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**Facility and Resident Characteristics, Staffing, and Quality Outcomes in 2015**

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Between the 1920s and the 1950s, the number of U.S. nursing homes grew dramatically and ownership changed from small largely nonprofit providers to a majority of for-profit companies. In the 1960s, the growth in nursing homes and a shift to for-profit companies was fueled by a steady source of revenues from Medicare and Medicaid after the programs were established (Banaszak-Holl et al., 2002; Kaffenberger, 2000).

In recent years, the number of nursing homes has gradually declined, from 16,032 nursing homes in 2005 to 15,646 in 2010, and then has remained fairly steady with a total of 15,640 in 2014 (CMS, 2015). In 2014, nursing homes had 1.6 million Medicare and Medicaid certified beds and 1.4 million residents (US CMS, 2015). In addition to a decline in beds, nursing home occupancy rates have steadily declined over time (from 85.5 percent in 2005 to 82.4 percent in 2014) (US CMS, 2015; Harrington, Carrillo, Garfield, 2015). States vary in their average facility size and occupancy rates, with states in the East generally having larger facilities and higher occupancy rates.

**Ownership Types**

In 2014, 69.8 percent of nursing homes were for-profit, 24.0 percent were nonprofit, and 6.2 percent were government facilities in the US (US CMS, 2015). Over the 2009 to 2014 period, the share of nursing facilities that were for-profit increased slightly as nonprofit facilities declined slightly (Harrington, Carrillo, and Garfield, 2015). Ownership patterns vary widely across states, with states in the South and West having higher shares of facilities that are for-profit. California has had a steady growth in for-profit homes with 83.6 percent for-profit, 13.2 percent nonprofit, and 3.2 percent government in 2014, making California the 4<sup>th</sup> highest in the nation in for-profit homes (US CMS, 2015).

For-profit facilities have an orientation to maximizing profits for owners and shareholders and a growing body of evidence shows that the profit incentive is directly related to poor quality of care (Comondore et al, 2009). By adopting the shareholder value approach used by financial and other institutions that depend on investors, nursing homes have developed societal-level institutional patterns that can have a detrimental impact on quality care (Kitchener et al, 2004; 2008). For-profit nursing homes and for-profit chains operate with lower staffing and more quality deficiencies (violations) compared with nonprofit facilities (Harrington et al., 2012; Stevenson et al., 2013). The differences in quality have been found over a range of outcomes. One recent study showed that post-acute patients in nonprofit facilities had fewer 30-day rehospitalizations and greater improvement in mobility, pain, and functioning compared to for-profit facilities (Grabowski et al., 2013).

Facilities with the highest profit margins have been found to have the poorest quality (O’Neill et al, 2003). Government and business interests have supported the for-profit nursing home industry that controls the long-term care field to the disadvantage of nonprofit organizations and home- and community-based services (Kitchener and Harrington, 2004). The considerable evidence from observational studies that care delivered in for-profit facilities is inferior to public or nonprofit

services supports the need to develop new policies that would favor the development and maintenance of public and nonprofit homes (Ronald et al., 2016).

## Nursing Home Chains

Corporate chains (defined as owning or managing two or more facilities) emerged as a dominant nursing home organizational form in the 1990s. By 1995, 51 percent of US nursing homes were owned by chains (Harrington Carrillo, Blank and O'Brian, 2010). More than half (55.9 percent) of facilities in 2014 were owned or leased by multi-facility organizations, an increase over 54.1 percent in 2009 (Harrington, Carrillo, and Garfield, 2015). States vary in the percent of nursing homes owned or operated by chains. In 2015, this report shows that 74.7 percent of California facilities were owned by chains, which is much higher than the national average.

Large nursing home chains have developed specific strategies to increase their market share and profitability (Harrington, et al., 2011). Their growth has primarily occurred by mergers and acquisitions of other chains and facilities. The large chains have targeted services to post-acute care and rehabilitation to receive the highest Medicare reimbursement rates rather than long-stay Medicaid nursing home residents with lower Medicaid rates. They have also developed complex ownership structures to reduce liability by creating multiple layers of companies and by creating separate companies for the operation and the property. Moreover, large for-profit chains own and operate a range of related long term care companies. These strategies have contributed to their growth and financial success.

For-profit nursing home chains have lower quality of care than non-chains (US GAO, 2009a). A recent study examined the ownership, structure, financing, and quality of the 10 largest for-profit nursing home chains in the US between 2003-2008, including four chains that were purchased by private equity corporations (Harrington et al., 2010). For-profit nursing chains had lower staffing and more quality deficiencies (violations) compared with nonprofit facilities (Harrington et al., 2012). Four chains taken over by private equity companies also showed an increase in deficiencies after the purchases. Many large chains have had enforcement actions taken by federal and/or state regulatory agencies for poor quality and/or fraud as well as private litigation actions for low nurse staffing levels and serious quality deficiencies (Harrington et al., 2012; Harrington, Stockton and Hoopers, 2014). A recent analysis of data for 2009-2014, shows the same low staffing pattern and higher deficiencies of for-profit nursing home chains in the US as in the 2003-2008 period (Harrington, 2016). These studies have suggested that states should target large nursing home chains for regulatory oversight, rather than the current focus on individual nursing homes.

Another study found that nursing homes that underwent chain-related transactions had more deficiency citations in the years preceding and following a transaction than those nursing homes that maintained common ownership (Grabowski et al., 2016). The study found that chains targeted nursing homes for purchase that were already having quality problems and that these problems persisted after the transaction. The authors concluded that given the high frequency of nursing home chain transactions, policy makers need to invest in tracking, reporting, and overseeing these transactions.

Recent studies of chains show the growing complexity of ownership patterns that have developed. Nursing home chains with complicated ownership structures (such as Limited Liability

Corporation (LLC) or general or limited-partnership structures) have increased substantially. Many nursing home chains now have separate management companies either owned by the same owners or separate owners (Stevenson, Bramson, Grabowski, 2013; Harrington et al., 2011). The majority of nursing home companies in Texas had 1-2 layers of corporate ownership and many had more than 6 levels of ownership companies (Stevenson, Bramson, Grabowski, 2013).

Another recent case study examined a California chain's ownership structure and finances. The chain's complex interlocking individual and corporate owners and property companies obscured its ownership structure and financial arrangements and resulted in higher administrative costs (Harrington, Ross, and Kang, 2015). Profits were hidden in the chain's management fees, lease agreements, interest payments to owners, and purchases from related party companies. The study urged greater ownership and financial transparency to assure regulatory oversight and quality (Harrington, Ross, and Kang, 2015). Another study of California nursing homes showed that many nursing homes had high levels of administrative costs and profits. At the same time, the share of nursing facility revenues allocated to direct and indirect resident care has been decreasing, with nursing services experiencing the largest decline. Employing a model similar to the concept of medical loss ratio (MLR) currently in place to improve accountability and direct care services provided by health insurers, the authors suggest that a ceiling should be placed on combined administrative costs and profits at no more than twenty percent (Harrington, Ross, Mukamel, and Rosenau, 2013).

## Measures of Quality

**Nurse Staffing Levels:** Over the past 25 years, numerous research studies have examined the relationships between nurse staffing and quality. Nurse staffing levels have been documented to be an important factor that determines both the process and the outcomes of nursing home care (Schnelle, Simmons, Harrington, et al, 2004; U.S. CMS, 2001). Systemic reviews of research articles have found evidence that high total staffing levels, especially RN staff, have been associated with higher quality of care, such as improved functional ability, fewer pressure ulcers, less unplanned weight loss, and fewer facility deficiencies (Dellefield et al., 2015). A CMS study in 2001 established the importance of having a minimum of 0.75 registered nurse (RN) hours per resident day (hprd), 0.55 licensed nurse (LVN/LPN) hprd, and 2.8 (to 3.0) certified nursing assistant (CNA) hprd, for a total of 4.1 nursing hprd to meet federal standards. A recent study by Abt Associates confirmed the importance of a minimum of 4.1 per resident day in staffing (Abt, 2011; 2015). Some experts have recommended even higher minimum staffing standards (a total of 4.55 hprd) to improve the quality of nursing home care, with adjustments for resident acuity or case-mix (Harrington et al., 2000).

California set a minimum nursing home staffing requirement in 2000 but the state's minimum standard and the average staffing levels in California have been considered to be well below the level recommended by CMS and by experts. Many California studies have demonstrated that serious quality of care problems have been associated inadequate staffing levels, and most importantly, low RN staffing (Kim, et al., 2009a 2009b; Schnelle et al., 2004). California's Medicaid reimbursement rate methodology has only weak incentives to increase staffing and has very limited financial accountability standards and reporting requirements (Mukamel, Kang, Collier, and Harrington, 2012; Harrington, Ross, Mukamel, and Rosenau, 2013). The dangerously low staffing levels in many California nursing homes have resulted in many serious quality problems.

Many studies have shown that establishing higher minimum staffing regulations result in higher staffing levels and high quality of care in nursing homes (Bowblis, 2011; Mukamel, Weimer, et al, 2012; Park and Sterns, 2009; Tong, 2011; and Zhang and Grabowksi, 2004). There is a clear need for higher minimum nurse staffing standards for California and U.S. nursing homes based on multiple research studies showing a positive relationship between nursing home quality and staffing and the benefits of implementing higher minimum staffing standards (Harrington, Schnelle, McGregor, and Simmons, 2016). The barriers to staffing reform include economic concerns about costs and a focus on financial incentives rather than stronger regulatory requirements. The enforcement of existing staffing standards has been weak, and strong nursing home industry political opposition has limited efforts to establish higher standards.

**Deficiencies, Complaints, and Enforcement Actions:** CMS Nursing Home Compare considers the deficiencies issued to nursing homes to be the best measure of quality because these are based on actual observations of care in nursing homes by trained state survey and certification teams on an annual basis or when there is a complaint investigation (see its Medicare Nursing Home Compare website). Skilled nursing facilities (SNFs) and nursing facilities (NFs) are required to be in compliance with the requirements in 42 CFR Part 483, Subpart B, to receive payment under the Medicare or Medicaid programs. To become certified as a SNF or NF, nursing homes must meet Life Safety Code (LSC) standards as well as quality standards which include about 170 federal regulations. In addition, California has its own nursing home regulations which must be met.

Federal enforcement is based on Sections 1819(h) and 1919(h) of the Social Security Act, as well as regulations at 42 CFR Part 488, Subpart J. CMS or the State may impose one or more enforcement remedies when a facility is out of substantial compliance with Federal requirements. In order to select the appropriate remedy or remedies, the scope and severity of the deficiency is assessed. Factors determining the seriousness of a deficiency relates to whether the deficiencies constitute: no actual harm with a potential for minimal harm; no actual harm with a potential for more than minimal harm that is not immediate jeopardy; actual harm that is not immediate jeopardy; or immediate jeopardy to resident health or safety. The scope concerns whether the deficiency: is isolated; constitutes a pattern; or is widespread. CMS issues guidelines for sanctions and there are a wide range of federal sanctions that can be issued including: holds on admissions, civil money penalties and other actions (CMS, 2016). States including California may also have additional penalties and sanctions for violations of state regulations. California has legislation that allows the state to issue fines up to \$100,000 for resident deaths, which is an important enforcement tool.

Medicare beneficiaries had over 2.5 million nursing home admissions in 2011, which cost about \$28 billion. Recently, the U.S. Office of the Inspector General (US OIG, 2014) found that 33 percent of a sample of Medicare nursing home residents experienced adverse events, resulting in harm or death during the first 35 days of a post-acute skilled nursing stay. Sixty percent of the adverse events in the study were related to substandard treatment, inadequate monitoring, and/or failures or delays in treatment by nursing staff and others, costing \$2.8 billion for Medicare (US OIG, 2014). A separate study found that 25 percent of Medicare nursing home residents were readmitted to the hospital for common and preventable problems in 2011 at a cost of \$14 billion (US OIG, 2013). California, no doubt, has similar problems to these identified at the national level.

Unfortunately, these cost estimates, human and monetary underestimated the seriousness of the quality of care provided by nursing homes. Numerous investigations by governmental and Congressional agencies have found that U.S. nursing home violations are under-identified, and serious violations are underrated by state surveyors, while enforcement varies widely across and within states (US GAO, 2003; 2007; 2009ab; 2015). Often facilities are not given penalties for serious violations, or the penalties are so minimal that enforcement does not result in compliance (Harrington, Stockton & Hoopers, 2014). Thus, the deficiencies, complaints, and enforcement actions reported by California are likely to be under-identified and under-reported. Moreover, nursing homes are seldom terminated from the Medicare/Medicaid programs as a result of violations. A number of government reports have urged CMS to improve its regulatory oversight and the consistency of enforcement across and within states.

## **Aim of the Report**

California has approximately 1,200 nursing homes located in 56 counties (all but Alpine and Mono). Because of the problems identified with for-profit companies and for-profit nursing home chains, this report focused on nursing home ownership in California. This report documents the companies involved in ownership and groups facilities by chain.

The aim of the study is to provide a snapshot of the current state of California nursing homes using publicly available data on their organizational structure (for-profit vs. nonprofit, chain vs. non-chain), describe facility and resident characteristics, nurse staffing levels, and quality outcomes. The report shows data on each nursing home's characteristics (size, ownership, % of revenues by source, direct care expenditures, and net income margin) and its resident characteristics (acuity). The report also presents information on each facility's nurse staff levels (for RNs, LVNs, CNAs and total staffing) as well as quality outcomes including deficiencies, complaints, enforcement actions, and quality ratings.

The report should be helpful not only to advocacy organizations, including the long-term care ombudsman program, but also to the state licensing and certification agency, the state attorney general, the public, and policymakers who write legislation and regulations related to quality and reimbursement.

## **Methods**

We used existing data collected from publically available nursing home databases for the [www.CalQualityCare.org](http://www.CalQualityCare.org) website which UCSF has been preparing for the California Healthcare Foundation since 2002. These databases provide selected information on facility and resident characteristics, along with data on staffing levels, deficiencies, complaints, enforcement actions, quality ratings, and financial information for each facility. The data for this report comes from six federal and state databases listed in Table 1. Hospital-based nursing facilities do not report nursing turnover and percent of expenses spent on direct care, therefore this information is classified as not applicable (NA) within the table. Once obtained, the databases are logic checked for inconsistencies, corrections are made, and then they are integrated into a single database used for CalQualityCare.org. The data for this report reflects a subset of the data used to update the website in November 2015.

**Table 1. Data Sources and Years Covered**

<b>Data Source</b>	<b>Variables</b>	<b>Year(s) Covered</b>		
Electronic Licensing Management System (ELMS)	Facility Data	2015		
	<ul style="list-style-type: none"> <li>• Provider Number</li> <li>• Number of Beds</li> <li>• Type of Ownership</li> </ul>			
	State-level citations			
	Deficiencies and Citations			
OSHPD LTC Facilities Annual Financial	Nursing Aides Hours per Resident Day	2013 LTC		
OSHPD Hospital Financial Data	Licensed Vocational Nurses Hours per Resident Day	2012 Hospital		
	Net Income Margin			
	Percent of Expenses Spent on Direct Care (data NA for hospital-based facilities)			
	Percent of Days paid by Medicare			
	Supervisors & RN Hours per Resident Day			
	Total Staffing Hours per Resident Day			
	Occupancy Rate			
	Average Nursing Turnover (data NA for hospital-based facilities)			
	ASPEN Complaints		Complaints	2011-2015
	Nursing Home Compare		Deficiencies and Citations	2011-2015
Number of Deficiencies				
Number of Deficiencies with Scope & Severity of G or above				
RUG Data	Percent of Residents with Extensive Special Care or Complex Needs	2015		
	Percent of Residents with Rehabilitation Needs			
	Percent of Residents with Rehabilitation Needs			
	Percent of Residents with Impaired Cognition Needs			
	Percent of Residents with Behavioral Health Needs			

The [www.CalQualityCare.org](http://www.CalQualityCare.org) staffing data is derived from the California Office of Statewide Planning and Development (OHSPD) cost reports that provides staffing information based on a full year. The OSHPD data are substantially better and more accurate than the data used in the federal Medicare Nursing Home Compare report, which uses staffing information based on the two-week survey period. Because of a lag in data availability, the most recent OSHPD financial data available is 2013 for freestanding long-term care facilities (n=1116) and 2012 for hospital-based facilities (n=105). CalQualityCare.org also provides financial information that is not available on the federal website.

To determine whether a nursing home (NH) in California was part of a chain (i.e., a multi-facility organization with two or more facilities), the following key databases were reviewed:

- California Department of Public Health’s Electronic Licensing and Management Services (ELMS)
- Centers for Medicare and Medicaid Services Certification And Survey Provider Enhanced Reports (CASPER) databases
- CMS NH Ownership website - <https://data.medicare.gov/Nursing-Home-Compare/Ownership/y2hd-n93e>
- Sacramento Bee searchable nursing home ownership database – <http://www.sacbee.com/site-services/databases/article3441366.html> (last accessed June 7, 2016)

As of November 2015, the ELMS data indicated there were 1,226 open skilled nursing facilities in California.

The following describes the multi-step process used to classify a facility as a chain:

1. Using the CASPER database chain variable (ORG\_Name), a CHAIN variable was created to indicate if a facility was part of a chain. If a facility did not have any data in the ORG\_NAME field, the BUSINESS\_NAME variable from the ELMS database was reviewed. If a licensee name appeared more than once in the ELMS database, it was considered to be a chain. If a chain had a website, we used the information on the website to identify all of the facilities that are included in that chain and updated the CHAIN variable accordingly. If the ELMS database listed a licensee address more than once, the licensee was called to verify that they own the nursing homes in California and the name of the corporation was added to the CHAIN field. In many of these cases the licensee name was missing from the ELMS database. Additional chain facilities were identified using the following websites:
  - <http://www.nursinghomeguide.org>
  - <http://www.corporationwiki.com>
2. The Sacramento Bee database was used to identify additional chains and facilities belonging to chains. The Sacramento Bee, flagship newspaper of the McClatchy Company and the largest paper in the region, has been involved in extensive investigative journalism on nursing homes and nursing home ownership in CA (<http://www.sacbee.com/news/investigations/nursing-homes/article3730451.html>; <http://www.sacbee.com/news/investigations/nursing-homes/>). The UCSF ownership database served as the basis for the Sacramento Bee file. Based on work by the investigative reporters at the Sacramento Bee, such as reviewing legal documents, they updated the base UCSF ownership database.
3. Using the chain names database created in steps one and two, the CMS NH Ownership database was downloaded (<https://data.medicare.gov/Nursing-Home-Compare/Ownership/y2hd-n93e>) and chain names were reviewed and additional revisions were made to the database.
4. A final review of the database was conducted by an expert in the field of nursing homes and nursing home ownership (Charlene Harrington, PhD).

Refer to Appendix A for additional information about the chain corporations and links to websites, if available.

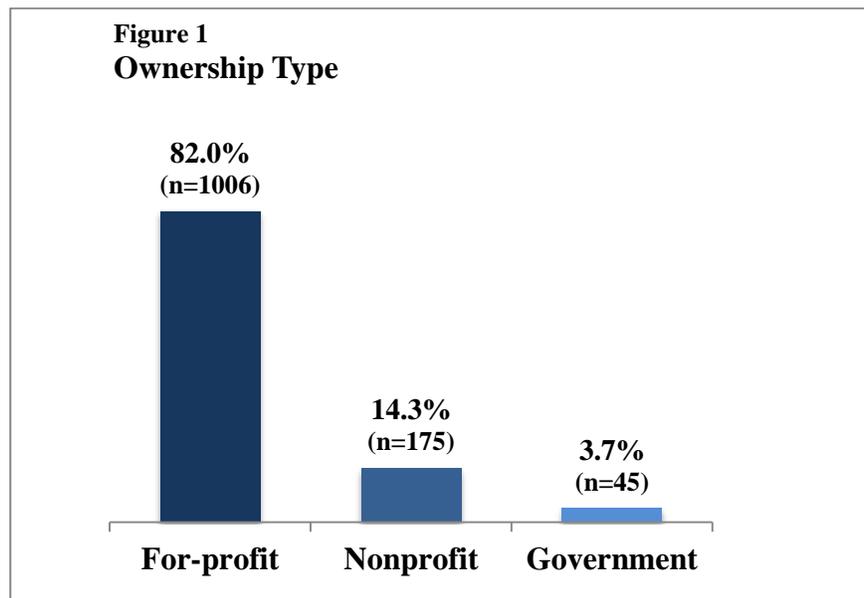
## Analysis

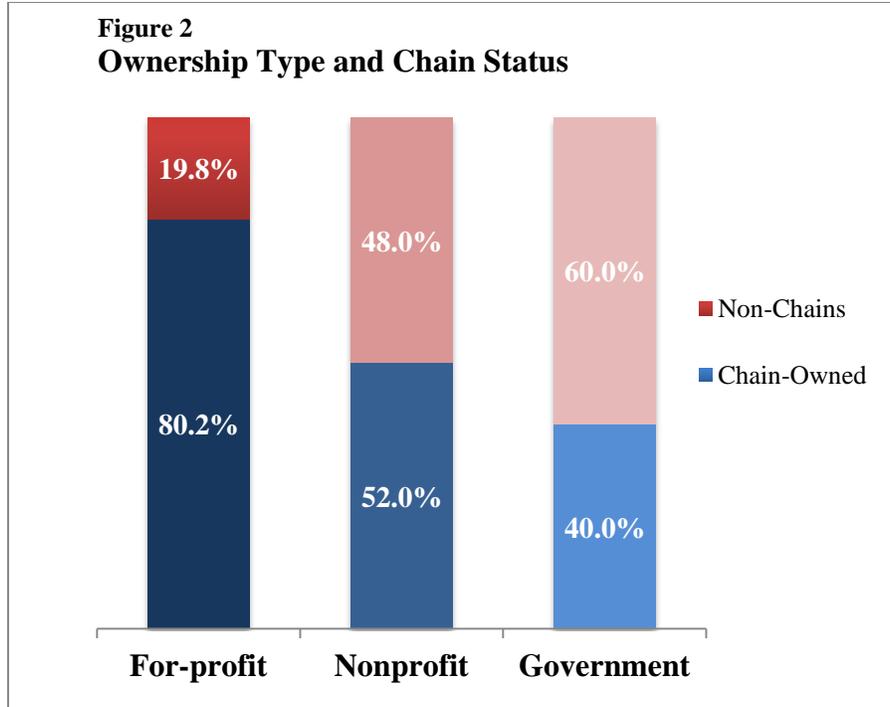
Data was analyzed using SAS/STAT<sup>®</sup> software, version 9.3. Comparisons between ownership and chain status excluded government owned facilities because of the small number of these facilities. As appropriate, bivariate (e.g., chi-square) or multivariable (e.g., general linear model) analytic procedures were used. We assessed whether there were significant differences between the ownership types (e.g., For-profit, nonprofit, government) and chain status (i.e., chain-owned, non-chains). We also analyzed whether there was a relationship among ownership types and chain status, commonly referred to as an interaction in statistics. Only if the relationship among ownership types and chain status (interactions) is significant will it be mentioned in the text.

## Findings

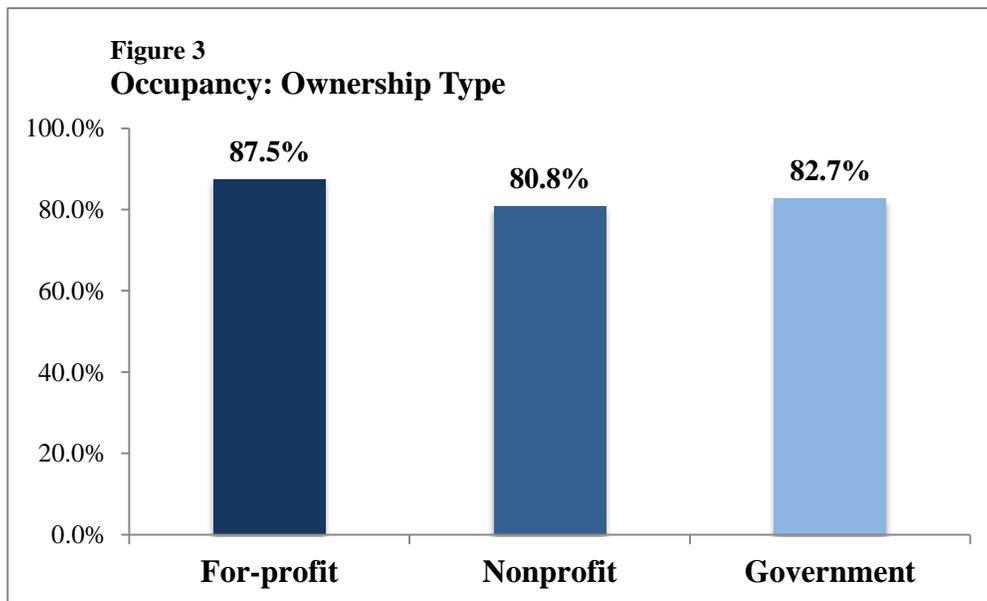
### Facility Characteristics

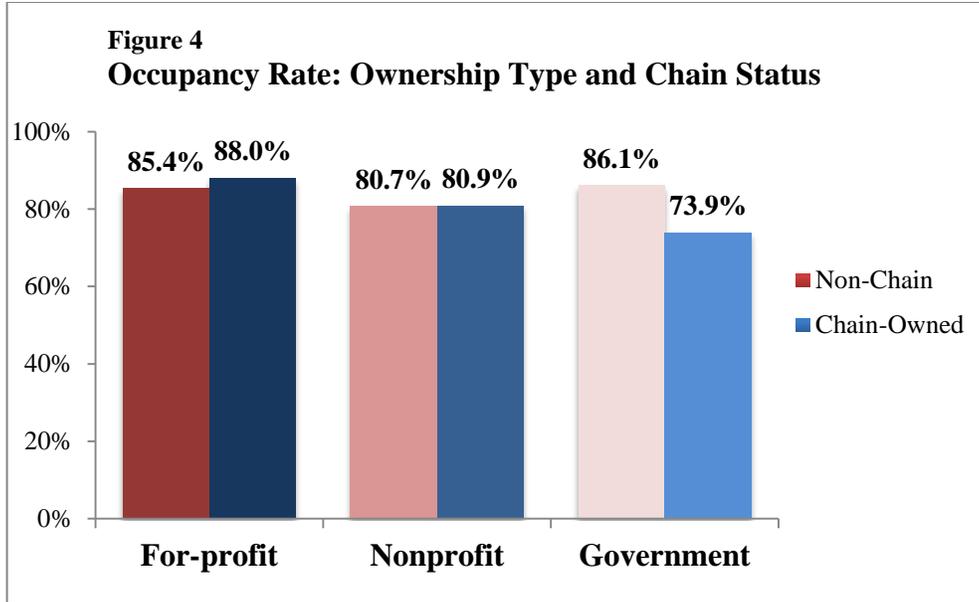
**Ownership and Affiliation.** In 2015 there were 1,226 nursing homes in California, the majority were for-profit facilities (82%, n=1006) and part of a multi-facility organization (i.e., chains; 75%, n=916). The majority of for-profit facilities were a chain (80%, n=807). While nonprofit facilities were more likely to be part of chains (52%, n=91), a significant percentage was independently owned (48%, n=84). The few government owned facilities (n=45) tended to be non-chain facilities (60%, n=27) (Figure 1 & Figure 2).



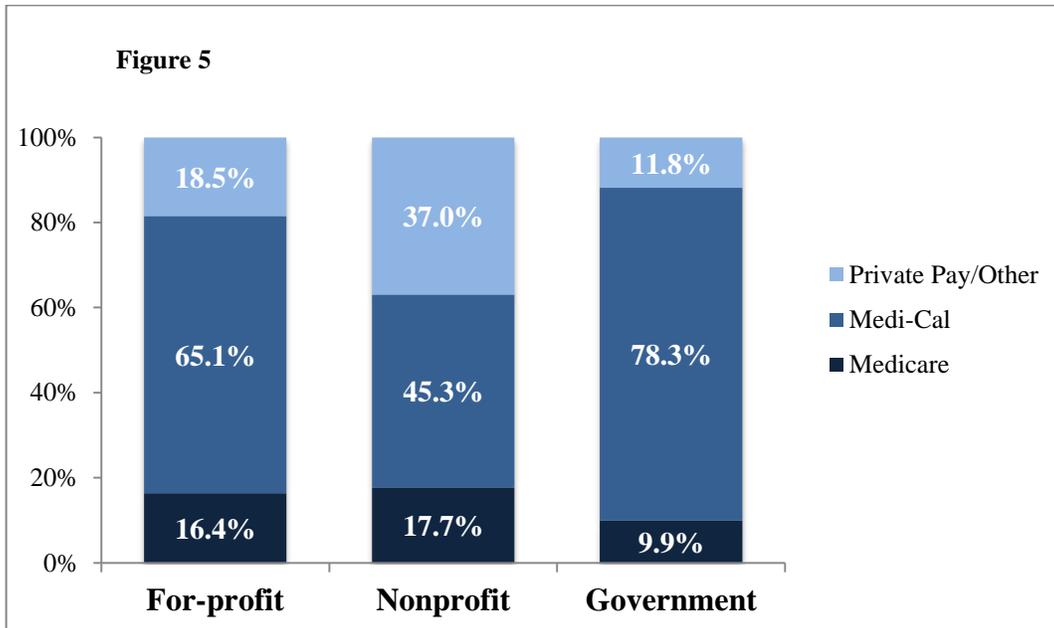


**Capacity and Occupancy.** The number of beds is an indication of nursing facility capacity. In 2015, there were 119,183 beds for the 1226 nursing facilities. The overall average facility size was 97.2 beds, with chains having a larger capacity (102.3) than non-chain facilities (82.3). For-profit facilities maintain the highest rate of occupancy and for-profit chains have the highest occupancy rate (Figure 3 & Figure 4). The occupancy rate for all nursing homes (N=1226) was 86.4%.





**Payer Source.** Medi-Cal, California’s version of the federal Medicaid program, was the primary payer source for most nursing facility residents. Medi-Cal may become the primary payer of nursing facility once residents have exhausted or spent down personal assets paying for care. Overall, Medi-Cal is the primary payer for 63% of nursing home residents, 16% of residents rely on Medicare, and 21% of residents are private payers or use other sources. For-profit facilities have a greater reliance on Medi-Cal payments compared to nonprofit facilities (Figure 5 & Table 1).



<b>Table 2. Payer Source by Ownership Type and Chain Status</b>			
	<b>Medicare</b>	<b>Medi-Cal</b>	<b>Private Pay/Other</b>
<b>For-profit</b>			
Non-Chains (n=205)	14.2%	64.0%	21.8%
Chain-Owned (n=799)	16.9%	65.4%	17.7%
<b>Nonprofit</b>			
Non-Chains (n=79)	15.8%	47.2%	37.0%
Chain-Owned (n=87)	19.4%	43.7%	36.9%
<b>Government</b>			
Non-Chains (n=27)	11.4%	82.7%	5.9%
Chain-Owned (n=18)	6.1%	66.6%	27.3%

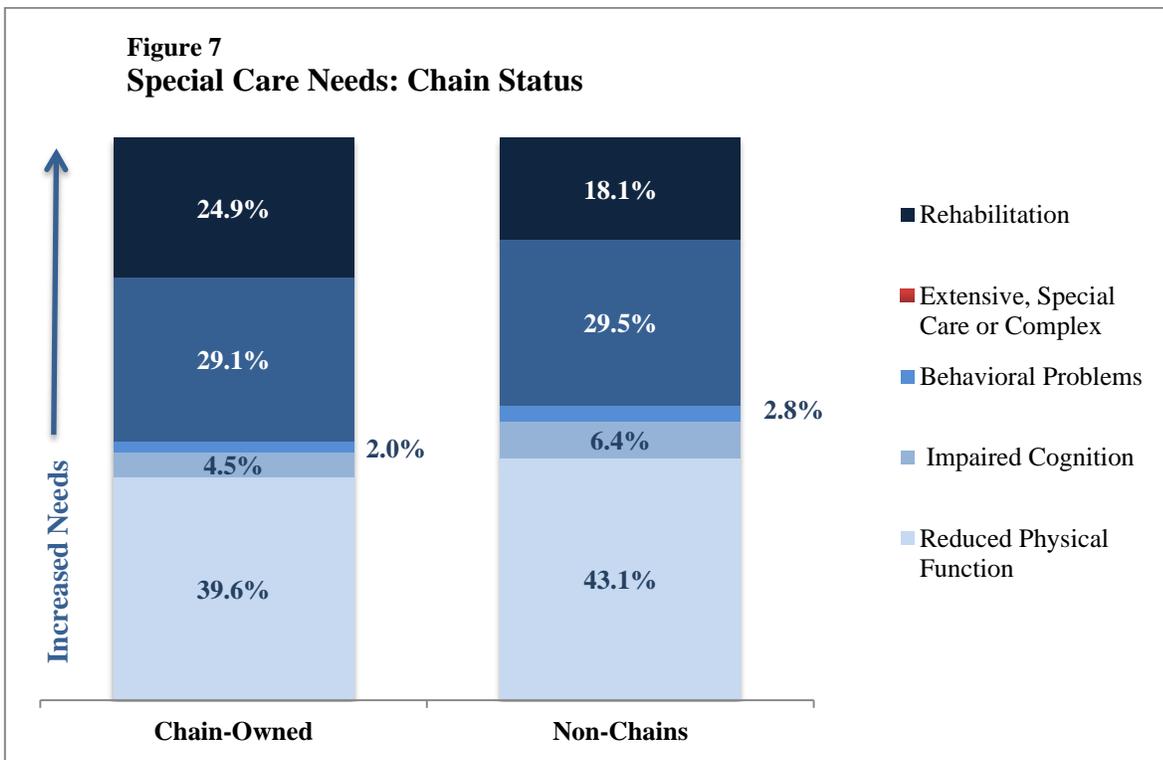
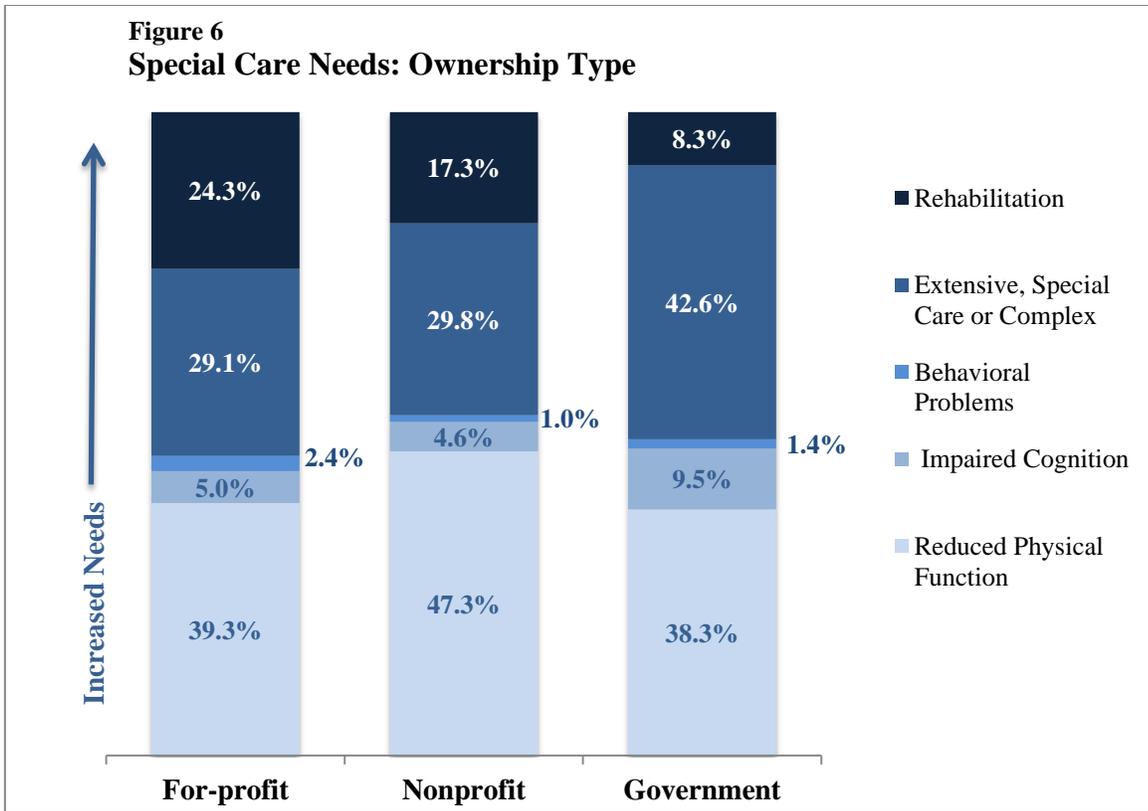
### **Resident Characteristics - Special Care Needs**

Nursing facility residents have various needs requiring different levels of care. Nursing facility resident classification systems have been developed and are referred to as "case mix" indicators. The special characteristics of nursing facility residents require different levels of care and can influence the staff needs in order to provide providing high quality care. The information concerning residents level of care is from the federal government's resident classification system (RUGs: resource utilization groups). Residents are placed into one of five groups using data from his or her Minimum Data Set (MDS) assessment:

- Rehabilitation - Residents who need any combination of physical, occupational or speech therapy.
- Extensive, Special Care or Complex - Residents requiring specific nursing treatments, like the use of a ventilator or respirator, residents who have specific medical conditions, or residents with at least one condition that is clinically complex and needs special nursing care (such as injections or tube feedings).
- Impaired Cognition - Residents who have cognitive impairments usually caused by Alzheimer's disease or dementia.
- Behavioral Problems - Residents who have mental health problems.
- Reduced Physical Function - Residents who do not meet the criteria of the other groups and who have limitations in physical activities.

Residents in the rehabilitation group and the extensive, special, and complex group require more nursing care than residents in other groups.

The care needed by nursing home residents can be considered bimodal with a significant percentage needing care related to physical limitations, 40.3%, and another segment requiring greater care, 52.5% (Extensive, Special Care or Complex and Rehabilitation). For-profit facilities and chained-owned facilities tend to provide care for residents with greater need than nonprofit or non-chain owned facilities (Figure 6 & Figure 7).



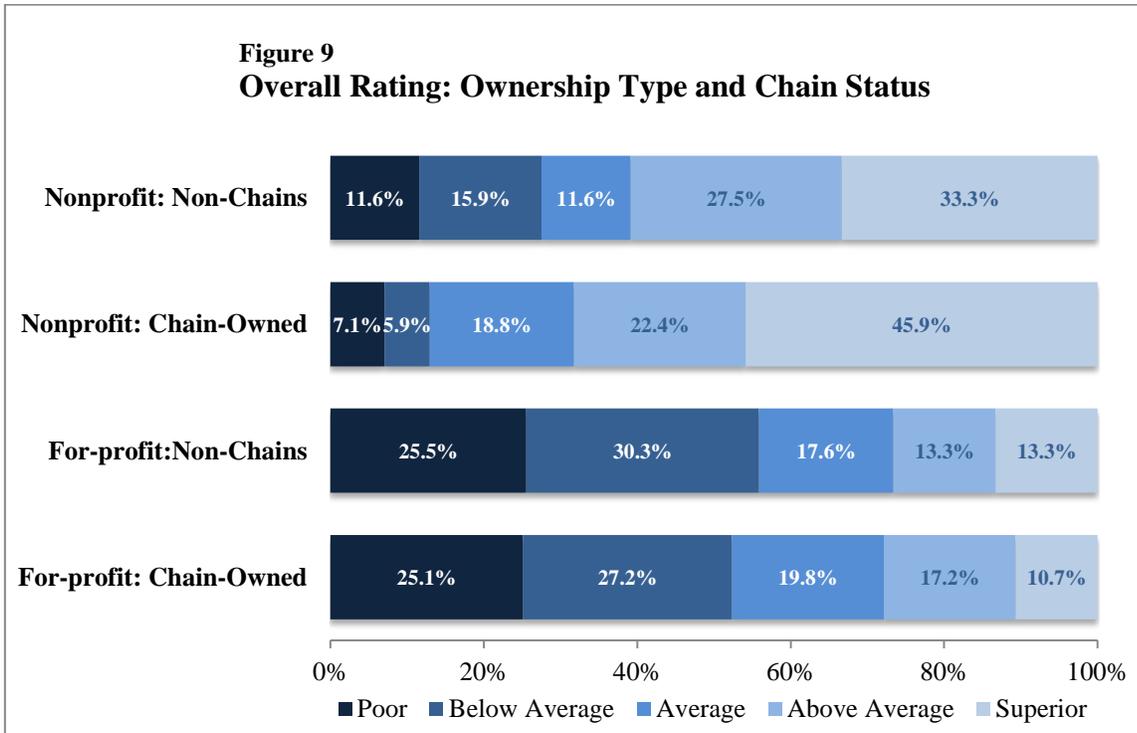
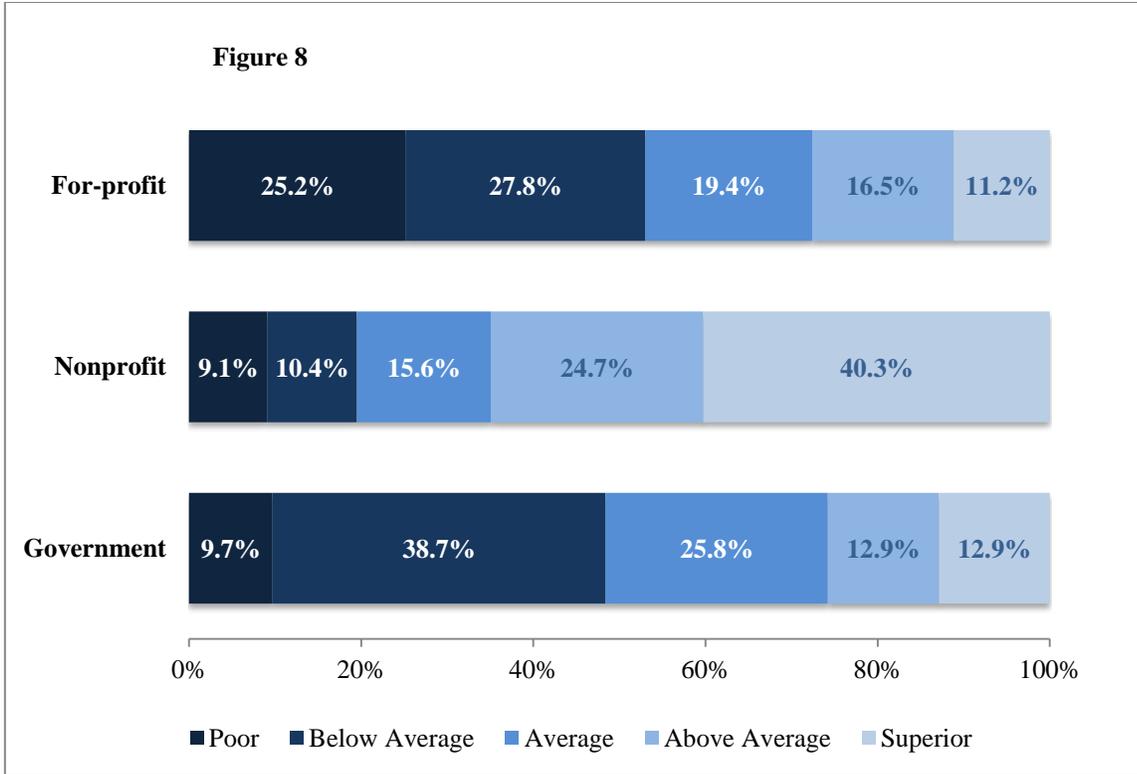
**Quality of Care Metrics**

**Overall Rating.** CalQualityCare.org provides an overall rating measure of nursing home quality. The rating system assists consumers, their families, and caregivers in comparing nursing homes and help identify areas where questions could be asked. The rating is based on three components: (1) facility quality from federal and state health inspection reports and complaints; (2) staffing levels and turnover; and (3) quality measures. While CMS also provides an overall rating on the Nursing Home Compare website, the CalQualityCare.org rating differs from the CMS rating because it uses more complete information on facility quality and staffing than is used by the CMS rating (see Appendix B). The CalQualityCare.org rating also differs from the CMS ratings it takes into account the distribution of scores in California and the methodology for the overall composite rating gives greater weight to the facility and staffing ratings, compared to the procedure used by CMS for its composite rating (see Appendix B). The final overall rating distribution follows CMS guidelines of approximately 10% receive the highest rating, approximately 70% are divided among the middle ratings, and approximately 20% receive the lowest rating. Nursing homes with a rating of three and above are considered to be average to superior in overall quality; while a rating of two or one is classified as below average or poor quality.

Nonprofit facilities received significantly higher overall ratings compared to for-profit facilities (F value=92.17, p<.0001). Overall rating and chain status was not significant (F value=3.03, p<.08) (Table 2).

Table 2. Nursing Home Overall Rating and Ownership Type and Chain Status			
Ownership Type	Chain Status	Overall Rating (mean)	
For-profit (n=1004)	Chain-Owned (n=799)	2.61	2.61
	Non-Chain (n=205)	2.58	
Nonprofit (n=166)	Chain-Owned (n=87)	3.94	3.77
	Non-Chain (n=79)	3.55	

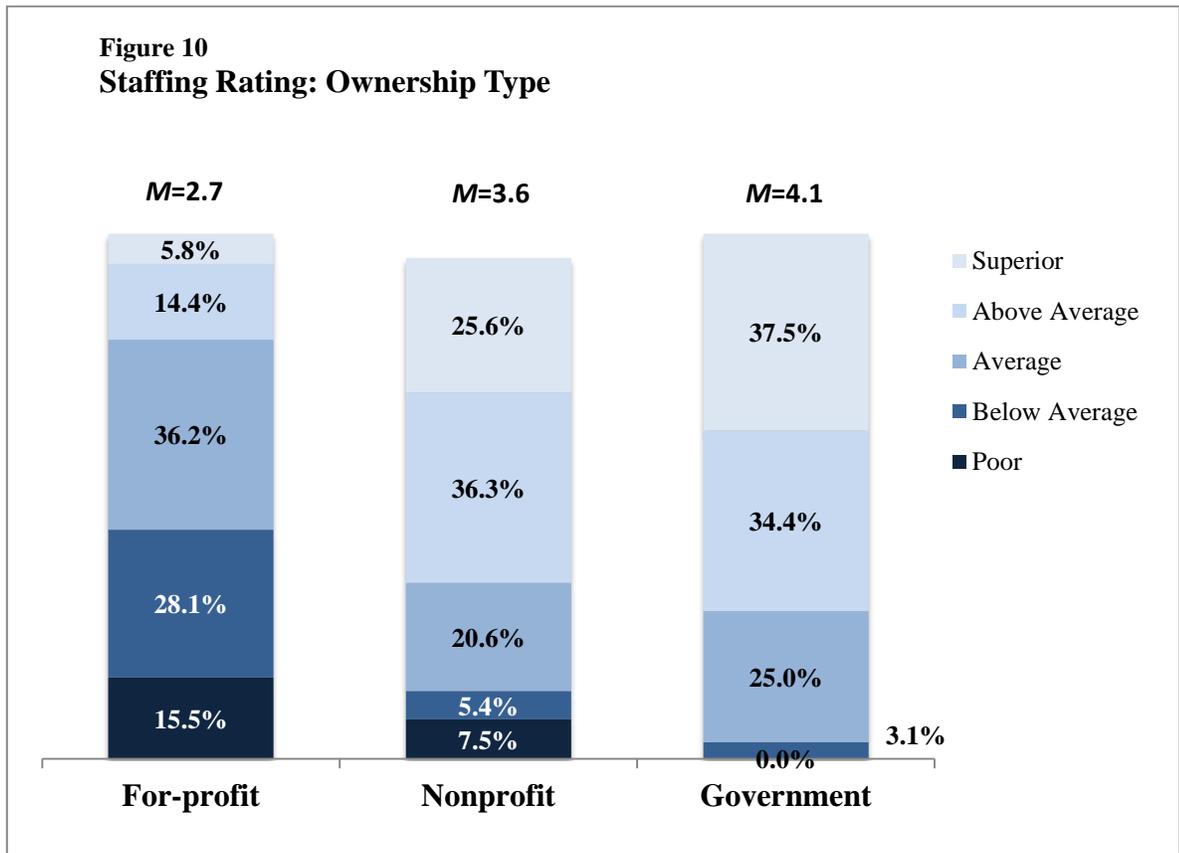
For-profit and nonprofit nursing homes also differed significantly within the distribution of the overall rating ( $\chi^2=117.65, p<.0001$ ) (Figure 8). More nonprofit facilities were rated above average or superior compared to for-profit nursing homes (65.0% vs 27.6%, respectively). There was no significant difference for the rating distribution classification between chain and non-chain facilities ( $\chi^2=4.19, p=.38$ ) (Figure 9). Regardless, of chain status, nonprofit facilities had higher overall ratings compared to for-profits. Of interest to note within the nonprofit category is that facilities part of a chain had more facilities with a superior rating the non-chain nursing homes (45.9% vs 33.3%, respectively).



**Staffing Rating.** CalQualityCare.org provides a staffing rating that incorporates staffing information from the OSHPD utilization reports. Nursing homes with a rating of three and above are considered to have average to superior staffing; while a rating of two or one is classified as below average or

poor staffing. The rating for staffing takes into account three measures: RN staffing levels, total nurse staffing levels, and staff turnover rates. Facilities should adjust staffing levels to ensure adequate staff to meet the needs of all the residents living in a facility. In order to take into account differences in the resident care needs we divided nursing homes into two groups: those with high percentages of Medicare resident days (defined as 25 percent or more resident days paid by Medicare) and those with low percentages of Medicare resident days (defined as having less than 25 percent of resident days paid by Medicare). Medicare residents tend to be short-stay residents (less than 100 days of nursing home care) and they have higher resident acuity or casemix. Facilities with high Medicare resident days were expected to have higher RN and total nurse staffing hours in order to meet the needs of these residents for care. In contrast, facilities with less Medicare days of care were expected to need somewhat less RN and total nursing hours. Therefore, the rating system established two different RN and total staffing ratings for high and low Medicare facilities, considering research-based thresholds as well as the distribution of average staffing hours for the two types of nursing homes (see Appendix B).

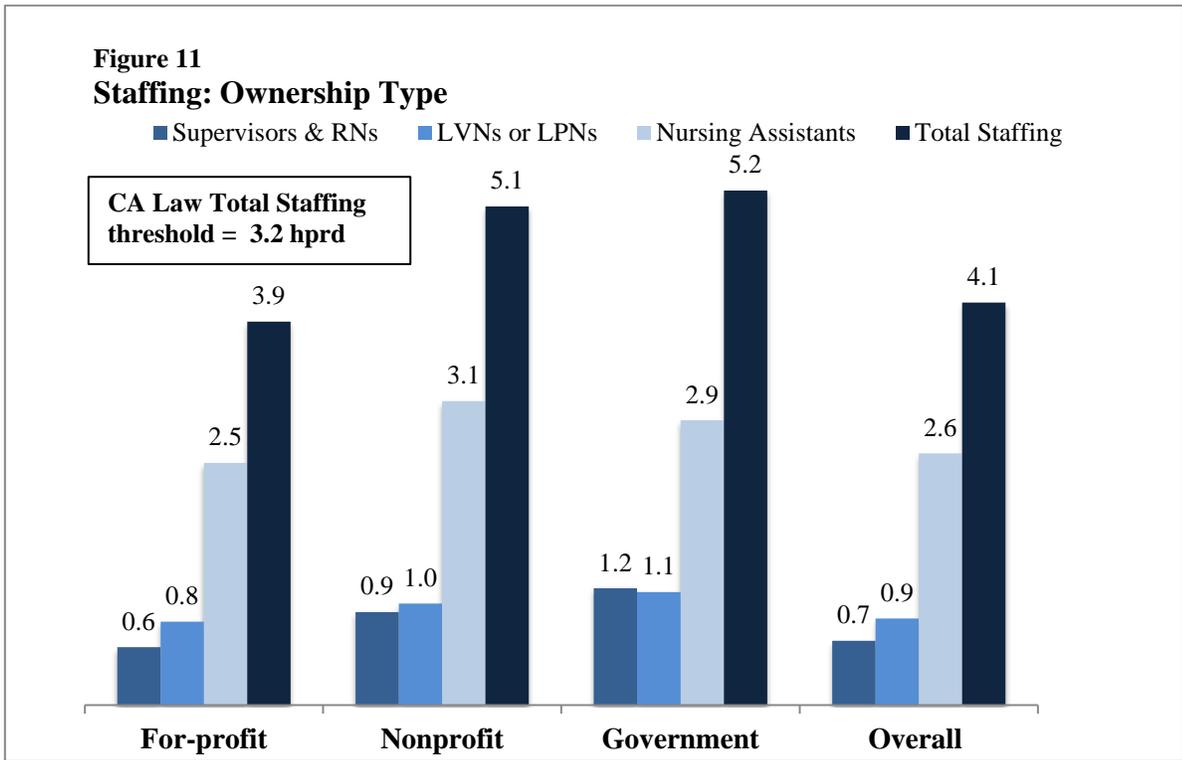
The mean staff rating for all nursing home facilities is 2.8, which approximates an average rating. For-profit facilities ( $M=2.7$ ,  $SD=1.1$ ) have a significantly lower staff rating than nonprofit facilities ( $M=3.6$ ,  $SD=1.2$ ;  $F(1,1151)=88.16$ ,  $p<.0001$ ) (Figure 10). For-profit facilities staffing rating is just below the average rating of three, whereas, the staff rating for nonprofit nursing homes is almost at the above average level.



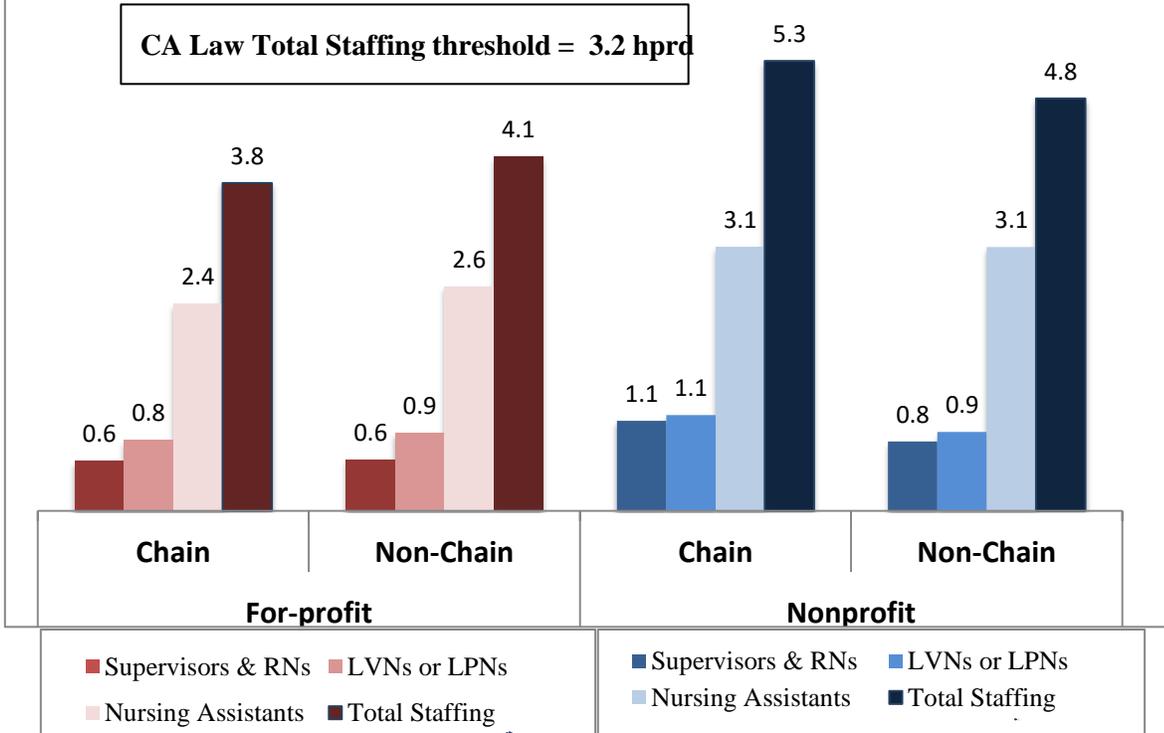
**Staffing Levels.** The average total staffing level provided by all nursing homes in California is 4.1 hrpd (Figure 11). California law requires the total staffing to be 3.2 hrpd. While for-profit facilities

provide significantly fewer staffing hours ( $M=3.9$ ,  $SD=0.84$ ) compared to nonprofit facilities ( $M=5.1$ ,  $SD=1.7$ ),  $F(1,1151)=142.7$ ,  $p<.0001$ ) (Figure 12), there is a significant relationship among the ownership types and chain status  $F(1,1151)=17.7$ ,  $p<.0001$ ). Within the nonprofit ownership category, chain facilities provide significantly more staffing than the non-chains ( $M=5.3$  hrpd vs 4.8 hrpd,  $p<.03$ ). The opposite is true within the for-profit group of facilities. That is, for-profit non-chains provide more total staffing the for-profit chains ( $M=4.1$  hrpd vs 3.8 hrpd,  $p<.0008$ ).

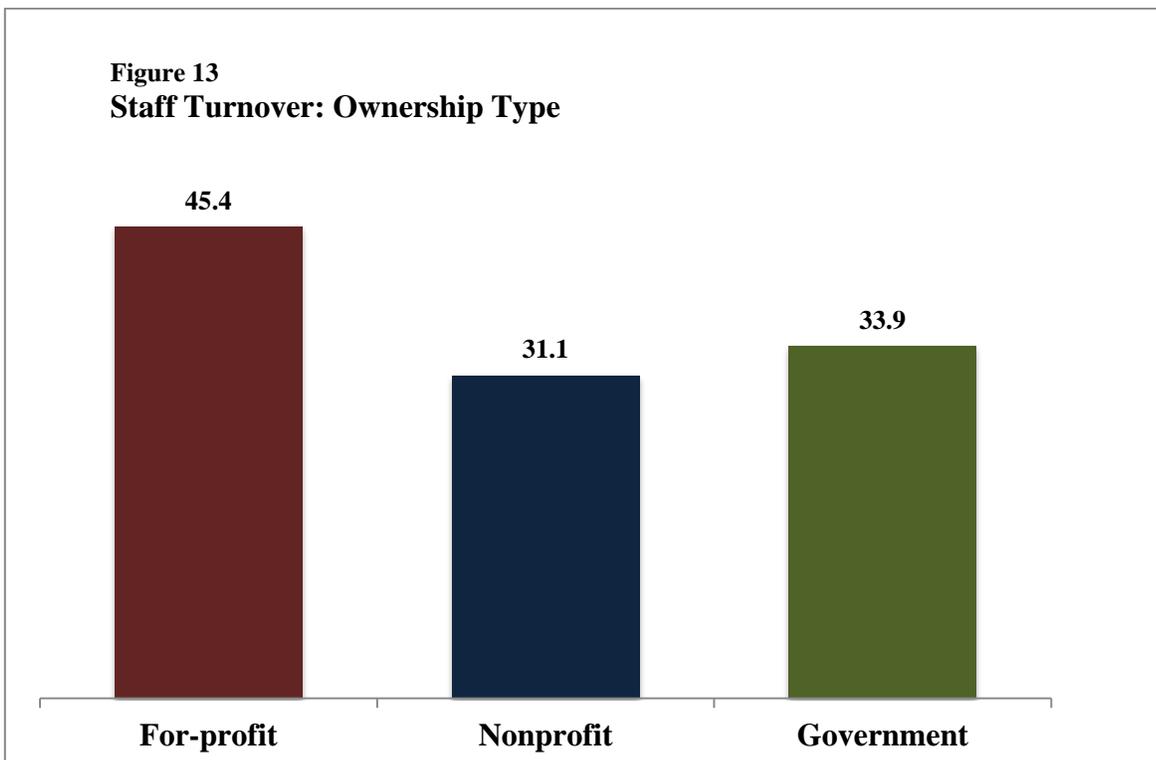
A similar pattern is seen for staff turnover. The mean staff turnover for all nursing home facilities is 43.7%. For-profit facilities ( $M=45.4\%$ ,  $SD=26.7$ ) have a significantly higher rate of staff turnover than nonprofit facilities ( $M=31.1\%$ ,  $SD=22.9$ ;  $F(1,1097)=27.34$ ,  $p<.0001$ ) (Figure 13 & Figure 14).

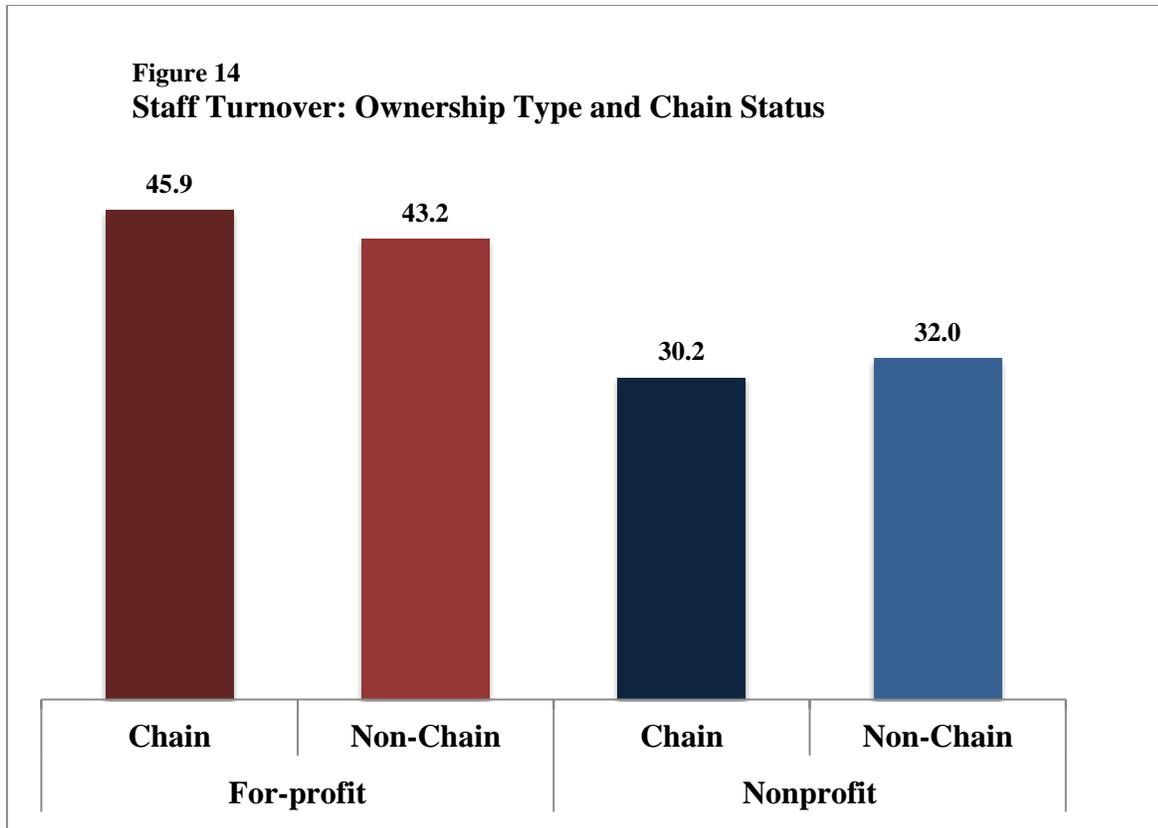


**Figure 12**  
**Staffing: Ownership Type and Chain Status**



**Figure 13**  
**Staff Turnover: Ownership Type**





**Facility Deficiencies.** Nursing homes that participate in the Medicare or Medicaid programs are required to meet federal standards for quality and life safety requirements. In addition, all nursing homes in California must meet state standards for nursing home quality and safety. The California state Licensing and Certification program conducts federal and state surveys (inspections) of nursing homes on an annual basis, or at least every fifteen months. These are unannounced and are conducted by a team of health care professionals who spend several days in the nursing home to assess whether the nursing home is in compliance with federal and state requirements (CMS 2014, CMS 2016). The surveys evaluate nursing home quality based on specific regulations regarding: quality of care, quality of life, resident rights, administration, environment, nutrition, pharmacy, life safety and other areas.

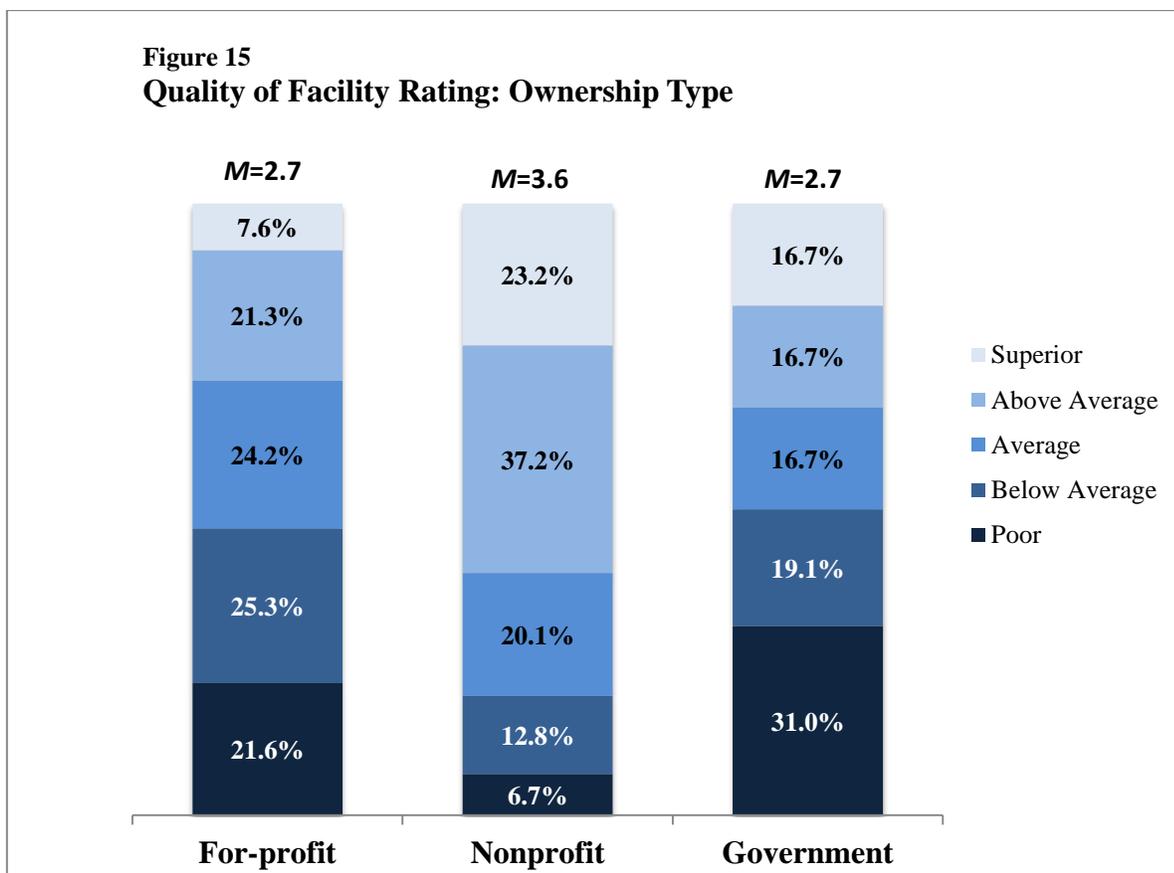
CalQualityCare.org provides facility quality rating system using a five-point rating as described below taking into account three measures:

- (1) Federal inspection reports - The federal health inspection score is calculated based on points assigned to deficiencies identified in each active provider's current health inspection survey.
- (2) State citations - State citations require the payment of fines based on the severity of the violations. These state citations include those identified during standard nursing home surveys and state complaint investigations.
- (3) Substantiated complaint and incident reports - A complaint is a formal grievance against a facility that is filed with the state Licensing and Certification (L&C) Program. Complaints about poor care or safety may be filed by patients, family members, local ombudsmen or other individuals. In addition, nursing homes are required by law to file a report whenever there has

been an incident where suspected or alleged abuse has occurred or where a resident has been injured (e.g. falls) or harmed.

The rating takes into account the scope and severity of federal deficiencies and state citations, which are rated by the state surveyors. The rating is based on the most recent three standard surveys for each nursing home and any complaint investigations during the most recent three-year period (See Appendix #).

The mean facility quality rating for all nursing home facilities is 2.8, approximating an average rating. For-profit facilities ( $M=2.7, SD=1.2$ ) have a significantly lower facility quality rating than nonprofit facilities ( $M=3.6, SD=1.2; F(1,1161)=65.17, p<.0001$ ) (Figure 15). For-profit facilities facility quality rating is just below the average rating of three, whereas, the facility quality rating for nonprofit nursing homes is almost at the above average level.



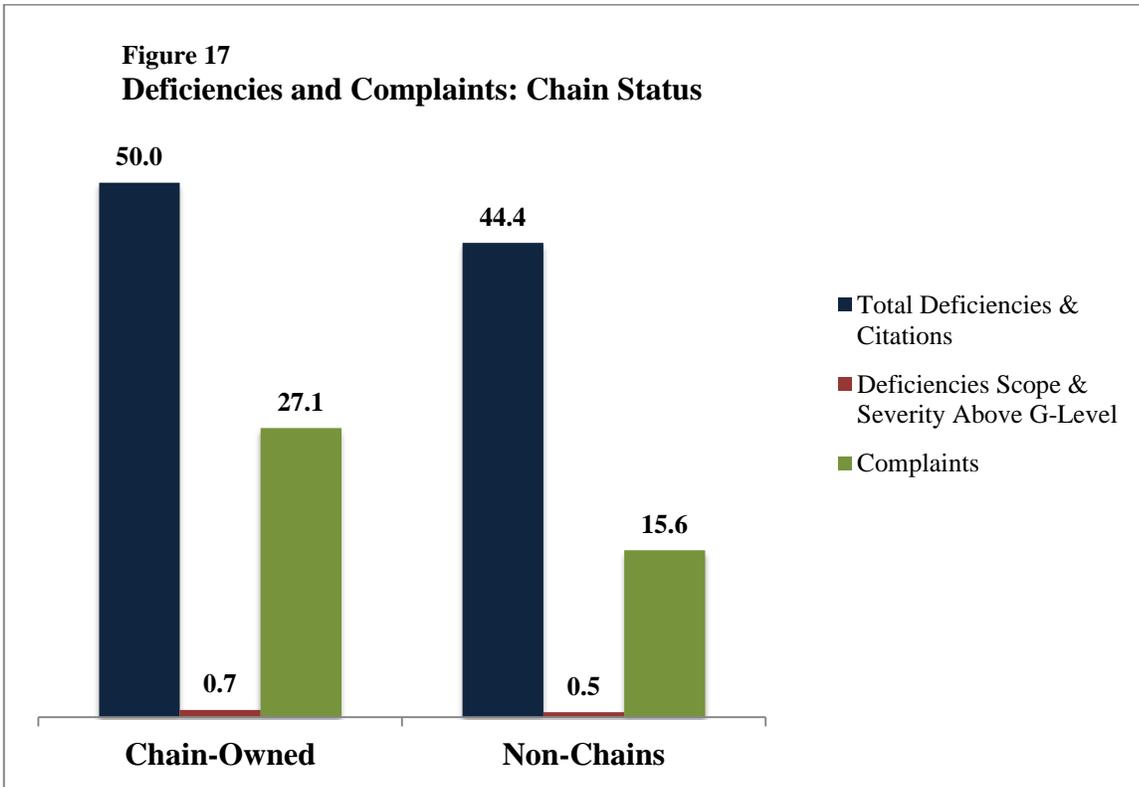
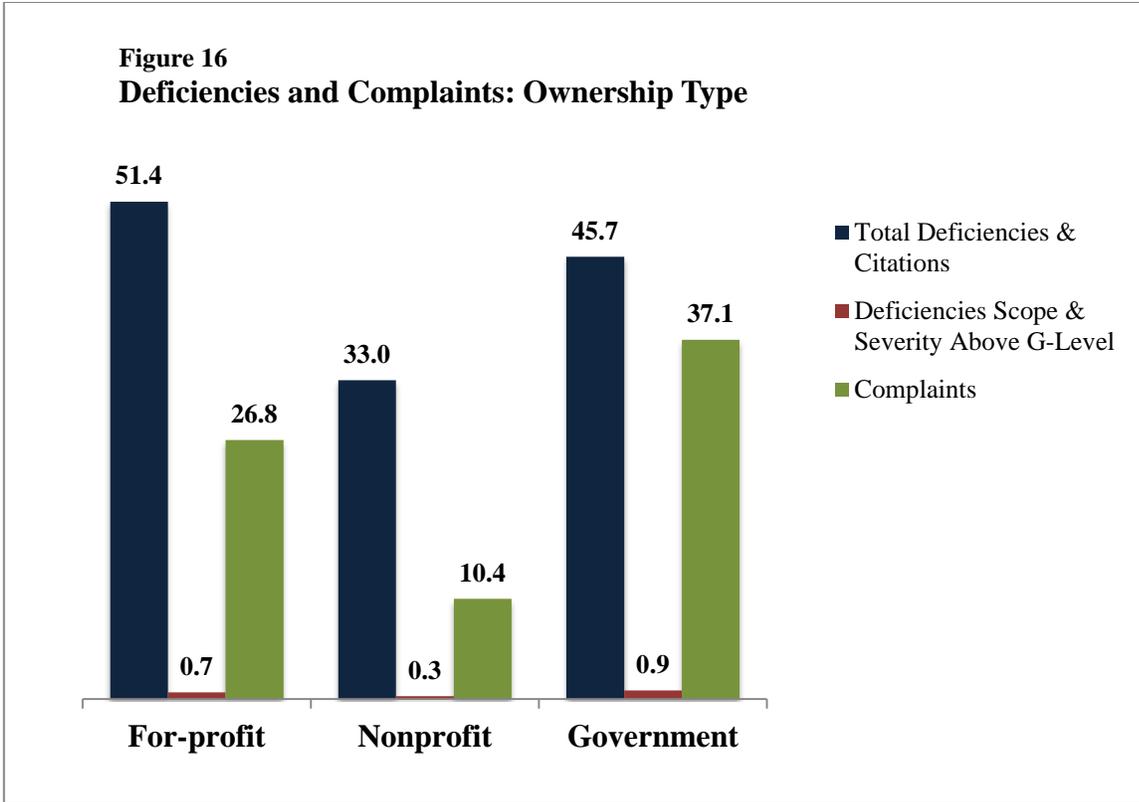
Total Deficiencies and Citations. The total number of deficiencies and citations is an average of the number of deficiencies and state citations identified during the annual survey. The number of state citation also includes citations received as a result of state complaint investigations. The state average for deficiencies is 58.6 ( $SD=22.8$ ). For-Profit facilities have significantly more deficiencies and citations compared to nonprofit nursing homes ( $F(1,1180)=93.38, p<.0001$ ) (Figure 16). Although chain-owned facilities have more deficiencies and citations than non-chain facilities, this difference is not significant ( $F(1,1180)=1.11, p=.29$ ) (Figure 17).

Harm or Jeopardy Deficiencies. These deficiencies represent the most serious of facility deficiencies. Deficiencies rated from G-I (harm) can result in actual harm and the resident is not in immediate jeopardy. If a facility receives a harm deficiency it means a resident (or residents) has been negatively impacted and his/her ability to maintain or reach the highest functional level has been compromised. A deficiency that represents immediate jeopardy to a resident (or residents) health and safety (rated at J-L), and requires immediate corrective action because serious injury, harm, impairment or death has been caused or could be caused to resident(s). The scope of a deficiency ranges from isolated, effecting a limited number of residents; to widespread, indicating the deficiencies are found throughout the facility and suggest systemic failures potentially affecting a large proportion of the residents.

The state average for harm or jeopardy deficiencies is 0.64 ( $SD=1.3$ ). For-Profit facilities have significantly more serious deficiencies compared to nonprofit nursing homes ( $F(1,1180)=9.12$ ,  $p<.003$ ) (Figure 16). Although chain-owned facilities have more harm or jeopardy deficiencies than non-chain facilities, this difference is not significant ( $F(1,1180)=1.35$ ,  $p=.24$ ) (Figure 17).

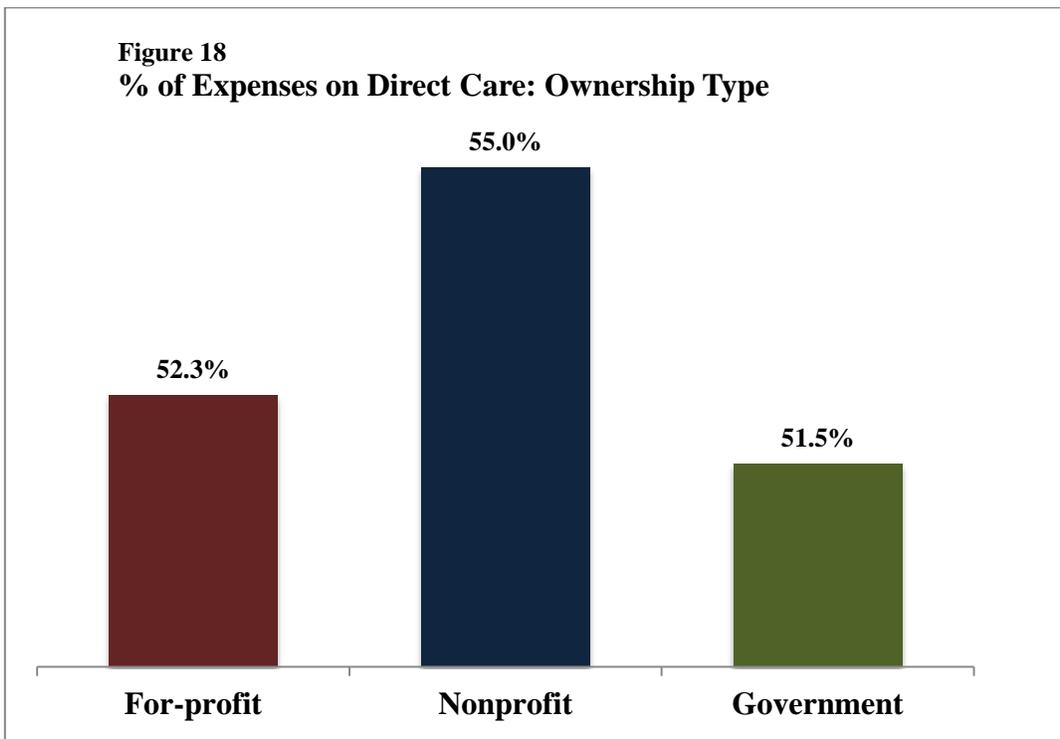
Complaints. A complaint is a formal grievance against a facility that is filed with the state Licensing and Certification (L&C) Program. Complaints about poor care or safety may be filed by patients, family members, local ombudsmen or other individuals. In addition, nursing homes are required by law to file a report whenever there has been an incident where suspected or alleged abuse has occurred or where a resident has been injured (e.g. falls) or harmed. Serious complaints and incidents must be investigated by the L&C program, while some complaints and incidents that are not serious may not be investigated because of limited L&C resources. When complaints are investigated by L&C, they are deemed either substantiated (if the inspector found the claim to be true) or unsubstantiated (if there was no proof to support the complaint). This analysis is based on substantiated complaints. Because facilities with more beds and nursing home residents may have more complaints, we standardized the number of substantiated complaints and incidents by the total number of beds.

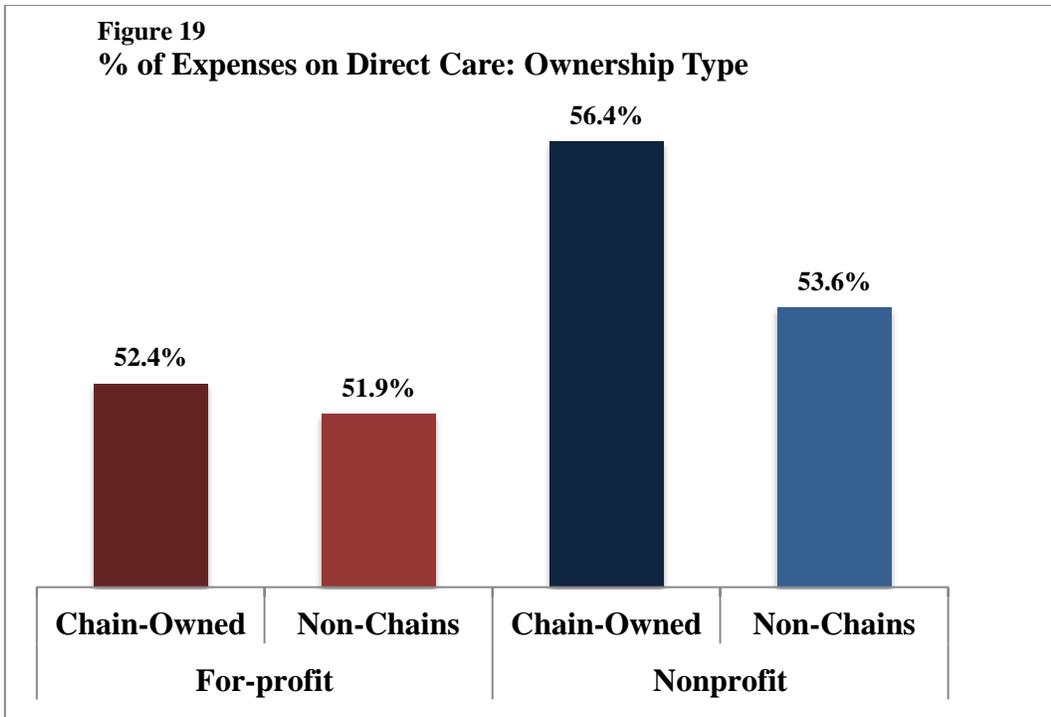
The state average for substantiated complaints was 24.8 ( $SD=34.5$ ) over the five year period from 2011-2015. For-Profit facilities receive significantly more complaints compared to nonprofit nursing homes ( $F(1,1180)=21.66$ ,  $p<.0001$ ) (Figure 16). Similarly, chain-owned facilities have significantly more complaints than non-chain facilities ( $F(1,1180)=5.01$ ,  $p=.02$ ) (Figure 17).



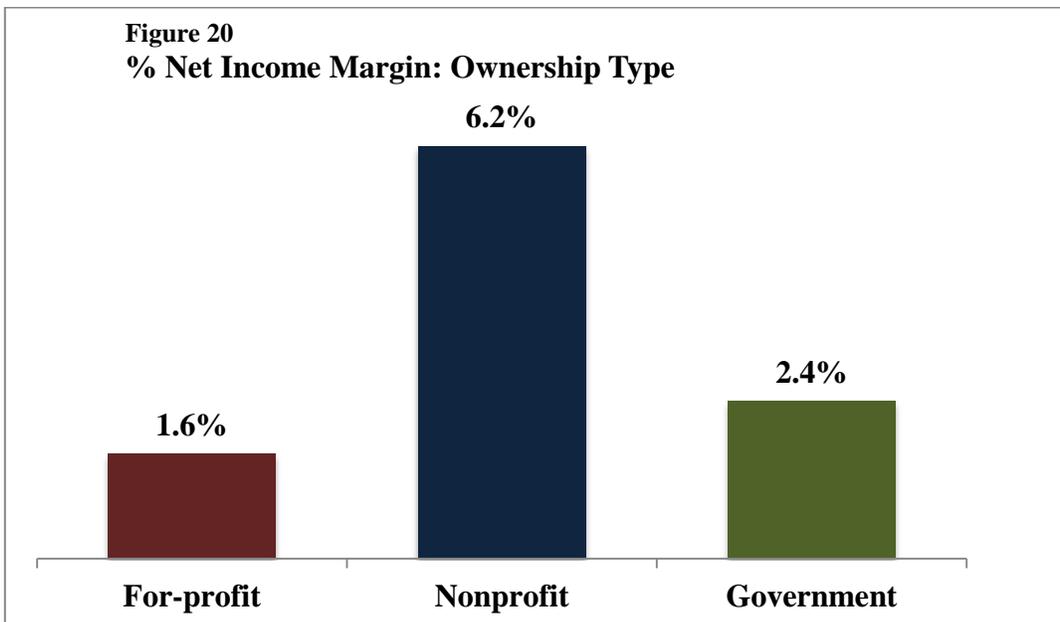
**Finances: Percent of Expenses on Direct Care.** This is the percentage of direct care that is part of the total facility expense. Direct care includes nursing care, nursing staff costs, social services, activities, and ancillary expenses, such as diagnostic and therapy services, patient supplies, physical therapy, respiratory therapy, occupational therapy, speech therapy, pharmacy, laboratory, and other clinical services. To allow for a fair comparison across facilities, the direct care expense is divided by the total number of resident days, which is divided by the total expenditure. Expenditures per resident day is not available for hospital-based facilities as the cost reporting data for long term care business for expenses are not separated from the general hospital expenses.

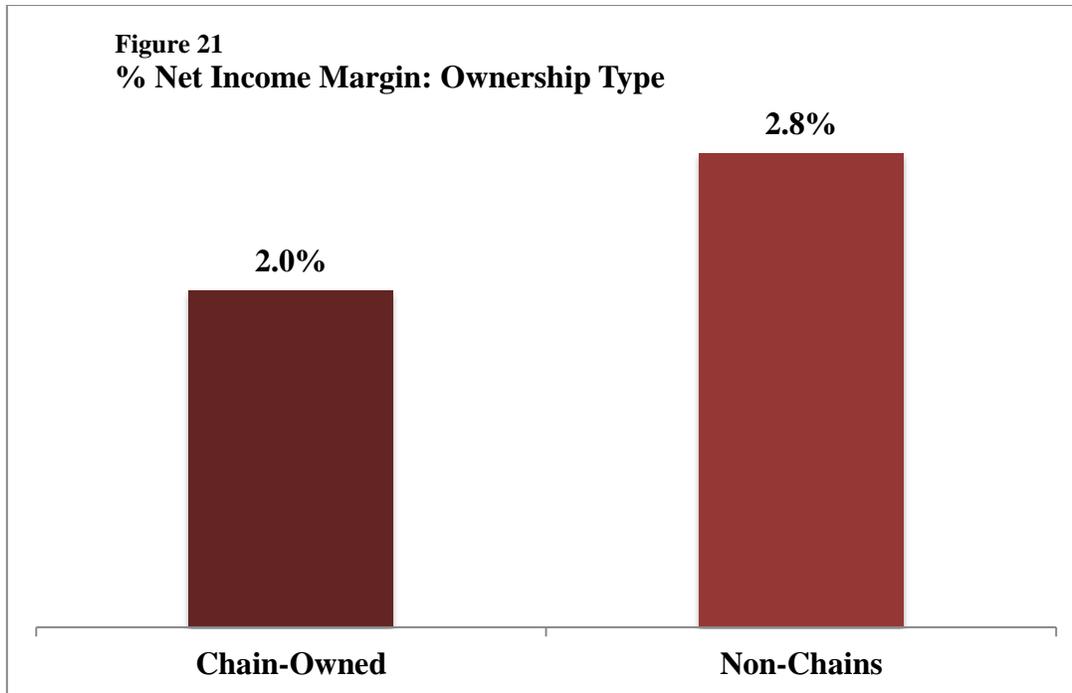
The state average percent of expenses on direct care is 52.6% hrpd ( $sd=5.5$ ). While for-profit facilities spent significantly less on direct care services ( $M=52.3\%$ ,  $SD=5.1$ ) compared to nonprofit facilities ( $M=55.0$ ,  $SD=7.4$ ) (Figure 18), there is a significant relationship among ownership type and chain status ( $F(1,1098)=4.5$ ,  $p<.03$ ) (Figure 19). Facilities that are nonprofit and part of a chain spend significantly more on direct care than nonprofit/non-chains, for-profit/chain-owned, and for-profit/non-chains. The differences in direct care expenses between nonprofit/non-chains, for-profit/chain-owned, and for-profit/non-chains are not significant.





**Finances: Net Income Margin.** The net income margin is net income divided by health care operating revenue. This is another way of showing the percentage of profits or losses in a facility. The state average net income margin is 2.2 (*sd*=12.3). For-Profit facilities have significantly lower net income margins compared to nonprofit nursing homes ( $M=1.6$ ,  $SD=9.4$  vs.  $M=6.2$ ,  $SD=23.3$ ;  $F(1,1141)=15.67$ ,  $p<.0001$ ) (Figure 20). Percent net income margin did not differ by chain status (Figure 21).





## Discussion

California's large population of aged and disabled individuals has a growing need for long-term care services and supports (LTSS). The 4.3 million individuals age 65 and over is expected to nearly triple to 12.4 million in 2060. The 85 and over population is growing the most rapidly and are the most likely to need LTSS (Ross, Newsom, and Harrington, 2013).

Nursing homes have a central role within LTSS and the health care system, in general, highlighting the need to understand the quality of care offered by these facilities. The Affordable Care Act (2010) ushered in changes on how long term care services supports are delivered. States have been afforded a number of new and expanded opportunities, including enhanced federal financing, to improve access to and delivery of Medicaid LTSS (e.g., Money Follows the Person (MFP) demonstration grants, financial alignment models for dual eligible beneficiaries, and health home state plan options). In addition, hospitals and medical and health plans are developing networks and contracts with LTSS providers to improve the transition to LTSS. Hospitals also have a financial incentive to reduce hospitalization and re-hospitalization costs and to ensure that those who need LTSS receive quality services. There is a significant demand from a broad array of constituents for accurate information about the type and quality of available nursing home services.

Using the most recent federal and state data as of October 2015, this report provides a snapshot of the current state of California nursing homes. The landscape of care provided by nursing homes is a complex one, beginning with their business and organizational structure – Is the facility for-profit or nonprofit? Is it part of a chain or individually owned? Research has shown that answers to these answers directly impact care, with for-profit facilities shown to provide poorer quality of care than nonprofit facilities. The poor quality of care associated with for-profit nursing facilities is especially significant in California since the state has a higher percentage of for-profit versus nonprofit facilities (82 percent) compared to the national average (70 percent). Similarly, California reports a higher

percentage of facilities under chain ownership (74.7 percent) compared to the national average (55.9 percent). While nonprofit facilities lean towards chain ownership (52 percent vs. 48 percent), the tendency for chain ownership is more extreme with for-profit facilities (80 percent vs. 20 percent). Research has also shown that chains, particularly for-profit chains, provide poorer quality of care than nonprofit facilities (Harrington, 2016; Harrington et al., 2012; Harrington, Stockton and Hoopers, 2014). The results presented in this report are consistent with existing research demonstrating for-profits and for-profit chains provide relatively poorer quality of care than nonprofit facilities.

The picture of quality provided by California nursing facilities that emerged from this report demonstrated a relationship between ownership type and chain status. In some domains the important factor is ownership type and/or chain status, however, in other domains the picture is more complicated and there is a relationship among ownership type and chain status. The available data between 2011-2015 indicates that overall ownership type has a greater impact than chain status on care provided by nursing facilities. In general, for-profit facilities provide poorer care than nonprofit nursing homes as evaluated by overall rating, staffing rating, facility rating, staffing levels, staff turnover, deficiencies, citations, and complaints. The complexity of how facility organizational structure can impact care indicators is highlighted when looking at staffing levels and direct care expenditures. Nonprofit chain facilities provide the most staffing and have the greatest expenditure for direct care services.

Ownership type: For-Profit vs. Nonprofit. For-profit facilities have a higher bed capacity than nonprofits and maintain a higher occupancy rate (87.5 percent vs. 80.8 percent, respectively). Medi-Cal is the primary payor source of for-profits than nonprofits. In terms of resident characteristics for-profit facilities care for residents having more rehabilitative needs and behavioral needs. Nonprofits tend to care for residents who have limitations in physical activities. Although providing care for residents having greater nursing care needs, for-profit facilities received significantly lower rating scores for the overall facility quality, staffing, and facility. The staffing rating of for-profit facilities is just below average, whereas, the staff rating for nonprofit nursing homes is almost at the above average level. Staffing turnover is greater for for-profit facilities. Within each domain assessing facility quality – the mean deficiencies and citations, the average number of the most serious facility deficiencies, and the mean number of complaints – for-profit facilities fare worse than nonprofit facilities. That is, for-profit facilities receive significantly more deficiencies, citations, and complaints compare to nonprofit facilities.

Chain Status: Chains vs. Non-chains. Although chains have a higher bed capacity than non-chains, there is no difference in occupancy rate. While Medicare is the primary payor source of chains and non-chains, chains tend to rely more on Medi-Cal than non-chains. In terms of resident characteristics chain facilities care for residents having more rehabilitative needs, whereas non-chain nursing homes are caring for individuals having impaired cognition and limited physical functioning. Facilities that are part of a chain receive significantly more complaints compare to non-chain facilities.

Ownership Type and Chain Status. There are several domains where the relationship between ownership type and chain status is more complex – resident needs, staffing, and expenditure on direct care. For-profit chain facilities care for more residents with rehabilitative needs compared to for-profit non-chains, nonprofit chains, and nonprofit non-chains. Although caring for individuals with greater nursing needs, for-profit facilities provide significantly fewer staffing hours compared to

nonprofit facilities. A closer look at staffing shows a significant relationship among ownership type and chain status. Within the nonprofit ownership category, chain facilities provide significantly more staffing than the non-chains, while the opposite is true within the for-profit group of facilities. That is, for-profit non-chains provide more total staffing than the for-profit chains. In terms of direct care expenditures, nonprofit chain facilities spend significantly more on direct care than nonprofit non-chains, for-profit chain-owned, and for-profit non-chains. The differences in direct care expenses between nonprofit non-chains, for-profit chain-owned, and for-profit non-chains are not significant.

While a snapshot, this report provides a framework for understanding the complex relationship between ownership type and chain status and how organizational structure effects the care provided by nursing homes within California. Use of this data will enable policymakers and the public to better understand nursing facility care in California and highlight areas of ongoing concern for current and future policymaking. For example, given limited resources for regulatory oversight, policymakers who write legislation and regulations related to quality and reimbursement should consider targeting large nursing home for-profit chains for regulatory oversight, rather than the current focus on individual nursing homes. In addition, this information in this report will be helpful to advocacy organizations, including the long-term care ombudsman program; the state licensing and certification agency; the state attorney general; and the public. With the changing landscape of healthcare and new regulations, it will be important to monitor over time the changes in facility characteristics and quality of care noted in this report. Detail data used in this report are provided in a separate Excel data book.

## **Acknowledgement**

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## APPENDIX A

### California Chains: Description and Background

#### **American Baptist Homes of the West (ABHOW) and be.Group**

American Baptist Homes of the West is an assisted living community with skilled nursing facilities. It has \$1 billion in assets with 50 community communities and 6,200 residents. In July, 2015, the board of ABHOW announced plans to affiliate with be.group, a Glendale-based nonprofit senior living provider. Established in 1955 as Southern California Presbyterian Homes, be.group is a Glendale-based company committed to helping seniors. The company has \$467 million in assets and serves nearly 4,000 residents across 34 communities. The unified organization will become the largest nonprofit senior living provider in California and one of the half-dozen largest nationally. When the affiliation is finalized, Ferguson will become executive advisor to aid in the transition until his official retirement from the Pleasanton, California-based ABHOW in early 2017 after 25 years of service. John Cochrane, be.group CEO, will assume leadership of the combined organization.

<http://www.abhow.com/onemission>

#### **AHMC Healthcare**

AHMC Healthcare is a hospital chain with six hospitals and four skilled nursing home distinct part facilities located in southern California. The company was founded in 2004 and is based in Alhambra, California. AHMC Healthcare Inc. is a former subsidiary of Tenet Healthcare Corp.

<http://www.ahmchealth.com/>

<http://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=10877673>

#### **Aspen Skilled Healthcare Inc.**

Aspen Skilled Healthcare, Inc. was incorporation in California in 2009 with Ryan Case as the President. It is located in Laguna Niguel, CA. It has eight facilities in California. Aspen Skilled Healthcare is estimated to generate \$1.4 million in annual revenues, and employs approximately 9 people at this single location. <http://www.aspenskilledhealth.com/our-facilities/>  
<https://www.corporationwiki.com/California/Cerritos/aspen-skilled-healthcare-inc/45262722.aspx>  
<http://www.buzzfile.com/business/Aspen-Skilled-Healthcare-949-347-7100>

#### **Avalon Health Care Group**

Avalon Health Care Group owns and operates skilled nursing facilities, rehabilitation centers, and assisted living communities in Utah, Arizona, California, Washington, and Hawaii. It offers hospice, therapy and rehabilitation, care coordination, home health and personal care, independent/assisted living, managed care, medical, and other services. Avalon Health Care Group was founded in 1989 and is based in Salt Lake City, Utah.

<http://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapid=28389557>

#### **Brookdale Senior Living**

Brookdale Senior Living is a company that operates senior's residences, established in 1978, and based in [Brentwood, Tennessee](#). Brookdale is the largest owner and operator of senior living communities throughout the United States, operating over 1,100 senior living communities and [retirement communities](#) in the US. They have 35,000 staff members and 55,000 residents. It is listed as the 26<sup>th</sup> largest nursing home chain in 2015 with 75 nursing homes and 5,052 beds located in 21

states and with \$3.8 billion in revenues. Brookdale (BKD) is listed on the New York Stock Exchange. <http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx>  
<https://www.brookdale.com/> <http://finance.yahoo.com/q/pr?s=BKD+Profile>  
<http://finance.yahoo.com/q/sec?s=BKD+SEC+Filings> Emeritus Corporation ("*Emeritus*" or the "*Company*") is a long-term-care services company focused on operating residential-style assisted-living communities. Since its organization in 1993, [the Company](#) has achieved significant growth in revenues, primarily due to the acquisition and operation of residential communities. Emericare Inc. is a subsidiary of the Emeritus Corporation. <http://www.secinfo.com/dUy4b.7d.htm#1stPage> On February 20, 2014, Brookdale entered into an Agreement and Plan of Merger with Emeritus Corporation, a Washington corporation, and Broadway Merger Sub Corporation, a Delaware corporation and wholly owned subsidiary. <https://www.last10k.com/sec-filings/BKD/0001332349-14-000006.htm> With the merger, Emeritus became a wholly owned subsidiary of Brookdale. <http://newsroom.brookdale.com/news/brookdale-senior-living-and-emeritus-senior-living-complete-merger.htm>

### **Compass Health Inc.**

Compass Health Inc. is a nursing home provider on the Central Coast and based in Grover Beach, CA. It was formed by Mark Woolpert 28 years ago to provide skilled nursing and assisted living facilities and services. It operates 7 nursing homes in California and two assisted living facilities. <http://compass-health.com/skilled-nursing/>  
<http://www.bloomberg.com/research/stocks/private/people.asp?privcapId=4787728>

### **Country Villa**

Country Villa Service Corporation was a regional chain with 46 nursing facilities in California in 2011. CVSC started in 1969 with 17 nursing homes with the founders (a married couple) having 100% ownership under a family partnership and a trust. Over time, seven individuals using two family trusts and two corporations joined the group. In the 2000s, 29 homes were added to CVSC that were owned by a combination of owners including Wintner, Krieger, Smedra, and others involved in real estate and their holding companies (AG Facilities Operations LLC with 12 homes and Crescent Facilities Operations LLC with 10 homes). In 2014, CVSC filed for bankruptcy and was split into two separate groups. Country Villa facilities that were owned by Reissman and his friends and companies include RRT Partnership retained the name of Country Villa and these were put under the management of Brius with a pending sale to Rechnitz. At that time, the 29 homes owned by Wintner, Krieger, Smedra, and other companies (AG Facilities Operations LLC and Crescent Facilities Operations LLC) removed the name of Country Villa and are listed in this report as Wintner and associates. <http://www.dailybulletin.com/business/20140307/country-villa-nursing-home-entities-file-for-bankruptcy> <http://www.sacbee.com/news/investigations/nursing-homes/article3611446.html>  
Also see paper by Harrington, C., Ross, L. and Kang, T. (2015).

### **Covenant Care**

Covenant Care, headquartered in Aliso Viejo, CA, operates over 50 healthcare and rehabilitation centers in 7 states across the U.S. In 1994, Covenant Care was founded by a group of healthcare industry professionals. In 2008, Covenant Care partnered with Centre Partners, a private equity firm whose investment allowed for expansion and acquisition of new facilities. Covenant Care is listed as the 19<sup>th</sup> largest nursing home chain in the US in 2015, with 57 facilities and 5,972 beds located in 7 states. <https://www.covenantcare.com/>  
<http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx>

### **Crestwood Behavioral Health Inc.**

Crestwood Behavioral Health Inc. serves many California's counties in facilities throughout the state. It offers mental health clients and continuum of care and treatment, from traditional psychiatric services to recovery programs and it is based in Sacramento CA. The company includes five skilled nursing facilities, assisted living and residential care and psychiatric facilities.

<http://crestwoodbehavioralhealth.com/> <http://listings.findthecompany.com/1/31539624/Crestwood-Behavioral-Health-Inc-in-Sacramento-CA>

### **Daughters of Charity Health System/Prime Healthcare**

The Daughters of Charity Health System have operated six nonprofit hospitals that include skilled nursing units. In 2015, the sale of the hospital system to Prime Healthcare was approved by the California Secretary of State who will take over operation of St. Vincent Medical Center, St. Francis Medical Center, O'Connor Hospital, Saint Louise Regional Hospital, Seton Medical Center and Seton Coastside.

<http://www.sacbee.com/news/politics-government/capitol-alert/article10781438.html>

### **David Family/Geri-care Inc.**

**Emmanuel David and family and associates own several California nursing homes as individuals. They also own separate companies including** Geri-Care, Inc. of California, which provides healthcare services. The Company offers physical, speech, and occupational therapy, nursing facilities, and rehabilitation services. Geri-Care serves its clients in California and is based in Torrance. Emmanuel David has been associated with 52 companies, according to public records formed over a thirty-nine year period with the most recent being incorporated five months ago in September of 2015. Thirty-eight of the companies are still active while the remaining 14 are inactive.

<http://www.bloomberg.com/profiles/companies/0568253D:US-geri-care-inc/ca>

<http://www.corporationwiki.com/California/Torrance/emmanuel-b-david/40650440.aspx>

### **Dignity Health**

**Dignity Health is a** catholic-sponsored chain of hospitals that includes skilled nursing home units. The non-profit organization provides health care at 39 hospitals and more than 400 care centers in communities across California, Arizona, and Nevada. Since its founding in 1986, Dignity provides to care to diverse communities in 21 states. Headquartered in San Francisco, Dignity Health is the fifth largest health system in the nation and the largest hospital provider in California.

<http://dignityhealth.org/>

### **Elder Care Alliance**

**Elder Care Alliance is** co-sponsored by the Sisters of Mercy of the Americas West Midwest Community and the Sierra Pacific Synod of the Evangelical Lutheran Church in America. It has four communities located in California to provide a network of communities that offer different levels of service depending on each resident's needs. One facility has skilled nursing while the others offer assisted living services. <http://eldercarealliance.org/>

### **Elmcroft Senior Living Inc./Senior Care Operations Holdings**

Based in Louisville Kentucky, Elmcroft, also described as Senior Care Operations Holdings LLC, offers services for seniors across the United States. Elmcroft has 82 senior living communities and 4 multilevel retirement communities, serving over 6,000 residents in 18 states. This includes owning

Rancho Vista Operations LLC. Elmcroft Senior Living is listed as the 43<sup>rd</sup> largest nursing home chain in the US with 25 nursing homes and 2,020 beds in 4 states. <http://www.elmcroft.com/about/>  
<http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx>

### **EmpRes Healthcare Group (Formerly Evergreen)**

Founded in 1999, EmpRes Healthcare, based in Vancouver, WA, provides management consulting and other services to skilled nursing and rehabilitation centers, assisted living and retirement communities, as well as and personal care, home health and hospice agencies located in Washington, Wyoming, Oregon, California, Montana, Idaho, and Nevada. It is listed at the 29<sup>th</sup> largest US nursing home with 46 facilities and 4,364 beds. EmpRes California Healthcare, LLC is listed as the California subsidiary company. <http://www.empres.com/> The company was formerly known as Evergreen Healthcare Management LLC.  
<http://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapid=242383331>  
<http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx>

### **Episcopal Senior Communities**

The Episcopal Senior Communities' primary business is to own and operate Continuing Care Retirement Communities (CCRCs) on a non-profit basis. Its first home was established more than 50 years ago. Currently there are six communities which are located in Pacific Grove, Oakland, Los Gatos, Palo Alto, Santa Rosa and San Francisco. Each of these communities holds a Certificate of Authority (COA) from the California Department of Social Services to enter into contractual agreements that promise care for the remainder of the resident's lives. CCRCs also include licensed skilled nursing care. It also includes senior housing and owns a home care agency. <http://www.jtm-esc.org/about/>

### **Eva Care Group LLC/ Chen**

Eva Care Group LLC was established in 1996 by Dr. Jone Chen, expanded from 2 to 49 healthcare facilities. Eva Care Group LLC is a subsidiary of Evergreen International Group. Founded in 2003 by Dr. Jone Chen, President and CEO of Eva Care Group, Evergreen International Group started out as a small company in West Los Angeles serving Eva Care Groups' skilled nursing facilities. It supplies services to more than 300 facilities in California. The Chen family is listed as owners. <http://evacare.com/index.php?page=about>

### **Five Star Senior Living**

Five Star Quality Care, Inc. (Five Star), located in Newton, MA, operates senior living communities, including independent living communities, assisted living communities and skilled nursing facilities (SNFs). As of 2014, the Company operated 258 senior living communities located in 31 states containing 30,379 living units, including 227 primarily independent and assisted living communities with 27,557 living units and 31 SNFs with 2,822 living units. Five Star Senior Living is listed as the 24<sup>th</sup> largest nursing home chain in the US with 72 facilities and 5,184 facilities in 2015 located in 19 states. 5 Star Quality Care –CA Inc. is the California subsidiary chain.  
<https://www.fivestarseniorliving.com/>  
[https://www.fivestarseniorliving.com/Libraries/FiveStar/Media/Investor%20Relations/FVE\\_2015-Annual-Report.PDF](https://www.fivestarseniorliving.com/Libraries/FiveStar/Media/Investor%20Relations/FVE_2015-Annual-Report.PDF) <http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx>

### **Front Porch/California Lutheran Homes**

Front Porch, started in 1995 and became Front Porch Communities and Services (FPCS) in 2002, is a family of companies that provide multi-level and continuing care retirement communities. Front Porch Enterprises is the California nonprofit company operated by the Californian Lutheran Homes and Community Services (CLH), an independent, not-for-profit social ministry organization. It provides community living to 3122 residents and affordable housing to 2,259 individuals in 8 facilities in California. Front Porch also has a for-profit development company and Front Porch Active Adult Communities which is a Delaware LLC. The companies had assets of \$58 million in 2014.

<http://www.frontporch.net/our-communities>

<http://www.frontporch.net/files/pnr/financial/15/FrontPorchQtrRptSept15.563a9cd0f033b.pdf>

<http://frontporch.net/wp-content/uploads/sites/37/2016/03/FPannualreport2015.55f1ac56d39ee.pdf>

### **Genesis**

Genesis Healthcare Inc (NYSE: GEN) is a holding company for FC-GEN Operations Investment LLC, which is the parent holding company of Genesis Healthcare LLC, a private company purchased by Formation Capital LLC and JE Roberts in 2007. Its headquarters is in Kennett Square, PA and George Hager Jr. is the CEO. Genesis, the largest US nursing home chain, was purchased by Formation Capital and JR Roberts Companies in 2007. In 2011, Health Care REIT, Inc.

(NYSE:HCN) completed a \$2.4 billion acquisition of all of the real estate assets of privately owned Genesis Healthcare. In 2012, Genesis (the 6<sup>th</sup> largest nursing home chain in the US in 2011) completed the acquisition of Sun Healthcare Group, (Sun) (NASDAQ GS: SUNH), in Irvine, California, which was the 7<sup>th</sup> largest nursing home chain operating (with 20,736 skilled nursing beds in 200 facilities across 25 states in 2011). With this purchase, Genesis became the largest US nursing home chain in 2012. In 2014, Genesis Healthcare LLC purchased (with a \$5.5 billion stock swap) and merged with Skilled HealthCare (NYSE: SKH) (the 17<sup>th</sup> largest chain), which had 75 nursing with 9,373 beds, 21 assisted living facilities, rehabilitation therapy, hospice & home health, and a pharmacy joint venture. With the completion of this merger, Genesis Healthcare Inc. owned a total 543 skilled nursing homes with over 55,000 beds, 414 assisted living facilities with 2,762 beds, rehabilitation & respiratory therapy, adult day care, Alzheimer's care, dialysis centers, home and hospice services in 2015. Genesis has a total value of \$5.6 billion in 2015 and also owns one of the largest rehabilitation therapy companies in the nation, Genesis Rehab Services, and owns Respiratory Health Services, Genesis Physician Services and CareerStaff Unlimited. <http://www.geneshcc.com/>  
<http://www.prnewswire.com/news-releases/genesis-healthcare-combines-with-skilled-healthcare-group-inc-300029265.html> <http://www.geneshcc.com/about-us/investors>  
<http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx>

### **Golden Living**

Beverly Enterprises formed in 1983, was purchased by Fillmore Capital Partners in 2006 and it changed the name to Golden Living. Golden Living is operated by Golden Gate National Senior Care LLC (GGNSC) Holdings LLC, a Delaware company which is wholly owned by Drumm Investors LLC, which is 100% owned by Fillmore Strategic Investors LLC. Golden Living was listed as the 3rd largest nursing home chain in the US with 295 facilities and 30,267 beds in 21 states in 2015. <http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx>  
<http://www.goldenlivingcenters.com/home.aspx?showpage=true>

### **Goldstar Healthcare LC**

Goldstar Healthcare LLC was established in year 2006 to provide domestic services. Its officers are listed as Dov Goldner, Solomon Goldner, and eight others and it is housed in Los Angeles. It lists three nursing homes and many other related companies are listed including management, allied health, and nursing services.

<https://www.corporationwiki.com/California/Los-Angeles/goldstar-healthcare-llc/46919823.aspx>  
<http://www.bizapedia.com/ca/GOLDSTAR-HEALTHCARE-LLC.html>

### **Grace Healthcare**

Grace Healthcare is a privately owned healthcare organization that owns and manages 47 skilled nursing, assisted living, and rehabilitation facilities across the United States including two facilities in California.

<http://www.gracehc.com/>

### **Graff/ Premier BH Inc./ Meadows Management**

Premier BH is a company categorized under Skilled Nursing Care Facilities and formed in California in 1992. Its President is Joseph M.M. Graff and it is located in Los Angeles, CA. There are several related companies including Meadows Management Inc., owned by Joseph Graff located in Los Angeles, CA which opened in 2009 and now has an estimated \$510,000 in yearly revenue and approximately 5 employees. Other related companies owned by Graff are Premier Management and BH Premier founded in 2010. <http://www.corporationwiki.com/California/Los-Angeles/premier-bh-inc/42092555.aspx> <http://listings.findthecompany.com/1/5681739/Premier-Bh-Inc-in-Los-Angeles-CA> <http://listings.findthecompany.com/1/23597307/Meadows-Management-Inc-in-Los-Angeles-CA>

### **HCR Manor Care**

HCR Manor Care is the second largest nursing home chain in the US. Manor Healthcare Corp was merged with HCR and its Heartland facilities in 1998 and was renamed as HCR Manor Care. HCR Manor Care was publicly traded (NYSE) with revenues of \$3.4 billion and profits of \$161 million before the purchase by the Carlyle Group in 2007. After the purchase, HCR Manor Care became a private company and was reorganized with separate management and property LLCs established for each nursing home. The Carlyle Group, a global private equity firm and a global alternative asset manager with \$188 billion of assets under management across 126 funds and 160 fund of funds vehicles in 2016. HCR Manor Care Inc. is a holding company for Manor Care Health Services, composed of HCR Health Care LLC holding company, and HCR Properties LLC holding company and HC operating company. HCR Manor Care owns Heartland Companies, Arden Courts, Heartland Therapy Provider Network, Heartland Rehabilitation Services Contracts, & Heartland Hospice Fund and headquarters in Toledo, OH. In 2010, HCR Manorcare sold 338 post-acute, nursing homes and assisted living facilities to HCP, a real estate investment trust (REIT) headquarter in California for \$6.1 billion. HCR Manorcare continues to operate and manage all of the assets sold. HCP (NYSE: HCP) is a Standard and Poors 500 company REIT that primarily invests in the health care industry with over 670 properties. <http://www.hcr-manorcare.com/about-hcr-manorcare/our-history/> HCR Manorcare had 280 facilities with 38,027 beds in 2015.

<http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx> See also Harrington, C., Hauser, C, Olney, B, and Rosenau, P.V. 2011.

### **Healthcare Management Service LLC/Keh**

Healthcare management Service LLC was established in 2004 and incorporated in California and based in Glendale, CA. Current estimates show this company has an annual revenue of \$2.5 to 5

million and employs a staff of approximately 20 to 49. The owner is Edward Keh. It provides home health services as well as nursing home facilities.

<http://www.manta.com/c/mm420tz/healthcare-management-service-llc>

<http://listings.findthecompany.com/1/29733424/Healthcare-Management-Services-LLC-in-Glendale-CA>

### **Helios Healthcare LLC**

Founded in 2003, Helios Healthcare LLC operates skilled nursing facilities and is located in Sacramento, CA. It has 264 full time employees and generates \$22.8 million in annual revenues. Helios Healthcare, LLC was formerly known as Idylwood Care Center and changed its name to Helios Healthcare, LLC in July, 2007. It reached an agreement with the County of Santa Clara and Crestwood Behavioral Health to operate Idylwood Care Center in 2016.

<http://listings.findthecompany.com/1/11501855/Helios-Healthcare-LLC-in-Sacramento-CA>

<http://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapid=27260556>

[http://sccgov.iqm2.com/citizens/Detail\\_LegiFile.aspx?MeetingID=7183&ID=78939](http://sccgov.iqm2.com/citizens/Detail_LegiFile.aspx?MeetingID=7183&ID=78939)

### **Heritage Health Care Inc.**

Heritage Health Care Inc. is a California Domestic Corporation filed on February 1, 1963. The company's filing status is listed as active and its registered agent on file for this company is Goings & Goings, Inc. and is located at 25271 Barton Rd, Loma Linda, CA . The company has 1 principal on record - Gregory S Goings from Loma Linda CA.

<http://www.bizapedia.com/ca/HERITAGE-HEALTH-CARE-INC.html>

### **Integrated Health Holdings Inc./Chaudhuri**

Integrated Health Holdings, Inc. operates as a holding company in Santa Ana, CA that, through its subsidiaries, provides health care services such as emergency care, women's health services, cardiology, orthopedic, and oncology services. IHHI is a publicly traded hospital management company that was formed in 2003. It owns and operates four hospitals in Orange County, California, with a total of 770 beds, 2787 employees, and 1725 active physicians. Kali Chaudhuri is listed as an owner of nursing homes along with IHHI and the Orange County Physicians Investment Network LLC. <http://www.bloomberg.com/profiles/companies/0539899D:US-integrated-health-holdings-inc>  
<http://www.drkalipchaudhurimedical.com/>

### **Jewish Homes for the Aging**

Jewish Homes for the Aging includes the Los Angeles Jewish Home, a non-profit facility started in 1912, that is a multi-level senior living facility, providing seven levels of care that include independent living, residential care, assisted living care, skilled nursing, geriatric psychiatry, Alzheimer's Care, and hospice. The Jewish Homes For The Aging operates nursing home facilities in Reseda and San Francisco, California. <http://www.jha.org/>

### **JPH Consulting Inc./Lee**

A privately held company in Los Angeles, CA. is categorized under Skilled Nursing Care Facilities and was established in 1998 in California. It has nursing homes with 712 full time employees and generates an estimated \$38 million in annual revenue. The Lee family is listed as owners of JPH consulting. The company is owned by the Lee family.

<http://listings.findthecompany.com/1/8279940/JPH-Consulting-Inc-in-Los-Angeles-CA>

### **Kindred Healthcare**

Kindred Healthcare Inc is a public traded company on the NYSE as KND and located in Louisville, KY . It is listed as the 10<sup>th</sup> largest US nursing home company in 2015. Historically, Hillhaven Corporation was formed in the 1940s and purchased by National Medical Enterprises in 1990 and then purchased by Vencor Inc in 1995. After the company went into bankruptcy and was restructured, it became Kindred Healthcare in 2001. California Nursing Centers LLC is the subsidiary name in CA. Nationally, Kindred owns 95 transitional care hospitals, 18 inpatient rehabilitation hospitals, 90 nursing homes, 20 sub-acute units, home health, hospice and other services across 47 states in the US and had \$7.2 billion in revenues in 2015.

<http://www.kindredhealthcare.com/our-company/company-overview/>

<http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx>

<http://www.bizapedia.com/ca/CALIFORNIA-NURSING-CENTERS-LLC.html> See also Harrington, C., Hauser, C, Olney, B, and Rosenau, P.V. 2011.

### **Life Care Centers of America (LCCA) Cleveland, TN**

LCCA is a privately owned company founded in 1970 in Cleveland, TN and the Chairman and Founder is F.L. Preston. The company is a privately owned operator of more than 260 retirement and health care centers in 28 states across the US. Its offerings include retirement communities, assisted-living facilities, and nursing homes (and even some campuses that provide all three in a continuum of care). In addition, Life Care operates centers for people with Alzheimer's disease or related dementia and some centers services include home health care, adult day care, hospice, and wound care.

[http://www.hoovers.com/company-information/cs/company-](http://www.hoovers.com/company-information/cs/company-profile.Life_Care_Centers_of_America_Inc.6146f2099cb2811e.html)

[profile.Life Care Centers of America Inc.6146f2099cb2811e.html](http://www.hoovers.com/company-information/cs/company-profile.Life_Care_Centers_of_America_Inc.6146f2099cb2811e.html) It has 29,000 full time employees and generates an estimated \$2.9 billion in annual revenue.

<http://listings.findthecompany.com/l/5115590/Life-Care-Centers-of-America-Inc-in-Cleveland-TN>

LCCA was listed as the 4<sup>th</sup> largest nursing home chain in the US in 2015 and located in Tennessee with 223 facilities and 29,338 beds operated in 28 states. <http://lcca.com/>

<http://www.providermagazine.com/reports/Pages/20/2015-Top-50.aspx>

### **Life Care Services LLC**

Life Care Services LLC provides management and marketing services for continuing care retirement communities and other senior living communities. It serves residents primarily in continuing care retirement communities; and not-for-profit sponsors and for-profit owners. Life Care Services LLC was formerly known as Christian Home Services, Inc. The company is based in Iowa. It was listed at the 22<sup>nd</sup> largest facility in the US and reported to have 85 facilities with 5,544 beds in 26 states in 2015. <http://www.lcsnet.com/> <http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx>...

### **Life Generations Health Care**

Life Generations Healthcare, LLC, doing business as Generations Healthcare, owns and operates nursing care facilities in California. It also provides outpatient rehabilitation programs, intravenous therapy, laboratory testing and X-ray, medication management, respite care, and audiology services, as well as physician, podiatrist, vision, and dental visits. The company was founded in 1998 and is located in Newport Beach, CA. It has 700 full time employees and generates an estimated \$37.3 million in annual revenue. Generations has grown to 19 facilities comprising more than 2,000 beds.

<http://listings.findthecompany.com/l/6792142/Life-Generations-Healthcare-LLC-in-Newport-Beach-CA> <http://www.lifegen.net/>

### **Longwood Management Corporation**

Longwood Management Corporation operates nursing homes and health care centers. The company provides therapy and specialty care services. The company was founded in 1964 and is based in Los Angeles, California. Jacob Friedman is President of the company and is located in Los Angeles, CA. It has 2,000 full time employees and generates an estimated \$150.5 million in annual revenue.

<http://listings.findthecompany.com/1/9607293/Longwood-Management-Corporation-in-Los-Angeles-CA> <http://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapid=4339605>  
[http://www.dhcs.ca.gov/dataandstats/AI/Documents/AI\\_2012/Home%20Office/LTC/0203\\_0212\\_LONGWOODHOME.pdf](http://www.dhcs.ca.gov/dataandstats/AI/Documents/AI_2012/Home%20Office/LTC/0203_0212_LONGWOODHOME.pdf) <http://listings.findthecompany.com/1/9607293/Longwood-Management-Corporation-in-Los-Angeles-CA>

### **Magnolia Health Care Corporation**

Kensett Moyle, III, company founder and President, purchased Hi-Dessert Convalescent Hospital, located in Yucca Valley in 1974 and four additional skilled nursing facilities were added in Southern California. In 1991, it purchased existing skilled nursing facilities and since then it added additional facilities. It's headquarters is in Tulare CA. <http://www.magnoliahealthcorp.com/index.php>

### **Mark One Corporation**

Mark One Corporation was established in the **State of California** in 1976. John Sims is listed as President and there are three nursing homes in California.

<https://www.corporationwiki.com/California/Turlock/mark-one-corporation/40113183.aspx>

### **New Vista Health Services LLC**

New Vista Health Services LLC began in January 1997 with one dementia unit in southern California. It grew to provide skilled nursing services, subacute services, assisted living facilities and continued to provide dementia care. In 2013, the company was sold to the first employee of the company, a registered nurse **Myra May and operated from Sunland, CA.** <http://newvista.us/>

### **Newcastle Investment Group**

Newcastle Investment Corp. (NYSE: NCT) is a real estate investment trust that focuses on investing in, and actively managing, a variety of real estate related and other investments.

In 2014, Newcastle Investment Corp. (NYSE: NCT) established a New Senior Investment Group as a publicly traded company to manage its housing real estate investment trust (REIT). The REIT is managed by an affiliate of Fortress, which has a long track record of investing in the senior housing sector. In 2016, the company owned 154 properties across 37 states, including 105 independent living properties, 44 assisted living / memory care ("AL/MC") properties and 5 continuing care retirement communities ("CCRC") properties. <http://seniorhousingnews.com/2014/10/17/newcastle-reveals-new-details-for-senior-housing-reit-spin-off/> <http://www.newseniorinv.com/about/who-we-are>

### **Nia Healthcare Services Inc.**

Nia Health Services Inc was founded in 1993 to provide nursing and rehabilitative services to patients located in Fowler, CA. Gary Williams is listed as President and the company has three nursing homes in California.

<http://www.bloomberg.com/profiles/companies/0131865D:US-nia-healthcare-services-inc>  
<https://www.corporationwiki.com/California/Fowler/nia-healthcare-services-inc/42336382.aspx>

### **North American Health Care Inc./ Vermillion Investment/ Oak Leaf Holdings**

North American Health Care, Inc. operates more than 30 skilled nursing facilities in California and other western states. The company filed for bankruptcy in 2015. North American Health Care Inc. facilities in California are listed as being owned by Vermillion Investment Company Inc which was an asset fund of the Carlyle Group until they split apart in 2015. It is also listed as being owned by Oak Leaf Holdings LLC is a small, fairly new holding company in O'Fallon, IL., which opened in 2010 and now has an estimated \$110,000 in yearly revenue and approximately 2 employees.

<http://www.nahci.com/> [http://www.nytimes.com/2015/02/18/business/facing-suits-a-nursing-home-seeks-bankruptcy.html?\\_r=0](http://www.nytimes.com/2015/02/18/business/facing-suits-a-nursing-home-seeks-bankruptcy.html?_r=0)  
<http://www.wsj.com/articles/carlyle-vermillion-co-founders-split-after-steep-hedge-fund-losses-1438354312> <http://listings.findthecompany.com/1/26752083/Oak-Leaf-Holdings-LLC-in-O-Fallon-IL>

### **Northern California Presbyterian Homes and Services**

Northern California Presbyterian Homes and Services was incorporated in 1958 in California as a non-profit organizations based in San Francisco CA. It provides housing to 1,900 older adults and community services to 2,300 adults and employs 675 people. It also has three continuing care retirement communities (CCRCs) of which two provide skilled nursing facility care.

<http://ncphs.org/ncphs>

### **Pacific Retirement Services Inc.**

Pacific Retirement Services Inc. is a family of affiliates is made up of 9 Continuing Care Retirement Communities (CCRCs) and 25 affordable senior housing communities located in five states: Oregon, Washington, California, Texas, and Wisconsin. These communities provide skilled nursing & rehabilitation centers. Through its subsidiary, PRS Management & Consulting offers its services to outside organizations. It is based in Medford, OR.

<http://www.pacificretirement.com/>

### **Pacifica Companies LLC**

Pacifica Companies, LLC develops, invests, and manages real estate properties in the United States, India, and Mexico. Its projects include hospitality, senior housing, multifamily, commercial development, land acquisition, residential development, debt acquisition, and REO projects. Pacifica Companies, LLC was founded in 1977 and is based in San Diego, California. The company has additional offices in Ahmedabad, the NCR, Bengaluru, Chennai, and Hyderabad, India. Pacifica Companies is estimated to generate \$555.6 million in annual revenues, and employs approximately 56 people at this headquarters location.

<http://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=30667710>  
<http://listings.findthecompany.com/1/14979778/Pacifica-Companies-LLC-in-San-Diego-CA>  
<http://www.buzzfile.com/business/Pacifica-Companies-619-296-9000>

### **Paksn Inc.**

Founded in 2002, Paksn Inc. is a management services organization located in Vacaville, CA. It has 166 full time employees and generates an estimated \$11.8 million in annual revenue. The owners of Paksn Inc.'s nursing homes are listed as Antony and Prema Thekkek.

<http://listings.findthecompany.com/1/12904107/Paksn-Inc-in-Vacaville-CA>

### **P&M Management Inc.**

A privately held company in Fontana, CA that is categorized under Business Management Consultants. It was established in 2011 with an annual revenue of \$1 to 2.5 million and a staff of approximately 5 to 9 employees. <http://www.manta.com/c/mm83jxz/p-m-management-inc>

### **Plum Healthcare Group/ OPCO LLC**

Plum Healthcare Group, LLC acquires, owns, and operates skilled nursing facilities in California, Utah, and Arizona. The company owns and operates 50 facilities representing 5,671 beds. Plum Healthcare Group, LLC was founded in 1999 and is based in San Marcos, California. GI Partners (“GI”), a private equity firm, sold its portfolio company, Plum Healthcare Group, LLC (“Plum”), to Bay Bridge Capital Partners (“Bay Bridge”) in 2012. After 50 years in business, Rocklin-based Horizon West Healthcare Inc. was acquired by a Plum Healthcare Group LLC in 2011, and assumed control of 12 Horizon West facilities in the four-county Sacramento region and another 15 in the state. California OPCO LLC is listed as the owner, as a subsidiary of Plum Healthcare Group. GI Partners (“GI”), a leading mid-market private equity firm, sold its portfolio company, Plum Healthcare Group, LLC (“Plum”), the fastest growing companies in healthcare services, to Bay Bridge Capital Partners in 2015.

<http://www.gipartners.com/news/gi-partners-sells-plum-healthcare-to-bay-bridge-capital>

<http://www.healthcarefinancenews.com/press-release/gi-partners-sells-plum-healthcare-bay-bridge-capital>

<http://media.sacbee.com/static/sinclair/Nursing1c/index.html>

<http://listings.findthecompany.com/1/11587726/Plum-Healthcare-Group-LLC-in-San-Marcos-CA>

### **Rechnitz/ Brius Health Care LLC and Brius Management**

Brius Management Co. filed for incorporation in the State of California in 2005. Shlomo Rechnitz is the co-founder of TwinMed, LLC and owner and CEO of Brius Healthcare Services, the largest nursing home provider in California, at home in Los Angeles. Since 2006, Rechnitz and his primary company, Brius Healthcare Services, have acquired 81 nursing homes up and down the state, many of them through bankruptcy court. <http://www.corporationwiki.com/California/Los-Angeles/brius-management-co/44384486.aspx> <http://www.presstelegram.com/general-news/20141011/lawsuit-filed-against-owner-of-57-california-nursing-homes>

Rechnitz, Schlomo owns many companies that own, manage, and provide nursing home services. One company is the Fullerton Wellness Gp, LLC filed as a Domestic in the State of California on Thursday, December 5, 2013. His other companies include [Twin Pharmacy, Inc.](#), [Secrom, Inc.](#), [Brius Management Co.](#), [Terupharm, Inc.](#), [Ji Medical, Inc.](#), [Petaluma Skilled Nursing & Wellness Centre, LLC](#) [Sytr Real Estate Holdings, LLC](#), [Brius, LLC](#), [River Valley Wellness Gp, LLC](#), and [Anaheim Point Wellness Gp, LLC](#). <http://www.corporationwiki.com/p/2eggnh/fullerton-wellness-gp-llc> He also owns Sol Healthcare, LLC which was established in California in 2010, where Rechnitz Core Group is listed as an owner. Rockport Healthcare Services, which handles his facilities’ administrative needs for Rechnitz’s companies, provided management services to 57 facilities in 2013. <http://www.corporationwiki.com/California/Los-Angeles/sol-healthcare-llc/47652851.aspx> <http://www.sacbee.com/news/investigations/nursing-homes/article24015475.html> [http://www.dhcs.ca.gov/dataandstats/reports/Documents/AI\\_2010/Home\\_Office/LTC/0203\\_0810\\_LTCHO0100.pdf](http://www.dhcs.ca.gov/dataandstats/reports/Documents/AI_2010/Home_Office/LTC/0203_0810_LTCHO0100.pdf)

### **Reliant Management Group**

Reliant Management Group, LLC, a rehabilitation management services company, provides programs to acute care hospitals, skilled nursing facilities, sub-acute facilities, long-term acute care hospitals, rehabilitation hospitals, and continuing care retirement communities in the United States. It is based in Baton Rouge LA. Reliant Management Group LLC has purchased Northgate Care Center, a 52-bed skilled nursing facility in San Rafael near San Francisco, from Meridian Foresight Management for \$4.5 million in 2015. It is listed as the 41<sup>st</sup> largest US nursing chain with 2,279 beds.

<http://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=43034898>

<http://www.seniorshousingbusiness.com/the-latest-news/25-latest-news/reliant-acquires-52-bed-skilled-nursing-facility-in-northern-california-for-4-5m> .

<http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx>

### **Retirement Housing Foundation**

The Retirement Housing Foundation (RHF) is a non-profit organization of 170 communities in 26 states, Washington, D.C., Puerto Rico, and the U.S. Virgin Islands. RHF provides housing and services to more than 18,000 older adults, low-income families, and persons with disabilities and was founded by the United Church of Christ (UCC). It includes six skilled nursing homes in California.

<http://www.rhf.org/skilled-nursing/>

### **Riverside Health Care**

Riverside Health Care manages skilled nursing facilities in Northern California and provides a range of services including skilled nursing, rehabilitation, respite and hospice care. It has been operational for over 25 years and is located in Chico, CA and has nine nursing facilities.

<http://riversidehealthca.com/index.html>

### **Rosales/Bautista/SLCH Inc.**

SLCH is categorized under Skilled Nursing Care Facilities and was established in 1991 in California. Current estimates show this company has an annual revenue of \$2.5 to 5 million and employs a staff of approximately 50 to 99. It is based in Pasadena CA and Philip Rosales is listed as the President. Philip and Arlene Rosales are listed as owners along with Bautista. Bautista separately owns California nursing homes. <http://www.manta.com/c/mmntb61/slch-inc> Rosales also owns David Ross Inc. and owns RBB Healthcare Inc., which is a small health service company in Glendora, California. It opened in 2006 and now has an estimated \$220,000 in yearly revenue and approximately 3 employees.

<http://listings.findthecompany.com/l/15361564/RBB-Healthcare-Inc-in-Glendora-CA>

### **SavaSeniorCare, LLC/ National Senior Care**

Aramark Corporation (ARA), purchased National Living Centers in 1973 and Geriatrics Inc in 1974. In 1992, Aramark spun off its geriatrics division into a publicly traded company named Living Centers of America (LCA). American Medical Services, a nursing home company started in the 1960s, merged with a nursing home (HostMasters) in 1990, and was renamed GranCare Inc. GranCare Inc bought Evergreen in 1995. In 1997 LCA and GranCare Inc merged and became Paragon Health Network Inc. In 1998, it merged with Mariner Health Group and became Mariner Post-Acute Network Inc (MPAN). In 2000, MPAN entered into bankruptcy and reorganized, emerged from bankruptcy in 2002, and became Mariner Health Care. National Senior Care LLC, a newly-created private equity investment firm owned by a holding company National Senior Care Inc., purchased Mariner HealthCare in 2004. National Senior Care changed the name of Mariner to

SavaSeniorCare and established separate LLCs for the property and the operation of the facilities including SSC Equity Holdings LLC. GC Holding Company 2 LLC and GC operating company LLC are part of the SavaSeniorCare network owned by National Senior Care Inc. SavaSenior Care is listed as the 5<sup>th</sup> largest US nursing home chain with 200 nursing homes and 24,154 beds located in 22 states. <http://www.savaseniorcare.com/>  
<http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx> See also Harrington, C., Hauser, C, Olney, B, and Rosenau, P.V. 2011.

### **Sharp Healthcare**

Sharp Healthcare is a San Diego's not for profit health care provider of hospital and medical services. It has 2,600 affiliated doctors and more than 17,000 employees work to provide services through four acute-care hospitals, three specialty hospitals, two affiliated medical groups and a full spectrum of other services including skilled nursing.  
<http://www.sharp.com/>

### **Sky Park Healthcare Inc.**

Sky Park Healthcare Inc. was incorporated in Modesto, CA in 2004. Joseph Pallivathucal is listed as President and he has been associated with ten companies over a fourteen year period with the most recent being incorporated one year ago in February of 2015. Seven of the companies are still active while the remaining three are now listed as inactive.  
<https://www.corporationwiki.com/California/Modesto/sky-park-health-care-inc/44098943.aspx>  
<http://www.bizapedia.com/ca/SKY-PARK-HEALTH-CARE-INC.html>

### **Sun Mar HealthCare, Inc./Johnson**

Sun Mar began business in California in 1987 and is a regional provider of long-term healthcare services and management services, exclusively serving Southern Californians. Formed in 1986, with two centers in the San Gabriel Valley and a focus of serving the needs of Southern California's aging population, Sun Mar has successfully expanded to operate 21 centers, collectively employing over 2,000 employees and providing care to approximately 2,400 residents headquartered in Aliso Viejo, California. It also provides management services. The California nursing homes are listed as being 100% owned by Francis Johnson. <http://www.sunmarnursing.com/>  
<http://www.corporationwiki.com/California/Brea/sun-mar-health-care-inc/41518057.aspx>  
[http://www.dhcs.ca.gov/dataandstats/reports/Documents/AI\\_HO\\_LTC\\_2009\\_A\\_Z/0203\\_0909\\_HOSunMarMngmt.pdf](http://www.dhcs.ca.gov/dataandstats/reports/Documents/AI_HO_LTC_2009_A_Z/0203_0909_HOSunMarMngmt.pdf)  
<http://media.sacbee.com/static/sinclair/Nursing2/index.html>

### **The Ensign Group**

The Ensign Group, Inc. is a holding company. As of December 31, 2010, the Company, through its subsidiaries (collectively, Ensign), provided skilled nursing and rehabilitative care services through the operation of 82 facilities and one home health and hospice operation, located in California, Arizona, Texas, Washington, Utah, Colorado and Idaho. The Company's facilities provide a range of skilled nursing and assisted living services, physical, occupational and speech therapies, and other rehabilitative and healthcare services, for both long-term residents and short-stay rehabilitation patients. The Ensign Group is based in Mission Viejo, California and listed as the 8<sup>th</sup> largest nursing home chain in the US with 124 facilities and 13,205 beds with \$950 million in revenues in 2015.  
<http://www.ensigngroup.net/> <http://www.getnetworth.com/ensign-group-net-worth/>

<https://www.zacks.com/stock/news/207147/the-ensign-group-lags-q4-earnings-revenues-view-intact>  
<http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx>

### **The Providence Group Inc./ Meridian Management Services**

The Providence Group, Inc. operates healthcare facilities including skilled nursing facilities, assisted living facilities, and home health and hospice agencies. The Providence Group, Inc. is headquartered in National City, California and was formed in 2012. In 2015, Meridian Foresight Management's Northern California portfolio was sold to the Providence Group, an organization focused on building their West Coast presence. Within the Meridian portfolio were seven skilled nursing facilities located throughout Northern California and one senior living facility in Southern California. By adding the seven skilled nursing facilities from Meridian's portfolio, Providence increased its holdings to 25 healthcare communities, located in California, Kentucky, and Pennsylvania. Providence Group is perhaps most well-known for partnering with hospitals, physician group, accountable care organizations, and home health agencies. They also managed facilities owned by the Plott family trust.

<http://www.newswire.com/press-release/meridian-foresights-portfolio-sold-to-the-providence-group>

<https://www.corporationwiki.com/California/Orange/providence-group-inc/108892076.aspx>

<http://www.bizapedia.com/ca/PROVIDENCE-GROUP-OF-CALIFORNIA-LLC.html>

### **Trinity Nursing Home Management/Carey**

Trinity Nursing Home Management is categorized under Nursing Homes and was established in 2007 in California. This company had an annual revenue of \$500,000 to \$1 million and employs a staff of approximately 10 to 19. It is based in La Crescenta, CA and Joyce Carey is listed as the CEO.

<http://www.manta.com/c/mtm0098/trinity-nursing-home>

### **Vista Cove Senior Living LLC**

Vista Cove Senior Living is a senior living community that includes 4 skilled nursing homes, 2 memory care facilities, and 3 assisted living facilities. They offer rehabilitation services, hospice, respite and adult day health services. The company was incorporated in 2002 and is based in Rancho Mirage, California with locations in Arcadia, Corona, San Gabriel, Rialto, and Santa Paula, California.

<http://www.vistacove.net/>

<http://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=41896556>

### **Windsor**

The first Windsor facility was founded in 1984. Today there are 30 skilled nursing facilities and 4 assisted living centers located throughout California and parts of Arizona. The 34 centers serve 4,000 residents and employ over 5,500 individuals to offer nursing, therapeutic, sub-acute and rehabilitation care to their patients. Windsor was managed by the SNF Management Company, Inc. in West Hollywood, California in 2010. <http://windsorcares.com/>

[http://www.dhcs.ca.gov/dataandstats/reports/Documents/AI\\_2010/Home\\_Office/LTC/0203\\_1210\\_Sn\\_F\\_Mgmt\\_Co.pdf](http://www.dhcs.ca.gov/dataandstats/reports/Documents/AI_2010/Home_Office/LTC/0203_1210_Sn_F_Mgmt_Co.pdf)

### **Wintner and Associates**

Country Villa Service Corporation was a regional chain with 46 nursing facilities in California in 2011. In the 2000s, 29 homes were added to CVSC that were owned by a combination of owners including Wintner, Krieger, Smedra, and others involved in real estate and their holding companies (AG Facilities Operations LLC with 12 homes and Crescent Facilities Operations LLC with 10

homes). In 2014, CVSC filed for bankruptcy and was split into two separate groups. At that time, the 29 homes owned by Wintner, Krieger, Smedra, and others involved in real estate and their holding companies (AG Facilities Operations LLC with 12 homes and Crescent Facilities Operations LLC with 10 homes) removed the name of Country Villa. These facilities are listed in this report as Wintner and associates and their related companies managed by Cambridge Healthcare Services LLC. <http://www.dailybulletin.com/business/20140307/country-villa-nursing-home-entities-file-for-bankruptcy> <http://www.sacbee.com/news/investigations/nursing-homes/article3611446.html>  
Also see paper by Harrington, C., Ross, L. and Kang, T. (2015).

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Harrington, C., Hauser, C, Olney, B, and Rosenau, P.V. 2011. Organization, Financing and Management Strategies of the Ten Largest For-Profit Nursing Home Chains in the US. *International J. of Health Services*. 41 (4):725-746.

Harrington, C., Ross, L. and Kang, T. (2015). Hidden Owners, Hidden Profits and Poor Nursing Home Care: A Case Study. *International Journal of Health Services*. 45 (4): 779-800.

Harrington, C., Stockton, J. and Hooper, S. (2014). The Effects of Regulation and Litigation on a Large For-Profit Nursing Home Chain. *J. of Health Politics, Policy and Law*. 39 (4):781-809.

Oberst, J. (2015). 2015 Top 50 Largest Nursing Facilities Companies. Provider Magazine. June 1, 2015. <http://www.providermagazine.com/reports/Pages/2015/2015-Top-50.aspx> .

## Appendix B

### Technical Guide to the CalQualityCare.org Ratings: Nursing Facilities

#### INTRODUCTION

Since 2002 the California HealthCare Foundation (CHCF) has partnered with the Department of Social and Behavioral Sciences at the University of California, San Francisco (UCSF-SBS) to develop a resource for consumers on long-term care providers throughout the State. CHCF sponsors the project and manages the website [www.CalQualityCare.org](http://www.CalQualityCare.org) on which data about long-term care facilities are displayed to improve quality and inform consumer decision-making. The UCSF-SBS team provides the data content for the website, including developing the ratings methods and scoring the facilities. The data are obtained from California and United States federal government sources, as well as from recognized accrediting organizations.

CalQualityCare.org provides “Performance Ratings” on important measures of the quality of long term care provided by nursing homes, home health care agencies, and hospice programs. The goal of these ratings is to provide clear, directional information to consumers about facilities (e.g., individuals in need of long-term care, family members, friends of individuals in need of long-term care, health care professionals needing to find long-term care resources for clients). The provider ratings are based on the most recent data from California and U.S. government sources. The data are updated quarterly with the most current information available.

The methodological foundation used to calculate the CalQualityCare.org provider ratings are based on existing algorithms, such as the procedures used by the Centers for Medicare and Medicaid Services (CMS) used for nursing homes; research literature; and expertise and knowledge in long-term care, research design, and program evaluation. In order to provide a common metric across all facility types rated, CalQualityCare.org has adopted the following five- level rating system CMS uses for nursing homes: Superior, Above Average, Average, Below Average, Poor, or not rated.

The number of ratings presented for each provider type is dependent on the available information. For example, nursing facilities have a significant amount of California state and U.S. government data available and receive performance ratings in four areas: Overall, Quality of Facility, Staffing, and Quality of Care. Intermediate care facilities for the developmentally disabled (ICF/DD) receive performance ratings in three domains: Overall, Quality of Facility, and Staffing. However, Home Health Care agencies have less data available and receive performance ratings in only two areas: Quality of Agency and Quality of Care. Hospice programs have information to provide a performance rating in only a single area: the Quality of Program. The website does not give performance ratings for assisted living, congregate living health facilities, continuing care retirement communities, adult day health care, or adult day care because these providers are subject to different standards that do not allow for collecting similar performance data. As data on these facilities become available, ratings will be developed and assigned to those providers.

#### OVERVIEW OF NURSING FACILITY RATINGS

As noted above, CalQualityCare.org provides Performance Ratings for nursing facilities in four areas: Overall, Quality of Facility, Staffing, and Quality of Care.

The Overall, composite, rating is based on three primary components that are used to measure quality: (1) facility quality from federal and state health inspection reports and complaints; (2) staffing levels and turnover rates; and (3) quality measures.

The CalQualityCare ratings are similar to those used by the Centers for Medicare and Medicaid Services (CMS) for its Medicare Nursing Home Compare website but the ratings are not the same. The CalQualityCare ratings differ from the CMS ratings on both the data and methods used to construct the ratings for facility quality and for staffing. There are three reasons why these ratings are different.

First, California has more detailed data available on nursing homes than are available for the CMS rating and these are used to make the system more informative. Specifically, California state citations and complaints and incidents are used in addition to the federal deficiencies. For the staffing data, CalQualityCare uses cost report data that includes all staffing for a full year for RNs and for total staffing which have been documented to be more accurate than the on-line survey, certification and reporting system data used by CMS (Hash et al., 2007). Moreover, the California cost report data have turnover rates that are not available to CMS. Therefore the California rating system uses more complete information on facility quality and staffing than are used by the CMS rating.

Second, the ratings for CalQualityCare are different from the CMS ratings because they take into account the distribution of scores in California. For the staffing ratings, actual reported staffing data are used with a threshold set that are based on the research literature. Finally, the ratings are constructed so that only the nursing facilities with the very highest scores are given four and five points.

Finally, the procedures for constructing the CalQualityCare overall composite rating across the three components differ slightly from the procedures used by CMS for its composite rating.

Although the facility quality and staffing ratings are different from the CMS ratings, the ratings for the quality measures are the same as those developed for the CMS ratings using data collected by CMS.

All data for the ratings are obtained from federal and state public reports from official government sources. The ratings are updated on a quarterly basis using the latest available public data. The following guide explains how each of the three component ratings are calculated and how the overall rating is calculated.

## **OVERALL NURSING HOME RATING (COMPOSITE MEASURE)**

The method for assigning the overall rating is similar to the method used by CMS. Based on the five-point rating for the facility quality domain, the direct care staffing domain, and the quality measure domain, the overall five-point rating is assigned in five steps as described below. The differences between procedures used by CalQualityCare and CMS are footnoted.

**Step 1:** Start with the five-point Facility Quality rating from deficiencies, citations, and complaints.

**Step 2:** Add one point to the Step 1 result if staffing rating is four or five points and greater than the Facility Quality rating; subtract one point if staffing is one, two, or three points. The overall rating cannot be more than five points or less than one point.<sup>1</sup>

**Step 3:** Add one point to the Step 2 result if Quality Measure rating is five points; subtract one point if Quality Measure rating is one, two, or three points. The overall rating cannot be more than five points or less than one point.<sup>2</sup>

**Step 4:** If the Facility Quality rating is one point, then the Overall Quality rating cannot be upgraded by more than one point based on the Staffing and Quality Measure ratings.

**Step 5:** If the nursing home is a Special Focus Facility (SFF) that has not graduated, the maximum Overall Quality rating is one point.<sup>3</sup>

The rationale for upgrading facilities in Step 2 that receive either a four- or five-point rating for staffing (rather than limiting the upgrade to those with five points) is that the criteria for the staffing rating are quite stringent. To earn four points on the staffing measure, a facility must meet or exceed the thresholds for RN or total staffing; to earn five points on the staffing measure, a facility must meet or exceed the thresholds for both RN and total staffing. However, requiring that the staffing rating be greater than the deficiency rating in order for the score to be upgraded ensures that a facility with four points on deficiencies and four points on staffing (and more than one point on MDS) will not receive a five-point overall rating.

The rationale for limiting upgrades in Step 4 is that two self-reported data domains should not significantly outweigh the rating from actual onsite visits from trained surveyors who have found very serious quality of care problems. And since the health inspection rating is heavily weighted toward the most recent findings, a one-point health rating reflects both a serious and recent finding.

The rationale for limiting the overall rating of special focus facilities in Step 5 is to take into account facilities that have had a history of poor compliance with federal regulations. The three data domains are weighted toward the most recent results and do not fully take into account the history of some nursing homes that exhibit a long history of “yo-yo” or “in and out” compliance with federal safety and quality of care requirements. Such history is a characteristic of the SFF nursing homes. While the three individually-reported data sources reflect the most recent data so that consumers can be aware that such facilities may be improving, the overall rating is capped out of caution that the prior “yo-yo” pattern could be repeated. Once the facility graduates from the SFF initiative by sustaining improved compliance for about 12 months, the rating cap is removed for the former SFF nursing home.

The method for determining the overall nursing home rating does not assign specific weights to the survey, staffing, and QM domains. The survey rating is the most important dimension in determining the

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<sup>1</sup> CMS **Step 2:** Add one point to the Step 1 result if staffing rating is four or five stars and greater than the health inspection rating; subtract one point if staffing is one star. The overall rating cannot be more than five stars or less than one stars.

<sup>2</sup> CMS **Step 3:** Add one point to the Step 2 result if quality measure rating is five stars; subtract one star if quality measure rating is one star. The overall rating cannot be more than five stars or less than one star.

<sup>3</sup> CMS **Step 5:** If the nursing home is a Special Focus Facility (SFF) that has not graduated, the maximum overall quality rating is three stars.

overall rating, but, depending on their performance on the staffing and QM domains, a facility's overall rating may be up to two points higher or lower than their survey rating.

If the facility has no health inspection rating or staffing rating, no overall rating is assigned. If the facility has no health inspection rating because it is too new to have two standard surveys, no ratings for any domain are displayed.

## STAFFING RATING

There is considerable evidence of the importance of nursing home staffing levels and staffing turnover on resident outcomes. The CMS Staffing Study found a clear association between nurse staffing ratios and nursing home quality of care, identifying specific ratios of staff to residents below which residents are at substantially higher risk of quality problems (Kramer and Fish 2001). In addition, experts have recommended minimum staffing levels (Harrington et al. 2000; Schnelle, 2001; Schnelle et al., 2004). Because of the evidence on the importance of staffing at threshold levels, the California staff ratings are based on thresholds as well as the distribution of facility staffing. The rating for staffing takes into account three measures: RN staffing levels, total nurse staffing levels, and staff turnover rates.

**Resident Care Needs.** Facilities should adjust staffing levels to ensure adequate staff to meet the needs of all the residents living in a facility. In order to take into account differences in the resident care needs, we divided nursing homes into two groups: those with high percentages of Medicare resident days (defined as 25 percent or more resident days paid by Medicare) and those with low percentages of Medicare resident days (defined as having less than 25 percent of resident days paid by Medicare). Medicare residents tend to be short-stay residents (less than 100 days of nursing home care) and they have higher resident acuity or casemix.

In California, 97 freestanding nursing homes (9 percent) out of 1092 facilities in 2007 had 25 percent or more days paid by Medicare. Of the 108 hospital-based nursing homes in California, 55 facilities (51 percent) had more than 25 percent of resident days paid by Medicare in 2007. Residents in nursing homes with more than 25 percent of Medicare resident days were primarily classified as needing rehabilitation services (52 percent) and complex nursing care (35 percent), while the remainder of the residents needed assistance with physical care. In contrast, residents in nursing homes with less than 25 percent Medicare resident days were more likely to need physical care, had behavioral problems, or were mentally impaired and less likely to need rehabilitation services.

Facilities with high Medicare resident days were expected to have higher RN and total nurse staffing hours in order to meet the needs of these residents for care. In contrast, facilities with less Medicare days of care were expected to need somewhat less RN and total nursing hours. Therefore, the rating system established two different RN and total staffing ratings for high and low Medicare facilities, considering research-based thresholds as well as the distribution of average staffing hours for the two types of nursing homes.

**RN Staffing:** RN staffing levels are the average number of hours of RN time available to care for residents per day over a one-year period, based on California cost report data. All RN hours including the Directors of Nursing and nursing supervisor hours were calculated by dividing the total RN hours worked (excluding time for vacations, sick time, disability, and other paid time off) (and including

employees and contract RNs) by the total resident days of care during the year. In California, the average RN hours per resident day were 1.00 for facilities with high Medicare days and 0.58 for facilities with low Medicare days in 2014. The Kramer and Fish (2001) study showed that 0.75 RN hours per resident day were necessary to prevent harm or jeopardy to residents in the average nursing home regardless of resident casemix. Taking into account the distribution of RN staffing in California and the CMS rating methods, the threshold was set at 0.79 RN hours per resident day for low Medicare facilities and at 3.0 hours for high Medicare facilities for the five point rating. The following thresholds were set for low and high Medicare facilities (See Appendix A and B for more details):

**Table 1. RN Staffing Scores and Ratings in California**

Low Medicare Facilities		High Medicare Facilities	
RN Hours Per Day	Points	RN Hours Per Day	Points
0.79 hours or higher	5 points	3.0 hours or higher	5 points
0.60 to less than 0.79	4 points	1.05 to less than 3.00	4 points
0.43 to less than 0.60	3 points	0.63 to less than 1.05	3 points
0.31 to less than 0.43	2 points	0.43 to less than 0.63	2 points
less than 0.31 hours	1 point	less than 0.43 hours	1 point

**Total Nurse Staffing:** Total staffing includes all RNs, licensed vocational or practical nurses (LVNs) and nursing assistants (NAs). Nurse staffing levels are the average number of hours of nursing staff time available to care for residents per day over a year based on California cost report data. The total nursing hours include all licensed nurses, nursing assistants, and directors of nursing, including part-time, full time, and temporary employees. Hours per resident day were calculated by dividing the total nursing hours worked (excluding time for vacations, sick time, disability, and other paid time off) by the total resident days of care during the year.

The Kramer and Fish (2001) and the Schnelle et al. (2004) studies showed that 4.1 total hours per resident day were necessary to prevent harm or jeopardy to residents in the average nursing home regardless of casemix. In California, the average total staffing hours were 3.99 hours per resident day for facilities with low percentages of Medicare resident days and 4.57 for facilities with high Medicare resident days in 2014. For low Medicare facilities, we set a minimum of 4.7 hours per resident day for the five point rating. For facilities with high Medicare resident days that averaged 4.57 hours, we used 7.0 hours for the highest rating level.

The Schnelle (2001) study identified the need for a minimum of 2.8-3.0 nursing assistant hours per resident day to carry out five basic care activities in all nursing homes. Moreover, the California state minimum standard for direct care staffing is 3.2 hprd. Therefore, the lowest staffing level for a one point rating in the California guide was set at 3.45 for total staffing in low Medicare facilities to include both direct care and administrative nursing. The lowest rating for high Medicare facilities was set at 3.65 hours or lower.

**Table 2. Total Nurse Staffing Scores and Ratings in California**

Low Medicare Facilities		High Medicare Facilities	
Total Hours Per Day	Points	Total Hours Per Day	Points
4.70 hours or higher	5 points	7.00 hours or higher	5
3.95 to less than 4.70	4 points	4.60 to less than 7.00 hours	4
3.57 to less than 3.95	3 points	4.00 to less than 4.60 hours	3
3.45 to less than 3..57	2 points	3.65 to less than 4.00 hours	2
Less than 3.45 hours	1 point	less than 3.65	1

**Nursing Staff Turnover.** Turnover rates have been found to be associated with nursing home quality, where high rates may result in poor quality, low continuity of care, and low staffing levels (Castle et al, 2007; Feuerberg, 2001; Harrington and Swan, 2003). Low turnover may reflect better management, wages and benefits or other enhanced employment conditions. Low turnover rates may result in improved patient outcomes and quality.

The percent of change in nursing staff (turnover) indicates the stability of care in a facility. Turnover is reported by facilities as the percent of all nurses (not including supervisors) who leave employment with the facility during the year (turnover rate) prior to the day the facility completed its most recent cost report for the Office of Statewide Health Planning and Development. Turnover levels in California on average were high at 66 percent and the median was 53 percent in 2007.

**Table 3. Nurse Staff Turnover Rates in California**

Turnover Rates	Levels
90 percent or higher	Worst rates
60-89	
45-59	
30-44	
1-29 percent	Best rates

Facilities with 90 percent turnover or higher were in the bottom one-fifth of homes in California. To take into account high turnover levels of 90 percent or higher, facilities with this level of turnover had their total overall staffing rating reduced by one point unless they already received one point. We did not adjust for other turnover rates because turnover at the highest levels have the most impact on quality.

**Rating Methodology:** Facility rating for overall staffing is based on the combination of RN and total staffing (RNs, LPNs/ LVNs, CNAs) ratings for each facility with equal weights given to the RN and the total staffing ratings. To receive a five-point rating, facilities must meet both RN and total nursing thresholds. In addition to meeting those ratings, nursing homes with turnover rates greater than 90 percent during the most recent year receive a reduction of one point. All ratings are based on the most recent fiscal year reported by each facility on its annual cost report for the Office of Statewide Health Planning and Development.

**QUALITY OF FACILITY RATING**

Nursing homes that participate in the Medicare or Medicaid programs are required to meet federal standards for quality and life safety requirements. In addition, all nursing homes in California must meet state standards for nursing home quality and safety. The California state Licensing and Certification program conducts federal and state surveys (inspections) of nursing homes on an annual basis, but at least every fifteen months. These are unannounced and are conducted by a team of health care professionals who spend several days in the nursing home to assess whether the nursing home is in compliance with federal and state requirements. The surveys evaluate nursing home quality based on specific regulations regarding: quality of care, quality of life, resident rights, administration, environment, nutrition, pharmacy, life safety and other areas.

The facility quality rating system uses a five-point rating as described below that takes into account three measures: (1) federal inspection reports; (2) state citations; and (3) substantiated complaint and incident reports. The rating takes into account the scope and severity of federal deficiencies and state citations, which are rated by the state surveyors. The rating is based on the most recent three standard surveys for each nursing home and any complaint investigations during the most recent three-year period.

**Federal Inspection Results:** The federal health inspection score is calculated based on points assigned to deficiencies identified in each active provider's current health inspection survey. Points are assigned to individual health deficiencies according to their scope and severity – more points are assigned for more serious, widespread deficiencies, fewer points for less serious, isolated deficiencies (see Table 4). If the deficiency generates a finding of substandard quality of care, additional points are assigned.

**Table 4. Health Inspection Score: Weights for Different Types of Federal Deficiencies**

Severity	Scope		
	Isolated	Pattern	Widespread
Immediate jeopardy to resident health or safety	J 50 points (75 points)	K 100 points (125 points)	L 150 points (175 points)
Actual harm that is not immediate jeopardy	G 20 points	H 35 points (40 points)	I 45 points (50 points)
No actual harm with potential for more than minimal harm that is not immediate jeopardy	D 4 points	E 8 points	F 16 points (20 points)
No actual harm with potential for minimal harm	A 0 point	B 0 points	C 0 points

**Note:** Figures in parentheses indicate points for deficiencies that are for substandard quality of care that fall under the following federal categories: resident behavior and nursing home practices; quality life; or quality of care.

**State Inspection Results:** In addition to federal deficiencies, points are assigned for the number and types of state citations as shown in Table 5. State citations require the payment of fines based on the severity of the violations. These state citations include those identified during standard nursing home surveys and state complaint investigations.

**Table 5. Definitions and Weights for State Citations**

Class	Severity	Definition	Points
B	No Imminent Danger- Potential for Actual Harm	Violations of standards that have a direct or immediate relationship to health, safety, or security, but do not result in death or present imminent danger. (\$100-1,000 penalty)	30 points
A	Imminent Danger- Substantial Probability for Actual Harm	Violations of a standard that causes imminent danger to residents or the substantial probability of death or serious harm. (\$2,000-20,000 penalty)	75 points
AA	Immediate Jeopardy- Actual Harm	The most serious violation. This citation class is given when there is evidence that the facility is responsible for a resident death. (\$25,000-100,000 penalty)	175 points

**Substantiated Complaints and Incident Reports:** A complaint is a formal grievance against a facility that is filed with the state Licensing and Certification (L&C) Program. Complaints about poor care or safety may be filed by patients, family members, local ombudsmen or other individuals. In addition, nursing homes are required by law to file a report whenever there has been an incident where suspected or alleged abuse has occurred or where a resident has been injured (e.g. falls) or harmed.

Serious complaints and incidents must be investigated by the L&C program within a 2 day period, but most complaints are investigated within 10 days. Some complaints and incidents that are not serious may not be investigated because of limited L&C resources. When complaints are investigated by L&C, they are deemed either substantiated (if the inspector found the claim to be true) or unsubstantiated (if there was no proof to support the complaint). If a complaint is substantiated, a deficiency or citation may be given to the facility.

Because facilities with more beds and nursing home residents may have more complaints, we standardized the number of substantiated complaints and incidents by the total number of beds. The average number of complaints per bed in 2007 was 0.04 complaints. The number of complaints per bed in each facility was multiplied by 100 points. These points were then added to the total number of points for the federal and state deficiencies for each facility in each of the last three survey periods.

Thus, the total combined federal and state total health inspection score for each facility was based on the weighted deficiencies and their number of complaints and incidents. A lower survey score corresponds to fewer federal deficiencies and state citations and complaints/incidents, and thus better performance on the health inspection domain.

In calculating the total score for federal deficiencies, state citations, and complaints/incidents, more recent surveys were weighted more heavily than earlier surveys. The most recent period was

assigned a weighting factor of 1/2, the previous period had a weighting factor of 1/3, and the second prior survey had a weighting factor of 1/6. The weighted scores for each time period were then summed to create the survey score for each facility.

**Rating Methodology**

Five-Point quality ratings on the health inspection domain were based on the relative performance of facilities within California.

The top 10 percent (lowest 10 percent in terms of the number of points for federal deficiencies, state citations, and complaints) of facilities received a five-point rating.

The middle 70 percent of facilities received a rating of two, three, or four points, with an equal number (approximately 23.3 percent) in each rating category.

The bottom 20 percent of facilities received a one-point rating.

This distribution is based on the summary rating methodology used by the Centers for Medicare and Medicaid Services. A facility's rating may change with each new update of data.

The weighted average scores for the most recent three periods were:

**Table 6. Weighted Average Federal Deficiencies, State Citations and Complaint/ Incident Scores in California**

<b>Weighted Scores</b>	<b>Points</b>
0- 20.3	5 points
20.4-45.9	4 points
46.0 –74.9	3 points
75.0 –134.9	2 points
135.0 +	1 point

The mean for the weighted average scores for the three periods was 92.5 and the median was 64.6. The minimum weighted score was zero and the maximum was 786.

**QUALITY OF CARE RATING**

The Centers for Medicare and Medicaid Services (CMS) developed a set of quality measures from the Minimum Data Set (MDS) to describe the quality of care provided in nursing homes. These measures address a broad range of functioning and health status in multiple care areas. The facility rating for the Quality of Care domain is based on performance on a subset of 11 (out of 18) of the quality measures (QMs) currently posted on Nursing Home Compare. The measures were selected based on their validity and reliability, the extent to which facility practice may affect the measure, statistical performance, and importance. As of February 2015, two measures for use of antipsychotic medications (one for short-stay residents and one for long-stay residents), have been incorporated into the Five-Star Rating System.

**The CalQualityCare.org rating uses the same methodology as CMS uses for its Medicare Nursing Home Compare website.**

Long-Stay Residents:

- Percent of residents whose need for help with activities of daily living has increased
- Percent of high risk residents with pressure sores
- Percent of residents who have/had a catheter inserted and left in their bladder
- Percent of residents who were physically restrained
- Percent of residents with a urinary tract infection
- Percent of residents who self-report moderate to severe pain
- Percent of residents experiencing one or more falls with major injury
- Percent of residents who received an antipsychotic medication

Short-stay residents:

- Percent of residents with pressure ulcers (sores) that are new or worsened
- Percent of residents who self-report moderate to severe pain
- Percent of residents who newly received an antipsychotic medication

Table 7 contains more information on these measures. Technical specifications for the QMs are available on the CMS website (<https://www.cms.gov/medicare/quality-initiatives-patient-assessment-instruments/nursinghomequalityinits/downloads/mds30qm-manual.pdf>).

Values for three of the QMs (catheter, the long-stay pain measure, and short-stay pressure ulcers) are risk adjusted, using resident-level covariates that adjust for factors associated with differences in the score for the QM. For example, the catheter risk-adjustment model is based on an indicator of bowel incontinence or pressure sores on the prior assessment. The risk-adjusted QM score is adjusted for the specific risk for that QM in the nursing facility. The risk-adjustment methodology is described in more detail in the Quality Measure Users Manual available on the CMS website referenced in the previous paragraph. It is important to note that the regression models used in the risk adjustment are NOT refit each time the QMs are updated. It is assumed that the relationships do not change, so the coefficients from the most recent “fitting” of the model are used along with the most recent QM data. The covariates and the coefficients used in the risk-adjustment models are reported in the “Design for Nursing Home Compare Five-Star Quality rating System: Technical Users’ Guide, July 2012”: <http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/CertificationandComplianc/downloads/usersguide.pdf>

The Quality of Care rating is calculated using the three most recent quarters for which data are available. This time period specification was selected to increase the number of assessments available for calculating the Quality of Care rating, increasing the stability of estimates and reducing the amount of missing data.

**Table 7. MDS-Based Quality Measures**

<b>Measure</b>	<b>Comments</b>
<b>Long-Stay Measures:</b>	
<b>Percent of residents whose need for help with daily activities has increased<sup>1</sup></b>	This measure reports the percent of long-stay residents whose need for help with late-loss Activities of Daily Living (ADLs) has increased when compared to the prior assessment. This is a change measure that reflects worsening performance on at least 2 late loss ADLs by one functional level or on one late loss ADL by more than one functional level compared to the prior assessment. The late loss ADLs are bed mobility, transfer, eating, and toileting. Maintenance of ADLs is related to an environment in which the resident is up and out of bed and engaged in activities. The CMS Staffing Study <del>found that higher staffing levels were associated with lower rates of</del>
<b>Percent of high-risk residents with pressure ulcers</b>	This measure captures the percentage of long-stay, high-risk residents with Stage II-IV pressure ulcers. High-risk residents for pressure sores are those who are impaired in bed mobility or transfer, who are comatose, or who suffer from malnutrition. The QM Validation Study identified a number of nursing home care practices that were associated with lower pressure sore prevalence rates including more frequent scheduling of assessments for suspicious skin areas, observations on the environmental assessment of residents, and care practices related to how the <del>nursing home manages clinical, psychosocial, and nutritional</del>
<b>Percent of residents who have/had a catheter inserted and left in their bladder</b>	This measure reports the percentage of residents who have had an indwelling catheter in the last 7 days. Indwelling catheter use may result in complications, like urinary tract or blood infections, physical injury, skin problems, bladder stones, or blood in the
<b>Percent of residents who were physically restrained</b>	This measure reports the percent of long-stay nursing facility residents who are physically restrained on a daily basis. A resident who is restrained daily can become weak, lose his or her ability to go to the bathroom without help, and develop pressure sores or other medical complications.
<b>Percent of residents with a urinary tract infection</b>	This measure reports the percent of long-stay nursing facility residents who have had a urinary tract infection within the past 30 days. Urinary tract infections can often be prevented through hygiene and drinking enough fluid. Urinary tract infections are relatively minor but can lead to more serious problems and cause complications like delirium if not treated.
<b>Percent of residents who self-report moderate to severe pain</b>	This measure captures the percent of long-stay residents who report either (1) almost constant or frequent moderate to severe pain in the last 5 days or (2) any very severe/horrible in the last 5 days.
<b>Percent of residents experiencing one or more falls with major injury</b>	This measure reports the percent of residents who experiences one or more falls with major injury (e.g., bone fractures, joint dislocations, closed head injuries with altered consciousness, or subdural hematoma) in the last year (12-month period)

<b>Percent of residents who received an antipsychotic medication</b>	This measure reports the percentage of long-stay residents who are receiving antipsychotic drugs in the target period. Reducing the rate of antipsychotic medication use has been the focus of several CMS initiatives. The Food and Drug Administration (FDA) has warned that antipsychotic medications can have significant side effects and are associated
<b>Short-Stay Measures</b>	
<b>Percent of residents with pressure ulcers that are new or worsened</b>	This measure captures the percentage of short-stay residents with new or worsening State II-IV pressure ulcers.
<b>Percent of residents who self-report moderate to severe pain</b>	This measure captures the percent of short stay residents, with at least one episode of moderate/severe pain or horrible/excruciating pain of any frequency, in the last 5 days.
<b>Percent of residents who newly received an antipsychotic medication</b>	This measure reports the percentage of short-stay residents who are receiving an antipsychotic medication during the target period but not on their initial assessment.

<sup>1</sup>Indicates ADL QMs as referenced in scoring rules

Sources: Based on information from the AHRQ Measures Clearinghouse and the NHVBP Draft Design Report and the MDS 3.0 Quality Measures User's Manual.

## Scoring Rules

Consistent with the specifications used for the CMS Nursing Home Compare, long-stay measures are included in the score if the measure can be calculated for at least 30 assessments (summed across three quarters of data to enhance measurement stability). Short-stay measures are included in the score only if data are available for at least 20 assessments.

For each measure, 20 to 100 points are assigned based on facility performance, with the points determined in the following way:

- For long-stay ADL worsening, long-stay pressure ulcers, long-stay catheter, long-stay urinary tract infections, long-stay pain, long-stay injurious falls, and short-stay pain: facilities are grouped into quintiles based on the national distribution of the QM. The quintiles are assigned 20 points for the poorest performing quintile, 100 points for the best performing quintile, and 40, 60 or 80 points for the second, third and fourth quintiles respectively.
- The physical restraint and short-stay pressure ulcer QMs are treated slightly differently because they have low prevalence – specifically, substantially more than 20 percent (i.e. a quintile) of nursing homes have zero percent rates on these measures.
  - For the restraint QM, facilities achieving the best possible score on the QM (i.e. zero percent of residents triggering the QM) are assigned 100 points; this is about 60 percent of facilities (or 3 quintiles). The remaining facilities are divided into two evenly sized groups, (each with about 20 percent of nursing homes); the poorer performing group is assigned 20 points, and the better performing group is assigned 60 points.
  - The short-stay pressure ulcer QM is treated similarly: facilities achieving the best possible score on the QM (i.e. zero percent of residents triggering the QM) are assigned 100 points; this is about one-third of nursing homes. The remaining facilities

- are divided into three evenly sized groups, (each with about 23 percent of nursing homes) and assigned 25, 50 or 75 points.;
- The two quality measures that are newly included in the QM rating as of February 2015 – short-stay and long-stay antipsychotic medication use – are also treated somewhat differently than the QMs that were already part of the rating:
    - For the long-stay antipsychotic medication QM, facilities are divided into five groups based on the national distribution of the measure: the top-performing 10 percent of facilities receive 100 points; the poorest performing 20 percent of facilities receive 20 points; and the middle 70 percent of facilities are divided into three equally sized groups (each including approximately 23.3 percent of nursing homes) and receive 40, 60 or 80 points.
    - The short-stay antipsychotic medication QM is treated similarly; however, because approximately 20 percent of facilities achieve the best possible score on this QM (i.e. zero percent of residents triggering the QM), these facilities all receive 100 points; the poorest performing 20 percent of facilities receive 20 points; and the remaining facilities are divided into three equally sized groups (each including approximately 20 percent of nursing homes) and receive 40, 60 or 80 points.

All of the 11 QMs are given equal weight. The points are summed across all QMs to create a total score for each facility. The total possible score ranges between 220 and 1100 points.

Note that the quintiles are based on the national distribution for all of the QMs except for the ADL measure. For the ADL measure, quintiles are set on a State -specific basis using the State distribution.

The ADL measure is based on the within-State distribution because this measure appears to be particularly influenced by differences in state Medicaid policies governing long term care.

Cut points for the QMs were set based on the QM distributions averaged across the third and fourth quarters of 2013 and the first quarter of 2014. Note that the cut points are determined prior to any imputation for missing data (see discussion below). Also, the state-specific cut points for the ADL QMs are created for states/territories that have at least five facilities with a non-imputed value for that QM. In the rare case a State does not satisfy this criterion, the national distribution for that QM is used to set the cut points for that State.

### **Missing Data and Imputation**

Some facilities have missing data for one or more QM, usually because of an insufficient number of residents available for calculating the QM. Missing values are imputed based on the statewide average for the measure. The imputation strategy for these missing values depends on the pattern of missing data.

For facilities that have data for at least four of the eight long-stay QMs, missing values are imputed based on the statewide average for the measure. Points are then assigned according to the quintile-based cut points described above.

For facilities that have data on two of three short-stay QMs, missing values are imputed based on the statewide average for the measure. Points are then assigned according to the percentile-based cut points described above.

The QM rating for facilities with data on three or fewer long-stay QMs is based on the short-stay measures only. Mean values for the missing long-stay QMs are not imputed.

Similarly, the QM rating for facilities with data on zero or one short-stay QM is based on the long-stay measures only. Mean values for the missing short-stay QMs are not imputed.

Based on these rules, after imputation, facilities that receive a QM rating are in one of the following categories:

- They have points for all of the QMs.
- They have points for only the eight long-stay QMs (long-stay facilities).
- They have points for only the three short-stay QMs (short-stay facilities)
- No values are imputed for nursing homes with data on fewer than four long-stay QMs and fewer than two short-stay QMs. No QM rating is generated for these nursing homes.

So that all facilities are scored on the same 1100 point scale, points are rescaled for long and short-stay facilities:

- If the facility has data for only the three short-stay measures (total of 300 possible points), its score is multiplied by 1100/300.
- If the facility has data for only the eight long-stay measures (total of 800 possible points), its score is multiplied by 1100/800.

### Rating Methodology

The CalQualityCare.org uses the same rating methodology as CMS for the QMs. Once the summary QM score is computed for each facility as described above, the five-point Quality of Care rating is assigned according to the point thresholds shown in Table 8.

**Table 8. Quality of Care Ratings and Cutpoints for MDS Quality Measure Summary Score (updated February 2015)**

Quality of Facility Rating	Summary Score
Poor (1 point)	225-544
Below Average (2 points)	545-629
Average (3 Points)	630-689
Above Average (4 points)	690-759
Superior (5 points)	760-1,100

### REFERENCES

Centers for Medicare & Medicaid Services (2015). Design for the *Nursing Home Compare* Five-Star Quality Rating System: Technical Users' Guide. <http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/CertificationandCompliance/downloads/usersguide.pdf> (last accessed May 19, 2015).

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