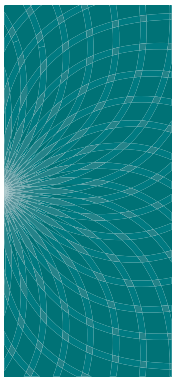

Can Quality in Assisted Living Be Measured? One County's Approach

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ABSTRACT

The Problem: A growing number of seniors and their families will consider the assisted living care option but will remain uncertain which facility is right for them.[1]

The Resolution: The County of San Diego in California launched a pilot to develop a rating system for local facilities that bridges informational gaps between consumers and providers. Based on a methodology that combines focus groups and statistical analyses of state public records data, a rating system was constructed.

Tips for Success: By connecting state regulations with a set of quality measures and incorporating customer and peer reviews, facility performance can be uniformly evaluated. Efforts to design a rating system for facilities would benefit from stakeholder feedback and an independent facilitator experienced in public records research related to assisted living. While consumer demand may initially drive such initiatives, provider reluctance may be overcome through open dialogue and strategic use of data.

Keywords: rating system, assisted living, public documents, quality of care

[1]As the year ("Baby Boomers Retire," 2010). Retrieved from http://www.pewresearch.org/daily-number/baby-boomers-retire.

INTRODUCTION

Rating systems are ubiquitous in today's culture: Look only to Yelp, Angie's List, and *Consumer Reports*. Closer to home, for senior living managers and operators is the Centers for Medicare and Medicaid Services' (CMS) 5-star rating system for nursing homes, which is featured on the Nursing Home Compare website. Even with ongoing revisions and refinements, CMS' 5-star rating system serves as a useful indicator for families nationwide as they search for information on both the hotel and medical aspects of facility care (Mukamel & Spector, 2003; U.S. General Accountability Office, 2015).

In the U.S., with an estimated 10,000 adults turning age 65 every day through 2030, assisted living will become a more likely care option, despite the uncertainty these people have regarding which facility is right for them (as the year, 2010). California is currently home to the largest number of assisted living facilities in the nation but does not yet have a rating system for the approximately 7,500 facilities in the state (Argentum, 2016).

There is no rating tool similar to the 5-star system for assisted living because there is no overarching national policy, uniform definition of assisted living, or uniform set of regulations for this facility type.

Despite the explosive growth of assisted living facilities (Argentum, 2016), there is no rating tool similar to the 5-star system for assisted living because there is no overarching national policy, uniform definition of assisted living, or uniform set of regulations for this facility type. Consequently, data collection and publication remain the purview of state governmental agencies. At the time of this publication, North Carolina is the only state leveraging their compliance data on assisted living facilities into a rating system (Star Rating Program, 2010).

California's Department of Social Services/Community Care Licensing Division (DSS/CCL) is the state agency responsible for licensing, oversight, and enforcement of California's assisted living facilities. The online availability of the state's facility compliance documents is in its infancy with no formal plans for the creation or implementation of a rating system. Therefore, locating reliable information on the quality of care delivered in assisted living facilities remains a serious challenge for families. Further, those assisted living providers who continue to work hard to deliver safe, quality care struggle to distinguish themselves from their competitors.

The RCFE Rating System (RRS) is the first rating system of its kind in California and offers a unique opportunity to bridge the informational gap for consumers and facility providers.

One California county, however, has taken steps to address the issue by funding an initiative to create a rating tool for local assisted living facilities, to aid consumers in locating and evaluating a suitable facility for family member placement. In 2015, the County of San Diego's Board of Supervisors launched an innovative pilot program to develop a rating system for San Diego County residential care facilities for the elderly (RCFE). The RCFE Rating System (RRS) is the first rating system of its kind in California and offers a unique opportunity to bridge the informational gap for consumers and facility providers alike.

The Overall Residential Care Facilities for the Elderly Rating System Program and Approach

The pilot's objectives were to develop a consensus-driven rating system that combined objective data, supplied by public records from California's Department of Social Services/Community Care Licensing Division, with subjective data from customer satisfaction and mystery shopper surveys. The resulting rating scores were to be displayed on a website that would assist community members in distinguishing quality facilities from substandard ones, as well as supply them with contextual information on assisted living care options in California.

To improve outcomes, the project team hosted five focus group meetings during a six-month period of performance. Stakeholder participants included a range of local representatives: residential care facilities for the elderly operators, long-term care ombudsmen, consumers, allied

professionals, and representatives from the state's regulatory office (Department of Social Services, Community Care Licensing Division). At the commencement of the pilot, interest in the program was assessed; consumers and advocates expressed the need for easily accessible and reliable information on local residential care facilities for the elderly and were concerned facilities' marketing messages overstated the actual care provided. Facility operators were concerned that the state's compliance histories do not communicate enough about the actual care provided inside a facility and were also skeptical a rating system could be developed that would uniformly apply to the range of facility sizes (i.e., six beds to 100+ beds).

Through the focus group meetings, feedback on each component of the rating system was collectively discussed, evaluated, and surveyed. Leveraging its understanding of California's residential care facilities for the elderly industry, the project team focused the stakeholder collective on crafting an impartial rating system capable of earning the confidence of all parties. When consensus was not achieved, plurality and/or averaging were used to reach next steps. This approach proved successful in eliminating false starts and dead-end paths, particularly important given the short six-month timeframe.

The most notable technical challenge faced during the rating system pilot was the absence of state-established, quality of care metrics within the regulations. The county's statement of work set forth a preliminary set of quality measures aimed at highlighting staffing ratios, elder abuse, falls, and other pertinent care information[2]; however, since these and other quality of care issues are not directly addressed in the state regulations governing residential care facilities for the elderly (also known as Title 22) efforts to define the county's set of quality measures using state data were difficult.[3] The project team designed work-around solutions to accommodate this limitation while still meeting the county's objectives. Key solutions included 1) establishing a set of feasible quality measures to serve as proxies for care; 2) stakeholder mapping of relevant Title 22 regulations into the quality measures; and 3) stakeholder weighting of both the regulations and the quality measures themselves. With this strategy, care issues identified by the county as critical for consumer evaluation were still incorporated into the rating system. In the process, the project team developed a model for potential replication in other states where quality of care metrics are absent from state regulations.

The Individual Components of Building the Rating System

Objective Data

The predetermined source for the objective data component was the public records maintained by California's Department of Social Services, Community Care Licensing Division. Central to the development of this portion of the rating system was systematically incorporating the facility compliance histories contained in these public records (i.e., regulatory deficiencies appearing on facility evaluations, complaint investigations, and other collateral visits). Accomplishing this required a four step process: 1) quality measure development; 2) Title 22 regulation mapping; 3) weighting regulations and quality measures; and 4) algorithm development and testing.

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Quality Measure Development

In the absence of quality care metrics in state regulations, the county originally stipulated 12 quality measures (QMs) to serve as proxies for determining the quality of care (or lack thereof) delivered by residential care facilities for the elderly. At the start of the pilot, the project team evaluated the county's 12 quality measures and determined several were not Title 22-centric. For example, Title 22 does not contain a regulation specific to elder abuse; deficiencies issued for abuse and neglect are codified in a variety of ancillary regulations—87468 Personal Rights, 87465 Incidental Medical and Dental Services, etc. The project

[2]The original 12 quality measures were developed via stakeholder meetings conducted prior to the pilot discussed in this article.
[3]California Code of Regulations, Title 22, Division 6, Chapter 8, also known as Title 22, is the set of regulations that govern assisted living facilities in California: http://www.dss.cahwnet.gov/ord/PG295.htm.

Table 1. Quality Measures Before and After Restructuring.			
Original County Quality Measures		Restructured County Quality Measures	
Original #	Title	New #	Title
1	Abuse or Neglect	1	Activities/Socialization
2	Activities/Socialization	2	Emergency Disaster Planning
3	Dementia Care	3	Facility Maintenance and Safety
4	Emergency Disaster Planning	4	Food & Nutrition
5	Facility Maintenance and Safety	5	Non-Compliance Conference Summary Status
6	Falls	6	Resident Rights
7	Food & Nutrition	7	Staffing
8	Medical Follow-Up	8	Civil Penalties *
9	Medication Management	9	Specialty Care
10	Non-Compliance Conference Summary Status	10	Basic Resident Care and Supervision
11	Resident Rights	11	Medical Needs & Responsiveness
12	Staffing		

Note. *Civil Penalties was retained as a quality measure but was removed from the rating calculation.

team applied its eight-year study of state regulations, oversight, and enforcement patterns to develop a methodology to address this limitation. This effort resulted in the proposed reconfiguration of five of the quality measures to still achieve the county's goals for measuring quality care, while continuing to allow for the use of the state's public records data. The county's approval of the revised 11 quality measures established the framework for the rating system going forward. **Table 1** illustrates the reconfiguration.

Title 22 Regulation Mapping

With the quality measures established, the project team mined all relevant Title 22 regulations, which yielded 73 regulations that were summarized and mapped into the appropriate quality measures, with the results compiled into a detailed quality measures dictionary. The dictionary was then used to facilitate stakeholder feedback on each regulation's ability to define quality within its designated quality measure. Based on this feedback, collected through surveys, only minor modifications to the dictionary were required.

This mapping task established the basic structure of the rating system, where a facility's score would decrease from 100% in any quality measure (and ultimately, overall) with each regulatory deficiency earned in that quality measure. For example, Quality Measure 1: Activities and Socialization contains two relevant Title 22 regulations. A facility earning a deficiency for failure to comply with one or both of these regulations would experience a decrease in their score on Quality Measure 1 and, ultimately, in their overall score.

Weighting Regulations and Quality Measures

Similar to CMS's 5-star rating system, one approach to rating residential care facilities for the elderly in California would be to rely on deficiency type to ascertain and communicate severity or "weight" (CMS, 2015). This method is convenient and based on state enforcement practices. California's Department of Social Services, Community Care Licensing Division has the authority to determine, on a case-by-case basis, the severity of a deficiency and may issue one of three citation types—Type A, B, or C. Type As are issued for violations where there is "an immediate risk to the health, safety, or personal rights

of clients." Type Bs are issued for "violations that, if not corrected, may become an immediate risk to the health, safety, or personal rights of clients." Type Cs are reserved for technical violations and are not cited as deficiencies (Department of Social Services, 2009). Only Type As and Type Bs are contained in the public record (Department of Social Services, 2009).

Based on the project team's knowledge of facilities' public records, it was determined that any rating system modeled on Type A and Type B categories would most likely produce inaccurate assessments of quality. Since 2009, the project team's independent and ongoing review of the state's enforcement practices has revealed significant inconsistencies in Department of Social Services, Community Care Licensing Division's citation patterns of Type A and Type B deficiencies. Frequently, in identical circumstances, one state analyst (or licensing program analyst [LPA]) will issue a Type A citation, while in another case, under review by another LPA, the same circumstance will be cited as a Type B. This practice was an expressed concern among facility providers during focus group meetings.

To improve the integrity of the rating system, the project team therefore eliminated the A/B information. Instead, the influence of a deficiency on a facility's score would be driven by the severity of a particular deficiency's impact on resident health and safety as determined by stakeholders. The project team administered surveys to solicit the level of importance and priority of each regulation and quality measure, respectively, as it influenced resident health and safety. For example, Quality Measure 1: Activities and Socialization does not impact resident health and safety as much as Quality Measure 11: Medical Needs and Responsiveness. Based on this stakeholder feedback, the project team formulated weights that were incorporated into the scoring algorithm of the rating system. In this way, the effects of LPA discretion (i.e., Type A/Bs) were reduced, while the resulting rating system score remained a consistent indicator of resident care.

Algorithm Development and Testing

Though the pilot required voluntary participation by stakeholders, the team recognized it could not develop a rating system using compliance histories of only volunteer facilities for two primary reasons: 1) the uncertainty that enough residential care facilities for the elderly would participate in the pilot to ensure a representative sample; and 2) the uncertainty that those participating facilities would represent the breadth and scope of all facilities in the county. For these reasons, the project team determined that a test bed (exemplar) of facilities would have to be constructed, reflecting the characteristics of San Diego's inventory of assisted living facilities.

The project team downloaded the then-current set of residential care facilities for the elderly located in San Diego County (n = 748) from Department of Social Services' database. The exemplar was constructed using the disproportionate sampling (non-probability sampling) method, with the number of samples in each stratum calculated for a 99% confidence level to ensure statistical relevance. The final sample size was 68 facilities. Because San Diego's inventory of facilities is heavily skewed toward Stratum 1 facilities (see **Table 2**), it was important to provide larger representation to the remaining and significantly smaller strata (2, 3, 4, and 5).

Table 2. Residential Care Facilities for the Elderly Strata by Facility Capacity.

Strata	Facility Capacity by Beds	% of Total (n = 748)
1	1 to 6	80
2	7 to 14	4
3	15 to 49	5
4	50 to 99	3
5	100+	8

The individual compliance histories for the 68 facilities (blindly selected within the individual stratum) were coded and maintained in a database. This database comprised the baseline dataset used to test all proposed rating methods and associated algorithms. The use of this exemplar allowed for 1) assessing how well the rating score iterations fared over the range of facility size strata; and 2) assessing how the resulting ratings compared to the individual facility's actual compliance history. Through an iterative approach of "case run, then analysis," the project team continued making refinements to the

algorithm, seeking the best match of weighted scores to assess quality of care. Stakeholder feedback via surveys was critical during this phase.

Subjective Data Components

The county's subjective data components were specified as both customer satisfaction surveys (CSS) and mystery shopper surveys (MSS), to be developed during the pilot. Stakeholders were surveyed to ascertain preferences on the types of prompts and format they believed would best expand on the county's 11 quality measures, to continue to give consumers greater access to up-to-date and individualized information on local facilities.

Customer Satisfaction Surveys

Because quality in assisted living, in many respects, is based on variety of dimensions (Hawes & Philips, 2007), the customer satisfaction surveys component was designed to provide focused feedback from customers regarding their personal experience within a particular facility. Through discussion and follow-up surveys, a preliminary, consensus-driven customer satisfaction survey tool was developed for pilot testing. Scores received on the customer satisfaction surveys were expected to be averaged over the total number of surveys completed for an individual facility. In this way, smaller facilities would not be disadvantaged by having fewer opportunities for customer satisfaction survey inputs, as compared to larger facilities that would be expected to have a higher number of residents and therefore a greater number of opportunities for survey input. The average score earned would contribute to the facility's overall rating.

Mystery Shopper Surveys

The mystery shopper surveys component, developed via consensus, emerged as a peer review team (PRT) assessment model. The model protocol includes a preliminary, announced, and unrated facility assessment performed by a rating system project staff, followed by an unannounced, rated assessment conducted by the residential care facilities for the elderly peer review ream (comprised of a rating staff member, an owner/operator of a local facility, and an allied professional [i.e., registered nurse, certified nursing assistant, etc.]). Upon completion of the preliminary (announced and unrated) peer review team assessment, the assessment findings would be provided to the facility by the rating system project staff, enabling the facility to clearly understand what the peer review team would be looking for in its "official" assessment. At a later date, the peer review team would return to the facility, unannounced, to officially assess the facility. The score earned during this second visit, and annually thereafter, would contribute to the facility's overall rating. The peer review team assessment tool was not completed during the six-month pilot, though discussions were initiated on additional parameters.

In the absence of actual subjective scoring data for customer satisfaction surveys and peer review team surveys, the project team used simulated data to test their influence on algorithms and resulting overall scores. The simulations used were based on nominal low, medium, and high scores. The county contract stipulated the rating system scoring device was to rest fundamentally upon the public records score. To fulfill this requirement, the project team presented various scenarios for how the customer satisfaction surveys and peer review team scores could be weighted within the overall score and demonstrated the effect of the simulated subjective scores on raising or lowering the overall score. The range of distribution options considered fell between 50-25-25 and 95-2.5-2.5. Based on stakeholder feedback, an 80-10-10 distribution was selected, with 80% of the score derived from the public records data, and the remaining 20% distributed equally to the customer satisfaction surveys and peer review team components.

RESULTS

There were many lessons learned throughout the process of developing a prototype residential care facilities for the elderly rating system. Given that participation in the rating system program, beyond the pilot, would be on a voluntary basis, the most significant findings were those that aided in an understanding of the reticence among providers for an external entity to rate their performance. The pilot highlighted specific areas within the rating system program where a change of strategy or direction could mitigate provider skepticism.

Residential Care Facilities for the Elderly Participation

It was recognized early in the program that the number of participating facilities the county had anticipated was not materializing. Providers who declined participation expressed their views regarding a county-sponsored rating system as: a) while a mandatory model was unwelcomed, the voluntary model was deemed problematic as facilities would be able to enter and exit according to the perception of their score; b) state oversight was viewed as too broken for the creation of a meaningful rating system that relied on public records data; and c) the overall program was viewed as an unnecessary government intrusion and redundant medium, given the number of opportunities to market facility services elsewhere without a rating attached.

Providers' skepticism translated into their limited participation as stakeholders and in allowing their facilities to be rated using the rating system scoring tool developed during the pilot. Their reduced participation may have had the unintended consequence of consumer-centric stakeholders having a disproportionate representation during the pilot.

Those providers who did participate in the pilot expressed greater confidence in the program as a result of their participation and contribution. The project team found that open dialogue, transparency, and education about the methodologies and program reduced provider aversion. These findings suggest the need for educational outreach and unique incentives to encourage facility participation in subsequent rating system project refinement and implementation phases as well as to encourage loyalty to the overall program. The influence of consumer demand and public benefit on facility participation was identified as another component to be further explored and leveraged. A professional marketing campaign was identified as one way to generate wider interest and demand within the community.

One rating system could rate both large and small without unfairly representing the compliance histories of facilities.

Large Versus Small Residential Care Facilities for the Elderly and Scoring Context

Early in the pilot, providers opined that large residential care facilities for the elderly (Stratum 5) were fundamentally different than small residential care facilities for the

Figure 1. Quality Measures Before and After Restructuring.

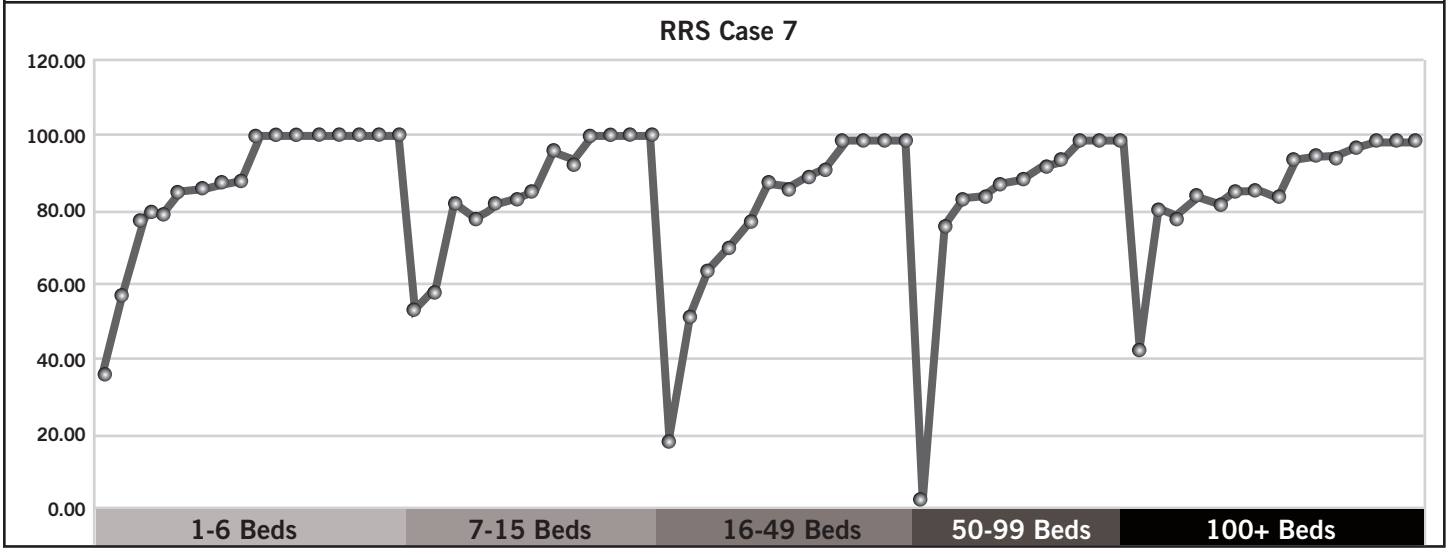

Figure 1: rating system case 7 results across each of the five strata. Each point represents an individual facility's score based on the algorithm used in case 7. A Kruskal-Wallis test was run on case 7; the results ($p > 0.05$), ($p = .916$) indicate that there is no difference in evaluation across strata.

elderly, and therefore, any rating system would likely not fit all residential care facilities for the elderly. The project team's stratified exemplar yielded consistent rating results across all strata. The Kruskal-Wallis test was used to test differences between means across the facility strata ($p > 0.05$), with results as presented in **Figure 1**. This finding suggested that one rating system could rate both large and small residential care facilities for the elderly without unfairly representing the compliance histories of facilities in any strata. While implementation of the rating system on a larger scale will be necessary to replicate these findings, the rating system pilot produced a rating system that yielded consistent rating scores regardless of the facility size.

Another finding of the development work was that the average exemplar's facility rating score was 84%. Since San Diego County's rating system is the first of its kind, there exists no benchmark to assess the relative worth of an 84% score or way to compare it to the performance of other facilities in the county. That is, without knowing how other residential care facilities for the elderly score using the rating system, consumers may find it challenging to assess or make assumptions about an individual score seen in isolation. This finding suggests that without context, the rating has little meaning to either a consumer or provider and indicates the necessity of addressing this issue going forward.

Triad of Components

There are limitations to the state's public data on assisted living facilities: 1) the state's current mandate for inspections is once every five years unless a complaint is filed; 2) the state's inconsistent application of citation types (A/B); and (3) the public records information on facilities remains challenging for consumers to both access and analyze. The pilot's consensus-driven, methodical approach to evaluating and addressing these issues improved provider receptiveness to using public records data. Further, the inclusion of the subjective data components rendered the overall rating score more balanced. The customer satisfaction surveys and peer review team were reportedly viewed by all stakeholders as valuable measures to compensate for the limitations of the public records data, most notably by 1) offering facilities another way to translate the quality of care they provide to consumers; and 2) affecting facilities overall score within the rating system (i.e., moving in the direction of the current care they are providing).

DISCUSSION

Within the assisted living industry, a majority of benchmarking occurs internally as a form of best practices. Without provider benchmarks available for public review, compliance with regulatory standards offers one opportunity to evaluate and compare facility performance. The issue then becomes how can state regulations be translated into meaningful measures given inherent data limitations, and that quality, as defined in an assisted living setting, is equally a matter of personal preference and therefore requires a variety of measurement tools (Hawes & Philips, 2007).

CONCLUSION

This article outlines one county's approach to addressing the informational gaps that exist within the market (Hawes & Philips, 2007). By combining facility compliance scores with customer and peer satisfaction inputs, community members (consumers, providers, and allied professionals) are offered a more comprehensive picture of those local facilities electing to participate in the rating system. It is the county's anticipation that a growing number of facilities will enroll in the program once it is demonstrated as a tool to 1) distinguish themselves from substandard facilities in the area; and 2) collectively establish, share, and improve upon best practices within the industry.

San Diego County's residential care facilities for the elderly rating system pilot offers a model for potential replication in other states where access to public information on assisted living facilities is lacking. Given the variation in regulations and oversight practices from state to state, adaptations of the rating system model may be required and would be enriched with input from local stakeholders. Any efforts to implement a rating system for assisted living facilities would benefit from an independent, third party facilitator experienced in state oversight patterns, public records research, and the local assisted living industry at large.

While the proliferation of assisted living rating systems has yet to be seen due to both real and perceived challenges, consumer demand for reliable indicator tools will only

continue to increase as a greater number of seniors consider assisted living a preferred long-term care option. In response, more states and/or local communities should consider initiating innovative ways to narrow the information gaps.

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