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Home and Community-Based Services Rebalancing Ratio and Its Relationship to Nursing Facility Bed Density

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Background

A recent focus of Maryland Medicaid long-term services and supports (LTSS) policy has been shifting the balance between care received in institutional settings and care received in home and community-based services (HCBS) settings. The importance of this topic has increased as states apply for and implement the Balancing Incentive Program, which provides an increase in a state's Federal Medical Assistance Percentage tied to increased utilization of HCBS. Additionally, recent research has shown evidence that gradual rebalancing may indeed reduce state spending compared to continuing to rely on institutional settings for Medicaid LTSS.[1]

Methods

Data Sources:

- Maryland Medicaid Eligibility and Claims Data (MMIS) Fiscal Year (FY) 2008 – 2012
- Maryland Office of Health Care Quality Licensee Directory, November 2013
- Maryland Department of Planning, Projections and Data Analysis, State Data Center, May 2013

Unique persons who had at least one Medicaid paid LTSS service—defined as a stay in a nursing facility, a waiver service from Maryland's 1915(c) Medicaid waivers for older adults and persons with disabilities, or utilization of state plan personal care services—were identified in the data. Both total Medicaid nursing facility expenditures and total Medicaid HCBS expenditures were generated, in addition to unique recipient counts. The nursing facility to HCBS rebalancing ratio is calculated by dividing the unique number of nursing facility residents in each county by the unique number of HCBS recipients per county.

Results

As shown in Table 1, Maryland has increased its expenditures for HCBS by 43.9 percent in nominal dollars during the period of FY 2008 through FY 2012. This corresponds to a much smaller increase in nursing facility spending of 1.5 percent in nominal dollars during the same period.

Table 1. Total Medicaid Expenditures for HCBS Waiver Participants and Nursing Facility Residents

Expenditures	FY 08	FY 09	FY 10	FY 11	FY 12
Living at Home	$28,000,757	$33,625,276	$43,463,117	$51,247,962	$57,217,863
Medical Day Care Services[2]		$89,807,030	$98,297,445	$107,236,454	$111,556,528
Older Adults	$107,411,981	$116,293,679	$123,271,336	$127,576,882	$137,339,165
State Plan Personal Care	$77,239,115	$55,613,262	$59,079,907	$68,960,322	$73,022,809
Total HCBS Expenditures	$212,651,853	$295,339,247	$324,111,805	$355,021,620	$379,136,366
Nursing Facility	$1,087,314,881	$1,158,265,306	$1,133,663,857	$1,154,912,776	$1,103,547,061

Similar growth was evident in the number of users of HCBS, with a 44.0 percent growth in HCBS users compared to a decrease of 1.6 percent in nursing facility residents. While the state's overall rebalancing effort was positive, information about the reach of LTSS rebalancing between counties was unknown. Figures 1 and 2 display the ratio of nursing facility residents to HCBS recipients by county in FY 2008 and FY 2012, respectively.

Figure 1. Ratio of Nursing Facility Residents to HCBS Recipients, by County, FY 2008

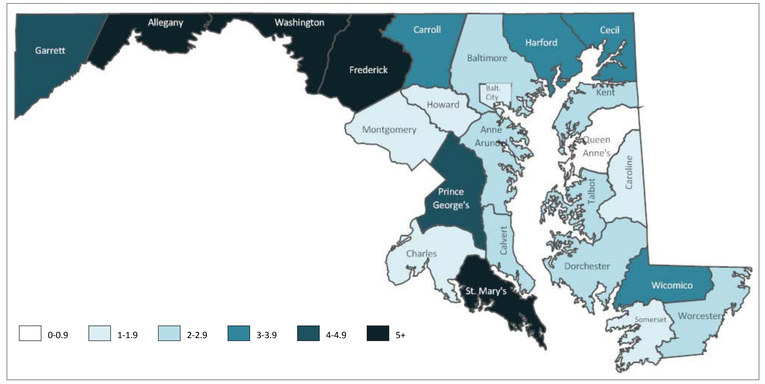
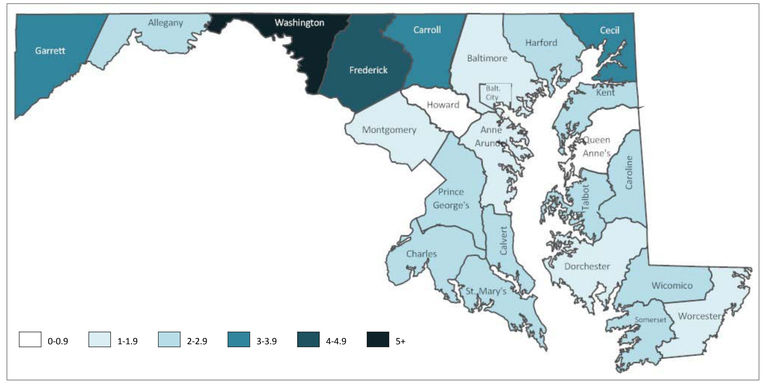


Figure 2. Ratio of Nursing Facility Residents to HCBS Recipients, by County, FY 2012



Discussion

From FY 2008 to FY 2012, the statewide nursing facility to HCBS rebalancing ratio decreased from 2.4 to 1.5 persons in nursing facilities for every one person receiving HCBS. With the exception of four counties, there was a decrease in the ratio of nursing facility residents to HCBS users. A potential contributing factor to the variation in county-level rebalancing ratios is nursing facility bed density. Table 2 provides the number of Medicaid certified beds available in each county, as well as a density proxy, which is the number of persons aged 65 and older residing in each county for every certified Medicaid nursing facility bed.

Table 2. Nursing Facility Bed Density, by County

County	Medicaid Certified Nursing Facility Beds	Persons 65 & Older Per Bed	County	Medicaid Certified Nursing Facility Beds	Persons 65 & Older Per Bed
Allegany	899	15.2	Harford	693	48.5
Anne Arundel	1,672	41.8	Howard	364	91.9
Baltimore City	3,786	19.5	Kent	186	25.3
Baltimore County	4,849	25.5	Montgomery	4,450	29.1
Calvert	302	35.7	Prince George's	2,642	34.3
Caroline	187	25.3	Queen Anne's	120	65.3
Carroll	793	30.1	Somerset	211	56.9
Cecil	406	32.2	St. Mary's	563	6.7
Charles	422	36.7	Talbot	260	37.3
Dorchester	237	25.8	Washington	1,120	19.8
Frederick	1,020	28.2	Wicomico	643	21.3
Garrett	316	17.6	Worcester	284	44.1

Does nursing facility bed density correlate with a higher rebalancing ratio for counties? Do those with more beds have proportionally more persons institutionalized? Comparing the rebalancing ratio with the number of certified beds results in a Pearson's correlation coefficient of r= -0.26, with a p<0.01. This finding indicates that there is a weak but statistically significant negative correlation, suggesting that bed density is not contributing to higher rebalancing ratios. Conversely, it shows that counties with greater bed densities are serving slightly more people, proportionally, in community settings.

Limitations

The county of residence was not available in the MMIS eligibility files for all recipients; however, the numbers are so few that they do not affect the results. Additionally, there is not a comparison of HCBS provider density that corresponds with service capacity in the same manner as nursing facility beds. This limits the ability to measure the HCBS density correlation with the rebalancing ratio.

Notes

1. Kaye, H.S. (2012). Gradual rebalancing of Medicaid long-term services and supports saves money and serves more people, statistical model shows. *Health affairs,* 31(6):1195-1203.
2. Effective July 1, 2008, medical day care was converted from a State Plan service to a waiver service. FY 2009 expenditures for State Plan Personal Care (SPPC) users decreased as SPPC users transitioned to the Medicaid Day Care Services Waiver.

Acknowledgements

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