QUALITY OF CARE IN RESIDENTIAL CARE FACILITIES FOR THE ELDERLY (RCFE) IN CALIFORNIA: IMPACT OF A POLICY CHANGE

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ABSTRACT OF THE THESIS

Quality of Care in Residential Care Facilities for the Elderly (RCFE) in California: Impact of a Policy Change

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Quality of care has been a topic of concern in assisted living facilities, known as Residential Care Facilities for the Elderly (RCFEs) in California, for both policy makers and researchers. Research has shown that quality is difficult to measure and measurement systems implemented at a policy level are varied, and often insufficient for research purposes. Without knowledge on how policy impacts quality of care, it is difficult to identify and implement effective policies in assisted living facilities. This study examined how a 2004 policy change in California which reduced the number of unannounced inspection visits from once annually to once every five years, may have impacted quality of care in a sample of 83 RCFEs in San Diego County. Eight hundred eighty six facility inspection reports from a sample of 83 facilities in San Diego County were analyzed to find the number of deficiencies cited and the number of complaint investigation visits from January 2000 through December 2006. Complaint investigation visits and deficiencies were outcomes of interest in this analysis and proxies for quality of care measures.

No significant differences were found in the frequency of complaint investigation visits for all facilities or for any individual facility characteristic before and after the policy change. The average number of complaint investigation visits increased overall after the policy change. Individual facility characteristics had varied outcomes, with frequency of complaint investigation visits increasing in some types of facilities and decreasing in others. Significant increases in cited deficiencies were found for facilities licensed 12 months or fewer before the policy change (p=0.040), facilities licensed longer than 37 months before the policy change (p=0.022), 7 to 15 bed facilities (p=0.024), and 50-99 bed facilities (p=0.045). A significant decrease in cited deficiencies was found for facilities with an ownership status of individual or sole proprietorship (p=0.012).

Since quality of care is a complex concept to measure, it is recommended that the policy impact be researched further in order to assess why this shift in deficiencies and occurred for some types of facilities and not others.
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CHAPTER 1

INTRODUCTION

BACKGROUND

The quality of care in long-term care facilities has been of concern for policymakers and community members in the United States for decades (R. A. Kane & Wilson, 2007; National Center for Assisted Living [NCAL], 2011; Wilson, 1995). A lack of quality of care can lead to poor outcomes including injuries, preventable hospitalizations, and even death. System-wide changes have been made in skilled nursing facilities, but addressing quality of care in assisted living has varied from state to state.

It is difficult to assess how a policy change impacts quality of care without having standardized measures for quality or standardized regulations. The State of California has some standardized regulations for assisted living facilities, but the monitoring of outcomes is not closely tracked and these outcomes may not be generalizable to other states. This study explores the impact of a 2004 policy change in California affecting assisted living facilities in San Diego County. This was investigated by assessing differences in quality of care indicators before and after the policy change. A high standard of quality is increasingly important with a growing population of older adults and a greater need for assisted living.

Assisted Living Care in the Continuum of Long-term Care

Assisted living facilities are a part of a continuum of long-term care options in the United States. In the last thirty years, assisted living emerged as a market and has seen tremendous growth (R. A. Kane & Wilson, 2007). There is an identified need for a level of care that offers individuals, largely older adults, with a long-term care option that is less institutional than skilled nursing. Assisted living provides this setting. San Diego County has followed the national trend, showing a steady increase in facility licensures, which quadrupled between 2001 and 2008 (Murphy, 2011).
The continuum of long-term care options offers a variety of assistive services for individuals who need greater assistance with their daily activities. Activities of daily living (ADLs) and instrumental activities of daily living (IADLs) are self-care measurements used to assess independence. ADLs include tasks such as bathing, dressing, feeding and toileting and IADLs include cooking, paying bills, using the phone, medication management and transportation. The level of care and the need for placement outside of the home is determined by the level of independence and availability of resources, such as type of insurance, family or friends, and community resources (Borrayo, Salmon, Polivka, & Dunlop, 2002). The continuum of long-term care covers different levels of institutionalization and independence, ranging from skilled nursing facilities (SNF), board and care facilities, continuing care residential communities (CCRC), assisted living facilities (ALF), independent living facilities (ILFs), home health care, and in-home care.

Of these levels of care, skilled nursing is the most uniformly and strictly regulated. This is due to federal funding through Medicare reimbursements. SNFs and home health care both provide services to the medically needy and are the only long term care options that receive Medicare and Medicaid reimbursements. SNFs provide acute care as well as long-term care services, while home health care is provided for short periods in an individual’s home after discharge from acute medical settings.

Assisted living serves a similar population as those in long-term care in SNFs, but generally ALFs do not provide skilled nursing services. Some facilities do allow third party skilled nursing to be provided though. This setting is less “medically based,” less intensive, and offers services for individuals who need varying levels of assistance with ADLs and IADLs (General Accounting Office [GAO], 2004; Wilson, 1996). Although each state has a different policy, staffing in assisted living generally consists of non-skilled workers (Zimmerman et al., 2005). In California, assisted living facilities are licensed as Residential Care Facilities for the Elderly (RCFEs). According to California Civil Code Title 22 (California Code of Regulations [CCR], 2008), RCFEs are defined as a:

housing arrangement chosen voluntarily by the resident, the resident’s guardian, conservator or other responsible person; where 75 percent of the residents are sixty years of age or older and where varying levels of care and supervision are provided, as agreed to at time of admission or as determined necessary at subsequent times of reappraisal. Any younger residents must have needs compatible with other residents). (p. 20)
Board and care facilities, retirement homes and assisted living facilities serve similar populations, provide similar services, and are all licensed as RCFEs in California. Individuals not in need of assistance with ADLs, but who need some assistance with IADLs, are generally eligible for independent living facilities.

Since it has emerged as a market, there has been a blurring in distinguishing appropriate levels of care, seen in a shift of residents from SNFs to ALFs as they are less medically needy (Ashcraft, Owen, & Feng, 2006). This has been further emphasized by the enactment of the Medicaid Assisted Living Waiver in certain states, allowing people eligible for skilled nursing to pay for services in assisted living facilities with Medicaid (California Department of Health Care Services, 2014). This move towards assisted living is an effort to prevent the isolation of people with disabilities (Olmstead v L.C., 1999).

Assisted living has become a crucial niche in the continuum of long-term care. Policy makers prefer assisted living as a care option because it is less costly than skilled nursing facilities (Hernandez, 2006). Individuals have expressed a preference for assisted living over skilled nursing because they tend to be more home-like and offer more independence to residents, thereby promoting dignity (Hernandez, 2006; Morgan, Eckert, Gruber-Baldini, & Zimmerman, 2008). The ALF market has grown significantly since its inception (Mollica, 2008), and may experience similar growth in the future as more baby boomers emerge as older adults. However, due to the nature of assisted living facilities, there is less oversight and fewer regulations in place to ensure quality of care than in more intensive settings (Flores & Newcomer, 2009). The lack of state oversight and continued monitoring makes it difficult to assess how big of a problem quality of care is in this industry. Due to differences in monitoring standards and a lack of rigorous record keeping regulations, there is a lack of data and therefore an inability for outside parties to track resident outcomes and patterns. These issues have led to difficulties in defining best practices, and quality of care is left to be defined somewhat arbitrarily by policy makers through legislation.

Quality of Care

Definitions of quality of care vary throughout the literature and along the continuum of long-term care (Hedrick et al., 2009; Phillips, Guo, & Kim, 2013; Zimmerman et al., 2005). Quality of care measures in long-term care vary depending on funding sources and
regulatory bodies, but quality measures in these settings are influenced by the Donabedian (1966) Model. Donabedian quality elements, such as physical structures, processes of care, and health outcomes, are assessed in facilities during inspection visits and deficiencies are cited in circumstances where facilities are not following codes. This study uses the Donabedian (1966) Model as the basis for indication of quality of care in RCFEs.

Quality of care issues in long-term care have received a great deal of attention in the last few decades in skilled nursing facilities (Centers for Medicare and Medicaid Services [CMS], 2012). However, the policies implemented for quality of care in assisted living settings are not as effective or universal (GAO, 2004; R. L. Kane & Mach, 2007; Spiegel, 2010). Quality systems have been implemented and are continually fine-tuned in hospital, skilled nursing, physician office, and home health settings (Berenholtz, Dorman, Ngo, & Pronovost, 2002; Richard, Crisler, & Stearns, 2000; Smith et al., 2012). These systems create accountability and educate staff in key aspects about delivery of quality care. There are different quality considerations in long-term care settings as compared to acute care settings, such as hospitals. Skilled nursing, for example, uses different quality measures for patients in acute care versus those in long-term care units (Smith et al., 2012). Although assisted living provides a different setting for long-term care residents, Lockhart (2009) argues it should have quality measures and systems similar to skilled nursing.

**STATEMENT OF THE PROBLEM**

This study investigates quality of care in RCFEs in San Diego County before and after a policy change in January 2004. This policy reduced the frequency of required annual inspection visits by the RCFE regulatory body in California, the California Department of Social Services (CDSS), Community Care Licensing Division (CCLD), from once annually to once every five years. The change was made due to budgetary constraints in the state (Flores, Bostrom, & Newcomer, 2009). Recommendations indicate that these types of visits should occur at least once every two years to ensure quality care (GAO, 2004; NCAL, 2011). This study assesses quality with two different measures: overall citations issued and number of complaint visits. This reduction of regulatory oversight creates inconsistency in establishing a system of accountability to ensure quality outcomes, which can negatively
affect health outcomes in ways that are costly to individuals and society (Weech-Maldonado, Shea, & Mor, 2006).

**Research Questions**

The following questions will be explored:

1. Is there a difference in the number of complaint investigation visits completed by the Community Care Licensing Division (CCLD) in San Diego County before and after the policy change in January 2004 the decreased required inspection visits from once a year to once every five years?
   a. Is there a difference in complaint investigation visits completed by the CCLD when the time periods before and after the 2004 policy change are compared by facility characteristics (months open before policy change, size of facility, and ownership status)?

2. Is there a difference in the number of deficiencies cited per visit by the CCLD in San Diego County before and after the policy change in January 2004 that decreased required inspection visits from once a year to once every five years?
   a. Is there a difference in the number of deficiencies cited per visit by the CCLD when these time periods before and after the 2004 policy change are compared by facility characteristics (months open before policy change, size of facility, and ownership status)?

**Hypothesis**

It is hypothesized that this reduction of required visits by the regulatory body reduced the quality of care provided to older adults in this setting. Quality of care will be assessed through the increases in complaints and deficiencies. For research question 1, it is hypothesized that when the number of required inspection visits decreased, the number of complaint driven visits increased. This trend was indicated in Northern California (Flores et al., 2009). For research question 2, it is hypothesized that the number of deficiencies cited per visit will also increase after 2004.

Both of these measures will also be explored by facility characteristics. It is hypothesized that the number of complaint investigation visits and the number of deficiencies cited per visit will increase for smaller bed facilities, as they did in the study conducted in Northern California (Flores et al., 2009).
PUPPOSE OF THE STUDY

The purpose of this study is to investigate a policy impact on RCFEs. The following is a discussion on recent policy changes and how they compare to the policy change in this investigation from 2004.

RCFE Reform in the State of California

This study examines the impact of a policy change from a decade ago, but is still relevant today. California is struggling with quality of care in RCFEs. The State of California came under fire in recent years after instances of neglect, abuse, and deaths that were seemingly avoidable. In response to media coverage focusing on the lack of quality of care in assisted living facilities throughout California (The San Diego Union-Tribune, 2013; Thompson & Byker, 2013), the California legislature introduced and passed a number of bills in 2014 to reform RCFEs (California Department of Social Services [CDSS], 2014b). This package of bills addressed a number of systemic issues to change the negative patterns now seen in RCFEs. This package was, in part, an attempt to increase the quality of care in facilities throughout the state and to avoid preventable adverse events and elder mistreatment in the future. The bill package created the following changes to Title 22, the California Civil Code that outlines RCFE state policies (CCR, 2008): internet access to inspection reports, increase in training for all employees and updates in staffing requirements, increase fees for annual licensure to assist in funding the regulatory body, implementation of a “suspension of new admissions” for facilities out of compliance, requirement of licensed facilities to have liability insurance, increase in the rights of Resident Councils, increases in regulations to assure resident safety in instances of facility closure or change in ownership of a facility, and implements an update in the Resident Bill of Rights (CDSS, 2014b). These new laws attempted to increase accountability of the facilities while also increasing the role of the regulatory body, CCLD. Quantitative assessment of the effectiveness of this legislation should be conducted in the future, but full effect of RCFE reform may not be apparent for several more years.

One matter not addressed by the passage of these bills was the frequency of required inspection visits to assess compliance, quality of care, and, in effect, the impacts of the bills passed. Due to budgetary constraints, California has required the CCLD to perform
unannounced inspection visits only once every five years since 2004 (Flores et al., 2009). While the 2014 legislative package originally included a proposal to increase inspection visits to annually, the version ultimately passed only requires an annual visit under certain circumstances, such as when a facility is in a compliance plan after a cited deficiency (CDSS, 2014b). The concrete and widespread nature of changes introduced in this legislative package will remain deficient if this frequency of required visits has decreased the quality of care.

**Quality through Regulation in RCFEs in California**

Regulation of quality in RCFEs in California has been called into question, with scattered documentation and unreliable enforcement, and there has been an effort to make this documentation more accessible to the public (Murphy, 2011). Quality of care in RCFEs in California can be indicated through the frequency of cited deficiencies and complaint visits which are available and easily accessible to the public for all licensed facilities on the CCLD website (CDSS, 2014a). There are other quality indicators that are already being recorded by the CCLD and available at individual facilities, but these are not easily accessible to the public (Flores & Newcomer, 2009). The prospect of a comprehensive electronic system for quality assurance in California is feasible (Flores & Newcomer, 2009).

With a more comprehensive system, policy impacts on quality of care and changes in quality of care could be more readily assessed. Policy impacts have been examined in this state. A study in Northern California examined the impact of the 2004 budget cuts and reduction of required inspections using complaint driven visits and deficiencies cited as indicators of quality of care (Flores et al., 2009). Flores et al. (2009) found that the policy change had a significant impact, tripling the amount of complaint driven visits performed by the CCLD. Attention should be drawn to this increase, yet due to the absence of availability of some quality indicators it is difficult to definitively say that this is a sign of a decrease in quality of care. This policy change has not yet been assessed in San Diego County.

The reliability of CCLD documentation in San Diego County has come into question (Murphy, 2011) and may partially be the reason why the impact of the 2004 policy change has not yet been examined. It has been suggested that issues with regulation of RCFEs in San Diego County may have led to a number of preventable adverse events (Murphy, 2011; The San Diego Union-Tribune, 2013). This indicates a need for changes in regulation or an
increase in funding to provide the necessary support for the CCLD to carry out its regulatory duties (Murphy, 2011). The RCFE reform legislation may significantly impact quality in a positive way, creating the system wide change needed in RCFEs in California.

**Impact of Policy on Quality of Care**

The degree of growth in the assisted living industry and the burgeoning older adult population in California and the United States indicates that quality of care will have a greater negative impact if not properly addressed (California Department of Aging, 2004; Murphy, 2011; Park-Lee et al., 2011). The state still has many strides to take in developing a system of quality care in this industry. By studying the impact of policy, new evidence-based policies can be implemented to create a system that better assures quality of long-term care.

In the wake of multiple RCFE reforms throughout the State of California, this study analyzes a policy change and seeks to assess how policy can improve or impair quality of care for older adults in long-term settings. By studying the impact of policy changes, elements that are needed to create ideal environments for quality care can be identified.

**Theoretical Bases and Organization**

The theoretical basis of this study is from two frameworks: (1) systems approach (von Bertalanffy, 1974) and (2) quality of care (Donabedian, 1966). In 1999, the Institute of Medicine (IOM) published a report, *To Err is Human*, outlining how to decrease medical errors in hospital settings. Among other key points, this report focused on creating systems in hospitals to account for human error, stating that human error is normal and predictable (Kohn, Corrigan, & Donaldson, 2000). The IOM report highlights the systems approach, changing the environment to affect outcomes, emphasizing its relevancy and importance to quality of care. Depending on the model, quality of care can be measured in a variety of ways. As quality of care has become of greater public interest, the framework has evolved and become more defined in practice.

**Systems Approach**

The general systems theory (von Bertalanffy, 1974), also known as the systems approach, is a paradigm indicating that everything in an environment is affected by and affects everything else in an environment. This means that if there is a change in one piece of
a system, there will be an effect on other pieces of the system (Rapoport, 1976). The systems approach posits that individual actions are not random but rather are directly influenced by system level processes. For example, if a policy is in place, human behavior will be influenced on a wide scale (Kohn et al., 2000). The systems approach thus advocates for macro level changes, like the implementation of a policy to change the status quo. RCFEs in California are part of a bigger system. RCFEs represent one long-term care setting along a continuum of other care options and are licensed and regulated by the state. This study proposes that the actions taken and regulations enforced by the state, particularly the decrease in required inspection visits, had a direct influence on the functioning of RCFEs. This study explores this interaction.

**Framework of Quality of Care**

This study also relies on the Donabedian (1966) Model to assess quality. The Donabedian (1966) Model separates quality into three categories: structure, process, and outcome. Structure evaluates concrete facility resources such as staffing, equipment, the facility itself, record-keeping, size of space, and other related items (Pratt, 2010). Process evaluates tasks and activities such as care of the residents, process errors, protocols for assessment and treatment, enabling criteria, the treatment of the residents (tone of voice, language, dignity and kindness), and what is considered necessary and appropriate care (Pratt, 2010). Outcomes are the product of process and structure. Outcomes are measured by looking at health events, satisfaction, quality of life, and progression of conditions (Pratt, 2010). The decrease of required inspection visits to RCFEs in 2004 is an example of a change in process. This study also two outcome measures, frequency of complaint investigation visits and frequency of cited deficiencies per visit, to investigate the influence of a change in process on quality of care.

**Definition of Terms**

**Assisted Living Facilities (ALF)**

For the purposes of this study, any reference to assisted living is defined in the following manner: “facilities or discrete portions of facilities, licensed by the state at a non-
Residential Care Facilities for the Elderly (RCFE)

Residential Care Facilities for the Elderly (RCFE) is the licensure for facilities that provide care and supervision to individuals over sixty years old. They are regulated by the State of California’s Department of Social Services Community Care Licensing Division. RCFEs include board and care facilities, assisted living facilities, and retirement homes. The models of care do not vary substantially in these settings.

Title 22

California Civil Code Title 22 outlines all regulation of facilities licensed through CDSS Community Care Licensing Division (CDSS, 2014a). Title 22 Division 6 Chapter 8 covers the regulations for Residential Care Facilities for the Elderly (RCFE). The enforcement and licensing sections of this document include the regulations pertaining to inspection visits, deficiency reporting, and citations as completed by the CCLD.

Visits by Community Care Licensing Division (CCLD)

Visits refer to inspection visits of RCFEs as performed by the State of California Department of Social Services Community Care Licensing Division in San Diego County. The purpose of these visits is to ensure that regulations as outlined in Title 22 are being followed by RCFEs. This study will focus on two types of visits: required visits and complaint investigations. Required visits are mandatory, unannounced visits that take place on site at each RCFE licensed facility. Complaint investigations are unannounced visits by CCL to an RCFE after a complaint has been filed with the CCLD. When assessing deficiencies cited per visits, all types of visits that occurred will be included.

Citation

Citations are issued to RCFEs by the CCLD inspectors, Licensed Program Analysts (LPAs), when facilities are in violation of the regulations of Title 22. These are categorized as Type A or Type B deficiencies. Type A deficiencies are administered when there is immediate danger to the health and safety of residents at the facility. Type B deficiencies are
administered when there is potential danger to the health and safety of residents at the facility. The words “citation” and “deficiencies cited” are used interchangeably throughout this study.
CHAPTER 2

LITERATURE REVIEW

The literature review will be an overview of quality of care and assisted living. This will include concerns of quality of care in assisted living, policies attempting to influence quality of care, differing state policies across the U. S. quality of care indicators in long-term care, the complexity of measuring quality of care in assisted living, quality of care in RCFEs in California, and quality of care in RCFEs in San Diego County.

CONCERNS OF QUALITY OF CARE IN ASSISTED LIVING

Quality of care in assisted living facilities has been shown to be a concern throughout a number of research studies. Some studies have concerned themselves with how different assisted living settings vary in quality of care (Hedrick et al., 2009; Murphy, 2011; Zimmerman et al., 2005). Other studies focus on certain aspects of quality of care, such as access to medical care and elder mistreatment in assisted living facilities (R. L. Kane & Mach, 2007; Kemp, Luo, & Ball, 2010; Phillips & Guo, 2011; Phillips et al., 2013). The scope of issues with quality of care is wide in literature and the main resounding message indicates that quality of care is an issue. There is also indication that in order to fully understand quality in long-term care, more research needs to be done.

Facility Characteristics and Quality of Care

A few studies have explored trends in quality of care in relation to facility characteristics. The study completed by Hedrick and colleagues (2009) found some differences in health outcomes related to facility characteristics. Their sample consisted of 393 new enrollees who resided in 95 different facilities. Of those placed, 19.8% died during the twelve month period, one third were in the same placement and the remainder had been transferred to a higher or lower level of care or were homeless. It was found that those placed in adult family homes, those consisting of 16 residents or less, had more ADL improvement.
as compared to larger assisted living facilities. It was also found that if hospitalized, there were longer lengths of stay for individuals residing in chains and shorter lengths of stay for individuals residing in placements with a registered nurse or licensed practical nurse or a multilevel facility. Multilevel facilities were also associated with fewer hospitalizations.

Overall Hedrick et al. (2009) noted that facility characteristics did not have a large influence on health outcomes and emphasized the need for diversity in the system in order to promote personal choice. They referenced the study completed by Zimmerman et al. (2005), stating that these findings were similar to their study.

Using data from the Collaborative Studies of Long-term Care (CS-LTC), Zimmerman et al. (2005) also focused on how facility characteristics affected health outcomes over time. Some trends were found. Smaller facilities, 16 or fewer residents, showed similar outcomes in nursing home transfer, functional decline, and medical outcomes when compared to other facilities. Larger new-model facilities tended to have worse outcomes in social withdrawal than smaller facilities. Zimmerman et al. (2005) concluded that although there were some significant differences in outcomes, no one definition of assisted living was better than another. They noted the need for diversity in this setting and policies to promote this diversity.

One consistency in both of these studies was an indication of better health outcomes when more skilled staff was present in the facility. Other examinations of assisted living explore specific medical issues such as access to medical care and medication errors.

**Access to Medical Care**

R. L. Kane and Mach (2007) conducted a review of literature focusing on access to medical chronic care for people in assisted living facilities. Since ALFs are not a medical model of care, there is less access to medical care than in skilled nursing facilities. Most people in assisted living facilities have chronic conditions and may need greater access to medical services beyond what is provided by third parties. Access to specialty care and primary care is necessary for the frail elderly population that ALFs serve. Access to care and care coordination is highly reliant on available staff and individual state models of assisted living and are therefore variable. Review of issues such as medication management, mental health, and end-of-life care indicated that there is a need for greater attention and
coordination, citing issues such as medication errors and pain management. R. L. Kane and Mach (2007) suggest further research on the matter of care coordination, a managed care model, and greater attention on assisted living by the Centers for Medicare and Medicaid Services (CMS) to address access issues for people in this care setting. Without proper access to medical care, the health conditions of people in ALFs can deteriorate and avoidable health issues may become more prevalent.

Kemp et al. (2010) assessed medication management policies and procedures in 45 facilities across Georgia. They found a number of issues in the administration of medications to people residing in assisted living, including issues in communicating medication changes. This led to a few cases of administration of the wrong amount of a medication and at least one case in which a medication error led to a stroke. The amount of training and adherence to regulatory policies and procedures was highly dependent on type of facility and the size of the facility. Medication management is an area where quality of care in ALFs can significantly impact health outcomes.

Medical care concerns were also addressed in Murphy’s (2011) assessment of documentation by the CCLD in RCFEs in San Diego County. After reviewing deficiencies cited in 50% of the RCFEs in the county, she found that 15.9% of all deficiencies cited between 2000 and 2009 were related to medication errors, a noted lack of needed medical care, or insufficient first aid training of staff. Of all the categories of citations, deficiencies relating to incidental medical care were the largest proportion.

Since ALFs are generally not a medical model of care, there is less training than required in SNFs, fewer skilled staff than in SNFs, and highly variable regulations regarding the level of training required. The populations in assisted living, though, have medical needs and training of the staff needs to be sufficient enough to reduce the incidence of harm.

**Elder Mistreatment**

One more aspect of quality of care to be explored is elder mistreatment. The frequency of elder mistreatment can be an indication of lack of education of staff, insufficient staffing ratios, or other concerns that can be addressed by policies by the state (Phillips & Guo, 2011).
Phillips et al. (2013) studied elder mistreatment by researching citations to ALFs in the state of Arizona. In Arizona, elder mistreatment is a distinct category of citation including physical abuse, physical restraint, verbal abuse, psychological abuse, sexual abuse, neglect and financial exploitation. Phillips et al. (2013) also included categories of problems outside of this definition of mistreatment including medicine related problems, unsafe environment, unexplained injury, fall-related injury, pressure ulcers, leaving a facility without supervision, and delayed medical care. Even though these are not defined as categories of mistreatment, some of these problems can lead to negative health outcomes including death.

Phillips et al. (2013) found that using documentation by the state, elder mistreatment was underestimated with 64.6% of allegations substantiated and only 15.9% of those leading to enforcement action. They also found that the manner in which surveys are coded misrepresent the actual events of mistreatment that take place. Phillips et al. (2013) emphasize that since these documents are being used to create policy at a state level, it is important for there to be an accurate depiction of patterns and issues, but this is not the case.

It is important to note that even though deficiencies are cited, it may be difficult to ascertain how many allegations were considered unsubstantiated that should have been substantiated.

Phillips and Guo (2011) conducted another study on elder mistreatment in ALFs in Arizona, comparing facility characteristics to those with citations related to mistreatment and those with no citations between the years of 2007 and 2008. The sample of facilities with substantiated allegations included 239 facilities while the group without any complaints during this time period included 215 facilities. Narratives from investigation visits performed by the state regulatory body were coded to identify facility characteristics and the type of mistreatment substantiated. Of the cited issues 64.4% were neglect, 7.2% physical abuse, 7.0% psychological abuse, 4.7% financial exploitation, 4.4% verbal abuse, 3.8% physical restraint, 2.8% medication abuse, and 2.8% sexual abuse. Facility factors of the complaint group that were significantly different from the non-complaint included larger facilities, facilities licensed as personal care, and national corporations. Phillips and Guo (2011) found that certain facility characteristics were related to the type of mistreatment. Assisted living centers, generally larger facilities, had a significantly greater frequency of physical abuse and
assisted living homes, generally smaller facilities, had a significantly greater frequency of both neglect and psychological abuse.

The personal care licensing in Arizona requires the lowest amount of staff training compared to other licensures. This study indicated that mistreatment such as neglect and psychological abuse occurs because staff is not required to be licensed and has less training. Phillips and Guo (2011) also indicated that larger facilities have less staff per resident which may be why there was a higher frequency of physical abuse.

It is important to note that both of these studies, while about mistreatment, have aspects similar to studies focusing on quality of care. Elder mistreatment is an issue not of ill intent, but more so lack of training, education, or support. Quality of care covers a greater breadth of issues, but mistreatment is one aspect that can guide how state regulatory bodies can greater support certain types of facilities and how policy can guide better quality of care. Also, Arizona’s data is more comprehensive than most states, as they have based their reporting standards on those of nursing homes and each facility requires an annual visit. Even though the facilities in this state receive more support and data is more transparent and more readily accessible, there are still issues with quality of care in the assisted living setting. It is difficult to analyze how quality of care in Arizona compares to other states since policies vary.

**POLICIES ATTEMPTING TO INFLUENCE QUALITY OF CARE**

Because there are a variety of ways to measure quality of care and a variety of models in assisted living, creating policies to promote quality improvement is complex. State and federal policy to improve quality has been challenging to write and to implement.

Some efforts to compare quality standards across states have been made by the General Accounting Office (GAO). The Assisted Living Workgroup was created in 2001 by the Senate Special Committee on Aging to research quality of assisted living and to propose suggestions for improvement. GAO (2004) investigated and published some of the research on different state initiatives addressing concerns outlined by the Assisted Living Workgroup in their report. These suggestions include increased access to facility information for consumers, increased support to assisted living facilities regarding adherence to state policies and regulations, and greater support to ALF residents filing complaints. A number of
programs were outlined by the GAO (2004) based on research conducted between November 2003 and April 2004. The highlighted state programs presented unique approaches to these issues.

Florida and Texas are two of the 18 states that have addressed the issue of availability and access to consumer information in different ways. Florida established an online database, “Find-a-Facility,” for consumers to inquire about facilities with specific characteristics and services. This is created and maintained by the Florida Department of Elder Affairs (DOEA), although the information is updated by individual facilities. Both consumers and providers have expressed satisfaction with this program. Texas requires assisted living facilities to provide a uniform 5-page disclosure to potential consumers before they are admitted to the facility. Many facilities provide this at admission, thus not allowing consumers to compare facilities. Many consumers have expressed that they were still unaware of rights and certain services not provided.

The GAO (2004) highlighted Washington State’s Quality Improvement Consultation (QIC) Program, which involves educating facility administrators to meet regulatory standards. The state hired nine employees to act as consultants to assisted living facility administrators. The staff completed site visits, provided training, was available via phone for questions, and also assisted ALFs in creating and implementing plans to meet regulatory requirements. Although this program had high satisfaction rates and resulted in decreases in regulatory action for deficiencies, according to this GAO (2004) report, it lasted only two and a half years due to budgetary constraints.

Lastly, Georgia and Massachusetts were highlighted by the GAO (2004) report for their programs addressing greater support to residents who have complaints. In 1994, Georgia created the Remedies for Resident Personal Care Homes Act. This act modeled the complaint procedure for ALFs after nursing home procedures, expanding the rights of residents pursuing complaints. It was found that this rarely led to legal actions. Advocates of residents at ALF believe that the complaint reporting rate is low because resident rights are not substantive in Georgia and also because administrators would rather address issues informally and internally. Massachusetts created an ombudsman program specifically to support assisted living facilities. This was successful in addressing ALF resident concerns, but when the state had a budget crisis the program was cut back.
The GAO (2004) noted that programs were more successful if they were not solely state funded or sensitive to budget crises. Some of the programs did seem to have an impact on the quality of care provided, but for those that were successful, a need for different sources of funding was necessary for sustainability.

Academic research addressing quality improvement has not been conducted on most of the state efforts mentioned. In order to understand how policy impacts quality of care, there needs to be research surrounding these changes.

**Differing State Policies Across the U.S.**

As stated previously, assisted living facilities are not uniformly regulated from state to state. Each state has its own monitoring body as well as its own set of quality of care standards (GAO, 2004; Hawes & Phillips, 2007). Some states have uniform information systems that are available to consumers, but this system is not available in all states and most do not have electronic records of care (GAO, 2004; Hawes & Phillips, 2007; Phillips et al., 2013). Assessing quality of care from state to state, as well as from facility to facility, has differed in research. There has been a call for a national standard of care and assessment by some researchers and policy makers, but little has been done to take steps towards standardization (Hawes & Phillips, 2007). The variety and irregularity is in part due to the powers available to the federal government in oversight of state commerce (GAO, 2004). ALFs are mostly funded through private pay. Federal oversight and the use of public dollars could create more transparency in quality of care (R. L. Kane & Mach, 2007). The incentive, as well as the ability to track quality of care, is not inherent in the regulatory system of ALFs.

The ability to compare and contrast quality in facilities is further complicated by the differences in regulation from state to state. R. A. Kane and Wilson (2007) discuss not only the differences in facilities from state to state, but also within states. Since assisted living is mostly a private pay system, the regulations and monitoring around it seem to be less rigid. Also research has been moving more slowly than industry growth meaning that new trends and models driven by the industry are emerging without practice knowledge or informed policy. The variety of services and service providers delivering care within these facilities leads to great difficulty in standardizing guidelines for assessment of quality of care. R. A. Kane and Wilson (2007) describe assisted living as a “fence straddling phenomenon that fits
awkwardly with existing services” (p. 6). Although assisted living is diverse, it does have its place along the continuum of care. The differences in the types of facilities, practices, and services offered creates complications in measuring concepts as complex as quality of care.

Skilled nursing facilities have uniform requirements set forth by CMS to measure quality of care throughout the United States. States have some of their own requirements for skilled nursing due to the state regulation of Medicaid. Although their monitoring system makes quality of care easier to assess, issues easier to identify, and has improved quality of care, there are still issues with quality of care in SNFs (Werner, Konetzka, & Kruse, 2009). The following section describes how quality of care is measured in SNFs and how this compares to quality of care measures in RCFEs in California.

**Uniform Quality of Care Indicators in Long-Term Care**

In the continuum of long-term care there is a variety of ways to measure quality of care. There is also a large difference in the level of oversight and regulation depending on type of facility or care and the streams of funding sources. Skilled nursing systems of quality of care are regulated by CMS. The systems used to monitor and measure quality of care in skilled nursing are seen as comprehensive models for quality assurance and have been used as a model of monitoring quality of care in assisted living in some states (Phillips et al., 2013). The following sections outline how the skilled nursing system regulates quality, quality improvement strategies through regulation and data, and how the quality of care system for RCFEs in California compares. Although not as comprehensive or effective as the CMS systems in health care, the measurements used in this study are also metrics used in the CMS systems to assess quality of care.

**Measurement of Quality of Care by CMS**

CMS is a government body that regulates reimbursement for individuals covered by Medicare or Medicaid. Medicare is a federally regulated and funded health insurance policy for individuals who are 65 and older, disabled, or individuals who have end stage renal failure. Medicaid covers low income individuals and is funded and regulated at both the state and federal level. Each state has its own eligibility standards, but follows minimum eligibility standards as set by the federal government.
Any SNF that receives reimbursements from Medicare is monitored and regulated by CMS. Facilities licensed by CMS have a high level of standards to meet in order to maintain their status and continue receiving reimbursements. These standards are regulated using electronic systems to monitor the health and well-being of patients. This monitoring system is also tied to reimbursements. Tying reimbursements to data entry incentivizes facilities to continually enter patient data (Reilly, Mueller, & Zimmerman, 2008).

CMS compiles quality assessments that are publicly available through their website on Nursing Home Compare (CMS, 2014). This enables consumers to compare the quality of facilities. Systems for monitoring and tracking outcomes, reimbursements, and the reporting of these quality metrics to the public incentivize quality of care in these systems. It also allows for transparency in health outcomes and sheds light on trends over time.

**Skilled Nursing Facilities and Minimum Data Set (MDS)**

MDS is the electronic monitoring system in SNFs. There are multiple quality measures relating to health status for long-term care residents that are tracked and assessed in this system.

According to the CMS (2012) Technical Users’ Guide for the skilled nursing rating system, health inspections occur once annually and are conducted by the state. Representatives from the state public health department are trained by federal representatives on the measurement and testing of Medicare quality indicators. A panel of representatives spends a week surveying each facility and compiles a report on their findings. Each facility receives a score according to how many deficiencies they receive during a quarter and scores from the previous three surveys. This includes deficiencies cited during complaint related visits as well as during the annual survey visit (CMS, 2012).

Deficiencies are scaled depending on how severe the possibility of harm is as well as if the deficiency is “isolated,” a “pattern,” or “widespread” (CMS, 2012, p. 5). The scale is from A to L, A being the least harmful with the lowest score of 0 while L is a widespread and an immediate threat to safety with a score of up to 175 points.

Staffing levels are also included in the ratings for quality of care. SNFs are graded according to how many registered nurse hours are logged and how many certified nursing assistant (CNA), licensed vocational nurse and licensed practical nurse (LVN and LPN)
hours are logged (CMS, 2012). All these measures in place for SNFs are related to the long-term care quality measures used in RCFEs.

Quality of Care Measurement Similarities Between Skilled Nursing and RCFEs

There are some similarities between quality indicators used in SNFs and RCFEs. Deficiencies at SNFs are based on CMS guidelines, while deficiencies at RCFEs are based on Title 22. Survey items for long-term care at skilled nursing facilities are more comprehensive (CMS, 2005). Some items included in the skilled nursing facility survey are unique to SNFs because it is a medically based setting while RCFEs are not. Items such as physician services, rehabilitative services, nursing services, dental services and pharmacy services are not a part of the care model that assisted living offers (CCR, 2008). Otherwise, there are a number of similarities in the monitored items for quality care. Some are included under different titles, but a lot of the basic operating and physical environment items are similar as well as items related to dignity and self-determination (CCR, 2008; CMS, 2005).

The main indicator of quality for RCFEs is the number of deficiencies cited and what types of deficiencies. The deficiencies are scaled differently than skilled nursing facilities with only two types of deficiencies possible, Type A being deficiencies that could pose immediate harm and Type B being a deficiency that could potentially cause harm (CCR, 2008). These definitions are more vague than the deficiencies for SNFs, requiring the discretion of the inspector or LPA to be used with more frequency.

Comparison Tools for Skilled Nursing

MDS is not the only tool promoting greater quality of care, transparency, and accountability in SNFs than in RCFEs. Comparison tools for different facilities are available on the CMS website.

Skilled Nursing Facilities are assigned up to a five star rating to indicate level of quality as compared to other facilities (much below average, below average, average, above average, or much above average). Since Medicaid varies from state to state, each facility is scored in relation to other facilities within the state. The categories assessed include outcomes of health inspections, staffing levels, and quality measures (QMs) based on the MDS. These categories are further broken down for the consumer to see the individual pieces
from which each measure is derived and shows how these levels compare to the overall state average and the average in the United States (CMS, 2014). Also available on this site is the full document of the most recent health inspection report as well as the full reports from substantiated complaints filed within the last year. This is the information publically available on Nursing Home Compare.

Quality and standard of care at one facility can be compared to those at other facilities because there are uniform systems in place. This is another incentive for keeping quality of care to a certain standard. Consumer’s ability to compare agencies and facilities allows for consumers to choose an agency based on its ratings. It has been shown that both quality of care and pricing affect consumer decisions when there is transparency and availability of a comparison tool (Faber, Bosch, Wollersheim, Leatherman, & Grol, 2009; Malof, 2013).

**Lack of Comparison Tools for RCFEs**

Many states do not have a comprehensive electronic record for assisted living facilities let alone the availability of a tool for comparison (GAO, 2004). A comparison tool is not available for RCFEs in the State of California, but the CCLD does have basic information available regarding licensed RCFEs (CDSS, 2014a). A database on the CDSS website has an entry for each licensed facility that includes facility characteristics as well as number of citations, number of inspection visits, number of complaints, number and date of other visits and the location of the facility. Beyond dates and numbers, there is no information about the nature of the citations nor is there access to documentation of the visits on the website (CDSS, 2014a). This allows consumers to see the number of issues that may have occurred, but does not give insight into the reasons behind citations or how this compares to other facilities. Type A deficiencies indicate an immediate threat, but can range from water being too hot to severe neglect which has led to death. Without knowing the nature behind the citations, consumers are still in the dark about which options are best.

The number of complaints is also available on both the CCLD website and the nursing home compare although neither includes the nature of the complaint (CDSS, 2014a; CMS, 2014). Nursing home compare includes a number for total complaints, while the CCLD website includes all complaint driven visits and the resolution of each visit including number of deficiencies cited (CCLD). Although nursing home compare is overall more
comprehensive and informative than the CCLD website, the outline of each complaint driven visit does provide more than what is available through nursing home compare. It does not, however, illuminate the consumer on which facilities offer better quality of care.

If a model similar to MDS and Nursing Home Compare was imposed on the assisted living industry, it is difficult to say whether or not quality of care would improve. This type of system, though, would allow for greater generalizability to assess impacts of policy changes and differences in facility characteristics throughout the United States. Quality of care as it is measured, at least in California, does not necessarily give us a full picture of quality in this setting.

**Complexity of Measuring Quality in Assisted Living**

Quality of care has been shown to be complex to measure and can become somewhat abstract. The purpose of quality is to promote positive health outcomes and reduce preventable and adverse events. The study of quality in the assisted living settings is an attempt to find practice patterns for optimal care of residents and to influence policy to create more ideal settings.

Quality of care under the standards of assisted living and long-term care can sometimes be more nuanced. Morgan et al.’s (2008) study compared quality of care between larger and smaller facilities. They reported that smaller facilities (less than 16 beds) tended to score lower than larger facilities on most scales assessing the extent of resident privacy, resident autonomy, services, and the ability to age in place. However, the qualitative reports from inspectors indicated that only 2.5% preferred larger facilities. Many inspectors indicated that the reporting procedures did not allow the consumer to get a full picture of the facility characteristics, indicating that some citations were less important than how the facility “feels.” There is an indication in this research that a home-like feel is important in long-term care, but is difficult to measure or convey. Larger facilities tended to be more formal and less person-centered.

The concept of quality of life in less institutional settings is mirrored in another study by Kelley-Gillespie and Farley (2008). Kelley-Gillespie and Farley (2008) conducted a study in Utah surveying individuals regarding quality of life after moving from a skilled nursing facility to an assisted living facility. The population used may not be generalizable as it
consisted of white females enrolled in the FlexCare program, the Medicaid waiver program for assisted living in the state of Utah. However, it was found that the move to assisted living facilities from skilled nursing showed significant improvements in quality of life. The measures used to quantify quality of life were multifaceted, reflecting the complexity of the concept of quality of life. Measures that showed significance included satisfaction with the environment, satisfaction with staff and care, satisfaction with activities and social relations, satisfaction with choice, satisfaction with the facility, and emotional well-being. Kelley-Gillepsie and Farley (2008) noted that maintaining a perceived sense of control was important to those surveyed.

Although there has been some concern expressed regarding the Medicaid assisted living waiver programs in multiple states, the value of quality of life is a piece of quality of care that should not be overlooked. There is some difficulty in assessing quality of care using only narratives of investigation and complaint visits, listed complaints, and the types of deficiencies cited, but this is all that is available in most states. Even though quality of care is important in terms of health outcomes and prevention of adverse events, quality of life is equally important, though it is not a part of the inspection process.

**Measuring Quality of Care in Research**

Hawes and Phillips (2007) completed a review of literature seeking to create a definitive measure for quality of care and found it difficult because of differences in policy and regulation for assisted living. Two of the major disagreements they noted with regards to the role of ALFs were the structure of the physical environment provided and the provision of health care services by the facilities. Other factors that can complicate defining quality indicators are structural such as staffing regulations by the state and the size of a facility.

Hawes and Phillips (2007) concluded that because of this variation, a true definition of quality must be multidimensional. It was found that all literature reviewed included aspects of structure, process, or outcome and they indicated these were important quality indicators and could provide a model for comparing facilities. Other measures were also indicated as important for a full picture of the quality of a facility, including quality of life measures such as patient satisfaction.
Measuring Quality through Health Outcomes

Health outcomes have been measured as a way of assessing quality of care (Hedrick et al., 2009; Morgan et al., 2008; Zimmerman et al., 2005). Hedrick et al. (2009), Morgan et al. (2008), and Zimmerman et al. (2005) focused on differences in facilities and how these processes or structures were correlated with different outcomes.

Hedrick et al. (2009) completed a study examining the Assisted Living Pilot Program (ALPP) in the Department of Veterans Affairs. The purpose of the study was to assess if facility characteristics influenced health outcomes. Baseline measures of health and functioning were gathered and compared to a twelve month follow up after ALF placement. Outcomes measured included mortality, change in ADL score, hospitalization, and length of stay if hospitalized. These outcomes were analyzed through regression analysis, comparing outcomes to facility characteristics.

Zimmerman et al. (2005) used data from the Collaborative Studies of Long-term Care (CS-LTC) data to identify key features and facility characteristics that define “good” care. The CS-LTC includes data collected through quantitative quality instruments (the Assisted Living Environmental Quality Scale and the Multiphasic Environmental Assessment Procedure’s Policy and Program Information Form), interviews with residents and facility staff, and structured feedback from facility evaluators. The 2,078 residents from 193 facilities included in this dataset are from Florida, Maryland, New Jersey and North Carolina. Zimmerman et al.’s (2005) study design was longitudinal, assessing functional change of residents over the period of one year using the generalized estimating equation to examine these changes.

Morgan et al. (2008) used the CS-LTC as well to explore quality of care in smaller facilities. Morgan et al. (2008) emphasized the importance of multiple measures of quality in order to create a complete picture and to promote diversity in the assisted living field.

None of these studies discussed the policies in the states regarding assisted living nor the regulation of these facilities and how these factors related to the health status. All three of these studies emphasized the multidimensionality of the definition of quality of care. Other research used pre-existing data as collected from the state during evaluations of facilities in order to explore quality of care. This type of data is also important in practice because it allows for a baseline to be established in retrospective studies.
Measuring Quality Using State Reports

Required report information from states varies, but there some similarities state to state. Reports can include complaints made to the monitoring body or complaint related visits, deficiencies cited, and narratives from investigatory visits to facilities. Articles using reports from the monitoring bodies recognize the limitation of their studies due to reporting bias (Flores & Newcomer, 2009; Phillips et al., 2013). Because of differences between state policies, generalizability can be difficult in research. The State of California, though currently in the process of changing many of these policies, has even shown variation in the reporting procedures of district offices (Flores et al., 2009). With these limitations for generalizability in mind, it is also important to recognize that these reports are a source for retrospective studies and also have been used to influence policy. They are also currently the only source, in many states, for consumers to assess the quality of care in ALFs.

Both Flores et al. (2009) and Phillips et al. (2013) conducted studies investigating quality of care using state investigation reports of facilities. Using the citation and visit information from CCLD district offices in Northern California, Flores et al. (2009) examined if there was a difference in the frequency of type of visits performed and the frequency of deficiencies cited before and after a policy change that reduced required unannounced facility surveys. Citations of interest were those violating Donabedian (1966) quality of care measures, but all citations were examined for analysis.

Phillips et al. (2013) conducted a three year retrospective study on elder mistreatment in assisted living facilities using publicly available data archived on the Arizona Department of Health Services (ADHS) website. Arizona requires that assisted living facilities are surveyed once a year by inspectors. The state is unique in that it has complaint and citation information available on the website with narratives for surveys that do not include identifying information. Assisted living facilities also include a broad range of capacities, much like California, meaning that the data gathered by Phillips et al. (2013) includes smaller as well as larger facilities. They explored how many citations and complaints were recorded from 2006 to 2008 and compared substantiated allegations to how many complaints were recorded to explore if there was proper representation of elder mistreatment in documentation. The documentation from the state surveyors was used to create three data sets, each describing different aspects of the complaints and citations recorded. All facilities
in the state were included in one of the three data sets. The other two data sets explored specific citations, one describing and analyzing citation relation to mistreatment and the other exploring and analyzing the representativeness of documentation of substantiated complaints and allegations.

Both of these studies recognized the limitations of the data being utilized, such as problem-driven measurements and underreporting and different practices by inspectors, but were also able to find trends indicating practice patterns guiding quality of care.

**QUALITY OF CARE IN RCFEs IN CALIFORNIA**

A few studies have been conducted researching facilities in the State of California specifically. California’s RCFEs are regulated by the CCLD according to Title 22, division 6, chapter 8 of the California Code of Regulations (2008). The three articles highlighted in this section cover availability of information on quality of care, a description of available data in San Diego County, and the quality of care trend before and after a policy change in 2004.

A study completed by Flores and Newcomer (2009) reviewed information availability and the prospect of a comprehensive electronic system for quality assurance purposes as well as public availability in the State of California. This is a 5-year retrospective study using data from January 2000 to June 2006. This study sampled 340 facilities from district offices in Northern California that represented 50% of the facilities in the state. The list of facilities to sample was gathered from the CCLD state website. Facilities were randomly selected after the list was stratified by district office and capacity (1-6 beds, 7-15 beds, 16-49 beds, 50-99 beds, and 100 or more beds). Besides the list of facilities, which included some demographic information, this study used three types of data: public RCFE files, confidential RCFE files, and facility records. The public files were requested from the CCLD, although some information was only available at the facilities themselves.

In order to assess for comprehensiveness of information, Flores and Newcomer (2009) study used the Donabedian (1966) Model. Information regarding structure included facility characteristics, staff characteristics and resident related characteristics. Process included information on types of services, staff turnover, and safety/care of residents/resident’s rights, some of which was collected from site visit reports with cited deficiencies. Outcome measures included deficiencies cited, which Flores and Newcomer
(2009) described as indirect indicators of quality. They stated that there is information regarding other outcome measures, such as health related outcomes, but this information was not available to them because it contained identifying information.

Overall, Flores and Newcomer (2009) concluded that the data currently collected was sufficient for creating an online database of publicly available information as both a consumer resource and quality assurance instrument.

This call for the creation of comprehensive, electronically available information for RCFEs in California was commented upon by Lockhart (2009). Lockhart examined Flores and Newcomer’s (2009) study by questioning the purpose of assisted living. The spectrum of resident mix and available services are highly variable and, for those in need of less assistance, this level of monitoring may seem unnecessary. However, because facilities in California in select counties are now participating in the Medicaid assisted living waivers, there is call for some concern. Individuals eligible for this waiver require skilled nursing level assistance with daily activities, as well as some assistance with skilled nursing needs, yet are placed in ALFs. With higher levels of care needed, and public money being used for reimbursement, a call for greater monitoring is understandable.

**Quality Trends After a Policy Change in California**

Flores et al. (2009) used the same data as described above in the Flores and Newcomer (2009) study to examine how a California policy change in 2004 affected quality of care. In January of 2004, due to budgetary constraints, the State of California reduced the number of unannounced inspection visits required to be performed by the CCLD from annually to once every five years (Flores et al., 2009). Stakeholders were aware of the need for annual visits as a quality assurance tool and there was concern over the effects of this policy change. Flores et al. (2009) assessed quality of care before and after 2004 by comparing the differences in complaint driven visits and deficiencies cited. They focused on three visit type categories: required inspection visits, case management visits, and complaint visits. The frequency of each type of visit was analyzed using a generalized estimating equation, and examined if differences in frequency before and after the policy change were present overall and by certain facility characteristics (ownership type, facility size, and district office). They noted that there was significant variation between district offices, but
certain trends prevailed. When the policy went into effect, case management visits doubled and complaint driven visits tripled.

The median frequency of deficiencies cited decreased overall for all types of facilities, although one district office showed an increase. The most frequent type of citations were violations of Article 6 which includes staffing, staff training, medications, and medical care.

The smallest facilities, 1-6 bed, received significantly more required inspection visits than other facilities both before and after the policy change. This size group also had more citations than any other group, but lower frequency of complaint visits. Facilities with 50-99 beds had twice as many complaints as compared to all other capacity types. These results may allude to patterns in practice of the CCLD or trends due to other factors than quality of care.

Due to the infrequency of inspection visits, it is difficult to assess whether the deficiencies cited were the only functional issues in quality of care. Flores et al. (2009) also stated that during informal conversations, ombudsman had indicated that they had been making more formal complaints to ensure that investigatory visits were taking place regularly at facilities. It was also noted that the heightened frequency of visits to the smaller capacity facilities may have been due to the ease of an inspection compared to the larger facilities.

QUALITY OF CARE IN RCFES IN SAN DIEGO COUNTY

San Diego County became a county offering the Assisted Living Waiver in January of 2014. There is some concern by advocates over the ability of RCFEs to provide for these residents and concern regarding the quality of regulating and inspecting these facilities. A study by Murphy (2011) indicates some deficits in the ability of the CCLD to fully perform their duties as a monitoring body.

Murphy (2011) completed a comprehensive assessment on the San Diego and Imperial County’s CCLD reporting and documentation. The data used for her thesis included 50% of the facilities licensed by the district office, 348 facilities in total. She first stratified them by capacity and randomly selected 50% of the facilities by size group. Each facility file was requested from the CCLD for the facilities in the sample. All documentation between 2000 and 2008 from the files requested from the CCLD were coded and analyzed. Murphy
(2011) reported on financial information, staff information, and facility evaluation and complaint information. This research found that deficiencies were frequently indicated in documentation but not cited, follow up on citations took longer than Title 22 provided, there were different reporting practices among LPAs, documents were missing, and procedures and protocols were inconsistent. Her research also found a number of preventable adverse events that occurred in facilities and a lack of enforcement of penalties to these facilities. Murphy’s (2011) study indicates a need for wide systemic changes to improve the monitoring procedures and regulation.

This data is similar to data used in Northern California to assess ability to provide quality of care information. Even though the data is not ideal, it is the only resource available for assessing quality of care trends in RCFEs in the State of California. The current study uses similar information to assess trends in quality of care.

Overall, according to Murphy’s (2011) conclusions and the results of Flores et al. (2009), the quality of care in RCFEs in California is difficult to determine with the documentation available. With these limitations in mind, it is important to note that some trends were found by Flores et al. (2009) that support the hypothesis that quality of care decreased after a reduction in required monitoring of RCFEs. While the GAO (2004) outlined programs that were implemented to improve quality of care, the policy change decreasing the frequency of required inspection visits is unanimously seen as a move in the wrong direction (Flores et al., 2009).

While the State of California is not necessarily the ideal for monitoring or quality of care in RCFEs, the regulations set forth for RCFEs in the state do follow the Donabedian (1966) Model for quality of care used in the literature.

**Title 22 and Quality of Care**

Articles 6, 7 and 8 of Title 22 provide regulations in all categories of the Donabedian (1966) Model which provide an important tool for assessing quality of care (Flores et al., 2009). When assessing quality of care, Flores et al. (2009) distinguished quality by categorizing all the text of Title 22, referring to RCFEs, by structure, process, and outcome. This does not mean that all structural and process measures are covered in the text, that there are proper procedures outlined for the monitoring body, or that the training for these
procedures is sufficient (Murphy, 2011). However, this is the only documentation available for policy makers and consumers for decision making regarding RCFEs in the State of California.

Besides the text of Title 22, the measure of Type A and Type B deficiencies cited, and frequency of complaint investigation visits are also considered outcome measures. The use of these measures in multiple studies, both in and out of California, indicates that these measures are valid in determining the quality of care in assisted living and residential care (Flores et al., 2009; Phillips & Guo, 2011; Phillips et al., 2013), even though they do not necessarily give a full picture of quality.
CHAPTER 3

METHODOLOGY

This chapter is an overview of the research design, sample, and data analysis procedures. Each section will give a full description of the data, how it was gathered, and how it was analyzed.

RESEARCH DESIGN

This investigation was an exploratory seven year retrospective study using publicly available data source. The following sections describe the data source and the variables analyzed.

Data Source

The data used for this study was provided by Consumer Advocates for RCFE Reform (CARR) in the form of inspection documents. The documents provided are from a de-identified bank of CCLD documents from RCFE inspections and visits collected by CARR. The CCLD records interactions and licensing information regarding RCFEs and makes it available to the public at request. The process to obtain documents included submitting a California Public Records Act (CPRA) form requesting files. Since 2011, CARR has been filing requests for recent and past documentation for all facilities, scanning these documents onto their hard drive, and uploading them to an online database that is selectively available by request (for a full description of the data and information regarding access to this data through CARR, see Appendix D).

The CARR database stores complaint investigation visits and deficiencies cited which are the main dependent variables within this study. Each time an LPA visits a facility, a document is created describing the visit. There are two documents used for visits, the LIC 9099 for complaint investigation visits and the LIC 809, called the Facility Evaluation Report, for all other visits. These documents are similar in format and information recorded.
Since citations are issued during these investigation visits and other site visits and these documents are technically a representation of all visits performed, these documents were used to determine the frequency of complaint investigations and the volume of Type A and Type B deficiencies cited in this period of time. Other information obtained from these documents include: capacity of each facility at time of visit, date of visit, and type of visit.

Eight hundred eighty six reports from the 83 facilities from January of 2000 through December 2006 were coded into Excel. Each documented visit was coded to include the facility, size of facility, document date, visit type, and number and type of deficiencies cited. The date of licensure for each facility and ownership type were added to the Excel sheet from other sources.

The amount of time the facilities were open before the policy change was found through both the CCLD website and the CARR website. The CCLD keeps track of most recent licensure. Many of the facilities were licensed previously, but needed to be relicensed due to changes at the facility, such as capacity. CARR has tracked licensure throughout each facility’s first date of a “licensed” status and has on file the original licensure paperwork as well as subsequent licensures thereafter. If the facility license paperwork was available on the CARR website, these dates were cross-referenced with this license, also known as the LIC203A. All facilities open before 2000, the time period of the study, were indicated as open for 48 months.

The Institutional Review Board at San Diego State University approved this study protocol as exempt because all data is publicly available and does not include identifying information.

Variables Analyzed

The independent variables in the first part of each research question were the licensed RCFEs in San Diego County. The independent variables in the second part of each research question were the RCFE characteristics which included the size of the facility, the ownership status, and the number of months the facility was licensed before the policy change. The dependent variables were the measures for quality of care (cited deficiencies and complaint visits). The first question analyzed changes in complaint investigation visits while the second
research question analyzed changes cited deficiencies, investigating Type A, Type B, and both.

Most of this information was obtained from CCLD documentation which was received from CARR. Information was also obtained from the CCLD website and the CARR website.

In order to analyze complaint investigation differences before and after the policy change, two variables were created: the average number of complaint visits per month per facility before 2004 and the average number of complaint visits per month per facility after 2004. In order to compare deficiencies cited, seven variables were created: the average number of Type A deficiencies per visit per facility before 2004, the average number of Type B deficiencies per visit per facility before 2004, the average number of undefined deficiencies per visit per facility before 2004, the average number of all deficiencies per visit per facility before 2004, the average number of Type A deficiencies per visit per facility after 2004, the average number of Type B deficiencies per visit per facility after 2004, and the average number of all deficiencies per visit per facility after 2004. Undefined deficiencies were not found in the documents dated after 2004 which is why it was not included in the analysis. In order to analyze part (a) of each research question, the variables created above were categorized by facility characteristic and compared.

**SAMPLE**

The sample consisted of 83 RCFE licensed facilities in the County of San Diego as of April 5, 2014 that were also licensed before 2004. A stratified random sample from the listing of licensed facilities available via the CCLD website was performed. The data used to investigate these facilities was through documentation that ranged from January of 2000 to December of 2006.

**Sample Size Determination**

RCFEs in San Diego County have been studied through the data that CARR has collected, but the studies as of yet have not determined the means and standard deviation of the population’s citation frequency or complaint investigation frequency. Originally, the sample was to be 100. Due to the type of licensed facilities, the amount of facilities per strata restricted this number to 83 facilities or 12.7% of the 715 facilities in San Diego County as of
April 5, 2014. For example, of the 23 facilities in San Diego County with a capacity of 16-49 beds, only nine facilities were licensed before 2004, therefore nine facilities were sampled from this stratum. A power test was run using the data from Flores et al. (2009) and it was found that 75 facilities were needed for this sample. The population for Flores et al. (2009) is different than the population used for this study, but is similar since they are both complaint investigation visit comparisons run in California.

**Selection of Facilities**

In order to obtain a random sample of facilities, a current listing of RCFEs in San Diego County from April 5, 2014 was obtained from the CCLD website by CARR and provided to the primary investigator. The list of facilities from the CCLD website included limited information regarding facility characteristics including the name of the facility, number of beds, address of the facility, phone number, and licensure status. All facilities that did not have a status of “licensed” were filtered out of the sample. Many of the facilities with a “pending” status were newer, in the process of changing ownership, or going through another change such as number of beds. These were filtered to narrow the sample down to older facilities. On April 5, 2014, there were a total of 715 facilities in San Diego County. Of these, 649 had a status of licensed. In order to include a variety of facility sizes, the listing was stratified according to number of beds (1-6, 7-15, 16-49, 50-99, 100+). Using a random number generator, 20 facilities were chosen from each stratified category to create a stratified random sample with approximately equal allocation. This allocation of each stratum was chosen to replicate the model of the study completed in Northern California by Flores et al. (2009). The majority of licensed RCFEs are smaller (1-6 bed capacity) therefore stratifying the sample in this manner gives a more varied sample of facilities.

In order to determine if facilities were licensed before January 2004, each facility’s licensure date was found on CARR’s website and cross-referenced with the LIC 203A, if on file. Facilities that were not licensed before 2004 were disregarded and a secondary random sampling was completed to find 20 facilities for each facility size. During the random sampling process, 97 facilities were disregarded due to licensure after 2004. There were only nine facilities within these parameters with a capacity of 16 to 49 beds, 15 facilities within these parameters in the category of 50 to 99 beds, and 16 facilities within these parameters
with a capacity of 100 or more. Facilities with 1-6 bed and 7-15 beds were over sampled, including 21 facilities with six beds or less and 22 facilities with 7-15 beds. The number of facilities disregarded is an indication of growth in this industry in San Diego County (Murphy, 2011). This list of facilities was provided to a co-founder of CARR who collected all of the documents available. All documentation was copied to compact discs, and then distributed to the primary investigator.

While coding these facilities, it was found that two of the facilities requested did not have any documents included in their files. The documents to these facilities were requested again and CARR emailed documents for these two facilities.

**DATA ANALYSIS PROCEDURES**

The purpose of this study was to analyze if there was a difference in the quality of care after a policy change in 2004, through assessment of the frequency of complaint investigation visits and the volume of deficiencies cited before and after January of 2004.

The analysis was based on the Flores et al. (2009) study completed in Northern California exploring the same policy change. The study design was different, though, due to a smaller sample size, but used the same outcome measures (complaint visits and deficiencies cited) to compare the time periods before and after the policy change in 2004. Some similarities in design include how facilities are stratified for random selection, the use of CCLD facility evaluations in measuring outcomes, and controlling for the number of months both before and after the policy change for comparative means.

There were some procedural and conceptual differences as well. Flores et al. (2009) did not analyze differences in facilities licensed for different periods of time. This study analyzed licensure date and its relation to quality measures. Due to the size of the sample used in this study, only facilities licensed before 2004 were included for the before and after comparison, while Flores et al. (2009) did include some facilities licensed after 2004. Flores et al. (2009) used the generalized estimating equation to find significance among different factors, while this study compared differences through t-tests due to the number of RCFEs analyzed for comparison.
Coding Process for Variables

A co-founder of CARR had previously coded all documents from 50% of all licensed facilities in San Diego County in 2011 into an Excel spreadsheet. This spreadsheet was provided to the primary investigator. For the facilities already coded, the coding was cross referenced with each corresponding document representing a visit to ensure accuracy and uniformity. In the original spreadsheet, each row represented a deficiency, either cited or not cited, with a description of each. These rows were merged to represent one visit per row and the cited deficiencies for each visit were summed and entered into a column, one representing Type A deficiencies, one representing Type B deficiencies, and one column representing undefined deficiencies. Visits occurring on the same day at the same time that had multiple documents were counted as one visit. When the documents were coded differently, one indicating that it was an unannounced required inspection and the other indicating it was a complaint visit, the visit was coded as a complaint visit. When multiple documents were used, all the deficiencies cited were cross referenced to ensure that the same deficiency was not counted more than once.

Case management visits related to follow up on previous deficiencies cited generally had the date of the original visit in the narrative. If any deficiencies were referenced during the case management visit, these deficiencies were cross referenced with the previous visit documentation to ensure the deficiencies were not counted more than once. Some case management visits referenced previous visits for which the primary investigator had no documentation. In these cases, the deficiencies cited during the case management visit were counted as the first time it had occurred. Pre-licensure visits were not counted. Undefined deficiencies were coded when Type A and Type B deficiencies were cited with illegible handwriting or when the LPA did not define whether the citation was Type A or Type B. For the facilities not coded by CARR staff, each document representing a visit was entered into the Excel sheet using the same criteria as those already coded.

The initial licensure date was found through the CARR website and cross-referenced with licensure documentation, the LIC 203A, if available, for each facility. Ownership type (individual proprietorship, corporation, partnership or LLC) was also obtained from the CARR website for each facility.
After all visits for the randomly selected facilities were entered into Excel, data was transferred to another Excel sheet and a single row was used to represent each facility, with each visit coded for each of the following variables across the row: visit occurring before or after the policy change, visit type such as complaint driven or required inspection, number of Type A deficiencies, number of Type B deficiencies, number of undefined deficiencies. Demographic data not included in the facility documents (ownership status and licensure date) was included at the beginning of each row for each facility. The licensure date was transformed to find the number of months each facility had been open before January 2004 and then the licensure date was disregarded. The date of each visit was coded to represent occurrence either before or after January 2004. The data was then transferred to SPSS for analysis.

Data Analysis

Data were prepared and managed in SPSS to examine the differences in the frequency of complaint investigation visits and the sum of deficiencies cited in the time periods before and after the policy change of January 2004. The following section outlines how these variables were created and how each variable was compared to answer the research questions in this study.

Research Question 1: Complaint Investigation Visits

SPSS was used for statistical analysis of the data. One paired sample t-test was performed to investigate a difference in complaint driven visits before and after the policy change. The paired sample t-test compared the average number of complaint visits per month per facility before 2004 and the average number of complaint visits per month per facility before 2004.

Research Question 1 (A): Complaint Investigation Visits and Facility Characteristics

In order to compare the number of complaint investigation visits by facility characteristic, paired t-tests were performed on the average number of complaint investigation visits before and after the policy change for each characteristic category. A total
of 16 t-tests were run to assess how each type of facility may have been affected by this policy change.

**Research Question 2: Cited Deficiencies**

In order to compare deficiencies cited, the seven variables were created for the different types of cited deficiencies and compared using paired sample t-tests. The paired sample t-test was used to compare the average number of Type A deficiencies per visit per facility before and after 2004, the average number of Type B deficiencies per visit per facility before and after 2004, and the average number of all deficiencies per visit per facility before and after 2004.

In the Flores et al. (2009) study conducted in Northern California investigating this same policy change, it was stated that they expected a decrease in the total number of deficiencies cited because there was a decrease in the number of required inspection visits. This study attempted to control for this by investigating the number of deficiencies cited per visit instead of the raw number of deficiencies before and after this policy change. The assumption made by the Northern California investigation, though, may still be relevant in this study. There were many facilities that had zero visits after the policy change took place. These facilities were omitted in the calculations since the denominator was zero, but these missing facilities are still relevant and important in the investigation. These facilities that have not been visited are unknowns because no inspections have occurred.

**Research Question 2 (A): Cited Deficiencies and Facility Characteristics**

In order to investigate the last research question, cited deficiencies were sorted by facility characteristics. The possible impact of the policy change on the number of cited deficiencies was examined through paired sample t-tests comparing the time period before and the time period after the policy change. This was performed for each facility characteristic by type of deficiency as well as all deficiencies.
CHAPTER 4

RESULTS AND DISCUSSION

The results of this investigation include both descriptive and inferential statistics. The findings are further explored in the discussion.

PRESENTATION OF THE Findings

The following results section is separated into two main categories: descriptive statistics such as facility characteristics and visits and deficiencies, and inferential statistics including the analysis addressing differences in the frequency of complaint investigation visits and deficiencies before and after 2004. All results tables can be found in Appendix A.

Results on Descriptive Statistics

The descriptive results section includes facility characteristics (months of licensure before the policy change, facility capacity, and ownership status), and visits and deficiencies (frequency of complaint inspection visits, all visits, Type A deficiencies cited, Type B deficiencies cited, undefined deficiencies cited, and all deficiencies cited before and after the policy change). This includes overall sums and mean per facility.

Facility Characteristics

Facility characteristics include months of RCFE licensure before the policy change, facility capacity by bed size and type of facility ownership. Facility characteristics are shown in Table 1.

Months of RCFE Licensure before the Policy Change

The proportion of facilities licensed 0-12 months before the policy change in 2004 is 15%, 13-24 months is 15% and 25-36 months is 6%. Facilities licensed for 37-48 months
previous to the policy change represent the largest proportion of facilities in this sample, 65% of the 83 facilities.

**Facility Capacity by Bed Size**

In the sample, 25% of facilities had 1-6 beds, 27% of facilities had 7-15 beds, 11% of facilities had 16-49 beds, 18% of facilities had 50-99 beds, and 19% of facilities had 100 or more beds. Thus, half were smaller facilities in terms of bed size.

**Type of Facility Ownership**

Most of the sample is represented by facilities that are an individual/sole proprietorship or corporation. Of the 83 facilities in this sample, 40% have individual/sole proprietorship, 41% are a corporation, 10% are a LLC, and 10% are a partnership.

**VISITS AND DEFICIENCIES**

This section describes the frequency of complaint inspection visits, all visits, Type A deficiencies cited, Type B deficiencies cited, undefined deficiencies cited, and all deficiencies cited before and after the policy change. This includes overall sums and mean per facility. These are all shown in Table 2.

**Frequency of All Visits Before and After 2004**

There was a decrease in the average number of visits performed per year after the policy change. All visits performed by the CCLD before the policy change had a mean of 2.58 per facility per year and a mean of 1.08 after the policy change.

**Frequency of Complaint Investigation Visits Before and After 2004**

There was an increase in the number of complaint investigation visits after the policy change of 2004. The mean number of complaint inspection visits per facility per year before the policy change is 0.82. After the policy change this increased to a mean of 0.97 per year. Of all the visit types, complaint inspection visits were the only type of visit that showed an increase in frequency.
Frequency of Other Visits Before and After 2004

There was a decrease in the number of required inspection visits per facility per year after 2004. The mean number of these visits per facility per year before 2004 was 0.56 and 0.18 after. This decrease is expected due to the policy change. “Other visits” included: case management visits, pre-licensing, post license visit, follow up for complaint, deficiency, incident or other, not known, verify closure, management action and non-compliance conference interactions. There was also a decrease in the number of other types of visits after 2004, with a mean of 1.66 visits per year before and 0.42 visits per year after.

Frequency of Deficiencies Cited Before and After 2004

The mean number of all deficiencies cited per facility per year, including undefined deficiencies, was 4.12 before the policy change and 2.46 after the policy change. There was an overall decrease in deficiencies cited in the period observed after the policy change.

There were a number of deficiencies cited in the time period before the policy change that were not defined as Type A or Type B deficiencies. These facilities are indicated in the table as “Undefined Deficiencies.” There were no observed undefined deficiencies in the observed period after the policy change.

Overall, there were less observed deficiencies in the time period after the policy change and less overall visits performed in the time period after the policy change compared to the time period observed after the policy change. The mean Type A deficiencies cited before the policy change was 3.19 per facility per year and 1.85 after the policy change.

There was a decrease in the number of Type B deficiencies cited after the policy change, although small. The mean number of Type B deficiencies cited in the time period before was 0.84 per facility per year and was 0.61 after. These findings were further analyzed, as shown in the next section.

Results on Inferential Statistics

The section on inferential statistics covers the differences in complaint investigation visits and cited deficiencies in the time period before and after the 2004 policy change. It answers the research questions in this study. First it reviews the differences in the overall
frequency of complaint investigation visits, differences in the frequency of complaint investigation visits by facility characteristics, differences in the frequency of all deficiencies cited, and differences in the frequency of deficiencies cited by facility characteristics.

**RESEARCH QUESTION 1: DIFFERENCES IN THE OVERALL FREQUENCY OF COMPLAINT INVESTIGATION VISITS**

This study showed an increase in the number of complaint investigation visits after 2004, but this increase was not significant. The p-value as shown in Table 3 compares the mean value of visits per month before and after the policy change. The mean number of all complaint driven visits indicates an increase from 0.53 complaint investigation visits per month before the policy change to 0.60 of these visits after. This was not a significant increase in the number of visits (p = .42). Number of complaint driven visits was further investigated in the second part of this research question, by the facility characteristics.

**RESEARCH QUESTION 1 (A): DIFFERENCES IN THE FREQUENCY OF COMPLAINT INVESTIGATION VISITS BY FACILITY CHARACTERISTICS**

A one-way ANOVA was run for each group of characteristic to check for variance. For visits occurring before, there were no statistically significant differences between groups for length of time open (F(3,35) = 0.813, p = .495), facility size (F(4,34) = 1.113, p = .366), or ownership status (F(3,35) = 1.091, p = .366). For visits occurring after, there were no statistically significant difference between groups for length of time open (F(3,43) = 1.650, p = .192), facility size (F(4,42) = 1.951, p = .120), or ownership status (F(3,43) = 0.407, p = .749).

As shown in Table 3, of all of the characteristics, no significant differences were found in complaint investigation visits before and after the policy change. Even though none were found to be significant, some facility characteristics showed an increase in complaint investigation visits while others showed a decrease. The two categories of facilities open more than years before the policy change showed an increase (p = .757; p = .226). Facilities with a capacity of 7 to 15 (p = .523), 16 to 49 (p = .118) and 100 or more (p = .276) all
showed an increase in complaint visits. Sole proprietorship ($p = .621$) and corporately owned ($p = .500$) also showed an increase in mean number of visits per month.

A number of facility characteristics showed a decrease in the mean number of complaint investigation visits. Facilities open two years or less showed a decrease ($p = .4111$). Facilities with a capacity of one to six beds ($p = .830$) or 50 to 99 beds ($p = .254$) also showed a decrease in the frequency of complaint visits. Lastly, LLCs ($p = .925$) also showed a slight decrease.

**Research Question 2: Differences in Frequency of Deficiencies in All Facilities**

Table 4 displays the number of deficiencies for all facilities by deficiency type during the observed period. The total number of deficiencies includes Type A, Type B, and undefined deficiencies cited. The $p$-values in this table compare the average number of deficiencies per visit before and after the policy change. A significant difference was not found in the means for all facilities. The mean number of visits per month before 2004 was 1.43 and 1.91 after 2004 ($p = .076$).

For Type A deficiencies, there was not a significant difference in the mean number of cited deficiencies per visit before and after 2004 ($p = .062$). The mean number of visits per month before 2004 was 1.02 and 1.41 after 2004. For Type B deficiencies, there was not a significant difference in the mean number of cited deficiencies per visit before and after 2004 for all facilities ($p = .148$). The mean number of visits per month before 2004 was 0.36 and 0.51 after 2004. When separated by facility characteristics, some differences became apparent.

**Research Question 2 (A): Differences in the Frequencies of Deficiencies by Facility Characteristics**

A one-way ANOVA was run for each group of characteristics to check for variance in all deficiencies cited, Type A deficiencies cited, and Type B deficiencies cited. For all deficiencies cited before the policy change, there were no statistically significant differences between groups for length of time open ($F(3,78) = 1.863$, $p = .143$), facility size ($F(4,77) = 2.373$, $p = .060$), or ownership status ($F(3,78) = 1.800$, $p = .154$). For all deficiencies cited
after, there were no statistically significant differences between groups for length of time open (F(3,70) = 0.165, p = .919), facility size (F(4,69) = 1.548, p = .198), or ownership status (F(3,70) = 1.487, p = .226). For Type A deficiencies cited before the policy change, there were no statistically significant differences between groups for length of time open (F(3,78) = 1.426, p = .242), facility size (F(4,77) = 1.995, p = .104), or ownership status (F(3,78) = 1.152, p = .333). For Type A deficiencies cited after, there were no statistically significant differences between groups for length of time open (F(3,70) = 0.084, p = .969), facility size (F(4,69) = 1.570, p = .192), or ownership status (F(3,70) = 1.596, p = .198).

For Type B deficiencies cited before the policy change, there was a statistically significant difference between groups for length of time open (F(3,78) = 4.552, p = .005). There were no statistically significant differences between groups for facility size (F(4,77) = 1.728, p = .152) or ownership status (F(3,78) = 1.363, p = .260). For Type B deficiencies cited after, there is no statistically significant difference between groups for length of time open (F(3,70) = 0.313, p = .816), facility size (F(4,69) = 1.011, p = .408), or ownership status (F(3,70) = 0.777, p = .511).

There were a few significant differences in mean deficiencies cited per visit. Facility characteristics showing significance for all deficiencies cited (Table 5) include facilities open 1 to 12 months before the policy change (p = .040), facilities open 37 or more months previous to the policy (p = .022), facilities with 7 to 15 beds (p = .024), facilities with 50 to 99 beds (p = .045), and facilities with an ownership status of individual/sole (p = .012).

There were no significant differences for Type A deficiencies, as shown in Table 6. The only significant difference for Type B deficiencies, as shown in Table 7, was for facilities open 1 to 12 months before the policy change (p = .015). This was a significant increase with a mean of 0.00 deficiencies cited per visit before the policy change and a mean of 0.48 deficiencies per visit after.

All other facility characteristics analyzed did not show a significant difference in deficiencies cited.

**DISCUSSION OF THE FINDINGS**

The following section is an examination of the findings of this investigation and their relationship to the research questions as posed in chapter 1.
Research Question 1: Complaint Driven Visits in All Facilities

The analysis of all the facilities in this sample showed an increase in the number of complaint investigation visits after the policy change in 2004, but not a significant increase. This increase supports the hypothesis, but not compellingly. Of all the visit types, complaint investigation visits were the only type that indicated an increase, but this finding may or may not indicate that there was a decrease in the quality of care.

Quality of care is a complex concept and difficult to measure which is why it is usually measured using multiple tools. The other quality measurement, the number of cited deficiencies per visit, did not show a significant increase after the policy change either, but there was an increase in averages. This does not confirm nor negate that quality of care in all facilities declined after the policy change. This does, however, indicate that practices of the CCLD in San Diego County could have changed after the policy change. Complaint driven visits were further investigated in the second part of the research question, breaking down the facilities into categories according to their characteristics.

**COMPLAINT INVESTIGATION VISITS BY FACILITY CHARACTERISTIC**

Complaint investigation visits did not show a significant difference in any categories. There was a variation in the facility characteristics and an increase or decrease in complaint visits after the policy change.

Facilities that had been open a longer period of time (more than two years) before the decrease in required inspection visits showed an increase in the average number of visits after the policy change. This is interesting because facilities open two years or less showed a decrease in the number of complaint visits. There are a number of possible reasons for this difference in outcomes. Those facilities open longer may have more established relationships with ombudsman or residents with more knowledge regarding the complaint process because of interventions by ombudsman. These relationships may therefore affect the complaints filed. There is some concern that facilities that showed an increase are the facilities that have been licensed the longest. It may be assumed that since they were licensed longer they would be more knowledgeable about regulations and therefore not receive as many complaints. Without the regulatory body making annual visits, though, the complaint visits increased
indicating that without oversight these regulations were adhered to less strictly, which is concerning. Murphy (2011) expressed concern over the enforcement of regulations, stating that the regulating agency were too slack. It is possible that the facilities open longer did not see an incentive in following all regulations and more benefit in cutting corners, maybe due to profit margins or staff time.

Even though there were not any statistically significant differences shown in capacity, there was an interesting trend. It would be assumed that as the number of beds increased, the number of complaints would increase proportionally, but this did not seem to be the trend when observing the number of complaint investigation visits as reported. This could be partially due to the sample size. The facilities with 16-49 beds seem to have the largest number of complaint investigation visits per month out of all of the facilities both before and after the policy change. This grouping, however, only has nine facilities that were available so results may be skewed due to one or two facilities that are outliers.

The two facility capacities showing a decrease in complaint investigation visits were one to six beds and 50 to 99 beds. The Flores et al. (2009) study found that one to six bed facilities saw this decrease as well, but had the opposite findings with 50 to 99 capacity facilities showing the greatest number of complaints and an increase after the policy change. This could be due to the noted differences in CCLD office practices.

LLCs were the only ownership type that showed a decrease in the average number of visits. There were only 8 facilities in this sample. It is difficult to make generalizations off of a sample size that is so small and the decrease in the average number of visits was negligible.

**Research Question 2: Cited Deficiencies in All Facilities**

There was not a significant difference in the number of deficiencies cited per visit before and after the 2004 policy change. In the Flores et al. (2009) study, it was stated that they expected a decrease in the total number of deficiencies cited because there was a decrease in the number of required inspection visits. This thesis attempted to control for the decrease in visits by investigating the number of deficiencies cited per visit instead of the mean number of deficiencies per month before and after this policy change. The assumption made by Flores et al. (2009), though, may still be relevant in this study.
**CITED DEFICIENCIES BY FACILITY CHARACTERISTICS: TYPE A AND TYPE B DIFFERENCES**

Type A and Type B deficiencies can be interpreted by LPAs somewhat arbitrarily according to Murphy (2011), so it may be more appropriate to focus on the cumulative number of deficiencies cited more so than looking at these types of deficiencies separately.

**CITED DEFICIENCIES BY FACILITY CHARACTERISTICS: CUMULATIVE CITATIONS**

There are a number of significant increases in all deficiencies cited. Facilities licensed 12 months or less before the policy change and facilities licensed 37 or more months before the policy change show a significant increase.

Of all the categories, facilities open for 37 or more months represented the largest proportion of facilities. The significant increase in deficiencies cited for facilities licensed longer could be due to a number of factors. As stated previously, the relationship with ombudsman and knowledge of reporting procedures for complaints may have created a difference in the number of deficiencies caught by the CCLD.

For facilities licensed 12 months or less, this significant increase could be for a number of reasons. Facilities that are newly licensed could be less knowledgeable of the regulations and this may be why an increase occurred after there were less visits. A decrease in visits by the regulatory body means that there is less of a chance for education on state regulations of RCFEs. This may have an effect on RCFE awareness. Also, because the sample of visits occurring before the policy change is for a short period of time and there are only 12 facilities in this grouping, the selection could be skewed.

Due to the mix of facilities, the significance of the individual/sole proprietorship and of those facilities licensed 37 or more months may not be a mutually exclusive phenomenon. Both groupings of facilities have a majority of the same mix of facilities. Fifty percent of the 54 facilities licensed 37 or more months had an individual/sole ownership status and 28% were 1-6 beds. Of the 33 facilities with individual/sole proprietorship 85%, had been licensed 37 or more months and 49 % were 1-6 beds. Of those facilities licensed 37 or more months, there
were more 100+ bed facilities than in the group of those with individual/sole proprietorship. Otherwise, the types of facilities in each group seem to be quite similar.

When facilities were compared by capacity, there was a significant increase in deficiencies for facilities with 7 to 15 beds and 50 to 99 beds. As stated before, it would be assumed that as capacity increases so would complaints, or in this case, deficiencies cited. Much like the number of complaints per facility, this was not the case with cited deficiencies. It is difficult to conjecture why significant increases occurred in facilities with these capacities. Flores et al. (2009) found that facilities with 50 to 99 beds had double the amount of complaint driven visits as compared to other facilities, but did not have an explanation for this phenomenon. This study shows significance in a different quality measure, but the reason for the increase in either of these quality measures is not apparent. This significant increase may be due to staffing ratios at this capacity level or the size of the facility itself and maintenance of these facilities. It may be useful to investigate this in future studies.

By ownership type, facilities with sole/individual proprietorship showed an increase in deficiencies cited. The reason for this increase in deficiencies could be the same as stated for complaint investigation visits.
CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

Quality of care in assisted living facilities is a public concern that policy is attempting to address. By studying how policy influences quality of care, better systems can be created to improve quality of care for the older adults living in these settings. This study analyzed how a policy that decreased oversight of RCFEs in California in 2004 could have impacted quality of care. This study assessed changes in the number of complaint investigation visits completed by the CCLD and the number of deficiencies cited per visit by the CCLD. Although some increases and decreases were found in complaint driven visits, none of these differences were significant. Significant increases were found in deficiencies cited per visit in certain facility characteristics (facilities open 1-12 months before the policy change, facilities open 37 or more months before the policy change, 7 to 15 bed facilities, 50 to 99 bed facilities, and facilities with individual/sole proprietorship). These results are different from those found in the study examining the same policy change in Northern California (Flores et al., 2009).

CONCLUSION

These increases indicate that the policy change in 2004 could have impacted these types of facilities more so than other facilities. This does not necessarily mean that the quality of care decreased in these types of facilities though. Quality of care is a complex concept so there is a need to have a more comprehensive analysis in order to confirm that quality of care decreased. The measures utilized in this thesis do indicate that the practices of the RCFEs showing significant increases in deficiencies have an effect on the CCLD, increasing the frequency of citations to their workload. The significant increases in citations
seen in certain facility types is especially interesting because of the overall decrease in all types of visits taking place after the policy change.

The results from this study could be different from the Northern California study by Flores et al. (2009) for a number of reasons. Flores et al. (2009) included case management visits that were problem-driven in their calculations of complaint driven visits while this study only counted complaint investigation visits. The CCLD conducts follow up visits to assess if cited deficiencies have been corrected. Since the number of citations per visit increased, the number of follow up visits may have also increased. This should be further investigated. Another reason for the different findings in these two studies may be due to the small sample size of this study compared to the Northern California study. The lack of a difference in the number of complaints could also be due to a lack of education among certain types of facilities. Even though none of the differences were significant, it is interesting that some types of facilities showed increases while others showed decreases. This may simply be a function of the lack of significance, but could also indicate differences in the amount of education certain types of facilities have regarding regulations.

Flores et al. (2009) described the practice style of the CCLD after the policy change as reactive instead of proactive, rushing to issues already occurring as opposed to finding deficiencies before they become problems. According to the GAO (2004), facilities need support and guidance in order to meet regulatory standards and this cannot occur if the regulatory body is only required to visit facilities once every five years. The increase in complaint driven visits after the decrease in required inspection visits could be compensatory, but it could also indicate an actual problem of facilities not receiving the training and education on regulatory guidelines and the importance of these regulations. As stated by both Flores et al. (2009) and Murphy (2011), the citation patterns of the LPAs in the CCLD conducting these visits seem to be vastly different. This could be due to the effect of actual increases in deficiencies leading to a larger workload or could be an issue of standardized education of staff.

It is also important to keep in mind that the citations and complaints contained within the results of this thesis represent actual events and instances of improper implementation of and/or adherence to policies and procedures created for the safety of residents, some of which are occasions of mistreatment, including neglect, abuse, and even death. Quality of
care and regulation of RCFEs is directly impacting the lives of those living in these facilities. The reform package passed in the summer of 2014 may help address some of these issues, but as more and more RCFEs across San Diego County, and the State of California are receiving greater numbers of higher need individuals through the Assisted Living Waiver and other waivers, the need for quality of care is greater than ever. The Assisted Living Waiver in California is also of significance because now approved RCFEs will be providing housing and care using public dollars. This means tax paying citizens of California will be paying for the care of individuals in a system that is broken and deficient.

The RCFE reform legislative package of 2014 is a good step in the right direction, but without continued attention and assessment of quality of care in these facilities, the impact may not be seen. Continuing to study and assess RCFEs in California, and in other states with different policies, is crucial to creating better systems. As the aging population grows and the need for long-term care options increases, these types of studies could lead to greater assurance of quality for people during the last years of their lives.

LIMITATIONS OF THE STUDY

There are many limitations in this study, mostly due to the structures in place for data regarding RCFEs, and the regulation of these facilities. CCLD documentation and release of documentation, the parameters for random selection, reporting bias, LPA training, and the nature of the quality measurement utilized are all limitations to be explored. These limitations have been present in other published studies regarding assisted living and quality of care.

First, this study is affected by the limited availability of CCLD investigation documents. The CCLD will release documents to the public by request, but the process is not timely. CARR has scanned and filed facility investigation reports for most of the facilities in San Diego County. These documents were released to the primary investigator by CARR. This study relies on the proper documentation, storage, and release of documents filed related to visits occurring within a six year period by both the CCLD and CARR. During the period of time when the documents were collected by the primary investigator, two facilities did not have any documents released by the CCLD to CARR, even regarding licensure from up to
ten years previous to this study. The missing data could create bias within the sample or skew the results.

One other limitation of the data used was in the random sampling of facilities. While this study attempted to use a nonbiased sample of facilities to assess quality of care, a truly random sample was impossible because the listing available for RCFE licensed facilities only included facilities that are still open and licensed. This could create bias in the sampling. It is unknown if there is a pattern for the facilities that are still open compared to the facilities that closed between the period of investigation and 2014. The facilities not included because of the sampling procedure may have revealed a different pattern. Therefore, results could be skewed.

In addition to the availability of data, the nature of the data gathered is also a limitation of the study. This study analyzes patterns from complaint visits conducted by the CCLD. This study thus relies on the capability and awareness of residents, staff, and/or their advocates to file complaints regarding quality of care in facilities. Some facilities house individuals who have fewer capacities, including ability to make complaint reports and do not have family to advocate for them. Other individuals, even though there are protections against this, may fear backlash from the facility if a report is filed. Therefore, lack of complaints does not necessarily mean that quality of care is better at one facility versus the other. Once a complaint is made and a facility visit occurs, though, the cited deficiencies can indicate regulatory violations which provide a richer picture. The inclusion of cited deficiencies, in part, delivers a greater understanding of quality of care.

The LPAs conducting the visits have an effect on reporting, especially since citing of deficiencies relies on individual judgment. A descriptive analysis of documents from visits in San Diego County described the regulation and documentation of visits as deficient, the LPAs as incompetent, and the system as broken (Murphy, 2011). The current study thus relies on data that is not comprehensive and may have been ineffectually reported. Every deficiency present in a facility may not have been properly cited. This has been cited as a limitation of many studies on assisted living (Flores et al., 2009; Phillips & Guo, 2011; Phillips et al., 2013). Even though this is the case, the 886 documents coded from 83 facilities may provide a large enough sample to still illuminate patterns that are not a matter of chance.
Also, the system currently only tracks and records negative and reported outcomes, such as deficiencies and complaints, which do not create a system of quality assurance, but instead fragments of quality measures. The fragmentation in regulation has been cited in many studies as the reason why assisted living facilities are difficult to study (Hawes & Phillips, 2007; R. A. Kane & Wilson, 2007; Morgan et al., 2008; Phillips & Guo, 2011). Generalizability is also an issue, with variances in regulation and available data from state to state (Hawes & Phillips, 2007; R. A. Kane & Wilson, 2007; Morgan et al., 2008). This study does not assure a full picture of quality of care in these facilities. The measures used do indicate practice patterns by the CCLD and add to the discourse of how policy can impact quality of care.

The analysis of differences between the frequencies before and after the policy change used a measure that may have significance by chance, more so than due to a pattern. With the t-tests ran in this study, there was a 5% chance that the differences shown were coincidental. Since over 50 t-tests were run, the likelihood that some will come up as significant is high. Therefore, a Type 1 error could have occurred due to multiple pairwise comparisons (Alcaraz, 2012). However, with how the data is formatted, multiple t-tests were the only appropriate analysis.

Lastly, due to the data available and the analysis completed, this study is exploratory in nature. This means that concrete conclusions cannot be made.

In spite of these limitations, there are many strengths in this study. The documentation and reporting from the CCLD is all based on the same set of regulations as outlined by Title 22. Even though there may be some differences in reporting procedures among individuals, all LPAs have the same training and are using the same document as the basis for reporting. Also, all complaints that have been reported are required by law to be investigated. So the reports used are a representation of all complaints lodged against a facility.

Although there may be some bias due to the facilities gathered, the founders of CARR stated that they had not noticed a difference in the citation patterns of facilities that have been closed and those that are still open. Lastly, the use of two different measurements allowed for the analysis of interaction patterns and reinforcement of patterns through both measurements.
RECOMMENDATIONS

Since RCFEs are part of a larger system, multiple agencies are involved in implementing and enforcing quality of care. This investigation only focused on one of these agency’s reports, the CCLD. To obtain a larger picture of what other systems were in place, affecting and interacting with quality of care, other systems, such as ombudsman’s practices and facility level policies and interactions, should be investigated further.

There should be focus on researching the implementation of upcoming legislative changes for RCFEs to see if it affects quality of care and quality of life. Research should include facility level data, focusing on health outcomes and staffing as well as information from the CCL documents. With a richer picture of the impacts of policy, better regulations can be implemented to influence a higher standard of care.

Lastly, the difficulty of establishing trends in quality of care in this market is substantial. Quality of care trends could be more transparent with a higher frequency of required annual inspection visits as well as better access to records of cited deficiencies. Skilled nursing uses a number of measures, including health outcomes, which assists in studying trends over time. The implementation of a system like that of skilled nursing is not as feasible in this market due the funding and built-in incentives. This, however, would be more ideal than the information currently available. The suggestions put forth by Flores and Newcomer (2009) to create a comprehensive system would make trends in this market easier to study and the market itself more transparent.

Beyond tracking trends, the availability of information regarding quality of care in assisted living would also assist consumers in making more informed decisions. People are placing their loved ones in facilities with trust that they will be given the proper care. This, however, is not happening in all cases. Transparency for assisted living care could never completely assure quality, but more transparency would give families and individuals a more complete picture.
REFERENCES


California Department of Aging. (2004). *Table 115. California projected population age 60 and over for 2020 by race and Hispanic origin for state, planning and service areas (PSA), and counties [Table]*. Retrieved from https://www.aging.ca.gov/Data_and_Statistics/2000_Census_Aging_Data/Docs/T115.pdf


APPENDIX A

RESULTS TABLES

Table 1. Facility Characteristics of RCFEs

<table>
<thead>
<tr>
<th>Facility Characteristics</th>
<th>Frequency (n=83)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
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</tr>
<tr>
<td>Months Open Before Policy Change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-12</td>
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<td>14.5</td>
</tr>
<tr>
<td>13-24</td>
<td>12</td>
<td>14.5</td>
</tr>
<tr>
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<td>37+</td>
<td>54</td>
<td>65.1</td>
</tr>
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<td>Capacity (beds)</td>
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<td></td>
</tr>
<tr>
<td>1-6</td>
<td>21</td>
<td>25.3</td>
</tr>
<tr>
<td>7-15</td>
<td>22</td>
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<td>16-49</td>
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<td>10.8</td>
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<td>50-99</td>
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<td>Ownership Status</td>
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<tr>
<td>Corporation</td>
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</tr>
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<td>9.6</td>
</tr>
<tr>
<td>Partnership</td>
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<td>9.6</td>
</tr>
<tr>
<td>Visit Type</td>
<td>Before Policy Change in January 2004</td>
<td>After Policy Change in January 2004</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Mean</td>
</tr>
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<td>All Visits</td>
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</tr>
<tr>
<td>Complaint Inspection Visits</td>
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</tr>
<tr>
<td>Required Inspection Visits</td>
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</tr>
<tr>
<td>Other Visits(^2)</td>
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</tr>
<tr>
<td>Deficiencies Cited</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
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</tr>
<tr>
<td>Type A(^3)</td>
<td>442</td>
<td>3.19</td>
</tr>
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<td>Type B(^4)</td>
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</tr>
<tr>
<td>Undefined</td>
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<td>0.09</td>
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</table>

1. Mean calculated as per facility per licensed year. Facilities were licensed up to 48 months before policy change in 2004. All facilities were licensed from 2004-2006 after the policy change.
2. “Other Visits” include: Case management visits, Pre-licensing, Post license visit, Follow up for complaint, deficiency, incident or other, Not known, Verify closure, Management action and Non-compliance conference interactions.
3. Type A deficiencies are administered when there is immediate danger to the health and safety of residents at the facility
4. Type B deficiencies are administered when there is potential danger to the health and safety of residents at the facility
### Table 3. Complaint Investigation Visits by Facility Characteristics

<table>
<thead>
<tr>
<th>Facility Characteristics</th>
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<th>After January 2004 Policy Change</th>
<th></th>
<th>p-value²</th>
</tr>
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<tbody>
<tr>
<td></td>
<td># of Facilities</td>
<td>Frequency</td>
<td>Mean¹</td>
<td>Frequency</td>
<td>Mean¹</td>
</tr>
<tr>
<td>All Facilities</td>
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<td>107</td>
<td>0.53</td>
<td>136</td>
<td>0.60</td>
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<td>Months Open Before Policy Change</td>
<td>F=0.813, df1/df2=3/35, p=0.495</td>
<td>F=1.650, df1/df2=3/43, p=0.192</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1-12</td>
<td>12</td>
<td>1</td>
<td>0.75</td>
<td>20</td>
<td>0.17</td>
</tr>
<tr>
<td>13-24</td>
<td>12</td>
<td>7</td>
<td>0.39</td>
<td>6</td>
<td>0.28</td>
</tr>
<tr>
<td>25-36</td>
<td>5</td>
<td>10</td>
<td>0.80</td>
<td>21</td>
<td>1.00</td>
</tr>
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<td>37-48</td>
<td>54</td>
<td>89</td>
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<td>0.64</td>
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<td>Capacity</td>
<td>F=1.113, df1/df2=4/34, p=0.366</td>
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<td></td>
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<tr>
<td>1-6 beds</td>
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<td>7</td>
<td>0.27</td>
<td>14</td>
<td>0.25</td>
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<tr>
<td>7-15 beds</td>
<td>22</td>
<td>33</td>
<td>0.46</td>
<td>33</td>
<td>0.56</td>
</tr>
<tr>
<td>16-49 beds</td>
<td>9</td>
<td>15</td>
<td>0.66</td>
<td>33</td>
<td>1.16</td>
</tr>
<tr>
<td>50-99 beds</td>
<td>15</td>
<td>19</td>
<td>0.62</td>
<td>30</td>
<td>0.33</td>
</tr>
<tr>
<td>100+ beds</td>
<td>16</td>
<td>33</td>
<td>0.60</td>
<td>26</td>
<td>0.77</td>
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<tr>
<td>Ownership</td>
<td>F=1.091, df1/df2=3/35, p=0.366</td>
<td>F=0.407, df1/df2=3/43, p=0.749</td>
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<td>Individual/Sole Proprietorship</td>
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<td>0.56</td>
<td>56</td>
<td>0.63</td>
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<td>0.52</td>
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<td>LLC</td>
<td>8</td>
<td>13</td>
<td>0.58</td>
<td>17</td>
<td>0.56</td>
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<tr>
<td>Partnership</td>
<td>8</td>
<td>2</td>
<td>0.13</td>
<td>16</td>
<td>0.17</td>
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</tbody>
</table>

1. All means calculated as complaint investigation visits per licensed month. Facilities were licensed up to 48 months before policy change in 2004. All facilities were licensed from 2004-2006 after the policy change.
2. p-values in this table are a comparison of differences between the means as displayed before and after January 2004.
<table>
<thead>
<tr>
<th>Deficiency Type</th>
<th># of Facilities</th>
<th>Frequency</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th># of Facilities</th>
<th>Frequency</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Deficiencies</td>
<td>83</td>
<td>673</td>
<td>1.43</td>
<td>1.37</td>
<td>546</td>
<td>1.91</td>
<td>2.48</td>
<td></td>
<td>0.076</td>
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<tr>
<td>Type A Deficiencies Cited</td>
<td>83</td>
<td>442</td>
<td>1.02</td>
<td>1.20</td>
<td>410</td>
<td>1.41</td>
<td>1.82</td>
<td></td>
<td>0.062</td>
</tr>
<tr>
<td>Type B Deficiencies Cited</td>
<td>83</td>
<td>203</td>
<td>0.36</td>
<td>0.40</td>
<td>136</td>
<td>0.51</td>
<td>0.87</td>
<td></td>
<td>0.148</td>
</tr>
</tbody>
</table>

1. All means calculated as deficiencies cited per visit
2. p-values in this table are a comparison of differences between the means as displayed before and after January 2004.
3. All deficiencies is the sum of Type A deficiencies, Type B deficiencies, and undefined deficiencies. Type A deficiencies are administered when there is immediate danger to the health and safety of residents at the facility. Type B deficiencies are administered when there is potential danger to the health and safety of residents at the facility.
Table 5. All Deficiencies\(^1\) Cited by Facility Characteristics of Residential Care Facilities for the Elderly

<table>
<thead>
<tr>
<th>Facility Characteristics</th>
<th>Before January 2004 Policy Change</th>
<th>After January 2004 Policy Change</th>
<th>p-value(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># of Facilities</td>
<td>Frequency</td>
<td>Mean(^2)</td>
</tr>
<tr>
<td>All</td>
<td>83</td>
<td>673</td>
<td>1.43</td>
</tr>
<tr>
<td>Months open before policy change</td>
<td></td>
<td></td>
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<tr>
<td>1-12</td>
<td>12</td>
<td>34</td>
<td>0.34</td>
</tr>
<tr>
<td>13-24</td>
<td>12</td>
<td>185</td>
<td>0.67</td>
</tr>
<tr>
<td>25-36</td>
<td>5</td>
<td>11</td>
<td>0.09</td>
</tr>
<tr>
<td>37-48</td>
<td>54</td>
<td>443</td>
<td>0.50</td>
</tr>
<tr>
<td>Capacity (beds)</td>
<td>F=2.373, df1/df2=4/77, p=0.060</td>
<td>F=1.548, df1/df2=4/69, p=0.198</td>
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<tr>
<td>1-6</td>
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<td>117</td>
<td>0.46</td>
</tr>
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<td>7-15</td>
<td>22</td>
<td>327</td>
<td>0.67</td>
</tr>
<tr>
<td>16-49</td>
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<td>79</td>
<td>0.56</td>
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<td>50-99</td>
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<td>79</td>
<td>0.38</td>
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<tr>
<td>100+</td>
<td>16</td>
<td>71</td>
<td>0.28</td>
</tr>
<tr>
<td>Ownership Status</td>
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<tr>
<td>Partnership</td>
<td>8</td>
<td>22</td>
<td>0.23</td>
</tr>
</tbody>
</table>

1. All deficiencies is the sum of Type A deficiencies, and undefined deficiencies.
2. All means calculated as deficiencies cited per visit.
3. p-values in this table are a comparison of differences between the means as displayed before and after January 2004.
Table 6. Type A Deficiencies Cited by Facility Characteristics of Residential Care Facilities for the Elderly

<table>
<thead>
<tr>
<th>Facility Characteristics</th>
<th>Before January 2004 Policy Change</th>
<th>After January 2004 Policy Change</th>
<th>p-value&lt;sup&gt;2&lt;/sup&gt;</th>
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</thead>
<tbody>
<tr>
<td></td>
<td># of Facilities</td>
<td>Frequency</td>
<td>Mean&lt;sup&gt;1&lt;/sup&gt;</td>
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1. All means calculated as deficiencies cited per visit
2. p-values in this table are a comparison of differences between the means as displayed before and after January 2004.
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<td>Partnership</td>
<td>8</td>
<td>10</td>
<td>0.31</td>
</tr>
</tbody>
</table>

1. All means calculated as deficiencies cited per visit
2. p-values in this table are a comparison of differences between the means as displayed before and after January 2004.
APPENDIX B

SAMPLE LIC 9909

---

**STATE OF CALIFORNIA - HEALTH AND HUMAN SERVICES AGENCY**

**COMPLAINT INVESTIGATION REPORT**

This is an official report of an unannounced visit/investigation of a complaint received in our office on 12/21/2005 and conducted by Evaluator Fausto Aguilar

| FACILITY NAME: SPRINGS AT OCEANSIDE, THE |
| DIRECTOR: KELLY PACHECO |
| ADDRESS: 3524 LAKE BLVD. |
| CITY: OCEANSIDE |
| CAPACITY: 186 |
| MET WITH: |

**ALLEGATION(S):**

1. As reported to me (Laurie Bennett) by Executive Director, Kelly Pacheco, resident #1 struck resident #2 on the head with his cane unexpectedly, causing a 2 inch laceration to the scalp.

**INVESTIGATION FINDINGS:**

1. The allegation is true as reported by facility. The date of the incident was 12-12-05. The facility has taken appropriate action. Facility filed an Suspected Elder abuse report and provided additional information to the LPA. Both residents will be leaving the facility. 911 was called by facility at the time of the incident and the perpetrator was removed from the facility. Facility administrator told the LPA they will provide additional information from law enforcement when they receive it. The perpetrator was given an assessment by his physician and psychiatrist. His room has been changed and both men live on different floors now. The suspect denies hitting the victim and has never had difficulty with anyone in the past as reported by facility.

---

**SUPERVISOR'S NAME:** Sylvia Lucero  
**TELEPHONE:** (951) 752-4137  
**LICENSED EVALUATOR NAME:** Fausto Aguilar  
**TELEPHONE:** (951) 757-2310  
**DATE:** 12/22/2005

I acknowledge receipt of this form and understand my appeal rights as explained and received.

**FACILITY REPRESENTATIVE SIGNATURE:**

**DATE:** 12/22/2005

---

**APPENDIX B**
APPENDIX C

SAMPLE LIC 809

STATE OF CALIFORNIA - HEALTH AND HUMAN SERVICES AGENCY

FACILITY EVALUATION REPORT
See other side for explanation of form.

FACILITY NAME: Melissa's
ADDRESS: 423 Melrose Ave
TELEPHONE: (310) 477-6777

DATE: 7/15/00

TYPE OF VISIT: [ ] OFFICE [ ] EVALUATION [ ] MANAGEMENT [ ] MET WITH LIC MGR
[ ] PRELICENSING [ ] ANNUAL [ ] FOLLOW-UP [ ] ANNOUNCED [ ] UNANNOUNCED

DEFICIENCY INFORMATION FOR THIS PAGE:

No Deficiency Cited

CIVIL PENALTY INFORMATION:
[ ] Penalty Assessed [ ] Penalty Notice Given
[ ] Penalty Cleared [ ] Not Applicable

COMMENTS/DEFICIENCIES

LPA made an unannounced SITE visit to facility for a comprehensive annual review. LPA met with Administrator.
LPA toured physical plant, inside and out. Client medications, food service, WAIS, cleaning, phone service, resident and staff records. LPA did发现问题 in today's visit.

PLAN OF CORRECTIONS (POC)

7/18/00

Failure to correct the above cited deficiencies, on or before the Plan of Correction (POC) due date, may result in a civil penalty assessment of $50 per day (Family Child Care Homes, Foster Family Homes and all governmental agencies are exempt).

APPROVED

AGENCY COPY

Page 1 of 1 pages
APPENDIX D

CARR DESCRIPTION OF DATA

CARR PUBLIC DOCUMENTS DATA: BRIEF DESCRIPTION OF THE DATABASE

✓ 715 Facility Files
✓ 16,000 Public Documents
✓ Data Range 2000-2012
✓ Collected Biennially

CARR is the first and only organization to harvest California public records on assisted living facilities (ALF) and to maintain a database reflective of the assisted living industry in a specified region—San Diego. Unlike other databases, CARR’s data is not supplied by facilities themselves. Rather, the data is collected from the public documents in individual ALF files maintained by the California’s Department of Social Services (DSS), Community Care Licensing Division (CCLD), and San Diego Regional Office.

CARR obtains access to facility files by submitting California Public Records Act (CPRA) requests to the San Diego CCLD regional office. A CARR representative scans facility files creating PDF versions of each document. Documents of primary importance are as follows:

- Facility Applications (LIC 200s)
- Facility License (LIC 203As)
- Facility Waivers and Exceptions
- Facility Evaluations (LIC 809s)
- Complaint Investigations (LIC 9099s)
File review is conducted biennially and takes approximately 12 months. For repeat files, CARR only scans those documents necessary to update our facility profiles. You may visit the Facility Search on our website to view a facility profile. Please note, however, that a subscription is required to view actual public documents. Please contact us for further information.

Potential Uses of CARR Data

CARR data is a unique resource that can be used for research related to five main aspects of California’s ALF industry: (1) Facility Operations and Administration, (2) Application and Enforcement of Title 22, (3) DSS Practices and Performance, (4) Resident Abuse and Neglect, and (5) other descriptive statistics on local ALF industry.

How to Obtain CARR Data

Please contact our office refereformorg@gmail.com or (619) 795-2165.

For More Information on CARR

Visit our website www.rc refereform.org.
APPENDIX E

SAMPLE LIC 203A

State of California
Department of Social Services
Facility Number: 374601474
Effective Date: 04/24/2003 Total Capacity: 96
In accordance with applicable provisions of the Health and Safety Code of California, and its rules and regulations, the Department of Social Services hereby issues
this License to
AL US/BONITA SENIOR HSG LP/SUNRISE SNR LVG MNGT
to operate and maintain a
RESIDENTIAL CARE ELDERLY
Name of Facility
SUNRISE ASSISTED LIVING OF BONITA
3302 BONITA ROAD
CHULA VISTA, CA 91910
This License is not transferable and is granted solely upon the following:
FACILITY SERVES RESIDENTS 60 YEARS OF AGE AND OLDER, ALL OF WHOM MAY BE NON-AMBULATORY, 30 OF WHOM MAY BE BEDRIDDEN ON THE FIRST FLOOR ONLY; FACILITY HAS A HOSPICE WAIVER FOR UP TO 12 RESIDENTS. FACILITY HAS A TWENTY-EIGHT (28) BED DEMENTIA UNIT WITH DELAYED EGRESS EXITS.
Client Groups Served:
RCFE / DEMENTIA
Complaints regarding services provided in this facility should be directed to:
CCLD Regional Office
(819) 767-2300
Jeffrey Hiratsuka
Deputy Director, Community Care Licensing Division

Authorized Representative of Licensing Agency

POST IN A PROMINENT PLACE
APPENDIX F

IRB APPROVAL

SAN DIEGO STATE UNIVERSITY

Exempt Verification
Reg: 46.101(b)(4)

November 4, 2014

Student Researcher: Miss Anna Hendricks
Faculty Sponsor: Dr. Jong Won Min
Department: Social Work
IRB Number: 1312089

Re: The frequency of complaint driven visits and cited deficiencies in Residential Care Facilities for the Elderly in San Diego County, California: Comparing before and after a policy change

Dear Miss Hendricks,

The above referenced research was reviewed and verified as exempt in accordance with SDSU's Assurance and federal requirements pertaining to human subjects protections within the Code of Federal Regulations (45 CFR 46.101). This review applies to the conditions and procedures described in your protocol.

The determination of exemption is final and requests for continuing review (Progress Reports) are not required for this study. However, if any changes to your study are planned, you must submit a modification request and receive IRB verification that the modification is exempt (per 45 CFR 46.101). To submit a modification request, please follow the necessary steps below:

Modification steps:
- Access the protocol via the Webportal (https://sunsot.sdsu.edu/pls/webapp/web_menu.login/)
- Protocol main page click on “Modifications” to enter a report
- Once the report has been filled out completely, click “submit”
- Make sure to email the IRB (irb@mail.sdsu.edu) notifying them that a modification has been submitted.

Additionally, please notify the IRB office if your status as an SDSU-affiliate changes while conducting this research study (you are no longer an SDSU faculty member).

Sincerely,
Important Information for ALL exempt studies:

To access IRB review application materials, SDSU's Assurance, the 45 CFR 46, the Belmont Report, and/or any other relevant policies and guidelines related to the involvement of human subjects in research, please visit the IRB website at

a) If this research involves the use of existing or secondary data sources, information obtained must be recorded so that subjects cannot be identified, either directly or through identifiers linked to the subjects.

b) If information will be obtained from individual medical records, please check with the organization authorized to provide access to these records to determine whether regulations relating to the Health Insurance Portability and Accountability Act (HIPAA) pertain to your research. Likewise, if academic records are accessed, Federal Education Rights and Privacy Act (FERPA) requirements must be respected. Notify the SDSU IRB office if protocol revisions are necessary to comply with HIPAA regulations.

c) If recruitment will take place through an outside agency or organization, confirm with that institution that you have permission to conduct the study prior to initiation of any study activities. If this research involves the use of existing or secondary data sources, confirm with the data owner that you have permission to access the data.

d) Approval is contingent upon the completion of the SDSU human subjects tutorial (found at: http://www-rohan.sdsu.edu/~gra/login.php) by all members of the research team. This certification must be renewed every 2 years.