INSPECTION VISITS IN RESIDENTIAL CARE FACILITIES FOR THE ELDERLY

THE EFFECTS OF A POLICY CHANGE

2008

PREPARED FOR
THE CALIFORNIA HEALTHCARE FOUNDATION

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This research was supported by grant number 06-1148 from the California Healthcare Foundation and by grant number 5 T32 HS000086 from the Agency for Healthcare Research and Quality. The findings and views contained in this study are those of the authors and do not necessarily represent those of the funders or others.

Acknowledgements

We wish to acknowledge and express gratitude to those who contributed to this study: Dr. Alan Bostrom from the University of California, San Francisco, Department of Epidemiology and Biostatistics provided statistical programming; Terrence Donnelly, M.S.W.; Patricia McGinnis, JD with the California Advocates for Nursing Home Reform helped develop Community Care Licensing Division interest; Ben Pardington, Program Administrator, California Department of Social Services, Community Care Licensing Division facilitated access to and cooperation from the district offices; and to the provider, consumer and advocate group representatives who participated the stakeholder meetings conducted by the project. Additionally, we thank Katie O'Malley and Maribeth Shannon of the California Healthcare Foundation for their support and interest in long term care.

ABSTRACT

Purpose: This study investigated the effects on inspection visits and citations issued of a policy change that decreased annual State inspections of Residential Care Facilities for the Elderly to once every five years in California.

Design and Methods: Data collection involved a five-year retrospective review of public facility files. Among other things, these record the purpose and outcomes of all State visits. Files were obtained for a stratified probability sample of 340 facilities, selected from the 3349 facilities licensed in Northern and Central California. Approximately equal numbers of facilities were selected for each size group and district office. Generalized Estimating Equations were used for multivariate analyses of size, office and period effects on the types of visits, the deficiencies identified, and the citations given. Our analyses included citations relative to quality of care.

Results: Routine survey visits were replaced with significant increases in the number of complaint and problem-driven visits. As expected, fewer facilities were surveyed by the State. While fewer citations indicative of quality of care were issued overall, rates of these types of citations arising from problems and complaints significantly increased. Practice patterns amongst offices and variations by facility size groups were also identified.

Implications: The State system for monitoring Residential Care Facilities for the Elderly has become a problem-driven process, with increases in the numbers of complaint visits. Data from this process affects comparisons of industry and facility trends in quality of care indicators. It may also affect the rate of proactive consultation and quality improvement visits.

Keywords: quality of care, quality assurance, residential care, long-term care, assisted living

The number of Residential Care (RC), also referred to as Assisted Living (AL), beds doubled between 1990 and 2002 (Harrington, Chapman, Miller, Miller & Newcomer, 2005). Concurrent with this growth is an increasing prevalence of physical and cognitive frailty among the residents served (Hawes, Mor, Wildfire, et al., 1995; Spillman, Liu & McGilliard, 2002). Such changes, coupled with findings that RC/AL facilities have lower staff to resident ratios and lower training standards than nursing homes (Assisted Living Working Group, 2003; Carlson, 2005) have raised concern about the quality of care provided in these facilities (Assisted Living Working Group, 2003; Center for Medicare Advocacy, 2007; US GAO, 1999) and states' effectiveness in monitoring RC/AL facilities (Center for Medicare Advocacy, 2007; Institute of Medicine, 2001).

The principle public oversight of RC/AL facilities is through the enforcement of state regulations. This generally occurs in the form of periodic license renewal surveys and visits in response to consumer complaints or other administrative follow-up. Among other things, these administrative records can be used to report the incidence of quality of care problems, and to trend this over time. More than one-third of the states make information of citations available on state web sites (Mollica, 2006). All states require that a facility's citation and deficiency notices be available on-site at facilities (Mollica, Johnson-Lamarche & O, Keeffe, 2005).

Recognizing the importance of State administrative records, this paper looks at the consequences of a change in California's inspection practice (effective January 1, 2004) that replaced annual inspection visits with such visits being done instead on an approximate 20% sample of facilities annually (Official California Legislative Information, 2005). In particular, we consider whether the prevalence and type of citations is affected by the change in State practice, and whether these patterns are consistent among the State's regional licensing district offices and by the size of facilities. Citations indicative of quality of care are the focus of the study.

BACKGROUND

In California, the Department of Social Services (CDSS), Community Care Licensing Division (CCLD) is the agency responsible for the licensing and monitoring of RC/ALs. While the name "Assisted Living" is commonly used by providers, there is no such separate classification used in California regulations (CDSS, 2007). Instead, the term Residential Care Facilities for the Elderly (RCFEs) is used for all licensed housing serving the aged. Services available in RCFEs include room and board with provisions for assistance with activities of daily living such as bathing, dressing, eating, grooming and continence. In addition, assistance with transportation, housekeeping, laundry, obtaining medical and social services, and the supervision of medications is offered. Assistance with other medical needs (e.g., hospice care, home health care) is permitted, but these services are provided by third party vendors.

RCFEs vary in size, ranging from fewer than six beds to greater than 100 beds. There are currently more than 7,700 licensed RCFEs with a capacity to serve approximately 165,000 elderly persons in need of care (CDSS, 2007). Similar to trends across the country, RCFEs continue to grow in number in California. Regardless of size, there is variation in the services offered within a size group. For example, some facilities accept and retain only ambulatory persons. Others will accept and retain a number of non-ambulatory residents, including those with dementia and hospice residents. Personnel requirements and fire safety standards vary according to facility size and whether non-ambulatory residents are accepted.

The Community Care Licensing Division (CCLD) is responsible for RCFE licensing and monitoring. This role is exercised through 14 district offices. Offices range from being responsible for approximately 300 to over 1100 facilities within a specific geographic region. RCFEs are evaluated by a combination of required periodic licensing surveys, visits in response to complaints received by CCLD, and for other reasons (i.e., case management) deemed necessary to assure compliance (e.g., to follow-up on a plan of correction related to a citation). Information regarding State survey reports, which includes the reason for the inspection and citations issued, is maintained and available to the public in State offices and on-site at facilities in hard copy format.

In California, regulations regarding RCFEs are governed by Title 22, Chapter 8, Division 6 of the California Code of Regulations. These regulations consist of the nine articles summarized in Figure 2-1. Articles six through eight are the focus of this study because they include regulations indicative of quality of care. Included are requirements regarding the continuing care and supervision of residents, physical plant and safety, and incidental medical care. For example, Article six includes ongoing care requirements such as medications and personal accommodations and services. Article seven includes requirements fire and life safety and injury prevention and Article eight addresses regulations regarding restricted and prohibited medical conditions. Any citations relative to the remaining Articles (i.e., 1-5; 9) were excluded from the analyses.

Figure 2-1
California Code of Regulations Title 22, Chapter 8, Division 6

Article Numbers	
One	Definitions
Two	License
Three	Application Procedures
Four	Administrative Actions
Five	Enforcement Provisions
Six	Continuing Requirements
Seven	Physical Environment
Eight	Incidental Medical Care
Nine	Administrator Training Programs

State budget cuts, combined with an on-going increase in number of RCFEs, have affected CCLD's ability to make required, routine inspections of RCFEs. Prior to January 2004, CCLD conducted annual inspections of facilities. Since then, required visits have been decreased to a minimum of once every five years (Official California Legislative Information, 2005). CCLD, along with other stakeholders (e.g., providers, consumers and advocates), recognizes the importance of routine required inspection visits to insure quality of care. In their report, *Information Strategic Plan, Community Care Licensing Division* (2006), CCLD stated that "the oversight role of CCLD is in a state of crisis". Additional resource reductions were proposed in the Governor's 2008 budget.

METHODS

Sample

Administrative records available from a stratified probability sample of licensed RCFEs operating in California as of June 2006 were used as the basis for the study. The sample includes approximately equal numbers of facilities selected in each of the six CCLD district offices operating in Northern and Central California. These offices are responsible for 49 of California's 58 counties and approximately 50% of all of RCFEs in the State. Within the district offices, facilities were stratified by size (i.e., 1- 6 beds; 7-15 beds; 16-49 beds; 50-99 beds; and $\geq$100 beds). Approximately equal numbers of facilities were selected within each size group and within each district office. The realized sample varied somewhat because of a district office's request to reduce the files they needed to compile and because of files that could not be located. Of the 340 requested files, 315 (90.8%) were available for review. The remaining 25, either 1) were unavailable because they were in a satellite office (n=8); 2) were reported to be "problem" facilities and unavailable to the public (n=2); or 3) could not be located and were thought to be misfiled (n=15).

Data Collection and Measures

CCLD documentation of their facility visits includes the purpose of the visit; and any citations, deficiencies, or plans for remedy. All this information is available in the public files maintained for each facility in the district offices. These data were collected on-site at the district offices. Records from June 2006 retroactively to January 2000 (or to the earliest records if the facility had been in operation for fewer than five years) were reviewed and coded.

The data collected from the public files included the location, size, ownership type, effective initial operational date and licensure status, and State survey and other visit documentation. Each visit was coded in terms of the date, reasons for the visit, and any deficiency citations given. Reasons of visits included three visit types including: 1) required, which are inspection survey visits required by law unrelated to complaints or problems; 2) case management, which are visits made at the discretion of the individual licensing district office to follow up on a complaint or problem, or to evaluate a plan of correction; and 3) complaint visits which include investigations into allegations made against a facility by any party. Citations were coded by State Article number, regulation number, and by seriousness. We included specific citations (i.e., Articles six, seven, and eight from Title 22, Chapter 8, Division 6, see Figure 1) considered relative to RCFE quality of care based upon a framework adapted from Avedis Donabedian's (1966) theory that included structural, process and outcome components of quality (Flores & Newcomer, 2006). Citation severity is recorded as either Type A or Type B by CCLD inspectors. "Type A" citations are considered serious, meaning a failure to comply presents an immediate or substantial threat to physical health, mental health or safety of the residents. "Type B" are less serious, meaning a failure to comply does NOT present an immediate or substantial threat to physical health, mental health or safety of the residents (CDSS, 2007).

Analysis

Analyses are inclusive of the period January 2000 through June 2006. Data are adjusted for the number of months that the sample facilities were in operation during the particular calendar year or period. Descriptive statistics are used to show the rates of CCLD survey visit types and visit

outcomes (e.g., citations, as well as severity, related to regulations regarding continuing care requirements, physical environment and safety and health outcomes) with consideration for time period, district office and facility size. Generalized Estimating Equations (GEE) are used to test for differences in deficiencies between facility size, district offices and over time. GEE methods (SAS, Version 9.1, Proc Genmod) were used because this method allows for analyzing correlated data present in this study because the RCFEs are measured at multiple points in time (i.e., state inspection visits to RCFEs) and with some outcomes (case management or repeated annual visits) being related to earlier visit outcomes (Ballinger, 2004).

RESULTS

This study aimed to examine whether the prevalence and type of citations is affected by differences in licensing agency practices (i.e., district offices), the size of facilities, and the frequency of routine inspection visits (January 2004 policy change).

Sample Facilities

Table 2-1 illustrates the facility sample groups according to the office and size stratification. Sample sizes are different in time periods because some facilities were licensed after January 2004. These differences were accounted for in the analyses by adjusting for the number of months of operation within the observation time period. Sample sizes vary slightly between district office and by facility size groups. This is the result of the unavailability of some public files in some instances as noted earlier.

A variety of ownership types were identified within the sample. Their distribution reflects the sample, not necessarily the distribution within the statewide population of facilities in this industry. For-profit non-corporations, which includes individuals, partnerships and limited liability companies predominate (61.2%). These are followed by for-profit corporations (28.6%), and not for-profit corporations (10.2 %). Ownership type distributions were not statistically significant across districts in the sample, but there were significant difference comparing ownership and facility size. Smaller facilities tended to have for-profit individuals and larger facilities more commonly owned by corporations. Because of these associations, ownership type is only included here as a description of the sample facilities, but not included in the further analyses.

Table 2-1
Sample Facilities Visit Type / Citation Rates

	Sample	Visits by Type						Citations By Severity					
	n	Required Median	Case Management Median	Complaint Median	Required Mean	Case Management Mean	Complaint Mean	A Median	B Median	A/B Median	A Mean	B Mean	A/B Mean
Time Period													
Before January 2004	234	.75	.25	.00	.82	.40	.43	.75	.78	1.84	1.56	1.32	2.88
After January2004	315	.00	.40	.40	.43	.51	.75	.40	.40	1.2	1.38	1.41	2.78
District Office/Before January 2004													
Rohnert Park	39	1.0	.50	.00	.99	.83	.50	.75	1.75	3.25	1.88	2.84	4.72
Sacramento/Stockton	48	.75	.125	.00	.79	.27	.41	.75	.86	2.33	1.44	1.04	2.48
Chico	38	.94	.00	.48	.93	.23	.69	.73	.86	2.50	1.73	1.10	2.82
San Bruno	38	.75	.25	.00	.78	.38	.43	1.50	1.25	3.63	1.88	1.85	3.72
Fresno	29	.71	.00	.00	.68	.29	.35	.50	.00	.50	1.06	.31	1.38
San Jose	42	.75	.25	.00	.72	.42	.24	.94	.50	1.50	1.27	.66	1.93
District Office/After January 2004													
Rohnert Park	53	.00	.80	.00	.33	.96	.71	.40	1.6	2.0	1.19	2.86	4.05
Sacramento/Stockton	57	.00	.40	.40	.28	.54	.70	.40	.40	.80	1.31	.96	2.27
Chico	50	.40	.00	.40	.39	.24	.85	.00	.00	.45	.79	.56	1.35
San Bruno	49	.00	.40	.00	.23	.36	.79	.40	.40	.80	1.07	1.01	2.08
Fresno	50	.40	.00	.00	1.11	.43	.93	.80	.00	1.00	3.02	2.20	5.21
San Jose	56	.00	.40	.20	.28	.53	.56	.20	.00	.80	.95	.87	1.82
Facility Size/Before January 2004													
1-6 beds	39	.80	.00	.00	.87	.21	.14	.41	.00	1.00	1.25	.77	2.03
7-15 beds	51	.75	.25	.00	.77	.38	.23	.75	1.0	2.25	1.24	1.69	2.92
16-49 beds	53	.75	.25	.26	.82	.45	.51	1.41	1.00	2.75	2.13	1.39	3.52
50-99 beds	42	.75	.25	.00	.81	.49	.67	.92	.50	1.46	1.47	1.20	2.67
100 beds	49	.75	.25	.25	.82	.46	.60	.75	.75	1.75	1.57	1.41	2.98
Facility Size/After January 2004													
1-6 beds	69	.40	.00	.00	.94	.24	.31	.00	.00	.63	1.35	1.65	3.00
7-15 beds	61	.00	.40	.00	.22	.49	.42	.00	.00	.40	.83	.88	1.71
16-49 beds	67	.00	.40	.40	.36	.52	.70	.80	.80	1.60	1.26	1.39	2.64
50-99 beds	57	.00	.40	.80	.32	.66	1.26	.40	.40	1.20	2.20	1.92	4.12
100 beds	61	.00	.40	.40	.25	.71	1.17	.40	.40	.80	1.31	1.20	2.51

Results are for the study time period: January 2000-June 2006.

Both annual/random inspection visits and post-licensing visits have been combined as "required" visits as they are required by regulation; Case Management and Plan of Corrections visits have been combined as they included visits made to follow up on problems or evaluate a plan of correction; Complaint visits may include an investigation of more than one complaint, only visits are counted here, not the specific number of complaints. Pre-licensing visits are not included as are completed prior to the facility being opened. Office visits are not included as they do not occur on-site at the facility, but are meetings with the licensee in the district offices for any purpose, at the request of the facility or the licensing agency.

A Type A citation is defined as serious, meaning a failure to comply presents an immediate or substantial threat to physical health, mental health or safety of the residents.
A Type B citation is defined as less serious, meaning a failure to comply does NOT present an immediate or substantial threat to physical health, mental health or safety of the residents.
Type A/B combined citations includes all citations.

Rates of Visits by Type

Prior to January 2004, 49.6% of total visits were required inspection surveys, 24.0% were case management visits (i.e., a visit made as deemed necessary by the district office to follow up on a problem or insure a plan of correction), and 26.4% were visits to made to evaluate a complaint received by CCLD. After January 2004 there was an expected, notable decrease in required survey visits (17.8%), and a corresponding increase in the prevalence of complaint related visits (48.9%). Case management visits also accounted for a higher proportion of the visits after the policy change (33%). Prior to January 2004, 97% of licensed facilities in the sample received at least one visit of some type from the State. In the post-policy change period, this decreased and approximately 20% of facilities received no visits of any type.

Table 2-1 summarizes the mean and median rates of visits by type. Visit types are expressed as a rate of visits per year, adjusted for number of months a facility was in operation. The median rate of required visits per facility was .75 in the time period before January 2004. This decreased to a median rate of zero after the policy change. While the median rate of complaint visits was zero before the policy change, this increased to .40 after January 2004. Similarly, case management visits increased from a median rate of .25 to .40. One office (Rohnert Park) showed noticeably different rates of visits by types when compared to other offices. This office made more required visits in the pre-2004 period than other offices and also made more case management visits. The practice of more case management visits in this particular office became more exaggerated after the policy change (median rate of .80 as compared to zero-.40 among other offices). The smallest facilities (i.e., 1-6 beds) had higher median rates of required visits across the policy change, as well as consistently lower rates of case management and complaint visits.

Rates of Quality of Care Citations with Severity

Also seen in Table 2-1 is that overall, the rates of citation issued declined after the policy change. Citation types (both by severity and combined) are expressed as a rate of citations per exposure year adjusted for number of months a facility was in operation. Median rates of citations dropped for Type A, Type B and Type A and B citations combined. This was consistently true by district offices with the exception of one office (Fresno), where citations increased. Patterns among facility size groups were similar with all size groups receiving less median rates of citations after the policy change. The smallest facilities (i.e., 1-6 beds) had the lowest median rate of Type A, Type B and Type A/B combined citations. This pattern continued after the policy change.

Effects of Policy Change on Rates of Visit Types

Table 2-2 shows the effect of the 2004 policy change on rates of visit types, adjusting for district offices and facility size groups. When considering all sample facilities collectively, post-2004 required visits occurred at a rate 30% that of the pre-2004 rate. Rates of case management visit doubled and complaint visit rates tripled when compared to the pre-2004 rates.

District Offices

Variations in district office practices were tested using comparisons to the Grand Mean visit rates within the policy period as the reference category. One office (Rohnert Park) consistently, both before and after the policy change period, made more (i.e., a rate of 180-200% that of the

average among all offices) case management visits. After 2004, this office also had a significantly lower rate of complaint visits (compared to the group mean). The Chico office, consistently across the policy change period, made significantly fewer (a rate 33-49% of the average of all offices) case management visits, and more (a rate of 179-194% compared to the average of all offices) complaint visits. San Jose had a practice pattern (as reflected in visit patterns) similar to that of Rohnert Park prior to 2004, and a tendency to continue this after 2004, but the comparisons to the group mean rates were no longer significantly different. Interestingly, the Fresno office showed a required visit rate doubled that of the grand mean after 2004.

Table 2-2
Time Period, District Office and Facility Size Effects on Visit Rates by Type of Visit

	Required	Case Management	Complaint
	Estimate	**Estimate**	**Estimate**
Time Period			
Before January 2004	-	-	-
After January2004[a]	0.31***	2.01***	3.11***
District Office/Before January 2004			
Rohnert Park[b]	0.85	1.89***	0.84
Sacramento/Stockton[b]	1.10	0.82	1.02
Chico[b]	1.01	0.49***	1.79***
San Bruno[b]	1.11	0.90	0.87
Fresno[b]	1.34	0.75	1.23
San Jose[b]	0.85	1.55**	0.67*
District Office/After January 2004			
Rohnert Park[b]	0.93	2.08***	0.54**
Sacramento/Stockton[b]	0.77	1.08	1.51
Chico[b]	1.27	0.33***	1.94***
San Bruno[b]	0.62	0.68	1.36
Fresno[b]	2.30**	1.01	1.21
San Jose[b]	0.95	1.29	0.81
Facility Size/Before January 2004			
1-6 beds[c]	2.36***	0.66	0.42***
7-15 beds[c]	1.11	1.03	0.59**
16-49 beds[c]	0.85	1.028	1.31
50-99 beds[c]	0.84	1.08	1.53*
100 beds[c]	0.80	1.11	1.35
Facility Size/After January 2004			
1-6 beds[c]	5.57***	1.22	0.33***
7-15 beds[c]	0.79	1.44*	0.50**
16-49 beds[c]	1.13	0.96	0.90
50-99 beds[c]	0.87	0.80	2.02***
100 beds[c]	0.63**	0.98	1.22

*p<.05; **p<.01; ***p<.001

[a] Comparison is with the reference Time Period January 2000 through-December 2003, and January 2004-through June 2006
[b] Comparison is with the grand mean for the period
[c] Comparison is with the grand mean for the period

Generalized Estimating Equation (GEE) models are based upon actual months a facility was in operation during the study time frame. Estimates are in odds of visit type per month per unit of predictor.

Both annual/random inspection visits and post-licensing visits have been combined as "required" visits as they are required by regulation; Case Management and Plan of Corrections visits have been combined as they included visits made to follow up on problems or evaluate a plan of correction; Complaint visits may include an investigation of more than one complaint, but visits are counted here, not specific number of complaints; Pre-licensing visits are not included as they are a function of supply and are completed prior to the facility being opened. Office visits are not included as they do not occur on-site at the facility.

Facility Bed Size

Facility size is also associated with the rate of visit types. Variations among facility size group were tested using comparisons to the Grand Mean visit rates within the policy period as the reference category. Both before and after the policy change, the smallest facilities (i.e., 1-6 beds), received significantly more (a rate two to five times greater than the average of all size groups) required survey visits, and fewer (a rate about one-third that of average among all size groups) complaint visits. In addition, after 2004, the largest (i.e., over 100 beds) facilities received significant fewer required survey visits and the 50-99 size group received complaints at a rate double that of average among all size groups.

Effects of Policy Change on Rates of Quality of Care Citations

Table 2-3 shows the effect of the 2004 policy change on rates of citations according to visit types, adjusting for district offices and facility size groups. Significant differences in rates of citations are seen in all categories of visit types and all citations. After 2004, required survey visits resulted in significantly fewer citations (Type A and B) and case management citation rates doubled. After 2004, Type B citations from complaints visits occurred at a rate triple that of the pre-2004 period and citations over all (Type A and B) occurred at a rate almost double.

District Offices

Variations in district office practices were tested using comparisons to the Grand Mean citation rates within the policy period as the reference category. When all citations (A and B) are considered collectively there is little variation among the district offices and facility size groups relative to rates of citations by visit type (Table 2-3). However, when severity of citations is also considered, some differences are noted among offices indicating probable variation in practice among offices. These variations were not consistent across the policy change (a finding that may be related to changes of both staff and management turnover and change at district offices). One exception was the Rohnert Park office (which had consistent management personnel) where similar patterns existed across time and change in policy. For example, before 2004, the Rohnert Park office issued significantly more Type B citations at case management visits and complaint visits than other offices ($p<.001$). After 2004, when required survey visits could not be made as often, even more Type B citations were issued at case management and complaint visits. This pattern is consistent with the informal discussions with the office manager of Rohnert Park where a philosophy of identifying problems before serious consequences occurred and assisting facilities in insuring a plan of correction was specifically expressed. After 2004, Rohnert Park continued in a similar practice pattern, but with more emphasis on case management and higher rates of complaint-based citations. Fresno departed from its prior practice and that of the other offices and showed a tendency toward higher rates of citations, particularly Type A citations.

Facility Bed Size

Variations among facility size group were tested using comparisons to the Grand Mean citation rates within the policy period as the reference category. Prior to 2004, small facilities had visit and citation patterns similar to those of the other size groups in the sample. After 2004, these facilities experienced higher rates of required visits and Type A & B citations than the other

Table 2-3
Year, Time Period, Office and Facility Size Effects on Citations by Severity & Visit Types

	Required			Case Management			Complaint		
	Type A	Type B	Type A/B Combined	Type A	Type B	Type A/B Combined	Type A	Type B	Type A/B Combined
Time Period	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**
Before January 2004	-	-	-	-	-	-	-	-	-
After January2004[a]	.44***	.65**	.55***	2.27***	2.25***	2.19***	1.34	3.21***	1.71***
District Office/Before January 2004									
Rohnert Park[b]	0.90	1.45**	1.16	1.05	2.85***	1.87	0.67	1.92**	0.87
Sacramento/Stockton[b]	0.96	1.10	1.00	1.62*	0.90	1.22	1.18	0.51	1.02
Chico[b]	0.84	0.86	0.83	0.90	0.69	0.75	1.59*	1.17	1.46
San Bruno[b]	1.57**	1.73***	1.61	1.07	1.14	1.06	0.98	1.48	1.03
Fresno[b]	1.08	0.30***	0.67	0.34*	0.51	0.40	1.06	0.70	0.96
San Jose[b]	0.91	0.73*	0.79	0.98	0.55	0.73	0.82	0.66	0.77
District Office/After January 2004									
Rohnert Park[b]	0.45**	1.23	0.93	1.24	3.86***	2.24	0.64*	1.94**	1.07
Sacramento/Stockton[b]	1.02	0.90	0.90	1.11	1.03	0.99	1.26	0.71	1.00
Chico[b]	1.10	0.69	0.81	0.55	0.19***	0.36	0.79	0.99	0.82
San Bruno[b]	0.93	0.70	0.75	0.82	1.19	0.92	0.88	0.68	0.76
Fresno[b]	3.32***	1.66	2.22	1.44	0.76	1.07	2.67***	1.37	2.06
San Jose[b]	1.17	1.09	1.07	1.02	0.66	0.80	0.92	0.63	0.77
Facility Size/Before January 2004									
1-6 beds[c]	1.35	0.95	1.13	0.94	0.60	0.76	0.85	0.51	0.78
7-15 beds[c]	1.15	1.63***	1.38	1.02	1.08	1.02	0.56**	0.98	0.64
16-49 beds[c]	1.13	0.93	1.03	0.93	1.11	0.99	1.56*	0.96	1.42
50-99 beds[c]	0.73*	0.71**	0.72	1.01	1.91**	1.45	1.05	1.14	1.05
100 beds[c]	0.87	0.95	0.90	1.07	0.63	0.84	1.11	1.35	1.14
Facility Size/After January 2004									
1-6 beds[c]	4.91***	3.07***	3.69	0.91	1.73*	1.27	0.56	0.15*	0.41
7-15 beds[c]	0.64	0.82	0.73	1.03	1.04	1.05	0.79	0.732	0.75
16-49 beds[c]	1.07	1.74*	1.46	1.07	0.97	1.01	1.12	1.13	1.10
50-99 beds[c]	1.47	0.84	1.06	1.29	1.52	1.36	1.18	1.67*	1.32
100 beds[c]	0.47**	0.57*	0.53	0.77	0.57**	0.67	1.10	1.36	1.17

*p<.05; **p<.01; ***p<.001

[a] Comparison is with the reference Time Period January 2000 through-December 2003, and January 2004-through June 2006
[b] Comparison is with the grand mean
[c] Comparison is with the grand mean

Generalized Estimating Equation (GEE) models are based upon actual months a facility was in operation during the study time frame.

Estimates are in odds of visit type per month per unit of predictor.

Both annual/random inspection visits and post-licensing visits have been combined as "required" visits as they are required by regulation; Case Management and Plan of Corrections visits have been combined as they included visits made to follow up on problems or evaluate a plan of correction; Complaint visits may include an investigation of more than one complaint, but visits are counted here, not specific number of complaints; Pre-licensing visits are not included as they are a function of supply and are completed prior to the facility being opened. Office visits are not included as they do not occur on-site at the facility.

A Type A citation is defined as serious, meaning a failure to comply presents an immediate or substantial threat to physical health, mental health or safety of the residents.
A Type B citation is defined as less serious, meaning a failure to comply does NOT present an immediate or substantial threat to physical health, mental health or safety of the residents.
Type A/B combined citations includes all citations.

facility size groups. Encouragingly, the smaller facilities tended to have a lower rate of complaint-based citations. The larger facilities (100+ beds), reflect the opposite pattern, with lower rates of citations from required and case management visits than the group average among facilities. Larger facilities tended to have higher (but not statistically significant) rates of complaint-based citations.

DISCUSSION

The results of our analyses indicate that, to a large extent, the monitoring of quality of care in California Residential Care Facilities for the Elderly has become a complaint and problem driven process. The 2004 policy change reducing required annual survey visits to a 20% sample of RCFEs achieved the goal of reduced required inspection surveys. However, since then some of the CCLD staff time has been allocated to increases in case management and complaint visits. Unclear is whether problems in quality of care are being underidentified or overemphasized. With approximately 20% of facilities not receiving any visits from the State, what actual or possible problems or deficiencies may be developing? The variation in practice patterns among various offices and facility size groups, especially after 2004, complicates the resolution of this question.

District Offices

Given the limited data available in public records, it is not possible to expressly describe the practices or management philosophies of the CCLD offices or staff. For example do practices, such as case management and consultative assistance help reduce the incidence of complaints, lessen the number and severity of quality of care deficiencies? There is limited support for such an interpretation in the results of one site (Rohnert Park) that since 2004 has had higher rates of case management and complaint visits, and has shown reduced rates of Type A citations associated with either required or complaint visits. There is some variability in practice between the other offices. Extreme outliers with variations in practice patterns across time, such as the Fresno office, affected mean rates of visits. Median rates were more indicative of practice patterns across district offices.

Facility Bed Size

Regardless of CCLD office, smaller facilities are receiving the most attention (in terms of rates of required visits) and the rates of citations and citation severity within these facilities. One possible explanation for the increase in required visits in the smaller facilities, especially in Fresno, was the increased presence of newly licensed facilities in this size group. CCLD typically makes a required survey visit to a newly licensed facility 90 days after residents occupy the facility. The increased rate of citations in this size group may be related to the increased number of visits. This is supported by lower rates of citations arising from case management and complaint visits among this size group. Larger facilities (i.e., 99 beds or more), have lower than average rates of required and case management visits (and correspondingly lower rates of citations from these visits). But this size group, and those of facilities size 50-99 beds have a trend toward higher rates of citations in complaint visits.

Study Limitations

This study has two important limitations. First, it was necessary to use modest sample sizes within the stratified sample to minimize the burden on CCLD staff who had to compile hard copy State administrative public files for our use. This limited the statistical power of the comparisons made in the analysis, and consequently, some of the 'true' differences either among offices or by size group may have been under represented in the findings. Secondly, the sample represents facility size groups within a district office. It was not drawn, nor has it been weighted to represent facilities by size for the whole State, or to provide state-wide probability estimates of particular facility attributes or experiences within district offices.

Implications

The state's current complaint and citation information is the only information available to the public on quality outcomes in RCFEs. As important as this information is, such measures reflect only negative performance. The public data, particularly in its non-electronic form, cannot be readily compiled to adjust the outcome measures for such important information as a facility's case-mix, staffing, payer mix. Any of these may affect resident outcomes. Substantial efficiencies in operational and performance measurement, in short may be realized if the current hard copy data system were available in electronic form. Such refinements would be a helpful addition to any reporting system available to the public or that attempts to monitor industry performance over time and would allow for comparison of industry and facility trends in quality of care indicators over time. Policy considerations regarding required visits frequency for RCFEs should consider the possibility of proactive consultation and quality improvement visits from CCLD.

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