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California County Profiles of Medi-Cal Beneficiaries Who Use Long-Term Services and Supports in 2008

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Andrew B. Bindman, M.D.
Charlene Harrington, RN, Ph.D.
Sei J. Lee, M.D.
Robert J. Newcomer, Ph.D.
Chi Kao, Ph.D.
Taewoon Kang, Ph.D.
Philip Chu, M.A.
Denis Hulett, M.S.

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CAMRI

CAMRI is a multi-campus research program of the University of California that promotes the development and dissemination of evidence to improve policy decision-making in California's Medicaid program. For more information, please visit <http://camri.universityofcalifornia.edu/>.

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GLOSSARY

ADHC	Adult Day Health Care
ADL	Activity of Daily Living
CAMRI	California Medicaid Research Institute
CMIPS	Case Management Information Payrolling System
COHS	County Organized Health System
FFS	Fee-for-Service
GMC	Geographic Managed Care
HCBS	Home and Community Based Services
HH	Home Health
IHSS	In-Home Supportive Services
LTSS	Long-Term Services and Supports
MME	Medicare-Medicaid Enrollee
NF	Nursing Facility
OASIS	Outcomes Assessment and Information Set
SNF	Skilled Nursing Facility
TCM	Targeted Case Management

INTRODUCTION

Medicaid is the single largest payer for long-term services and supports (LTSS) for low-income seniors and certain individuals with disabilities in the United States. It constitutes the only safety net coverage of comprehensive LTSS in the nation. Medicaid is jointly financed by federal and state governments. Within broad federal guidelines, each state designs and administers its own Medicaid program. California's Medicaid program, Medi-Cal, is administered by the California Department of Health Care Services (DHCS).

Medi-Cal's coverage of LTSS recipients, like in many other states, can be characterized by a long history of fragmented financing and service delivery. In part, this fragmentation is due to a lack of coordination and financial alignment among the multiple entities responsible for delivering Medi-Cal's LTSS. For example, in California, DHCS is responsible for directly contracting with nursing facilities across the state on a fee-for-service (FFS) basis. Home- and community-based services (HCBS), on the other hand, are administered by multiple state departments under sub-contract with DHCS. These departments include the California Department of Aging (CDA), the California Department of Public Health (CDPH), and the Department of Developmental Services (DDS). Through subcontracts with the California Department of Social Services (CDSS), counties also play a significant role. They are responsible for administering California's personal care benefit, In-Home Services and Supports (IHSS).¹ Each of these entities has a separate financing stream to operate its part of the Medi-Cal LTSS program.

Additional fragmentation is added for Medi-Cal's LTSS recipients who are also enrolled in Medicare (referred to as dual enrollees and/or Medicare-Medicaid enrollees, MMEs). MMEs participate in Medi-Cal for their LTSS while relying upon Medicare for a majority of their acute and post-acute care services. Medi-Cal also pays for those acute and post-acute care services not paid for by Medicare.

Not only does California's financing and delivery system vary by county, but so too does its geography and demographics. While some of California's counties are densely urban, others are highly rural. Differences in the per capita income and prevalence of older persons also exist by county. These county differences likely contribute to decisions providers make about where to locate nursing facilities, the supply of HCBS workers and providers, and the demand for LTSS by county.

Amidst significant fragmentation in the Medi-Cal and Medicare programs and a diverse county landscape, there is a growing demand for LTSS. With an aging population and an increase in

¹ For further explanation of these distinct administrative rules in LTSS, see Tables 5 and 6 in the following report, Julie Stone, MA, Robert J. Newcomer, PhD, Arpita Chattopadhyay, PhD, Todd P. Gilmer, PhD, Phillip Chu, MA, Chi Kao, PhD, and Andrew B. Bindman, MD "Studying Recipients of Long-Term Services and Supports: A Case Study in Assembling Medicaid and Medicare Claims and Assessment Data in California," California Medicaid Research Services, University of California, November 2011. See, <http://thescanfoundation.org/california-medicaid-research-institute-studying-recipients-long-term-care-services-and-supports-case> or <http://camri.universityofcalifornia.edu/documents/data-case-study.pdf>.

individuals under age 65 living with disabilities,² the need for Medicaid coverage for LTSS and Medicare for MMEs is expected to grow. Increased demand will likely result in increased spending, unless significant programmatic changes can be made.

Policy-makers, counties and plans are now preparing to test the effectiveness of such programmatic changes that will streamline the administration and financing of care across the full range of acute, post-acute and LTSS for MMEs. DHCS and eight California counties are participating in a federal demonstration for MMEs, entitled Cal Medi-Connect.³ Starting in January 2014, Alameda, San Bernardino, San Mateo, Orange, Los Angeles, Santa Clara, Riverside, and San Diego counties will begin enrolling MMEs, including those with LTSS needs, into capitated Medi-Cal/Medicare managed care plans.⁴ Their hope is that improved coordination and aligned financial incentives across the full range of services used by this population might help curb expenditures and result in better care and outcomes.⁵

This report provides an analysis of Medi-Cal and Medicare data provided to the California Medicaid Research Institute (CAMRI) by DHCS and Medicare. Specifically, it shows the demographics, expenditures, and certain outcomes of California's LTSS population in 2008 by county. It is intended to support policy-makers in their effort to improve care coordination and financial incentives for care delivery across California's counties. It can also be used by policy-makers, health plans, and advocates to identify programmatic strengths and areas that warrant improvements.

This report is another in a series that presents findings from CAMRI's integrated database. The first report in this series, "*Recipients of Home-and Community-Based Services in California,*" describes the demographic characteristic, HCBS use, functional level-of-care needs, and rates of nursing facility admissions and mortality for recipients of HCBS in California.⁶ A second, "*Medicaid and Medicare Spending on Acute, Post-Acute, and Long-Term Services and Supports in California,*" describes the full range of medical expenditures for Medi-Cal only and MMEs with LTSS needs.⁷ A third, "*Extended Stay Nursing Facility Admissions for California's Dual*

² Carol O'Shaughnessy, Julie Stone, Thomas Gabe, Laura and Shrestha, Long-Term Care: Consumers, Providers, Payers, and Programs," Congressional Research Service, Library of Congress, March 15, 2007.

³ Under the authority of the Patient Protection and Affordable Care Act of 2010 (ACA), the Medicare and Medicaid Coordination Office and the Medicare and Medicaid Centers for Innovation established a demonstration opportunity for states to experiment with a capitated approach to aligning Medicare and Medicaid dollars for MMEs.

⁴ For more information on this demonstration, see <http://www.calduals.org/>.

⁵ It is also anticipated that beginning in 2014 that Medi-Cal managed care beneficiaries residing in these eight counties will have payment for LTSS services transitioned from fee-for-service into the capitated payment to a managed care plan.

⁶ Robert N. Newcomer, Ph.D., Charlene Harrington, R.N., Julie Stone, M.P.A. Arpita Chattopadhyay, Ph.D. Sei J. Lee, M.D., Taewoon Kang, Ph.D., Phillip Chu, M.A., Chi Kao, Ph.D. and Andrew B. Bindman, M.D. "Recipients of Home and Community-Based Services in California," California Medicaid Research Services, University of California, June 2012. See, <http://camri.universityofcalifornia.edu/documents/hcbs-report-dhcs.pdf> or <http://www.thescanfoundation.org/california-medicare-research-institute-recipients-home-and-community-based-services-california>.

⁷ Robert N. Newcomer, Ph.D., Charlene Harrington, R.N., Julie Stone, M.P.A. Arpita Chattopadhyay, Ph.D. Sei J. Lee, M.D., Taewoon Kang, Ph.D., Phillip Chu, M.A., Chi Kao, Ph.D. and Andrew B. Bindman, M.D. "Medicaid and Medicare Spending on Acute, Post-Acute and Long-Term Services and Supports

Eligible and Medi-Cal-Only Beneficiaries, 2006-2008,” describes the demographic, health, and functional status of adult Medi-Cal beneficiaries who are admitted to nursing facilities for extended stays in California and examines whether these beneficiaries received any form of Medi-Cal covered HCBS prior to entry.⁸ CAMRI also published a report entitled “*Medi-Cal Beneficiaries Who Use Long Term Services and Supports: Profiles of Utilization and Spending in Eight Dual Eligible Integration Counties, 2008*.”⁹ This report expands upon the eight-county report to include comparative information for all 58 counties in the state.

BACKGROUND

LTSS refers to a broad range of health and social services needed by people with a limited capacity for self-care due to a physical, cognitive, or mental disability or condition that results in functional impairment and dependence on others for an extended period of time. Formal services to assist people with LTSS needs may be provided either in an institutional-based setting, such as a nursing home, or in a home- or community-based setting such as a private home, group home, or assisted living facility.

At the time of this study in 2008, almost all Medi-Cal beneficiaries received their LTSS services through fee-for-service arrangements reimbursed by DHCS. However, some beneficiaries depending on their eligibility category and county residence were required to receive acute and post-acute care services through managed care arrangements delivered by county specific health plans. In 2008, most of the Medi-Cal beneficiaries required to receive services in managed care were low-income children and their parents, a group that does not make extensive use of LTSS services. However, disabled Medi-Cal beneficiaries, a group much more likely to use LTSS, were required to receive acute and post-acute care through a County Organized Health System (COHS) managed care plan in nine of California’s 58 counties in 2008. These counties were Monterey, Napa, Orange, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Solano, and Yolo.¹⁰

in California,” California Medicaid Research Services, University of California, December 2012. See, <http://thescanfoundation.org/california-medicare-research-institute-medicare-and-medicare-spending-acute-post-acute-and-long-term> or <http://camri.universityofcalifornia.edu/publications.html>.

⁸ Robert Newcomer, Charlene Harrington, Julie Stone, Denis Hulett, Taewoon Kang, Phillip Chu, Todd Gilmer, Arpita Chattopadhyay, Andrew B. Bindman. “Extended Nursing Facility Stays Among California’s Dual Eligible and Medi-Cal-Only Beneficiaries, 2006-2008,” California Medicaid Research Services, University of California, September 2013. See, <http://www.thescanfoundation.org/california-medicare-research-institute-extended-nursing-facility-stays-among-californias-dual> or http://camri.universityofcalifornia.edu/documents/camri_extended_nf_stays_among_california_dual_eligibles_medi-cal-only_beneficiaries-9-25-13.pdf.

⁹ Sei J. Lee, Chi Kao, Denis Hulett, Taewoon Kang, Philip Chu, Robert J. Newcomer, Charlene Harrington, Arpita Chattopadhyay, Andrew B. Bindman. “Medi-Cal Beneficiaries Who Use Long-Term Services and Supports: Profiles of Utilization and Spending in Dual Eligible Integration Counties, 2008”, May 2013. See, <http://thescanfoundation.org/updated-california-medicare-research-institute-medi-cal-beneficiaries-who-use-long-term-services-and>.

¹⁰ Since the time of our study, California’s counties have increased their use of Medi-Cal managed care. In 2011, California expanded the mandatory enrollment of Medi-Cal beneficiaries who are eligible on the basis of being aged, blind or disabled into managed care. Currently, 14 counties operate COHS plans, 14 counties operate two-plan models in which Medi-Cal participants enroll in either a county-operated managed care plan (referred to as local

METHODS

This report provides summary data in 14 figures for each of California's 58 counties on the demographics, expenditures, and outcomes of Medi-Cal recipients ages 18 or over who were LTSS users during Calendar Year (CY) 2008. The LTSS user population is not defined by an eligibility category, but instead by service use. For this study, the services defining LTSS include Medi-Cal reimbursed nursing facility services, home health (HH), IHSS, Adult Day Health Care (ADHC)¹¹, Targeted Case Management (TCM), and any of the Medi-Cal HCBS waiver programs (Section 1915(c) of the Social Security Act).

We identified the study population by using Medi-Cal's enrollment and claims files as well as the state's Case Management Information Payrolling System (CMIPS). CMIPS includes recipients of IHSS, the most common HCBS service, some of whom are not reflected in the individual claims files.

We excluded from our analysis two groups of Medi-Cal LTSS users for whom we do not have individual claims records: participants in the Program for All-Inclusive Care for the Elderly (PACE) and individuals who qualify for Medi-Cal based on a diagnosis of a developmental disability. For the 2.4% of Medi-Cal LTSS recipients who resided in more than one county in 2008, we assigned them to the county where they spent the majority of Medi-Cal eligible months.

Comparisons of all 58 California counties are summarized in a series of bar graph figures described in greater detail below. In each figure, we have arrayed the counties by the magnitude of the measure of interest from highest to lowest value. The order of the counties in the figures varies depending on the measure. In each figure we also included the state average weighted by the population in each county.¹²

Demographics Figures

Figures 1- 6 focus on the number and characteristics of Medi-Cal LTSS recipients enrolled in Medi-Cal in 2008 in each county. All of these recipients used Medi-Cal covered nursing facility services and/or HCBS. These figures describe the characteristics of Medi-Cal LTSS users. We identified our study population using 2008 Medi-Cal enrollment, claims and CMIPS files. For additional information on the methodology for these Figures, see "*Recipients of Home and Community-Based Services in California.*"¹³

initiative) or a commercial managed care plan, and 2 counties operate GMC models in which Medi-Cal participants choose from one of several commercial plans.

¹¹ Adult Day Health Care is currently known as Community-Based Adult Services (CBAS).

¹² More detailed information on each county's LTSS recipients, service use, expenditures, and outcomes is available at <http://camri.universityofcalifornia.edu/HCBS-County-Tables.pdf>.

¹³ Robert N. Newcomer, Ph.D., Charlene Harrington, R.N., Julie Stone, M.P.A. Arpita Chattopadhyay, Ph.D. Sei J. Lee, M.D., Taewoon Kang, Ph.D., Phillip Chu, M.A., Chi Kao, Ph.D. and Andrew B. Bindman, M.D. "Recipients of Home and Community-Based Services in California," California Medicaid Research Services, University of California, June 2012. See, <http://camri.universityofcalifornia.edu/documents/hcbs-report-dhcs.pdf> or

Expenditure Figures

Figures 7-12 show program expenditures for LTSS users age 18 years and above in FFS by county in 2008. For the analysis on costs we used social security numbers to link the Medi-Cal LTSS population with Medicare's enrollment file to identify those Medi-Cal recipients who were also enrolled in Medicare during any month of the study year. Those participating in both Medicare and Medi-Cal for at least one month in 2008 are considered MME in our analysis.

Since complete costs are not available for those beneficiaries who received services through Medi-Cal managed care, the cost estimates included in the figures reflect only those Medi-Cal beneficiaries who were LTSS users in FFS care delivery; we excluded Medi-Cal beneficiaries who were ever in Medi-Cal managed care in 2008. In 2008, nine California counties - Monterey, Napa, Orange, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Solano and Yolo – were COHS. The vast majority of Medi-Cal recipients residing in COHS counties are enrolled in managed care. The relatively small number of beneficiaries who receive Medi-Cal services only through a fee-for-service payment arrangement in COHS counties include those who receive exemptions because of special needs that cannot be met by the managed care plan, undocumented immigrants who qualify for emergency Medi-Cal benefits, pregnant women receiving limited Medi-Cal benefits, and others who qualify for limited benefits related to rare clinical conditions such as tuberculosis. Since the expenditure data in these counties are among a limited and potentially atypical group of Medi-Cal beneficiaries, readers should exercise caution in making comparisons between COHS and other counties when it comes to the expenditure results.

We report on three broad categories of health care expenditures using Medi-Cal and Medicare claims data linked to our study population. These health care expenditures are for acute and other medical care services, post-acute care, and LTSS for Medi-Cal funded state plan and HCBS waiver services. Because we did not have comprehensive data for prescription drug expenditures, we did not include them in our analyses.

Outcomes Figures

Figures 13-14 focus on two outcomes: mortality and nursing facility admission rates. Specifically, the report shows county-specific mortality and nursing facility admissions rates for the LTSS recipient population. These analyses largely followed the methodology outlined in the above mentioned report, *“Recipients of Home and Community-Based Services in California.”* Please refer to the Methods section of that report for details of this methodology.

RESULTS

The following 14 figures describe the demographics, service expenditures, and outcomes of Medi-Cal's LTSS users during 2008 by California's 58 counties.

<http://www.thescanfoundation.org/california-medicaid-research-institute-recipients-home-and-community-based-services-california>.

Demographic Figures

Figure 1. HCBS Users per 10,000 Medi-Cal Beneficiaries, CY2008

In California, there were 1,121 HCBS users age 18 and older for every 10,000 Medi-Cal beneficiaries (Medi-Cal only and MME) in CY 2008. **Figure 1** shows how the proportion of HCBS users per Medi-Cal beneficiaries varies by county.

Among all California counties, San Francisco had the highest number of HCBS users per 10,000 Medi-Cal beneficiaries (~2,300). San Francisco's utilization of HCBS among LTSS recipients is nearly 50% higher than the county with the second highest number of HCBS users per 10,000 Medi-Cal beneficiaries (Imperial).

Larger, more urban counties tended to have higher numbers of HCBS users per 10,000 Medi-Cal beneficiaries. California's two largest urban counties - Los Angeles and San Diego - also had an above average number of HCBS users.

Other counties, such as Alameda, Marin and Sonoma were also above the average. Mono, Tulare, Kern, Inyo, Del Norte, Modoc, and Ventura had the lowest ratios of HCBS users across California counties.

Figure 2. Nursing Facility Only Users per 10,000 Medi-Cal Beneficiaries, CY2008

Figure 2 details the number of beneficiaries (Medi-Cal only and MME) who used nursing facility care per 10,000 beneficiaries in 2008 by county. This count excludes any nursing facility users who also used HCBS in 2008. On average, 210 Medi-Cal recipients per 10,000 used nursing facility care as their only LTSS.

There was substantial variation across counties in the number of beneficiaries who used nursing facility care as their only LTSS in 2008. Some of this is due to small numbers of cases in some counties but even among some of the most populous counties there is variation. For example, San Diego, San Francisco, San Clara, and Los Angeles have rates of nursing facility only use that are above the state average while San Bernardino, Sacramento and Orange counties have rates that are below the state average. Furthermore, San Diego and San Francisco which were counties with among the highest numbers of HCBS users among Medi-Cal beneficiaries (Figure 1), also have some of the highest rates of nursing facility only users as well. This may reflect a high level of need for LTSS among Medi-Cal beneficiaries in these counties.

Figure 3. Percent of Age 65 Years and Older among Medi-Cal HCBS Users, CY2008

Figure 3 details the percentage of HCBS users (Medi-Cal only MME) who were age 65 and older in each county. In California, 61% of HCBS users were age 65 and older.

There was greater than two-fold difference between the counties with the highest percentage of HCBS users age 65 years and older (Santa Clara, 78%) and the counties with the lowest percentage (Alpine, 23% and Humboldt, 32%).

Only seven counties had a percentage of HCBS users age 65 years or older that was higher than the state average; however, these were some of the states largest counties. They were Santa Clara, Imperial, San Francisco, Los Angeles, Yolo, Orange, and Ventura.

Figure 4. Percent of Non-White Medi-Cal HCBS Users, CY2008

Figure 4 describes the percentage of HCBS users (Medi-Cal only and MME) who were non-white in 2008 in each county in California. The statewide average share of HCBS users who were non-white was 66%.

Nineteen counties had percentages of non-white HCBS users that were greater than 66%. The counties with the highest share of non-white HCBS users were Imperial, Alameda, Monterey, San Mateo, Santa Clara and Orange.

Counties with the largest share of white HCBS users tended to be in the northern section of California: Sierra, Trinity, Mariposa, Nevada, Modoc and Tuolumne.

Figure 5. Mean Number of ADL Limitations among Medi-Cal HCBS Users, CY2008

Figure 5 shows the mean number of limitations in Activities of Daily Living (ADL) among Medi-Cal HCBS users (Medi-Cal only and dually enrolled in Medicare) with assessment data from OASIS (Outcome and Assessment Information Set) related to the use of home health or CMIPS (Case Management, Information and Payrolling System) related to the use of IHSS. ADLs refer to activities such as eating, bathing, using the toilet, dressing, walking across a small room, and transferring (getting in or out of a bed or chair). The average number of ADL limitations across all Medi-Cal LTSS recipients in California was 2.6 in 2008.

Excluding small counties with less than 1,000 HCBS users, there was less than a two-fold range in mean ADL limitations (e.g., Tehama was 1.7; San Mateo was 2.9). The more densely populated counties all had mean ADL limitation scores greater than 2.

The counties with the highest mean number of ADL limitations among its LTSS recipients were San Mateo, Solano, Fresno, Butte, San Bernardino, Madera, Kern, and Los Angeles.

Figure 6. Percent with Cognitive Limitations among Medi-Cal HCBS Users, CY 2008

Figure 6 shows the percentage of HCBS users (Medi-Cal only and MME) with cognitive limitations based on their CMIPS or OASIS assessments in 2008. An average of 37% of all HCBS recipients in California's counties had cognitive limitations. Butte, Alpine, Monterey, Solano, Mariposa, and Imperial had the highest percentage of HCBS users with cognitive limitations.

Los Angeles had the lowest percentage of cognitive limitation with 26% of HCBS users reported as having cognitive limitations. Other counties with relatively lower percentages of HCBS users with cognitive limitations were Colusa, Ventura, San Luis Obispo, Riverside, and Madera.

Service Expenditure Figures

Figure 7. Mean Total Medi-Cal Annual Spending per Medi-Cal Only LTSS User, CY2008

Figure 7 shows the mean total fee-for-service Medi-Cal spending for Medi-Cal only LTSS users by county in 2008. The average spending per LTSS user across all counties in California was \$24,493.

There was a substantial range in the amount of spending per LTSS user across counties that could partially be explained by a small number of cases in some the counties. In general, the larger urban counties were near or above the state average while smaller, more rural counties tended to have somewhat lower costs. The eight counties with the lowest spending were delivering Medi-Cal services through a COHS, and even the one COHS county not in this group, Yolo, had costs substantially below the state average. However, it should be noted that these estimates are among fee-for-service Medi-Cal only beneficiaries, which are a small and somewhat atypical group in COHS counties where the norm is for Medi-Cal participants to receive acute and post-acute care services through mandatory managed care.

Figure 8. Mean Total Medi-Cal Annual Spending per Medi-Cal Only Nursing Facility Only (No HCBS) User, CY2008

Figure 8 shows the Medi-Cal annual spending per Medi-Cal only beneficiary whose only LTSS use in 2008 was nursing facility care. Total spending includes expenditures for Medi-Cal-covered acute, post-acute, and nursing-facility care and averaged \$71,635 across California.

There was a substantial range in the amount of spending per nursing home only LTSS user across counties that could partially be explained by a small number of cases in some the counties. Excluding small counties with less than 100 nursing facility only users, there was an approximately two-fold variation in Medi-Cal spending, with Tulare spending greater than an average of \$100,000 per user and Riverside spending closer to an average of \$60,000 per user. There are very small numbers of fee-for-service users of only nursing facility care among Medi-Cal only beneficiaries in COHS counties making it difficult to draw clear conclusions about the expenditures in these counties.

Figure 9. Mean Total Medi-Cal and Medicare Annual Spending per MME LTSS User, CY2008

Figure 9 shows the Medi-Cal and Medicare spending for MME LTSS users in 2008 by county. The California average was \$54,672. The bar chart for each county is sub-divided to show the Medi-Cal and Medicare portions of total acute, post-acute and LTSS spending. Five of the seven counties with the highest combined Medi-Cal and Medicare spending were delivering Medi-Cal

services through a COHS. However, the total number of MME users in COHS counties with fee-for-service claims was with the exception of Orange county fewer than 100 cases per county.

Among non-COHS counties, San Benito and Alameda had the highest spending, with both counties spending over \$60,000 per MME LTSS user. Excluding counties with fewer than 100 cases, Imperial, Humboldt, Del Norte, Siskiyou and Madera counties had the lowest average spending.

On average, Medi-Cal contributed 33% and Medicare 67% to the overall cost of acute, post-acute, and LTSS for MME users of LTSS. At the county level, the proportion of the spending that was contributed by Medi-Cal versus Medicare did not appear to be a major determinant of whether a county tended to spend a relatively high or a relatively low amount on Medi-Cal LTSS users.

Figure 10. Mean Total Medi-Cal and Medicare Spending per MME Nursing Facility Only (No HCBS) User, CY2008

Figure 10 shows Medi-Cal spending per MME whose only LTSS use in 2008 was nursing facility care. The average per beneficiary spending across all counties for this population was \$89,144. The bar chart for each county is sub-divided to show the Medi-Cal and Medicare portions of acute, post-acute, and LTSS spending.

Excluding the COHS counties, which had relatively few and somewhat atypical fee-for-service MMEs, the highest average spending was in large urban counties including San Francisco, Alameda, Los Angeles, San Bernardino, Contra Costa, Santa Clara, San Diego, and Riverside. The lowest spending counties on average were more rural: Amador, Madera, Mendocino, Calaveras, and Del Norte.

On average, Medi-Cal contributed 44% and Medicare 56% to the overall cost of acute, post-acute and LTSS for MMEs whose only LTSS use in 2008 was nursing facility care. At the county level, the proportion of the spending that was contributed by Medi-Cal versus Medicare did not appear to be a major determinant of whether a county tended to spend a relatively high or a relatively low amount on Medi-Cal nursing facility only users.

Figure 11. Percent of Medi-Cal LTSS Spending Over Total Medi-Cal Spending, CY2008

Figure 11 shows the percentage of total Medi-Cal spending for all Medi-Cal beneficiaries (Medi-Cal only and MME) in 2008 that was spent on LTSS by county. LTSS includes spending for both nursing facilities and HCBS. Across California, LTSS accounted for 74% of the total Medi-Cal spending for LTSS users.

Eight of the 10 counties with the lowest percentage of Medi-Cal spending on LTSS were COHS. Yolo, which is also a COHS county had the highest percentage of spending on LTSS (90%) among all California counties; however, the number of cases was relatively small (54). Other counties with relatively large percentages of Medi-Cal spending on LTSS were Modoc, Sierra, Mariposa, Santa Clara, and San Francisco.

Figure 12. Percent of Medi-Cal LTSS Spending on Home- and Community-Based Services, CY 2008

Figure 12 shows the percentage of Medi-Cal LTSS expenditures (HCBS and nursing facility care) spent on HCBS for all (Medi-Cal only and MME) by county. While on average, just over half of Medi-Cal's LTSS spending is on HCBS, there is a wide range across counties. Some of the difference is explained by small numbers of observations in some counties. However, even among counties with at least several thousand cases, there is a range in the percentage of Medi-Cal LTSS spending for HCBS from a high of more than 70% in Imperial to a low of just over 20% in Tulare. Among the largest counties, Sacramento, Los Angeles, and San Francisco had a percentage of LTSS spending on HCBS that was above the state average of 51%. San Diego is the largest county below the state average in HCBS spending, which is somewhat surprising given it had a rate of HCBS users that was above the state average (Figure 1).

Outcomes Figures

Figure 13. Annual Mortality Rate among Medi-Cal HCBS Users, CY2008

Figure 13 shows the annual mortality rate among HCBS Users (Medi-Cal only and MME) by county in 2008. The average mortality rate of HCBS users across all counties was 5.4%.

Counties with higher mortality rates relative to other counties among the LTSS were Mariposa, Inyo, Sierra, Siskiyou, Mono, and Colusa. Counties with lower mortality rates were Alpine, Santa Barbara, Tuolumne, Sutter, Monterey, Los Angeles, San Francisco, and Orange.

Figure 14. Annual Nursing Facility Admission Rate (%) among Medi-Cal HCBS Users, CY2008

Figure 14 shows the annual nursing facility admission rates for Medi-Cal HCBS users (Medi-Cal only and dually enrolled in Medicare) in 2008. The average rate of nursing facility admission for HCBS users across California was 8%. Of note, the analysis does not distinguish the order of the events, but in the majority of cases nursing facility admission occurs after use of HCBS services.

There was nearly a four-fold variation in nursing facility admission rates across counties. Counties with the highest nursing facility admission rates relative to other counties were Inyo, El Dorado, Sierra, Colusa, Mariposa, Nevada, Napa, and San Mateo. Counties with the lowest nursing facility admission rates among HCBS users were Imperial, Mono, Santa Barbara, Yuba, Sacramento, and San Benito.

DISCUSSION

We have previously reported on the size, demographics, health status, social support, use patterns, expenditures, and outcomes of California's LTSS population on a statewide basis.^{14,15,16} This report builds upon those findings by demonstrating the substantial variation in each of these characteristics across all California counties.

With some exceptions, urban counties tended to outpace rural counties in their number of HCBS users per 10,000. Counties also varied in the amount of their LTSS expenditures that were directed toward HCBS rather than nursing facility care. This was partially but not fully explained by the number of HCBS users among Medi-Cal beneficiaries in a county suggesting that some variation in the type and amount of HCBS service may be contributing to the total costs of these services.

We also found county variation in the average number of ADL and cognitive limitations among Medi-Cal LTSS recipients. The documentation of cognitive limitations in CMIPS and OASIS assessments can be subject to underreporting. However, the eligibility for Medi-Cal's LTSS services is the same across the state, and therefore suggests that counties either differ in their prevalence of Medi-Cal beneficiaries with these needs, their accuracy in reporting on these measures, or their ability to identify and meet the needs of beneficiaries that could be addressed through LTSS services.

The significant variation by county also raises the question about whether individuals with the same level of care needs are receiving the same level of services in each county, as is required by Medicaid law. Although our findings are not adjusted for demographic and need differences across counties, they suggest that Medi-Cal beneficiaries in some counties have significantly less access to HCBS than Medi-Cal beneficiaries in other counties.

¹⁴ Robert N. Newcomer, Ph.D., Charlene Harrington, R.N., Julie Stone, M.P.A. Arpita Chattopadhyay, Ph.D. Sei J. Lee, M.D., Taewoon Kang, Ph.D., Phillip Chu, M.A., Chi Kao, Ph.D. and Andrew B. Bindman, M.D. "Recipients of Home and Community-Based Services in California," California Medicaid Research Services, University of California, June 2012. See, <http://camri.universityofcalifornia.edu/documents/hcbs-report-dhcs.pdf> or <http://www.thescanfoundation.org/california-medicare-research-institute-recipients-home-and-community-based-services-california>.

¹⁵ Robert N. Newcomer, Ph.D., Charlene Harrington, R.N., Julie Stone, M.P.A. Arpita Chattopadhyay, Ph.D. Sei J. Lee, M.D., Taewoon Kang, Ph.D., Phillip Chu, M.A., Chi Kao, Ph.D. and Andrew B. Bindman, M.D. "Medicaid and Medicare Spending on Acute, Post-Acute and Long-Term Services and Supports in California," California Medicaid Research Services, University of California, December 2012. See, <http://thescanfoundation.org/california-medicare-research-institute-medicare-and-medicare-spending-acute-post-acute-and-long-term> or <http://camri.universityofcalifornia.edu/publications.html>.

¹⁶ Robert Newcomer, Charlene Harrington, Julie Stone, Denis Hulett, Taewoon Kang, Phillip Chu, Todd Gilmer, Arpita Chattopadhyay, Andrew B. Bindman. "Extended Nursing Facility Stays Among California's Dual Eligible and Medi-Cal-Only Beneficiaries, 2006-2008," California Medicaid Research Services, University of California, September 2013. See, <http://www.thescanfoundation.org/california-medicare-research-institute-extended-nursing-facility-stays-among-californias-dual> or http://camri.universityofcalifornia.edu/documents/camri_extended_nf_stays_among_california_dual_eligibles_medi-cal-only_beneficiaries-9-25-13.pdf.

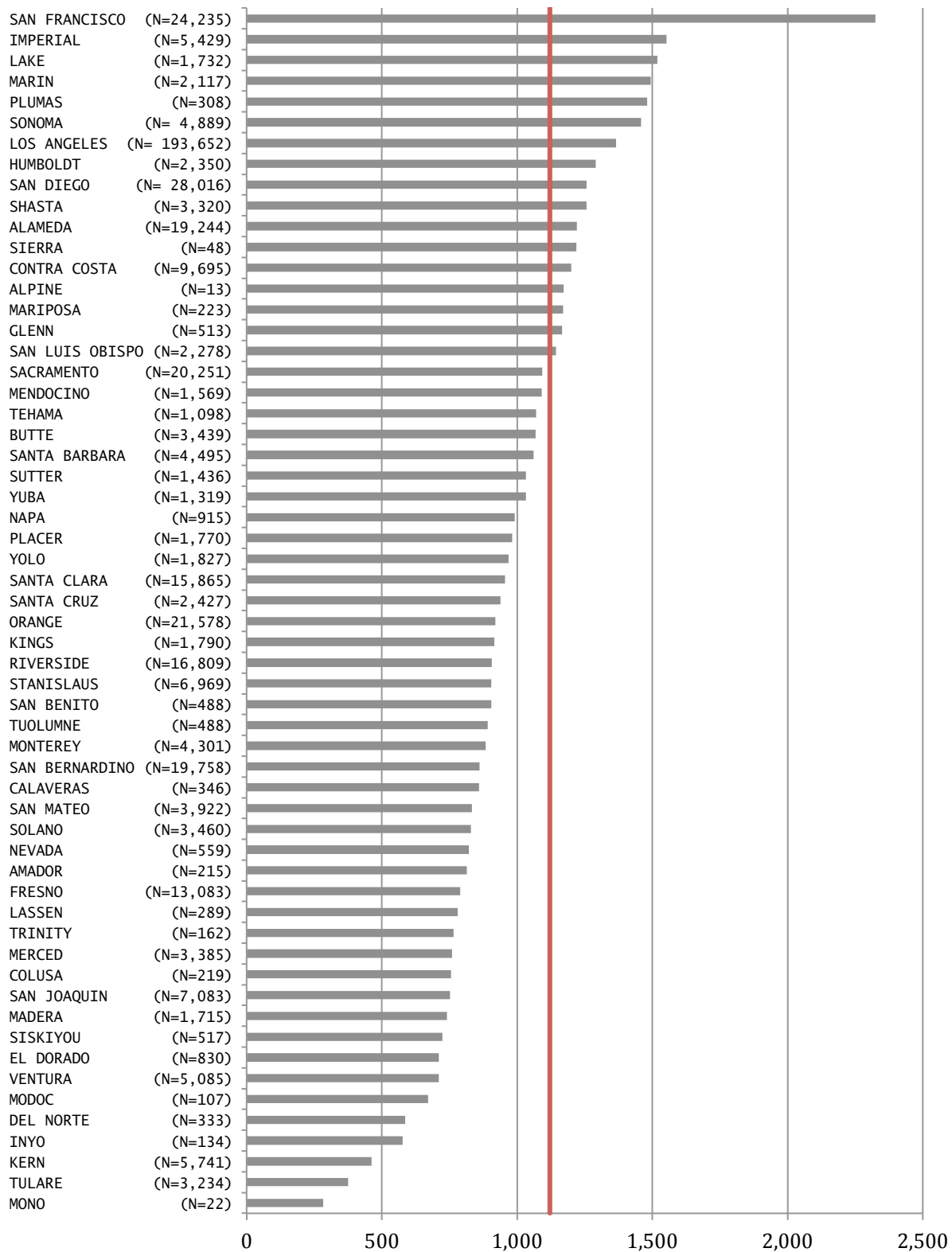
Differences in nursing facility admissions among HCBS users by county (i.e., the range of 4.1% to 16.2%) might be partly explained by differences in the numbers of nursing home beds by county and the degree of access to HCBS. The number of HCBS users per 10,000 varied from less than 500 to about 2,300, showing that some counties were more generous with HCBS services than others. These variations might lower the threshold for nursing home admission in some counties but also create an effect whereby Medi-Cal beneficiaries from counties with no or limited numbers of nursing home beds and HCBS are placed in institutions outside of the counties where they were living in the community. Future work might examine the relationship between the supply of nursing home beds and the pattern of service use.

Finally, the following proposes some additional possible explanations for some of the differences across counties. They warrant further analysis to evaluate the extent of their explanatory value.

- **County Demographics and Geography.** California's counties vary in their prevalence of individuals age 65 and over, wealth levels, ethnic and racial diversity, and geography (i.e., rural versus urban), among other factors.
- **Differences in program implementation by county.** The fragmentation of responsibilities for various components of Medi-Cal's LTSS benefit package might lead to county differences in program implementation and the availability of HCBS as an alternative to nursing facility care. The lack of a systematic and standardized approach for assessing Medi-Cal beneficiaries' need for LTSS and for involving them through shared decision-making in the process of selecting available resources may contribute to county differences in the number of LTSS users and the types of services they receive.
- **Provider Supply.** Variation in use rates of nursing facilities and HCBS, including IHSS services, may partially reflect differences in the availability of certain types of providers and workers in each county.
- **Managed Care versus FFS.** County differences about whether LTSS recipients are enrolled in managed care plans or in FFS may play a role in explaining differences across counties. While LTSS services were and are currently paid on a fee-for-service basis even in counties where Medi-Cal beneficiaries are mandatorily enrolled in managed care, the coordination of acute and post-acute care services through managed care may have an impact on how providers in these counties initiate evaluations for and use of LTSS services. The planned inclusion of LTSS services within Medi-Cal managed care in some demonstration counties beginning in 2014 will offer an opportunity to evaluate whether the integration of financing is associated with integration of service delivery for Medi-Cal's beneficiaries whose needs require LTSS services.

Although our analysis cannot determine which programmatic decisions contributed to which county differences, the presence of variation suggests that further studies are needed to identify common programmatic traits of counties that have good outcomes at modest cost.

Figure 1: Home and Community Based Services (HCBS) Users per 10,000 Medi-Cal Beneficiaries, CY 2008

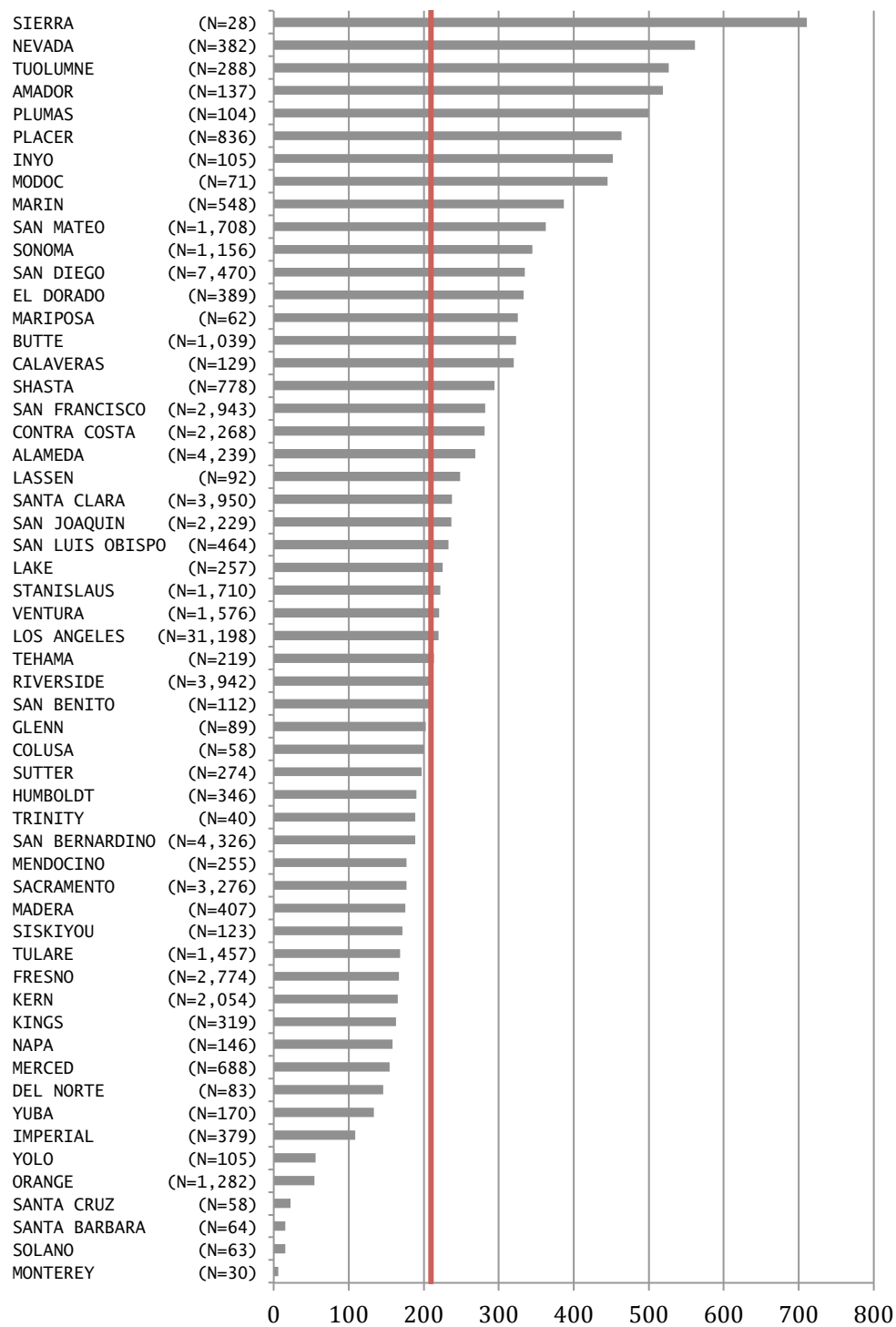


Results for fee-for-service LTTS users age 18 and above excluding those who enrolled in PACE or had developmental disabilities.

N = number of users in county.

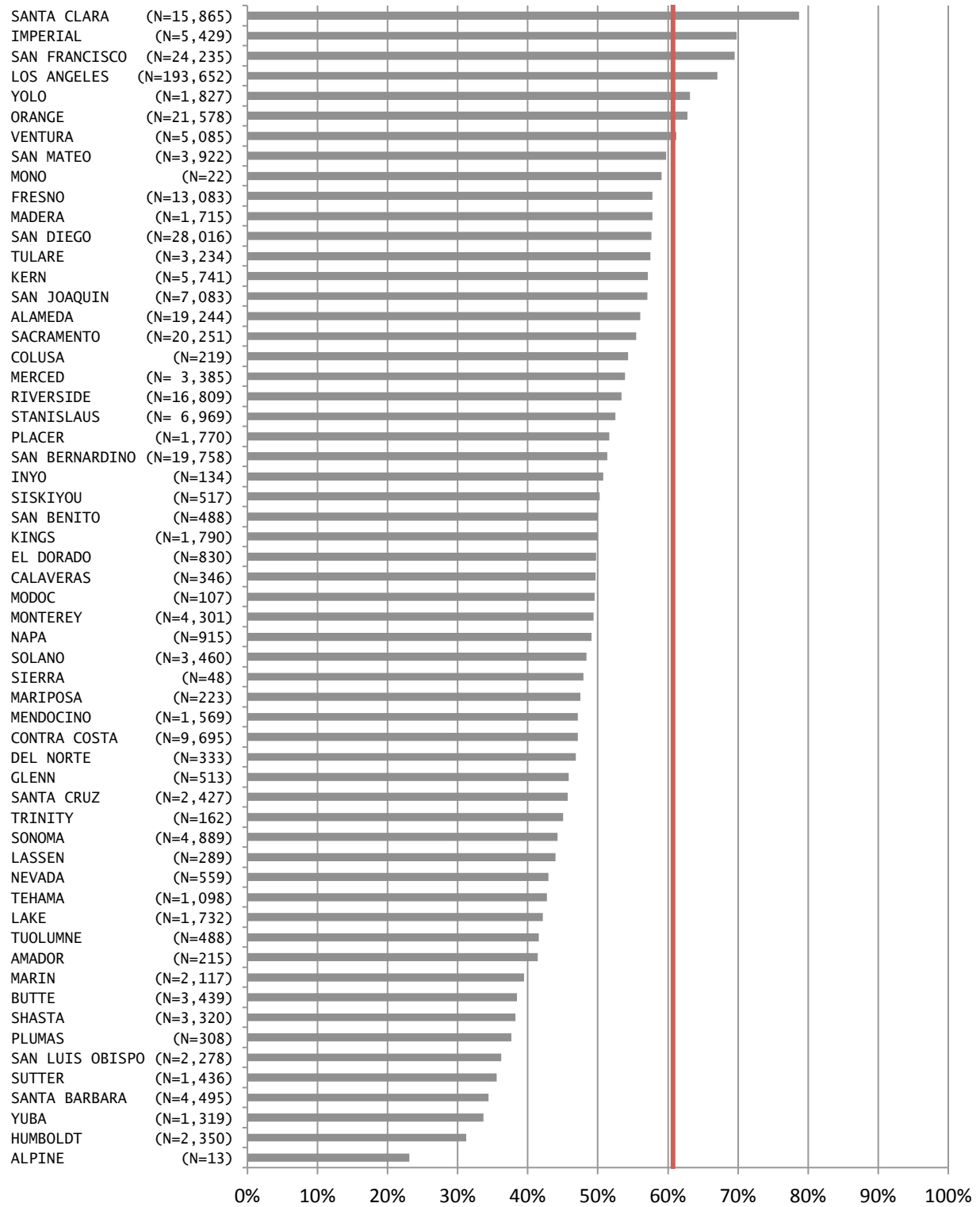
— California State Average = 1,121

Figure 2: Nursing Facility Only (No Home and Community Based Services) Users per 10,000 Medi-Cal Beneficiaries. CY 2008



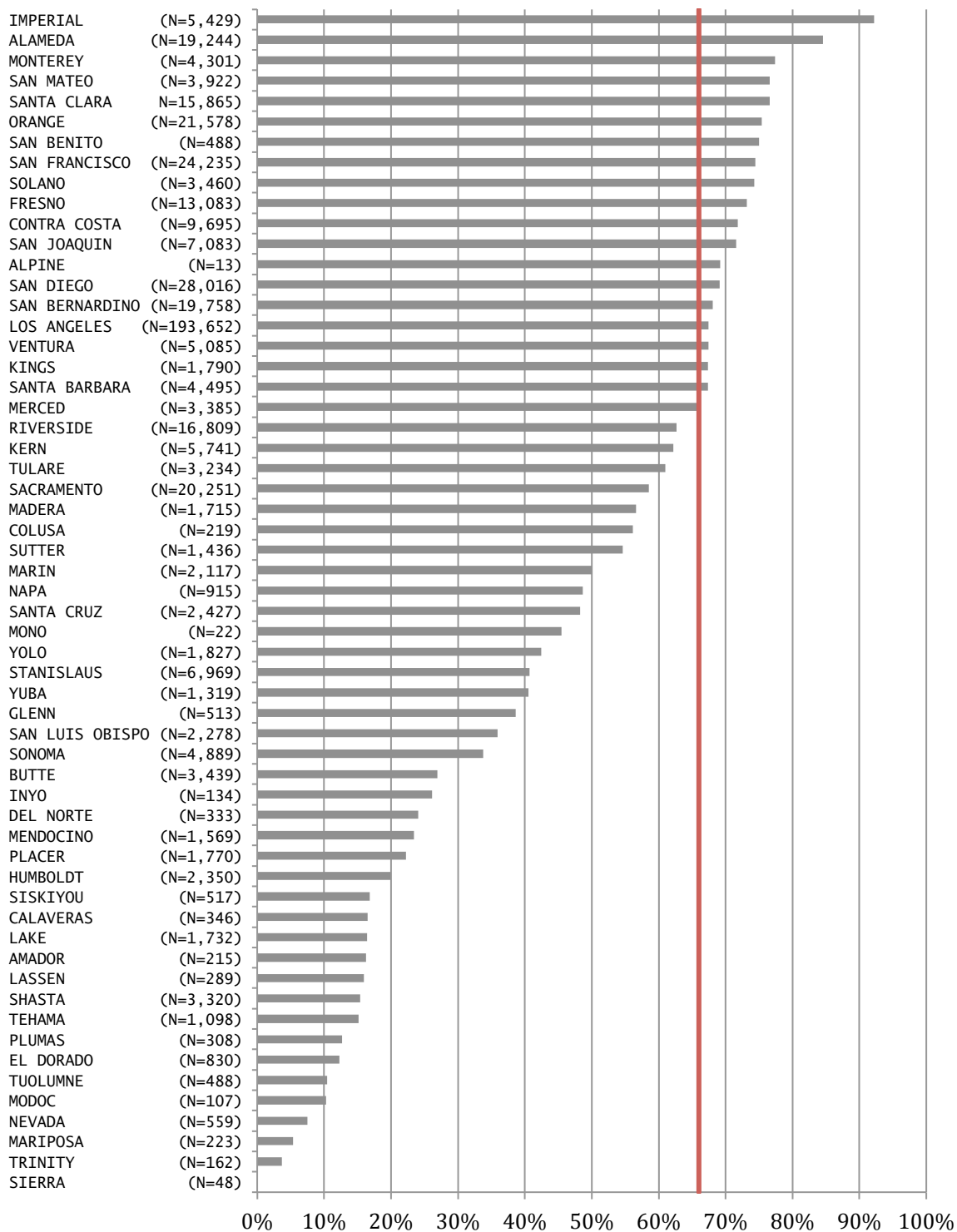
Results for fee-for-service LTSS users age 18 and above excluding those who enrolled in PACE or had developmental disabilities
 N = number of nursing facility only users in county
 Alpine and Mono Counties had 10 or fewer observations and are not displayed to protect against the risk of patient identification.
 — California State Average = 210

Figure 3: Percent Age 65 Years and Older among Medi-Cal Home and Community Based Services (HCBS) Users, CY 2008



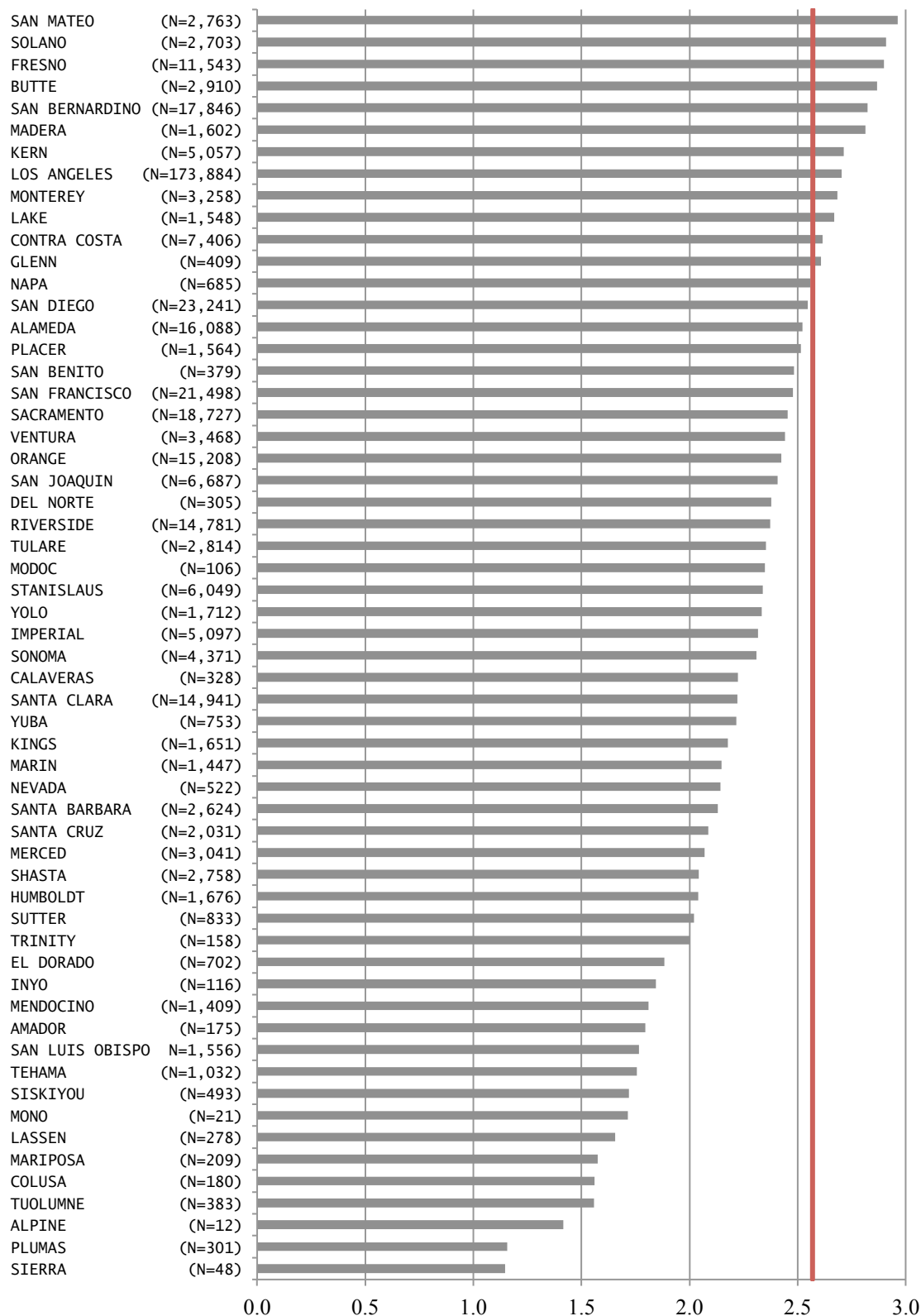
Results for fee-for-service LTSS users age 18 and above excluding those who enrolled in PACE or had developmental disabilities
 N = number of HCBS users in county
 — California State Average = 61%

Figure 4: Percent of Non-White Medi-Cal Home and Community Based Services (HCBS) Users, CY 2008



Results for fee-for-service LTSS users age 18 and above excluding those who enrolled in PACE or had developmental disabilities
 N = number of HCBS users in county
 — California State Average = 66%

Figure 5: Mean Number of ADL Limitations among Medi-Cal Home and Community Based (HCBS) Services Users, CY 2008

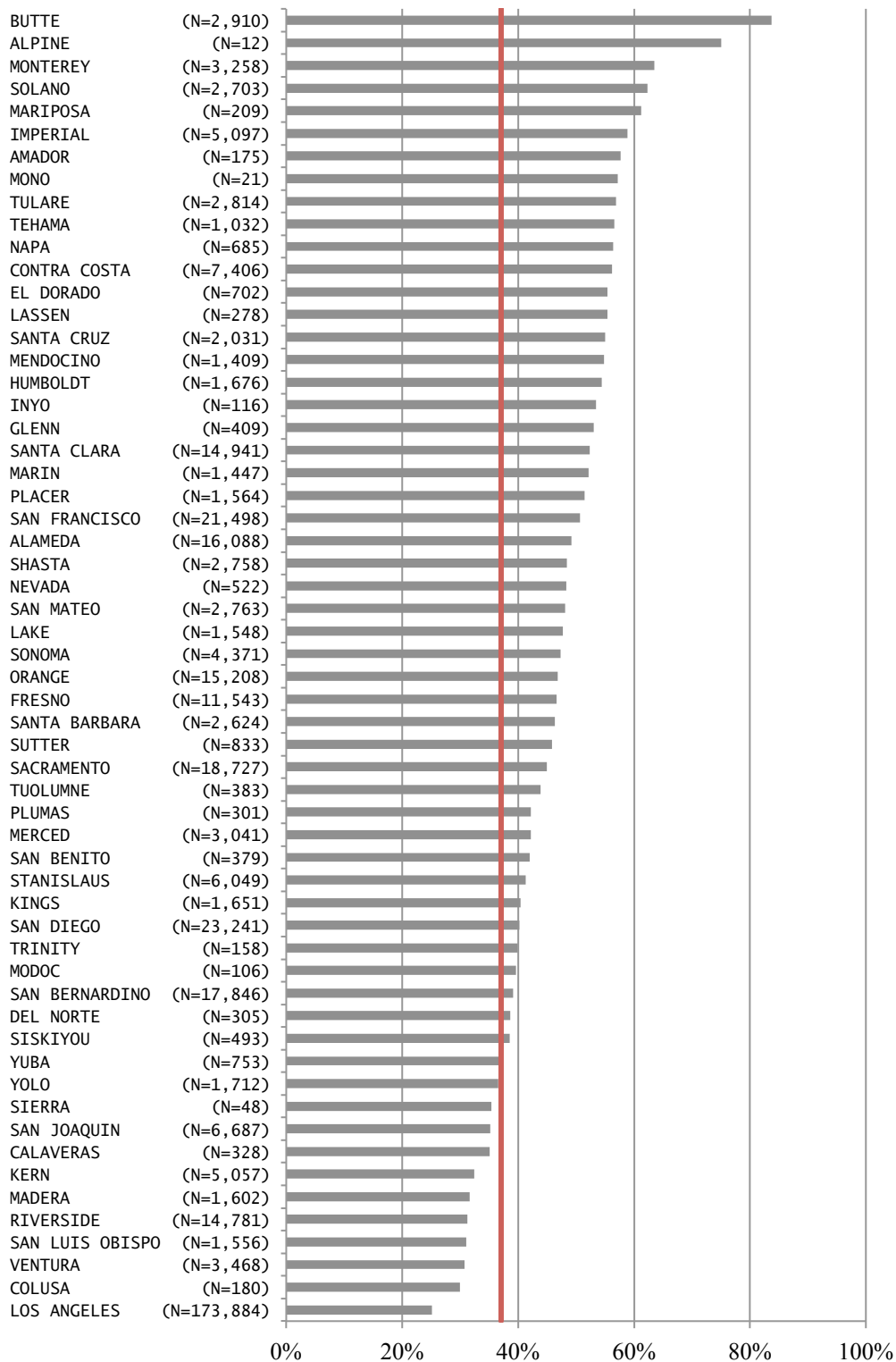


Results for Medi-Cal HCBS users age 18 and older with assessment data from CMIPS or OASIS excluding those who enrolled in PACE or had developmental disabilities

N = number of HCBS users in county with CMIPS or OASIS assessment

— California State Average = 2.6

Figure 6: Percent with Cognitive Limitations among Medi-Cal Home and Community Based Services (HCBS) Users, CY 2008

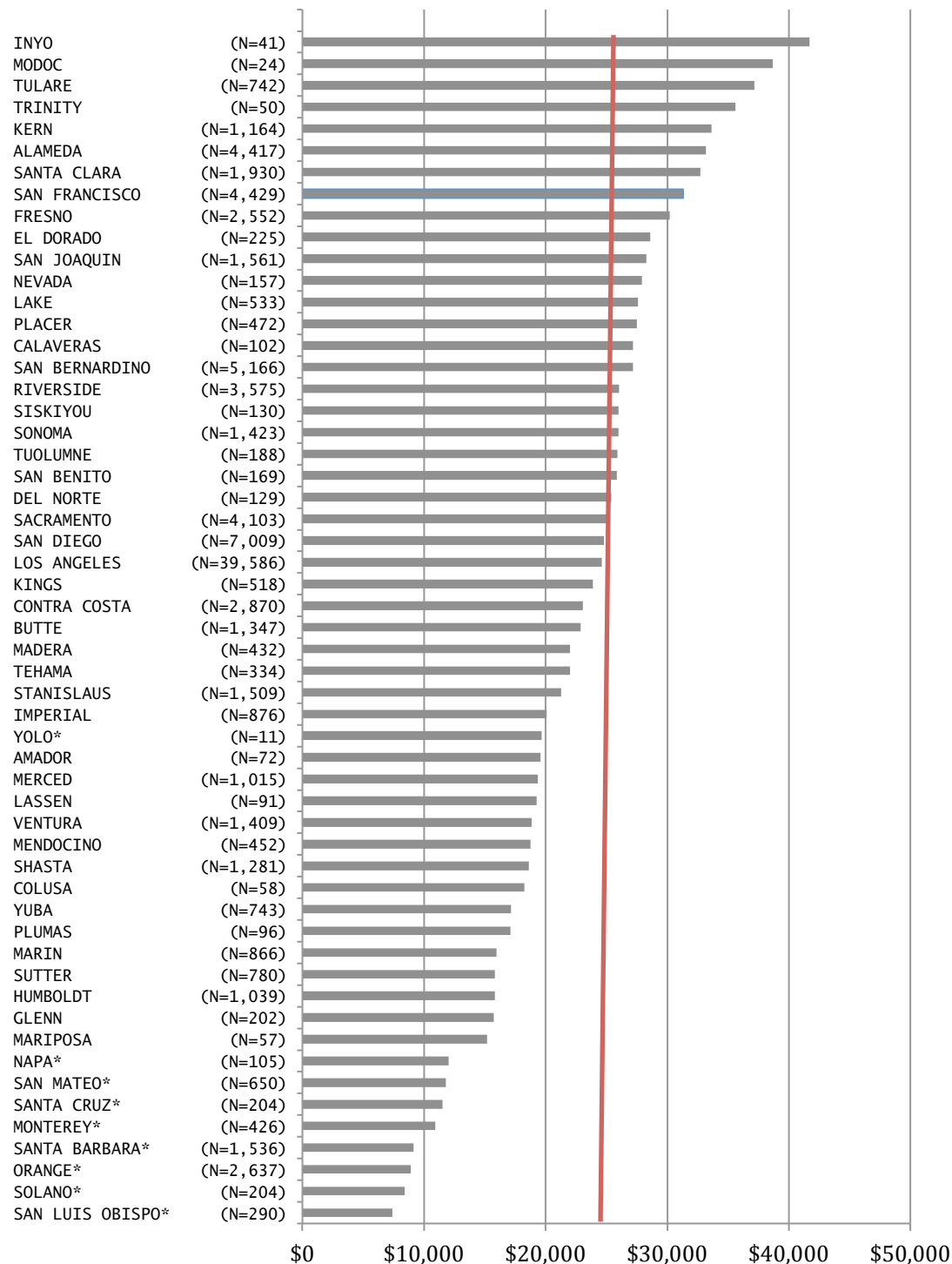


Results for Medi-Cal HCBS users age 18 and above with assessment data from CMIPS or OASIS excluding those who enrolled in PACE or had developmental disabilities

N = number of HCBS users in county with CMIPS or OASIS assessment

— California State Average = 37%

Figure 7: Mean Total Medi-Cal Annual Spending per Medi-Cal Only Long-Term Services and Support (LTSS) User, CY 2008



Results for fee-for-service LTSS users age 18 and above excluding those who enrolled in PACE or Medi-Cal managed care or had developmental disabilities

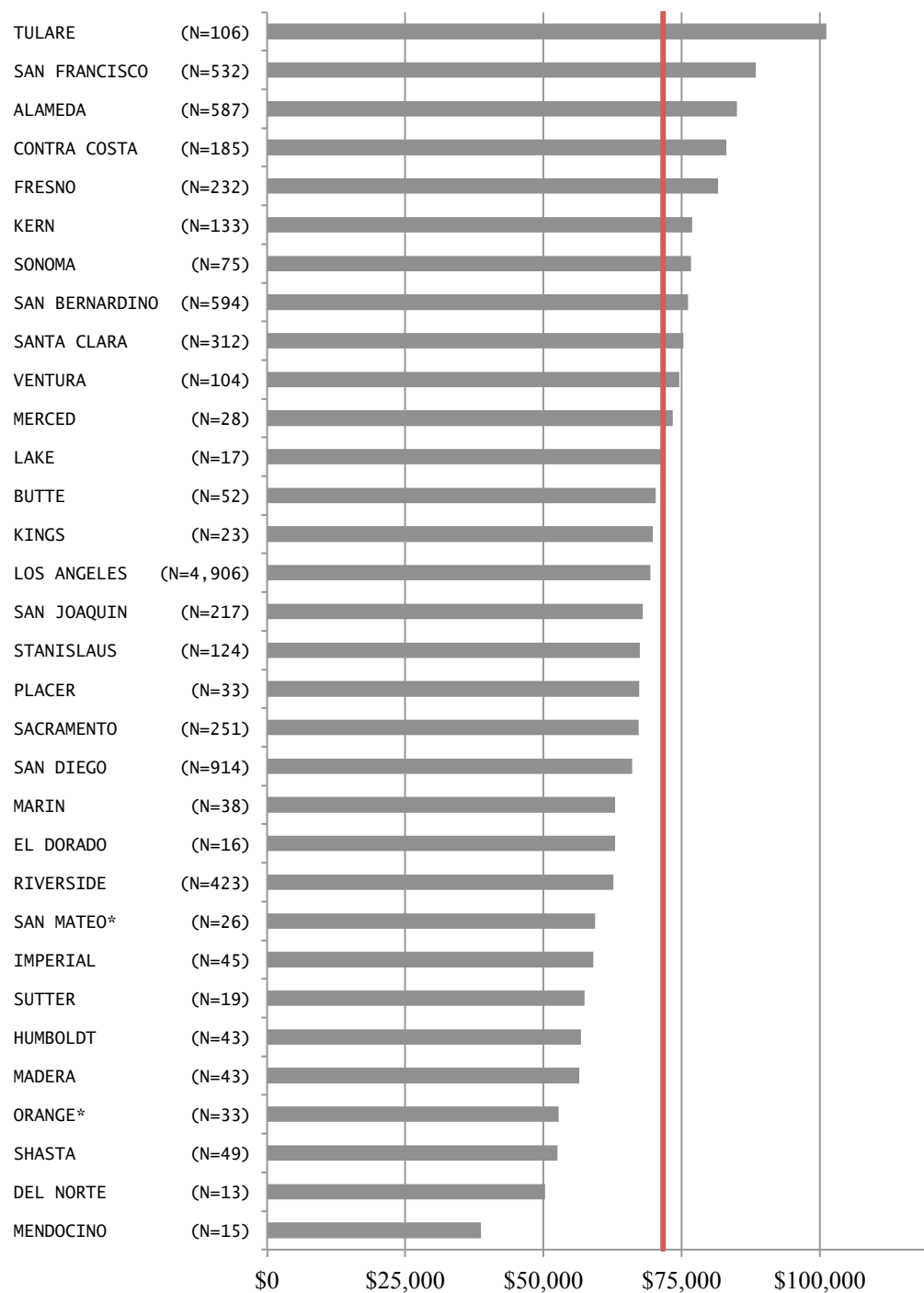
N = number of Medi-Cal only fee-for-service LTSS users in county

Alpine, Mono, and Sierra Counties had 10 or fewer observations and are not displayed in order to protect against the risk of patient identification.

*Medi-Cal managed care delivered through County Organized Health System (COHS)

— California State Average = \$24,493

Figure 8: Mean Total Medi-Cal Annual Spending per Medi-Cal Only Nursing Facility Only (No Home and Community Based Services) User, CY 2008



Results for fee-for-service LTSS users age 18 and above excluding those who enrolled in PACE or Medi-Cal managed care or had developmental disabilities

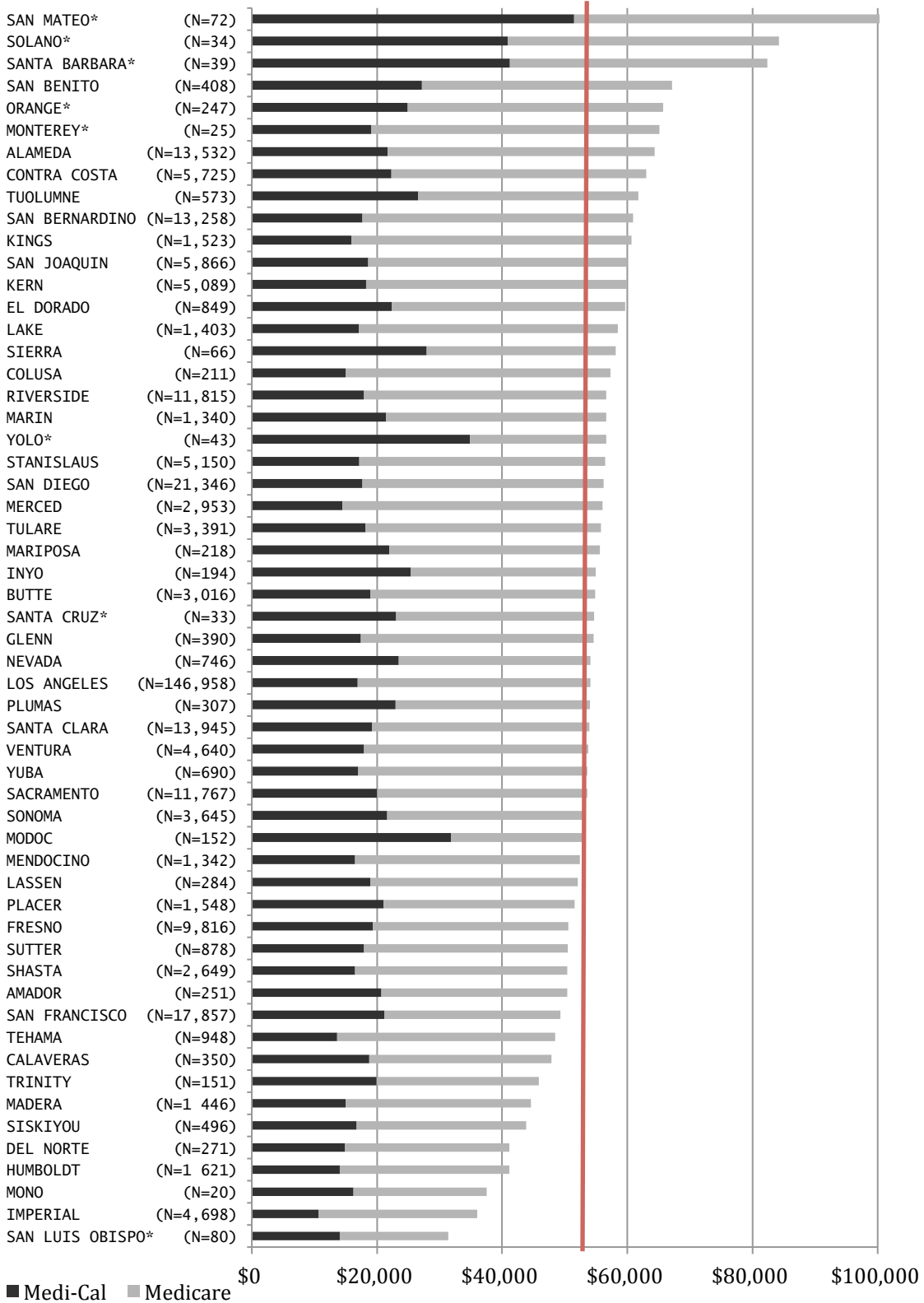
N = number of Medi-Cal only fee-for-service nursing facility only users in county

Alpine, Amador, Calaveras, Colusa, Glenn, Inyo, Lassen, Mariposa, Modoc, Mono, Monterey, Napa, Nevada, Plumas, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Sierra, Siskiyou, Solano, Tehama, Trinity, Tuolumne, Yolo, and Yuba counties had 10 or fewer observations and are not displayed in order to protect against the risk of patient identification.

*Medi-Cal managed care delivered through County Organized Health System (COHS)

— California State Average = \$71,635

Figure 9: Mean Total Medi-Cal and Medicare Annual Spending per Medicare-Medicaid (MME) Enrolled Long-Term Services and Support (LTSS) User, CY 2008



Results for fee-for-service LTSS users age 18 and above excluding those who enrolled in Medi-Cal managed care or had developmental disabilities

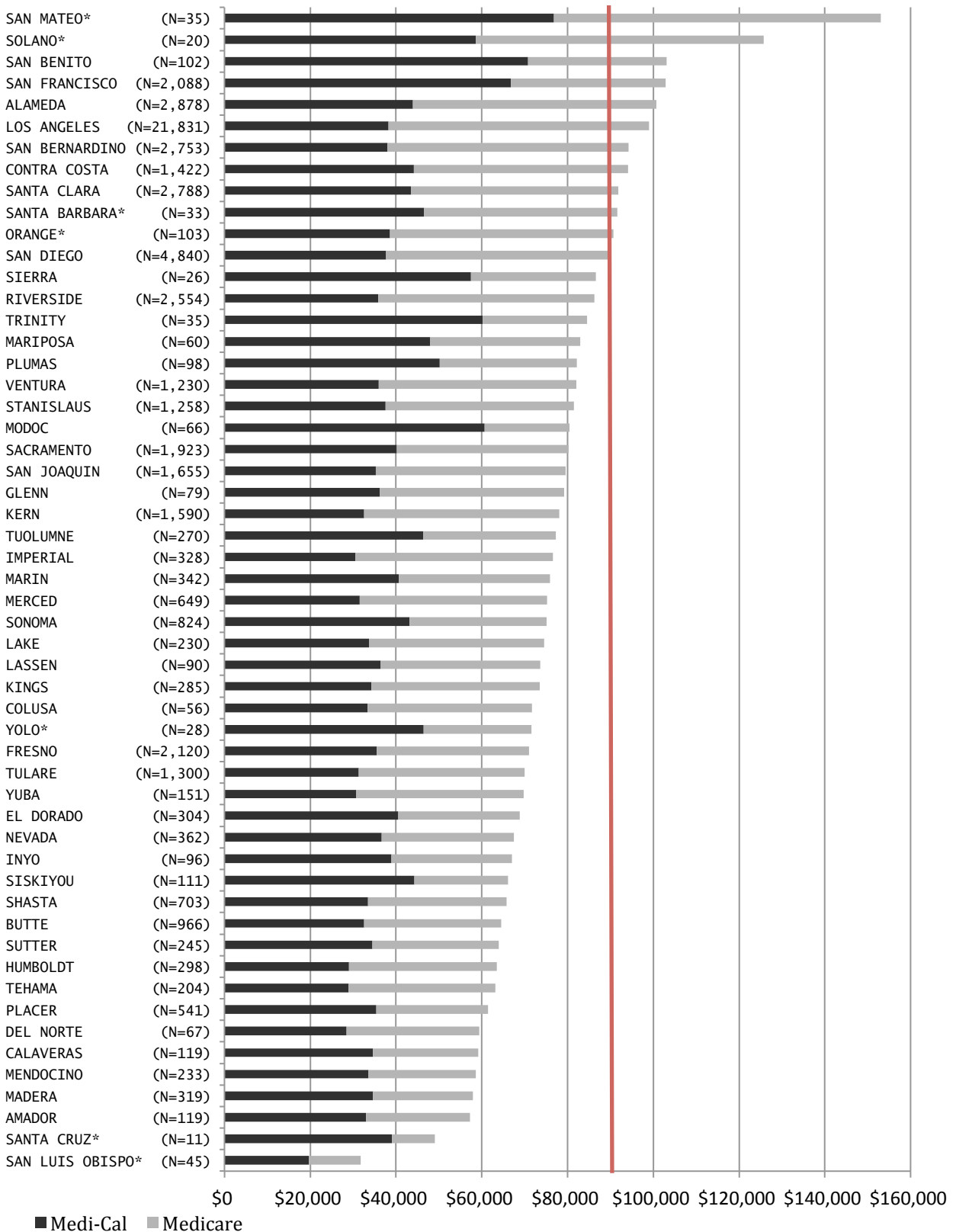
N = number of dual enrolled fee-for-service LTSS users in county

Alpine and Napa counties had 10 or fewer observations and are not displayed in order to protect against the risk of patient identification.

*Medi-Cal managed care delivered through County Organized Health System (COHS)

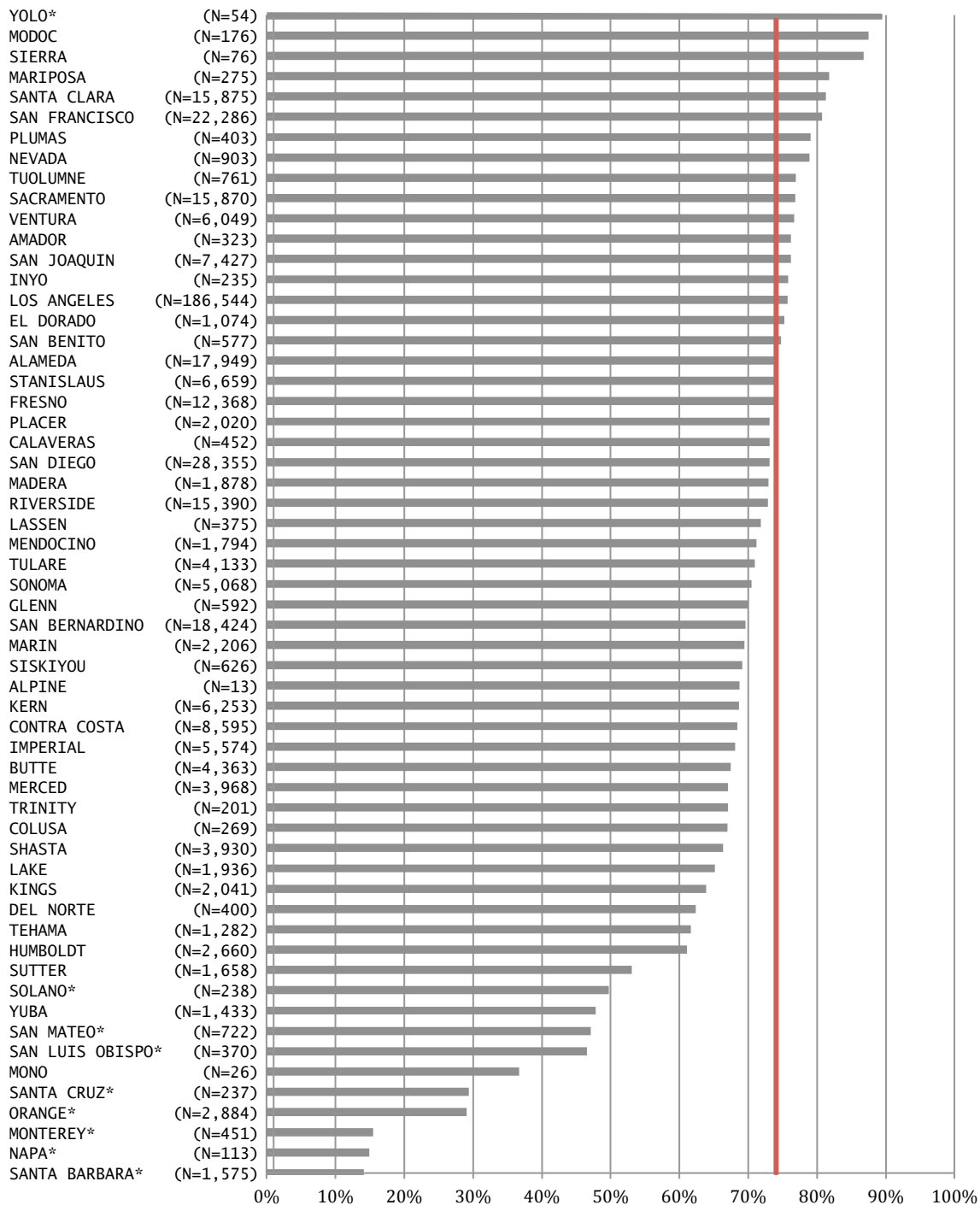
— California State Average = \$54,672

Figure 10: Mean Total Medi-Cal and Medicare Annual Spending per Medicare-Medicaid (MME) Enrolled Nursing Facility Only (No Home and Community Based Services) User, CY 2008; Medi-Cal Beneficiaries, CY 2008



■ Medi-Cal ■ Medicare
 Results for fee-for-service LTSS users age 18 and above excluding those who enrolled in PACE, Medi-Cal managed care, Medicare managed care, or had developmental disabilities
 N = number of dual enrolled fee-for-service nursing facility only users in county
 Alpine, Monterey, Mono and Napa counties had 10 or fewer observations and are not displayed to protect against the risk of patient identification.
 *Medi-Cal managed care delivered through County Organized Health System (COHS)
 — California State Average = \$89,144

Figure 11: Percent of Medi-Cal Long-Term Services and Support (LTSS) Spending Over Total Medi-Cal Spending, CY2008



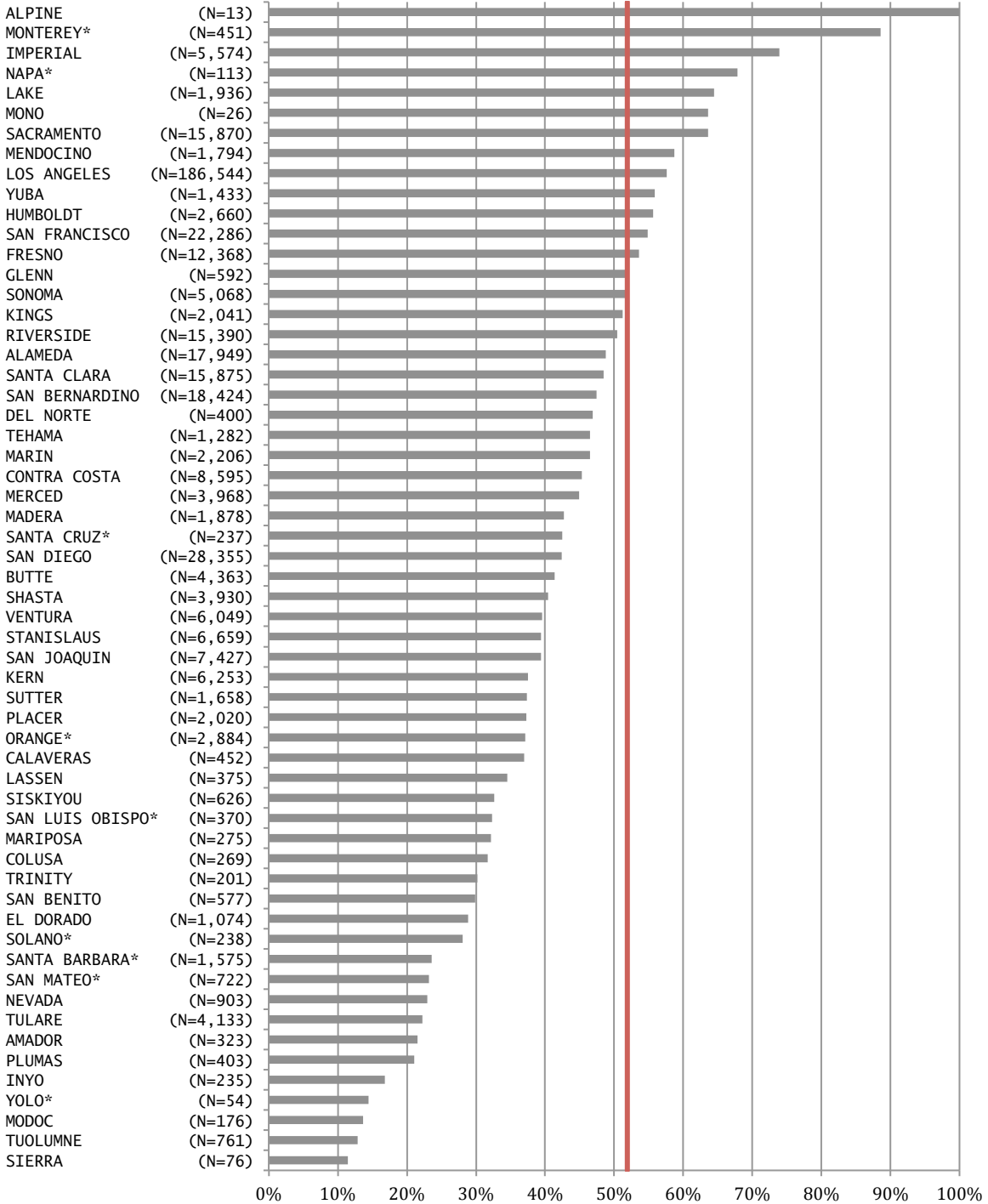
Results for fee-for-service LTSS users age 18 and above excluding those who enrolled in PACE, Medi-Cal managed care, Medicare managed care, or had developmental disabilities

N = number of Medi-Cal LTSS fee-for-service users in county

*Medi-Cal managed care delivered through County Organized Health System (COHS)

— California State Average = 74%

Figure 12: Percent of Medi-Cal Long-Term Services and Support (LTSS) Spending on Home and Community Based Services (HCBS), CY 2008



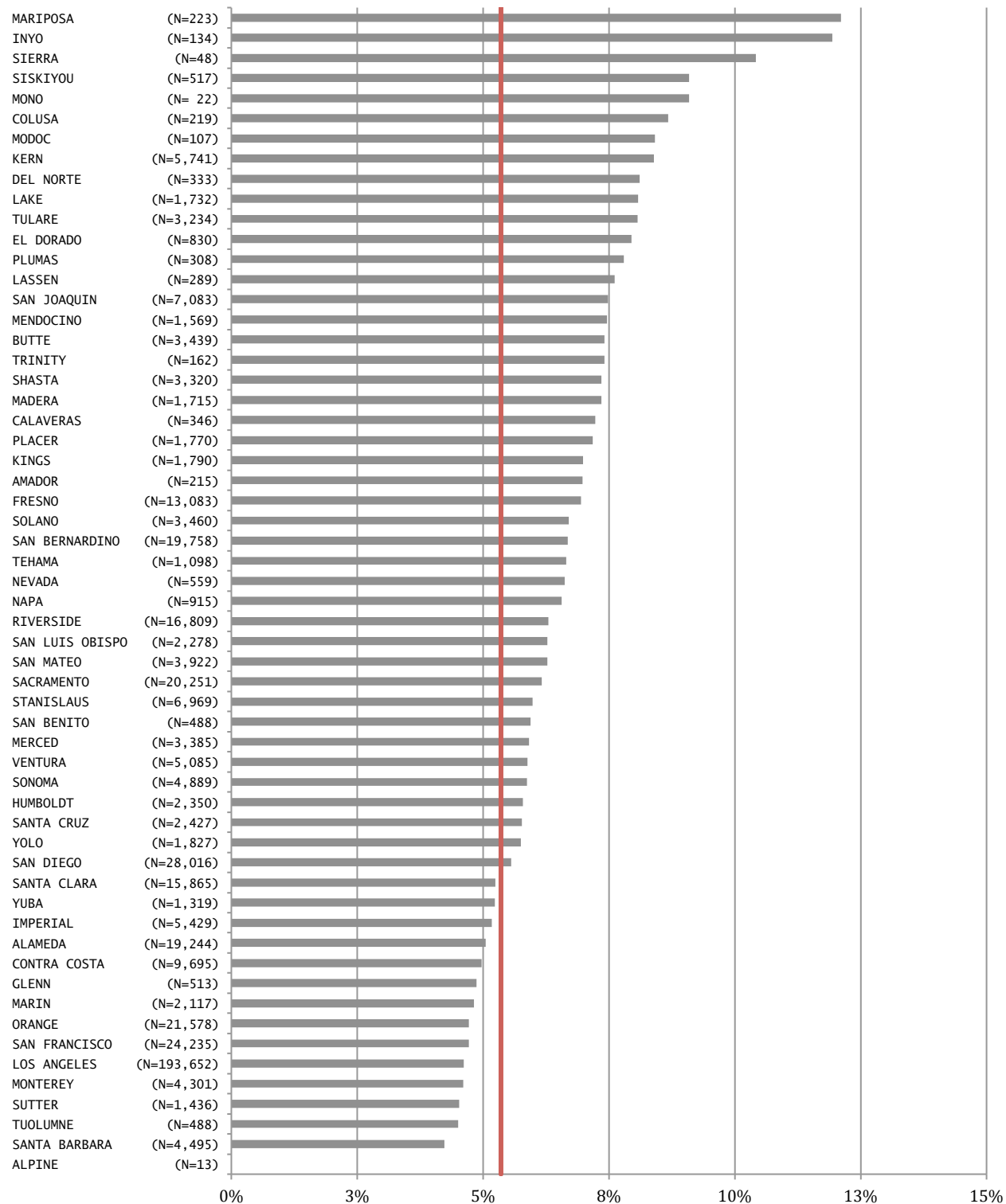
Results for fee-for-service LTSS users age 18 and above excluding those who enrolled in PACE, Medi-Cal managed care, Medicare managed care, or had developmental disabilities

N = number of Medi-Cal LTSS fee-for-service users in county

*Medi-Cal managed care delivered through County Organized Health System (COHS)

— California State Average = 52%

Figure 13: Annual Mortality Rate among Medi-Cal Home and Community Based Services (HCBS) Users, CY 2008

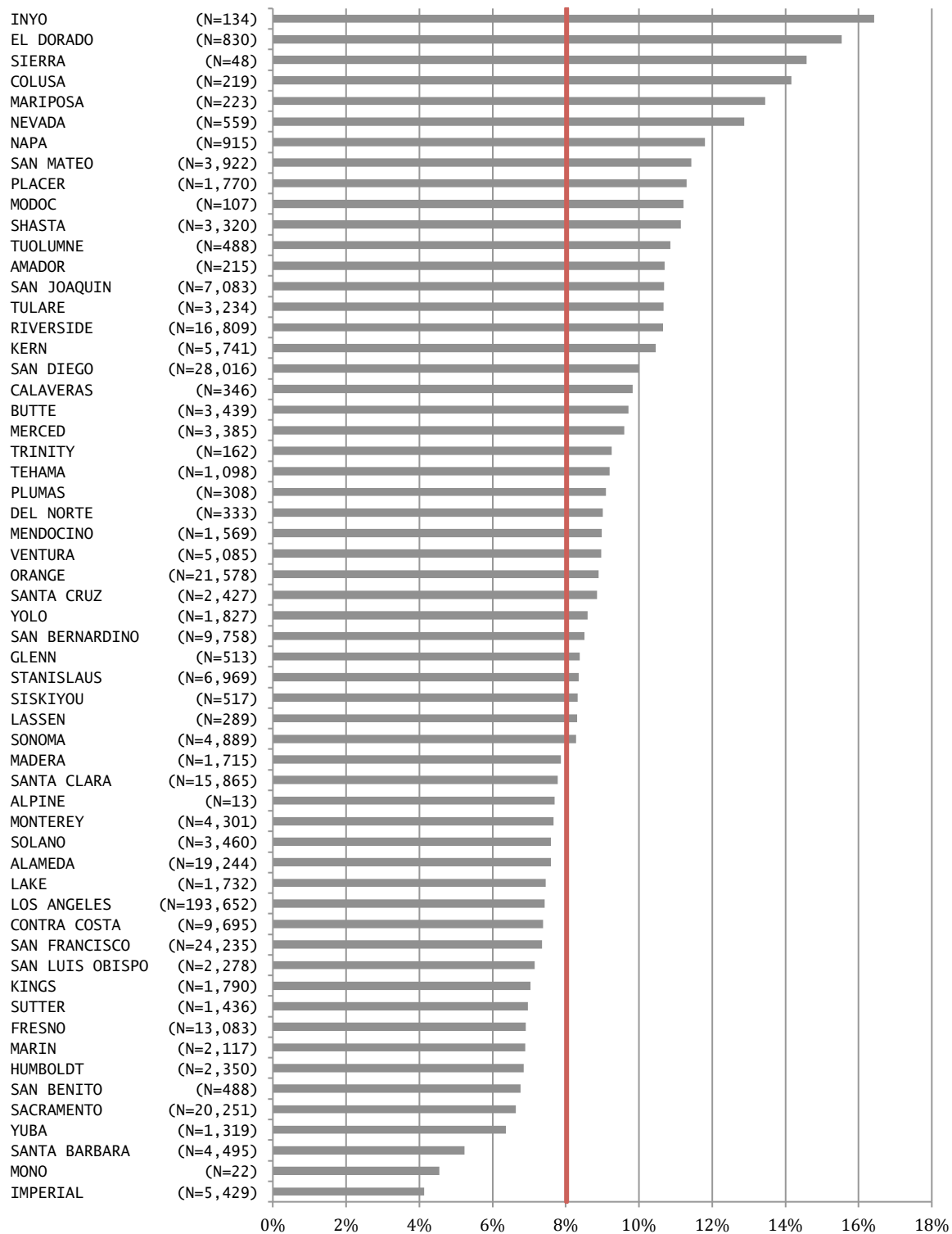


Results for fee-for-service LTSS users age 18 and above excluding those who enrolled in PACE or had developmental disabilities

N = number of HCBS users in county

— California State Average = 5.4%

Figure 14: Annual Nursing Facility Admission Rate among Medi-Cal Home and Community Based Services (HCBS) Users, CY 2008



Results for fee-for-service LTSS users age 18 and above excluding those who enrolled in PACE or had developmental disabilities
 N = number of HCBS users in county
 — California State Average = 8%