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Rural and Urban Provider Market Share of Inpatient Post-Acute Care Services Provided to Rural Medicare Beneficiaries

Alex R. Schulte; Denise A. Kirk, MS; Randy K. Randolph, MRP; George H. Pink, PhD

INTRODUCTION

The provision of post-acute care (PAC) by rural providers allows rural patients to receive care locally, avoiding unnecessary travel and staying close to family and friends. In addition to ensuring the proximity of necessary family social support, rural hospitals' and other providers' financial health often depends on providing services that are important to rural beneficiaries. Given the relatively high proportion of Medicare recipients residing in rural areas, PAC is a key service. This is one reason it is important to understand whether rural patients receive care from rural PAC providers. For this study, PAC is defined as skilled nursing care and rehabilitation.[1]

PAC can be provided in multiple settings. Skilled nursing care is provided in three types of locations: in 1) freestanding skilled nursing facilities (SNFs), 2) swing beds, and 3) distinct-part units (DPUs) in acute hospitals. In this brief, SNFs are defined as freestanding facilities that provide skilled nursing care. Swing beds are transitional care beds that allow a patient to be discharged from an acute hospital stay, but remain in the hospital for skilled nursing care; the majority of swing bed services are provided in Critical Access Hospitals (CAHs).[2] A DPU is a portion of an acute hospital that is certified to provide PAC, but it must be physically distinguishable from the larger institution and fiscally separate for cost reporting purposes.[3] Rehabilitation care can be provided in acute hospitals' DPUs or at freestanding inpatient rehabilitation facilities (IRFs), which are facilities that provide intensive rehabilitation services to patients after an illness, injury, or surgery.

The Centers for Medicare & Medicaid Services (CMS) is implementing several new payment models focused on value-based care and bundled payments that will increasingly affect Medicare reimbursement of rural hospitals. If the number of rural PAC providers included in Accountable Care Organizations (ACOs) and bundled payment contracts is low, or if more rural residents choose (or are required) to receive PAC in urban centers rather than closer to home, this has the potential to alter current patterns of care for beneficiaries in ways that remove any consideration for patient choice (i.e., if the service is not sustainable due to low volume, rural residents will have fewer local PAC choices). Although access and utilization of PAC in rural areas has been studied previously,[4,5,6] the rural provider market share of inpatient PAC services is not well known. Therefore, the purpose of this findings brief is to characterize rural providers' market share of inpatient PAC services provided to rural Medicare beneficiaries.

METHOD

The sample for this study are rural residents who had a Medicare claim for a stay at an acute hospital during 2013 and then a claim for at least one PAC stay following that acute visit. Thus a "post-acute stay" is defined as a visit to either a skilled nursing or rehabilitation provider within 90 days of discharge from an acute hospital. The PAC stays are not necessarily Medicare qualifying stays attached to the previous acute stay. A beneficiary could have more than one acute stay, and more than one PAC stay associated with each acute stay. Volume of inpatient PAC services was measured by three common inpatient metrics:

KEY FINDINGS

Among rural Medicare beneficiaries who received post-acute care (PAC) following discharge from either a rural or an urban acute hospital:

- Rural beneficiaries were more likely to receive skilled nursing services from rural providers (83.4 percent) than from urban providers (16.6 percent). However, beneficiaries were more likely to receive inpatient rehabilitation at an urban provider (65.2 percent) than at a rural provider (34.8 percent).
- The longest average length of stay for skilled nursing care was in rural skilled nursing facilities (36.4 days) and the shortest was from rural swing beds (10.2 days). There was little difference in the length of stay for rehabilitation care among the types and locations of facilities.
- Discharge from a rural acute hospital was almost always followed by discharge from a rural PAC facility, but discharge of a rural patient from an urban acute hospital was only followed by discharge from a rural PAC facility about half of the time.

discharges, patient days (the total number of days patients stayed in PAC facilities), and average length of stay (the average number of days of a PAC stay and defined as patient days / discharges). Market share was based on percentages of discharges, to capture where Medicare beneficiaries obtained PAC services.

Data were obtained from the Medicare Provider and Analysis Review (MedPAR) Files and Master Beneficiary Summary Files (MBSF) for years 2013 and January, February, and March of 2014. Claims data were used to identify all rural Medicare beneficiaries who were admitted to an acute hospital (only Critical Access or Prospective Payment System) in 2013, and then received post-acute care up to 90 days after discharge from the acute hospital during January 2013 to March 2014. Using the Federal Office of Rural Health Policy's definition,[7] rural hospitals were identified as rural if they were located outside Metropolitan Core Based Statistical Areas (CBSAs) or within Metropolitan areas but also classified with Rural-Urban Commuting Area (RUCA) codes of 4 or greater. Patients were excluded if they had Medicare Advantage or if they were not covered by Medicare Part B at any point during the study's time frame, as their data would be incomplete.

Volume of PAC Services Provided to Rural Medicare Beneficiaries

Table 1 shows the volume of discharges and patient days of rural Medicare beneficiaries who received PAC following 590,948 acute hospital discharges in 2013. Among rural Medicare beneficiaries who received skilled nursing care, the highest number of discharges were from rural SNFs (373,798), urban SNFs (90,609), and rural acute hospital swing beds (89,462). Among those who received rehabilitation care, the highest number of discharges were from urban IRFs (22,248), urban acute hospital DPUs (21,872), and rural acute hospital DPUs (20,701).

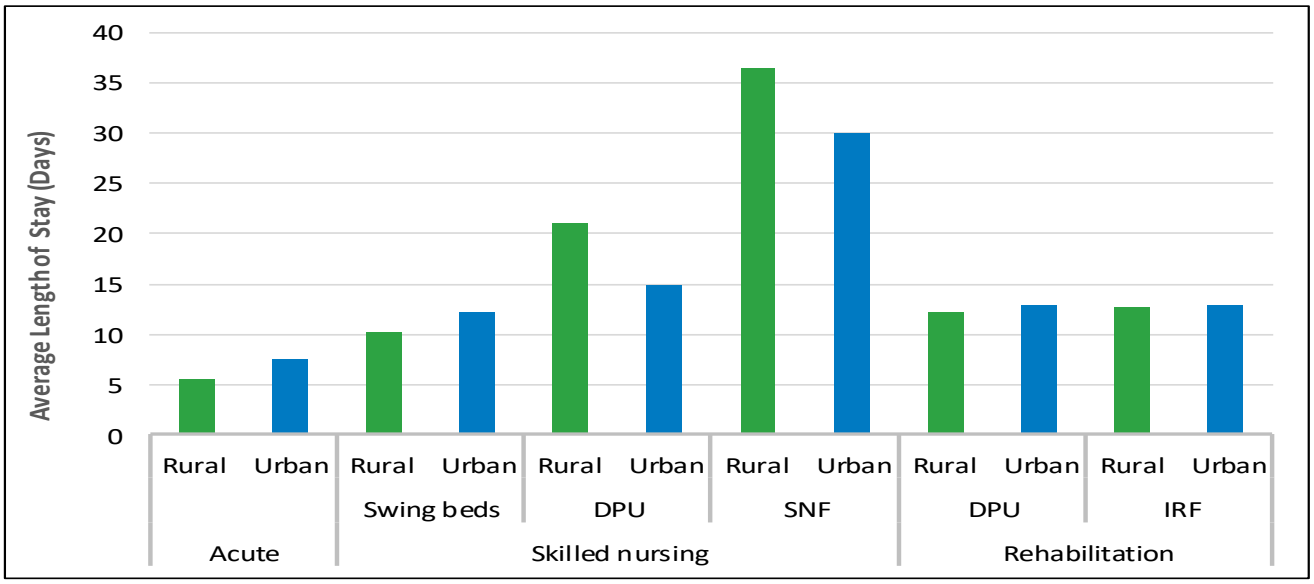
Table 1: Discharges and Patient Days of Rural Medicare Beneficiaries by Type of Care, Type of Facility, and Location of Facility

Type of Care	Type and Location of Facility	Discharges	Patient days
All acute visits followed by a PAC stay	Rural acute hospital	347,705	1,940,132
	Urban acute hospital	243,243	1,832,938
	Total	590,948	3,773,070
Skilled nursing	Rural acute hospital swing beds	89,462	913,394
	Rural acute hospital DPU	39,593	828,616
	Rural SNF	373,798	13,589,914
	Subtotal	502,853	15,331,924
	Urban acute hospital swing beds	1,306	15,857
	Urban acute hospital DPU	8,173	121,383
	Urban SNF	90,609	2,715,234
	Subtotal	100,088	2,852,474
	Total	602,941	18,184,398
Rehabilitation	Rural acute hospital DPU	20,701	251,631
	Rural IRF	2,853	36,133
	Subtotal	23,554	287,764
	Urban acute hospital DPU	21,872	282,034
	Urban IRF	22,248	286,040
	Subtotal	44120	568074
	Total	67,674	855,838

Length of Stay of PAC Services Provided to Rural Medicare Beneficiaries

Figure 1 shows the 2013 average length of stay of rural Medicare beneficiaries who received PAC following 590,948 acute hospital discharges in 2013. Among rural Medicare beneficiaries who received skilled nursing care, the longest average length of stay was from rural SNFs (36.4 days) and the shortest was from rural swing beds (10.2 days). Among those who received rehabilitation care, there was little difference among the types and locations of facilities (12.2 to 12.9 days). Figure 1 also shows the average length of stay was longer for those who received PAC from urban acute care hospitals.

Figure 1: Average Length of Stay of Rural Medicare Beneficiaries by Type of Care, Type of Facility, and Location of Facility

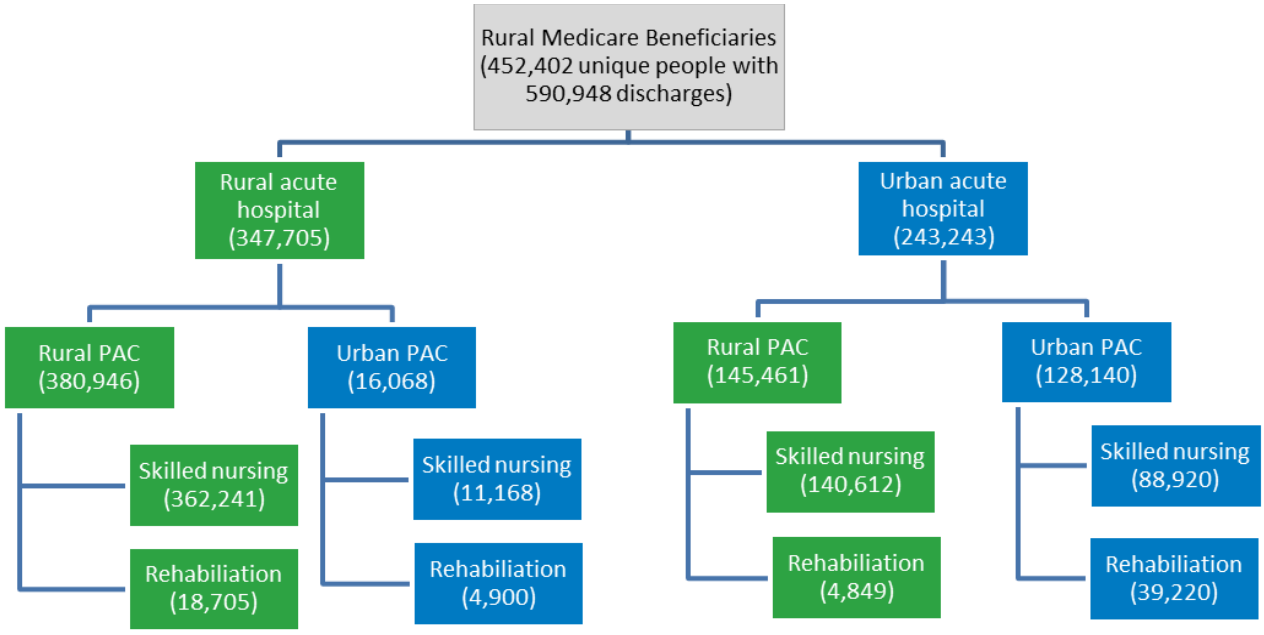


Rural Provider Market Share of Inpatient PAC Services

Figure 2 shows the acute and post-acute discharges of 452,402 unique rural Medicare beneficiaries in our study sample. Among beneficiaries who received PAC following an acute hospital stay, 59% (347,705 / 590,948) of their discharges were from rural acute hospitals and 41% (243,243 / 590,948) were from urban acute hospitals.

Nearly all (96 percent) of the PAC discharges following a rural acute hospital stay were from rural PAC facilities. Of the 347,705 discharges from rural acute hospitals, 380,946 discharges followed from rural PAC facilities, and 16,068 discharges followed from urban PAC facilities. About half (53 percent) of PAC discharges following an urban acute hospital stay were from rural PACs. Of the 243,243 discharges from urban acute hospitals, 145,461 discharges followed from rural PAC facilities, and 128,140 discharges followed from urban PAC facilities.

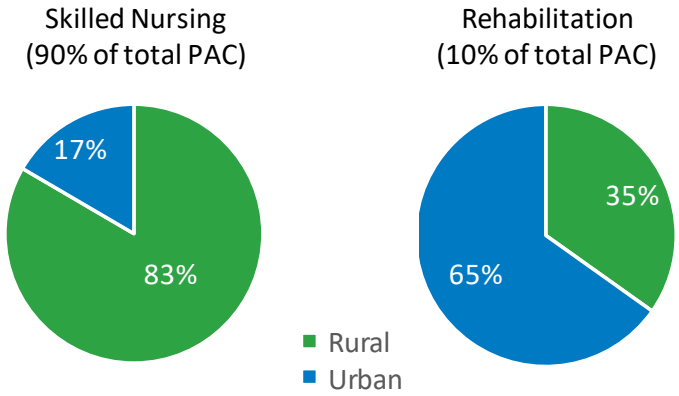
Figure 2: PAC Discharges of Rural Medicare Beneficiaries by Type of Care, Type of Facility, & Location of Facility



Note: Numbers reflect the number of stays for each type of care in our sample analysis; a beneficiary could have had more than one acute stay and more than one PAC stay over the study period. See Methods for more information.

Figure 3 shows that 90 percent of the rural Medicare PAC discharges (602,941 discharges) was for skilled nursing care, and 10 percent was for rehabilitation care (67,674 discharges). Most (83 percent) of the skilled nursing care provided to rural Medicare beneficiaries was provided by rural facilities (502,853 discharges). In contrast, only 35 percent of the rehabilitation care provided to rural Medicare beneficiaries was provided by rural facilities (23,554 discharges).

Figure 3: Market Share of PAC Services Provided to Rural Medicare Beneficiaries



CONCLUSION

This study examined rural provider market share of inpatient post-acute care services provided to rural Medicare beneficiaries. There were three key findings. First, rural beneficiaries were more likely to receive skilled nursing services from rural providers (83.4 percent) than from urban providers (16.6 percent), but they were less likely to receive inpatient rehabilitation at a rural provider (34.8 percent) than at an urban provider (65.2 percent). Our findings also show that on average rural beneficiaries had longer stays in rural skilled nursing facilities (36.4 days) than in rural swing beds (10.2 days). Finally, we found that while discharge from a rural acute hospital was almost always followed by discharge from a rural PAC facility, discharge of a rural patient from an urban acute hospital was only followed by discharge from a rural PAC facility about half of the time.

Changes in market share are important to be aware of as they could reveal potential changes in access. For example:

- If the proportion of rural Medicare beneficiaries who obtain acute care from rural acute hospitals decreases over time, a corresponding decline in PAC services provided by rural facilities may result.
- If changes in CMS reimbursement result in a decline in the number of rural PAC providers or if more rural residents choose (or are required) to receive PAC in urban centers, then this could jeopardize access by rural residents who would have no choice but to receive such care in a location more distant from home.

These findings serve as a new baseline for observation as ACOs, bundled payments, and other policies are implemented. It is important for policy makers and rural health advocates to monitor how changes in reimbursement and other policies may affect where rural beneficiaries receive PAC to ensure that patients maintain the ability to choose to receive care near home.

REFERENCES AND NOTES

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