

2023 Measures that Matter: Mobility in Nursing Homes

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Executive Summary

[Cal Long Term Care Compare's](#) (CLTCC) *Measures that Matter* quality measurement program selects publicly available, quality measures that matter to residents, patients, and families, to identify bright spots of care among post-acute and long-term care providers. The inaugural program identifies nursing homes that are leaders in mobility and function in both the short stay (SS) and long stay (LS) settings.

Improving (or maintaining) mobility and functional abilities are critical outcome measures of care for nursing homes. SS residents frequently need assistance to regain their mobility after a hospitalization for an illness or injury. LS residents require support to maintain their current level of mobility and function. There is strong evidence that good mobility and functional ability prevent injury and improve quality of life.

Using a rigorous methodological process, CLTCC created a composite mobility and function measure for LS residents and another for SS residents with the purpose of understanding variation in measure performance across nursing homes (Table 1).

CLTCC acknowledges that nursing homes identified as bright spots in mobility may not excel in other important areas of care. Nursing homes were excluded from consideration if they met one or more of our exclusion guardrails.

Nursing homes that met both the composite and exclusion criteria are recognized as follows:

- **Tier 1 (Bright Spots):** Includes facilities that fall into the top 10% measure performance group
- **Tier 2 (Emerging Stars):** Includes facilities that fall into the next 15% measure performance group

Using this methodology, just 43 of 923 eligible nursing homes met the Tier 1 criteria for the short stay mobility and function composite and 27 of 925 eligible nursing homes met the Tier 1 criteria for the long stay mobility and function composite. Only 3 nursing homes achieved Tier 1 criteria for both short and long stay composites.

Tier 1 facility characteristics:

- 58% of short stay and 89% of LS facilities serve an average of 50 – 150 residents per day.
- 86% of short stay and 100% of LS facilities are “For Profit.”
- All 6 state regions were represented by SS facilities, with 28% in Southern CA and 28% in the Bay Area
- 5 of the 6 regions were represented by LS, with 44% in Southern CA (region excludes Los Angeles and San Diego) and 30% in Los Angeles. Central CA was not represented.

CLTCC foresees multiple benefits to this year’s *Measures that Matter*, which include but are not limited to:

1. Promoting resident centered care
2. Accelerating quality improvement
3. Aligning payment, services, and quality

Given *Measures that Matter* is a new quality measurement program, CLTCC will notify all nursing homes of their results so that they may also seek to understand their own mobility and function data and its importance to resident care.

To support data transparency, quality measurement, and quality improvement general information about this year’s *Measures that Matter* will be posted to the Cal Long Term Care Compare website program’s page, and with key stakeholders.

CLTCC plans to feature additional measures as part of its *Measures that Matter* program on an annual basis.

About CLTCC

Cal Long Term Care Compare (CLTCC) provides quality performance information about care delivered in nursing homes, and through home health agencies and hospice agencies. CLTCC is managed by a diverse Board of Directors who represent researchers, patient safety advocacy groups, long term care services, health plans, and consumer groups. Cal Healthcare Compare oversees the development and maintenance of this long-term care website, as well as its sister site Cal Hospital Compare. Information

published on this website is generated by Cal Healthcare Compare, with technical expertise from UC Davis Center for Healthcare Policy and Research and the Schools of Medicine and Nursing.

Measures that Matter in Nursing Homes

Background

CLTCC's *Measures that Matter* quality measurement program selects publicly available, quality measures that matter to residents, patients, and families, to identify bright spots of care among post-acute and long-term care providers. **The inaugural program identifies nursing homes that are leaders in mobility and function in both the short stay and long stay settings.**

Measures considered for the *Measures that Matter* focus on clinical or quality of life measures that are important to nursing home residents and their families; have demonstrated evidence (peer-reviewed) that better measure performance does, in fact, result in better resident care and outcomes; and have relevant data for most nursing homes.

CLTCC acknowledges that nursing homes identified as bright spots in mobility may not excel in other important areas of care. However, the methodology underlying each selected measure uses stringent guardrails to prevent nursing homes with poor measure performance in other areas of care from achieving Tier 1 measure performance.

Measuring mobility and function

Improving (or maintaining) mobility and functional abilities are critical outcome measures of care for nursing homes. SS residents frequently need assistance to regain their mobility after a hospitalization for an illness or injury. LS residents require support to maintain their current level of mobility and function. There is strong evidence that good mobility and functional ability prevent injury and improve quality of life. Working on mobility and functional ability helps prevent future falls and improve residents' cognition, independence, and community participation. Nursing home mobility is measured by activities such as the ability to roll from side-to-side, change positions from lying to sitting to standing, move from bed to chair or toilet, and walk or climb stairs. Functional ability includes tasks such as eating, oral hygiene, bathing, toileting, and dressing.

In addition to the significant clinical and quality of life impacts of good mobility, a substantial number of validated, publicly available mobility and functional ability measures exist, and most nursing homes contribute data for these measures. Thus, this topic meets the *Measures that Matter* program inclusion criteria.

The differences in care and goals between the LS and SS residents are reflected in the different long stay and short stay mobility and functional ability measures and necessitate two different composites:

- Long-stay residents: 8-related mobility and function measures
- Short-stay residents: 5-related mobility and function measures

See Table 1 for information on selected measures including measure name, data sources, and measurement time periods.

Methodology

CLTCC used several steps to evaluate 11 publicly reported LS measures and 16 publicly reported SS measures to construct the two composite measures and identify the nursing home mobility measure finalists: Pearson’s correlational coefficient analysis, exploratory factor analysis, and confirmatory analysis. Measures that demonstrated moderate to high correlation and met internal validity standards were included in their respective composite measure.

Next, CLTCC scored the nursing homes with enough data (925 LS program and 923 SS program) for the respective composite measures and grouped them into measure performance group quintiles. There were 93 nursing homes in the top 10% and 138 nursing homes in the next 15% that were eligible to progress to the next step.

Nursing homes were omitted as finalists if they met one or more of the following six composite guardrail criteria:

1. CMS Special Focus Facility on CMS Watch List
2. Candidate for Special Focus Facility on CMS watch list
3. Any CMS rating of 1 or 2 stars
4. Bottom 10% performance group in the program’s LS composite or SS composite
5. CMS abuse icon
6. State AA or A citations (based on manual review by the research team)

The purpose of the guardrails is to ensure the program identifies nursing homes without troublesome measure performance in other areas of care.

Results

The nursing home mobility and function composites are reported in two groups:

- **Tier 1 (Bright Spots):** Includes facilities that fall into the top 10% measure performance group.
- **Tier 2 (Emerging Stars):** Includes facilities that fall into the next 15% measure performance group

Mobility and Function Composite Results:

# of Nursing Homes by Category	Tier 1	Tier 2
Short Stay	43	56
Long Stay	27	49

Exclusions: Nearly 54% of SS and 40% of LS facilities initially in the Top 10% were excluded due to being 1- or 2-Star facilities. Nine facilities underwent manual review of state citations. Three were included after review- 1 SS and 2 LS.

Discussion

To further understand variation in mobility and function results, CLTCC looked at a variety of factors known to impact quality of care across Tier 1 and Tier 2 facilities.

Short and long stay measure performance

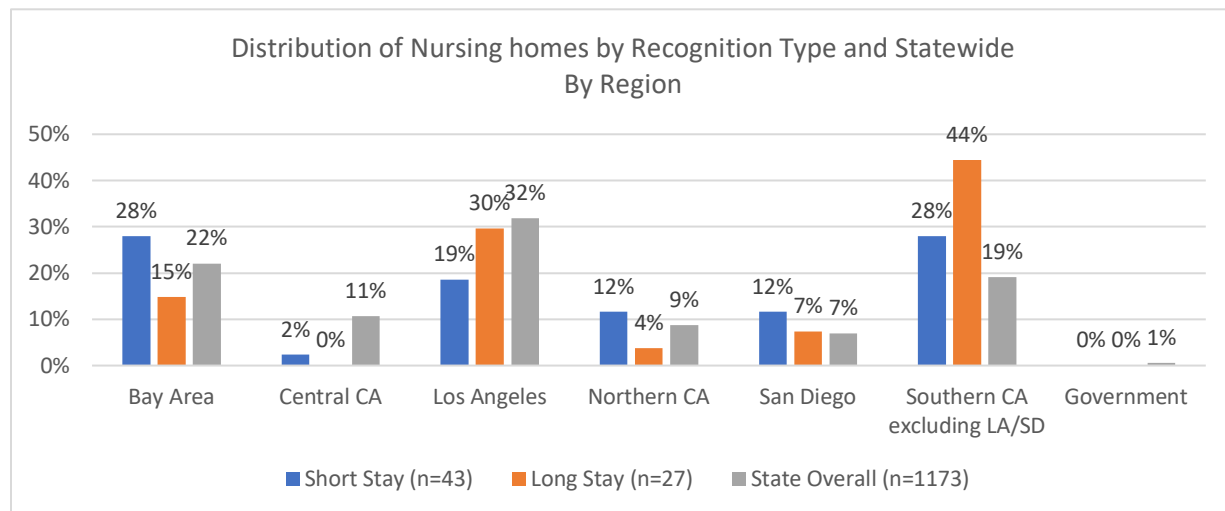
As we've illustrated, nursing home care for short and long stay patients is markedly different. For facilities that offer both services, strong measure performance in one category may, or may not, translate to other services. Of the eligible nursing homes, just 3 nursing homes achieved Tier 1 in both SS and LS services lines. We also looked to see which nursing homes were close to making Tier 1 in both categories and just 7 nursing homes emerged as having met some combination of Tier 1 and Tier 2 criteria for both SS and LS care.

Ownership type

Statewide, 84% of nursing homes are owned by a for-profit entity. Among Tier 1 long stay nursing homes, 100% were owned by a for-profit entity, whereas 86% of short-stay nursing homes were owned by a for-profit entity.

Geographic region

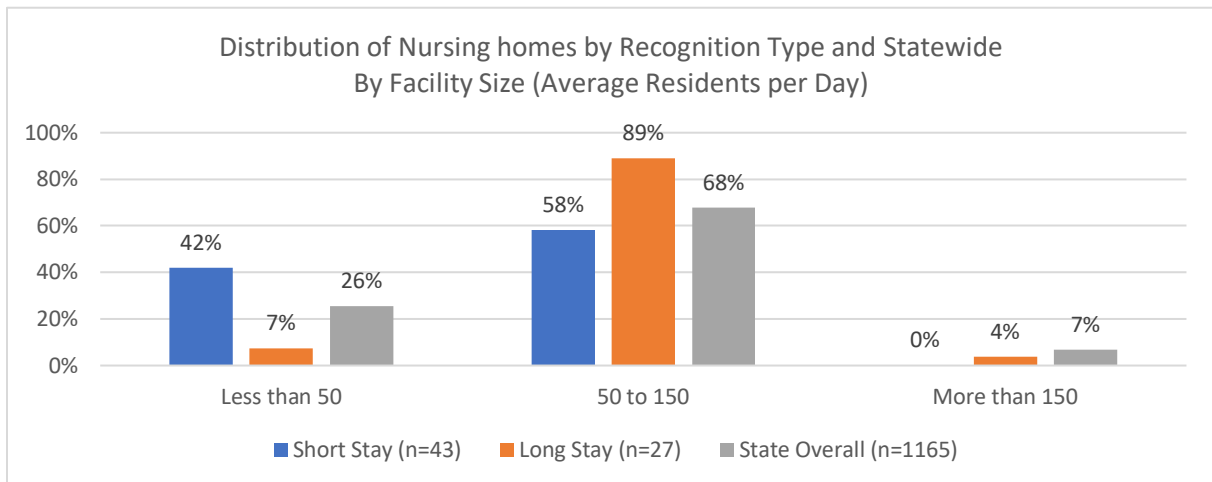
Statewide, Los Angeles, the Bay Area, and southern California have the most nursing homes (32%, 22%, and 19% respectively) followed by Central California, Northern California, and San Diego (11%, 9%, and 7%, respectively). However, the distribution of nursing homes in the Tier 1 category is not representative of the state distribution:



- Southern California represents 44% of long stay and 28% of Tier 1 nursing homes.
- Los Angeles represents 30% of long stay and 19% of Tier 1 nursing homes.
- The Bay Area represents 15% of long stay and 28% of short stay Tier 1 nursing homes (tied with Southern California)
- San Diego represents only 7% of long stay and 12% of short stay Tier 1 nursing homes and Northern California represents of 4% of long stay and 12% of short stay Tier 1 nursing homes (tied with San Diego).
- Although the Central Valley has the third lowest percentage of nursing homes statewide, it has 0% of long stay and 2% of short stay Tier nursing homes.

Facility size

Twenty-six percent of nursing homes in California have fewer than 50 beds, 68% have 50-100 beds and 4% have more than 100 beds. Among Tier 1 nursing homes for the mobility and function, the smallest and largest nursing homes (<50 beds pr>150 beds) were underrepresented for both short stay and long stay. Results were split for medium sized nursing homes.



Key measurement considerations

The lag in data reporting remains a challenge in the quality measurement field. The mobility and function composites are a snapshot of quality reflecting a certain time period. It is possible that some nursing homes will have improved or worsened since this publication.

Despite the data lag, which is universal to quality measurement reporting, CLTCC is confident that the mobility and function composite measures add an easy-to-use tool for consumers to assess an important care outcome and help them choose care that best fits their needs. The composites' exclusion criteria are important guardrails to ensuring that poor care delivered in other categories is not ignored and consumers (or payors) are not misled.

Conclusion

CLTCC undertook a rigorous methodology to identify bright spots in mobility and function across all nursing homes in California. Only 2.3% of nursing homes with short stay services and 3.7% with long stay services achieved Tier 1 criteria.

CLTCC foresees multiple benefits to this year's *Measures that Matter* which include but are not limited to:

4. **Promoting resident centered care** – While appropriate staffing and infection control are cornerstones to high quality nursing home care, residents also very much care about their ability to gain and/or maintain their mobility and function in the nursing home environment. Mobility and function provide a holistic view of quality and resident safety.
5. **Accelerating quality improvement** – Thru data transparency *Measures that Matter* is also intended to support nursing home quality improvement actions in areas important to residents and their families. In the long term, CLTCC anticipates that by highlighting specific measures it

will help reinforce effective care methods and accelerate communication within the nursing home industry to replicate successful care methods and outcomes.

6. **Aligning payment, services, and quality** - Finally, this program may help payers and employers readily identify facilities and providers that are the top performers in the state, a useful tool for network design and contract negotiations (e.g., reimbursement, quality improvement goals, etc.).

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Appendix

Table 1. Data Sources for the CLTCC Long-stay and Short-stay Mobility and Function Composite Measures

	Measures	Data Source	Measurement Period	Higher score is better
Long-Stay (LS) Measures	LS401: Percentage of long-stay residents whose need for help with activities of daily living increased	CMS MDS Quality Measures	07/01/2021 to 06/30/2022	
	LS404: Percentage of long-stay residents who lose too much weight	CMS MDS Quality Measures	07/01/2021 to 06/30/2022	No
	LS405: Percentage of low-risk long-stay residents who lose control of their bowels or bladder	CMS MDS Quality Measures	07/01/2021 to 06/30/2022	No
	LS406: Percentage of long-stay residents who have or had a catheter inserted and left in their bladder	CMS MDS Quality Measures	07/01/2021 to 06/30/2022	No
	LS407: Percentage of long-stay residents with a urinary tract infection	CMS MDS Quality Measures	07/01/2021 to 06/30/2022	No
	LS410: Percentage of long-stay residents experiencing one or more falls with major injury	CMS MDS Quality Measures	07/01/2021 to 06/30/2022	No
	LS551: Number of hospitalizations per 1,000 long-stay resident days	CMS Medicare Claims Quality Measures	04/01/2021 to 03/31/2022	No
	LS552: Number of outpatient emergency department visits per 1,000 long-stay resident days	CMS Medicare Claims Quality Measures	04/01/2021 to 03/31/2022	No
Short-Stay (SS) Measures	SS022: Change in residents' ability to care for themselves at discharge	CMS NURSING HOME Quality Reporting Program- Provider Data	01/01/2021 to 12/31/2021	Yes
	SS023: Change in residents' ability to move around at discharge	CMS NURSING HOME Quality Reporting Program- Provider Data	01/01/2021 to 12/31/2021	Yes
	SS024: Percentage of residents who are at or above an expected ability to care for themselves at discharge	CMS NURSING HOME Quality Reporting Program- Provider Data	01/01/2021 to 12/31/2021	Yes
	SS025: Percentage of residents who are at or above an expected ability to move around at discharge	CMS NURSING HOME Quality Reporting Program- Provider Data	01/01/2021 to 12/31/2021	Yes
	SS471: Percentage of short-stay residents who improved in their ability to move around on their own at discharge	CMS NURSING HOME Quality Reporting Program- Provider Data	01/01/2021 to 12/31/2021	Yes

Table 2. CLTCC Regions

CLTCC Region	CMS District
Bay Area	East Bay San Francisco San Jose Santa Rosa
Central CA	Bakersfield Fresno Stockton
Los Angeles	LA Region 1 LA Region 2 LA Region 3
Northern CA	Chico Santa Rosa
San Diego	San Diego
Southern CA	Orange Riverside San Bernardino Ventura
State	State Facilities Section (i.e., State Hospitals, Veterans Homes)
<i>Note:</i> CMS Districts: Bay Area- East Bay, San Francisco, San Jose, Santa Rosa; Central CA- Bakersfield, Fresno, Stockton; Los Angeles-LA Regions 1,2,3; Northern CA- Chico, Santa Rosa; San Diego; Southern CA- Orange, Riverside, San Bernardino, Ventura; Government- State Hospitals, Veterans Homes, etc.	