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A Critique of the Office of the Inspector General's Report on Swing Beds in Critical Access Hospitals

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PURPOSE

In March 2015, the Office of the Inspector General (OIG) issued a report on Medicare's expenditures on swing beds in Critical Access Hospitals ("Medicare Could Have Saved Billions At Critical Access Hospitals If Swing Bed Services Were Reimbursed Using The Skilled Nursing Facility Prospective Payment System Rates." Department of Health and Human Services, Office of Inspector General, March 2015, A-05-12-00046, hereafter "OIG report"). The purpose of this Policy Brief is to draw from our body of work in this topic to evaluate the methods and data of the OIG report.

METHODS AND DATA USED IN THE OIG REPORT

The March 2015 report is the latest in a series of OIG reports on payment for rural health care services. The report estimates the Medicare savings if swing bed days in Critical Access Hospitals (CAHs) were paid using Skilled Nursing Facility (SNF) Prospective Payment System (PPS) Rates instead of the current method of cost-based reimbursement. Below, we discuss what we believe are three important limitations of the methods and data that should be considered when interpreting the OIG report's findings.

The OIG report over-estimates the potential Medicare savings by removing swing beds from cost-based reimbursement. In a 2013 article,¹ we show that the formula used by Medicare for reimbursement of swing bed care is complex and requires methods that recognize this complexity. Empirical estimates of the marginal cost per day to the hospital and the implied Medicare expenditure per day were carefully constructed, accounting for the increase in per-unit fixed cost² allocation when days are reduced. In contrast, the OIG³ used the following method to estimate the savings to Medicare from paying CAHs at a SNF rate:

$$\left\{ \begin{array}{c} \text{Average CAH} \\ \text{payment per} \\ \text{swing bed day} \end{array} \right\} \begin{array}{c} \text{—} \\ \text{(MINUS)} \end{array} \left\{ \begin{array}{c} \text{Average SNF} \\ \text{payment per} \\ \text{bed day} \end{array} \right\} \begin{array}{c} \text{X} \\ \text{(TIMES)} \end{array} \left\{ \begin{array}{c} \text{Number of} \\ \text{CAH swing} \\ \text{bed days} \end{array} \right\}$$

The simple per diem method used by OIG fails to account for fixed cost transfers among services, over-estimating the Medicare savings of removing swing beds from cost-based reimbursement. Why? A typical CAH has different types of inpatient days: acute (Medicare and non-Medicare), swing (Medicare and non-Medicare), and observation. Medicare pays for a share of a CAH's fixed costs based on the proportion of total inpatient days that were for acute and swing Medicare inpatients. Under the current cost-based reimbursement methodology, if swing bed days are removed from cost-based reimbursement, the CAH's fixed costs would be allocated between acute Medicare and acute non-Medicare inpatient days only, a smaller number of days. Spreading the CAH's fixed costs over a smaller number of inpatient days increases the fixed costs per day of the acute Medicare patients, and Medicare would be required to pay these additional costs because of the unique nature of cost-based reimbursement cost accounting. This fixed cost transfer thus offsets a portion of the OIG suggested savings achieved by removing swing bed days from cost-based reimbursement.⁴ In our 2013 article, we estimated that the average per diem cost of a swing bed day to Medicare (\$581) is less than half of the average CAH total inpatient per diem cost (\$1,302). We agree with the OIG that the average per diem cost of a swing bed day to Medicare is higher than the average SNF PPS per diem rate; however, the OIG estimate of the Medicare savings is unequivocally too large. The net effect of this difference between the \$581 (actual reimbursement) and \$1,302 (per-diem reimbursement) is considerable. The net savings (solely from changing payment methodologies) using the per-diem method is $(\$1,302 - \$263.66) \times 829,104$ days or \$861m. The net savings using the correct method is $(\$581 - \$263.66) \times 829,104$ days or \$263m. Thus, using 2009 data we estimate using the incorrect method yields estimates of potential "cost savings" that are over three times too large.

The OIG report ignores the fact that skilled nursing days in rural SNF facilities increased roughly one third faster than stays in swing beds. The OIG report notes an increase in the number of swing days from 789,000 days in CY 2005 to about 914,000 in CY 2010, an increase of approximately 15.8 percent. This is comparable to our estimate⁵ of an 8.4 percent increase over 5 years in swing days per CAH. As both the OIG report (“The increase in swing-bed days was due primarily to an increase in the number of CAHs throughout the Nation from CYs 2004 to 2006.” OIG, page 5) and our findings brief demonstrate, the primary driver of the growth in swing bed days was the increase in the number of CAHs, not the number of swing days provided by each hospital. Meanwhile, the increase in skilled nursing days in rural community-based skilled nursing facilities (the “alternative facilities” used in the OIG report) increased by 21% over the same time period. The OIG report implies that the growth in swing days is inappropriately high and evidence of a policy problem; it does not mention that days in alternative facilities grew about a third faster (21 percent vs 15.8 percent), an important contextual datapoint.

The OIG report overstates the limited evidence that outcomes and characteristics of swing patients in CAHs are similar to patients in SNFs. Overall, there is little research comparing swing patients with those receiving care in skilled nursing facilities. From two of our findings briefs that consider swing patients versus those in SNFs, the OIG report draws datapoints suggesting patients are similar in some respects, but omits datapoints that suggest patients may be different. In a 2012 study,⁶ we reported “Some respondents noted that ‘medically complex’ patients were more likely to be cared for in their swing beds than in their local SNFs. A patient needing intravenous antibiotics is one example of a medically complex patient that might be cared for in a swing bed,” suggesting that swing bed patients may be more costly than skilled nursing patients. In a 2014 study,⁷ comparing the qualifying acute stays for swing bed and SNF patients, we found that “[p]atients discharged to swing beds also had shorter stays than those discharged to SNFs regardless of hospital type (0.9 days shorter for CAH, 1.1 days for PPS),” consistent with the common narrative that swing patients are discharged from acute beds faster because a swing bed offers resources a SNF might not. The OIG only cites our main conclusion from that brief that patient characteristics look equal. In preliminary, ongoing analyses, we have found that the average length of stay in a CAH swing bed is 9.6 days, while the average length of stay in a SNF is 33.7 days. Thus, while there are a wide variety of datapoints suggesting that the patient populations are similar and have similar outcomes, there is also evidence suggesting they may be different. There is not enough evidence, yet, to conclude how (or whether) the two patient populations differ. An analysis of the costs, unadjusted for patient characteristics and outcomes, provides a very incomplete picture.

CONCLUSION

Typically, the reports authored by Office of Inspector General are scientifically valid; the criticisms from the public have focused more on context and policy conclusions than the approach. In this case, we believe the OIG has made methodological choices that resulted in errors, and therefore, the conclusions and policy recommendations are suspect.

REFERENCES AND NOTES

1. Reiter KL, Holmes GM, Broyles IH. Medicare, Swing Beds, and Critical Access Hospitals. *Medical Care Research and Review*. 2013;70(2):206–217.
2. Fixed costs are those that do not vary with changes in output. For example, most of a facility’s costs for property and the building are fixed regardless of how many patients are admitted. Contrast with variable costs, such as supplies, laundry, and meals which vary directly with how many patients are managed.
3. The OIG analysis used claims data to estimate reimbursement to cost-based reimbursed providers. The claims-based analysis is roughly equivalent methodologically to using total inpatient per-diem rates from cost reports.
4. A video that explains fixed cost transfers is available at <https://www.youtube.com/watch?v=Ym75Tkka-xI>.
5. Reiter KL, Freeman VA. Trends in Skilled Nursing Facility and Swing Bed Use in Rural Areas Following the Medicare Modernization Act of 2003. North Carolina Rural Health Research and Policy Analysis Center, Final Report No. 101, April 2011. Available at: <http://www.shepscenter.unc.edu/rural/pubs/report/FR101.pdf>.
6. Freeman VA, Radford A. Why Use Swing Beds? Conversations with Hospital Administrators and Staff. North Carolina Rural Health Research and Policy Analysis Center, Findings Brief, April 2012. Available at: <http://www.shepscenter.unc.edu/wp-content/uploads/2014/04/FB105.pdf>.
7. Freeman VA, Randolph RK, Holmes GM. Discharge to Swing Bed or Skilled Nursing Facility: Who Goes Where? North Carolina Rural Health Research Program, Findings Brief, February 2014. Available at: <http://www.shepscenter.unc.edu/wp-content/uploads/2014/02/Discharge-to-Swing-Bed-or-SNF-Who-Goes-Where.pdf>.

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