

Trends in the Use of and Spending for Home and Community-Based Services as a Share of Total LTSS Use and Spending in Medicaid, 2019–2021

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Background

Federal Medicaid rules allow states to cover a wide range of institutional and home and community-based long-term services and supports (LTSS). The types of services, populations covered, and delivery models differ greatly across states based on their Medicaid program structure. Over the last several decades, states have sought to rebalance their Medicaid LTSS systems by increasing access to home and community-based services (HCBS) and reducing reliance on institutional care. Progress toward rebalancing Medicaid LTSS systems away from institutional services and toward greater use of HCBS can be measured nationally and for individual states based on both the share of total Medicaid LTSS users receiving HCBS and the share of total Medicaid LTSS spending devoted to HCBS.¹ These measures are commonly referred to as LTSS user and expenditure rebalancing ratios.

Key findings

- 86.2 percent of LTSS users received HCBS in 2021.
- 63.2 percent of LTSS expenditures were for HCBS in 2021.
- LTSS user and expenditure rebalancing ratios increased slightly from 2019 to 2021 at the national level.
- Expenditure rebalancing ratios showed greater variation across states than user rebalancing ratios.
- Both rebalancing ratios varied the most by age group: those ages 0–20 had the highest rebalancing ratios and those ages 65 and over had the lowest.

This brief presents national and state² trends in Medicaid LTSS user and expenditure rebalancing ratios for 2019–2021, based on data from the Transformed Medicaid Statistical Information System Analytic Files

¹ The following 10 HCBS categories used in this analysis align with those eligible for a temporary 10 percentage point increase in the federal medical assistance percentage (FMAP) under section 9817 of the American Rescue Plan Act of 2021 (ARP): section 1915(c) waiver programs; section 1915(i) HCBS state plan option; section 1915(j) self-directed personal assistance services (PAS); section 1915(k) Community First Choice; Program of All-Inclusive Care for the Elderly (PACE); state plan personal care services; state plan home health services; state plan rehabilitative services; state plan case management services; and state plan private duty nursing services.

² This analysis includes data for all 50 states and the District of Columbia for 2019 and 2020, and 49 states (excluding Alabama) and the District of Columbia for 2021. Alabama's 2021 LTSS measures have been suppressed due to concerns about the quality of the TAF data used in the calculations. All LTSS measures for the state have been replaced with a value of "NC" indicating that the state's LTSS measures have not been calculated and their data are not included in any national calculations. We did not include data for the U.S. territories in any of the report years

(TAF).³ We also present national rebalancing ratios by select characteristics, including age, sex, dual-eligibility status, urban or rural residence, primary spoken language, and race and ethnicity, for 2019–2021.⁴

National trends in Medicaid LTSS user and expenditure rebalancing ratios, 2019–2021

Total LTSS users. Nationally, the number of Medicaid LTSS users fell slightly from 8,919,776 users in 2019 to 8,836,143 users in 2020 and again to 8,652,049 users in 2021.⁵ Of the LTSS users in 2019, 7,436,982 used HCBS (83.4 percent of all LTSS users), and 1,784,652 used institutional services (20.0 percent of all LTSS users). These two groups of LTSS users are not mutually exclusive, with a total of 301,858 people who used both HCBS and institutional services at some point during the year. In 2020, despite the overall slight drop in the number of Medicaid LTSS users, the number of people using HCBS increased, and those using institutional services decreased, with a total of 7,466,809 people using HCBS (84.5 percent of all LTSS users) and 1,642,783 people using institutional services (18.6 percent of all LTSS users). A total of 273,449 people used both HCBS and institutional services during 2020. About the same number of people used HCBS in 2021 (7,461,364), which comprised 86.2 percent of all LTSS users, and the number of people with institutional service use decreased again in 2021 (1,462,774), which comprised 16.9 percent of all LTSS users. A total of 272,089 people used both HCBS and institutional services during 2021.

Total LTSS expenditures. Total Medicaid LTSS and HCBS spending rose each year from 2019 to 2021. National Medicaid LTSS expenditures totaled \$169.2 billion in 2019, with HCBS accounting for \$97.1 billion (57.4 percent) and institutional services accounting for \$72.1 billion (42.6 percent). This represented about \$18,969 in LTSS expenditures per LTSS user in 2019, with much higher spending per user for those receiving institutional services (\$40,404) than for those receiving HCBS (\$13,056). Although overall the number of LTSS users decreased between 2019 and 2020, LTSS expenditures increased between 2019 and 2020. In 2020, LTSS expenditures totaled \$176.5 billion, with HCBS accounting for \$107.4 billion (60.9 percent) and institutional services accounting for \$69.1 billion (39.2 percent). Total spending per LTSS user also increased between 2019 and 2020 to \$19,975. Spending per institutional service user was still substantially higher in 2020 (\$42,060) than spending per HCBS user (\$14,385). LTSS and HCBS expenditures climbed again between 2020 and 2021, with LTSS expenditures totaling \$181.9 billion in 2021. HCBS expenditures accounted for \$115.0 billion (63.2 percent), and institutional services accounted for \$67.0 billion (36.8 percent) in 2021. Although institutional LTSS expenditures continued to decline

because they do not generally cover LTSS and currently only two territories (Puerto Rico and the Virgin Islands) report Transformed Medicaid Statistical Information System (T-MSIS) data.

³ When interpreting findings, please note that the completeness, quality, and consistency of TAF data varies by state. For more information on the data source, methodology, state anomalies, and data tables, see the Methods box at the end of this brief.

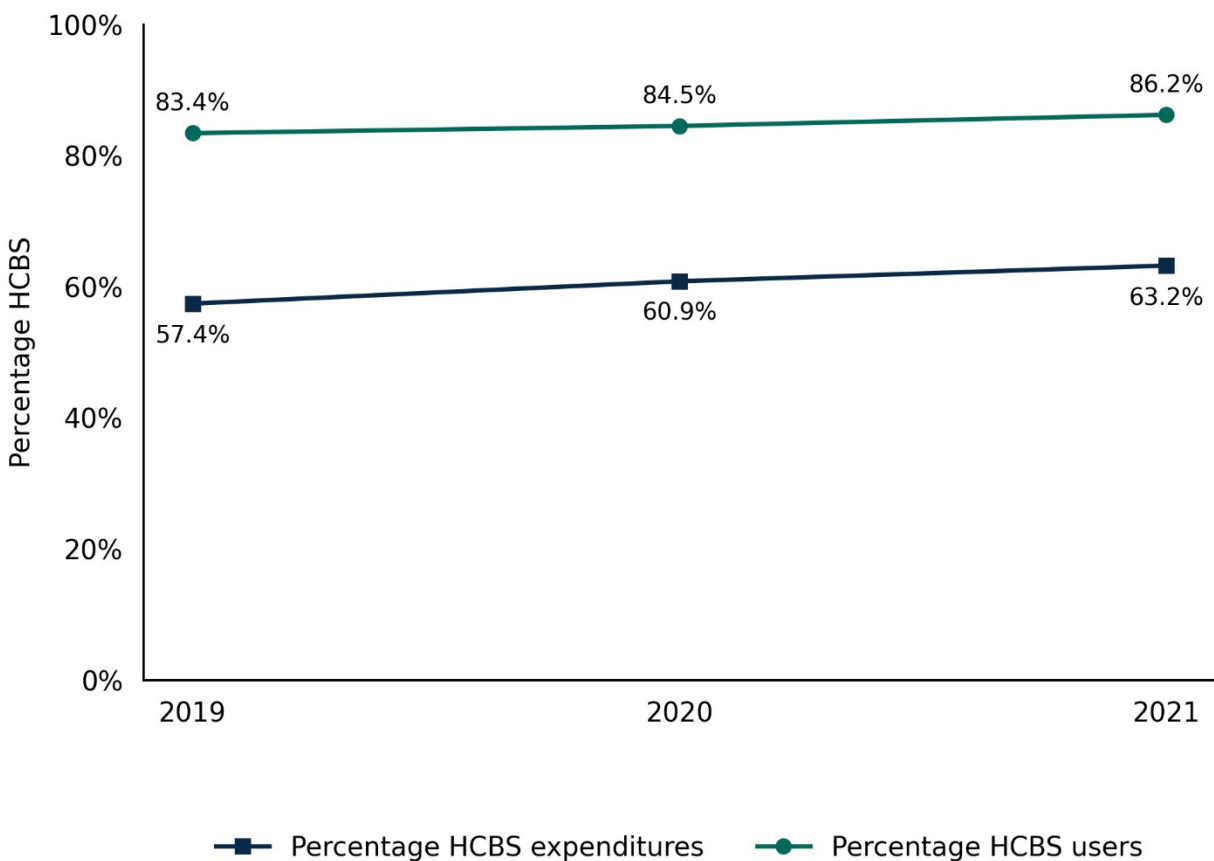
⁴ Expenditure rebalancing ratios for prior years are available at <https://www.medicaid.gov/medicaid/long-term-services-supports/reports-evaluations/index.html>.

⁵ Alabama is excluded from all user and expenditure measures in 2021.

between 2020 and 2021, total spending per institutional user increased to \$45,766. Total spending per LTSS user and per HCBS user also rose between 2020 and 2021 to \$21,024 and \$15,407 respectively.

LTSS user and expenditure rebalancing ratios. Both the LTSS user and expenditure rebalancing ratios increased between 2019 and 2021 (Figure 1). Nationally, HCBS users as a percentage of total Medicaid LTSS users grew from 83.4 percent in 2019 to 84.5 percent in 2020 to 86.2 percent in 2021. Similarly, HCBS expenditures as a percentage of total Medicaid LTSS expenditures rose from 57.4 percent in 2019 to 60.9 percent in 2020 to 63.2 percent in 2021.

Figure 1. National user and expenditure rebalancing ratios for Medicaid LTSS, 2019–2021



Source: Mathematica’s analysis of the 2019 TAF Release 2, 2020 TAF Release 1, and 2021 TAF Release 1.

Note: The LTSS user rebalancing ratio is the total unduplicated number of HCBS users as a percentage of the total unduplicated number of LTSS users. The LTSS expenditure rebalancing ratio is calculated as the total HCBS expenditures as a percentage of total LTSS expenditures. National user and expenditure rebalancing ratio calculations for 2021 exclude Alabama due to data quality concerns.

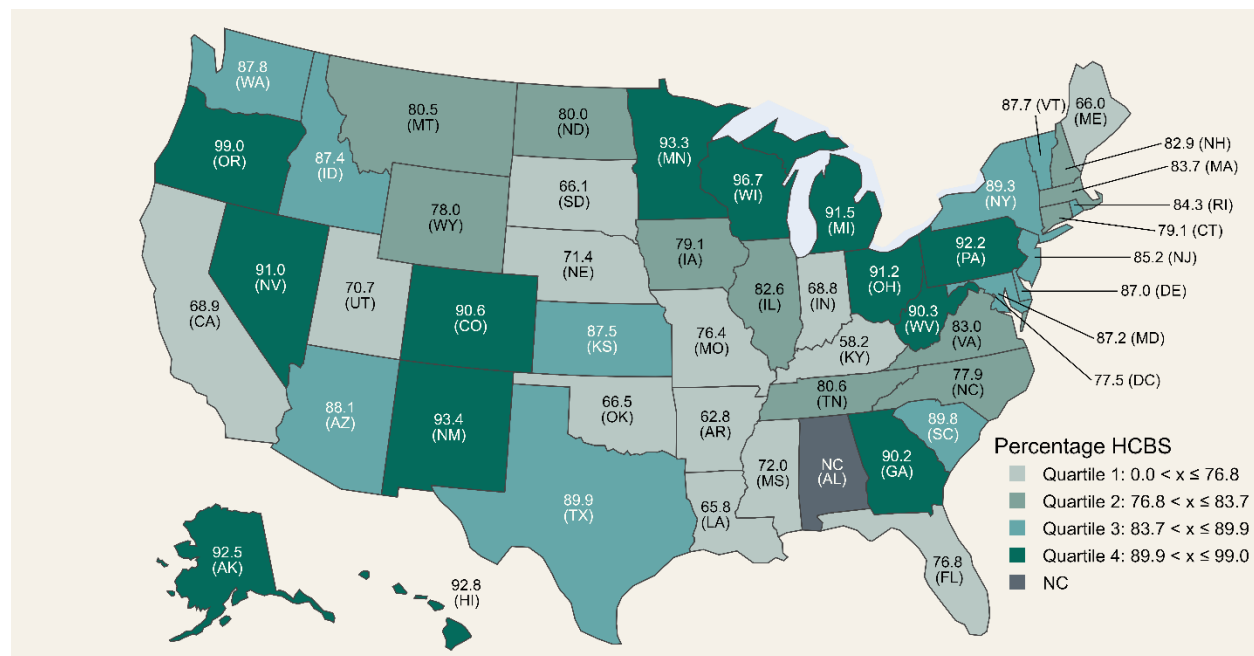
HCBS = home and community-based services; LTSS = long-term services and supports; TAF = Transformed Medicaid Statistical Information System Analytic File.

State trends in Medicaid LTSS user and expenditure rebalancing ratios, 2019–2021

LTSS user rebalancing ratio by state. In 2021, the user rebalancing ratio ranged from 58.2 in Kentucky to 99.0 percent in Oregon (Figure 2). Besides Oregon, the other states in the top quartile, with the highest percentage of HCBS use among LTSS users in 2021, were Wisconsin (96.7 percent), New Mexico (93.4 percent), Minnesota (93.3 percent), Hawaii (92.8 percent), Alaska (92.5 percent), Pennsylvania (92.2 percent), Michigan (91.5 percent), Ohio (91.2 percent), Nevada (91.0 percent), Colorado (90.6 percent), West Virginia (90.3 percent), and Georgia (90.2 percent). Other than Kentucky, the states in the bottom quartile, with the lowest percentage of HCBS users among total LTSS users in 2021, were Arkansas (62.8 percent), Louisiana (65.8 percent), Maine (66.0 percent), South Dakota (66.1 percent), Oklahoma (66.5 percent), Indiana (68.8 percent), California (68.9 percent), Utah (70.7 percent), Nebraska (71.4 percent), Mississippi (72.0 percent), Missouri (76.4 percent), and Florida (76.8 percent).

Nearly all states had higher user rebalancing ratios in 2021 than in 2019. States with increases of more than 10 percentage points in their ratios between 2019 and 2021 were Michigan (71.0 to 91.5 percent) and Delaware (75.5 to 87.1 percent). Three states had lower user rebalancing ratios in 2021 than in 2019: Idaho (90.8 to 87.4 percent), Illinois (84.9 to 82.6 percent), and Maryland (89.5 to 87.2 percent).

Figure 2. State Medicaid HCBS users as a percentage of total Medicaid LTSS users, 2021



Source: Mathematica’s analysis of the 2021 TAF Release 1.

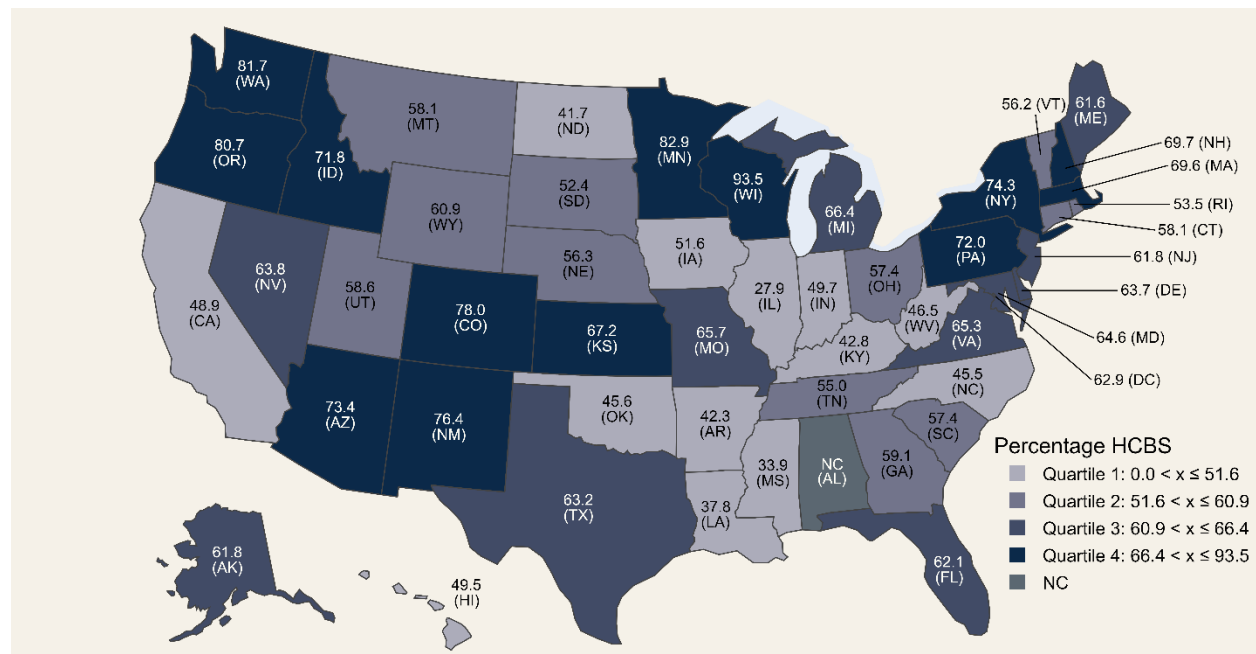
Note: The LTSS user rebalancing ratio is the total unduplicated number of HCBS users as a percentage of the total unduplicated number of LTSS users. We rounded the state percentages to one decimal place in the figure, but we grouped states into quartiles based on the unrounded values. Alabama’s 2021 user rebalancing ratio was not calculated due to data quality concerns.

HCBS = home and community-based services; LTSS = long-term services and supports; NC = not calculated; TAF = Transformed Medicaid Statistical Information System Analytic File.

LTSS expenditure rebalancing ratio by state. In 2021, expenditure rebalancing ratios showed greater variation across states than user rebalancing ratios. The expenditure rebalancing measure ranged from 27.9 percent in Illinois to 93.5 percent in Wisconsin (Figure 3). Besides Wisconsin, the states in the top quartile, with the highest percentage of HCBS expenditures out of total LTSS expenditures in 2021, were Minnesota (82.9 percent), Washington (81.7 percent), Oregon (80.7 percent), Colorado (78.0 percent), New Mexico (76.4 percent), New York (74.3 percent), Arizona (73.4 percent), Pennsylvania (72.0 percent), Idaho (71.8 percent), New Hampshire (69.7 percent), Massachusetts (69.6 percent), and Kansas (67.2 percent). Other than Illinois, the states in the bottom quartile, with the lowest percentage of HCBS expenditures out of total LTSS expenditures in 2021, were Mississippi (33.9 percent), Louisiana (37.8 percent), North Dakota (41.7 percent), Arkansas (42.3 percent), Kentucky (42.8 percent), North Carolina (45.5 percent), Oklahoma (45.6 percent), West Virginia (46.5 percent), California (48.9 percent), Hawaii (49.5 percent), Indiana (49.7 percent), and Iowa (51.6 percent).

Most states had higher expenditure rebalancing ratios in 2021 than in 2019. States with increases of more than 10 percentage points in their expenditure rebalancing ratios during those years were Nebraska (13.5 to 56.3 percent), Pennsylvania (57.3 to 72.0 percent), Arkansas (31.0 to 42.3 percent), Montana (46.8 to 58.1 percent), California (37.9 to 48.9 percent), Florida (51.4 to 62.1 percent), and Wisconsin (83.1 to 93.5 percent). Seven states had lower expenditure rebalancing ratios in 2021 than in 2019, but only one state (Illinois) had a decrease larger than 10 percentage points (43.5 to 27.9 percent) during those years.

Figure 3. State Medicaid HCBS expenditures as a percentage of total Medicaid LTSS expenditures, 2021



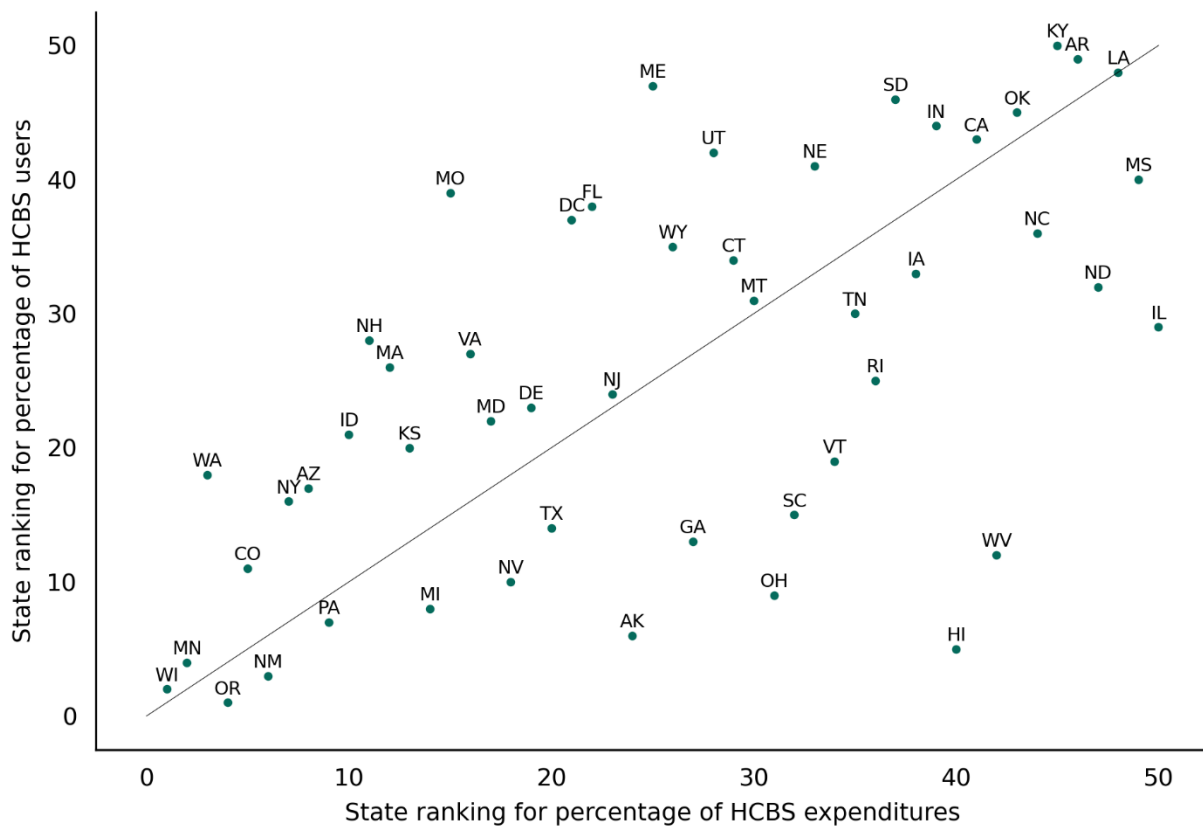
Source: Mathematica’s analysis of the 2021 TAF Release 1.

Note: The LTSS expenditure rebalancing ratio is calculated as the total HCBS expenditures as a percentage of total LTSS expenditures. We rounded the state percentages to one decimal place in the figure, but we grouped states into quartiles based on the unrounded values. Alabama’s 2021 expenditure rebalancing ratio was not calculated due to data quality concerns.

HCBS = home and community-based services; LTSS = long-term services and supports; NC= not calculated; TAF = Transformed Medicaid Statistical Information System Analytic File.

Comparison of states' LTSS user and expenditure rebalancing ratios. Several states had low values for both user and expenditure rebalancing ratios (Kentucky, Arkansas, Louisiana, Oklahoma, and California), whereas other states had high values for both rebalancing ratios (Wisconsin, Minnesota, Oregon, New Mexico, and Pennsylvania) (Figure 4). However, states with the highest user rebalancing ratios were not always the states with the highest expenditure rebalancing ratios, and vice versa. For example, Hawaii and West Virginia had low values for the expenditure rebalancing ratio and high values for the user rebalancing ratio, and Maine and Missouri had high values for the user rebalancing ratio despite moderate values for the expenditure rebalancing ratio. The expenditure and user rebalancing rankings could differ for many reasons, such as different drivers of HCBS and institutional LTSS costs per person as well as various data quality issues in TAF user and expenditure data.

Figure 4. State rankings for the LTSS user and expenditure rebalancing ratios, 2021



Source: Mathematica’s analysis of the 2021 TAF Release 1.

Note: This figure compares the ranking of states in the LTSS user and expenditure rebalancing ratios. For each measure, the highest rank is 1 and the lowest rank is 50. States with higher ranks reflect a higher percentage of HCBS users or expenditures, which suggests more progress toward LTSS rebalancing. The diagonal line represents the point at which the ranking in the user rebalancing ratio equals the ranking in the expenditure rebalancing ratio. States closer to the diagonal line have more similar rankings in their LTSS rebalancing ratios, and states further from the diagonal line have more dissimilar rankings between the two measures. States in the lower left quadrant of the figure have high ranks on both the LTSS rebalancing ratios, while states in the upper right quadrant of the figure have low ranks on both ratios. Alabama’s 2021 rebalancing ratios were not calculated due to data quality concerns.

HCBS = home and community-based services; LTSS = long-term services and supports; TAF = Transformed Medicaid Statistical Information System Analytic File.

In most states (42), both the user and expenditure rebalancing ratios increased from 2019 to 2021. In nine states, the user and expenditure rebalancing measures moved in different directions (one positive, one negative) and in one state, (Illinois), both rebalancing ratios declined. The relative magnitude of the changes over time was not always congruent; in most cases, the expenditure rebalancing ratio increased by more than the user rebalancing ratio did.⁶

National user and expenditure rebalancing ratios for Medicaid LTSS among subgroups, 2019–2021

In addition to overall rebalancing ratios, it is also important to assess the rebalancing ratios for different subgroups to track progress for different groups of LTSS users. We examined the expenditure and user rebalancing ratios by age, sex, dual-eligibility status, urban or rural residence, primary spoken language, and race and ethnicity.

LTSS user rebalancing ratio by subgroup. In 2021, the user rebalancing ratio ranged from 65.5 percent for those ages 65 and older to 96.9 percent for those ages 0–20 (Table 1). Besides those ages 0–20, subgroups with the highest user rebalancing ratios were people who were not dually eligible (92.3 percent); those who primarily spoke Spanish (93.5 percent); and those identifying as multiracial, non-Hispanic (92.5 percent) or Hispanic (92.4 percent). Along with users ages 65 and older, those with full-benefit dual eligibility for most of the year had a low user rebalancing ratio (75.9 percent).

Subgroups with the largest increase in user rebalancing ratios between 2019 and 2021 included those with partial-benefit dual eligibility for most of the year (increasing from 71.7 to 83.2) and those ages 65 and over (increasing from 59.7 to 65.5 percent). The only subgroup with a decrease in the user rebalancing ratio from 2019 to 2021 were those with full-benefit dual eligibility for most of the year.

LTSS expenditure rebalancing ratio by subgroup. In 2021, the expenditure rebalancing ratio ranged from 45.8 percent for those ages 65 and older to 82.4 percent for those ages 0–20 (Table 1). Besides those ages 0–20, subgroups with the highest expenditure rebalancing ratios were people who identified as Asian and Pacific Islander, non-Hispanic (78.4 percent); those who primarily spoke Spanish (78.9 percent), and those who primarily spoke a language other than English or Spanish (81.6 percent). Besides those ages 65 and older, subgroups with the lowest expenditure rebalancing ratios were people living in a rural area (53.6 percent); those with full-benefit dual eligibility for most of the year (58.2 percent); and those identifying as White, non-Hispanic (59.2 percent).

Subgroups with the largest change in the expenditure rebalancing ratio between 2019 and 2021 were those with partial-benefit dual eligibility for most of the year (increasing from 51.9 to 62.8) and those identifying as Asian and Pacific Islander, non-Hispanic (increasing from 69.8 percent to 78.4 percent). None of the identified subgroups had a decrease in the expenditure rebalancing ratio from 2019 to 2021.

Comparison across subgroups for the LTSS user and expenditure rebalancing ratios. The patterns for the individual subgroups were similar for both the LTSS user and expenditure rebalancing ratios; that is, the subgroups with the highest performance for one ratio also had the highest performance for the other

⁶ The larger changes for expenditures could reflect more complete reporting of expenditures over time.

ratio. For example, people who were not dually eligible had higher performance than dually eligible individuals on both ratios in all years. In 2021, both rebalancing ratios varied the most by age group: those ages 0–20 had the highest rebalancing ratios and those ages 65 and over had the lowest. There was less variation for other characteristics.

Table 1. LTSS user and expenditure rebalancing ratios by subgroup, 2019–2021

Characteristic	% of LTSS users using HCBS, 2019	% of LTSS users using HCBS, 2020	% of LTSS users using HCBS, 2021	% of LTSS expenditures for HCBS, 2019	% of LTSS expenditures for HCBS, 2020	% of LTSS expenditures for HCBS, 2021
Total	83.4	84.5	86.2	57.4	60.9	63.2
Age group^a						
0–20	95.3	95.8	96.9	80.0	80.9	82.4
21–64	89.8	90.9	91.8	70.8	73.3	74.5
65 and older	59.7	62.1	65.5	38.6	42.8	45.8
Sex^a						
Female	81.7	83.1	85.2	54.1	58.0	60.5
Male	85.4	86.2	87.5	61.3	64.3	66.3
Dual-eligibility status						
Non-dually eligible	90.0	90.7	92.3	68.7	70.8	72.9
Full-benefit dually eligible	81.8	83.8	75.9	56.4	60.2	58.2
Partial-benefit dually eligible	71.7	73.6	83.2	51.9	55.8	62.8
Rural/urban residence^a						
Rural	80.3	81.8	83.9	48.5	51.3	53.6
Urban	84.1	85.2	86.9	59.4	63.1	65.4
Primary language						
English	82.8	84.0	85.7	56.4	60.0	62.1
Spanish	92.3	93.0	93.5	75.7	76.6	78.9
Any other language	87.7	89.5	91.0	74.3	76.1	81.6
Race and ethnicity^a						
AIAN, non-Hispanic	86.5	87.0	88.4	63.0	65.2	67.1
API, non-Hispanic	88.4	89.7	91.6	69.8	73.7	78.4
Black, non-Hispanic	86.6	87.3	88.2	58.6	62.4	64.2
Hispanic, any race	90.7	91.6	92.4	69.1	71.6	73.7
Multiracial, non-Hispanic	89.3	88.8	92.5	62.8	62.1	68.2
White, non-Hispanic	79.1	80.7	82.8	53.4	57.1	59.2

Source: Mathematica’s analysis of the 2019 TAF Release 2, 2020 TAF Release 1, and 2021 TAF Release 1.

Note: The LTSS user rebalancing ratio is the total unduplicated number of HCBS users as a percentage of the total unduplicated number of LTSS users. The LTSS expenditure rebalancing ratio is calculated as the total HCBS expenditures as a percentage of total LTSS expenditures. All 2021 calculations exclude Alabama due to concerns about the quality of the state’s TAF data.

^a Unknown values for age group, sex, urban/rural residence, and race and ethnicity are not shown because their small sample sizes make their rebalancing ratios unreliable. Primary spoken language and dual-eligibility status do not have any unknown values.

AIAN = American Indian and Alaska Native; API = Asian and Pacific Islander; HCBS = home and community-based services; LTSS = long-term services and supports; TAF = Transformed Medicaid Statistical Information System Analytic File.

Conclusions

Both the share of total Medicaid LTSS users receiving HCBS and the share of total Medicaid spending devoted to HCBS grew from 2019 to 2021, reaching all-time highs in 2021, as states continued to focus on LTSS rebalancing initiatives to serve more people in home and community-based settings and reduce use of institutional services. Most states had higher user and expenditure rebalancing ratios in 2021 than in 2019, and expenditure rebalancing ratios showed greater variation across states than user rebalancing ratios. When we examined subgroups, we found both rebalancing ratios varied the most by age group: those ages 0–20 had the highest rebalancing ratios and those ages 65 and over had the lowest. There was less variation for other characteristics.

Methods

This brief contains a snapshot of LTSS user and expenditure output, focusing on trends in HCBS use and expenditures as a percentage of total Medicaid LTSS use and expenditures. All LTSS user and expenditure calculations for 2019 to 2021 are based on the TAF. For the analyses, institutional LTSS include nursing facilities, intermediate care facilities for individuals with intellectual disabilities, and mental health facilities. For expenditures only, institutional LTSS also include disproportionate share hospital (DSH) payments to mental health facilities. HCBS included section 1915(c) waiver programs, the section 1915(i) HCBS state plan option, section 1915(j) self-directed personal assistance services option, section 1915(k) Community First Choice, the Program of All-Inclusive Care for the Elderly (PACE), state plan personal care services, state plan home health services, state plan rehabilitative services, state plan case management services, and state plan private-duty nursing. We reported Money Follows the Person demonstration services as an individual category in accompanying table output but did not include them in the aggregate calculations of total HCBS or total LTSS expenditures or users. Except for PACE expenditures and DSH payments to mental health facilities, LTSS expenditures include fee-for-service (FFS) expenditures, managed care plan payments to providers for managed care services, and supplemental payments. We assigned these expenditures to a specific LTSS category based on relevant TAF claim codes, including type of service, benefit type, program type, and waiver type. For PACE expenditures, we used capitation payment records and service-tracking claims; for DSH payments to mental health facilities, we used service-tracking claims and supplemental wraparound payments that are add-on payments associated with a specific beneficiary above the negotiated per-service rate and are distinct from supplemental payments made under the Upper Payment Limit (UPL) demonstration. Except for PACE, we identified LTSS users for each LTSS category using FFS claims and managed care encounters, based on the same codes used to identify claims for the expenditure calculations. For PACE user counts, we identified enrollees based on enrollment records. Except for dual-eligibility status, which is based on the majority of enrolled months, we based the characteristics of enrollees on the most recent valid values in the calendar year.

In addition, see the following resources:

- More information on data and methods can be found in the accompanying document titled “Methodology for Identifying Medicaid Long-Term Services and Supports Expenditures and Users, 2019–2021.”
 - State data and anomaly notes are included in the accompanying document titled “Data Notes for Medicaid TAF Long-Term Services and Supports Annual Expenditures and Users, 2019–2021.”
 - Data tables for 2019–2021 are available at <https://www.medicaid.gov/medicaid/long-term-services-supports/reports-evaluations/index.html>.
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