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Who Has Avoidable Hospitalizations and Who Pays the Cost?

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Potentially Avoidable Hospitalizations

The Virginia Department of Health's *2016-2020 Plan for Wellbeing* identified the reduction of potentially avoidable hospitalizations (PAHs) as a measurable goal for improving the health of the Commonwealth's citizens.

PAHs are hospitalizations for ambulatory care-sensitive conditions (ACSCs), which are conditions that can be typically prevented with access to high quality outpatient care that provides early intervention and limits complications and disease severity. The most common diagnoses for PAHs are chronic obstructive pulmonary disease and congestive heart failure, with short term complications from diabetes becoming an increasingly greater contributor (Fingar, 2015). The prevalence of PAHs in a community commonly serves as an indicator of individuals' access to effective primary care and care coordination services (AHRQ, 2002). Not only do avoidable hospitalizations suggest that there are deficits in healthcare access and quality, they also impose unnecessary costs on both public and private payers.

Purpose

This study uses Virginia data to examine differences in the occurrence of avoidable hospitalizations by the primary payer for the hospital stay. This analysis can help identify subgroups with the greatest risk of avoidable hospitalization and help to focus the state's PAH reduction efforts. Prior research examined the share of avoidable hospitalizations in groups of US patients covered by different payers (Stranges and Stock, 2010). Surprisingly, the authors found that an equal share of Medicaid and privately-insured patient hospitalizations were avoidable (5.4%), while a significantly higher share of uninsured patient hospitalizations were avoidable (9.9%).

This study builds on Stranges and Stock's work, but uses Virginia data and makes two important changes to the sample construction. First, we focus on hospitalizations among the working-age adult population (18 to 64 year-olds), a group that stands to be most impacted by state decisions about publicly-funded insurance. This is because low income children already benefit widely from Medicaid, and Medicare is already available to persons age 65+. Second, we exclude pregnancy-related hospitalizations because they are typically unavoidable, dependent on factors other than primary care, and significantly overrepresented in Medicaid hospitalizations. In Virginia, for example, Medicaid pays for 30% of births (Kaiser Foundation, 2015). These sample changes allow for a better comparison of Medicaid hospitalizations with privately-insured and uninsured hospitalizations. As the Virginia legislature considers Medicaid expansion, this study is important in understanding if a disproportionate share of avoidable costs falls on the state and what Medicaid expansion could mean for taxpayers.

Methods

This study uses patient level data provided by the Virginia Health Information (VHI), which includes all Virginia inpatient hospital discharges from short-term general hospitals in 2015. Avoidable hospitalizations were defined using AHRQ's prevention quality indicators (AHRQ, 2002). Payer type was based on the patient's primary payer and included Medicare, Medicaid, Uninsured, Private, or Other. Discharges with unknown payers were dropped. "Uninsured" discharges were defined as those with a primary payer type of self-pay or indigent/charity. Data from the American Community Survey were used to quantify the number of persons in the state with private insurance, Medicaid (and not Medicare), and without insurance.

Data Summary

1. Nearly 12% of hospitalizations in our main sample were potentially avoidable. Avoidable hospitalizations accounted for $951 million in charges.
2. More than one-third (36.7%) of all avoidable hospitalizations among 18-64 year-olds were to Medicaid and uninsured patients; only 28.7% of all other hospitalizations among 18-64 year-olds were to Medicaid patients and uninsured patients.
3. About 1/7th of all hospitalizations for Medicaid patients aged 18-64 were avoidable. Only about 1/12th of all hospitalizations for privately insured patients aged 18-64 were avoidable. This is contrary to Stranges and Stoke's national findings for the population age 18 to 85+.
4. The rate of avoidable hospitalizations per 100,000 population was 2.5 times higher for Medicaid patients than for the uninsured.

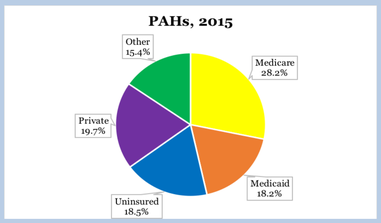
Exhibit 1: Composition of PAHs, 2015

Overall Sample	
Total discharges	293,831
PAHs	34,241
PAH share of total discharges	11.7%
PAH Discharge Sample	
Category	**Share of PAHs**
Age	
18-24 years	4.8%
25-44 years	22.9%
45-64 years	72.3%
Sex	
Female	52.6%
Male	47.4%
Diagnosis Classification	
Acute	25.5%
Chronic	74.5%
Diabetes Related	27.3%

Exhibit 2: Population Rates of PAHs by Payer, 2015

Population Rates of PAHs	
Insurance	**PAH Rate per 100,000**
Medicaid	2,449.8
Uninsured	981.3
Total	667.1

Exhibit 3: 2015 Payer Distribution



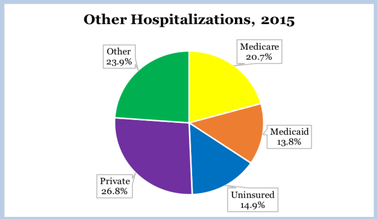
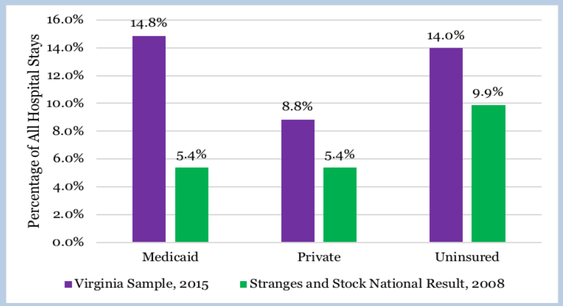


Exhibit 4: Share of Total Discharges Made Up By Avoidable Hospitalizations



* Virginia Health Information (VHI) has provided non-confidential patient level information used in this study which it has compiled in accordance with Virginia law but which it has no authority to independently verify. By using this study, the user agrees to assume all risks that may be associated with or arise from the use of inaccurate data. VHI cannot and does not represent that the use of VHI's data was appropriate for this study or endorse or support any conclusions or inferences that may be drawn from the use of VHI's data

Conclusion

Our results indicate that potentially avoidable hospitalizations occur disproportionately across payer categories. In contrast to prior work by Stranges and Stock (2010), Medicaid patients were significantly more likely to have avoidable hospitalizations than the privately insured in VA. Instead, the rate of Medicaid hospitalizations that were avoidable resembled that found for uninsured hospitalizations. This indicates that the intended benefits to the health of low-income individuals which justify the state's spending on Medicaid are not being fully accessed by this population. Thus, there is a need for the state to address the existing disparities in the Medicaid population in addition to their current focus on expansion.

The differences in the avoidable hospitalization rates between privately-insured patients and Medicaid patients may be due to differences in the type of access and quality of care between the two populations, and/or differences in the underlying health of both populations. Prior research demonstrates that physicians often are unwilling to accept Medicaid patients as a result of lower reimbursement rates (Decker, 2012). The low-income lifestyle lived by most Medicaid patients also may drive PAHs and explain this similarity with uninsured patients. These include limited health literacy, trust in transportation and available time (Green, 2012) as well as high diabetes rates and other chronic diseases that result from unhealthy lifestyles (Levine, 2011). However, more research is needed to determine causality.

Policy Implications

1. As a disproportionate share of the costs of avoidable hospitalizations fall on the state which partially fund Medicaid, there is an incentive for Virginia to improve access to ambulatory services.
2. To increase Medicaid patients' access to healthcare, Virginia can invest in higher Medicaid reimbursement rates, telemedicine, after hour services, health education initiatives, nutritional support, and the coordination of health services.
3. In the long run, Virginia must incentivize a payment structure that rewards prevention and management services rather than reactionary treatment that ends in hospitalization

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