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The Quality of Care in Residential Care Facilities for the Elderly

by

Cristina Flores, PhD(c), RN

DISSERTATION

Submitted in partial satisfaction of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Nursing Health Policy

in the

GRADUATE DIVISION

of the

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

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*by*  
*Cristina Flores, PhD(c), RN*

## ACKNOWLEDGEMENT

The choice to study Residential Care Facilities for the Elderly and consider quality of care for this dissertation research is a natural one. My affinity for working with the frail elderly dates back many years to nursing school and the very first persons I ever cared for. Over the years, various employment and career choices have provided numerous opportunities for me to explore and enjoy the development of a professional nursing career. My work in skilled nursing facilities, acute care hospitals and home-health care eventually led me to practice nursing in Residential Care Facilities for the Elderly, a long-term care setting where the possibility to value aging and individualism while providing quality long-term care realistically exists. Similarly, over time, I have been presented with varying educational opportunities. Undergraduate nursing school followed by graduate education in Gerontology and Long Term Care Administration and a California Pre-Doctoral Scholarship ultimately brought me here, to the University of California, San Francisco, to pursue doctoral studies in Nursing Health Policy.

I have been fortunate to have the further opportunity and receive additional training and experiences during my time at UCSF as a pre-doctoral fellow at the School of Medicine's Institute of Health Policy Studies, supported by the Agency for Healthcare Research (grant number 5 T32 HS000086). The fellowship program brought additional exposure to various health policy topics and health services research methods.

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This dissertation work reflects the expert mentorship of Dr. Robert Newcomer, my faculty advisor and Dissertation Committee Chair. He has guided and supported this

work providing expertise, advice and encouragement every step of the way. His willingness to devote his time and share his experiences and knowledge with me is far beyond any expectation a student could ever have. I am grateful to know him, collaborate with him and learn from him.

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In part, the text of this dissertation is a reprint of published materials as they appears in *The Assisted Living Residence: A Vision for the Future* and *Seniors Housing and Care Journal*. The co-authors listed in the publications directed and supervised the research that forms the basis for the dissertation.

In addition to my dissertation committee, Dr. Alan Bostrom assisted with data analyses for the final paper.

Lastly, I acknowledge the other persons who motivated and encouraged me to achieve my goals. My parents valued knowledge and gave me the gift of an early educational foundation. My children make it all worthwhile. The elderly persons for

whom I care for and their families continuously remind me of why my work is significant. And I am grateful to Ron, who believes in me the most and reminded me each day of what I could accomplish.

A handwritten signature in cursive script that reads "Cristina Flores".

.....  
Cristina Flores, PhD(c), RN

# **THE QUALITY OF CARE IN RESIDENTIAL CARE FACILITIES FOR THE ELDERLY**

by

**Cristina Flores, PhD(c), RN**  
**University of California, San Francisco**  
**2007**

## **ABSTRACT**

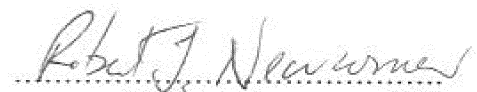
This dissertation research examines Residential Care Facilities for the Elderly (RCFEs), often referred to as Assisted Living (AL), by considering policy and regulation, state licensing and monitoring systems and concerns regarding quality of care.

The first study examines the intended and unintended consequences of federal and state policy and regulation affecting the Residential Care/Assisted Living industry. An economic framework forms the basis for the examination of two broad effects of policy: the availability of assisted living facilities, and residents' ability to afford those services. The conceptual framework is described and progresses through a description of illustrative policy domains and intended and unintended consequences are discussed.

The second study proposes an adaptation of the Donabedian structure-process-outcome theory as a framework for designing and more effectively using the administrative data collected in the licensing and regulation of Residential Care/Assisted Living facilities. Structural components are represented by facility, staff and resident characteristics. Process components include the types of services available and safety and injury prevention. Possible outcome measures include deficiencies and complaints, changes of resident health status and quality indicators, and discharge and medical event data. Emphasis is on measures available in administrative records.

The last study was designed to evaluate the applicability of adapting the State of

California administrative data regarding Residential Care Facilities for the Elderly (RCFEs) into a statewide system to monitor the quality of care provided. A randomly selected sample of 340 facilities was identified from the 3349 facilities licensed in Northern and Central California. Stratification of the sample was by facility capacity and State district office. Data collection consisted of a five-year retrospective review of the public files maintained across offices. A conceptual framework was developed to identify components thought to be indicative of quality of care. Such information was abstracted from the public files for data analyses. Collected data were analyzed using various descriptive statistics. Findings suggest that substantial limitations in current State data sources exist, as do concerns regarding quality of care. Suggestions are made to inform future researchers to further evaluate and improve the current monitoring system and develop a comprehensive, accessible information system.

  
Robert J. Newcomer, PhD  
Dissertation Committee Chair



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*Introduction*

*The Quality of Care in Residential Care Facilities for the Elderly*

## **THE QUALITY OF CARE IN RESIDENTIAL CARE FACILITIES FOR THE ELDERLY**

The aging of the population and a steady increase in life expectancy represent many challenges to public policy in the United States. The population aged 85 years and older is the fastest growing age group in the country and the number of elderly persons needing long-term care (LTC) is estimated to double, reaching over 14 million people over the next 20 years (US GAO, 1999). LTC is largely and increasingly provided outside of institutions in community-based settings, including Residential Care (RC) Facilities for the Elderly, also referred to as Assisted Living (AL).

### **RC/AL Facilities**

The setting for the delivery and receipt of LTC is often discussed as a continuum with one's own home at one end and the nursing home on the other. These end points also are used by many to symbolize the continuum from personal independence to institutionalization. RC/AL is one component in the continuum of LTC. RC/AL is typically considered as somewhere in between the extreme ends; a place where personalized care and supervision can be provided outside of an institutionalized environment.

RC/AL is not a new phenomenon in LTC; some form of community-based care arrangements or supportive housing has long been available. These types of facilities are known by more than thirty different names across the country including residential care, community care, personal care, domiciliary care, supervisory care, sheltered care, adult foster care, board and care facilities; and family, group and boarding homes (Newcomer & Grant, 1990). Although there are many different definitions for RC/AL, in general, RC/AL facilities offer room and board with provisions for assistance with activities of

daily living (ADLs) such as bathing, dressing, eating, grooming, continence and eating. In addition, assistance with transportation, housekeeping, laundry, obtaining medical and social services, and the supervision of medications and other medical needs is often offered (Assisted Living Working Group, 2003).

RC/AL has become an increasingly popular choice among consumers and in response to demand, the supply of facilities has increased over the last two decades (Assisted Living Working Group, 2003; Mollica, Johnson-Lamarque & O’Keeffe, 2005). A 2005 study examined trends in the supply of LTC facilities and beds in the United States and reported that between 1990 and 2002, the number of nursing home beds had increased by 7% and the number of RC/AL beds had increased by 97% (Harrington, Chapman, Miller, Miller & Newcomer, 2005).

### **RC/AL Residents**

Studies of RC/ALs suggest that residents, on average, have become more dependent as the regulatory boundary between RC/AL and nursing homes has been relaxed. For example, Catherine Hawes and colleagues (1995) reported that between 1983 and 1993 those residing in residential care became increasingly older (i.e., 64% in 1993 vs. 38% in 1983 were 75 and older); cognitively impaired (i.e., 40% vs. 30%); incontinent (i.e., 23% vs. 7%); wheelchair dependent (i.e., 15% vs. 3%); requiring assistance with bathing (i.e., 45% versus 27%); and assistance with medications (i.e., 75% versus 43%). A California statewide probability survey of RC/AL during this same period (Newcomer, Breuer & Zhang, 1994), found one-third of residents reporting at least two limitations with activities of daily living, between 40% and 50% showed moderate to severe depression, more than one half showed at least some cognitive impairment.

More recent studies suggest that the average RC/AL resident is in her mid-80's, female, white and widowed (Assisted Living Federation of America, 2000), with similar characteristics [e.g., having multiple chronic medical diagnoses and multiple prescribed medications] to those residing in nursing homes (Spillman, Liu & McGillard, 2002).

### **RC/AL Quality of Care Concerns**

There is concern regarding the performance of the industry and the quality of care provided (US GAO, 1999). The prevalence of physical and cognitive frailty among RCFE residents, combined with often lower staff to resident ratios and lower training standards than found in nursing homes (Carlson, 2005), are among the concerns about the safety of residents. Congressional hearings, government reports, research publications and media reports have drawn attention to actual and possible QoC related problems. For example, the US General Accounting Office (1999) found that RC/AL facilities do not always give prospective consumers adequate information as to whether, for how long, and under what circumstances a facility could meet their needs. Twenty-seven percent of the facilities reviewed had been cited for five or more QoC or consumer protection deficiencies during the 1996-1997 time period. Among the most cited problems were inadequate care [e.g., residents not receiving appropriate access to medical care], staffing problems [e.g., lack of training and credentials], and medication issues [e.g., medications not given as ordered].

### **Information Challenges**

The prominent role of RC/AL facilities in providing LTC services to the frail elderly has prompted a heightened interest in understanding the industry as evidenced by an increasing number of published articles, reports and books in recent years. Although

researchers have begun to address multiple aspects of RC/AL with a variety of approaches and methodologies, research has not kept pace with the industry growth. Knowledge remains limited and often ambiguous for a number of reasons. There is no uniform definition of RC/AL. There is much disagreement over the size and growth of the industry. There is tremendous variation among facilities in terms of clientele served and services provided. Moreover, there are no comprehensive, easily accessible or studied sources of data that can be utilized for research.

This lack of accessible and complete data creates challenges. Without reliable information, it is difficult for consumers to make informed choices regarding LTC. Furthermore, research is problematic. Because of this gap, this dissertation research approaches the consideration of QoC in RC/AL by taking into account present limitations in current data systems and contributes to the knowledge necessary for further research.

### **Organization of the Dissertation**

Chapter 1 considers the intended and unintended consequences of federal and state policies and regulations as relative to RC/AL (Newcomer, Flores & Hernandez, 2007). Using a literature review approach, two broad effects of policy are discussed: the availability of assisted living facilities, and residents' ability to afford those services. An economic framework (Paringer, 1985) was adapted to help organize the presentation and consideration of potential policy effects. This chapter's discussion begins with an outline of the conceptual framework and then progresses through a sequence of the policy domains. The components of the conceptual framework include financing and reimbursement, level of care requirements, operational requirements and competition.



Illustrative policies and some of the intended and unintended consequences that have been experienced (or might be expected) are described.

Chapter 2 presents a conceptual framework for considering quality of care in RC/AL and represents the first model of this type to be developed (Flores & Newcomer, 2006). This chapter proposes an adaptation of Avedis Donabedian's Quality of Care model of structure, process, and outcome (Donabedian, 1966, 1988) as a framework for designing and more effectively using the administrative data collected in the licensing and regulation of RC/AL facilities. This framework provides the theoretical basis for Chapter 3.

The final chapter, Chapter 3, presents the methods, results and conclusions of a study designed as an evaluation of the State administrative data on Residential Care Facilities for the Elderly (RCFEs) maintained by California. This research represents the first attempt to systematically evaluate a state monitoring system of this type. Limitations of the current system are described. Descriptive analyses of complaint and deficiency information highlight QoC concerns. Results form the basis for the conclusions and recommendations for an improved State database that builds upon and expands current available information into a complete and accessible system.

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*Chapter 1*

*Intended and Unintended Consequences of State and Federal  
Policies and Regulations*

**INTENDED AND UNINTENDED CONSEQUENCES OF STATE AND FEDERAL  
POLICIES AND REGULATIONS**

Robert Newcomer  
Cristina Flores  
Mauro Hernandez

## **INTENDED AND UNINTENDED CONSEQUENCES OF STATE AND FEDERAL POLICIES AND REGULATIONS**

Numerous criticisms of both quality of care and consumer rights issues have been made about the assisted living/residential care industry over the past two decades (e.g., US General Accounting Office, 2004; 1999; 1989; US Department of Health and Human Services, 1982). With the criticisms have come demands for improvement in state oversight. Predictably, there have also been industry concerns that the recent federal policy in this area could evolve to emulate federal regulation in the nursing home industry (Assisted Living Workgroup, 2003).

Even as debates over appropriate policies and jurisdiction have gone on, state governments have continued to execute their regulatory responsibilities addressing such concerns as setting minimum standards with respect to the levels of care to be licensed as assisted living, measuring quality of care, defining minimum staffing, and setting standards for medications management.

These policy changes have intended consequence on provider behavior and operations, and often effect the cost of service provision. These costs in turn can have unintended consequences. For example, if costs of operation (and rents) rise faster than the consumer's ability to purchase assistance, then such unintended consequences as a reduction in services supply or limited access for lower income residents may arise. In turn, restricted access or availability of assisted living may have the additional consequence that some of the demand for this level of care is shifted to alternative programs. These shifts may be intended or unintended, but they can have expense implications for other state and federally funded programs.

Changes in other public programs, such as in Medicaid home and community based care or income eligibility, while not explicitly directed to assisted living, can have consequences for this industry and those who might seek this level of care. These changes may varyingly affect access to care.

In short, policies affecting the assisted living/residential care industry come in many forms and can have effects both on the supportive housing industry or other sectors of government and industry. In this chapter we examine two broad effects of policy: the availability of assisted living facilities, and residents' ability to afford those services. An economic framework (Paringer, 1985) has been adapted to help organize the presentation and consideration of potential policy effects. The chapter's discussion begins with an outline of the conceptual framework and then progresses through a sequence of the policy domains. In each of these subsections we describe illustrative policies and some of the intended and unintended consequences that have been experienced (or might be expected).

#### **POLICY AND ITS EFFECTS ON SERVICE SUPPLY AND DEMAND**

Our adaptation of Paringer's work assumes that use of long-term care services is a function of the interaction between service supply and consumer demand. Demand, in this context, refers to the number of people who wish to purchase a service at a given price. Demand may be different from the number of people who are using a service and from the number of those assessed as having a "need" for it within the population.

As Figure 1 shows, we have categorized policies into four major domains based on the issues they address: financing and reimbursement, level of care requirements, other operational requirements, and competition. Under financing and reimbursement,

Figure 1: A Framework for Classifying Policy Effects on Assisted Living Residences

	<b>Supply</b>	<b>Demand</b>
<b><i>Financing &amp; Reimbursement</i></b>		
Loans, bonds, tax incentives	x	
Moratoria/certificate of need/Zoning	x	
Reimbursement rate	x	x
Program eligibility criteria		x
<b><i>Level of Care Requirements</i></b>		
Admission/Retention Requirements	x	x
Negotiated Risk/rental agreements	x	x
Staffing standards	x	
Staff training	x	
Unit size and amenities requirements	x	x
<b><i>Other Operational Requirements</i></b>		
Occupancy limits	x	x
Health benefits	x	x
Liability insurance	x	x
Workers compensation	x	x
Fire codes/standards	x	x
<b><i>Competition</i></b>		
Other assisted living bed supply	x	x
Nursing home beds supply		x
Nursing home utilization controls		x
Home care supply	x	x
Payments for home care	x	x



we examine the impact of broad mechanisms, such as loans, bonds, and Medicaid reimbursement, on availability of and access to assisted living. These examples include both federal and state policies. Next we explore the effects of regulations specifically focused on the assisted living sector, including level of care requirements, licensing, and quality assurance. Currently these are solely state policies.

Operational requirements include public policies with broad safety and consumer protection goals. These examples include both state and local policies. These can have significant consequences for the operating costs of assisted living facilities. Here we examine the impact of insurance requirements and local ordinances, such as fire and building codes, on assisted living. Finally, we consider how a variety of state and federal policies directed at the supply and distribution of long-term care over the past two decades have shaped the environment in which assisted living facilities operate and compete with other forms of housing with services. Over the short term competition is a constant environmental feature, but perceptions of competition can influence change in supply and consumer demand over time.

Although some policies affect only supply or demand, many interact with or influence both supply and demand. For example, policies that affect operating costs usually have consequences for both provider willingness (supply) and consumer preferences and prices (demand). Similarly, easing admission and retention requirements for assisted living facilities may increase the pool of eligible residents (with the intention of reducing utilization of nursing homes), but operators must be willing (and able) to assume associated service responsibilities. Willingness may be tied to organizational, local, or state factors, such as staffing and building design, competition or fire codes, or

reimbursement or negotiated risk policies.

In completing this discussion of our economic framework we reiterate two underlying notions, and introduce a third one. First, the intended effect of any given policy can be expressed as an influence on either service supply or consumer demand. Secondly, not all the consequences arising from a policy are those that were intended. Finally, and perhaps less obvious is that the effect of a policy may be influenced by the balance between supply and demand in the communities governed by that policy. For example, when there is “market equilibrium”, i.e., when demand equals supply, policies intended to shift utilization by increasing demand for a substitute service will not be effective unless there is an increase in the supply of those services. The excess demand created by this policy example may eventually stimulate new supply, but the changes may be lagged. Similarly, policies that increase supply when supply already exceeds demand may not increase utilization unless the price of the service becomes low enough to increase demand.

In the discussion to follow we provide selected examples of policy effects on supply and demand, and in some cases we illustrate how these effects may vary under conditions of market equilibrium and disequilibrium. We also attempt to distinguish intended from unintended consequences.

#### **FINANCING AND REIMBURSEMENT**

In 2004 there were at least 1,027,000 licensed beds (Harrington, Chapman, Miller, et al, 2005). Comparing this to 1983 estimates of 410,000 beds (Stone & Newcomer, 1985), it appears that the number of licensed beds has more than doubled over 20 years. This growth has been stimulated by a variety of financial instruments and consumer

demand. As we will see, loans, bonds, tax incentives, and grants affect the availability of capital; zoning ordinances and building codes partly determine where services are located; and public reimbursement programs significantly influence who has access to assisted living. One intention of policy is to increase supply, but is this supply located where it is needed? Who is gaining access to it?

### **Loans, Bonds, Incentives & Grants**

Low interest loans, tax-exempt bonds, mortgage insurance, and tax incentives directly facilitate the construction, acquisition, renovation, or conversion of assisted living supply. Several states have adopted such financing policies with the intention of increasing the supply of affordable assisted living beds.) These financial policies have at least two main effects: to provide access to capital and to reduce operating expenses via lower mortgage payments. Secondarily, lower costs are expected to result in lower rents and more consumer “demand.”

Such policies have differential effects, however. Not all providers have equal access to loans and other financial resources. For example, small facilities (e.g., fewer than 10 beds) often have limited access to investor capital, such as long-term, unsecured credit from a bank (i.e., not secured by the business’ value). Banks may be willing to make loans secured by the individual’s assets, but prospective service providers may be unwilling or unable to finance facilities through personal loans. Moreover, with the exception of some bonds and low interest loans intended to enable facilities to comply with relevant code, public funds are usually not available to small facilities either.

Constraints on small facilities’ access to financing should be a public policy concern, but this is not the case. Small facilities are mostly family owned and operated

(Eckert, Cox & Morgan, 1999). They tend to have higher proportions of residents with dementia and functional limitations than do larger facilities (Morgan, Gruber-Baldini & Magaziner, 2001; Newcomer, Breuer & Zhang, 1994). Also, small facilities are usually more accessible to individuals with low or moderate incomes (Eckert, et al., 1999; Morgan, Eckert & Lyon, 1995), and to racial/ethnic minorities (Howard, Sloane, Zimmerman, et al., 2002). Without access to low interest loans and/or grants for code compliance or needed renovation, there is likely to be limited growth or upgrading in the small facility sector.

Facilities operated by religious or civic organizations may qualify to operate as a not-for-profit entity. This is a legal classification, not a description of whether the facility actually makes money. Among the advantages of nonprofit or not-for-profit status is that property taxes may be exempted. There are disadvantages too. Among them, nonprofits have limited access to investor capital, but they are better able to obtain loans than are small facilities. Nonprofits also have access to governmental funds. For example, some financial institutions provide loans for construction of moderate income housing for the elderly, including assisted living. Programs operated by the U.S. Housing and Urban Development such as Section 223f and 232 can also be used to subsidize loans. The not-for-profits also have access to state and municipal bonds, when there is local and state support and investors are willing to purchase them. A limiting problem, especially with federal funds, is that the terms of the loans may place restrictions on the projects such as limiting unit sizes and public area amenities). Such design restrictions may affect both provider interest and consumer demand. Somewhat offsetting these problems is that not-for-profits can engage in community fundraising to subsidize operating costs,

renovations, and even new construction. This is an advantage relative to both smaller facilities and to the larger, often investor owner for profit facilities that are discussed next.

Larger for-profit facilities, particularly those affiliated with national corporations, have access to conventional sources of loans. During the 1990s, this then newly emerging housing sector also had extraordinary access to investor capital. For example, there were 15 public stock offerings totaling \$1.4 billion and \$8.8 billion in private investment and lending for assisted living companies in 1997 alone (Vickery, 1998). These monies enabled rapid growth in construction of new facilities and acquisition of existing ones. The explosive growth of some companies stimulated state and public attention to the supportive housing industry and may have obscured the static trends among other sectors. Growth among these larger, for-profit facilities was targeted primarily to market rate housing prices—not low and moderate incomes. Investor funds are and were not available to either the small or to nonprofits facilities.

Finally to introduce an issue to be addressed later, it is important to note that none of these financial policies are inherently proactive in fostering development of assisted living facilities in specific locations or in directing attention to underserved populations.

### **Zoning, Building Codes & Licensing**

Through building codes and zoning, local government can influence a facility's design features and location. However, like financial policies, zoning and building codes have not been designed specifically to promote development of assisted living facilities in underserved areas. They are more typically engaged only when a sponsor/operator applies for assistance—*after* the project location has been determined.

State and local governments also influence development through building permits and/or licensing for assisted living facilities. In particular, moratoria (a policy generally intended to control overbuilding) on building permits or on the issuance of new licenses, can effectively discourage development of assisted living facilities in specific locations. A secondary consequence of moratoria, assuming they succeed in capping the service supply, is to protect existing providers from having to compete with new providers. Where demand for market rate housing exceeds the available supply of this housing, providers have no incentive to ensure that facilities offer services to those who are unable to pay market rates.

Unless public agencies implement zoning laws, building permits, and licensing regulations to proactively encourage development of facilities for low-income populations—or public programs are willing and able to subsidize market rate rents—the supply of assisted living beds available to Medicaid and other low-income residents may decrease even as the supply of this housing grows for the rest of the population. Some evidence in support of this concern shows that market forces are not yet working to distribute assisted living effectively. This is seen in the state-level ratios of assisted living and nursing home beds per 1,000 aged (Table 1). The number of assisted living beds approached or exceeded that of nursing home beds in only 15 states. The inequity in bed supply is even more dramatic at the community level. For example, a five-state study found that most counties had less than one licensed assisted living bed for every four nursing home beds (Swan & Newcomer, 2000); no counties approached a 1:1 ratio. Similar findings were reported in a study in Florida. This work was able to identify facilities accessible to low-income residents and for this group too found the bed supply

Table 1: Assisted Living Bed Supply & Medicaid Personal Care Participation

State	#AL <sup>a</sup> Beds	Medicaid <sup>a</sup> Participants	Participants/ AL Beds	AL/1 000 Aged <sup>b</sup>	NH/1 000 Aged <sup>c</sup>	State	#AL <sup>a</sup> Beds	Medicaid <sup>a</sup> Participants	Participants/ AL Beds	AL/1 000 Aged <sup>b</sup>	NH/1 000 Aged <sup>c</sup>
Alabama	9,876	0	0.0%	16.6	38.5	Montana	3,730	475	12.7%	29.3	53.2
Alaska	1,650	632	38.3%	39.2	16.3	Nebraska	9,187	1,500	16.3%	39.5	63.2
Arkansas	4,644	2,205	47.5%	12.3	62.6	Nevada	4,021	222	5.5%	15.7	18.2
Arizona	24,500	3,076	12.6%	33.0	18.3	New Hampshire	4,013	176	4.4%	25.8	45.0
California	154,830	0	0.0%	40.5	31.5	New Jersey	16,084	2,195	13.6%	14.2	42.6
Colorado	13,799	3,804	27.6%	30.9	42.4	New Mexico <sup>d</sup>	5,558	189	3.4%	23.8	25.3
Connecticut <sup>d</sup>	9,479	65	0.7%	19.9	53.4	New York	43,601	3,315	7.6%	17.5	44.6
Delaware <sup>d</sup>	2,772	14	0.5%	25.6	37.0	North Carolina	39,942	24,000	60.1%	39.1	40.0
District Columbia	1,866	0	0.0%	28.9	47.5	North Dakota	2,851	31	1.1%	30.4	69.0
Florida <sup>d</sup>	78,564	18,355	23.4%	26.5	25.8	Ohio	41,921	0	0.0%	27.6	55.6
Georgia	25,434	2,851	11.2%	30.3	42.8	Oklahoma	9,666	0	0.0%	21.0	56.1
Hawaii	3,890	0	0.0%	23.2	15.3	Oregon <sup>d</sup>	28,469	4,858	17.1%	64.0	27.5
Idaho	6,160	1,870	30.4%	39.6	35.6	Pennsylvania	76,385	0	0.0%	40.3	44.9
Illinois	14,406	1,602	11.1%	9.5	61.5	Rhode Island	3,676	230	6.3%	24.4	51.9
Indiana	11,767	71	0.6%	15.4	60.0	South Carolina	16,641	600	3.6%	32.1	29.3
Iowa	5,220	126	2.4%	12.0	73.0	South Dakota	3,360	727	21.6%	30.8	58.5
Kansas	7,971	769	9.6%	22.3	65.4	Tennessee	13,929	0	0.0%	18.9	49.8
Kentucky <sup>d</sup>	7,673	0	0.0%	14.9	47.8	Texas	42,245	2,851	6.7%	19.0	49.5
Louisiana	4,443	60	1.4%	8.3	69.6	Utah	4,478	380	8.5%	22.1	32.5
Maine	9,022	3,762	41.7%	47.3	36.5	Vermont	2,410	644	26.7%	29.8	38.8
Maryland	17,148	1,823	10.6%	27.1	40.2	Virginia	34,598	0	0.0%	40.7	33.4
Massachusetts	10,585	1,120	10.6%	12.4	55.6	Washington	24,498	5,735	23.4%	35.4	31.5
Michigan	47,503	14,138	29.8%	38.4	37.2	West Virginia <sup>d</sup>	3,697	150	4.1%	13.3	32.8
Minnesota <sup>d</sup>	20,192	6,442	31.9%	33.1	57.1	Wisconsin	27,375	3,956	14.5%	38.2	54.1
Mississippi	4,197	68	1.6%	11.9	45.8	Wyoming	1,285	100	7.8%	20.7	46.5
Missouri	21,797	8,125	37.3%	28.5	61.9						
Total							983,008	123,312	12.5%	27.1	43.4

Source: <sup>a</sup>Compiled from Appendix 3, pages 3-1 to 3-367 (Mollica, et al, 2005); <sup>b</sup>U.S. Bureau of the Census, (2005); <sup>c</sup>Harrington, Carrillo & Mercado-Scott, (2005); <sup>d</sup>Indicates that the state did not report data or reported incomplete AL data in 2004 to Mollica, et al (2005). 2002 AL bed supply data was substituted, using Table 2, pages 275-277 (Harrington, Chapman, Miller, et al., 2005).

AL refers to Assisted Living Residences

per 1000 population to trail the distribution of the older population and nursing home beds (Golant & Salmon 2004). Some Florida counties lacked any assisted living residences serving publicly financed residents.

If assisted living is to be an alternative for nursing homes for persons with low incomes, there must be a sufficient number of affordable beds. Studies such as the two mentioned suggest wide gaps between supply and demand from community to community. While State and local policies potentially can influence the location of assisted living residences, there is little evidence that they have as yet been used to proactively influence the distribution of the assisted living supply.

### **Reimbursement & Program Eligibility**

The predominant source of payment for all forms of assisted living is private pay. The most widespread public income subsidy programs available are the federal Supplemental Security Income (SSI) program and State Supplemental Payments (SSP) to SSI. SSI/SSP essentially provides a rent voucher for low-income persons, but at a level well below the market rate for assisted living. This has had the dual effect of limiting access to assisted living for low-income individuals when providers are able to fill their units with private pay clients, or of necessitating that many low-income persons accept shared rooms. For example, an SSI/SSP payment of \$900 a month (\$30/day) would be expected to cover room, meals, housekeeping, and some personal care services for assisted living residents. In most states, however, combined SSI/SSP payments do not reach even \$800 per month. This contrasts with private-pay rates for assisted living. Nationally base monthly rates averaged \$2,500 per month in 2004 (\$82/day) (MetLife, 2004). These expenses are adjusted upward depending on the level of care needs of



residents. States recognize that SSI/SSP payments are not sufficient to cover extensive levels of personal care assistance. Many use Medicaid to finance additional services, as discussed below.

***Income Eligibility & Access to Housing.*** States have a financial interest in keeping SSI/SSP income levels low because these are also categorical criteria of eligibility for Medicaid. Recognizing this constraint, states have adopted other means of addressing access to assisted living for low-income persons. One common policy response is to permit shared room occupancy by unrelated individuals. Another approach, used in 21 states, allows families to supplement SSI payments for rent and other living expenses (Mollica, et al., 2005). The remaining 29 states either expressly prohibit this practice or do not address family supplementation. Prohibiting families from subsidizing a resident's SSI income may have the unintended consequence of shifting costs to private pay residents, and that in turn could affect how quickly families spend assets used to supplement personal income. Whether allowing families to subsidize income has improved access to assisted living or affected the rate of spend down for Medicaid eligibility, or reduced use of nursing homes is not known.

***Medicaid Reimbursement for Assisted Living.*** Most states (41 in 2004) have adopted programs to address the problem of inadequate funding for assisted living services by allowing eligible individuals to use their SSI/SSP or pay privately to cover room and board while Medicaid covers personal care expenses (Mollica, et al., 2005). Medicaid Home and Community Based Services (HCBS) waivers are the mechanisms most widely used for this purpose (32 states and the District of Columbia in 2004). Another resource is the Optional Personal Care Services program under the Medicaid

State Plan (11 states used this approach in 2004). Assisted living services are also covered under capitated Medicaid long-term care programs in three states, and by some PACE (Program in All-Inclusive Care for the Elderly) sites. States may use multiple of these options. Personal care under any of these programs includes assistance with activities of daily living (e.g., bathing, dressing, toileting, transferring, and eating) and instrumental activities of daily living (e.g., shopping, meal preparation, ambulation, housekeeping, medication supervision).

A state's decision to use an HCBS waiver has both advantages and disadvantages. On the positive side, a waiver may allow a state to use less stringent income criteria than usual to determine Medicaid eligibility, thus facilitating access to assisted living services for a larger share of its nursing home eligible population. Specifically, in states using an HCBS income eligibility standard that is 300% of the federal SSI benefit (\$1,692 per month for an aged individual in 2004), a larger proportion of lower-income residents may access assisted living. Because the number of recipients an HCBS waiver may grant is fixed, and because recipients must meet higher functional criteria to be eligible, states can use these mechanisms to control overall service utilization and in principle reduce utilization of nursing homes. This may be unfavorable to consumers who apply after a state's HCBS waiver slots have been used up or who do not meet the more restrictive nursing home level of care criteria. The Personal Care Option Services, by comparison to the HCBS waiver program is less restrictive for recipients. These programs are statewide, recipients need not be as functionally impaired and cannot be put on a state waiting list. On the other hand, income eligibility may be less generous. Many states set eligibility at 100% SSI (\$564 in 2004). Because states have less ability to control or cap

expenditures under this state plan program, they have been reluctant to make this benefit available to assisted living residents.

*Medicaid Assisted Living Program Enrollment.* Nationally, in 2004 Medicaid subsidized about 123,300 residents assisted living facilities (Mollica, et al., 2005). This is about 13 percent of the total supply of assisted living beds nationwide. By comparison, in the same year Medicaid was the primary payment source for almost 2 in 3 nursing home residents (Harrington, et al, 2005). While these comparative figures are not particularly encouraging, they reflect a doubling of Medicaid-subsidized residents in assisted living between 2000 and 2004 (Mollica, 2000; Mollica, et al., 2005). This growth has gotten positive attention, but as Table 1 shows, there are vast differences among states. Three states account for about half of all Medicaid-subsidized residents nationally. Most states have programs with fewer than 2,000 participants. States have moved slowly in expanding benefits and eligibility, perhaps this is because of limited evidence to date that assisted living residence reduces or avoids nursing home stays. Another contributing factor is that providers may not always be available at the payment levels even when the benefit is offered. Data are not available to indicate how many low-income persons would be interested in assisted living settings if they could use Medicaid benefits to subsidize the cost of such facilities.

#### **LEVEL OF CARE REQUIREMENTS**

Policy provisions that define the level of care a facility must or may provide also have significant consequences for the availability of and demand for assisted living. Assisted living residences, both licensed and unlicensed, offer hotel services (e.g., housekeeping, laundry, meals) and assistance with securing needed medical and social

services. Licensed residences assume the additional responsibility of providing hands-on personal care and such health-related services as medication supervision. Across the assisted living industry levels of care are thought to be rising; licensed facilities in particular are permitted to accept residents with more acute needs and greater physical and cognitive dependency than previously. Presently, all states permit (through a license or regulatory waivers) residents to remain in supportive housing with such special needs as being semi-ambulatory, using oxygen, having substantial cognitive impairments, or receiving hospice care (Mollica, et al., 2005). The most consistently used regulatory distinction remaining between a nursing home resident and a resident in a licensed assisted living facility is the need for 24-hour skilled nursing care. Even so, all states permit assisted living residents to receive short-term or intermittent skilled nursing care from a home health agency. States vary with respect to how they define “short term” care (in number of days) and the particular health conditions for which such care may be provided.

Typically, when regulation allows facilities to provide more services, additional requirements are created to ensure residents’ health and safety. This can produce potentially contradictory results. On one hand, permitting more services may increase supply and demand, while on the other, requiring additional protections may reduce supply or increase cost and reduce demand. For example, most states require that facilities that care for residents with dementia meet higher admission/discharge criteria and more stringent standards for staffing, training, activities, environment, and security, all of which increase operating costs significantly. Similarly, when residents need intermittent skilled nursing care, such as injections and wound care, regulations may

allow short-term care to be provided by home health agencies under a resident's Medicare benefits, but require the presence of a licensed nurse if care must be provided long term.

### **Setting Standards: State-Determined Criteria vs. Resident Agreements**

A fundamental policy question in regard to assisted living is the extent to which facilities should be permitted to define what services they will provide and to determine what level of care their residents need. How much discretion in defining entry and exit criteria should be given to the facility? Who assumes the risk and responsibility if care is not appropriate? Should facilities be permitted to negotiate with their residents how much risk each party will assume? And if contracts do apportion risk between resident and facility, will such agreements be recognized by the courts?

There is a continuum of perspectives on these issues among the states. At one end is an idealized system in which the specifics of who should reside in a particular facility are determined on a resident-by-resident basis, based largely on a contract between the facility and the resident. In practice, few states defer completely to individual contracts. At the other end of the continuum, states require that certain services be provided and define which conditions disqualify an individual from becoming and/or remaining a resident in assisted living. In most states, providers are given the discretion to set the maximum level of care for which they will assume responsibility.

States differ more in their role relative to publicly subsidized residents versus private pay residents. For Medicaid residents (or those likely to become Medicaid eligible), the state (or its designee) assesses the needs of applicants and continuing residents and determines whether they are eligible for benefits. This may mean

specifying the services and the amount of services to be provided and/or setting the amount of funding that will be made available for the beneficiary. For private pay residents the state's role in evaluating the fit between needs and the level of care is commonly limited to assuring that the facility has disclosed what it is able and willing to do and that the facility complies with its resident agreements and other licensing provisions.

The ideal of contracts specifically negotiated between facilities and individual residents and the imposition by the state of uniform standards across facilities reflect often competing concerns among advocates, providers, and consumers. More particularly, these ends of the oversight continuum reflect the tension between the value of allowing residents to say how they wish to live and what will support quality of life for them and the need to protect their interests and well-being. On one hand, there is the desire to enable a resident to "age in place"; on the other, there are concerns about the kind of oversight, staffing, and facility design needed for an appropriate level of care. These concerns reflect the realization that even the best run assisted living residences may encounter difficulties from time to time in meeting resident and state expectations for the quality and appropriateness of care.

Beyond the issue of standards is that of enforcement. All states have policies assuring that they will respond to resident complaints, but standards of appropriate care are usually enforced retroactively. For example, a doctor's evaluation of a resident's appropriateness for admission and a continued stay, along with resident records about incidents and changes in status are used as basis to evaluate the appropriateness of care. This is done retrospectively during periodic licensing recertification visits. Whether

preadmission screening criteria and admission/discharge criteria specified in rental agreements have effects on service supply, demand, quality and appropriateness of care, and “aging in place” independent of the enforcement of these standards remains undetermined.

### **Standards for Staffing & Training**

In addition to entry and exit criteria and standards for level of care, public policy often addresses questions of appropriate levels of staffing and appropriate competencies for staff. Staffing-related regulations set forth the minimum number of staff to be awake and/or on site, the qualifications of those who perform certain tasks, pre-employment procedures (such as criminal background checks), and initial and ongoing training. Personnel costs account for 40–60 percent of facility expenses (Sterns & Morgan, 2001). Staffing requirements directly affect operating costs; if rents cannot be adjusted to cover these expenses they also affect housing supply. Hiring and training requirements also affect the pool of eligible labor and the levels of care that can be supported. Smaller facilities may have fewer resources to finance the training of staff or to pay competitive wages for those with training and experience.

Generally, state staffing regulations have been cautious in asserting stringent standards. All states require facilities to maintain “sufficient staff” to meet residents’ needs for 24-hour service, but most (86%) do not specify staff-to-resident ratios that are adjusted by level of care needed by residents (resident acuity) or time of day. Requirements for staff training are generally low and vary considerably with respect to initial orientation and regular in-service education (Mollica et al., 2005). Required training, as reported in surveys, includes such topics as first aid, providing personal care,

caring for patients with Alzheimer's disease, responding to challenging behaviors, resident rights, and medication management (Hawes & Phillips, 2000).

Some believe that staffing standards, such as requiring a nurse on site, may lag behind actual facility practice. In 2002, 17 states required the larger assisted living facilities to have either an RN or LPN on staff or available on-call (Mollica, 2002). However, assisted living residences that have more than 10 beds generally exceed these standards. For example, a 1998 study found that 71 percent of these residences employed an RN or LPN on a full- or part-time basis (Hawes et al., 1999). An additional 10 percent of facilities reported that nursing services were arranged "as needed." There are no comparable data for facilities with fewer than 10 beds. Having a nurse on staff is thought to be helpful for residents who have more complex health care needs. Findings from the

Few studies of nurse staffing in assisted living are mixed relative to reducing hospitalizations and avoiding a nursing home transfer (Phillips, Munoz, Sherman, et al, 2003; Zimmerman, Sloan, Eckert, et al., 2005; Newcomer & Preston, 1994).

### **Standards for Unit Size, Design & Amenities**

Expansion in permitted levels of care is often paralleled by changes to standards related to facility features and amenities (e.g., single apartment units with kitchenette and private bathrooms). Such standards are thought to support higher levels and quality of care and to enrich the living situation for many residents. Compliance with such standards has implications for both the cost of operations and the number of providers available in the community. While amenities may increase consumer interest, such features increase prices and in the absence of public or insurance subsidies narrow the effective demand for (and access to) assisted living.



*Access to Care & State Costs.* One rationale underlying state support for assisted living has been the expectation that residents will be able to “age in place”, with these individuals either being able to avoid a nursing home placement or to have fewer lifetime days in a nursing. Any such reductions would result in lower private nursing home expenditures, and ultimately in lower Medicaid nursing home expenditures. The effectiveness of such efforts has remained largely unexamined. However, any Medicaid savings realized are contingent on whether those likely to spend down to Medicaid eligibility have access to assisted living. To the extent that assisted living is available only to persons in the upper quartiles of incomes and assets (who would never spend down to Medicaid eligibility), the likelihood of Medicaid savings is reduced. Presently, low- and moderate-income persons are more likely to be able to afford smaller and older facilities than not-for-profit or new, investor-owned assisted living residences. The newer facilities in turn are the ones most likely to feature expanded amenities. While the expansion of market rate assisted living bed supply has few cost implications for the state (e.g., regulatory oversight), there remains the possible irony that this resource is unavailable for the low-moderate income population. To the extent that such access is limited, then apartment style assisted living will have little effect on nursing home use and expenditures among the low-moderate income population.

*Provider Participation.* Certain restrictions on provider participation may also affect who utilizes which kinds of facilities. For example, standards for minimum facility size (often excluding small facilities), square footage allocated per resident (even if in a shared room), and number of persons sharing a bathroom may all determine whether a facility can participate under a publicly financed program such as a Medicaid assisted

living waiver (Mollica, et al., 2005). Privacy standards with respect to whether residents have a choice in sharing a room are also relevant in this regard. Unit size and privacy standards (e.g., private room, private bath) have direct implications for monthly rental charges (independent of personal care and meals), and thus for the number of facilities available at the rents that can be afforded by the private-pay and Medicaid markets.

In 2004, 13 states required that facilities licensed specifically as “assisted living” facilities provide apartment-like units to qualify for Medicaid. Among these, Oregon and Washington restricted the maximum number of unrelated occupants to one person per unit. All states also licensed other types of supportive housing under titles like “residential care,” “adult foster care,” and “sheltered care” facilities but imposed less restrictive size and privacy standards. Most states set maximum occupancy at two persons per unit, with about half permitting double occupancy by resident choice (although this choice may be exercised by a family member such as in situations involving dementia care).

Setting such criteria for Medicaid participation has both advantages and disadvantages for states. One advantage of higher standards is that these limit the supply of eligible housing units and thus cap a state’s financial risk by limiting the number of persons who might receive subsidized care in an entitlement program. A disadvantage is that public subsidies have to be sufficient to cover the added rental costs. Imposing less restrictive standards for unit size and occupancy also has a mix of advantages and disadvantages. On the negative side this approach is not responsive to consumer preferences and may narrow demand for such accommodations. On the other hand, such standards may increase supply (by increasing the number of available beds even if the

number of rooms is unchanged) and allow facilities to charge lower rents (by permitting residents to share rooms). This may increase effective demand.

Generally, data systems that compile information on licensed housing do not document whether the growth in service supply in recent years (particularly that available to low income persons) has favored apartment-like supply or other types of units. Oregon offers an illustrative exception, providing data about housing in all state licensing classifications. Between 1990 and 2004 the state offered a higher payment for apartment-style assisted living facilities than for other types of supportive housing. In 2004 assisted living comprised 30 percent of the state's supply of licensed long-term care beds, compared to 19 percent for adult foster care homes (private residences licensed to provide care for up to 5 residents), 21 percent for residential care facilities (licensed for 6 or more residents in non-apartment-style units, which may be semi-private), and 30 percent for nursing facilities (i.e., facilities providing skilled nursing care). Ninety percent of Oregon's assisted living facilities were accepting Medicaid recipients, compared to 69 percent of residential care facilities (Hernandez, 2005).

Absent definitive studies demonstrating that apartment-like settings provide better resident outcomes (e.g., greater length of stay, less utilization of health care, avoidance of admission to a nursing home), most states judging by the Medicaid participants in assisted living (see Table 1) appear to be less likely than Oregon to expand access to apartment-style accommodations for low-income persons by subsidizing rental costs.

#### **OTHER OPERATIONAL REQUIREMENTS**

Beyond policies that address financing/reimbursement mechanisms or standards for care, a wide range of regulations, licensing standards, and other requirements affect

assisted living operations and the costs of doing business. These range from explicit standards of practice through private sector influences, such as the cost of insurance. States could be helpful in working with the industry to either alleviate these costs or by changing reimbursement rates so that these costs are affordable to the providers when receiving public program payment. Some examples illustrate the potential consequences for both assisted living supply and consumer demand.

### **Occupancy or Size Limits**

Where Medicaid restrictions exclude smaller facilities this may reflect the presumed difficulties such facilities have in meeting the requirements for highly frail residents (e.g., staff available and awake 24 hours a day). The majority of facilities that have fewer than nine beds have no staff beyond the owner-operators and their families (Hawes, et al, 1995; Newcomer, et al, 1994). Consideration of the other tasks (e.g., meals, laundry, and housework) that must be performed for even a few more functionally disabled residents raise questions about how much personal care such facilities can provide without hiring additional staff. If supplemental staff are added, there is also the question of the scale (number of rent-paying residents) needed to sustain a financially viable operation.

When small facilities are effectively excluded from waiver or other reimbursement programs there are several potentially adverse consequences for consumers and for service supply. One of these is associated with the unknown demand for supportive housing among nonwhite residents who comprised 4% of assisted living Medicare beneficiaries in 1998 (compared to 14% of nursing home) (Spillman et al, 2002). Minority residents also disproportionately reside in smaller facilities (Howard et

al., 2002; Newcomer, et al, 1994). Does this reflect racial/ethnic preference for smaller facilities, the location of small facilities in minority neighborhoods, operator practices among larger facilities that are not responsive to the preferences of minority populations, prejudice on the part of white residents in larger facilities, or simply lower income and inability of minority populations to afford the larger facilities? Data that might answer these questions are limited because small facilities have not been included in recent national studies of assisted living (e.g., Hawes, et al, 1999; Zimmerman, et al, 2005).

### **Employee Benefits, Liability Insurance & Workman's Compensation**

Most employees in government and the private section expect to receive benefits from their employers in the form of health insurance, sick days, vacation days, and retirement savings contributions. Yet these are among the operating costs that owners of assisted living facilities have been able to reduce or eliminate (Hawes, et al, 1995; Hawes, et al, 1999; Newcomer, et al, 1994). One means of doing so is the use of part-time employees, for whom these benefits are not mandated. Such practices stand in contrast to the benefits usually available to hospital and nursing home workers. The extent to which the absence or limited availability of health insurance and other fringe benefits contributes to worker turnover in assisted living has not been documented. Worker turnover is thought to affect the quality of care for residents, but this may not have a substantial effect on service supply or consumer demand.

Two other insurance issues directly affect providers and service supply, neither of which a facility can avoid by using only part time staff. One of these is the rising cost of general and professional liability insurance. Large increases in premiums for providers are passed along to residents in rent increases. These increases are attributable in part to

litigation outcomes and legislative changes (American Seniors Housing Association, 2004), and in part to growth in the assisted living industry and changing levels of care. Larger assisted living residences have been able to lower liability costs through risk management strategies, such as negotiating risk agreements with residents or restricting what residents the facility will accept and retain, and by purchasing high deductible (as high as \$1,000,000) insurance. Many smaller facilities cannot afford the insurance, even with high deductibles. If they cannot raise rents, they face the choice of operating without liability insurance or going out of business.

The extent to which supply and access to higher levels of care have been affected by liability insurance and the strategies facilities have adopted to lower these costs has not yet been documented, but it may be substantial. States have responded to these issues by allowing facilities wide discretion in writing admission and retention agreements (Carlson, 2005). Consumer advocates, attorneys, and the federal government have taken issue with these state practices but have done little to reduce insurance costs.

Workman's compensation insurance is another rapidly rising cost. These expenditures vary from state to state, but they amount to about 20 percent of hourly wages. In setting rates for assisted living, insurance companies use the experience basis of nursing homes, for which there are relatively well-developed data systems for reporting occupational injury (Bureau of Labor Statistics, 2005). Whether the use of injury rates for nursing home workers is equitable for assisted living is unknown. Assisted living facilities are not readily identifiable in data available from the Bureau of Labor and statistics, and there is substantial variation in the level of care and in staff training among assisted living facilities. More systematic compilation of injury reporting

and injury prevention efforts seems to be needed.

### **Fire Codes/Standards**

Tragic stories of elderly persons suffering fire and fire-related injury in homes that care for the elderly have made fire protection a prominent concern. The International Association of Fire Chiefs (2004) has proposed a number of life safety features for assisted living, notably the use of fire suppression systems. The life-saving benefits of such systems have been amply demonstrated (Dewar, 2004; Hall, 2004; Rohr, 2003) and provide strong grounds for states to require automatic suppression systems in long-term care facilities, especially those in which nonambulatory, frail, or cognitively impaired individuals are residing. Newer, purpose-built facilities are likely to be required by building codes to include fire sprinklers, but the cost of retrofitting may be prohibitive for many older facilities. Grants, low interest loans, and tax incentives are potential ways to address this problem, but are not widely available.

### **COMPETITION & ALTERNATIVES TO ASSISTED LIVING**

Assisted living operates in a complex environment. On one hand, this level of care is seen and used as an alternative to nursing home care. On the other hand, assisted living is an option when other forms of community based care are not viable. This combination of factors affects the supply of assisted (including the levels of care provided) and demand (including the levels of care being sought and the case mix among residents).

Over the past 20 years, multiple state and federal government efforts have been implemented to reduce “unnecessary” nursing home placements and days. Policies have attempted to constrain nursing home bed supply and to alter demand. Supply-directed

policies include limits on the number of new beds licensed, incentives for closing or converting nursing home beds to lower levels of care, and case-mix adjusted payment for nursing home residents. Policies intended to affect “consumer” demand include pre-admission screening and post-admission utilization review, this with the intention of reducing inappropriate admissions.

To the extent that these programs have been successful in reducing nursing home use they have permitted individuals to remain in community settings. This in turn has necessitated an expansion of community-based personal care programs. The most extensive of these are the Medicaid State Plan Personal Care Services and HCBS waiver programs discussed earlier. Access to and demand for assisted living, especially among individuals eligible for Medicaid, is directly influenced by the combination of constraints on admission to nursing homes, the home care alternatives available, and the relative subsidies available for assisted living.

Home care offers several advantages over assisted living for states. Among these are that for many recipients living expenses and task assistance can be shared with or provided by family members at no cost to the state. This reduces upward pressure on SSI/SSP payments or other subsidies that might be needed to cover the expenses of assisted living, and it may also reduce the amount of personal care assistance that is paid. Assisted living is an alternative for the subset of the population who do not have family members or for whom instrumental task needs (e.g., shopping, cooking, transportation) and/or personal care tasks (e.g., bathing, transferring, medication management) cannot be met in independent housing.

The effect that community-based personal care programs and constraints on



nursing home use have had on consumer behavior—for example, on the age and frailty level associated with the decision to move into assisted living—has not been studied extensively or with representative samples. Nevertheless, the consensus from available studies is that age of entry and average frailty levels of residents in assisted living has been increasing. For example, in the 10 years between 1983 and 1993 residents residing in assisted living became older (64% in 1993 were 75 and older, compared to 38% in 1983); were more cognitively impaired (40% versus 30%); more often incontinent (23% versus 7%); were more likely to be wheelchair dependent (15% versus 3%); and required greater assistance with bathing (45% versus 27%) and taking medications (75% versus 43%) (Hawes et al. 1995). Such changes have both supply and demand implications for levels of care, and operating expenses.

Another source of competition for assisted living is the practice begun in some states to combine their personal care program with low income housing to “create” a supply of unlicensed housing as an alternative to income-subsidized assisted living. Such policies couple rent subsidies (available through various federal and state programs, see Chapter xx), the provision of personal care services financed through Medicaid, and a relaxing of local fire and safety regulations that might otherwise require that cognitively impaired and/or physically disabled residents be relocated to assisted living or nursing home facilities. The size of the low-income population served (or potentially served) in this manner is not known, but this approach is consistent with the notion of allowing individuals to age in place and to receive care in the least restrictive setting. If it proves cost effective and easily replicated and no major evidence of inadequate care emerges, this approach will likely grow, and could emerge as the most viable of approaches for

assisted living for those with low-moderate incomes.

## **CONCLUSIONS**

The preceding review of how public policies affect the supply and/or demand for assisted living has brought to light problematic gaps between their intended and actual outcomes. Notably, we have seen that there is sometimes a tension between the policy goal of improving quality and policymakers' willingness to provide sufficient funding to ensure that individuals who could benefit have access to assisted living. Complicating matters is the fact that decision making and accountability are sometimes fragmented among multiple units and levels of government. This is particularly evident in policies affecting program income eligibility, and policies affecting service alternatives with the long-term care continuum. We have suggested (and where possible documented) some of the intended and unintended consequences that arise from sometimes competing policies. Examples of these policies and their effects are summarized in Table 2, but we recognize that there are many gaps in knowledge.

How might public policy be developed and implemented to more effectively assure that assisted living is more widely available, especially for lower-income populations? One possible answer to this fundamental question is to take better advantage of the experience among and within states. These practices provide a naturally occurring experiment for evaluating the effects of policies and regulations on service supply and demand; and perhaps also for testing the efficacy of various approaches to providing assisted living services. Among the efficacy issues that have not been fully tested are the connection between levels of staffing, case mix, and resident outcomes; the extent to which assisted living reduces lifetime days in nursing homes; and the extent to

Table 2: Intended and Unintended Consequences of State and Federal Policies and Regulations

<b>Policy / Program Change</b>	<b>Intended Consequences</b>	<b>(Possible) Unintended Consequences</b>
<b><i>Financing and Reimbursement</i></b>		
Loans, Bonds and Tax Incentives	Facilitate increased supply by providing capital and reducing expenses; lower rents and increase consumer demand.	Poor accessibility by smaller homes & nonprofits. Limits growth among smaller non-apartment-style assisted living and the low-to-moderate income, racial/ethnic minorities, dementia, and high need residents they serve.
Zoning & Moratoria	Control overbuilding of assisted living facilities by discouraging development in particular areas.	Reduces competition and increases prices in selected markets over time. May decrease supply of beds available to lower-income and Medicaid residents.
Reimbursement	Provide subsidy to lower-income residents and improve accessibility to assisted living for these residents.	Low payments limit access to AL availability to lower income residents over time when private pay clients are in demand of assisted living supply.
Program Eligibility	Facilitate access to assisted living for more nursing home eligible residents by using less restrictive income eligibility criteria.	Decreases access to residents with needs below nursing home eligibility threshold.
<b><i>Level of Care Requirements</i></b>		
Admission / Retention Requirements  Negotiated Risk / Rental Agreements	Define the extent to which assisted living facilities can determine services provided and level of care needs of their residents. Ensure that services safely meet the need levels of residents and promote aging in place.	Variable and confusing requirements lead to unclear expectations regarding level of care and services. Assisted living facilities assume increasing risk and liability. Risk concerns for facilities in conflict with protection of consumer rights.
Staffing Standards and Training	Reduce problems of quality of care and improve ability of assisted living to retain high care clients by setting higher standards; reduce hospitalizations and nursing home discharges.	Increased operating costs affect supply of assisted living when rents cannot be adjusted (small homes most affected). Standards and oversight often inadequate to ensure high quality of care.
Unit Size and Amenities requirements	Enrich residents' living situation by supporting higher levels and quality of care.	Increased cost of operations, increased prices and less accessibility for lower income residents (small homes unable to meet requirements)
<b><i>Other Operational Requirements</i></b>		
Occupancy limits	Ensure that facilities will be able to meet the needs of highly frail residents.	Exclusion of smaller homes decreases availability to low-/moderate-income residents, racial/ethnic minorities and residents with dementia and high levels of need.
Insurance	Protection for consumers, staff, and facilities	Increases operating costs. Affects supply of assisted living (especially small facilities) if rents not adjusted.
Fire codes/standards	Protect vulnerable elderly from fire related injury and death.	Increases rent and operating costs. Affects supply of assisted living (especially small facilities) if rents not adjusted.
<b><i>Competition</i></b>		
Other supplies of assisted living and nursing home beds; controls on utilization of nursing homes; home care payments and supply	Reduce nursing home placements & days. Expand community-based personal care programs. Meet consumer demand and reduce costs for states.	May affect quality of care and safety as highly frail residents remain in assisted living facilities.

which assisted living (compared to other community-based care) has avoidable health care use (e.g., ambulance, emergency room, hospitalization). The unanswered questions stand in marked contrast to the information available from on-going data systems. To date, reports are available that track policy changes, but only a handful of studies have attempted to link policy and regulations to system outcomes, such as service supply, demand, quality of care, and resident outcomes. Most such studies focus on a single year, rather than looking at effects over time; and where comparisons are made by state, draw on aggregated data. Intra-state longitudinal comparisons are virtually nonexistent. Studies testing cost effectiveness and other performance outcomes relative to particular policies or standards are also very limited.

Policy development is not dependent on data, but it might benefit from objective information that tracks consequences after a policy's implementation. State governments have the infrastructure in place to record changes in facility and staffing characteristics, but usually have not taken advantage of this capability to produce either monitoring systems or consumer-oriented data bases. As these resources begin to be effectively used it will be important that policy makers are explicit about the consequences sought from changes in regulations, service financing and other policy changes; and for states to share information on their experiences.

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## *Chapter 2*

### *Toward a Framework for Monitoring the Quality of Care in Residential Care for the Elderly*

**TOWARD A FRAMEWORK FOR MONITORING THE QUALITY OF CARE  
IN RESIDENTIAL CARE FOR THE ELDERLY**

Cristina Flores, Ph.D.(c), R.N.  
Robert Newcomer, Ph.D.

Cristina Flores, Ph.D.(c), R.N.  
Department of Social and Behavioral Sciences  
University of California, San Francisco  
3333 California Street, Suite 455  
San Francisco, CA 94118  
(650) 866-3171 Phone  
(415) 476-6552 Fax  
[Cristina.Flores@ucsf.edu](mailto:Cristina.Flores@ucsf.edu)

Robert Newcomer, Ph.D.  
Department of Social and Behavioral Sciences  
University of California, San Francisco  
3333 California Street, Suite 455  
San Francisco, CA 94118  
(415) 476-1408 Phone  
(415) 476-6552 Fax  
[Robert.Newcomer@ucsf.edu](mailto:Robert.Newcomer@ucsf.edu)

## ABSTRACT

This article proposes an adaptation of the Donabedian structure-process-outcome theory as a framework for designing and more effectively using the administrative data collected in the licensing and regulation of residential care/assisted living facilities. Such information can meet the needs of various stakeholders including providers, state regulatory agencies, consumers and researchers in the evaluation of quality of care. Structural components are represented by facility, staff and resident characteristics. Process components include the types of services available and safety and injury prevention. Possible outcome measures include deficiencies and complaints, changes of resident health status and quality indicators, and discharge and medical event data. Emphasis is on measures available in administrative records, but other measures can be incorporated. A quality of care framework may be an incentive for the development and maintenance of complete and accurate state administrative records.

*Keywords: quality of care, quality assurance, residential care, assisted living, Donabedian*

## **TOWARD A FRAMEWORK FOR MONITORING THE QUALITY OF CARE IN RESIDENTIAL CARE FACILITIES FOR THE ELDERLY**

The quality of care (QoC) provided in licensed housing such as assisted living (AL) and residential care facilities for the elderly (RC), is important to consumers, professionals, advocates and policymakers. State regulatory agencies typically orient licensing and monitoring efforts towards structural elements, such as physical plant and staffing requirements and process elements, and service and safety requirements. These approaches tend to lack an evaluation of resident outcomes. Governmental reports, congressional hearings, published literature, as well as media reports, have highlighted quality of care problems within this industry (Assisted Living Quality Initiative, 1998; Assisted Living Working Group, 2003; Institute of Medicine, 2001; U.S. General Accounting Office, 1999).

This article proposes an adaptation of Avedis Donabedian's Quality of Care model of structure, process, and outcome (Donabedian, 1966, 1988, 2003) as a framework for designing and more effectively using the administrative data collected in the licensing and regulation of RC/AL facilities. While domains and measures in this framework have some commonality with those applied to hospice and nursing home care, there are also unique elements associated with the social model of care. Both common and unique dimensions are discussed.

### **BACKGROUND**

#### **Residential Care/Assisted Living (RC/AL)**

##### **RC/AL Facilities**

Services available in RC/AL facilities generally 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 and other medical needs are often offered.

There is no nationally accepted definition of RC/AL facilities as states, which are responsible for regulating the supportive housing industry, have each developed their own definitions and guidelines. In general, AL refers to housing for the elderly with supportive services in a homelike environment and in which operational values include maximizing functional capability, autonomy, and utilizing the environment as an aid for independence and socialization (Lewin-VHI, Inc., 1996). Since the early 1990s state regulations and facilities have increasingly used AL and residential care terms interchangeably (Mollica, Johnson-Lamarche, O’Keeffe, 2005).

Another definitional issue affecting RC/AL facilities is that of distinguishing them from nursing homes. The RC/AL defines itself as social model of care and with a focus on maintaining resident autonomy, independence and dignity. This is reflected in physical design, approaches to care provision, and a wide range in the level of care needs of residents. RC/AL’s often serve residents who may otherwise be eligible for nursing home care. In spite of the overlaps with nursing homes, RC/AL facilities are licensed differently than nursing homes in all states, with far less regulation and no federal oversight (Mollica, 2002).

For purposes of this paper and the model presented, we have assumed that RC/AL facilities and nursing homes will continue to be separately licensed and regulated. We also recognize that RC/AL facilities are providing long term care to frail and dependent elderly with characteristics similar to residents of nursing homes, and that number of such

residents is expected to grow. Consistent with these assumptions, we expect that the quality of care problems faced by nursing homes may also be seen in RC/AL facilities. The proposed quality of care framework is specific to RC/AL facilities. Some elements or dimensions overlap with those of the nursing home industry, but others are specific to the social model expectations associated with RC/AL.

### **Residents of RC/AL facilities**

Studies of RC/ALs suggest that residents, on average, have become more dependent as the regulatory boundary between RC/AL and nursing homes has been relaxed. For example, Catherine Hawes and colleagues (1995) reported that between 1983 and 1993 those residing in residential care became increasingly older (64% in 1993 vs. 38% in 1983 were 75 and older); cognitively impaired (40% vs. 30%); incontinent (23% vs. 7%); wheelchair dependent (15% vs. 3%); requiring assistance with bathing (45% versus 27%); and assistance with medications (75% versus 43%). A California statewide probability survey of RCs during this same period (Newcomer, Breuer & Zhang, 1994), found one-third of residents reporting at least two limitations with activities of daily living, between 40% and 50% showed moderate to severe depression, more than one half showed at least some cognitive impairment. .

Recent studies suggest that the average RC/AL resident is in her mid-80's, female, white and widowed (Assisted Living Federation of America, 2000; National Center for Assisted Living, 1998), with similar characteristics [e.g., having multiple chronic medical diagnoses and multiple prescribed medications] to those residing in nursing homes (Armstrong, Rhoads & Meiling, 2001; McAllister, Schommer, McAuley, Palm & Herring, 2000).

### **RC/AL Quality of Care Concerns**

The prevalence of physical and cognitive frailty among RC/AL residents, combined with often lower staff to resident ratios and lower training standards than found in nursing homes, are among the concerns about the safety of residents. Congressional hearings, government reports, research publications and media reports around the country have drawn attention to actual and possible QoC related problems. For example, the US General Accounting Office, using inspection records and state oversight reports, found that RC/AL facilities do not always give prospective consumers adequate information as to whether, for how long, and under what circumstances a facility could meet their needs. Twenty-seven percent of the facilities reviewed had been cited for five or more QoC or consumer protection deficiencies during the 1996-1997 time period (US GAO, 1999). The Institute of Medicine's Committee to Improving Quality in Long Term Care (2001) raised questions about the effectiveness of state regulation and licensure in promoting quality in residential care and recommended research to examine the effectiveness of survey and enforcement activities related to QoC, quality of life, staffing and other measures.

States are responsible for the licensing and oversight of RC/ALs. While there is often commonality in the areas given regulatory oversight (Carlson, 2005; Mollica, et al., 2005), there are no federal or industry-based standardized reporting guidelines for RC/AL. One consequence of this is that state quality assurance and oversight data systems are thought to vary in both the data collected, and frequency of collection. The extent of this variability has not been documented in published studies of state regulatory and quality assurance data systems. Surveys of state licensing officials have focused on



regulations and deficiencies, rather than data systems or quality assurance processes. One example, is a survey by the National Academy for State Health Policy Research (Mollica, 2002) asking state officials to rank deficiencies and complaints by frequency.

The US GAO (1999) study of the RC/AL quality of care and safety provides an example of using available inspection records and reports from state oversight agencies. This study included 753 facilities across four states (California, Florida, Ohio and Oregon). The GAO reported that RC/AL facilities do not always give prospective consumers adequate information as to whether, for how long, and under what circumstances a facility could meet their needs. They also found that information provided to consumers was often, vague, incomplete or misleading and that 27% of the facilities reviewed had been cited for five or more quality of care or consumer protection deficiencies during the 1996-1997. Four problems commonly associated with RC/AL facilities were listed: 1) Providing poor care to residents, such as inadequate medical attention following an accident; 2) Having insufficient, unqualified and untrained staff, exacerbated by high staff turnover and low pay for direct care staff; 3) Not providing residents with appropriate medications and not storing medications properly; and 4) Not following admission and discharge policies required by state regulations.

Beyond studies such as that noted above, the extent of variation among states in administrative data systems has not been expressly studied. Nevertheless, there is a concern among all stakeholders that further research and development in this area remains important. For example, after a hearing held by the US Senate Special Committee on Aging, the Assisted Living Working Group was formed in 2001 to develop recommendations designed to ensure consistent quality in facilities across the country.

This working group (2003), in their subsequent report to the U.S Senate, identified two primary issues related to accountability and oversight: the need to develop regulatory guidelines for states; and the need to establish a mechanism to develop outcome measures and quality improvement methods that can be integrated with traditional systems to provide state-of-the-art measurement systems to ensure consumer safety and satisfaction. We are proposing an adaptation of the Donabedian quality of care framework as a conceptual basis for such development.

### **DONABEDIAN: A QUALITY OF CARE THEORY**

Avedis Donabedian's (1966) "structure/process/outcome" framework has been used for four decades to conceptually identify the elements appropriate for the evaluation of health care quality. Donabedian (1988) described these three components as linked because "good structure increases the likelihood of good process, and good process increases the likelihood of a good outcome." This model has proven to be adaptable to the evaluation of quality across a variety of health care settings. Among these are hospice programs (Richie, 1987); public health systems (Handler, Issel and Turnock, 2001); nursing homes (Harrington, O'Meara, Kitchener, Simon & Schnelle, 2003) and health outcomes (Mitchell, Ferketich & Jennings, 1998).

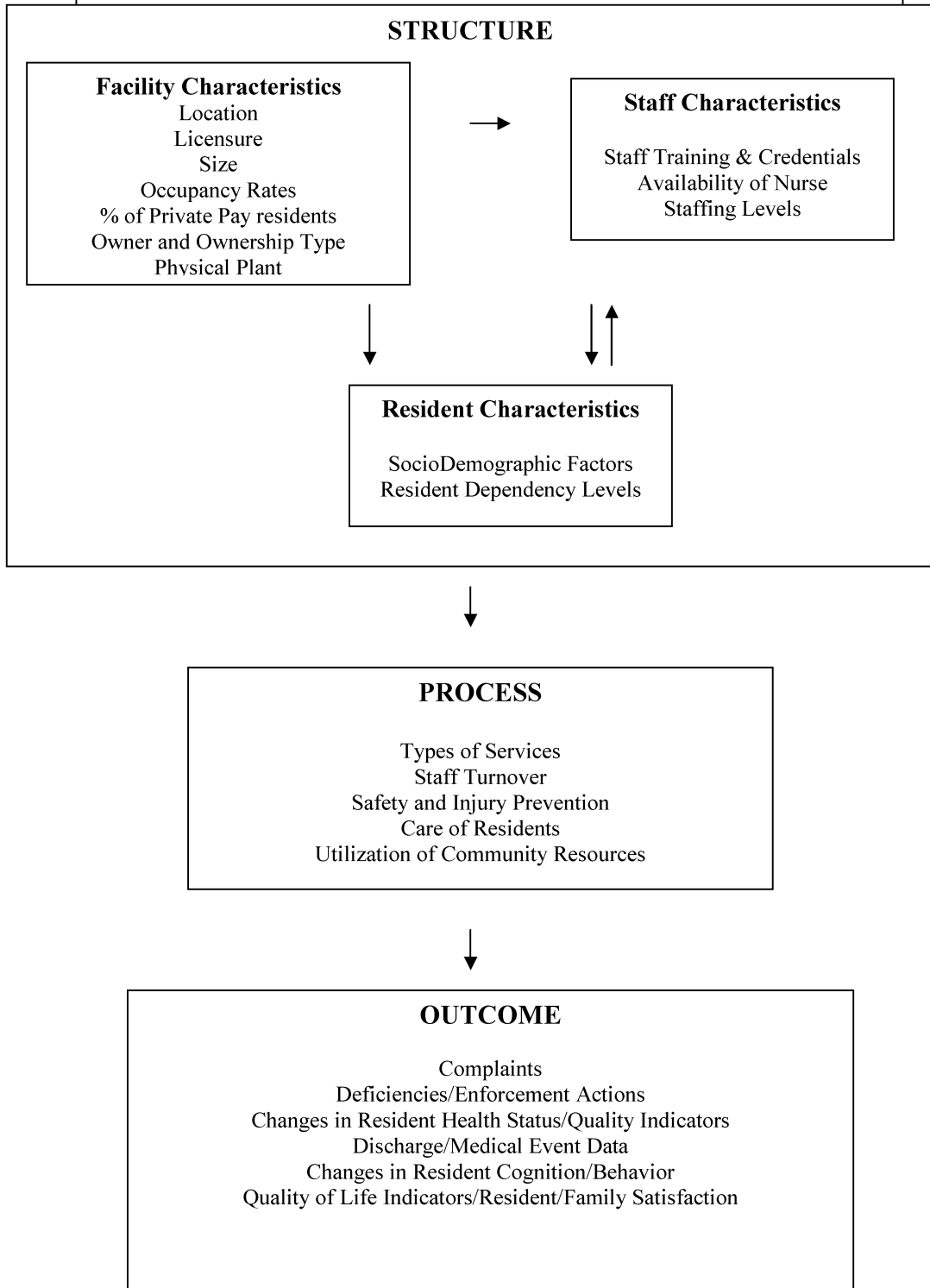
The conceptual simplicity of Donabedian's framework is one of its strengths, but there has not been much standardization of the empirical measures used to implement the framework (Donabedian, 2003). Structure is typically easiest to assess, as this relies on measurements such as counting and checking if desired features are present. Structure includes the professional and organizational resources associated with the provision of care [e.g., physical plant, staffing and clientele characteristics]. Process refer to activities

occurring among providers, patients, caregivers, family members in the course of delivering care, such as types of services provided, provisions for safety and staffing levels. Process has proven to be difficult to measure directly, but measurement can be aided by incorporating criteria that identify the expected standards of care. Outcomes are the desired states expected to result from care processes. Examples include reductions in morbidity or mortality, maintenance of function, and improvement of quality of life. Service use and adverse event can be readily measured in administrative data. Changes in health or functional status or resident satisfaction are reflected in MD reports and/or health care utilization reports. Such documentation likely is (or could be) required by states. Most challenging for outcomes evaluation is whether it is necessary or practical to have information that expressly links the chain of structure and process that produced the outcomes defining “optimal” care. Measures for the various dimensions are described shortly.

#### **CONCEPTUAL MODEL FOR EVALUATING QUALITY OF CARE IN RC/AL FACILITIES**

Figure 1 shows a conceptual model for evaluating QoC in RC/AL facilities. It incorporates the Donabedian structure-process-outcome framework, but it has been adapted by the authors to operationalize these concepts with components specific to RC/AL care. We have given priority to information available in administrative records maintained by state regulatory agencies. The measures or indicators shown are illustrative and could be expanded or modified appropriate to available information. The rationale for each component of the model is described below. Where certain components end and others begin may sometimes seem arbitrary. Later empirical work will be needed to explore the predictive and time ordered relationships between measures and domains.

Figure 1: Conceptual Model for Evaluating Quality of Care in RC/AL Facilities



As such work progresses the model could be simplified and some measures could be moved from one domain or another.

## **Structure**

Structural characteristics provide the organizational context for facility operations. Structural components are divided into three interdependent areas: facility characteristics, (including location, licensure, size, occupancy rates, percentage of private pay versus Medicaid or SSI/SSP residents, owner and ownership type and the physical plant), staff characteristics (including staff training and credentials, the availability of a nurse, and staffing levels), resident characteristics (including sociodemographic factors, including income and Medicaid eligibility, and resident dependency levels).

### **Facility Characteristics**

Meeting individual needs and preferences is an important part of quality long term care. Many states even include reference to these needs in their RC/AL philosophy statements (Mollica, et al., 2005). The extent to which a setting may or may not meet these types of needs can greatly depend on the structural characteristics of the facility.

**Location.** Consumer selection of a RC/AL facility is often based upon whether the facility is located near one's home or the homes of relatives and friends; or proximity to services [e.g., physicians, hospitals]. Location may also affect resources available to the facility, such as the ability to attract private pay residents, ability to recruit and retain quality staff and the level of competition from other RC/ALs or community care services. Facility location can be measured by recording addresses of facilities.

**Licensure.** Some states have single level systems where only one type of RC/AL facility is licensed and others have licenses or waivers specific to different levels of care

services (Carlson, 2005; Mollica, et al., 2005). Hawes and colleagues (1995) in a survey of assisted living facilities found that licensure status was associated with a facility's ability to accept and/or retain clients who need increasing levels of care and other QoC issues. Information regarding licensure applications and levels of licensure may be obtained from state agencies.

**Size.** RC/AL facilities range in size, from small homes with three to four residents to those with well over one hundred beds. Larger facilities may be more difficult to manage because of the many residents and personnel that need to be overseen and smaller facilities may have fewer resources. Size can also be a preference of a resident, with larger facilities offering more amenities and smaller facilities being more attentive to personal preferences. The relationship of size and QoC in RC/AL is not known and may be related to other variables [e.g., the monthly rent and resident mix]. The state license typically includes the number of beds licensed by the facility.

**Occupancy Rates.** Many factors may affect occupancy, but a community reputation for providing good care may improve occupancy rates. Whether a facility has multiple vacancies or several potential residents on a waiting list could provide some insight on QoC issues. Extended low occupancy can threaten the operational viability of the facility or provide an incentive to admit or retain residents that may be inappropriate given the facility's capabilities. High occupancy rates on the other hand may decrease the amount of choice available to consumers, or contribute to price increases. Occupancy rates can be calculated from state licensing records, facility records, and ombudsman programs. Presently, in most states these data sources provide "snapshots" compiled once annually or less often, rather than being continuous or in real time.

***Owner and Ownership Type.*** Ownership, particularly the distinction between single facility and chain ownership, and between for profit and not for profit tax status have been commonly used in studies of nursing home quality of care. The rationale is this that type of ownership may influence operational practices which are not readily measured. For example, owners of small or privately held facilities may have direct control over operational decisions. Ownership decisions in large and/or chain operations also affect QoC, but in a context where these decisions may be disconnected from facility level management. On the other hand, larger operations may have access to better internal quality assurance systems, training, and financial resources. A facility's tax status may also be associated with decisions regarding QoC issues, such as staffing levels, especially if overhead expenses [e.g., stockholder dividends and property taxes] compete against operational resources. Further, not-for-profit facilities may have access to endowments or fundraising that help offset revenue shortfalls. Direct measures of financial practices, such as financial records and fundraising practices, may be available in some states. The owner of the facility and ownership type can be found on the facility license or application for licensure.

***Physical Plant.*** The goals of a safe and secure environment include protection from fire, prevention of injury, and provisions for special assistance needs such accessibility for those with disability and secure perimeters for those with dementia (Sloane, Zimmerman & Walsh, 2001). RC/AL environmental design experts have made recommendations and even defined standards for such things as how to reduce the risk of injury due to fire by provisions such as multiple exits, the use of flame retardant materials and the installation of automatic sprinkler systems (Regnier, Hamilton & Yatabe, 1995).

Whether or not a facility has complied with both codes and recommendations from experts is an important aspect for evaluating if the facility is a safe environment for residents. State regulatory, fire inspection and building records provide information regarding the compliance of the facility in this area.

### **Staffing Characteristics**

*Staff Training and Credentials.* The training of RC/AL staff [e.g., the education and experience of those in charge of a facility] is one important staffing characteristic. Direct care staff in RC/AL facilities can, more often than not, be hired without any training or experience and there is wide variation in the staff training requirements and stringency of the requirements among the states (Assisted Living Federation of America, 2005; Carlson, 2005; Mollica et al., 2005). Differences in the levels of direct care staff training may be an opportune way to distinguish between facilities. The credentials of owners, administrators and other personnel are also noteworthy. Staff training and experience information should be available from facility personnel and training records. Some states require that training be reported to the regulatory agencies. Staff training documentation can be complicated in situations where a facility contracts with an outside vendor, such as for home health care or hospice services. Such arrangements would be noted in training or in other measures related to staffing (e.g., the availability of a nurse).

*Availability of Nurse.* Nurses and nursing oversight is not mandatory in all RC/AL facilities. This is in keeping with the philosophy that licensed housing is a social model of care. However, Hawes and Phillips (2000) in their study of assisted living found that residents in facilities with a full time nurse involved in direct resident care were half as likely to move to a nursing home as residents in facilities with lower levels of nursing.



This finding remained even after adjusting for other staffing and services variables.

Carlson (2005) reported that 26 states require RC/AL facilities to employ or contract with nurses. In some instances, nurses are required to conduct assessments and review care plans and in others, to conduct medication reviews. Facility staff records and personnel records should indicate the presence of nursing staff. Comparison of advertised services to actual services may also be useful.

**Staffing levels.** Ultimately, QoC depends on the ability and availability of staff to provide appropriate care to residents. The adequacy of staffing levels (often measured as a ratio of number of staff to number of residents) is dependent to some degree on the levels of need of residents. These can change daily and even throughout the day. Requirements for the number of staff that must be available for direct care is variable among states, usually broadly defined without specific ratios. Often facilities are given discretion in determining the number of staff necessary (Assisted Living Working Group, 2003; Carlson, 2005; Mollica et al., 2005). The US GAO (1999) identified insufficient and undertrained staff, low pay rates and high staff turnover as major contributions to QoC problems in RC/AL. Other studies have linked staffing issues to providing necessary care to residents in RC/AL (Cartwright & Kayser-Jones, 2003; Konetzka, Sterns, Konrad, Magaziner & Zimmerman, 2005; Zimmerman, Sloane, Hanson, Mitchell & Shy, 2003). Facility staffing records, payroll records, and personnel reports may provide this information. In some facilities it may be necessary to verify or audit these records as an incentive to assure accuracy.

### **Resident Characteristics**

**Sociodemographic factors.** Sociodemographic factors such as age, sex and ethnicity

may affect preferences in facility selection among consumers. In long term care, persons over the age of 85 may have more dependencies and higher level of care needs (Ullmann, 1990). Correspondingly, facilities with higher proportions of the very old might be expected to have increased staffing and to offer higher levels of care. Resident records should be available on site that can provide age and other information.

***Resident Dependency Levels.*** The numbers of residents needing certain levels of care (resident case-mix) may affect the ability of the facility to provide appropriate levels of care. Should the proportion of residents become increasingly physically and cognitively impaired, one might expect to see an increase in staffing and the levels of assistance available. Resident records, specifically medical records and physician reports, may provide some of this information, although there may be little standardization of measures. There is also the issue that dependency data may not be updated with changes in conditions.

### **Process**

There are a number of processes conducted in the RC/AL setting. Some of these are specific to hands on care, such as assistance with bathing, and supervising transfers or ambulation help to insure safety and prevent injuries. These activities may be charted, but resources are not available to directly and systematically observe this assistance. Processes, such as staff turnover, can be compiled from payroll and other records. The utilization of some community resources [e.g., use of home health care] may be well documented, whereas use of community senior centers and other social/recreational services may not be as well documented, especially if there are not payments involved for these resources. Observational data is expensive to collect. It is time limited, and subject

to a “Hawthorn Effect” with observation influencing behavior. Because of these challenges, process measurement has often relied on charted or claims data. The quality of practice is assessed by comparisons of services, staffing, and other practices against norms and standards (these may be codified in licensure requirements). Reliability and completeness of the charted information is a key factor in these comparisons.

### **Types of Services**

Services typically available in RC/AL facilities include room and board with provisions for assistance with activities of daily living, such as bathing, dressing, eating, grooming, and continence. Additionally, assistance with transportation, planned social activities, housekeeping, laundry, obtaining medical and social services, and the supervision of medications and other medical needs are often available. RC/AL facilities vary in the type of services they provide, and in whether they are able/willing to offer additional services should residents become more disabled and require more care. The extent to which a facility can provide higher levels of services impacts the residents’ ability to age in place. Lack of consumer information regarding available services in RC/AL has been noted as a quality problem (US GAO, 1999). Information regarding the types of services offered may be obtained from the facility’s informational brochures or marketing materials, as well as in the application for licensure. Whether or not a facility actually provides the services necessary, and whether there are special circumstances that may limit access to these services is a more complicated matter which may require further investigation.

### **Staff Turnover**

The quality and continuity of care provided to persons in RC/AL facilities may be

compromised if turnover is frequent among staff (Stearns & Morgan, 2001). The ability of a facility to retain good staff is an important aspect of facility process. High turnover of direct care staff may be indicative of poor staff morale, low wages or poor working conditions, or a competitive job market. Regardless of the cause, turnover affects operating efficiency, staff expertise, and very likely the QoC. Having insufficient, unqualified and untrained staff, exacerbated by high staff turnover and low pay for direct care staff is considered an important aspect of QoC problems in RC/AL (US GAO, 1999). Monitoring of staffing records and personnel records may provide this information. These records are often mandated to be maintained and reviewed at the time of a licensing survey. Staff interviews may prove useful too in determining staff morale and work satisfaction, while these may seem to be cost-prohibitive, it should be noted that often surveyors would be speaking to staff and could conduct short interviews. The collection of mail questionnaires can lower the cost of obtaining this information.

### **Safety and Injury Prevention**

Fall prevention is an example of a safety-orientation in facility operations. Falls present a serious health risk to older persons, as one out of every three persons over the age of 65 and older falls. In 2003, more than 1.8 million seniors over the age of 65 were treated in emergency departments for fall related injuries and more than 421,000 were hospitalized (Center for Disease Control and Prevention, 2005). Defining an incidence rate or other standard to define an acceptable injury rate (or comparison among facilities) is beyond the scope of this paper, but such standardization can be facilitated once information is regularly and uniformly reported.

Another safety example is that of injuries related to emergencies, such as fire and

disaster. Emergency and disaster planning is usually required by regulation, but the ability of the staff to implement policy and procedures in the event of an emergency may take more practice and training than is usually given. Media reports of fires claiming multiple lives and injuring many of residents living in supportive housing bring attention to fire safety in all long term care settings. Facility reports to the oversight agency of unusual incidents, injury and death are potential data sources to examine resident safety in RC/AL settings. Another data source is the state and national fire department information reporting systems. Variations among state regulations and licensing requirements may influence adverse safety incident rates. This may create a natural experiment for comparisons within or between states across time. Standardization of the information reported and in the reliability of this reporting will be necessary for any such comparisons.

### **Care of Residents**

Providing good quality care to elderly persons requires technical knowledge and experience, as well as respect for and protection of the personal rights of the residents. Certain services provided to residents, such as correct medication administration and appropriate implementation of the plan of care are highly visible in evaluation. These are sometimes measured through observation, but most common is a review of procedure manuals, treatment or drug distribution logs, and staff training requirements. Documenting whether care is provided in a manner that assures personal rights [e.g., promoting dignity and choice] is more difficult. Perceptions can be measured through surveys, but generally documentation is done through attention to Resident Agreements and the criteria within them specific to the levels of care and assistance that will be

supported by the facility (including those that require a resident to move or move into higher levels of care). Resident complaints about the interpretation of these agreements is another data source. Observational data or resident satisfaction surveys are costly ways to document facility practice in this area.

### **Utilization of Community Resources**

RC/ALs have varying access to a variety of community resources to improve QoC for residents. Among these are senior centers, adult day care, health centers, home health care, and hospice programs. Each of these services provide opportunities for residents to get exercise and social stimulation, as well as access to supports for needs not served by the RC/AL itself. For residents eligible for Medicaid (or those willing to pay out of pocket) case management is usually available. Facilities may state that they provide or facilitate access to community resources, but documentation of participation may be more difficult to obtain. Facility and resident records may contain at least some of this information.

### **Outcome**

Outcome components include a variety of dimensions. Among these are deficiencies, complaints, enforcement actions, changes of resident health status and quality indicators, discharge and medical event data, changes in resident cognition and behavior, quality of life indicators, and resident and family satisfaction. In assessing the outcome of RC/AL facilities, it is important to distinguish those that may be attributable to encounters with the facility and staff vs. those that may be more affected by the quality of their chronic disease and health management--responsibilities which maybe external to the RC/AL. Among residents with chronic and progressive diseases, a “cure” is not

expected as an outcome, but avoiding preventable events like emergency room use, hospitalizations, and relocations to nursing homes is a reasonable expectation. Resident and their family members' satisfaction with the quality of the RC/AL care received is another expectation.

### **Complaints**

Residents, family members, health care providers, staff or other persons may file complaints regarding a facility. Often complaints are made to the State regulatory agency or the local Ombudsman program. Complaints may give some indication of QoC. If complaints are substantiated they may be reclassified into deficiencies. The pattern and number of complaints may provide some insight into consumer satisfaction concerns. Complaints may be tracked by state licensing records. Local ombudsman offices may also provide facility complaints information.

### **Deficiencies/Enforcement Actions**

State regulatory agencies are responsible for facility inspections. When a standard or regulation is not followed, a deficiency may be given to the facility. State surveyors generally follow established guidelines for the evaluation of a facility. Deficiencies may be grouped by type. The seriousness of deficiencies is an important indicator of QoC and may be more important than the actual number of deficiencies. State records provide information on deficiencies and some states require facilities to post or make available state survey reports.

States regulatory agencies may impose fines or restrictions on a RC/AL facility if serious deficiencies or complaints have been confirmed. In addition to tracking this information it is important to also track whether deficiencies are corrected or repeated.

State regulatory records would contain this information.

### **Changes in Resident Health Status/Quality Indicators**

There is no specific set of quality indicators developed for RC/AL facilities. However, quality indicators used in other long term care settings and in research efforts seem to offer appropriate considerations. One example of quality indicators was developed for the Centers for Medicare and Medicaid services and consists of: decline in ability to perform daily activities, infection, pressure ulcers, physical restraints, and pain (Morris et al., 2002). Falls and injuries are also suggested as a quality indicator. Tracking resident function overtime is most appropriately done using standardized scales. Some of the assisted living waiver programs are doing this using an adaptation of the Minimum Data Set Activities of Daily Living Self-Performance Index. More broadly, and for all payers, medical assessments done on residents upon admission, and subsequently, could be developed into a useful resource for measuring change. States typically include criteria in their regulations that determine admission and retention policies covering some or all of the following: general condition, health related conditions, functional condition, Alzheimer's disease and dementia, and) behavioral condition (Mollica, 2002). Home health records and hospice service records would include some health status information. In addition, medical events, such as 911 calls and emergency room visits could provide further information regarding potential changes in health. We cannot find evidence showing that states require these latter data or how complete this information is if it is required. However, we believe that such information should be maintained and available.

### **Discharge/Medical Event Data**

Discharge and medical event data may often be more reliably measured/recorded



than changes in health status. One event given prominence is the number of nursing home transfers. In compiling this statistic it is important to distinguish between permanent transfers and episodic or short term stays. The later of these may be therapeutic, such as for rehabilitation, or post-treatment recovery from even minor procedures like nail debridements. Moves from the facility to higher or lower levels of RC/AL care would also be informative. Another aspect of outcomes monitoring is that of medical events such as mortality, hospitalization, emergency room, and EMT use. This information may be recorded in discharge records or as medical event incidence reports. States often require reporting this information to the licensing agency. The linkage of residents to Medicare and Medicaid claims systems, although with a year lag in information, would also be a source for relatively complete information on health care use.

#### **Changes in Resident Cognition/Behavior**

Quality of care may affect the cognition and behavior of residents. In turn, such changes may affect the ability of the facility to provide adequate care. Decline in cognitive status is likely to increase discharges to a nursing home (Hawes & Phillips, 2000). Physician reports, resident observation and staff and family interviews, are among the means to document changes in resident behavior. The use of standardized instruments for disability or other measurement is not widely available in administrative data. Cost and burden considerations likely limit the incorporation of these measures into a national uniform reporting system.

#### **Resident/Family Satisfaction/Quality of Life Indicators**

Satisfaction is a multi-dimensional concept that is difficult to define. In RC/AL, it

has been described by characteristics of the facility assumed to be important to residents, including autonomy, adequate access to health care, availability of services, homelike physical environment, supportive relationships with staff and meaningful social life and activities (Sikorska-Simmons, 2001). This information is usually obtained from surveys and interviews of residents and/or family members. Instruments in use include the Resident Satisfaction Index developed by Sikorska-Simmons (2001), and the instruments used by Hawes and her colleagues (1995), but even these have not been developed for persons with cognitive impairments. For the more immediate future, it is likely that the dimensions of quality of life will be measured indirectly, as in the resources and processes in place that support or facilitate things like privacy, security, and dignity.

#### **SUMMARY & CONCLUSIONS**

The foregoing has been suggested as a theory-based approach for the evaluation of the quality of care in RC/AL facilities. This approach considered the structure and processes of care in residential care/assisted living and how these might influence or be associated with various outcomes of care. Each of the framework dimensions were described and illustrated with measures likely to be available in state and/or facility administrative records. Measures of RC/AL ideals such as dignity, autonomy, and decision-making are likely to be difficult to capture within administrative data. Because of this, attention was focused on measures reflective of the quality of care and the opportunity for quality of life [e.g., privacy]. Explicit evaluations of quality of life outcomes among residents are likely better done within the context of focused studies, rather than as part of on-going regulatory oversight data systems.

Comprehensive, computerized administrative recording systems can facilitate access

to information and make it useful to state agencies, consumers, providers and researchers. As data become visibly used by the public and in program oversight, it is likely that the accuracy, completeness, and timeliness will improve.

Our proposed quality of care framework proposes a number of measures and suggests interrelationships between facility structures, processes and resident and other performance outcomes. These relationships are theoretical, they have not been systematically tested for the timing and direction of effects. Such work remains to be conducted, and the measures used to illustrate the components of the framework will benefit from refinement and standardization. An especially important information gap in the residential care industry is that of resident-level data, particularly changes in health status and discharge/medical event data. Assuming that the frailty level of RC/AL continues to increase it will be important for both providers and state programs to understand the factors to contributing and challenging attainment of desired resident outcomes.

The reliance on administrative data offers a practical way to begin building a self sustaining data system for the monitoring of quality of care in RC/AL settings. This system can be implemented incrementally. Costs can be minimized to the extent that the system is based on data collected by current oversight staff, and the on-going reporting by providers. There may be added costs associated with modifying instruments and computerizing information collection, but the training of inspectors and providers in how to use these instruments can be incremented over several years within the context of continuing education and training. The resulting information, if reported on a regular basis, will be useful in program operations, policy development, and by those seeking

RC/AL accommodations. Such work can contribute to the development of standards (such as those defining acceptable injury rates, or rates for other adverse outcomes) while offering a basis for trend line and/or post policy or practice change comparisons with a facility, or among facilities in a single state, or even across states. The development of a minimum set of measures common across states, will require negotiation among stakeholders. While elements of this have already begun within the industry, it remains possible to allow this process to emerge with the phase-in of measures as they become reliably available.

The proposed framework, with its reliance on administrative data, will leave many questions unanswered about the effectiveness and performance of RC/AL relative to its express goals and philosophy. Investigation of these issues often requires data and study designs that go beyond scope of on-going administrative data systems. For example, measures of resident satisfaction, perceptions of autonomy, promotion of independence require resident level data that is too expensive and burdensome for on-going systems. Further, analyses that attempt to identify the causal effects of various attributes (such as levels of staff training or service mix) or the interrelationships among the quality of care framework components require sample designs and measurement that are similarly expensive and may not be need on a regular basis.

There are many challenges to gaining agreement on conceptual domains, operational measures, the frequency and quality of data collection. Beginning here and building incrementally with experience is seems to be a more productive place to develop quality of care systems, than attempts that begin with expensive resident-level data on outcomes and risk factors. These later issues seem more appropriate for focused studies.

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### *Chapter 3*

#### *Considering State Systems for the Monitoring of Quality of Care in Residential Care for the Elderly*

**CONSIDERING STATE SYSTEMS FOR THE MONITORING OF  
QUALITY OF CARE IN RESIDENTIAL CARE FOR THE ELDERLY**

Cristina Flores, Ph.D.(c), R.N.  
Department of Social and Behavioral Sciences  
University of California, San Francisco  
3333 California Street, Suite 455  
San Francisco, CA 94118  
(650) 866-3171 Phone  
(415) 476-6552 Fax  
[Cristina.Flores@ucsf.edu](mailto:Cristina.Flores@ucsf.edu)

Robert Newcomer, Ph.D.  
Department of Social and Behavioral Sciences  
University of California, San Francisco  
3333 California Street, Suite 455  
San Francisco, CA 94118  
(415) 476-1408 Phone  
(415) 476-6552 Fax  
[Robert.Newcomer@ucsf.edu](mailto:Robert.Newcomer@ucsf.edu)

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## ABSTRACT

In an effort to assess the completeness and availability of State of California administrative data compiled on Residential Care Facilities for the Elderly and consider its usefulness in monitoring the quality of care provided, a study was designed to examine accessible information. A stratified random sample of 340 facilities was selected from the 3349 facilities licensed in Northern and Central California. Stratification of the sample was by facility capacity and State district office. Data collection involved a five-year retrospective review of the public files maintained. An adaptation of the Avedis Donabedian's structure-process-outcome theory was used to define conceptual components indicative of quality of care. Measures were abstracted from the public files. Among these were facility services and size, staff characteristics [e.g., credentials, levels and turnover], complaint and deficiency information [e.g., citations issued by the State]. Findings suggest substantial limitations in the reporting system [e.g., practice variations among State offices, lack of resident outcome data] and identify current quality of care concerns. Among the most commonly cited deficiencies were those related to Incidental Medical Care [e.g., medication errors, lack of appropriate medical care], Maintenance and Operation [e.g., unsafe physical plant, fire safety concerns], Personnel Requirements [e.g., insufficient training] and Care of Persons with Dementia [e.g., inadequate staffing levels]. Recommendations for an integrated and comprehensive State information system are made.

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

## **CONSIDERING STATE SYSTEMS FOR THE MONITORING OF QUALITY OF CARE IN RESIDENTIAL CARE FOR THE ELDERLY**

Information based upon reliable, valid, accessible and timely data regarding the care provided, the recipients of care, the facilities, and the personnel providing care is fundamental for monitoring and improving the quality of long-term care (LTC) (Institute of Medicine, 2001). For the Residential Care (RC) industry, also referred to as Assisted Living (AL), this is of concern. Consumer demand for RC/AL is expected to grow significantly as the projected number of elderly persons in need of LTC doubles over the next 20 years (US GAO, 1999). In addition, trends suggest that RC/AL is a rapidly growing segment of LTC with supply increasing by 97% between 1990 and 2002 (Harrington, Chapman, Miller, Miller & Newcomer, 2005). Furthermore, the prevalence of physical and cognitive frailty among residents (Hawes, et al., 1995; Newcomer, Breuer & Zhang, 1994; Spillman, Liu & McGilliard, 2002), combined with often lower staff to resident ratios and lower training standards than found in nursing homes (Carlson, 2005), are among the concerns raised regarding the quality of care provided and the safety of residents (Assisted Living Working Group, 2003; US GAO, 1999).

Information and appropriate data sources regarding RC/AL facilities is both limited and problematic. These types of facilities are licensed and monitored by individual states; there are no federal reporting guidelines (Mollica, Johnson-Lamarche & O, Keeffe, 2005). One consequence of this is that there is no national comprehensive information system on facilities, residents, personnel or state survey results (Institute of Medicine, 2001). Information that is electronically accessible to the public through state licensing

agencies is generally limited to facility name, address and telephone number. This contrasts with the information required and maintained either at individual facilities or in state offices [e.g., staffing information, state survey reports, enforcement actions] (Mollica, 2006). The use of State administrative data has not been expressly studied to determine the feasibility of utilization in the monitoring of quality of care (QoC), creating challenges in the ability to use information reliably. For example, systematic differences in survey practices and thoroughness of recording across state offices have not been researched and variations by facility size have not been considered.

Congressional hearings, government reports, research publications and media reports have drawn attention to actual and possible QoC related problems. For example, the US General Accounting Office (1999) found that RC/AL facilities do not always give prospective consumers adequate information as to whether, for how long, and under what circumstances a facility could meet their needs. Twenty-seven percent of the facilities reviewed had been cited for five or more QoC or consumer protection deficiencies during the 1996-1997 time period. In addition, stakeholders have questioned states' effectiveness in monitoring the QoC provided in RC/AL (Assisted Living Working Group, 2003; Center for Medicare Advocacy, 2007; Institute of Medicine, 2001) emphasizing the need for reliable and valid data sources. For example, the Assisted Living Working Group (2003), in their report to the U.S Senate, identified two primary issues related to QoC: 1) the need to develop regulatory guidelines for states; and 2) the need to establish a mechanism to develop outcome measures and quality improvement methods that can be integrated with traditional systems to provide state-of-the-art measurement systems to ensure consumer safety and satisfaction. The Institute of Medicine's Committee to

Improving Quality in Long Term Care (2001) recommended research to examine the effectiveness of survey and enforcement activities.

California, with an RCFE industry having a capacity to serve over 155,000 persons, has information limitations similar to most other states. This study was developed to assess the administrative data on Residential Care Facilities for the Elderly (RCFEs) currently available and its applicability for adaptation into an electronic system that might be available to the public and for program quality assurance monitoring. These data are required by the Department of Social Services (CDSS), Community Care Licensing Division (CCLD). This agency is responsible for the licensing and monitoring of RCFEs. This research represents the first attempt to systematically evaluate a state monitoring system of this type by assessing current availability of information, practice differences across State offices and variations among facility size groups.

This paper begins with background information on RC/AL facilities and California's regulatory system. Next, the theoretical framework developed for the study, the methodological approaches and results are described. Components of quality of care and how they may or may not be measured with current data are discussed. In addition, analyses of complaint and deficiency information obtained highlight current QoC concerns in RCFEs. Results form the basis for the conclusions and recommendations for an improved State database that builds upon and expands current available information into a complete and accessible system.

## **BACKGROUND**

### **Residential Care/Assisted Living (RC/AL)**

Services available in RC/AL facilities generally 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 and other medical needs are often offered. RC/AL continues to grow in its popularity as a LTC option. Typically, the supportive services available in these facilities are provided in a homelike environment in which operational values include maximizing functional capability, autonomy and independence: qualities that are both important and attractive to consumers (Assisted Living Working Group, 2003; Mollica et al., 2005).

Since the early 1990s, state regulations and facilities have used RC and AL terms interchangeably and definitions vary considerably from state to state, although some commonalities exist (Mollica et al., 2005). California does not utilize the term Assisted Living in its licensing structure. All such facilities are named Residential Care Facilities for Elderly (RCFEs), hence the use of this terminology in this paper. These facilities vary in size [e.g., less than 6 beds to over 100 beds] and services offered [e.g., some facilities accept ambulatory persons only while others accept and retain non-ambulatory residents, those with dementia, and hospice residents].

California defines RCFEs (CDSS, 2007) as:

*Residential Care Facilities for the Elderly (RCFEs) provide care, supervision and assistance with activities of daily living, such as bathing and grooming. They may also provide incidental medical services under special care plans. The facilities provide services to persons 60 years of age and over and persons under 60 with compatible needs. RCFEs may also be known as assisted living facilities, retirement homes and board and care homes. The facilities can range in size from six beds or less to over 100 beds. The residents in these facilities require varying levels of personal care and protective supervision. Because of the wide range of services offered by RCFEs, consumers should look closely at the programs of each facility to see if the services will meet their needs.*

There are currently over 7,000 RCFEs in California. Over the last decade, in

response to consumer need and demand, California has revised regulations to allow residents to remain in RCFEs as their needs increase, including advancing dementia and hospice care (CCLD, 2007).

### **State Regulatory System**

In California, regulations regarding RCFEs are governed by Title 22, Chapter 8, Division 6 of the California Code of Regulations. Throughout the State, there are 14 district offices responsible for RCFE licensing and monitoring. Facilities are evaluated both by periodic required licensing surveys and in response to complaints received by CCLD. Until recently, the law required annual surveys of all RCFEs. As of January 2004, the law was changed, decreasing the required annual on-site evaluations of RCFEs to a minimum of once every five years. Pre and post licensing inspections, as well as those in response to complaints continued as before (Official California Legislative Information, 2005).

## **METHODS**

### **Conceptual Framework**

Avedis Donabedian's (1966) "structure/process/outcome" theoretical framework has been used for four decades to conceptually identify the elements appropriate for the evaluation of health care quality. Donabedian (1988) described these three components as linked because "good structure increases the likelihood of good process, and good process increases the likeliness of a good outcome." This framework has been adapted here to help identify possible components of RCFEs likely to influence QoC (Flores & Newcomer, 2006). This model has proven to be adaptable to the evaluation of quality across a variety of health care settings. Among these are hospice programs (Richie,



1987); public health systems (Handler, Issel & Turnock, 2001); nursing homes (Harrington, O’Meara, Kitchener, Simon & Schnelle, 2003) and health outcomes (Mitchell, Ferketich & Jennings, 1998).

**Measures**

Figure 1, shows the three main domains of the conceptual framework and measures used to represent the constructs. In selecting representative measures priority was given to items expected to be included in State administrative data. Additionally, some items that might be obtained from special surveys are also included.

Figure 1: Conceptual Framework and Measures

<i><b>STRUCTURAL MEASURES</b></i>	<i><b>PROCESS MEASURES</b></i>	<i><b>OUTCOMES MEASURES</b></i>
<b>Facility Characteristics</b> Location <sup>1</sup> Licensure <sup>1</sup> Size <sup>1</sup> Occupancy Rates <sup>2</sup> % Private Pay Residents Licensee/Ownership Type <sup>1,4</sup> Physical Plant <sup>2,4</sup>	Types of Services <sup>1,2,5</sup>	Deficiencies, Complaints, Enforcement Actions <sup>1,2</sup>
<b>Staff Characteristics</b> Staffing Training & Credentials <sup>2,3</sup> Availability of a Nurse <sup>3,5</sup> Staffing Levels <sup>2,3</sup>	Staff Turnover <sup>3</sup>	Resident Health Status/Quality Indicators <sup>2</sup>
<b>Resident Characteristics</b> Dependency Levels <sup>2</sup> Sociodemographic Factors	Safety <sup>1,2</sup>	Discharge/Medical Event Data <sup>2</sup>
	Care of Residents/Resident Rights <sup>2</sup>	Quality of Life Indicators <sup>2</sup>
	Utilization of Community Resources <sup>1,2</sup>	Resident/Family Satisfaction <sup>2</sup>

<sup>1</sup> Facility License  
<sup>2</sup> Facility Evaluation Report  
<sup>3</sup> Personnel Report  
<sup>4</sup> Initial Application  
<sup>5</sup> Admission Agreement

Five primary sources of information were identified in public files on RCFEs. These include 1) the State-issued facility license; 2) the Facility Evaluation Report, a report completed by surveyors upon any visit to an RCFE; 3) the Personnel Report,

required to be submitted by RCFEs to CCLD when any staffing changes occur; 4) the initial application which provides basic information about the applicant and the facility; and 5) the admissions agreements used by the facility, required to be approved by and on file with CCLD. For many of these constructs, information is derived from citations issued by CCLD for deficiencies in compliance. These are located in the Facility Evaluations Reports. Citations report only problems, not positive conditions, but direct measures of many features and operations were not available in the public files. However, many of these data elements are available in facility files. The existence and availability of the measures, differences in district office practices, variability by facility size groups and across time is of primary consideration in this first-step research.

### **Sample**

This study uses a stratified probability sample of licensed RCFEs operating in Northern and Central California. Stratification of the sample was both by facility size [i.e., 1- 6 beds; 7-15 beds; 16-49 beds; 50-99 beds; and  $\geq 100$  beds] and CCLD district office. Approximately equal numbers of facilities were selected within each size group and each of the six CCLD district offices. Facility size groups correspond to size

Table 1: Description of Facilities by Size within District Offices

<b>District Office</b>	<b>1-6 beds</b>	<b>7-15 beds</b>	<b>16-49 beds</b>	<b>50-99 beds</b>	<b>&gt;100 beds</b>	<b>Total # of facilities</b>
<b>Rohnert Park</b>	324	40	33	24	16	<b>437</b>
<b>Sacramento/Stockton</b>	464	55	42	37	31	<b>629</b>
<b>Chico</b>	197	32	31	23	13	<b>296</b>
<b>San Bruno</b>	912	88	59	42	54	<b>1155</b>
<b>Fresno</b>	278	23	34	22	15	<b>372</b>
<b>San Jose</b>	364	26	28	16	26	<b>460</b>
<b>Totals</b>	<b>2539</b>	<b>264</b>	<b>227</b>	<b>164</b>	<b>155</b>	<b>3349</b>

categories within State regulations. This sampling design enables the comparison of

differences both by facility size and across district offices. The offices selected were located respectively in: 1) Rohnert Park; 2) Sacramento/Stockton; 3) Chico; 4) San Bruno; 5) Fresno; and 6) San Jose. A description of the numbers of facilities per size group within district offices is seen as Table 1. Together these offices cover 49 of California's 58 counties (see Figure 2) and approximately 50% of all of facilities in the State.

Figure 2: Counties Included within District Offices

<b>Northern California</b>	<b>Counties</b>
<b>Rohnert Park</b>	Humboldt, Del Norte, Marin, Mendocino, Napa, Solano, Sonoma
<b>Sacramento/Stockton</b>	Amador, Calaveras, El Dorado, Sacramento, San Joaquin, Stanislaus, Tuolumne
<b>Chico</b>	Butte, Colusa, Glenn, Lake, Lassen, Modoc, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Yolo, Yuba
<b>Central California</b>	<b>Counties</b>
<b>San Bruno</b>	Alameda, Contra Costa, San Francisco, San Mateo
<b>Fresno</b>	Alpine, Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, Tulare
<b>San Jose</b>	Monterey, San Benito, Santa Clara, Santa Cruz

Sample size differences between districts occurred in response to the office request to reduce their administrative burden in assembling public files. Four offices were able to accommodate a request of up to 60 files and two offices were able to accommodate a request of up to 50 files. CCLD personnel must completely review facility files (i.e., removing personally identifying information) to make the file available as a public file. Additionally, personnel are required to be present during a public viewing. Table 2 shows the initial sampling count.

### **Data Collection**

California state law requires a variety of information from RCFEs. Some of this information is considered public record and is expected to be available upon request in

the regional district offices of CCLD. Other required information is maintained by

Table 2: Initial Sampling Count

District Office	≤6 beds	7-15 beds	16-49 beds	50-99 beds	≥100 beds	Total # of facilities
<b>Rohnert Park</b>	12	12	12	12	12	<b>60</b>
<b>Sacramento/Stockton</b>	12	12	12	12	12	<b>60</b>
<b>Chico</b>	10	10	10	10	10	<b>50</b>
<b>San Bruno</b>	12	12	12	12	12	<b>60</b>
<b>Fresno</b>	10	10	10	12	10	<b>50</b>
<b>San Jose</b>	12	12	12	12	12	<b>60</b>
<b>Total # of facilities</b>	<b>68</b>	<b>68</b>	<b>68</b>	<b>68</b>	<b>68</b>	<b>340</b>

by licensees at facility sites. Information is maintained in three main sources: 1) the public district office file is expected to include the initial one-time license application, the facility license, prototypic copies of admission agreements, personnel reports, and facility evaluation reports. The latter include complaint and deficiency information; 2) the confidential district office file which includes unusual incident reports and other resident-level information; and 3) on-site facility records [e.g., resident level information and personnel records] and required to be updated as necessary and available to the State upon request (CCLD, 2007). Limited information (i.e., name, address, telephone number, contact person, license number, licensure status, capacity and responsible district office) about facilities is also available on-line on CCLD’s website ([http://www.cclld.ca.gov/docs/cclld\\_search/cclld\\_search.aspx](http://www.cclld.ca.gov/docs/cclld_search/cclld_search.aspx)).

Title 22, Division 8, Chapter 6 of the California Code of Regulations consists of the nine Articles summarized in Figure 3. Articles six through eight are the focus of this project because they include regulations that can be utilized as proxy measures for components of the conceptual framework. Included are requirements regarding the care and supervision of residents, physical plant and safety, and other medical care and quality

of care concerns. For example, Article six includes continuing care requirements such as medications and personal accommodations and services. Article seven includes requirements for the physical plant and fire safety and Article eight addresses regulations

Figure 3: Title 22 Article Numbers

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

regarding restricted and prohibited medical conditions. There are more than 100 numbered subsets of regulations within these Articles (see Appendix A for a breakdown of regulation numbers).

This project was approved by both the California State Committee for the Protection of Human Subjects, and the University of California, San Francisco Committee on Human Research.

Data were collected on site at State district offices between June 2006 and September 2006. Public file content is only available in hard-copy format. A minimum of four weeks advanced notice via letter and follow up telephone calls was given to each office manager to allow adequate time for files to be prepared. Between 20 and 50 files were requested at a time and data were collected over three to six days at each office. Each file was reviewed and specified documents were abstracted and photocopied.

Data collected included basic facility information, such as location, size, ownership type, effective date and licensure status. Furthermore, all visits made to the

facility by the CCLD officials were coded by dates and reason for visit [i.e., required, complaint, case management, pre-licensing, post-licensing, office]. Complaint outcomes [i.e., substantiated, unfounded, inconclusive, needs further investigation] were also coded. Any deficiency officially cited by the State was identified and coded by State article (see Figure 3), as well as specific regulation number (see Appendix A). The type of citation was also coded, corresponding to Title 22: 1) Type A=serious, meaning a failure to comply presents an immediate or substantial threat to physical health, mental health or safety of the residents; or 2) Type B=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. Additional information including narrative descriptions, name of the State surveyor, name of the district manager, any penalties assessed and evidence of proof of correction was entered so that systematic variations and patterns could be considered.

### **Statistical Analysis**

The study aimed specifically to 1) assess the completeness and availability of existing State of California administrative data compiled on RCFEs; and 2) consider the applicability of adapting the data into a statewide information system to monitor and evaluate the quality of care provided. To address these aims, a narrative description of the availability and general content and organization of RCFE public files is included. Utilizing SAS, Version 9, descriptive statistics were utilized to describe the sample files and data collected. Frequencies and percents were used to generate information on facility, staff and resident characteristics, as well as State survey visit types and visit outcomes [e.g., deficiencies and complaints]. Differences in facility characteristics [e.g.

ownership type, licensure status, presence of a hospice waiver] and availability of documents [e.g., personnel reports, admission agreements] were assessed using Chi-square tests for categorical variables.

Additional analyses were conducted utilizing Generalized Estimating Equations (GEE) with a Poisson distribution to determine differences in cited deficiencies between facility size, district offices and over time [i.e., before and after January 2004 when required visits were decreased by law]. GEE methods were chosen because this method accounts for 1) response variables that are not normally distributed; 2) responses that are not independent [e.g. previous citations may be correlated to additional citations]; and 3) time-dependent covariates. GEE allows for accurate analyses when these conditions exist (Ballinger, 2004) and these characteristics were present in this data. Although an accurate power analysis is difficult due to the complexity of the GEE method, the smallest differences that were statistically significant suggest adequate power for the study.

## **RESULTS**

The results of the study are presented here and address the two primary analytical goals: 1) to assess the extent to which identified measures were both obtainable in existing State administrative data and feasible to utilize [e.g., consideration for practice difference across offices and variations by facility size]; and 2) consider quality of care through an analyses of currently available State data. First, a general description of the accessibility and contents of State-maintained public files on RCFEs is made. Next, by referring back to the conceptual framework (Figure 1), results from the study are illustrated both by a description of the availability of the necessary information within the State public files, as well as the findings from data analyses. Third, state survey visits and

citations issued are discussed in relation to facility size groups, district offices and across time [i.e., before and after the 2004 policy change decreasing the frequency of required surveys].

**State-Maintained Public Files of RCFEs**

Hard copy State public files of RCFEs are accessible to the public when requested in advance from district offices. On-line information (available from CCLD’s web site and other sources) is limited to the name, address, telephone, licensure status, capacity and responsible district office. Consumers may call in and speak with State surveyors or request to view the public file in person. When public files are reviewed, a State employee must preview the file and remove any confidential information and also be present during the review.

Although four to six weeks advanced notice was given to district offices in this study, of the 340 requested files, 315 (90.8%) were available for review and 25 (9.2%) were unavailable. As seen in Table 3, of the missing files, eight were located in a satellite office and not available, 15 could not be located at all and two were reported to be “problem” facilities with files not ready for review. All managers seemed to make

Table 3: Numbers of Public Files Available by District Offices

District Office	Total Requested	Located off-site and unavailable	Unavailable - no valid reason	Total Available
Rohnert Park	60	7	0	53
Sacramento/Stockton	60	1	2	57
Chico	50	0	0	50
San Bruno	60	0	11	49
Fresno	50	0	0	50
San Jose	60	0	4	56
<b>Totals</b>	<b>340</b>	<b>8</b>	<b>17</b>	<b>315</b>

reasonable efforts to locate missing files and larger offices seemed to have more



difficulty identifying the location of missing files.

Of the five data elements identified (Figure 1), the facility license, the Facility Evaluation Reports and initial application forms were present and available in the RCFE public files. On the other hand, the Personnel Reports and admissions agreements varied both in terms of availability and completeness and will be described further below.

Public files were organized in a consistent manner across district offices. Two sided charts were organized with tabs indicating sections of the public files. Generally, offices had the required information available. Information regarding proof of correction of deficiencies cited was frequently difficult to locate or not documented, with the exception of one office (Rohnert Park) where an attempt to follow up on most all citations to insure correction of deficiencies was apparent. Other surveyor field notes and follow up items were often seen in multiple formats throughout the files [e.g., letters, notes and reminders] indicating that the district offices, as well as certain surveyors, have developed unique ways to complete necessary tasks and monitor compliance.

### **Structural Measures**

The first component of the QoC framework includes structural measures. These refer to facility [e.g., physical plant design and resources], staffing [e.g. training and credentials] and resident [e.g., dependency levels] characteristics that affect RCFEs' capacity to provide care.

**Facility characteristics.** In all instances (N=315), the location, licensure status, size, name of the licensee, ownership type, and evidence of a physical plant fire clearance were present in the public file. Facilities in the sample were located in 47 different counties within the included regions. Occupancy information was recorded less than 40%

of the time. Information on resident fees and percent of private pay residents were unavailable in the public file. This type information is required by law to be available in on-site facility records. Problems regarding the physical plant were measured using deficiencies cited regarding the physical plant.

As seen in Table 4, most facilities (96.2%, N=303) held a regular license, while only two (0.6%) had a provisional license, meaning full licensure was pending but the

Table 4: Licensure Status by District Office and Facility Size

<b>District Office</b>	<b>Licensed</b>	<b>Provisional</b>	<b>Probationary</b>	<b>Forfeited</b>	<b>Totals</b>
<b>Rohnert Park</b>	52	0	1	0	<b>53</b>
<b>Sacramento/Stockton</b>	55	1	1	0	<b>57</b>
<b>Chico</b>	47	1	2	0	<b>50</b>
<b>San Bruno</b>	47	0	2	0	<b>49</b>
<b>Fresno</b>	48	0	1	1	<b>50</b>
<b>San Jose</b>	54	0	2	0	<b>56</b>
<b>Totals</b>	<b>303 (96.2%)</b>	<b>2 (0.6%)</b>	<b>9 (2.9%)</b>	<b>1 (0.3%)</b>	<b>315 (100%)</b>
<b>Facility Size</b>					
<b>1-6 beds</b>	60	1	5	0	<b>66</b>
<b>7-15 beds</b>	59	0	3	0	<b>62</b>
<b>16-49 beds</b>	66	0	1	0	<b>67</b>
<b>50-99 beds</b>	57	0	0	0	<b>58</b>
<b>≥ 100 beds</b>	61	1	0	0	<b>62</b>
<b>Totals</b>	<b>303 (96.2%)</b>	<b>2 (0.6%)</b>	<b>9 (2.9%)</b>	<b>1 (0.3%)</b>	<b>315 (100%)</b>

facility was allowed to accept residents and begin operations. One facility in the sample, had recently forfeited its license due to low occupancy. Nine (2.9%) facilities had a probationary license. Of the nine facilities with probationary status, six of those were related to issues regarding the criminal record clearance [e.g., the facility had a person residing in the facility or working at the facility that had a criminal record] and three facilities had multiple unresolved complaints and deficiencies related to quality of care [e.g., multiple citations for medication errors and inadequate care and supervision over the course of one year, without successful correction efforts]. There was no significant

difference in licensure status between district offices or facility size.

As seen in Table 5, for-profit individual ownership types accounted for 116

Table 5: Ownership Type by District Office and Facility Size

District Office	For Profit Individual	For Profit Partnership	Not for Profit Corporation	Profit Corporation	Limited Liability Company	Totals
Rohnert Park	19	2	9	17	6	53
Sacramento/Stockton	23	8	1	20	5	57
Chico	13	6	2	15	14	50
San Bruno	21	6	4	13	5	49
Fresno	18	7	5	12	8	50
San Jose	22	5	11	13	5	56
<b>Totals</b>	<b>116</b> <b>(36.8%)</b>	<b>34</b> <b>(10.8%)</b>	<b>32</b> <b>(10.2%)</b>	<b>90</b> <b>(28.6%)</b>	<b>43</b> <b>(13.6%)</b>	<b>315</b> <b>(100%)</b>
Facility Size $p < .001$						
1-6 beds	49	6	0	6	5	66
7-15 beds	46	7	0	7	2	62
16-49 beds	17	9	6	25	10	67
50-99 beds	3	7	10	25	13	58
$\geq 100$ beds	1	5	16	27	13	62
<b>Totals</b>	<b>116</b> <b>(36.8%)</b>	<b>34</b> <b>(10.8%)</b>	<b>32</b> <b>(10.2%)</b>	<b>90</b> <b>(28.6%)</b>	<b>43</b> <b>(13.6%)</b>	<b>315</b> <b>(100%)</b>

(36.8%) the facilities in the sample and 90 (28.6%) of the facilities were for profit corporations. The remainder of the facilities were either limited liability companies (N=43, 13.6%), for-profit partnerships (N=34, 10.8%) or not-for-profit corporations (N=32, 10.1 %). Ownership type was significantly associated with facility size ( $p \leq .001$ ) with smaller facilities tending to have more for-profit individuals and with larger facilities have more corporations. There were no significant differences in ownership type across district offices.

Problems regarding the physical plant and safety are structural components of QoC that were measured utilizing deficiencies cited within Article seven which covers the physical environment. All Article seven citations, by year, district offices and facility

size groups are seen in Appendix B. Article seven deficiencies accounted for 17.3% (N=667) of all citations given during the study time period. Of those, 10.9% (N=421) were Type A [i.e., immediate or substantial threat] and 6.4% (N=246) were Type B [i.e., no immediate or substantial threat]. These types of citations did not vary considerably over time (Appendix B).

Within Article seven, the most frequently cited regulation was related to Maintenance and Operations [e.g., bathroom safety; inadequate maintenance] and accounted for 73.2% (N=488) of the physical plant citations during the study time frame. Citations regarding storage space [e.g., unlocked or accessible toxins] accounted for 19.5% (N=130) and citations regarding fire safety [e.g., blocked exits; malfunctioning smoke alarms] accounted for 7.2% (N=48) of the physical plant citations.

Citations regarding the physical plant did vary somewhat by district office and facility size, a possible consideration in data reliability and validity. Offices ranged from 10% (Chico) of total citations being related to Article seven to 26.1% (Fresno) indicating possible practice variation across district offices. Although facility size was not statistically associated with the presence of Article seven citations, some differences were seen. The 50-99 size group was issued the least number of Article seven citations, accounting for 11.1% of total citations given in this size group as compared to the other size groups where total Article 7 citations ranged from 15.7-23.1%. These differences may be possibly related to variations in regulations according to size.

**Staff Characteristics.** Staff characteristics are an essential part of the structural components of quality. The ability to measure staff characteristics, including training and credentials, the availability of a nurse and staffing levels, was substantially limited in the

CCLD data. This was due to the lack of complete or updated personnel reports in the public files. This report is required by law to be completed and updated by facilities and filed with the State. It is supposed to include the name of each employee, date of hire, job title and hours on duty. In addition, CCLD requests an updated report with the written annual renewal notice. As seen in Table 6, while 313 (99.3%) facilities in the sample

Table 6: Personnel Reports by District Office and Facility Size

District Office	No Complete Report	Complete Report	No Report	Totals
Rohnert Park	29	24	0	53
Sacramento/Stockton	41	15	1	57
Chico	26	23	1	50
San Bruno	29	20	0	49
Fresno	35	15	0	50
San Jose	38	18	0	56
<b>Totals</b>	<b>198 (62.9%)</b>	<b>115 (36.5%)</b>	<b>2 (0.6%)</b>	<b>315 (100%)</b>
Facility Size $p < .001$	No Complete Report	Complete Report	No Report	Totals
1-6 beds	49	17	2	68
7-15 beds	40	21	0	61
16-49 beds	45	21	0	66
50-99 beds	29	29	0	58
$\geq 100$ beds	35	27	0	62
<b>Totals</b>	<b>198 (62.9%)</b>	<b>115 (36.5%)</b>	<b>2 (0.6%)</b>	<b>315 (100%)</b>

had a Personnel Report in the public file, however only 115 (36.5%) had a complete report (dated, job title and hours worked). Further, of those with a completed form, most (N=92; 80%) were more than 12 months old. Facility size significantly ( $p \leq .001$ ) was associated with whether or not a complete form was available, with the smaller facilities (1-6 beds) less often having complete reports available. District offices did not vary significantly in terms of having complete Personnel Reports available. However, as seen in Table 6, one office (Rohnert Park) did have the most (N=24 of 53) complete and up-to-date forms available. There was also evidence in the files of this district office requesting updated reports from the facilities. The missing and incomplete reports currently render

the Personnel Reports not useful as an information source for monitoring facility staffing. More detailed information on personnel [e.g., training records, credentials] is believed to be available in on-site facility records. This is required by law within Article six, regulation number 87566.

Problems with staffing were therefore measured by several specific regulations within Article six (see Appendix A: regulations 87564, 87565, 87566, 87580 pertain to staffing related regulations). As seen in Table 7, citations regarding staffing accounted for 18.3% (N=431) of all citations issued. Common examples of staffing related citations

Table 7: Staffing-Related Citations by Year

<b>Year</b>	<b>Administrator Qualifications</b>	<b>Personnel Requirements</b>	<b>Personnel Records</b>	<b>Personnel Operations</b>	<b>Totals</b>
<b>2000</b>	11 (3.7%)	27 (9.1%)	18 (6.1%)	0 (0%)	<b>56</b>
<b>2001</b>	20 (5.1%)	41 (10.5%)	18 (4.6%)	1 (0.3%)	<b>80</b>
<b>2002</b>	8 (2.3%)	37 (10.8%)	11 (3.2%)	1 (0.3%)	<b>57</b>
<b>2003</b>	10 (3.2%)	33 (10.4%)	7 (2.2%)	0 (0%)	<b>50</b>
<b>2004</b>	12 (3.5%)	45 (13.2%)	5 (1.5%)	3 (0.9%)	<b>65</b>
<b>2005</b>	8 (2.0%)	52 (12.9%)	13 (3.2%)	0 (0%)	<b>73</b>
<b>2006</b>	9 (3.5%)	30 (11.8%)	8 (3.1%)	3 (0.9%)	<b>50</b>
<b>Totals</b>	<b>78 (3.3%)</b>	<b>265 (11.3%)</b>	<b>80 (3.4%)</b>	<b>8 (0.3%)</b>	<b>431 (18.3%)</b>

were lack of training and credentials, poor staffing levels and missing personnel information. The number of staffing citations did not vary greatly by facility size, district office or over time, although personnel requirement citations appear to be trending upwards and personnel records citations trending downwards after the 2004 policy change.

**Resident Characteristics.** On-site facility records contain a wealth of information on residents, such as sociodemographic characteristics, dependency levels and medical information. This information is commonly reviewed by surveyors when

visiting RCFEs (CCLD, 2007). In spite of these data, no specific information regarding resident dependency levels or sociodemographic factors of residents is available in the public file. Problems with outcomes related to dependency issues are discussed later.

### Process Measures

**Types of Services.** A list of services available is required to be on the facility admission agreement. A prototypic agreement is typically in the public file. Of the facilities in the sample, 280 (88.9%) had an admission agreement present. These agreements varied in length and depth of detail. Agreements ranged widely from recently updated (i.e. within one year) to over twenty years old. More updated admission agreements were expected as a result of enacted regulations affecting content. Changes to admissions agreements are required to be approved and on file with CCLD. The majority of admission agreements were submitted at the time of initial licensing (N=254, 90.7%) with no updates present in the public file. Table 8 shows the availability and timeliness of

Table 8: Admission Agreements by District Office and Facility Size

District Office	No Agreement	Agreement (updated in last 12 months)	Agreement Present (older than 12 months)	Totals
Rohnert Park	3	6	44	53
Sacramento/Stockton	7	4	46	57
Chico	7	5	38	50
San Bruno	3	5	41	49
Fresno	2	3	45	50
San Jose	13	3	40	56
<b>Totals</b>	<b>35 (11.1%)</b>	<b>26 (8.2%)</b>	<b>254 (80.7%)</b>	<b>315 (100%)</b>
<b>Facility Size</b>				
1-6 beds	2	3	63	68
7-15 beds	4	5	52	61
16-49 beds	9	7	50	66
50-99 beds	6	6	46	58
≥ 100 beds	14	5	43	62
<b>Totals</b>	<b>35 (11.1%)</b>	<b>26 (8.2%)</b>	<b>254 (80.7%)</b>	<b>315 (100%)</b>

the admission agreements, illustrating how this information in RCFE public files is not currently a reliable information source. Availability of admission agreements did not vary significantly across district offices or by facility size.

Problems with resident care and services and injury prevention were measured by Article six citations (i.e., Continuing Requirements), the most commonly cited Article. During the study time frame, 1137 (29.6%) Type A [i.e., immediate or substantial threat] citations and 1205 (31.3%) Type B [i.e., no immediate or substantial threat] citations regarding Article six were issued. Appendix C includes a summary of all Article six citations across time and in relation to district office and facility size.

Within Article six, 785 (33.5%) of the citations were in regards to requirements related to medical care requirements. This specific regulation was cited more frequently than any other regulation within any article of Title 22. The majority of these specific citations were related to medications (N=593), first aid training (N=137) and inappropriate or lack of medical care [e.g., 911 not being called in a medical emergency] (N=37).

As described earlier, citations regarding personnel accounted for 431 (18.3%) of Article six citations. Other frequently cited Article Six citations included 174 (7.4%) personal rights citations [e.g., restraints, lack of dignity, lack of information] and 147 (7.3%) food service citations [e.g., unsafe practices; inadequate amounts of food; lack of variety]. One hundred and twenty-one (5.2%) citations were issued for a lack of complete medical assessment and 97 citations (4.1%) were issued for failure of the facility to report required information or events to CCLD.

Less frequently cited Article six regulations included 99 (4.2%) citations relating



to resident records; 89 (3.8%) citations relating to personal accommodations and services; and 62 (2.6%) citations relating to personal assistance and care. Fifty-four (2.3%) citations relating to inappropriate pre-admission appraisals were issued, 53 (2.3%) relating to admission agreements, 53 (2.3%) relating to basic services not being provided and 46 (2.0%) related to inappropriate resident observation.

District offices ranged in frequency and types of Article six deficiencies cited (see Appendix C), indicating possible practice differences among the district offices. For example, in Rohnert Park, 41.4% of all citations given were Type B [i.e., no immediate or substantial threat] Article 6 citations and 16.7% of all citations were Type A [i.e., immediate or substantial threat] Article six citations. This contrasts to Fresno, where 19.9% of all citations issued were Type B Article six citations, and 34.3% of all citations issued were Type A Article six citations. Other offices ranged from 23.3-32.0% of all citations being Type B Article six citations and 27-37.8% of all citations being Type A Article six citations.

Some different frequency ranges of Article six citations were also noted according to facility size (see Appendix C). The smallest facilities (i.e., 1-6 beds) received the least Type B (27.2%) and the least Type A (29.7%) total Article six citations, while the 7-15 bed facilities received the most Type B Article six citations (37.3%) and the 16-49 bed facilities receiving the most Type A (31.8%).

**Staff Turnover.** The ability to measure staff turnover rates was not present in the public file. As noted earlier, incomplete and outdated personnel reports limited the ability to measure staff characteristics. On-site facility records likely contain more updated personnel reports and additional information regarding staff turnover as required by law.

**Utilization of Community Resources.** Information of facilities' use of community resources was not present in the public file. One exception was the presence of a hospice waiver [i.e., a special condition on a facility license that allows the facility to accept and retain hospice residents] on the facility license. Although the number of hospice residents served could not be identified, 164 (52.1%) of facilities in the sample had a hospice waiver present. As seen in Table 9, there was no significant variation in the presence of a hospice waiver by facility size or district office. Facilities are required to

Table 9: Presence of a Hospice Waiver by District Office and Facility Size

District Office	Hospice Waiver Present	No Hospice Waiver Present	Totals
<b>Rohnert Park</b>	34	19	<b>53</b>
<b>Sacramento/Stockton</b>	16	41	<b>57</b>
<b>Chico</b>	35	15	<b>50</b>
<b>San Bruno</b>	28	21	<b>49</b>
<b>Fresno</b>	25	25	<b>50</b>
<b>San Jose</b>	26	30	<b>56</b>
<b>Totals</b>	<b>164 (52.1%)</b>	<b>151 (47.9%)</b>	<b>315 (100%)</b>
<b>Facility Size</b>			
<b>1-6 beds</b>	21	45	<b>68</b>
<b>7-15 beds</b>	20	42	<b>61</b>
<b>16-49 beds</b>	45	22	<b>66</b>
<b>50-99 beds</b>	35	23	<b>58</b>
<b>≥ 100 beds</b>	43	19	<b>62</b>
<b>Totals</b>	<b>164 (52.1%)</b>	<b>151 (47.9%)</b>	<b>315 (100%)</b>

notify CCLD upon the admission of any resident to hospice care, but this information is not accessible in the public file.

It is likely that additional information regarding facility utilization of community resources [e.g., residents attending adult day programs, receiving home care services etc.] is present in on-site facility records as such notations are required to be made by RCFEs in resident files.

## **Outcome Measures**

**Deficiencies.** Deficiencies issued as citations by CCLD are listed in the public file. This information is consistently available in the public files (as well as an electronic system limited to CCLD officers). Cited deficiencies were consistent over time (see Appendices B, C, D, and E). Article six deficiencies remained the most common, followed by Article seven and Article eight. Differences among district offices and facility size were apparent in terms of citation severity [i.e., A or B] or in the most frequently cited Articles.

Coding deficiencies by Title 22 is an efficient means of identifying the reasons for citations, but the specificity of the information is often limited. One reason for this is that in the majority of instances (>60%), surveyors code only to the five digit regulation number and do not utilize the lettered and numbered subsets within each regulation that further describe the specifics of the citation.

**Complaints.** Information on complaints received by CCLD is present in the public file. However, this information does not include the source of the complaint or any resident specific that might have been its basis. Appendix F summarizes information regarding the number and subject of complaints by year, district office and facility size.

During the study period, CCLD made 838 complaint driven visits to facilities in the sample and made 1847 investigations. Outcomes of complaints during the study period are illustrated in Table 10. The majority (N=929, 50.3%) of complaints were substantiated; 370 (20.0%) were inconclusive; 352 (19.1%) required further investigation; and 196 (10.6%) were unfounded. The total number of complaints did not significantly vary by district office. Complaints led to 647 (16.8%) of the total number

Table 10: Complaints by Outcome Type and Year

Year	Inconclusive	Needs further Investigation	Substantiated	Unfounded	Totals
2000	15 (22.1%)	11 (16.2%)	41 (60.3%)	1 (1.5%)	68
2001	30 (16.7%)	39 (21.7%)	109 (60.6%)	2 (1.1%)	180
2002	44 (21.4%)	26 (12.6%)	129 (62.6%)	7 (3.4%)	206
2003	49 (19.9%)	48 (19.5%)	129 (52.4%)	20 (8.1%)	246
2004	86 (18.9%)	85 (18.7%)	221 (48.7%)	62 (13.7%)	454
2005	103 (22.5%)	114 (24.9%)	175 (38.2%)	66 (14.4%)	458
2006	43 (18.3%)	29 (12.3%)	125 (53.2%)	38 (16.2%)	235
<b>Totals</b>	<b>370 (20.0%)</b>	<b>352 (19.1%)</b>	<b>929 (50.3%)</b>	<b>196 (10.6%)</b>	<b>1847 (100%)</b>

of serious citations and 277 (7.2%) of the total number of less serious citations (see Appendix G). Complaints differed by facility size, with smaller facilities having the least numbers of complaints over all, as well as the least number of substantiated complaints. However the respective number of residents served must be taken into account when making comparisons across different facility size groups. . Rather large differences among district offices were also noted in regards to outcome of complaints. For example, in the Fresno office, 70.6% of complaints were substantiated, in contrast to 46.8-57.1% across other offices. In addition, 7.6% of complaints in Fresno were found inconclusive, as compared to 19.8-29.5% across other offices (see Appendix F).

**Enforcement Actions.** The presence of enforcement actions was identified by several ways in the public file. Nine (2.9%) facilities had a probationary status listed on the license. In addition, 13 (4.1%) facilities had evidence that a compliance plan (i.e., an agreement with CCLD to comply with a plan of correction related to specific quality of care issues) was in place. Penalties were assessed on 168 (4.4%) of total citations and ranged in amount from \$50-1000. The most common penalty amount was \$100 and was frequently assessed for lack of criminal record clearance on a staff person.

**Resident Health Status/Quality Indicators.** Resident specific information is

unavailable in the public file and additional information regarding residents exists both in the confidential file and on-site facility records. Hence, citations related to Article eight which is relative to problems in health status and levels of care [e.g., pressure ulcers, level of care], were utilized to consider quality indicators.

Citations regarding Articles eight accounted for 254 (6.6%) Type A citations [e.g., stage three and four pressure ulcers, higher level of care needs present] and 212 (5.5%) Type B citations [e.g., failure of facility to notify CCLD of a resident with a restricted condition] during the study time frame. The number of Article eight citations did not vary over time. All Article eight citations are listed in Appendix E by time, district office and facility size.

The most frequently cited regulation within Article eight was related to dementia care, accounting for 261 (56%) of these citations. Examples of dementia related citations include inadequate staff training, insufficient staffing levels to meet the needs of the dementia residents, residents in need of higher levels of care and failure to comply with specific state requirements regarding the care of persons with dementia.

Other frequently cited Article eight regulations included 50 (10.7%) citations regarding oxygen administration [e.g., unsafe practice, lack of skilled care available]; 46 citations (9.9%) regarding prohibited and restricted health conditions [e.g., higher level of care necessary] and 42 (9.9%) citations regarding healing wounds [e.g., pressure ulcers]. Examples of less frequently cited regulations, included deficiencies in the use of home health agencies (N=11, 2.4%), managed incontinence (N=10, 2.1%), diabetes (N=10, 2.1%), injections (N=9, 1.9%) and hospice care (N=9, 1.9%).

The district offices differed in terms of number of Article eight citations issued.

Of total citations, Article eight accounted for 17.9% of all citations in Chico and 17.3% in Rohnert Park. This contrasts to Fresno, where 6.2% of all citations were related to Article eight and Sacramento/Stockton, where 8.8% of all citations were related to this Article.

Article eight citations did not vary greatly across size groups, although some frequency differences were noted. In 7-15 bed facilities, 8.1% of all citations were related to this Article and in 50-99 bed facilities, 13.7% were. Other size groups ranged from 12.2-13.4% (see Appendix E).

**Discharge/Medical Event Data.** Information on discharge and medical event data is not available in the public file. Although some problems related to discharge and medical events are seen as Article six deficiencies, resident specific information was not available. This information is available in both on-site facility records and confidential files in district offices in the form of required incident and notification reports made to CCLD.

**Quality of Life Indicators.** Quality of life is not specifically measured in the public file. Potential problems related to quality of life exist as evidenced by overall complaints and deficiencies. In particular, deficiencies related to the personal rights of residents accounted for 7.4% (N=174) of total citations [e.g., restraint use, care not provided in a manner that respects dignity, lack of information].

**Resident/Family Satisfaction.** Satisfaction is not directly measured in the public file. However, complaint information, as described earlier, is available and can be considered as one way to consider satisfaction.

### State Survey Visits

CCLD made a total of 2464 visits to the sample facilities and conducted 89 office meetings with operators during the study time frame, January 2001 through June 2006. Reasons for state visits changed over time, consistent with the change in state policy that decreased the required annual on-site evaluations of RCFEs to a minimum of once every five years. As shown in Table 11, during the 2000-2003 time period [i.e., prior to the change in policy], the single largest number of state visits were required evaluation visits. However, over this time period the percentage of required visits dropped from 51.7% to 32.4%. These types of visits decreased during the 2004-2006 time period (7.2-14.9%)

Table 11: Visit Types by Year

Year	Required	Case Management	Complaint	Pre Licensing	Post Licensing	Office	Totals
2000	135 (51.7%)	55 (21.1%)	42 (16.1%)	17 (6.5%)	6 (2.3%)	6 (2.3%)	261
2001	151 (43.8%)	76 (22.0%)	71 (20.6%)	25 (7.2%)	11 (3.2%)	11 (3.2%)	345
2002	151 (40.4%)	74 (19.8%)	95 (25.4%)	24 (6.4%)	16 (4.3%)	14 (3.7%)	374
2003	123 (32.4%)	90 (23.7%)	115 (30.3%)	28 (7.4%)	15 (3.9%)	9 (2.4%)	380
2004	33 (7.2%)	117 (25.6%)	194 (42.5%)	50 (10.9%)	32 (7.0%)	31 (6.8%)	457
2005	42 (8.7%)	153 (31.8%)	209 (43.5%)	32 (6.7%)	31 (6.4%)	14 (2.9%)	481
2006	38 (14.9%)	80 (31.4%)	112 (43.9%)	10 (3.9%)	11 (4.3%)	4 (1.6%)	255
<b>Totals</b>	<b>673</b> <b>(26.4%)</b>	<b>645</b> <b>(25.3%)</b>	<b>838</b> <b>(32.8%)</b>	<b>186</b> <b>(7.3%)</b>	<b>122</b> <b>(4.8%)</b>	<b>89</b> <b>(3.5%)</b>	<b>2553</b> <b>(100%)</b>

following the implementation of the policy change. Complaint visits rose from 16.1% to 30.3% during the 2000-2003 period, and the increased considerably to 42.5-43.9% during the 2004-2006 time period. Other types of visits [e.g., pre-licensing, post-licensing] were relatively consistent in frequency across time, suggesting that they were unaffected by the law change.

Differences in visit types by district offices were evident are reported in Tables 12. Offices made varying numbers of total visits during the study period. One office (Rohnert Park) focused more on case management visits (38.7% of total visits). In contrast, most visits from four other offices were complaint driven ranging from 30.1% to 47.6%. This finding indicates further practice differences among district offices.

Table 12: Visit Types by District Office

District Office	Required	Case Management	Complaint	Pre Licensing	Post Licensing	Office
<b>Rohnert Park</b>	20.5%	38.7%	27.8%	6.7%	5.1%	1.3%
<b>Sacramento/Stockton</b>	30.3%	23.4%	31.9%	6.3%	3.2%	4.8%
<b>Chico</b>	26.3%	12.2%	47.6%	7.6%	6.1%	0.2%
<b>San Bruno</b>	27.8%	21.9%	35.7%	6.7%	4.1%	3.9%
<b>Fresno</b>	25.1%	17.7%	30.1%	12.0%	7.0%	8.0%
<b>San Jose</b>	29.1%	31.3%	25.2%	6.1%	3.9%	4.4%
<b>Totals</b>	<b>26.4%</b>	<b>25.3%</b>	<b>32.8%</b>	<b>7.3%</b>	<b>4.8%</b>	<b>3.5%</b>

Differences in visit types were also seen among facility size groups as reported in Table 13. For the two smaller size groups [i.e., 1-6 beds and 7-15 beds], visits were more frequently (35.1% - 36.1%) the result of required surveys. In comparison, for the larger three groups [i.e., 16-49 beds, 50-99 beds, and  $\geq 100$  beds], more (32.2-43.8%) visits were

Table 13: Visit Types by Facility Size

Facility Size	Required	Case Management	Complaint	Pre Licensing	Post Licensing	Office
<b>1-6 beds</b>	36.1%	18.8%	12.1%	15.8%	10.3%	7.0%
<b>7-15 beds</b>	35.1%	30.2%	23.0%	6.2%	3.1%	2.4%
<b>16-49 beds</b>	27.0%	26.7%	32.2%	6.4%	4.4%	3.3%
<b>50-99 beds</b>	18.0%	21.8%	43.8%	7.5%	5.2%	3.7%
<b><math>\geq 100</math> beds</b>	22.0%	27.0%	41.4%	4.2%	3.0%	2.4%
<b>Totals</b>	<b>26.4%</b>	<b>25.3%</b>	<b>32.8%</b>	<b>7.3%</b>	<b>4.8%</b>	<b>3.5%</b>

complaint driven. This indicates further differences in the data source relative to facility size.



## State Issued Citations

Information regarding State issued citations for deficiencies in compliance with regulations was the most consistently available and identifiable source of information within the RCFE public files. Therefore, citations and citation type [i.e., Type A=serious, meaning a failure to comply presents an immediate or substantial threat to physical health, mental health or safety of the residents; and Type B=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] were utilized as the primary outcome variable to evaluate differences among district offices and facility size groups.

CCLD issued 2025 (52.6%) Type A and 1822 (42.3%) Type B citations during the study time frame, as reported in Table 14. Appendix E provides a summary of all citations by district office and facility size groups. The year facilities were visited significantly ( $p<.001$ ) affected the number of Type B citations given.

Table 14: Citations by Type and Year

Year	Type A	Type B ( $p<.001$ )	Totals
2000	263 (54.3%)	221 (45.7%)	484
2001	365 (56.9%)	276 (43.1%)	641
2002	324 (56.5%)	249 (43.5%)	573
2003	274 (52.4%)	249 (47.6%)	523
2004	269 (49.0%)	280 (51.0%)	549
2005	319 (48.4%)	340 (51.6%)	659
2006	211 (50.5%)	207 (49.5%)	418
<b>Totals</b>	<b>2025 (52.6%)</b>	<b>1822 (47.4%)</b>	<b>3847</b>

Frequencies of citation types ranged among district offices with one office (Rohnert Park) issuing more Type B citations (65.1%) and all other offices issuing more Type A citations (52.7-67.4%) as seen in Table 15. District office significantly affected the number of Type B citations given ( $p<.001$ ) and approached significance for the total

number of Type A citations issued ( $p=.08$ ).

Differences in citation types across facility size groups are seen in Table 16. The 7-15 bed group was the only group to receive fewer Type A citations (54.4%) than Type

Table 15: Citations by Type and District Office

District Office	Type A ( $p=.08$ )	Type B ( $p<.001$ )
Rohnert Park	(34.9%)	(65.1%)
Sacramento/Stockton	(58.1%)	(41.9%)
Chico	(60.6%)	(39.4%)
San Bruno	(52.7%)	(47.3%)
Fresno	(67.4%)	(32.6%)
San Jose	(60.2%)	(39.8%)
<b>Totals</b>	<b>(52.6%)</b>	<b>(47.4%)</b>

B citations (45.6%). For all other sizes, the majority of citations issued were Type A.

Facility size significantly ( $p<.05$ ) affected the number of Type B citations issued.

Table 16: Citations by Facility Size Groups

Facility Size	Type A	Type B $p<.05$
1-6 beds	(57.7%)	(42.3%)
7-15 beds	(45.6%)	(54.4%)
16-49 beds	(55.8%)	(44.2%)
50-99 beds	(51.5%)	(48.5%)
$\geq 100$ beds	(54.0%)	(46.0%)
<b>Totals</b>	<b>(52.6%)</b>	<b>(47.4%)</b>

As seen in Table 17, over time, fewer citations (both Type A and B) resulted from required visits [e.g., 76.6% in 2000 and 18.7% in 2005] and more deficiencies resulted from case management [e.g., 12.8% in 2000 and 41.1% in 2005] and complaint visits [e.g., 8.4% in 2000 and 26.6% in 2005]. These frequencies and further breakdowns by citation type, time, district office and facility size are reported in Appendix G. Visit type significantly ( $p<.0001$ ) affected both the number of Type A and Type B citations issued.

Table 17: Citations by Visit Types

<b>Year</b>	<b>Required</b>	<b>Case Management</b>	<b>Complaint</b>	<b>All Other Visit Types</b>	<b>Total</b>
<b>2000</b>	371 (76.6)	62 (12.8%)	41 (8.4%)	10 (2.0%)	<b>484</b>
<b>2001</b>	417 (65.1%)	88 (13.7%)	110 (17.1%)	26 (4.1%)	<b>641</b>
<b>2002</b>	325 (55%)	78 (13.6)	129 (22.5%)	41 (7.1%)	<b>573</b>
<b>2003</b>	244 (46.6%)	109 (20.8)	129 (24.6%)	61 (11.6%)	<b>523</b>
<b>2004</b>	92 (16.7%)	180 (32.8%)	214 (38.9%)	63 (11.5%)	<b>549</b>
<b>2005</b>	123 (18.7%)	271 (41.1%)	175 (26.6%)	90 (13.7%)	<b>659</b>
<b>2006</b>	109 (28.5%)	118 (28.3%)	126 (30.1%)	65 (15.6%)	<b>418</b>
<b>Totals</b>	<b>1681</b> (43.7%)	<b>906</b> (23.6%)	<b>924</b> (24%)	<b>336</b> (8.7%)	<b>3847</b>

## DISCUSSION

### State System

California state law requires and CCLD maintains or has access to a considerable amount of information on RCFEs. However, despite the growing numbers of RCFEs and increasing frailty of the residents served, the current State data system is not integrated or easily accessible. Notably, the results of this study indicate that differences in the practices among district offices with respect to focus of attention and thoroughness of recording may affect reliability of data considerably. Policy changes decreasing required survey visits seem to have increased the numbers of complaint-driven visits, changing the focus and role of the State from one of surveying and monitoring to complaint investigating.

This lack of a complete information system limits its usefulness to all stakeholders, including the State, consumers, providers and researchers. Although the State has the infrastructure to monitor changes in facility and staffing characteristics, the

lack of consistent and adequate recording systems impede efficacy. The monitoring of resident characteristics and care outcomes is less developed; however, the State does require a substantial amount of this type of information to be either be submitted to CCLD or maintained at facilities.

**Facilities.** CCLD's internal database maintains a fair amount of information on facilities, but the website information is limited to facility name, contact person, address, telephone number, bed capacity and responsible district office. This limitation makes the on-line system far less useful or efficient than it has the potential to be.

**Staffing.** State law requires providers to submit accurate and complete information on personnel employed by RCFEs. In spite of this, the public files typically lacked complete or updated personnel reports. Because providers are already required to complete these forms, developing an electronic submission of updated reports could prove to improve the ability to monitor staffing characteristics [e.g., credentials, levels, turnover], as well as lessen the burden on CCLD surveyors in insuring that updated information is maintained. CCLD presently requests in writing the submission of an updated report with the annual licensing fees, so linking the completion of the report to the renewal process is appropriate. Furthermore, the development of a more user-friendly personnel report could potentially improve the ability of providers to accurately complete the reports.

**Residents.** Resident level information is maintained on-site by facilities and reviewed by surveyors during visits. The required physician's report maintained in resident files identifies many resident characteristics [e.g., age, medical diagnosis, medications, functional limitations, cognitive impairments]. Other important resident

information is maintained in district offices in confidential files. Specifically, certain information is required to be reported to CCLD about residents. For example, unusual incident reports are filed by facilities to report any unusual occurrences [e.g., falls, errors, medical events]. Such information could be compiled to describe resident characteristics, nature of services provided, health care utilization [e.g., hospital, ER, and EMT use] and other level of care factors. Computerization of information and electronic reporting could allow for the uploading of such information. Although confidentiality concerns exist, other reporting systems that allow for the collection of data regarding resident characteristics and outcomes of this type have been developed and used for years [e.g., Minimum Data Set (MDS), resident assessment instrument (RAI)] to allow for a more uniform assessment of nursing home residents.

Maintaining information in hard copy format in district offices is becoming increasingly more inefficient as the RCFE industry continues to grow and quality of care concerns become more apparent. For the State agency, there is a significant burden in maintaining and organizing the files. In addition, State employees must preview and be present during public viewings. For the public, the state files are large and cumbersome to review. Whether or not the average consumer can easily access public files is an important question. Some district offices are in more rural areas and are responsible for facilities that may be hours away by car. In addition, the format of the files may be difficult for the average consumer to completely understand. The ability to use State data to inform quality assurance and improvements efforts and public policy is also limited by the lack of an integrated system.

### **Quality of Care**

QoC concerns and problems are evident in RCFEs. As suggested by the media and governmental reports, this study has identified the existence of QoC problems in RCFEs by analyses of deficiencies and complaints. The three Articles (six through eight) linked to care and safety issues were shown to be the most frequently cited. Citations regarding resident care were most common and support QoC concerns. Physical plant and safety concerns were the second most frequent problem, supporting concerns for the safety of RCFE residents. Medical care problems [e.g., inappropriate dementia care; pressure ulcers] existed and raise questions regarding the ability of RCFEs to manage more complex residents. It is unknown if these problems are less frequent in RCFEs than other LTC settings (from care at home to nursing homes). Nevertheless, care and safety concerns exist and effective oversight is necessary to ensure high quality of care of the elderly.

### **Study Limitations**

The study has some important limitations. It can be generalized to the study population only. The time consuming effort to collect and code information limited the sample size. The use of complaint and deficiency information to describe quality of care limits the ability to identify positive aspects of care provided. Still, this innovative research is an important step in informing improvements to the current State system. The inclusion of multiple district offices, the facility size stratification and five year review strategy are the major strengths of the study as this allowed for comparisons between different size RCFEs, different district offices and across time.

## **Conclusions**

An electronic and comprehensive information system on RCFEs is imperative. For the State, it has the potential to both lessen the burden of maintaining and updating public files, as well as improve the ability of CCLD to effectively monitor QoC. The State has been burdened with both budget cuts, as well as increasing numbers of RCFEs and the current system is not meeting the needs of CCLD, nor is it sustainable. Consumer-choice is a growing concern in all health care decisions, and a complete, understandable and easily accessed system for consumers is crucial. For providers and RCFE advocates, information regarding QoC will better inform quality assurance and quality improvement efforts. Finally, an electronically available system that includes all components of QoC will allow for further research to address the many important aspects of RCFEs.

This paper has illustrated that much information regarding important components of QoC already exists in various places and formats within CCLD and RCFEs. The key is to integrate all present sources of information into one complete accessible system and insure consistency in survey practices across district offices and by facility size groups.

**Recommendation 1.** For CCLD, efforts to insure consistency in district office manager, surveyor training are necessary. Internal quality control efforts are essential. Practice variations should be more closely monitored and considered by the State in oversight improvement efforts. Best practices [e.g., district office efforts to decrease non-compliance by RCFEs] should be identified and considered by the State when developing improvements to current practices.

**Recommendation 2.** Existing public file information collected and maintained by

CCLD should be improved and expanded into one comprehensive system. Although improvements and updates to the current electronic system are necessary, much of the public information is already computerized. Forms and documents required to be submitted to CCLD by facilities, like Personnel Reports, should be upgraded to be easier for providers to use and be required to be electronically submitted. In addition, Facility Evaluation Reports completed by surveyors should include check offs and drop down menus to ease use, provide additional information and improve consistency. Surveyors routinely evaluate many different aspects of RCFEs during visits and the ability to document things that are being done correctly, as well as citations is important. Furthermore, the use of all Title 22 regulation numbers and corresponding subsets when citations are given would allow for more specific information on citations.

**Recommendation 3.** Information that is required and maintained in both confidential files and on-site in RCFEs should be computerized. Information about residents and personnel, as well as outcomes of care exists within these files in multiple written formats. For example, required agreements, forms and physician's reports contain much information regarding residents' characteristics [e.g., age, source of payment, functional limitations, health conditions and levels of dementia]. Unusual incident reports contain medical and discharge information. In their current format, this information is only a requirement, not an important measurable component of QoC. Conversion to electronic formats, over time, would be less burdensome for both the State and providers and make important information available. These forms could be required to be submitted routinely or alternatively, on a random probability basis, submission could be requested and required. In addition, computerized systems can protect confidentiality of



residents while still allowing information to be accessible. This has been done for years in nursing homes which has allowed for research to inform quality improvement efforts. Furthermore, linking residents residing in RCFEs to national surveys, such as the Medicare Current Beneficiary Survey, could provide additional means of tracking resident outcomes.

**Recommendation 4.** The State system needs to be not only complete, it must be accessible. Recommended here is a system that takes advantage of State administrative data to provide information on the QoC in RCFEs. Many aspects of the proposed system can be utilized by researchers for this purpose. For both policy making and planning, this information could be tracked and compared over time within RCFEs, as well as in contrast to other LTC options.

Equally as important, consumers have the right to accessible information on RCFEs. A consumer information system could be a component of the complete system that includes select key information important to consumers in a user-friendly manner. The California Advocates for Nursing Home Reform (CANHR) has already developed such a system with some limited information they have obtained from CCLD and facility providers, but presently lacks important components such as compliance information and quality indicators. Providing the information to an organization such as CAHNR, and allowing them to take responsibility for the consumer information aspect will lessen the burden to CCLD and enable them to provide needed information to consumers.

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**Appendix A**  
**Title 22 Regulation Numbers**

<b>Article 1</b>	<b>Definitions</b>
87100	General
87101	Definitions
87102	Definitions/Forms
<b>Article 2</b>	<b>License</b>
87105	License Required
87106	Operation without a License
87107	Exemption from Licensure
87108	Integral Facilities
87110	Limitations - capacity and ambulatory status
87111	Advertisements and License Number
87112	False Claims
87113	Transferability
87114	Continuation of License Under Emergency Conditions/Sale of Property
87115	Posting of License
87116	Program Flexibility
87117	Applicant/License Mailing Address
87118	Nondiscrimination
<b>Article 3</b>	<b>Application Procedures</b>
87218	Application for License
87219	Criminal Record Clearance
87220	Fire Clearance
87222	Plan of Operation
87223	Disaster and Mass Casualty Plan
87224	Application/Annual Processing Fees
87225	Commingling of Money
87226	Bonding
87227	Safeguards for Valuables/Theft and Loss
87228	Application Review
87229	Capacity
87230	Withdrawal of Application
87231	Provisional License
87235	Resubmission of Application
87236	Conditions for Forfeiture of License
<b>Article 4</b>	<b>Administrative Actions</b>
87340	Denial of Initial License
87342	Revocation or Suspension of the License/Relocation of the Resident-general
87343	Licensee Complaints
87344	Inspection Authority
87345	Evaluation Visit
87346	Exclusions
<b>Article 5</b>	<b>Enforcement Provisions</b>
87451	Serious Deficiencies - examples
87452	Deficiencies in compliance
87453	Follow up Visits to Determine Compliance
87454	Penalties
87455	Administrative Review/Revocation for Failure to Pay Civil Penalties

**Appendix A (continued)**  
**Title 22 Regulation Numbers**

87457	Unlicensed Facility Penalties
87458	Unlicensed Facility Administrative Appeal
<b>Article 6</b>	<b>Continuing Requirements</b>
87560	Governing Body
87561	Reporting Requirements
87562	Finances
87564	Administration Qualification and Requirements
87565	Personnel Requirements
87566	Personnel Records
87567	General
87568	Admission Agreements
87569	Medical Assessment
87570	Resident Records
87571	Register of Residents
87572	Personal Rights
87573	Telephones
87574	Motor Vehicles Used in Transporting Residents
87575	Incidental Medical Care
87576	Food Service
87577	Personal Accommodations and Services
87578	Personal Assistance and Care
87579	Planned Activities
87580	Personnel - Operations
87581	Night Supervision
87582	Acceptance and Retention Limitations
87583	Pre-Admission Appraisal/Resident Participation in Decision Making
87584	Functional Capabilities
87585	Mental Condition
87586	Social Factors
87587	Reappraisals
87588	Documentation and Support
87589	Eviction Procedures
87590	Basic Services
87591	Observation of the Resident
87592	Resident Councils
87593	Requirements for Emergency APS Placements
<b>Article 7</b>	<b>Physical Environment</b>
87686	Alterations to Existing Buildings/New Facilities
87689	Fire Safety
87690	Resident and Support Services
87691	Maintenance and Operation
87692	Storage Space
<b>Article 8</b>	<b>Incidental Medical Care</b>
87700	Health and Safety Protection
87701	Prohibited Health Conditions
87702	Allowable Health Conditions General Conditions/Use of Home Health Agencies
87703	Oxygen Administration

**Appendix A (continued)**  
**Title 22 Regulation Numbers**

87704	Intermittent Positive Breathing Machine
87705	Colostomy/Ileostomy
87706	Enema/Fecal Impaction
87707	Indwelling Urinary Catheter
87708	Managed Bowel and Bladder Incontinence
87709	Contractures
87710	Diabetes
87711	Injections
87713	Healing Wounds
87116	Hospice Care/Terminally Ill Residents
87720	Administrative Review - Incidental Medical Services
87721	Incidental Medical Related Services Exceptions
87722	Department Review
87724	Care of Persons with Dementia
87725	Training/Advertising Dementia Special Care
<b>Article 9</b>	<b>Administrator Certification Training Programs</b>
87730	Initial Certification Training Program
87731	Continuing Education Training Program

**Appendix B**  
**Article Seven: Physical Environment Citations**

**Article 7 Physical Environment**

- 87686 *Alterations to Existing Buildings/New Facilities*
- 87689 *Fire Safety*
- 87690 *Resident and Support Services*
- 87691 *Maintenance and Operation*
- 87692 *Storage Space*

**Article Seven: Physical Environment Citations by Year**

<b>Year</b>	<b>87686</b>	<b>87689</b>	<b>87691</b>	<b>87692</b>	<b>Totals</b>
<b>2000</b>	0 (0.0%)	8 (7.3%)	75 (68.2%)	27 (24.5%)	<b>110</b>
<b>2001</b>	0 (0.0%)	2 (1.7%)	82 (69.5%)	34 (28.8%)	<b>118</b>
<b>2002</b>	0 (0.0%)	8 (8.2%)	73 (74.5%)	17 (17.3%)	<b>98</b>
<b>2003</b>	1 (1.1%)	6 (6.5%)	65 (70.7%)	20 (21.7%)	<b>92</b>
<b>2004</b>	0 (0.0%)	3 (4.5%)	52 (78.8%)	11 (16.7%)	<b>66</b>
<b>2005</b>	0 (0.0%)	9 (8.6%)	84 (80.0%)	12 (11.4%)	<b>105</b>
<b>2006</b>	0 (0.0%)	12 (15.4%)	57 (73.1%)	9 (11.5%)	<b>78</b>
<b>Totals</b>	<b>1 (0.1%)</b>	<b>48 (7.2%)</b>	<b>488 (73.2%)</b>	<b>130 (19.5%)</b>	<b>667</b>

**Article Seven: Physical Environment Citations by District Office**

<b>District Office</b>	<b>87686</b>	<b>87689</b>	<b>87691</b>	<b>87692</b>	<b>Totals</b>
<b>Rohnert Park</b>	0 (0.0%)	11 (7.6%)	104 (72.2%)	29 (20.1%)	<b>144</b>
<b>Sacramento/Stockton</b>	0 (0.0%)	10 (9.2%)	77 (70.6%)	22 (20.2%)	<b>109</b>
<b>Chico</b>	0 (0.0%)	3 (5.9%)	34 (66.7%)	14 (27.5%)	<b>51</b>
<b>San Bruno</b>	1 (0.6%)	10 (5.9%)	130 (76.9%)	28 (16.6%)	<b>169</b>
<b>Fresno</b>	0 (0.0%)	5 (4.8%)	78 (74.3%)	22 (21.0%)	<b>105</b>
<b>San Jose</b>	0 (0.0%)	9 (10.1%)	65 (73.0%)	15 (16.9%)	<b>89</b>
<b>Totals</b>	<b>1 (0.1%)</b>	<b>48 (7.2%)</b>	<b>488 (73.2%)</b>	<b>130 (19.5%)</b>	<b>667</b>

**Article Seven: Physical Environment Citations by Facility Size**

<b>Facility Size</b>	<b>87686</b>	<b>87689</b>	<b>87691</b>	<b>87692</b>	<b>Totals</b>
<b>1-6 beds</b>	1 (0.9%)	12 (11.2%)	73 (68.2%)	21 (19.6%)	<b>107</b>
<b>7-15 beds</b>	0 (0.0%)	16 (8.6%)	135 (73.0%)	34 (18.4%)	<b>185</b>
<b>16-49 beds</b>	0 (0.0%)	11 (7.0%)	116 (73.4%)	31 (19.6%)	<b>158</b>
<b>50-99 beds</b>	0 (0.0%)	3 (3.4%)	63 (71.6%)	22 (25.0%)	<b>88</b>
<b>&gt; 100 beds</b>	0 (0.0%)	6 (4.7%)	101 (78.3%)	22 (17.1%)	<b>129</b>
<b>Totals</b>	<b>1 (0.1%)</b>	<b>48 (7.2%)</b>	<b>488 (73.2%)</b>	<b>130 (19.5%)</b>	<b>667</b>



**Appendix C**  
**Article Six: Continuing Requirements Citations**

<b><u>Article 6</u></b>	<b><u>Continuing Requirements</u></b>
87560	<i>Governing Body</i>
87561	<i>Reporting Requirements</i>
87562	<i>Finances</i>
87564	<i>Administration Qualification and Requirements</i>
87565	<i>Personnel Requirements</i>
87566	<i>Personnel Records</i>
87567	<i>General</i>
87568	<i>Admission Agreements</i>
87569	<i>Medical Assessment</i>
87570	<i>Resident Records</i>
87571	<i>Register of Residents</i>
87572	<i>Personal Rights</i>
87573	<i>Telephones</i>
87574	<i>Motor Vehicles Used in Transporting Residents</i>
87575	<i>Incidental Medical Care</i>
87576	<i>Food Service</i>
87577	<i>Personal Accommodations and Services</i>
87578	<i>Personal Assistance and Care</i>
87579	<i>Planned Activities</i>
87580	<i>Personnel - Operations</i>
87581	<i>Night Supervision</i>
87582	<i>Acceptance and Retention Limitations</i>
87583	<i>Pre-Admission Appraisal/Resident Participation in Decision Making</i>
87584	<i>Functional Capabilities</i>
87585	<i>Mental Condition</i>
87586	<i>Social Factors</i>
87587	<i>Reappraisals</i>
87588	<i>Documentation and Support</i>
87589	<i>Eviction Procedures</i>
87590	<i>Basic Services</i>
87591	<i>Observation of the Resident</i>
87592	<i>Resident Councils</i>
87593	<i>Requirements for Emergency APS Placements</i>

**Appendix C (continued)**  
**Article Six: Continuing Requirements Citations**

**Article Six: Continuing Requirements Citations by Year**

<b>Year</b>	<b>87560</b>	<b>87561</b>	<b>87562</b>	<b>87564</b>	<b>87565</b>	<b>87566</b>	<b>87568</b>	<b>87569</b>	<b>87570</b>	<b>87571</b>
<b>2000</b>	0 (0.0%)	7 (2.4%)	0 (0.0%)	11 (3.7%)	27 (9.1%)	18 (6.1%)	5 (1.7%)	22 (7.4%)	15 (5.1%)	0 (0.0%)
<b>2001</b>	2 (0.5%)	14 (3.6%)	0 (0.0%)	20 (5.1%)	41 (10.5%)	18 (4.6%)	7 (1.8%)	27 (6.9%)	25 (6.4%)	1 (0.3%)
<b>2002</b>	3 (0.9%)	10 (2.9%)	1 (0.3%)	8 (2.3%)	37 (10.8%)	11 (3.2%)	13 (3.8%)	17 (5.0%)	15 (4.4%)	0 (0.0%)
<b>2003</b>	1 (0.3%)	15 (4.7%)	0 (0.0%)	10 (3.2%)	33 (10.4%)	7 (2.2%)	7 (2.2%)	16 (5.1%)	12 (3.8%)	0 (0.0%)
<b>2004</b>	1 (0.3%)	16 (4.7%)	0 (0.0%)	12 (3.5%)	5 (1.5%)	5 (1.5%)	9 (2.6%)	14 (4.1%)	8 (2.4%)	1 (0.3%)
<b>2005</b>	1 (0.2%)	26 (6.5%)	2 (0.5%)	8 (2.0%)	52 (12.9%)	13 (3.2%)	10 (2.5%)	13 (3.2%)	11 (2.7%)	2 (0.5%)
<b>2006</b>	0 (0.0%)	9 (3.5%)	0 (0.0%)	9 (3.5%)	30 (11.8%)	8 (3.1%)	2 (0.8%)	12 (4.7%)	13 (5.1%)	2 (0.8%)
<b>Totals</b>	<b>8</b> <b>(0.3%)</b>	<b>97</b> <b>(4.1%)</b>	<b>3</b> <b>(0.1%)</b>	<b>78</b> <b>(3.3%)</b>	<b>265</b> <b>(11.3%)</b>	<b>80</b> <b>(3.4%)</b>	<b>53</b> <b>(2.3%)</b>	<b>121</b> <b>(5.2%)</b>	<b>99</b> <b>(4.2%)</b>	<b>6</b> <b>(0.3%)</b>

<b>Year</b>	<b>87572</b>	<b>87573</b>	<b>87575</b>	<b>87576</b>	<b>87577</b>	<b>87578</b>	<b>87579</b>	<b>87580</b>	<b>87581</b>	<b>87582</b>
<b>2000</b>	16 (5.4%)	0 (0.0%)	110 (37.0%)	21 (7.1%)	15 (5.1%)	7 (2.4%)	3 (1.0%)	0 (0.0%)	0 (0.0%)	6 (2.0%)
<b>2001</b>	27 (6.9%)	0 (0.0%)	128 (32.8%)	15 (3.8%)	17 (4.4%)	8 (2.1%)	4 (1.0%)	1 (0.3%)	2 (0.5%)	6 (1.5%)
<b>2002</b>	20 (5.8%)	0 (0.0%)	123 (36.0%)	19 (5.6%)	12 (3.5%)	15 (4.4%)	2 (0.6%)	1 (0.3%)	0 (0.0%)	7 (2.0%)
<b>2003</b>	32 (10.1%)	1 (0.3%)	113 (35.8%)	23 (7.3%)	7 (2.2%)	10 (3.2%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	4 (1.3%)
<b>2004</b>	30 (8.8%)	0 (0.0%)	114 (33.5%)	22 (6.5%)	6 (1.8%)	6 (1.8%)	3 (0.9%)	3 (0.9%)	1 (0.3%)	2 (0.6%)
<b>2005</b>	33 (8.2%)	1 (0.2%)	123 (30.5%)	24 (6.0%)	25 (6.2%)	12 (3.0%)	1 (0.2%)	0 (0.0%)	0 (0.0%)	7 (1.7%)
<b>2006</b>	16 (6.3%)	1 (0.4%)	74 (29.1%)	23 (9.1%)	7 (2.8%)	4 (1.6%)	2 (0.8%)	3 (1.2%)	0 (0.0%)	6 (2.4%)
<b>Totals</b>	<b>174</b> <b>(7.4%)</b>	<b>3</b> <b>(0.1%)</b>	<b>785</b> <b>(33.5%)</b>	<b>147</b> <b>(6.3%)</b>	<b>89</b> <b>(3.8%)</b>	<b>62</b> <b>(2.6%)</b>	<b>16</b> <b>(0.7%)</b>	<b>8</b> <b>(0.3%)</b>	<b>3</b> <b>(0.1%)</b>	<b>38</b> <b>(1.6%)</b>

**Appendix C (continued)**  
**Article Six: Continuing Requirements Citations**

**Article Six: Continuing Requirements Citations by Year (continued)**

<b>Year</b>	<b>87583</b>	<b>87584</b>	<b>87585</b>	<b>87587</b>	<b>87588</b>	<b>87589</b>	<b>87590</b>	<b>87591</b>	<b>87592</b>	<b>Totals</b>
<b>2000</b>	3 (1.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	2 (0.7%)	5 (1.7%)	3 (1.0%)	0 (0.0%)	<b>297</b>
<b>2001</b>	3 (0.8%)	1 (0.3%)	0 (0.0%)	5 (1.3%)	2 (0.5%)	4 (1.0%)	2 (0.5%)	10 (2.6%)	0 (0.0%)	<b>390</b>
<b>2002</b>	8 (2.3%)	1 (0.3%)	0 (0.0%)	4 (1.2%)	0 (0.0%)	6 (1.8%)	5 (1.5%)	4 (1.2%)	0 (0.0%)	<b>342</b>
<b>2003</b>	5 (1.6%)	0 (0.0%)	1 (0.3%)	2 (0.6%)	0 (0.0%)	2 (0.6%)	6 (1.9%)	8 (2.5%)	0 (0.0%)	<b>316</b>
<b>2004</b>	15 (4.4%)	0 (0.0%)	0 (0.0%)	3 (0.9%)	1 (0.3%)	1 (0.3%)	13 (3.8%)	8 (2.4%)	1 (0.3%)	<b>340</b>
<b>2005</b>	13 (3.2%)	0 (0.0%)	0 (0.0%)	3 (0.7%)	1 (0.2%)	1 (0.2%)	11 (2.7%)	10 (2.5%)	0 (0.0%)	<b>403</b>
<b>2006</b>	7 (2.8%)	0 (0.0%)	0 (0.0%)	10 (3.9%)	1 (0.4%)	1 (0.4%)	11 (4.3%)	3 (1.2%)	0 (0.0%)	<b>254</b>
<b>Totals</b>	<b>54</b> <b>(2.3%)</b>	<b>2</b> <b>(0.1%)</b>	<b>1</b> <b>(0.0%)</b>	<b>28</b> <b>(1.2%)</b>	<b>5</b> <b>(0.2%)</b>	<b>17</b> <b>(0.7%)</b>	<b>53</b> <b>(2.3%)</b>	<b>46</b> <b>(2.0%)</b>	<b>1</b> <b>(0.0%)</b>	<b>2342</b>

**Appendix C (continued)**  
**Article Six: Continuing Requirements Citations**

**Article Six: Continuing Requirements Citations by District Office**

District Office	87560	87561	87562	87564	87565	87566	87568	87569	87570	87571
<b>Rohnert Park</b>	2 (0.3%)	23 (4.0%)	0 (0.0%)	30 (5.2%)	63 (10.9%)	16 (2.8%)	9 (1.6%)	27 (4.7%)	21 (3.6%)	2 (0.3%)
<b>Sacramento/Stockton</b>	2 (0.4%)	21 (4.3%)	1 (0.2%)	22 (4.5%)	50 (10.3%)	15 (3.1%)	15 (3.1%)	27 (5.6%)	30 (6.2%)	3 (0.6%)
<b>Chico</b>	3 (1.0%)	19 (6.2%)	0 (0.0%)	8 (2.6%)	45 (14.6%)	5 (1.6%)	8 (2.6%)	15 (4.9%)	4 (1.3%)	0 (0.0%)
<b>San Bruno</b>	1 (0.2%)	17 (4.1%)	0 (0.0%)	9 (2.2%)	30 (7.2%)	24 (5.7%)	12 (2.9%)	25 (6.0%)	32 (7.7%)	1 (0.2%)
<b>Fresno</b>	0 (0.0%)	11 (5.0%)	0 (0.0%)	2 (0.9%)	36 (16.5%)	11 (5.0%)	3 (1.4%)	9 (4.1%)	7 (3.2%)	0 (0.0%)
<b>San Jose</b>	0 (0.0%)	6 (1.8%)	2 (0.6%)	7 (2.1%)	41 (12.3%)	9 (2.7%)	6 (1.8%)	18 (5.4%)	5 (1.5%)	0 (0.0%)
<b>Totals</b>	<b>8</b> <b>(0.3%)</b>	<b>97</b> <b>(4.1%)</b>	<b>3</b> <b>(0.1%)</b>	<b>78</b> <b>(3.3%)</b>	<b>265</b> <b>(11.3%)</b>	<b>80</b> <b>(3.4%)</b>	<b>53</b> <b>(2.3%)</b>	<b>121</b> <b>(5.2%)</b>	<b>99</b> <b>(4.2%)</b>	<b>6</b> <b>(0.3%)</b>

District Office	87572	87573	87575	87576	87577	87578	87579	87580	87581	87582
<b>Rohnert Park</b>	27 (4.7%)	0 (0.0%)	208 (35.9%)	45 (7.8%)	11 (1.9%)	17 (2.9%)	6 (1.0%)	2 (0.3%)	1 (0.2%)	5 (0.9%)
<b>Sacramento/Stockton</b>	32 (6.6%)	1 (0.2%)	166 (34.2%)	21 (4.3%)	19 (3.9%)	4 (0.8%)	4 (0.8%)	3 (0.6%)	1 (0.2%)	13 (2.7%)
<b>Chico</b>	35 (11.4%)	0 (0.0%)	103 (33.4%)	14 (4.5%)	1 (0.3%)	9 (2.9%)	2 (0.6%)	0 (0.0%)	1 (0.3%)	5 (1.6%)
<b>San Bruno</b>	34 (8.1%)	1 (0.2%)	123 (29.4%)	33 (7.9%)	28 (6.7%)	15 (3.6%)	1 (0.2%)	1 (0.2%)	0 (0.0%)	5 (1.2%)
<b>Fresno</b>	14 (6.4%)	1 (0.5%)	68 (31.2%)	15 (6.9%)	18 (8.3%)	5 (2.3%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	3 (1.4%)
<b>San Jose</b>	32 (9.6%)	0 (0.0%)	117 (35.2%)	19 (5.7%)	12 (3.6%)	12 (3.6%)	3 (0.9%)	1 (0.3%)	0 (0.0%)	7 (2.1%)
<b>Totals</b>	<b>174</b> <b>(7.4%)</b>	<b>3</b> <b>(0.1%)</b>	<b>785</b> <b>(33.5%)</b>	<b>147</b> <b>(6.3%)</b>	<b>89</b> <b>(3.8%)</b>	<b>62</b> <b>(2.6%)</b>	<b>16</b> <b>(0.7%)</b>	<b>8</b> <b>(0.3%)</b>	<b>3</b> <b>(0.1%)</b>	<b>38</b> <b>(1.6%)</b>

District Office	87583	87584	87585	87587	87588	87589	87590	87591	87592	Totals
<b>Rohnert Park</b>	31 (5.3%)	1 (0.2%)	1 (0.2%)	11 (1.9%)	0 (0.0%)	4 (0.7%)	7 (1.2%)	10 (1.7%)	0 (0.0%)	<b>580</b>
<b>Sacramento/Stockton</b>	5 (1.0%)	1 (0.2%)	0 (0.0%)	7 (1.4%)	0 (0.0%)	3 (0.6%)	13 (2.7%)	7 (1.4%)	0 (0.0%)	<b>486</b>
<b>Chico</b>	4 (1.3%)	0 (0.0%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	4 (1.3%)	13 (4.2%)	9 (2.9%)	0 (0.0%)	<b>308</b>
<b>San Bruno</b>	7 (1.7%)	0 (0.0%)	0 (0.0%)	2 (0.5%)	0 (0.0%)	2 (0.5%)	7 (1.7%)	8 (1.9%)	0 (0.0%)	<b>418</b>
<b>Fresno</b>	2 (0.9%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	2 (0.9%)	3 (1.4%)	5 (2.3%)	1 (0.5%)	<b>218</b>
<b>San Jose</b>	5 (1.5%)	0 (0.0%)	0 (0.0%)	6 (1.8%)	5 (1.5%)	2 (0.6%)	10 (3.0%)	7 (2.1%)	0 (0.0%)	<b>332</b>
<b>Totals</b>	<b>54</b> <b>(2.3%)</b>	<b>2</b> <b>(0.1%)</b>	<b>1</b> <b>(0.0%)</b>	<b>28</b> <b>(1.2%)</b>	<b>5</b> <b>(0.2%)</b>	<b>17</b> <b>(0.7%)</b>	<b>53</b> <b>(2.3%)</b>	<b>46</b> <b>(2.0%)</b>	<b>1</b> <b>(0.0%)</b>	<b>2342</b>

**Appendix C (continued)**  
**Article Six: Continuing Requirements Citations**

**Article Six: Continuing Requirements Citations by Facility Size**

Facility Size	87560	87561	87562	87564	87565	87566	87568	87569	87570	87571
<b>1-6 beds</b>	2 (0.7%)	7 (2.5%)	0 (0.0%)	6 (2.1%)	35 (12.5%)	27 (9.6%)	8 (2.9%)	5 (1.8%)	18 (6.4%)	1 (0.4%)
<b>7-15 beds</b>	1 (0.2%)	12 (2.5%)	0 (0.0%)	26 (5.4%)	41 (8.5%)	17 (3.5%)	11 (2.3%)	33 (6.8%)	34 (7.1%)	1 (0.2%)
<b>16-49 beds</b>	2 (0.3%)	19 (3.3%)	1 (0.2%)	16 (2.8%)	73 (12.7%)	18 (3.1%)	10 (1.7%)	31 (5.4%)	19 (3.3%)	1 (0.2%)
<b>50-99 beds</b>	1 (0.2%)	30 (6.1%)	1 (0.2%)	12 (2.4%)	58 (11.8%)	9 (1.8%)	11 (2.2%)	24 (4.9%)	16 (3.2%)	2 (0.4%)
<b>&gt; 100 beds</b>	2 (0.4%)	29 (5.7%)	1 (0.2%)	18 (3.5%)	58 (11.4%)	9 (1.8%)	13 (2.5%)	28 (5.5%)	12 (2.3%)	1 (0.2%)
<b>Totals</b>	<b>8</b> <b>(0.3%)</b>	<b>97</b> <b>(4.1%)</b>	<b>3</b> <b>(0.1%)</b>	<b>78</b> <b>(3.3%)</b>	<b>265</b> <b>(11.3%)</b>	<b>80</b> <b>(3.4%)</b>	<b>53</b> <b>(2.3%)</b>	<b>121</b> <b>(5.2%)</b>	<b>99</b> <b>(4.2%)</b>	<b>6</b> <b>(0.3%)</b>

Facility Size	87572	87573	87575	87576	87577	87578	87579	87580	87581	87582
<b>1-6 beds</b>	16 (5.7%)	0 (0.0%)	109 (38.9%)	11 (3.9%)	5 (1.8%)	5 (1.8%)	1 (0.4%)	0 (0.0%)	0 (0.0%)	4 (1.4%)
<b>7-15 beds</b>	26 (5.4%)	0 (0.0%)	159 (33.0%)	33 (6.8%)	31 (6.4%)	13 (2.7%)	4 (0.8%)	0 (0.0%)	0 (0.0%)	9 (1.9%)
<b>16-49 beds</b>	48 (8.3%)	1 (0.2%)	162 (28.1%)	38 (6.6%)	31 (5.4%)	21 (3.6%)	6 (1.0%)	5 (0.9%)	1 (0.2%)	20 (3.5%)
<b>50-99 beds</b>	42 (8.5%)	1 (0.2%)	190 (38.5%)	19 (3.9%)	7 (1.4%)	11 (2.2%)	4 (0.8%)	1 (0.2%)	2 (0.4%)	2 (0.4%)
<b>&gt; 100 beds</b>	42 (8.2%)	1 (0.2%)	165 (32.3%)	46 (9.0%)	15 (2.9%)	12 (2.3%)	1 (0.2%)	2 (0.4%)	0 (0.0%)	3 (0.6%)
<b>Totals</b>	<b>174</b> <b>(7.4%)</b>	<b>3</b> <b>(0.1%)</b>	<b>785</b> <b>(33.5%)</b>	<b>147</b> <b>(6.3%)</b>	<b>89</b> <b>(3.8%)</b>	<b>62</b> <b>(2.6%)</b>	<b>16</b> <b>(0.7%)</b>	<b>8</b> <b>(0.3%)</b>	<b>3</b> <b>(0.1%)</b>	<b>38</b> <b>(1.6%)</b>

Facility Size	87583	87584	87585	87587	87588	87589	87590	87591	87592	Totals
<b>1-6 beds</b>	5 (1.8%)	1 (0.4%)	0 (0.0%)	2 (0.7%)	0 (0.0%)	1 (0.4%)	6 (2.1%)	5 (1.8%)	0 (0.0%)	<b>280</b>
<b>7-15 beds</b>	10 (2.1%)	0 (0.0%)	0 (0.0%)	7 (1.5%)	2 (0.4%)	1 (0.2%)	5 (1.0%)	6 (1.2%)	0 (0.0%)	<b>482</b>
<b>16-49 beds</b>	7 (1.2%)	0 (0.0%)	1 (0.2%)	10 (1.7%)	3 (0.5%)	3 (0.5%)	14 (2.4%)	15 (2.6%)	0 (0.0%)	<b>576</b>
<b>50-99 beds</b>	20 (4.1%)	0 (0.0%)	0 (0.0%)	3 (0.6%)	0 (0.0%)	4 (0.8%)	14 (2.8%)	9 (1.8%)	0 (0.0%)	<b>493</b>
<b>&gt; 100 beds</b>	12 (2.3%)	1 (0.2%)	0 (0.0%)	6 (1.2%)	0 (0.0%)	8 (1.6%)	14 (2.7%)	11 (2.2%)	1 (0.2%)	<b>511</b>
<b>Totals</b>	<b>54</b> <b>(2.3%)</b>	<b>2</b> <b>(0.1%)</b>	<b>1</b> <b>(0.0%)</b>	<b>28</b> <b>(1.2%)</b>	<b>5</b> <b>(0.2%)</b>	<b>17</b> <b>(0.7%)</b>	<b>53</b> <b>(2.3%)</b>	<b>46</b> <b>(2.0%)</b>	<b>1</b> <b>(0.0%)</b>	<b>2342</b>

## Appendix D Citations

**Citation Type**    **Definition**

**Type A**                    *serious, meaning a failure to comply presents an immediate or substantial threat to physical health, mental health or safety of the residents*

**Type B**                    *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*

### Citations by Type and Year

Year	Type A	Type B	Totals
2000	263 (54.3%)	221 (45.7%)	484
2001	365 (56.9%)	276 (43.1%)	641
2002	324 (56.5%)	249 (43.5%)	573
2003	274 (52.4%)	249 (47.6%)	523
2004	269 (49.0%)	280 (51.0%)	549
2005	319 (48.4%)	340 (51.6%)	659
2006	211 (50.5%)	207 (49.5%)	418
<b>Totals</b>	<b>2025 (52.6%)</b>	<b>1822 (47.4%)</b>	<b>3847</b>

### Citations by Type and District Office

District Office	Type A	Type B	Totals
Rohnert Park	348 (34.9%)	650 (65.1%)	998
Sacramento/Stockton	415 (58.1%)	299 (41.9%)	714
Chico	309 (60.6%)	201 (39.4%)	510
San Bruno	380 (52.7%)	341 (47.3%)	721
Fresno	271(67.4%)	131 (32.6%)	402
San Jose	302 (60.2%)	200 (39.8%)	502
<b>Totals</b>	<b>2025 (52.6%)</b>	<b>1822 (47.4%)</b>	<b>3847</b>

### Citations by Type and Facility Size

Facility Size	Type A	Type B	Totals
1-6 beds	284 (57.7%)	208 (42.3%)	492
7-15 beds	365 (45.6%)	436 (54.4%)	801
16-49 beds	525 (55.8%)	416 (44.2%)	941
50-99 beds	408 (51.5%)	385 (48.5%)	793
≥ 100 beds	443 (54.0%)	377 (46.0%)	820
<b>Totals</b>	<b>2025 (52.6%)</b>	<b>1822 (47.4%)</b>	<b>3847</b>

**Appendix E**  
**Article 8: Incidental Medical Care Citations**

<b><u>Article 8</u></b>	<b><u>Incidental Medical Care</u></b>
87700	<i>Health and Safety Protection</i>
87701	<i>Prohibited Health Conditions</i>
87702	<i>Allowable Health Conditions General Conditions/Use of Home Health Agencies</i>
87703	<i>Oxygen Administration</i>
87704	<i>Intermittent Positive Breathing Machine</i>
87705	<i>Colostomy/Ileostomy</i>
87706	<i>Enema/Fecal Impaction</i>
87707	<i>Indwelling Urinary Catheter</i>
87708	<i>Managed Bowel and Bladder Incontinence</i>
87709	<i>Contractures</i>
87710	<i>Diabetes</i>
87711	<i>Injections</i>
87713	<i>Healing Wounds</i>
87116	<i>Hospice Care/Terminally Ill Residents</i>
87720	<i>Administrative Review - Incidental Medical Services</i>
87721	<i>Incidental Medical Related Services Exceptions</i>
87722	<i>Department Review</i>
87724	<i>Care of Persons with Dementia</i>
87725	<i>Training/Advertising Dementia Special Care</i>

**Appendix E (continued)**  
**Article 8: Incidental Medical Care Citations**

**Article 8: Incidental Medical Care Citations by Year**

<b>Year</b>	<b>87700</b>	<b>87701</b>	<b>87702</b>	<b>87703</b>	<b>87705</b>	<b>87706</b>	<b>87707</b>	<b>87708</b>	<b>87709</b>
<b>2000</b>	0 (0.0%)	3 (7.5%)	0 (0.0%)	6 (15.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.5%)	0 (0.0%)
<b>2001</b>	0 (0.0%)	6 (7.7%)	2 (2.6%)	11 (14.1%)	1 (1.3%)	1 (1.3%)	1 (1.3%)	2 (2.6%)	0 (0.0%)
<b>2002</b>	0 (0.0%)	6 (8.1%)	1 (1.4%)	8 (10.8%)	1 (1.4%)	0 (0.0%)	0 (0.0%)	2 (2.7%)	2 (2.7%)
<b>2003</b>	0 (0.0%)	6 (8.8%)	1 (1.5%)	9 (13.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (2.9%)	0 (0.0%)
<b>2004</b>	0 (0.0%)	6 (7.1%)	6 (7.1%)	6 (7.1%)	0 (0.0%)	1 (1.2%)	0 (0.0%)	3 (3.6%)	0 (0.0%)
<b>2005</b>	1 (1.3%)	10 (13.3%)	0 (0.0%)	6 (8.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
<b>2006</b>	0 (0.0%)	9 (19.1%)	1 (2.1%)	4 (8.5%)	0 (0.0%)	0 (0.0%)	1 (2.1%)	0 (0.0%)	1 (2.1%)
<b>Totals</b>	<b>1</b> <b>(0.2%)</b>	<b>46</b> <b>(9.9%)</b>	<b>11</b> <b>(2.4%)</b>	<b>50</b> <b>(10.7%)</b>	<b>2</b> <b>(0.4%)</b>	<b>2</b> <b>(0.4%)</b>	<b>2</b> <b>(0.4%)</b>	<b>10</b> <b>(2.1%)</b>	<b>3</b> <b>(0.6%)</b>

<b>Year</b>	<b>87710</b>	<b>87711</b>	<b>87713</b>	<b>87716</b>	<b>87721</b>	<b>87724</b>	<b>87725</b>	<b>Totals</b>
<b>2000</b>	1 (2.5%)	0 (0.0%)	6 (15.0%)	0 (0.0%)	0 (0.0%)	23 (57.5%)	0 (0.0%)	<b>40</b>
<b>2001</b>	1 (1.3%)	0 (0.0%)	9 (11.5%)	0 (0.0%)	1 (1.3%)	43 (55.1%)	0 (0.0%)	<b>78</b>
<b>2002</b>	0 (0.0%)	1 (1.4%)	10 (13.5%)	3 (4.1%)	0 (0.0%)	40 (54.1%)	0 (0.0%)	<b>74</b>
<b>2003</b>	2 (2.9%)	2 (2.9%)	9 (13.2%)	0 (0.0%)	2 (2.9%)	35 (51.5%)	0 (0.0%)	<b>68</b>
<b>2004</b>	1 (1.2%)	3 (3.6%)	4 (4.8%)	4 (4.8%)	0 (0.0%)	50 (59.5%)	0 (0.0%)	<b>84</b>
<b>2005</b>	3 (4.0%)	1 (1.3%)	2 (2.7%)	2 (2.7%)	0 (0.0%)	46 (61.3%)	4 (5.3%)	<b>75</b>
<b>2006</b>	2 (4.3%)	2 (4.3%)	2 (4.3%)	0 (0.0%)	0 (0.0%)	24 (51.1%)	1 (2.1%)	<b>47</b>
<b>Totals</b>	<b>10</b> <b>(2.1%)</b>	<b>9</b> <b>(1.9%)</b>	<b>42</b> <b>(9.0%)</b>	<b>9</b> <b>(1.9%)</b>	<b>3</b> <b>(0.6%)</b>	<b>261</b> <b>(56.0%)</b>	<b>5</b> <b>(1.1%)</b>	<b>466</b>



**Appendix E (continued)**  
**Article 8: Incidental Medical Care Citations**

**Article 8: Incidental Medical Care by District Office**

District Office	87700	87701	87702	87703	87705	87706	87707	87708	87709
<b>Rohnert Park</b>	1 (0.6%)	12 (6.9%)	2 (1.2%)	17 (9.8%)	1 (0.6%)	0 (0.0%)	0 (0.0%)	3 (1.7%)	1 (0.6%)
<b>Sacramento/Stockton</b>	0 (0.0%)	3 (4.8%)	5 (7.9%)	9 (14.3%)	1 (1.6%)	0 (0.0%)	1 (1.6%)	0 (0.0%)	0 (0.0%)
<b>Chico</b>	0 (0.0%)	11 (12.1%)	1 (1.1%)	5 (5.5%)	0 (0.0%)	1 (1.1%)	1 (1.1%)	5 (5.5%)	2 (2.2%)
<b>San Bruno</b>	0 (0.0%)	7 (11.3%)	1 (1.6%)	13 (21.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (1.6%)	0 (0.0%)
<b>Fresno</b>	0 (0.0%)	2 (8.0%)	1 (4.0%)	3 (12.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (4.0%)	0 (0.0%)
<b>San Jose</b>	0 (0.0%)	11 (21.2%)	1 (1.9%)	3 (5.8%)	0 (0.0%)	1 (1.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
<b>Totals</b>	<b>1</b> <b>(0.2%)</b>	<b>46</b> <b>(9.9%)</b>	<b>11</b> <b>(2.4%)</b>	<b>50</b> <b>(10.7%)</b>	<b>2</b> <b>(0.4%)</b>	<b>2</b> <b>(0.4%)</b>	<b>2</b> <b>(0.4%)</b>	<b>10</b> <b>(2.1%)</b>	<b>3</b> <b>(0.6%)</b>

District Office	87710	87711	87713	87716	87721	87724	87725	Totals
<b>Rohnert Park</b>	4 (2.3%)	2 (1.2%)	13 (7.5%)	3 (1.7%)	0 (0.0%)	111 (64.2%)	3 (1.7%)	<b>173</b>
<b>Sacramento/Stockton</b>	3 (4.8%)	3 (4.8%)	9 (14.3%)	0 (0.0%)	1 (1.6%)	28 (44.4%)	0 (0.0%)	<b>63</b>
<b>Chico</b>	2 (2.2%)	0 (0.0%)	10 (11.0%)	3 (3.3%)	0 (0.0%)	50 (54.9%)	0 (0.0%)	<b>91</b>
<b>San Bruno</b>	0 (0.0%)	2 (3.2%)	5 (8.1%)	2 (3.2%)	0 (0.0%)	31 (50.0%)	0 (0.0%)	<b>62</b>
<b>Fresno</b>	1 (4.0%)	0 (0.0%)	1 (4.0%)	1 (4.0%)	0 (0.0%)	14 (56.0%)	1 (4.0%)	<b>25</b>
<b>San Jose</b>	0 (0.0%)	2 (3.8%)	4 (7.7%)	0 (0.0%)	2 (3.8%)	27 (51.9%)	1 (1.9%)	<b>52</b>
<b>Totals</b>	<b>10</b> <b>(2.1%)</b>	<b>9</b> <b>(1.9%)</b>	<b>42</b> <b>(9.0%)</b>	<b>9</b> <b>(1.9%)</b>	<b>3</b> <b>(0.6%)</b>	<b>261</b> <b>(56.0%)</b>	<b>5</b> <b>(1.1%)</b>	<b>466</b>

**Appendix E (continued)**  
**Article 8: Incidental Medical Care Citations**

**Article 8: Incidental Medical Care by Facility Size**

<b>Facility Size</b>	<b>87700</b>	<b>87701</b>	<b>87702</b>	<b>87703</b>	<b>87705</b>	<b>87706</b>	<b>87707</b>	<b>87708</b>	<b>87709</b>
<b>1-6 beds</b>	0 (0.0%)	3 (5.0%)	1 (1.7%)	1 (1.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
<b>7-15 beds</b>	0 (0.0%)	8 (12.3%)	1 (1.5%)	8 (12.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (3.1%)	0 (0.0%)
<b>16-49 beds</b>	0 (0.0%)	14 (11.1%)	1 (0.8%)	9 (7.1%)	2 (1.6%)	0 (0.0%)	1 (0.8%)	3 (2.4%)	3 (2.4%)
<b>50-99 beds</b>	0 (0.0%)	13 (11.9%)	4 (3.7%)	15 (13.8%)	0 (0.0%)	0 (0.0%)	1 (0.9%)	3 (2.8%)	0 (0.0%)
<b>≥ 100 beds</b>	1 (0.9%)	8 (7.5%)	4 (3.8%)	17 (16.0%)	0 (0.0%)	2 (1.9%)	0 (0.0%)	2 (1.9%)	0 (0.0%)
<b>Totals</b>	<b>1</b> <b>(0.2%)</b>	<b>46</b> <b>(9.9%)</b>	<b>11</b> <b>(2.4%)</b>	<b>50</b> <b>(10.7%)</b>	<b>2</b> <b>(0.4%)</b>	<b>2</b> <b>(0.4%)</b>	<b>2</b> <b>(0.4%)</b>	<b>10</b> <b>(2.1%)</b>	<b>3</b> <b>(0.6%)</b>

<b>Facility Size</b>	<b>87710</b>	<b>87711</b>	<b>87713</b>	<b>87716</b>	<b>87721</b>	<b>87724</b>	<b>87725</b>	<b>Totals</b>
<b>1-6 beds</b>	0 (0.0%)	2 (3.3%)	6 (10.0%)	0 (0.0%)	2 (3.3%)	45 (75.0%)	0 (0.0%)	<b>60</b>
<b>7-15 beds</b>	1 (1.5%)	2 (3.1%)	8 (12.3%)	1 (1.5%)	0 (0.0%)	34 (52.3%)	0 (0.0%)	<b>65</b>
<b>16-49 beds</b>	3 (2.4%)	1 (0.8%)	15 (11.9%)	3 (2.4%)	1 (0.8%)	66 (52.4%)	4 (3.2%)	<b>126</b>
<b>50-99 beds</b>	4 (3.7%)	2 (1.8%)	3 (2.8%)	3 (2.8%)	0 (0.0%)	61 (56.0%)	0 (0.0%)	<b>109</b>
<b>≥ 100 beds</b>	2 (1.9%)	2 (1.9%)	10 (9.4%)	2 (1.9%)	0 (0.0%)	55 (51.9%)	1 (0.9%)	<b>106</b>
<b>Totals</b>	<b>10</b> <b>(2.1%)</b>	<b>9</b> <b>(1.9%)</b>	<b>42</b> <b>(9.0%)</b>	<b>9</b> <b>(1.9%)</b>	<b>3</b> <b>(0.6%)</b>	<b>261</b> <b>(56.0%)</b>	<b>5</b> <b>(1.1%)</b>	<b>466</b>

## Appendix F Complaints

<b><u>Outcome of Complaint</u></b>	<b><u>Definition</u></b>
<i>Inconclusive</i>	<i>Evidence did not support complaint substantiated or unfounded</i>
<i>Needs further investigation</i>	<i>Additional investigation of complaint allegations deemed necessary</i>
<i>Substantiated</i>	<i>Substantial evidence to support complaint was found</i>
<i>Unfounded</i>	<i>No evidence to support complaint was found</i>

### Complaints by Year

Year	Inconclusive	Needs further Investigation	Substantiated	Unfounded	Totals
2000	15 (22.1%)	11 (16.2%)	41 (60.3%)	1 (1.5%)	68
2001	30 (16.7%)	39 (21.7%)	109 (60.6%)	2 (1.1%)	180
2002	44 (21.4%)	26 (12.6%)	129 (62.6%)	7 (3.4%)	206
2003	49 (19.9%)	48 (19.5%)	129 (52.4%)	20 (8.1%)	246
2004	86 (18.9%)	85 (18.7%)	221 (48.7%)	62 (13.7%)	454
2005	103 (22.5%)	114 (24.9%)	175 (38.2%)	66 (14.4%)	458
2006	43 (18.3%)	29 (12.3%)	125 (53.2%)	38 (16.2%)	235
<b>Totals</b>	<b>370 (20.0%)</b>	<b>352 (19.1%)</b>	<b>929 (50.3%)</b>	<b>196 (10.6%)</b>	<b>1847</b>

### Complaints by District Office

District Office	Inconclusive	Needs further Investigation	Substantiated	Unfounded	Totals
Rohnert Park	70 (19.8%)	47 (13.3%)	202 (57.1%)	35 (9.9%)	354
Sacramento/Stockton	80 (22.5%)	61 (17.2%)	175 (49.3%)	39 (11.0%)	355
Chico	104 (23.0%)	151 (33.3%)	170 (37.5%)	28 (6.2%)	453
San Bruno	31 (12.4%)	38 (15.1%)	132 (52.6%)	50 (19.9%)	251
Fresno	15 (7.6%)	15 (7.6%)	139 (70.6%)	28 (14.2%)	197
San Jose	70 (29.5%)	40 (16.9%)	111 (46.8%)	16 (6.8%)	237
<b>Totals</b>	<b>370 (20.0%)</b>	<b>352 (19.1%)</b>	<b>929 (50.3%)</b>	<b>196 (10.6%)</b>	<b>1847</b>

### Complaints by Facility Size

Facility Size	Inconclusive	Needs further Investigation	Substantiated	Unfounded	Totals
1-6 beds	22 (22.4%)	9 (9.2%)	56 (57.1%)	11 (11.2%)	98
7-15 beds	42 (18.8%)	40 (17.9%)	125 (55.8%)	17 (7.6%)	224
16-49 beds	74 (16.9%)	73 (16.7%)	250 (57.1%)	41 (9.4%)	438
50-99 beds	127 (23.9%)	121 (22.7%)	223 (41.9%)	61 (11.5%)	532
> 100 beds	105 (18.9%)	109 (19.6%)	275 (49.5%)	66 (11.9%)	555
<b>Totals</b>	<b>370 (20.0%)</b>	<b>352 (19.1%)</b>	<b>929 (50.3%)</b>	<b>196 (10.6%)</b>	<b>1847</b>

## Appendix G Citations by Visit Types

<u>Visit Type</u>	<u>Definition</u>
<b>Required</b>	<i>Required survey visits for routine evaluation</i>
<b>Case Management</b>	<i>Follow up visits to determine compliance</i>
<b>Complaint</b>	<i>Visits made to investigate complaint allegations</i>
<b>Prelicensing</b>	<i>Required visit to grant initial license</i>
<b>Post Licensing</b>	<i>Required visit 90 days after initial license granted</i>
<b>Office</b>	<i>Meeting with licensee in District Office</i>

<u>Citation Type</u>	<u>Definition</u>
<b>Type A</b>	<i>serious, meaning a failure to comply presents an immediate or substantial threat to physical health, mental health or safety of the residents</i>
<b>Type B</b>	<i>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</i>

### Citations by Visit Type by Year

Year	Required Type A	Required Type B	Case Management Type A	Case Management Type B	Complaint Type A	Complaint Type B
2000	183 (37.8%)	188 (38.8%)	35 (7.2%)	27 (5.6%)	36 (7.4%)	5 (1.0%)
2001	210 (32.8%)	207 (32.3%)	40 (6.2%)	48 (7.5%)	102 (15.9%)	8 (1.2%)
2002	162 (28.3%)	153 (26.7%)	42 (7.3%)	36 (6.3%)	94 (16.4%)	35 (6.1%)
2003	112 (21.4%)	132 (25.2%)	45 (8.6%)	64 (12.2%)	99 (18.9%)	30 (5.7%)
2004	32 (5.8%)	60 (10.9%)	77 (14.0%)	103 (18.8%)	132 (24.0%)	82 (14.9%)
2005	46 (7.0%)	77 (11.7%)	135 (20.5%)	136 (20.6%)	104 (15.8%)	71 (10.8%)
2006	50 (12.0%)	69 (16.5%)	53 (12.7%)	65 (15.6%)	80 (19.1%)	46 (11.0%)
<b>Totals</b>	<b>795 (20.7%)</b>	<b>886 (23.0%)</b>	<b>427 (11.1%)</b>	<b>479 (12.5%)</b>	<b>647 (16.8%)</b>	<b>277 (7.2%)</b>

Year	Pre Licensing Type A	Pre Licensing Type B	Post Licensing Type A	Post Licensing Type B	Office Type A	Office Type B	Totals
2000	22 (0.4%)	1 (0.2%)	7 (1.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	484
2001	1 (0.2%)	1 (0.2%)	12 (1.9%)	12 (1.9%)	0 (0.0%)	0 (0.0%)	641
2002	0 (0.0%)	1 (0.2%)	22 (3.8%)	24 (4.2%)	4 (0.7%)	0 (0.0%)	573
2003	6 (1.1%)	3 (0.6%)	9 (1.7%)	20 (3.8%)	3 (0.6%)	0 (0.0%)	523
2004	4 (0.7%)	0 (0.0%)	24 (4.4%)	35 (6.4%)	0 (0.0%)	0 (0.0%)	549
2005	6 (0.9%)	13 (2.0%)	26 (3.9%)	41 (6.2%)	2 (0.3%)	2 (0.3%)	659
2006	1 (0.2%)	0 (0.0%)	27 (6.5%)	27 (6.5%)	0 (0.0%)	0 (0.0%)	418
<b>Totals</b>	<b>20 (0.5%)</b>	<b>19 (0.5%)</b>	<b>127 (3.3%)</b>	<b>159 (4.1%)</b>	<b>9 (0.2%)</b>	<b>2 (0.1%)</b>	<b>3847</b>

**Appendix G (continued)  
Citations by Visit Types**

**Citations by Visit Type by District Office**

District Office	Required Type A	Required Type B	Case Management Type A	Case Management Type B	Complaint Type A	Complaint Type B
<b>Rohnert Park</b>	118 (11.8%)	218 (21.8%)	109 (10.9%)	265 (26.6%)	91 (9.1%)	111 (11.1%)
<b>Sacramento/Stockton</b>	155 (21.7%)	177 (24.8%)	103 (14.4%)	66 (9.2%)	143 (20.0%)	31 (4.3%)
<b>Chico</b>	115 (22.5%)	120 (23.5%)	47 (9.2%)	25 (4.9%)	126 (24.7%)	41 (8.0%)
<b>San Bruno</b>	186 (25.8%)	212 (29.4%)	63 (8.7%)	68 (9.4%)	95 (13.2%)	38 (5.3%)
<b>Fresno</b>	84 (20.9%)	47 (11.7%)	38 (9.5%)	20 (5.0%)	106 (26.4%)	30 (7.5%)
<b>San Jose</b>	137 (27.3%)	112 (22.3%)	67 (13.3%)	35 (7.0%)	86 (17.1%)	26 (5.2%)
<b>Totals</b>	<b>795 (20.7%)</b>	<b>886 (23.0%)</b>	<b>427 (11.1%)</b>	<b>479 (12.5%)</b>	<b>647 (16.8%)</b>	<b>277 (7.2%)</b>

District Office	Pre Licensing Type A	Pre Licensing Type B	Post Licensing Type A	Post Licensing Type B	Office Type A	Office Type B	Totals
<b>Rohnert Park</b>	0 (0.0%)	0 (0.0%)	29 (2.9%)	54 (5.4%)	1 (0.1%)	2 (0.2%)	<b>998</b>
<b>Sacramento/Stockton</b>	0 (0.0%)	1 (0.1%)	12 (1.7%)	24 (3.4%)	2 (0.3%)	0 (0.0%)	<b>714</b>
<b>Chico</b>	0 (0.0%)	0 (0.0%)	21 (4.1%)	15 (2.9%)	0 (0.0%)	0 (0.0%)	<b>510</b>
<b>San Bruno</b>	14 (1.9%)	4 (0.6%)	22 (3.1%)	19 (2.6%)	0 (0.0%)	0 (0.0%)	<b>721</b>
<b>Fresno</b>	6 (1.5%)	13 (3.2%)	36 (9.0%)	21 (5.2%)	1 (0.2%)	0 (0.0%)	<b>402</b>
<b>San Jose</b>	0 (0.0%)	1 (0.2%)	7 (1.4%)	26 (5.2%)	5 (1.0%)	0 (0.0%)	<b>502</b>
<b>Totals</b>	<b>20 (0.5%)</b>	<b>19 (0.5%)</b>	<b>127 (3.3%)</b>	<b>159 (4.1%)</b>	<b>9 (0.2%)</b>	<b>2 (0.1%)</b>	<b>3847</b>

**Appendix G (continued)**  
**Citations by Visit Types**

**Citations by Visit Type by Facility Size**

<b>Facility Size</b>	<b>Required Type A</b>	<b>Required Type B</b>	<b>Case Management Type A</b>	<b>Case Management Type B</b>	<b>Complaint Type A</b>	<b>Complaint Type B</b>
<b>1-6 beds</b>	158 (32.1%)	120 (24.4%)	40 (8.1%)	46 (9.3%)	49 (10.0%)	7 (1.4%)
<b>7-15 beds</b>	188 (23.5%)	277 (34.6%)	82 (10.2%)	95 (11.9%)	83 (10.4%)	39 (4.9%)
<b>16-49 beds</b>	194 (20.6%)	219 (23.3%)	99 (10.5%)	97 (10.3%)	193 (20.5%)	56 (6.0%)
<b>50-99 beds</b>	108 (13.6%)	117 (14.8%)	109 (13.7%)	160 (20.2%)	142 (17.9%)	80 (10.1%)
<b>≥ 100 beds</b>	147 (17.9%)	153 (18.7%)	97 (11.8%)	81 (9.9%)	180 (22.0%)	95 (11.6%)
<b>Totals</b>	<b>795</b> <b>(20.7%)</b>	<b>886</b> <b>(23.0%)</b>	<b>427</b> <b>(11.1%)</b>	<b>479</b> <b>(12.5%)</b>	<b>647</b> <b>(16.8%)</b>	<b>277</b> <b>(7.2%)</b>

<b>Facility Size</b>	<b>Pre Licensing Type A</b>	<b>Pre Licensing Type B</b>	<b>Post Licensing Type A</b>	<b>Post Licensing Type B</b>	<b>Office Type A</b>	<b>Office Type B</b>	<b>Totals</b>
<b>1-6 beds</b>	7 (1.4%)	0 (0.0%)	29 (5.9%)	35 (7.1%)	1 (0.2%)	0 (0.0%)	<b>492</b>
<b>7-15 beds</b>	4 (0.5%)	5 (0.6%)	8 (1.0%)	20 (2.5%)	0 (0.0%)	0 (0.0%)	<b>801</b>
<b>16-49 beds</b>	3 (0.3%)	0 (0.0%)	36 (3.8%)	44 (4.7%)	0 (0.0%)	0 (0.0%)	<b>941</b>
<b>50-99 beds</b>	0 (0.0%)	1 (0.1%)	43 (5.4%)	25 (3.2%)	6 (0.8%)	2 (0.3%)	<b>793</b>
<b>≥ 100 beds</b>	6 (0.7%)	13 (1.6%)	11 (1.3%)	35 (4.3%)	2 (0.2%)	0 (0.0%)	<b>820</b>
<b>Totals</b>	<b>20</b> <b>(0.5%)</b>	<b>19</b> <b>(0.5%)</b>	<b>127</b> <b>(3.3%)</b>	<b>159</b> <b>(4.1%)</b>	<b>9</b> <b>(0.2%)</b>	<b>2</b> <b>(0.1%)</b>	<b>3847</b>

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