer privatepay patients and more uninsured patients, and the profits

derived from privately insured patients may not be enough to cover the costs of those who are uninsured.³ These hospitals may not remain financially viable even if they break even on Medicare because payments from private insurers are insufficient to offset their uncompensated care costs. For this reason, some hospitals we visited in poorer Alabama communities chose not to become CAHs. They needed to keep their costs below PPS rates and generate profits on Medicare patients to help fund the costs of the uninsured.

In contrast, wealthier communities tend to have more privately insured patients and fewer uninsured patients, which results in higher revenues for hospitals in wealthier areas. Higher revenues allow the hospital to incur higher costs. Higher costs then result in high cost-based payments relative to PPS rates. We can see this relationship between non-Medicare profit margins and costs by examining costs per day of post-acute care (PAC) in CAH swing beds. 4 We use post-acute costs per day because post-acute services are similar across CAHs and are provided by almost all CAHs. We found that in 2013, CAHs with higher non-Medicare margins had higher costs per post-acute day. On average, the resulting Medicare cost-based payment rate per day for PAC in these hospitals was roughly \$200 higher than at hospitals that historically suffered losses on their non-Medicare patients.⁵ In other words, Medicare paid higher rates to CAHs that were under less financial pressure than it paid to CAHs that were under greater financial pressure to constrain their costs. This finding—that hospitals under financial pressure have lower costs—is consistent with prior findings for PPS hospitals (Medicare Payment Advisory Commission 2015b, White and Wu 2014).

Problem 2: Cost-based payments fail to prioritize emergency access

All payment systems may create incentives to provide certain services and avoid providing others, by making some services relatively more profitable than others. For CAHs, cost-based payments often fail to create an incentive to focus on ED services because EDs tend to have a higher share of uncompensated care, fewer Medicare beneficiaries (which are paid at cost), and fewer privately insured patients (which pay more than cost) compared with other departments such as PAC or imaging services. Because Medicare beneficiaries comprise a smaller share of ED patients (fee-for-service (FFS) Medicare represents less than 30 percent of the average CAH's ED charges), a dollar of additional spending by the hospital in the ED will not result in as much additional

Stand-alone emergency departments in urban areas

small but growing share of urban emergency department (ED) facilities are stand-alone facilities located off the primary hospital campus. These facilities are of two types, both of which are growing in number: hospital-affiliated off-campus emergency departments (OCEDs) and independent freestanding emergency centers (IFECs).

Hospital-affiliated off-campus emergency departments

In 2015, 387 OCEDs were operating in the United States. These facilities are affiliated with 323 hospitals. About 6 percent of hospitals have at least one OCED; these hospitals tend to be urban, affiliated with a health system, and relatively large facilities. Most of these hospitals operate a single OCED, but 30 hospitals (8 percent) have multiple OCEDs (between 2 and 7 OCEDs). Between 2008 and 2015, the number of hospitals with an OCED increased 76 percent.

OCEDs are able to bill Medicare if they are deemed provider-based facilities. To be deemed a Medicare provider-based facility, OCEDs must be in compliance with the standard hospital and ED requirements, be financially and clinically integrated with the hospital, be publicized as an affiliate of the hospital, and be located within 35 miles of the hospital. OCEDs can bill Medicare under the outpatient prospective payment system (OPPS) for a beneficiary's ED visit and any ancillary services (e.g., imaging and lab services), while the clinician can bill under the Medicare fee schedule for physicians and other health professionals just as in an on-campus ED.6 Most other insurers pay OCEDs a facility fee and generally consider OCEDs in-network facilities.

The vast majority of OCEDs offer ED services 24 hours per day; basic imaging services such as X-rays, computed tomography (CT) scans, and ultrasounds; and on-site lab services for basic diagnostic analysis. They do not typically provide trauma services (e.g., patients coming from car accidents or with gunshot wounds), and most receive ambulance transports less frequently than do hospital EDs. OCEDs range in size, with larger facilities serving as many as 100 patients per day and the smallest facilities serving 20 patients per day. Larger OCEDs may also offer MRI and primary care and house physician specialists' offices, and they tend to take more ambulance transports than smaller OCEDs. OCEDs have one or more physicians on-site at all times, and physicians are typically contract employees. OCEDs often advertise that they are open longer (24 hours per day) than urgent care centers and serve higher acuity medical conditions such as respiratory distress, head injuries, dehydration, infection, orthopedic injuries and fractures, and abdominal pain.

(continued next page)

Medicare revenue as a dollar of additional spending by the hospital in a more Medicare-focused department such as post-acute care or cardiac therapy. For example, if 25 percent of a hospital's ED patients are Medicare patients, Medicare will increase payments by \$25 for every \$100 in additional expenses within the department. In contrast, if Medicare beneficiaries represent 80 percent of its postacute swing bed days, the Medicare program will increase payments by \$80 for every additional \$100 spent on postacute care.

CAHs tended to expand services that became relatively more profitable after transitioning to cost-based Medicare payments. Between 2003 and 2013, revenue for postacute care rose from roughly 10 percent to 50 percent of CAHs' acute inpatient revenue. While CAHs constitute a relatively small share of PAC providers, they have gained market share. In 2003, post-acute payments to hospitals that became CAHs accounted for 3 percent of Medicare's SNF payments (urban and rural). By 2013, they accounted for 5 percent of SNF payments. In 2013, post-acute swing bed payments to CAHs totaled \$1.5 billion. The higher payment level for PAC services (above PPS rates) represented a material share of the more than \$2 billion in payments above PPS rates received by CAHs. This trend illustrates how cost-based payments can direct resources toward profitable services rather than the services needed for emergency access.

Stand-alone emergency departments in urban areas (cont.)

OCEDs are permitted in most states, but in certain metropolitan areas such as Seattle, Dallas, Houston, and Denver, more have opened in recent years. OCEDs are typically located within 5 to 10 miles of the affiliated hospital and are typically located in areas with rapid population growth—not always in communities with access deficiencies, such as communities with recently closed hospitals. In some cases, OCEDs are built outside the hospital because hospitals have exhausted the capacity of their architectural footprint. In other cases, OCEDs are built strategically near other hospitals to capture market share from competitors.

Independent freestanding emergency centers

IFECs are a relatively new phenomenon in the health care industry and have grown rapidly. We have identified 172 IFECs; the vast majority are in Texas, where the number increased from zero in June 2010 (when state licensure of IFECs began) to 156 facilities in May 2015. Colorado and Arizona also have IFECs. IFECs are located in urban and suburban communities and tend to locate in areas with rapid population growth that are relatively affluent and have a well-insured population. They tend to offer services similar to smaller OCEDs, such as X-rays, CT scans, and basic lab services.

IFECs cannot currently bill the Medicare program for ED services because they are not considered providerbased facilities. Therefore, their patient mix tends to have higher shares of privately insured patients and smaller shares of Medicare and Medicaid patients. Private insurers often do not contract with these facilities, and they are often treated as out-of-network providers. Several IFECs have made efforts recently to partner with hospitals to obtain Medicare providerbased status and to begin billing Medicare under the hospital OPPS.

Regulations of OCEDs in rural and urban areas

Due to Medicare's 35-mile restriction associated with provider-based facilities, many isolated rural hospitals cannot become OCEDs. As a result, there are currently very few rural OCEDs. Therefore, the IFEC model would require new legislation allowing isolated standalone EDs to bill Medicare.

Currently, Medicare cannot distinguish OCED claims from on-campus hospital ED claims. To better understand what patients are being served by OCEDs, Medicare could consider tracking OCED claims. CMS currently has the regulatory authority to require OCEDs to bill with a special modifier so that their claims can be tracked. ■

Cost-based payments (coupled with high private-payer rates) can also encourage providers to expand outpatient services that are not needed on an emergency basis and cannot be delivered for a competitive price in the community. For example, by 2013, 81 percent of CAHs were billing for MRIs (Briggs et al. 2016). Some CAHs own MRI machines, but many others use mobile units that come to the CAH. In 2013, the estimated cost of an MRI at CAHs was \$633 per MRI. This rate is significantly above outpatient PPS rates for MRIs. While local emergency services are necessary, certain CAH services such as mobile MRI services are generally not used in emergency situations.

Problem 3: Cost-based payments reduce the incentive for cost control

Paying a hospital 100 percent of its costs reduces the incentive for cost control, and paying a hospital more than 100 percent of its costs for its Medicare patients could significantly reduce the incentive for cost control. To illustrate, consider the extreme example of a hospital that is paid more than 100 percent of its Medicare costs. Assume that a hospital is paid 115 percent of its Medicare and Medicaid costs. A payment of 115 percent of costs would be a significant concern if certain hospital departments had very high shares of Medicare patients. For example, suppose the hospital served an aging rural

community and 90 percent of the hospital's cardiac patients were Medicare beneficiaries or Medicaid patients. Also assume that Medicaid paid the CAH cost-based reimbursement as it does in many states. In this extreme case, the incentive for cost control would be eliminated, as follows:

Medicare payment = 115 percent \times all department costs \times Medicare share of department charges

Or, consider the implications given a cardiology department where 90 percent of patients are Medicare beneficiaries:

Medicare payment = 115 percent × all cardiac department $costs \times 90$ percent = 104 percent of all cardiac department costs

In the example above, the hospital's revenue would increase by \$104 for every extra \$100 of expenses in the cardiac department. Under this payment, the incentive to control costs would be eliminated.

Consider a more realistic and common example. Under current Medicare law, CAHs are paid roughly 100 percent of their costs; many state Medicaid programs also pay CAHs cost-based payments. If the CAH's cardiac department had 50 percent of its patients on Medicare and 10 percent on Medicaid, the CAH would receive cost-based reimbursement for 60 percent of its patients. Under this payment system, if purchasing a new piece of equipment increased costs in the department by \$100,000, it would receive \$60,000 in additional costbased reimbursement ($$100,000 \times 60 \text{ percent}$). Therefore, if a \$100,000 expenditure brought more than \$40,000 of private revenue and other value to the community, the hospital would have an incentive to take on that additional \$100,000 expenditure. The incentive to control costs is not eliminated, but it is reduced. We can see some evidence of this reduced incentive for cost control by examining capital expenditures at CAHs. We examined 557 hospitals that were CAHs in 2003 and in 2013. We found that their capital costs increased faster (125 percent over 10 years) than PPS hospitals' capital costs (38 percent over 10 years). While not all CAHs were updated, a significant number of CAHs were remodeled or replaced with new

buildings. From 2003 to 2013, CAHs' capital costs (which include depreciation, lease, and interest costs) increased from 5.7 percent of total revenue to 7.1 percent of total revenue (Table 7-1). Some CAHs' facilities and equipment may have needed replacement, but it is questionable whether the updates to inpatient facilities were always needed, given the decline in discharges at CAHs. In comparison, PPS hospitals' capital costs rose slower than their revenue and were 5.6 percent of total revenue in 2013. The combination of growing capital costs and declining admissions illustrates how the incentives in the cost-based payment system are misdirected.

Higher inpatient payments do not always keep the emergency department doors open

To evaluate the level of supplemental payments (above PPS rates) that CAHs received before their closure, we examined inpatient payments for both post-acute and acute care. Of the seven CAHs that closed in 2014, we found that, before closure, all seven received Medicare cost-based payments of \$900 or more per day for post-acute care in swing beds; six of the seven received aggregate Medicare payments for post-acute care in swing beds that were at least \$400,000 above SNF PPS rates (Table 7-2, p. 216).

For acute inpatient services, we compared the cost-based payments CAHs received for acute inpatient services with how much they would have received under the PPS system. We found that, on average, cost-based rates and IPPS rates (including special rural payments) in 2013 were about equal for the average CAH, which is an artifact of CAH cost accounting (Table 7-2, p. 216). CAHs typically allocate a disproportionate share of their costs to post-acute care days because of Medicare regulations. (See online Appendix 7-A, available at http:// www.medpac.gov.) The combination of CAHs allocating a smaller share of their costs to acute inpatient care along with special payments for rural inpatient care (i.e., SCH, MDH, and low-volume adjustments) resulted in costbased payments for acute inpatient services being close to the PPS rates with the rural add-ons. Combining the supplemental payments for both post-acute care and acute inpatient care, the median CAH received \$800,000 in supplementary payments above PPS rates in 2013 (Table 7-2). Among the seven closed hospitals, the median CAH received \$500,000 in payments above the comparable PPS payments. These extra payments for inpatient care were

Critical access hospital cost growth

	Critical access hospitals	PPS hospitals
Number of hospitals*	557	2,646
Mean number of total discharges		
2003	492	9,749
2013	361	9,873
Growth, 2003–2013	-27%	1%
Mean number of Medicare swing bed days		
2003	673	102
2013	709	67
Growth, 2003–2013	5%	-34%
Medicare FFS revenue		
2003 (in millions)	\$2.8	\$40.8
2013 (in millions)	6.2	56.3
Growth, 2003–2013	125%	38%
Total all-payer revenue		
2003 (in millions)	\$10.6	\$146
2013 (in millions)	18.4	253
Growth, 2003–2013	74%	73%
Capital cost		
Capital cost		
2003 (in millions)	\$0.6	\$9.1
2013 (in millions)	\$1.3	14.2
Growth, 2003–2013	125%	56%
Capital cost as a share of total all-payer revenue		
2003	5.7%	6.2%
2013	7.1%	5.6%

Note: PPS (prospective payment system), FFS (fee-for-service). Reported swing bed days in the Commission's analysis are days in beds that can be used for either inpatient acute or post-acute care. "Medicare FFS revenue" refers to inpatient, outpatient, and post-acute revenue for which CAHs receive cost-based reimbursement. It does not include physician fee income (which is included in "Total all-payer revenue"). In some cases, physician fee income may grow due to CAHs taking on the billing of physician services, which would not accurately reflect an actual change in Medicare payments. Medicare FFS revenue also does not include Medicare Advantage revenue.

*The critical access hospital (CAH) data are limited to hospitals that were in the CAH program continuously from 2003 to 2013. We limited the CAH sample to prevent the trend in revenue from reflecting the change from PPS to CAH rates. The hospitals that entered the CAH program before 2003 have slightly lower revenue on average than newer CAHs. Across all CAHs in 2013, Medicare payments averaged about \$7 million per CAH, or roughly \$9 billion dollars in aggregate, which is about 5 percent of all Medicare hospital payments.

Source: MedPAC analysis of hospitals that had cost reports in 2003 and 2013.

not sufficient to keep these hospitals open because the extra payments were absorbed by the high inpatient costs per day of care at these hospitals. For policymakers, a key question is whether these hospitals could have retained emergency capacity if the Medicare program had directed the supplemental payments toward preserving emergency services rather than subsidizing acute and post-acute inpatient services.

Are cost-based rates higher than PPS rates for CAH outpatient care?

Another question is whether Medicare program payments for outpatient services would decline if hospitals shift from CAH status to outpatient PPS rates. Past Commission work suggests that the Medicare program's share of cost-based payments to CAHs for outpatient services (net of patients' coinsurance liabilities) is roughly equal

Despite total inpatient payments above PPS rates in the year before closure, seven CAHs closed in 2014

2013

Location of the seven CAHs that closed in 2014	Total (all payer) discharges	Medicare discharges	Acute inpatient Medicare revenue	Annual acute inpatient payments above PPS rates	Medicare post- acute swing bed days	Payment per post- acute day	Annual post-acute payments above SNF PPS rates	Total inpatient acute and post-acute payments above PPS
Georgia	609	300	\$1,500,000	\$-600,000*	107	\$900	\$50,000	\$-550,000*
Kentucky	314	163	900,000	0	438	1,300	400,000	400,000
Nebraska	52	42	400,000	200,000	498	2,400	1,000,000	1,200,000
North Carolina	458	313	2,000,000	-100,000	356	1,800	500,000	400,000
Ohio	303	155	1,300,000	500,000	672	1,900	1,000,000	1,500,000
Pennsylvania	358	203	1,000,000	-150,000	2,051	1,200	1,600,000	1,450,000
Texas	356	222	1,000,000	-50,000	470	1,600	550,000	500,000
Closed CAHs								
Median	314	203	1,000,000	-50,000	438	1,600	550,000	500,000
All CAHs								
Median	443	230	1,700,000	50,000	528	1,800	750,000	800,000
Mean	556	278	2,300,000	50,000	681	2,000	900,000	950,000

PPS (prospective payment system), CAH (critical access hospital), SNF (skilled nursing facility). SNF PPS payment rates were estimated at the national average of roughly \$400 per day. The additional post-acute payments are equal to the hospital's cost-based payment rate per day less \$400, times the number of post-acute Medicare swing bed days at the CAH. Hospital inpatient PPS payments were estimated using claims and cost report data for each CAH and the Commission's 2013 inpatient PPS payment model (for details, see endnote 7). The additional acute inpatient payments are equal to 1.01 times the hospital's reported Medicare inpatient costs from its 2013 cost report less estimated inpatient acute care payments from the payment model for all Medicare inpatient acute care claims for patients discharged during the same 2013 cost reporting period. The extra payments are primarily paid for post-acute care rather than for acute inpatient services, due in part to the cost-accounting issues discussed in online Appendix 7-A (available at http://www.medpac.gov).

*The Georgia hospital had relatively low costs per day of \$900 (not shown). They would have received higher inpatient payments under the PPS because of their low costs and the high payment rates provided under the current low-volume adjustment offered to certain hospitals. However, it is not clear whether their overall payments would have been higher under the PPS due to differences in outpatient rates and reimbursement that CAHs receive for the cost of on-call physicians. The example does illustrate how lower cost facilities benefit less from cost-based reimbursement.

Source: MedPAC analysis of 2013 Medicare claims data and cost reports.

to the program's share of PPS rates (Medicare Payment Advisory Commission 2012). Therefore, we would not expect significant program savings from shifting from CAH program payments for outpatient services to PPS rates. However, beneficiary cost sharing is substantially higher under the CAH program than it would be under the outpatient PPS. Beneficiaries' coinsurance at CAHs is set at 20 percent of charges, which is roughly half of the costbased payment (Medicare Payment Advisory Commission 2011). Therefore, Medicare beneficiaries would see the substantial savings from shifting from cost-based to outpatient PPS rates.

Coinsurance at critical access hospitals

Medicare patients (or their medigap plans) pay CAHs coinsurance equal to 20 percent of charges for many outpatient services. Paying 20 percent of charges was originally the coinsurance policy used for PPS hospitals, but after a 1995 recommendation by one of the Commission's predecessor agencies, the Congress shifted the coinsurance policy used for PPS hospitals from coinsurance based on charges to coinsurance equal to 20 percent of the PPS amount (Prospective Payment Assessment Commission 1995). CAH coinsurance remained at 20 percent of charges. Because charges are

Coinsurance at critical access hospitals has grown as charges have grown

Coinsurance as a share of cost of care

Year	All outpatient services including lab	Only outpatient services that require coinsurance		
2005/2006	33%	44%		
2008/2009	35	47		
2012/2013	37	49		

The second column excludes lab and other services such as flu shots that are not subject to coinsurance. This column is more representative of the average coinsurance paid by beneficiaries when coinsurance is due.

Source: RTI analysis of Medicare outpatient claims data; Briggs et al. 2016; Medicare Payment Advisory Commission 2011.

greater than costs, CAH patients pay more than 20 percent of costs as coinsurance. In 2006, the average Medicare patient at a CAH paid 44 percent of costs as coinsurance for services for which coinsurance is required (Medicare Payment Advisory Commission 2011). However, charges are growing faster than costs (markups are increasing), which has caused an increase in patient coinsurance relative to the cost of care. Between 2006 and 2013, coinsurance as a share of cost rose from 44 percent to 49 percent (Table 7-3). Similarly, the Office of Inspector General found that, in 2012, coinsurance was 47 percent on average for services at CAHs that required coinsurance (Office of Inspector General 2014).

Table 7-3 shows the average share of CAH outpatient costs paid as coinsurance, but coinsurance can vary widely across hospitals and across services due to wide variations in hospitals' charging practices. For services with lower markups, such as ED visits, coinsurance in 2013 was usually 20 percent to 50 percent of costs. For computed tomography (CT) scans, a higher markup service, the coinsurance that year was usually over 50 percent of costs, and over 100 percent of costs for a fourth of CT scan patients. In these cases, the CAH collects 20 percent of charges (which is more than the cost of the service) from the beneficiaries (or their supplemental insurer); then at year-end Medicare settlement, the hospital has to pay the Medicare program a portion of that coinsurance because the patient's coinsurance exceeded the full payment due to the hospital (the cost-based payment rate). Coinsurance for CAH outpatient services can be substantial for the 19 percent of FFS beneficiaries without supplemental insurance (Medicare Payment Advisory Commission 2015a). In fact, for some high-markup services such

as CT scans, it may be less expensive for a beneficiary to negotiate a cash price rather than pay the Medicare coinsurance for the CAH-provided service.

A shift in the payment model away from cost-based reimbursement to a new model that gives the provider a fixed payment or grant for overhead services and pays the provider PPS rates would lower beneficiaries' cost sharing to approximately 20 percent of outpatient PPS rates. 9 It would also eliminate the current incentive that beneficiaries without supplemental insurance have to bypass their local CAH for facilities with lower coinsurance for outpatient services.

Medicare may achieve greater efficiency and financial stability at some rural hospitals by subsidizing emergency services rather than inpatient care

Although cost-based payment covers a provider's Medicare costs, it does not generate profits to cover significant uncompensated care costs from treating uninsured patients or ED patients who have highdeductible private insurance policies. In the end, the inpatient focus and the cost-based focus both present barriers to preserving access for at least two reasons:

The inpatient models (including the CAH model) provide higher inpatient payments, but the payments are largely accounted for by high inpatient costs. Few financial resources may be left to invest in providing emergency care.

Cost-based Medicare reimbursement does little for hospitals with very low volumes of private-payer patients and high levels of uncompensated care. Medicare and Medicaid pay roughly the cost of their patients' care, but if hospitals do not achieve profits on privately insured patients or local government funding, the hospital will not be able to cover uncompensated care and bad debt. The hospital can fail, and beneficiaries' access may be compromised if there is not an alternative in the area.

New Option 1: A 24/7 emergency department model

There is a growing interest in trying to preserve access to 24-hour emergency services in rural areas without having the hospital encumbered by the need to provide inpatient services (Morse 2015). This interest in part stems from the significant decrease in rural hospital admissions over the past decade, with occupancy at small rural hospitals falling to 37 percent (Medicare Payment Advisory Commission 2015b). Under a 24/7 ED model, the strategy is to redirect funds away from inpatient acute and post-acute care and toward maintaining emergency services.

Under the 24/7 ED model, Medicare would pay the facility standard hospital outpatient rates plus a fixed payment to partially cover overhead services. This approach would encourage the outpatient facility to focus on ED services, ambulance services, and primary care. The fixed payment could be used to support the standby costs of the emergency department and other services that help preserve access such as telehealth services (see Chapter 8 for a description of telehealth services). The new outpatient facility could also provide outpatient observation services, paid at the outpatient PPS rate.

A few rural facilities currently operate stand-alone EDs with an attached outpatient clinic. A study by the University of North Carolina suggests that the cost of operating a low-volume 24/7 ED facility with an attached outpatient clinic is about \$5 million per year (Williams et al. 2015). Our discussions with accountants and ED operators support estimates at this general level. To make the model available to poorer communities that have limited taxpayer support, the Medicare program could provide some fixed level of financial support. For isolated hospitals willing to close inpatient services, the program could provide a fixed payment (e.g., \$500,000) and pay for outpatient services using outpatient PPS rates. The rationale for this approach is that if standby emergency

and primary care capacity are the desired services, then Medicare should pay for standby emergency capacity and primary care capacity directly with the fixed payment rather than indirectly through increasing payments per inpatient day. This approach would help rural communities where the volume of services and the payer mix is insufficient to support a traditional hospital with an inpatient department.

All hospitals that convert to an outpatient-only facility would receive equal annual fixed-payment amounts. Unlike a cost-based model, hospitals with higher cost structures (often those with more financial resources) would not receive a higher payment. The fixed payment would also not increase with volume because standby ED costs will not materially shift with volume changes. It would also differ from cost-based models in that the hospital would no longer have an incentive to offer services for which their costs are not competitive (e.g., post-acute services or MRI services) because additional volume would not lead to increases in supplemental Medicare payments.

We would expect the new Option 1 to change the financing and delivery of care in several ways:

- Hospitals could choose to eliminate acute inpatient services.
- Hospitals choosing to eliminate acute inpatient services and accept PPS rates would receive a fixed supplemental payment from Medicare. The inpatient volume would flow to neighboring hospitals, potentially improving the neighboring hospitals' financial condition.
- Some hospitals may convert their hospital beds to SNF beds, for which they would receive SNF PPS rates.
- Outpatient facilities would place a priority on emergency care and would have the additional fixed payments to fund that care. We would expect outpatient clinics (e.g., federally qualified health centers and freestanding rural health clinics) to continue operating.
- The facilities would have greater flexibility to use telehealth consultations. The facility would still receive the telehealth fee that hospitals currently receive, but could also use the fixed payment to help support telehealth. (See Chapter 8 for a more lengthy

- description of telehealth consultations in emergency and nonemergency situations.)
- Without inpatient services and nonemergency outpatient services such as MRI, the hospital's cost of delivering care would be substantially lower than under the current inpatient models.

While hospitals that eliminated their inpatient departments would see a decline in Medicare revenue, revenues would not decline as much as costs due to retaining a fixed payment. In many cases, we expect that the PPS payments plus the fixed payment would exceed the new lower levels of Medicare costs. Under these circumstances, Medicare would explicitly be covering more than its share of standby capacity costs to preserve access for Medicare beneficiaries.

The facility would also have the option of aligning with larger hospitals in the area to help support some functions at the outpatient-only facility. For example, the larger hospital could help with peer review of physicians, purchasing supplies, and billing for services. The idea is that the new outpatient-only facility would work cooperatively with other health care providers to give members of the community continuity of care across settings.

Who would receive the fixed payment to maintain a 24/7 ED?

A hospital that eliminates inpatient services (acute and post-acute swing services) and accepts outpatient PPS rates could receive the fixed payment. To ensure that the funds are used as intended, the facility could be required to use the fixed payment for emergency standby capacity, ambulance service losses, telehealth capacity, and uncompensated care in the ED.

It is not clear how many providers would choose to convert from a PPS hospital or CAH status to an outpatient facility under the new program. How many would convert would in part be determined by the size of the fixed payment and how the program was targeted. Ideally, the fixed-payment model would target isolated providers only; isolated could be defined as a certain driving distance from other EDs. 10

New Option 2: A clinic and ambulance model in towns too small to support a 24hour emergency department

The smallest communities—generally unable to support an ED open 24 hours per day, 7 days per week—would

likely have to rely on an ambulance service to stabilize and transfer patients. However, the low population density would also make it difficult to retain primary care providers and support an ambulance service. An alternative for these communities could be a primary care facility with an affiliated ambulance service. Similar to the federally qualified health center (FQHC) model, Medicare could provide prospective rates for primary care visits and ambulance transports and could make a fixed payment or grant to support the capital costs of having a primary care practice, the standby costs of the ambulance service, and uncompensated care costs. There could also be a requirement for some local matching funding, such as hospital district funding that is now in place in many parts of the country for small rural hospitals. Medicare could also require that the eligible clinics be some distance away from hospitals to prevent duplicative capacity.

The Kansas Hospital Association (KHA) is evaluating two options: a 12-hour Primary Health Center Model (similar to the new Option 2 model of clinic plus ambulance) and a 24/7 model where an emergency department would be available 24 hours a day (similar to the new Option 1 model discussed (Morse 2015, Thompson 2015, Washington State Hospital Association 2015). The 12-hour model discussed by the KHA would differ from a traditional FQHC in that it would be open 365 days a year and have additional emergency stabilization-and-transfer ability. Despite being open 365 days a year, some communities may be reluctant to give up 24-hour emergency access.

From a payment policy perspective, the clinic and ambulance model will be more challenging to define than the 24/7 stand-alone ED model. In the 24-hour ED model, an existing hospital's organization is in place, including a governing board that could accept the annual fixed payment from CMS after they close their inpatient capacity. In addition, in the 24-hour model, the fixed payment will also be contingent on providing a specific product, namely an ED that is staffed 24 hours a day. By contrast, in the clinic with ambulance model, it is less clear what entity would receive the fixed payment, and it may be more problematic to execute. It will be more challenging to describe exactly what level of primary care and timely ambulance access is required to receive the fixed payment from the Medicare program. In addition, there could be a large number of existing small-town primary care practices and ambulance services that may argue that they should receive a fixed payment equal to those received by providers in towns that lost a hospital. This situation could

result in Medicare "buying-out the base" (i.e., supporting the entire primary care infrastructure of large numbers of communities, including those not losing a hospital) and thus raising the cost of this policy.

Limiting the fixed payment to isolated providers

Rural hospitals, including CAHs, are widely diverse. About a third of rural hospitals are 25 or more miles from other hospitals. Some are more than an hour from other hospitals. However, other hospitals (including CAHs) are 2, 5, or 10 miles from a competing hospital. The value of keeping open a hospital that is 5 miles from a competitor is less than the value of keeping open a hospital that is 60 miles from the next hospital. The emergency access that isolated hospitals provide needs to be preserved, and in certain circumstances, preserving this access will involve Medicare payment rates that are higher than standard PPS rates.

In the Commission's 2012 report on rural health care, we stated that special rural payments should be targeted to isolated low-volume providers that are at least a certain distance from other providers (Medicare Payment Advisory Commission 2012). A distance requirement would encourage two neighboring low-volume hospitals to consolidate into one higher volume facility. There is a substantial body of literature showing a relationship between volume and outcomes, including hospital mortality, suggesting that a merger of nearby facilities would reduce mortality rates in rural areas (Durairaj et al. 2005, Institute of Medicine 2000, Joynt et al. 2013, Joynt et al. 2011a, Joynt et al. 2011b, Medicare Payment Advisory Commission 2012, Ross et al. 2010, Silber et al. 2010). However, isolated providers would need to be preserved to retain beneficiaries' access to emergency care.

Isolated providers could be targeted through the new models if qualifying hospitals were limited to hospitals that were closing their inpatient units and were located a certain travel distance (road miles) from another hospital. This approach would help increase patient volume at remaining inpatient facilities. In addition, merging neighboring low-volume hospitals could help physician recruitment because physicians' on-call burden would be reduced when a small area's EDs were reduced from two to one. Any consolidation of hospitals would be difficult but could yield material benefits in terms of improved patient outcomes and physician recruitment.

Require local government contributions?

To provide some assurance that the local community values the local provider, policymakers could consider requiring the local community to provide some matching funding to the new entity under the new Option 1 or Option 2 models. For example, if the Medicare program contributed a \$500,000 fixed payment, the local community could be required to contribute a percentage matching contribution (e.g., \$250,000 annual contribution). By limiting the supplemental fixed payments to markets where the local hospital district, county, or city government was willing to put a tangible value on the provider of emergency access, greater assurance would be provided that the federal dollars were being appropriately targeted. However, there are some reasons why policymakers may choose not to require a matching payment from local sources. For example, it may be more difficult for the poorest communities to approve local funds or county funds to support the hospital, or it may be difficult for communities to make multiyear commitments to provide matching funds.

Conclusion

We have discussed some limitations of the current rural payment models. Specifically, they can promote inefficiencies and, despite cost-based Medicare payments, do not always result in financially viable hospitals. Therefore, there may be a need for a new rural payment option that could promote greater efficiency and better maintain access to care.

For hospitals that choose to participate, the combination of a Medicare fixed payment or grant and potentially local support could help pay for 24-hour standby emergency capacity in small rural communities. Buying a defined set of services, such as standby emergency capacity, would make this program easier to administer than giving rural hospitals a global budget for all services. 11

Implementing a 24/7 ED model would require action by the Congress and the boards of rural hospitals. The Congress would have to enact new payment model options. Hospital boards in small communities would have to accept giving up inpatient services to preserve emergency access. Giving up inpatient services would be a difficult decision even if a hospital board thought that their current model was not sustainable or did not deliver adequate value to their community. To reduce hospital boards' possible concerns over substantial changes to care delivery in their communities, CMS could allow the facilities to revert to CAH status within 5 years (even if they do not meet the 35-mile distance requirement) if conditions changed and a board determined that local inpatient services were needed. Similarly, if a PPS hospital was an SCH or an MDH before conversion to an outpatient-only facility, they would have the option to revert back to that special status within five years.

The end goal is to preserve access to emergency services in isolated rural areas where there are no alternatives. The mechanism for achieving this goal efficiently is to shift from providing supplemental funds for low-volume inpatient services to a fixed payment model that funds 24/7 emergency access. The fixed payment would help fund the cost of ED standby capacity and the cost of indigent patients using the facility. In the long run, given the current funding situation of the Medicare program, there is the broader question of what share of the cost of preserving access for all patients should be borne by Medicare.

Endnotes

- We generally define *rural* as all areas outside of metropolitan statistical areas (MSAs). This definition of rural includes micropolitan areas. Others have a broader definition of rural areas that includes some small towns within MSAs. For example, others may categorize towns as rural if they are outside the commuting zone of larger cities, even if the county they are located in is considered part of an MSA. Given these different definitions of rural, we present information on hospital closures using both our definition (non-MSA) and the broader definition that is often used by the Federal Office of Rural Health Policy.
- 2 The MDH program was later changed so that MDHs receive the higher of (a) payments based on 75 percent of their casemix-adjusted historical inpatient operating costs per case trended forward and 25 percent based on operating PPS rates or (b) 100 percent of operating PPS rates.
- In fact, because of the way cost-based reimbursement works, Medicare reimbursement is reduced for every uninsured patient served. For example, assume that two CAHs were both committed to serving all of the indigent patients in their communities. Assume the two hospitals had identical levels of fixed costs, identical numbers of Medicare patients, and identical mixes of cases among their paying patients. The only difference was that one of the two hospitals had one additional indigent patient. The hospital with the one additional indigent patient would have that patient's variable costs allocated to that additional patient. However, its fixed costs would be averaged over more patients, resulting in lower costs per discharge (i.e., same fixed costs, one more patient). The lower fixed cost per patient would result in lower CAH costbased Medicare payments per discharge and lower Medicare payments in aggregate. This example illustrates how serving additional indigent patients can reduce the Medicare share and result in lower payments under a cost-based model.
- Swing beds are beds in small rural hospitals that can be used for acute or post-acute care. PPS hospitals are paid SNF rates for swing bed services, but CAHs are paid cost-based payment for swing bed services. For these services, the median payment was \$1,800 per day in 2013. This payment compares with the \$300 per day that an average PPS hospital receives for swing bed care and the \$400 per day that SNFs receive on average for post-acute care. See online Appendix 7-A (available at http://www.medpac.gov) for a description of how the cost accounting for swing beds can overallocate costs to swing beds and how high swing bed payments reduce the extra payments hospitals receive for acute inpatient services.
- 5 We looked at the relationship between historic non-Medicare (private, Medicaid, and uncompensated care) margins and Medicare payments per post-acute day in two ways. Both

- methods suggest that CAHs with higher profits on their non-Medicare business receive higher post-acute care payments from Medicare. Medicare's post-acute care payments per day at these high-margin hospitals were about \$200 more per day, on average, than at low-margin CAHs when the hospitals have similar volumes of total inpatient days. In both methods, we started with a sample of 862 CAHs that had valid cost report data and a material number of inpatient days (over 700 combined inpatient acute and swing bed days). We then divided the sample CAHs into three groups based on their median margins on their non-Medicare business during the three years from 2010 to 2012: 300 CAHs with median non-Medicare margins over 5 percent; 233 with medians between 0 percent and 5 percent; and 329 with medians below zero. We then conducted a Tukey mean separation test to examine differences in payments per post-acute day across the three groups. The historically high-profit hospitals had Medicare payments that were \$250 per day higher than the hospitals that historically had losses. The difference is statistically significant (p < 0.05). We also estimated ordinary least squares regressions where the log of Medicare payments per post-acute day is modeled as a function of the log of inpatient volume (number of all-payer inpatient days) and historic margins. The implication of the regression coefficients is that the typical hospital in the high-profit group would have payments of roughly \$200 per day more than a typical hospital in the low-profit group. In various versions of the regression model (e.g., with and without log transformation of costs, with and without controlling for county income), the coefficient on historical non-Medicare margins was always significant at the p < 0.001 level.
- 6 Under the OPPS, Medicare maintains different payment rates for hospital EDs that are open 24 hours a day and 7 days per week (Type A visits) and for those that are open less than 24/7 (Type B visits). In general, payment amounts for Type A visits are higher than payment amounts for Type B visits because facilities that are open 24/7 have higher facility and labor costs. OCEDs largely bill for Type A visits because they are open 24/7.
- 7 CAH's cost reports record their Medicare costs, payments, discharges, and other information for their annual cost reporting periods, which vary among CAHs and often overlap portions of two federal fiscal years. Our goal was to estimate what each CAH would have been paid under the inpatient hospital PPS for its 2013 cost reporting period. We first identified all the claims from Medicare's inpatient hospital claims files with discharge dates in each CAH's 2013 cost reporting period. We then used the fiscal year 2013 version of our PPS payment model to estimate PPS payments for each CAH using the matched claims. To do this calculation, we had to fill certain gaps in CAH reporting. For example,

- to calculate disproportionate share payments, we estimated each hospital's share of Medicare inpatient days for Medicare beneficiaries who received Supplemental Security Income payments during the hospital's 2013 cost reporting period. To determine whether each CAH would have been eligible for the SCH program, we used a hospital geo-location file to estimate distances between each CAH and other nearby acute care hospitals. We then identified CAHs that would have qualified for the SCH program in 2013 because they were located more than 25 miles from the nearest acute care hospital. For each SCH-eligible CAH, we used matched Medicare claims and cost data for its 2006 cost reporting period to estimate its 2006 base-year, case-mix-adjusted operating costs per case. Then we updated the base-year amount to 2013, as it would have been updated if the hospital had been paid under the PPS. The payment model uses this amount to calculate whether and how much supplemental operating payments each CAH/ SCH would have received in 2013. To calculate PPS base operating and capital payments, we also calculated weighted average 2013 operating standardized payment amounts and capital federal payment rates for each CAH. These base rates were designed to reflect the distribution of each CAH's matched claims for fiscal years 2012, 2013, and 2014. We also used each CAH's operating and capital cost-to-charge ratios (CCRs) from its 2013 cost report; these CCRs were needed to estimate outlier payments in the PPS model. For outlier payment estimates, we used the national fixed-loss amount for fiscal year 2013. We also made an estimate of the lowvolume adjustment that hospitals would receive if they met the distance requirement. Using these inputs, the PPS model provided an estimate of total PPS payments for each CAH's 2013 cost reporting period that was comparable with what it was actually paid in cost-based payments for Medicare acute care inpatient services.
- Because there are cost allocation issues between post-acute and acute stays, the most accurate way to examine the higher PPS payments going to hospitals for inpatient stays is to add together the higher payments for Medicare inpatient acute and post-acute care stays. See online Appendix 7-A (available at http://www.medpac.gov) for more information on the costaccounting issue.

- The Commission recognizes that the term *grant* may carry certain connotations within the context of federal funding. Our use of the term in describing funding for the options discussed in this chapter does not imply the endorsement of any or all of the administrative apparatus typically associated with federal grant funding. We do use the term, however, to distinguish how the new entities under these models would be funded in contrast to alternative funding constructs. In the Commission's view, Medicare would give fixed sums to qualifying providers who agree to convert to one of the models and discontinue providing inpatient hospital services.
- 10 As has always been the case with Medicare policy, the minimum distance would be calculated using road miles. The Department of Veterans Affairs has also recently switched to using road miles (rather than "as the crow flies" miles) to compute distance (Department of Veterans Affairs 2015).
- 11 Fixed budgets for a broader scope of services (e.g., all outpatient services) would be more problematic because a substantial and variable share of rural patients bypasses their local hospital for many services, including those locally available. The share of services provided locally would change over time and vary widely across providers. The additional problem with broader bundles is that providers deemed the highest quality providers could see increased volume and those with lower quality would see decreases in volume. For this reason, the proposal here to buy a specific service (fixed standby capacity) should be easier to administer than other systems, such as the Maryland system that provides for global budgets for rural providers.

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