NC Rural Health Research & Policy Analysis Center

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Trends in Skilled Nursing Facility and Swing Bed Use in Rural Areas Following the Medicare Modernization Act of 2003

Kristin L. Reiter, PhD and Victoria A. Freeman, RN, DrPH

BACKGROUND

Reimbursement for facility-based post-acute skilled care has been affected by multiple regulatory changes, particularly during the period from 1997 to 2003. Payment for post-acute skilled care received in freestanding or hospital-based skilled nursing facilities (SNFs) was changed from cost-based to a 100% per diem prospective payment system (SNF-PPS). Reimbursement for swing bed care in hospitals paid under the prospective payment system (PPS hospitals) changed from a mix of cost-based payment for ancillary services and per-diem payment for routine care to 100% SNF-PPS. In contrast, reimbursement for swing bed care in Critical Access Hospitals (CAHs) changed from a mix of cost and per diem to 101% of cost. Now that the reimbursement policy changes begun in the late 1990s have been fully implemented, has the availability of post-acute skilled care stabilized, and how and where is it being provided today? To answer these questions, we used hospital and SNF Medicare Cost Reports linked with county demographic information to analyze changes in facility-based post-acute skilled care availability and use in recent years. Results are presented comparing micropolitan counties (those with an urban core population of at least 10,000 but less than 50,000) to more rural non-core based statistical area (non-CBSA) counties, those with an urban core of less than 10,000 or no urban core. In the case of hospital-based care, we compared the two predominant types of hospitals in rural areas, i.e., PPS hospitals and CAHs.

KEY FINDINGS

- **The availability of post-acute skilled care varies by rural county size**. SNFs and/or swing beds are available in most micropolitan counties. The most rural counties (non-CBSA counties) are more likely to have no skilled care and depend more on swing beds.

- **Overall days in post-acute skilled care are dominated by care in community-based SNFs**. Over 90% of skilled care days in 2008 were provided in community-based SNFs. Hospital-based SNF days outnumbered swing days by 8 to 1.

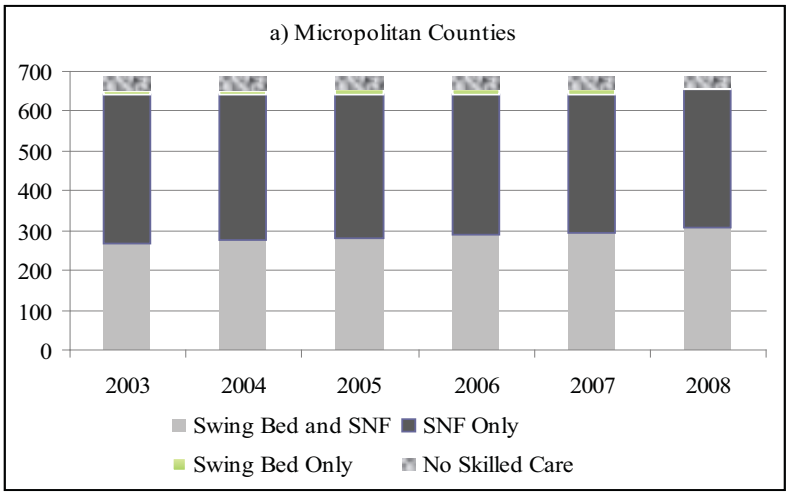
- **The availability of hospital-based SNFs decreased over the period under study**. Most of the decrease was among hospitals in micropolitan counties (37% had SNFs in 2003 v. 29% in 2008) and among PPS hospitals (34% in 2003 v. 28% in 2008). There was little change in non-CBSA counties (25% v. 23%) and among CAHs (26% v. 23%).

- **The percent of rural hospitals with swing beds changed little**. Over 90% of hospitals that were always CAH or that converted during the study period offered swing bed care. PPS hospitals with swing beds represented about 60% of all PPS hospitals across all years.

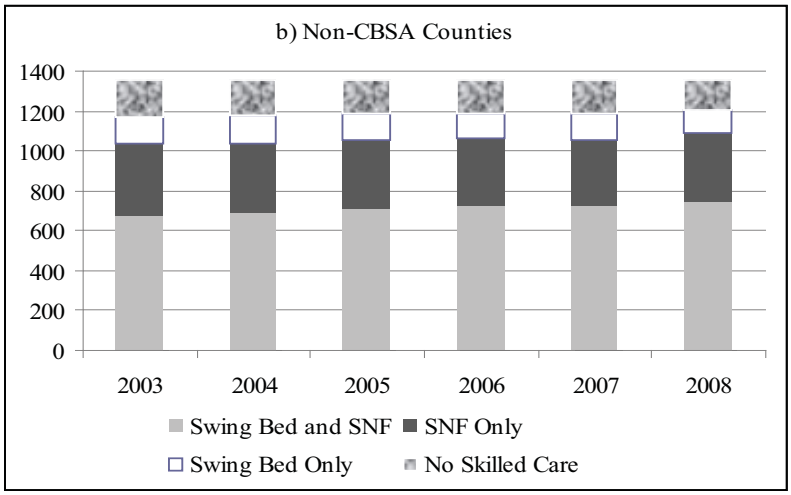
- **The number of CAHs increased from 2003 to 2008 but their use of swing beds as measured by average daily census (ADC) increased modestly and only in non-CBSA counties**. The swing bed ADC in non-CBSA CAHs increased from 1.73 to 1.97. For CAHs in micropolitan counties and for PPS hospitals in micropolitan and non-CBSA counties, swing bed ADC decreased (1.89 v. 1.69, 0.78 v. 0.73, and 1.48 v. 1.27, respectively).

THE AVAILABILITY OF SKILLED CARE VARIES BY RURAL COUNTY SIZE

Figures 1a and 1b: Number of Counties with Post-Acute Skilled Care by Type of Provider



In 2008, 95% of micropolitan counties had SNFs and 45% had both SNFs and swing beds (Fig.1a). The number of counties with at least one swing bed provider increased by 13% (276 to 311), but the rate of increase slowed over the period. The number of micropolitan counties with no skilled care providers fell by 7 (19%) from 2003 to 2008. The 29 counties with no skilled care represented 4% of all micropolitan counties.



The most rural counties (non-CBSA) were more likely to have no post-acute skilled care providers, although the number with none fell by 17% from 2003 to 2008, leaving 11% of non-CBSA counties without this service (Fig 1b). In 2008, only 80% of non-CBSA counties had SNFs and 55% had both SNFs and swing beds.

Compared to micropolitan counties, swing bed providers were more likely to be the only skilled care providers in non-CBSA counties (0.6% of micropolitan counties v. 8.3% of non-CBSA counties).

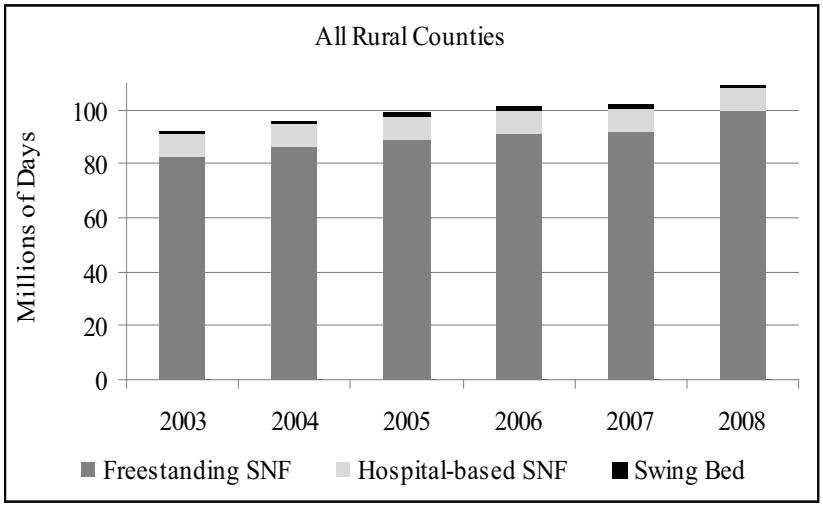
Source: NCRHR&PAC analysis of CMS Hospital Cost Report Information System (HCRIS), 6-30-10

COMMUNITY-BASED SKILLED NURSING FACILITY DAYS PREDOMINATE

The increase in post-acute skilled days in rural counties is dominated by days in community-based SNFs, which increased by 21% (82.8 to 100.2 million) over the study period (Fig 2). Hospital-based SNF days remained constant at just over 8 million, and swing bed days grew slightly but represented only 1% of all days.

The distribution of care days across different provider types did not differ appreciably for micropolitan counties compared to non-CBSA counties.

Figure 2: Post-Acute Skilled Care Days by Type of Provider



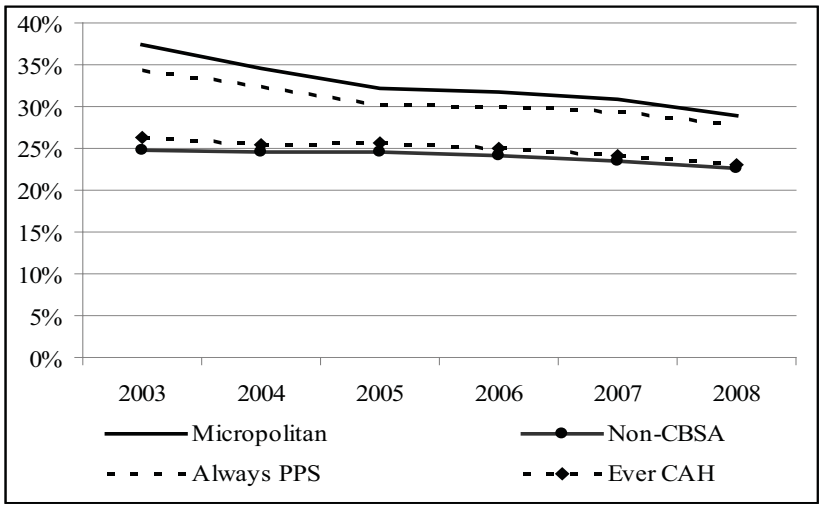
Source: NCRHR&PAC analysis of CMS Hospital Cost Report Information System (HCRIS), 6-30-10

MORE MICROPOLITAN AND PPS HOSPITALS DISCONTINUED SNF CARE

The percent of micropolitan hospitals operating SNFs fell from 37% to 29% from 2003 to 2008 (Fig 3). A similar decline (34% to 28%) was seen for hospitals always paid under the PPS system.

Hospitals in the most rural communities (non-CBSAs) and those that were CAHs at any point during the study period were less likely to provide hospital-based SNF care in 2003 but also less likely to have discontinued these services. Non-CBSA hospitals with SNFs declined by only 2% and CAHs with SNFs declined by 3.4%.

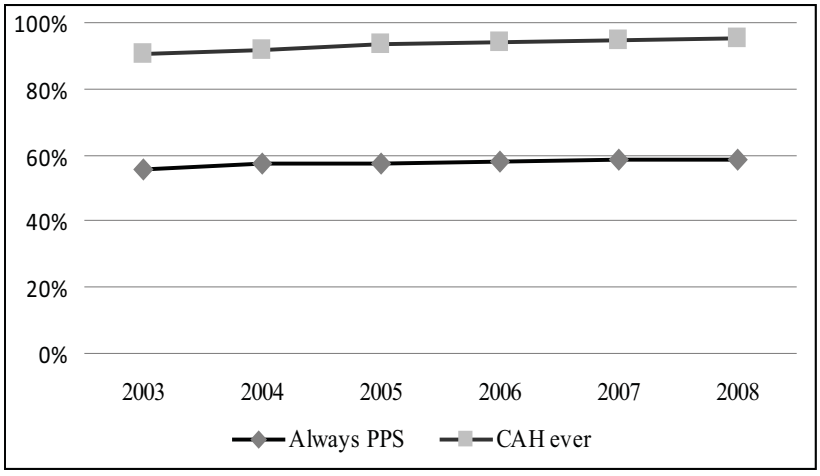
Figure 3: Percent of Rural Hospitals Operating SNFs



Source: NCRHR&PAC analysis of CMS Hospital Cost Report Information System (HCRIS), 6-30-10 release

THERE WAS LITTLE CHANGE IN THE PERCENT OF HOSPITALS WITH SWING BEDS

Figure 4. Percent of Hospitals with Swing Beds by Hospital Type



Source: NCRHR&PAC analysis of CMS Hospital Cost Report Information System (HCRIS), 6-30-10 release

In all years, 90% or more of "CAH ever" hospitals, i.e., hospitals that were always CAH or that converted to CAH during the period, had swing beds (Fig 4). The proportion of PPS hospitals with swing beds was lower but also constant over this period

MORE CAHS BUT ONLY A MODEST CHANGE IN CAH SWING BED DAYS

Table 1 summarizes changes in swing bed use in CAHs compared to PPS hospitals from 2003 to 2008. The number of CAHs in micropolitan counties almost doubled. There were more than three times as many CAHs in more rural non-CBSA counties although the rate of growth was smaller. The increase in CAHs is largely due to conversion from PPS status, as can be seen in the decrease in the number of PPS hospitals.

The total number of swing bed days increased for CAHs as a group, but for individual hospitals, the average number of days decreased in micropolitan areas and increased by 13.6% in non-CBSAs. A similar change is seen in the average daily swing bed census. Swing bed ADC went down in micropolitan CAHs and both groups of PPS hospitals. Swing bed ADC in CAHs increased modestly in non-CBSAs.

Table 1: Changes in Swing Bed Use in CAHs Compared to Use in PPS Hospitals, 2003 and 2008

Critical Access Hospitals	Micropolitan			Non-CBSA		
	2003	2008	% change	2003	2008	% change
Number of hospitals	119	226	89.9%	567	825	45.5%
% of hospitals w/swing bed care	92.4%	89.8%	-2.8%	95.9%	96.5%	0.6%
Total # of swing days	79,225	132,787	67.6%	349,858	566,231	61.8%
Average # of swing days/hospital	689	616	-10.6%	633	719	13.6%
Average daily swing bed census	1.89	1.69	-10.6%	1.73	1.97	13.9%
PPS Hospitals	**Micropolitan**			**Non-CBSA**		
	2003	2008	% change	2003	2008	% change
Number of hospitals	729	622	-14.7%	593	330	-44.4%
% of hospitals w/swing bed care	36.4%	36.2%	-0.5%	74.3%	69.5%	-6.5%
Total # of swing days	207,696	166,262	-19.9%	318,327	152,294	-52.2%
Average # of swing days/hospital	285	267	-6.3%	539	464	-13.9%
Average daily swing bed census	0.78	0.73	-6.4%	1.48	1.27	-14.2%

Source: NCRHR&PAC analysis of CMS Hospital Cost Report Information System (HCRIS), 6-30-10 release

DISCUSSION

Overall access to skilled care in rural areas has improved since 2003, with just 0.5% of the most rural population (non-CBSA) residing in the 11% of counties with no skilled care providers in 2008. However, in 2008, 4.1% of the population in non-CBSAs resided in a county where the only access to post-acute skilled care was in swing beds. SNF care is available in many rural counties and one-half of rural counties offer options for swing bed or SNF care.

During this period, the number of CAHs increased but the percent that offered swing bed care did not. The increase in the total number of swing bed days is consistent with an increase in the number of CAHs, and occurred during a period of overall growth in post-acute skilled care days in any setting. At the hospital level, there were only modest changes in the average daily census for swing bed care in CAHs. In fact, an increase was noted only in the most rural areas (non-CBSAs) where post-acute skilled care of any type is less available and swing beds play a more important role. Skilled care provided in swing beds continues to comprise a very small proportion of overall skilled care days when all sources of post-acute facility-based care are considered. Rather, growth in post-acute skilled care is being driven by rising numbers of SNF days, primarily in freestanding, community-based SNFs, reflecting the trend toward closure of hospital-based SNFs.

A claims-based study of Medicare hospital-based and freestanding post-acute skilled care patients is warranted as a follow up to this study to identify differences in case mix between hospital-based SNF, freestanding community-based SNF, and swing bed patients. Such information is important for understanding the role of swing beds in meeting patient needs as availability of hospital-based SNFs continues to decline.

METHODS

Study data were obtained from Medicare Hospital and SNF Cost Reports released by the Centers for Medicare and Medicaid Services in June 2010. Data from the Reports were geo-coded and merged with county-level information on rural/urban status. For these analyses, rural is defined as location in a nonmetropolitan county. Most analyses are divided into two groups: micropolitan and non-core based statistical areas (non-CBSA) counties. This study focuses on post-acute skilled care that is available and used in only nonmetropolitan counties and analyses are limited to facility-based care.

More detailed study results can be found in the final report "Trends in Skilled Nursing Facility and Swing Bed Use in Rural Areas Following the Medicare Modernization Act of 2003" located at http://www.shepscenter.unc.edu/research_programs/rural_program/.

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