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The Effect of Federal Reporting Regulations on Hospital Investment in Community Building

Dorothy Magasis Escobar
Walden University

Walden University

College of Health Sciences

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Dorothy Escobar

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Dr. Aimee Ferraro, Committee Member, Public Health Faculty
Dr. Patrick Tschida, University Reviewer, Public Health Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
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Abstract

The role of hospitals as partners in community health improvement is changing, especially for nonprofit hospitals receiving tax exemptions in exchange for providing benefits to the community. There are examples of reported health improvement activities funded through hospitals' charitable donations, but there's a gap in the literature on the effect of policy and legislation on hospitals' investments in community building activities that address the social determinants of health. Grounded in eco-social theory, this quantitative, correlational study compared secondary data from CA's nonprofit hospitals' annual 2009 and 2012 reports to determine what, if any, changes have occurred in the hospitals' investments in community building since the 2010 implementation of the IRS' new community benefit standard. Matched-pair *t* test and chi-square goodness of fit tests were used to determine if there is a relationship between IRS regulations and how hospitals distribute their charitable dollars. Independent sample *t* test and ANOVA were run to determine if the characteristics of the hospitals studied were predictive of the changes found. Aside from a shift in the distribution of community building investments by types of activities, this study found no significant change in the use of nonprofit hospitals' community benefit funds to address the social determinants of health. Analysis did not indicate that current public policy supports hospitals' shift from sick-care institutions to institutions that promote population health. Rather, it revealed that CA's hospitals currently make only small financial contributions to activities that address the social determinants of health missing opportunities to leverage their resources to more effectively impact multisector efforts to improve population health and reduce health inequities.

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Chapter 1: Introduction to the Study

Introduction

The role of hospitals as partners in community health improvement is changing (Kabel, 2013). This change is especially true for nonprofit hospitals that receive tax exemptions in exchange for providing benefits to the community, known as "community benefit" law (National Association of County & City Health Officers [NACCHO], 2010). Canadian researchers recommended further study in hospital-public health partnerships that address the root causes of health problems in order to support reforms in both policy and practice (Poland & Tobin, 2001). This recommendation is also relevant to the United States, where such studies could inform the decisions and actions of policymakers and hospital administrators. That could lead to policy, funding, and practice reforms in hospital community benefit to include community building strategies.

Current federal legislation offers new frameworks for planning, implementing and reporting the community benefit activities of nonprofit hospitals (Crossley, 2012). A new Internal Revenue Service (IRS) code focuses on hospital investments in increasing access to healthcare services and in prevention activities that address individual risk behaviors (Hunter, 2009). At the same time, a provision in the 2010 Patient Protection and Affordable Care Act (ACA) directs hospitals to become active partners in local public health systems to improve community health and to reduce population health inequities. However, the ACA's direction was not included in the IRS ruling (Crossley, 2012). The ACA and the new IRS tax code are new legislation, and there is still a gap in the literature on the effect of these divergent federal frameworks that are imposed upon the investments made by nonprofit hospitals in the health of their communities.

California is among 17 states that instituted hospital community benefit statutes prior to the establishment of the new federal regulations (Nelson, Skopac, Mueller, Wells, & Boddie-Willis, 2014). Changes to the federal tax code passed in 2009 and were implemented in 2010 with the creation of Schedule H of the 990 Form, which is required for all nonprofit hospitals. Soon after, passage of the ACA in 2010 brought additional new federal requirements for these hospitals. However, on a state level, regulating of the community benefits of nonprofit hospitals began in the 1990s. State legislators in California passed Senate Bill SB697 in 1994, which resulted in the creation of California Health and Safety Code Section 127345 (Chen, 2007). Public health and health policy researchers and practitioners have been exploring questions about the potential effects of the IRS regulations on states such as California, which previously had community benefit laws in place (Chen, 2007; Martin, 2013). Discrepancies between state and federal legislation and guidelines could hinder the execution of these regulations, and even serve as a disincentive for investment in the areas not clearly identified as mandates. The new IRS code has the potential to incentivize nonprofit hospitals to invest in upstream primary prevention activities to further ACA goals, particularly if it were to include reporting of both inputs and outcomes (Rubin, Singh, & Jacobson, 2013). However, these very activities, known as "community building," were initially removed from reportable community benefit investments by the IRS (Lunder & Liu, 2008; Bakken & Kindig, 2012). While the IRS' final ruling allows hospitals to use their charitable dollars to support community building activities, these activities are not categorized as "community benefits" in the IRS framework (IRS, 2014; Courtney, 2012). In addition, the IRS requires additional data that proves the positive impact of these activities on health

outcomes. This proof is not required of any of the activities classified as a “community benefit” (Courtney, 2012).

The extra burden for inclusion of community building activities is reflective of the problem of the acceptance and application of community building research for the development of health and public health policy (Hunter, 2009). The social determinants of health framework is a part of modern public health (Courtney, 2012) and there is a growing body of research on interventions that positively impact the social determinants (Braveman, Egerter, Woolf, & Marks, 2011). Nonprofit hospitals *do* engage in many activities beneficial to the health of their communities and to the populations they serve, for example, interventions that reduce disparities in problems such as diabetes, heart disease, HIV, and asthma (Gray & Schlesinger, 2009: Williams, J., 2009; & James, et al., 2012).

However, community-level analysis and intervention in of public health problems is complex, and it is not possible to establish causality of any one intervention on improved health status (Hunter, 2009; Burris, 2011). Health and public health policymaking is slow to catch up to changing public health research frameworks and criteria (Burris, 2011). Community building activities that address the social determinants of health require interventions that take time and can produce invisible results such as cultural shifts and shifts in power relations (Braveman, Egerter, Woolf, & Marks, 2011). They do not lend themselves easily to the health and public health policy status quo of supporting concrete, short-term, and visible results within the required reporting period (Hunter, 2009), such as a tax year. With ACA’s focus on a national healthcare system, hospital administrators have to reach beyond the framework of evidence-based medicine

to include evidence-based public health practices that include the multifactor complexity of community building activities that address the social determinants of health (Braveman, Egerter, Woolf, & Marks, 2011). The literature on the IRS' new community benefit standard does not address this problem in its exclusion of community building as a community benefit. Nor does it address the effect of contradictions between federal and state expectations of hospitals.

California has had community benefit reporting legislation for nonprofit hospitals since 1994 (Rosenbaum, Byrnes & Rieke, 2013; State of California Office of Statewide Health Planning and Development [OSHPD], 2015). Contrary to the new federal framework, the state still includes community building activities as legitimate reportable activities (OSHPD, 2015). The debate on how to fund the primary prevention activities encouraged by public health and healthcare researchers and practitioners continues. In the meantime, the effect of the new IRS code on hospitals already required to report on community benefit investments is not yet known in California. This represents a gap in the literature on research on hospitals' investments in public health efforts to address the social determinants of health through the use of their community benefit dollars.

This study compared the size of California nonprofit hospital investments in community building activities prior to and following the IRS' 2010 ruling regulating community benefit investments. Although preliminary attempts to comply with the new regulations began in 2010, the new IRS standard did not go into effect fully until 2012. Specifically, this study compared 2009 and 2012 hospital community benefit reports. The study also compared the type of community building activities supported, based on the nine categories defined by the IRS: physical improvements and housing, economic

development, community support, environmental improvements, leadership development and training for community leaders, coalition building, community health improvement advocacy, workforce development, and other community building activities shown to improve community health (Nelson, Skopac, Mueller, Wells, & Boddie-Willis, 2014). Annual reports are submitted to state and federal regulators by hospitals each tax year. The 2009 and 2012 reports were analyzed to reveal whether there was a relationship between federal regulations and how hospitals distribute charitable dollars. The change in regulations may have impacted community health improvement efforts by limiting resources for community building.

The study fills a gap in the literature on the role of hospitals (a) in community and population health improvement and (b) their potential to invest resources previously needed to provide uncompensated care to needy patients. As a result of this study, favorable hospital funding policies could be developed that address the social determinants of health in local communities. This chapter covers the following topics: background of this study, the problem being addressed, the research questions, nature of the study, its scope, delimitations, limitations, and significance.

Background

Understanding the complexity of nonprofit healthcare requires understanding the background of the current regulatory framework. All nonprofit organizations in the United States must demonstrate how they have served the community (U.S. Government Accountability Office, 2008). This is also true for nonprofit hospitals. As is true of any nonprofit organization in this country, hospitals must justify their tax-exempt status (Young, Chou, Alexander, Lee, & Raver, 2013). Understanding the background of the

current regulatory framework helps to understand why some organizations pay state or federal taxes while others are excused. One exemption for hospitals is related to IRS community benefit laws.

Community benefit laws have their roots in a 1956 IRS ruling that ordered hospitals to provide as much charity care as possible (Folkemer, Spicer, Mueller, Somerville, Brow, Milligan, & Boddie-Willis, 2011). The ruling stood until the passage of the 1960s national Medicaid and Medicare healthcare entitlement programs, which extended access to healthcare to many of the medically indigent (Lunder & Liu, 2008). With the poor having greater access to services, hospitals then needed to explore other activities, such as health promotion, to justify their tax exemption (Ginn & Moseley, 2006). In 1969, passage of IRS Revenue Ruling 69-545 created a policy context for nonprofit hospitals' charitable contributions, known as community benefit. However, the lack of concrete guidelines and standards defining in which activities they should be investing left the field with significant limitations (Bakken & Kindig, 2012). While there were no specific guidelines for this on a federal level, several states passed legislation in the 1990s requiring that nonprofit hospitals engage in processes to understand and address the community health needs of their communities. These became known as community benefit laws (Ginn & Moseley, 2006).

Inconsistencies between state community benefit laws and the lack of national standards generated concern among federal legislators (Somerville, 2012). The legislators' questions regarded whether nonprofit hospitals provide enough benefit to communities to justify tax exemption, and how hospitals account for that benefit (Barnett, 2009). Iowa's Senator Grassley led a series of Congressional hearings in 2007 on this

issue (Sommerville, 2012), which resulted in pressure on the IRS to provide guidance and regulatory frameworks for nonprofit hospitals' community benefits (Bazzoli, Clement, & Hsieh, 2010). Senator Grassley supported the standards and guidelines proposed by the Catholic Health Association (CHA) and VHA, Inc, formerly known as Volunteer Hospitals of America. (CHA, 2006).

The CHA and VHA guidelines described specific criteria about what qualifies as a community benefit activity for nonprofit hospitals (CHA, 2006), which proposed that community benefit activities must respond to a demonstrated need, requiring periodic assessment of community health needs (CHA, 2006). In addition, the activity must focus on at least one of the following goals: reducing public burden, increasing knowledge in the field, enhancing population health, or increasing access to services (CHA, 2006). The Grassley hearings resulted in revised IRS reporting standards for nonprofit hospitals' community benefits (Bazzoli, Clement, & Hsieh, 2010). Nonprofit hospitals were mandated to report annual community benefit expenses and activities on IRS Form 990, Schedule H (Bazzoli, Clement, & Hsieh, 2010), which increases transparency and accountability for hospitals' community benefit activities (American Hospital Association, 2009). This regulatory change marks the first national standard for nonprofit hospitals' charitable investments in the communities they serve (Rosenbaum, Byrnes, & Rieke, 2013).

Table 1

Summary of Community Benefit Standards for Charitable Hospitals

Requirement	Federal	California
Update Community Health Needs Assessment (CHNA)	X	X

every 3 years		
Adopt an implementation strategy (community benefits plan), including evaluation of its effectiveness	X	X
Annually submit report on community benefit plan activities conducted and economic value of community benefits provided to target community – including report of community building activities as community benefits		X
Annually submit report on community benefit plan activities conducted and economic value of community benefits provided to target community – including only those community building activities clearly demonstrated to improve health outcomes, but reported separate from community benefits	X	
Separate report of economic value of community benefits provided to the poor/underserved and those provided to the broader community		X
Provide public access to CHNA, community benefit plan/implementation strategy, and reports	X	X
Maintain financial assistance policies (FAP) & notify patients of how to apply for assistance	X	
Limitation on charges, how and how often charges can be determined	X	
Notification of billing and collections processes to all patients	X	

NOTE: Adapted from McLeod, A., & Kemp, A., (2015). IRS Publishes Final Rule for Tax-Exempt Hospitals. *California Hospital Association News*.

More changes for hospitals' community benefit practices have come about with the 2010 passage of the ACA. Its provisions further extend healthcare coverage to nearly all uninsured individuals in the country. This provision may reduce the number of hospital patients requiring charity care (Folkemer, Spicer, Mueller, Somerville, Brow, Milligan, & Boddie-Willis, 2011). With these legislative changes, the ACA requires nonprofit hospitals to put an even greater focus on prevention and on addressing community health needs (Folkemer, Spicer, Mueller, Somerville, Brow, Milligan, & Boddie-Willis, 2011). In addition, the ACA requires hospitals to significantly reform

service delivery models to meet new Medicaid and Medicare requirements on quality measures and the reduction of readmissions (Principe, Adams, Maynard, & Becker, 2012). These changes potentially will incent hospitals to look more towards community-based health protection and promotion activities (Principe, Adams, Maynard, & Becker, 2012). Just as the 1969 IRS ruling formed the basis for a new community benefit law, Schedule H and the ACA created a new era of standardized accountability.

Whatever the specific service delivery model adopted, the role of hospitals as partners in community health improvement is changing. On its web page describing the nation's public health system, the U.S. Department of Health and Human Services (HHS) states that "The public health system was once thought of as comprising only official government public health agencies, but now is understood to include both other public-sector agencies…and private-sector organizations whose actions have significant consequences for the health of the public" (HHS, 2012, paragraph 1). This change is especially true for nonprofit hospitals, which receive tax exemptions in exchange for providing benefits to the community, referred to as "community benefit" law (NACCHO, 2012). These hospitals must respond to the new IRS regulations related to their nonprofit status under section 501c3 of the tax code, which includes collaborating with local public health agencies to improve community health (IRS, 2009). The IRS currently defines community benefit as "the promotion of health for a class of persons sufficiently large so the community as a whole benefits" (NACCHO, 2012, para 2). Even for hospitals with a strong community orientation, proactive investment in activities that reach into the community to promote and improve health is not always evident in their reports (Rausch & Vyzas, 2012).

The IRS' final ruling on the community benefit standard for tax-exempt hospitals was published in the *Federal Register* in December, 2014 (IRS, 2014). This federal standard has been established as the minimum requirement (MacLeod & Kemp, 2015), and has not altered California's related legislation. While the state of California maintains that community building activities and their economic value can be categorized and reported as community benefits, the IRS continues to exclude them from the category of community benefits (IRS, 2014). Experts in the field advocate for the potential of nonprofit hospital collaboration in addressing the social determinants of health (Trocchio, 2015; Health System Learning Group, 2013; Barnett, 2014). However, the IRS' final ruling states that hospitals may include these activities in their reporting in a separate section, and only if they can point to the evidence establishing their linkage to health outcomes (IRS, 2014).

Community benefit law continues to evolve and demonstrate the potential to guide investments of nonprofit hospitals in the health of their communities. However, gaps continue to limit that potential. The very nature of self-reporting and inconsistent standards create confusion for hospitals about what activities it should be engaging in, and when and how to report what they do (Rauscher & Vyzas, 2012). More research to identify, assess, validate, and document successful community benefit practices would provide practical and policy guidance for both hospitals and regulatory bodies (Tao, Freeman, & Evashwick, 2010). Among the gaps in the literature is the lack of evidence as to the influence of the federal standard on hospitals' investments in activities that address the social determinants of health. There is still a need to collect and analyze data to assess whether the standard has served as an incentive or a disincentive for California's tax-

exempt hospitals to make these upstream investments that proactively protect health. To fully understand the upstream activities in question in this study, literature on community building was reviewed from different perspectives, including public health, healthcare and the IRS.

Purpose of the Study

The purpose of this study was to explore if and how nonprofit hospitals in the state of California have altered their investments in community building activities since the implementation of the IRS' 2010 community benefit reporting regulations, which were enhanced by the ACA. This research explored the dollar amount of investments in community building activities by California's nonprofit hospitals, as well as the type of activities undertaken. This study compared data from 2009 to data from 2012. The data were drawn from community benefit reports submitted to California's Office of Statewide Healthcare Planning and Development.

Research Questions and Hypotheses

This quantitative study had three outcome, or dependent, variables. The dependent variables were the amount of charitable dollars spent on community building activities, the type of community building activities supported, and the number of community building activities reported as a community health improvement service. The independent variable was the IRS community benefit standard. Data on the variables were collected by the researcher from hospital reports submitted to the state of California. The overarching research question for this study was as follows:

> Did the 2010 implementation of a new federal standard for nonprofit hospitals' community benefits affect the use of their charitable resources used in California

to address the social determinants of health, defined as "community building" activities, as reflected in their 2009 and 2012 community benefit reports?

The following sub-questions and hypotheses further determined the impact of change in IRS reporting requirements:

1. What is the difference between the percentage of the hospitals' total community benefit contributions that were made to community building activities, as reflected in their 2009 and in 2012 community benefit reports?

   H_o1 – There is no significant difference in the percentage of hospitals' community benefit contributions made to community building activities after the 2010 implementation of the new IRS community benefit Standard?

   H_a1 – There is a significant difference in the dollar amount invested in community building after IRS reporting requirements.

2. What is the difference between the types of community building activities funded by hospitals, as reflected in their 2009 and 2012 community benefit reports?

   H_o2 – There is no significant difference in the types of activities in which investments are made after IRS reporting regulations.

   H_a2 – There is a significant difference in the types of activities in which investments are made after IRS reporting regulations.

3. In what way are changes in hospitals' investments in community building since the 2010 implementation of the new IRS community benefit Standard dependent on the following characteristics of the hospitals: affiliation with a multi-hospital health care system, number of beds, or the type of hospital institution?

H_o3 – Affiliation with a multi-hospital healthcare system is not predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

H_a3 – Affiliation with a multi-hospital healthcare system is predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

H_o4 – Hospital size is not predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

H_a4 – Hospital size is predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

H_o5 – Whether a hospital is a faith-based, secular, or teaching institution is not predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

H_a5 – Whether a hospital is a faith-based, secular, or teaching institution is predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

Theoretical Framework

While not entirely new, as the understanding and acceptance of the social determinants of health have grown, public health interventions have shifted from individual behavior changes to an even greater focus on community-level changes. Both

research and practice have demonstrated that success of these interventions requires the participation of all sectors in the community, requiring efforts to build the community's capacity to engage in and even lead these changes (Kieffer, & Reischmann, 2004; & Traverso-Yepez, Maddalena, Bavington, & Donovan, 2012).

The framework of community building as a strategy for addressing the social determinants of health relies on eco-social theory, which focuses on who and what drive changes in health equities/inequities at both the micro and macro levels (McLaren & Hawe, 2005; Krieger, 2001). This theory combines the psychosocial model of health, which claims that stressors associated with discrimination based on social conditions generate neuroendocrine changes that produce disease and with the model of social production of health, which proposes that a society's focus on material wealth comes at the expense of its marginalized members (Bonnefoy, Morgan, Kelly, Butt, & Bergman, 2007). The eco-social theory examines the interaction of physical and social environments not only with biology, but also with the way individuals internalize and express these environments (Bonnefoy, Morgan, Kelly, Butt, & Bergman, 2007). It also lays a foundation for exploring the external influences on the investment of charitable resources in community-level, multilevel health protection strategies. As noted by Lounsbury and Mitchell (2009), political and regulatory changes are examples of second-order changes that help us understand the dynamics of systems change. This framework and theory will be further explored in Chapter 2.

Nature of the Study

This quantitative, correlational study used secondary data, which was analyzed using matched-pairs *t* test, ANOVA and chi-square goodness of fit tests. Correlational

research explores either the association or the relationship between an independent and a dependent variable. While an association refers only to strength, relationship refers to both strength and relationship (Chen & Popovich, 2002). This study is about the relationship between variables. The correlational design is appropriate because the study generated the information needed to determine whether there were significant changes in the investment of hospitals' charitable dollars in community building activities following new federal community benefit reporting requirements based on evidence from annual reports. In addition, the statistical tests also provided important information about the strength and direction of any significant relationship. For instance, nonprofits could have decreased, increased or kept their spending stable. This information helped the researcher formulate recommendations for further research as well as action.

Operational Definitions of Key Terms

Many disciplines, including public health, engage in and refer to community building and other related terms. However, there is no uniform standard definition for these terms and concepts. As this study explores investments in community building activities undertaken by nonprofit hospitals in the framework of their community benefit plans, it is important to clarify how they are used in this context. The following are operational definitions of key terms for the purposes of this dissertation.

Community: Communities are defined as geographic spaces that meet people's basic needs, units of organized social interaction, units of shared identity, and units of collective action to achieve change (Minkler, 2006).

Community benefit: Community benefit refers to the community health-promoting benefits provided by nonprofit hospitals in exchange for receiving tax exemptions (National Association of County & City Health Officers–[NACCHO], 2012).

Community Building: Community building is known as a process that brings people and organizations together to build their collective capacity to effect positive social change (Keiffer & Reischmann, 2004). However, in the context of hospital community benefit laws, community building refers to activities that address the root causes of community health problems (IRS, 2009).

Community Capacity Building: Community capacity building strategies employed in population and public health efforts focus on supporting the community's ability to understand, mobilize around, and improve issues affecting its health and wellbeing (Minkler& Wallerstein, (2012). These strategies enhance the connections within the community; as well as the sense of empowerment among its members that they can influence and effect health promoting policy, environmental, and behavior changes (Kieffer, & Reischmann, 2004). Community capacity building is an outcome of some of the categories of activities that fit within the IRS' definition of community building. These activities include coalition building and leadership development and training for community members (Internal Revenue Service-IRS, 2010).

Community Empowerment: On a community level, empowerment occurs when there is authentic participation in collective decision-making and leadership to resolve problems and improve the quality of life for all its inhabitants (Bartholomew, Parcel, Kok, & Gottlieb, 2006).

Community Engagement: Researchers from the nation's Task Force on the Principles of Community Engagement sums up the definition of community engagement as a "continuum of community involvement" (McCloskey, McDonald, Cook, Heurtin-Roberts, Updegrove, Sampson, Gutter, & Eder, 2011).

Community Organizing: The core elements of community organizing include: immersion in the target community and relationship building; identifying and obtaining support of community representatives and natural leaders; engaging this core group in assessing and analyzing community strengths and needs; facilitating the development of the community's shared vision, priorities, and goals; facilitating the development, implementation, and ongoing evaluation of an action plan; and continually building relationships and partnerships to facilitate its success (McKenzie, Pinger, & Kotecki 2008).

Assumptions

Nonprofit hospital administrators, like many executive leaders, face the daily challenge of balancing mission and market needs in a complex industry. They rely on the knowledge and skills of other senior leaders and their staff to manage specific areas of the hospital's business. I assumed that there is not a consistent level of knowledge and understanding of community benefit laws and regulations among senior leadership at nonprofit hospitals. This inconsistency may be reflected in an inconsistency in the categorization of community benefit investments on IRS reporting forms. The same activity may be reported in different categories by different hospitals, resulting in some activities being reported in the category of community building by some, and in the category of community health improvement by others. Another assumption was that few

nonprofit hospitals consider addressing the root causes of community health problems to be their responsibility. That may be reflected in the lack of investment in community building with their community benefit dollars. While the ACA is forcing hospitals to look beyond their own four walls, that is not familiar territory to most beyond healthcare referrals to other community providers. Lastly, I assumed that the decision to invest in community building has been impacted by whether or not those expenses are considered to be community benefits by state and federal governments.

Scope and Delimitations

This quantitative study focused on some of the community benefit investments and activities of nonprofit hospitals in the state of California. Only data from this state was studied; only those activities categorized as community building by the state and federal governing bodies were examined. Furthermore, the study delimited the population of interest to hospitals that are required to report to the state on community benefit activities in California. Some nonprofit hospitals, including public hospitals and teaching hospitals, are not required by the state of California to submit these reports. The data studied were limited to those hospitals with information for both 2009 and 2012—the years prior to and following implementation of the IRS regulations in question. This study of California's nonprofit hospitals is expected to be representative of the broader population of nonprofit hospitals in other states facing conflicts between state and federal expectations.

Limitations

This study included only nonprofit hospitals in the state of California. The study was not exhaustive, and the hospitals' policies and practices might not reflect those in

other states. Primary data collection was conducted through the review of annual reports submitted to state and federal regulators, including the IRS and the California Office of Statewide Health Planning and Development. Once submitted and accepted, these reports became public documents. However, the very situation of uneven compliance that gave rise to the creation of the IRS's Schedule H form may have precluded availability of the required documents.

The data in this correlational study was not manipulated by the researcher, thus reducing the risk of experimenter bias. Although not all hospitals mandated to submit community benefit reports to the state complied with this requirement, a sufficient number did comply so that selection bias did not occur in this study. In 2009, 181 of 190 hospitals submitted reports to the state. In 2012, 172 of 206 hospitals submitted reports to the state. A G Power analysis was conducted and found that this study's sample size needed to be 134 subjects; thus, selection error did not occur.

Significance

The complexity of measuring the outcomes and impact of community building activities on community health has been noted as an obstacle to both research and practice in this area (Health Systems Learning Group, 2013; Levy & Sidel, 2006). However, there is also literature on the importance of the contribution that hospitals' institutional and financial resources could make to sustaining promising public health as well as healthcare's upstream health protection practices that address the social determinants of health (Trust for America's Health, 2013; Prybil, Scutchfield, Killian, Kelly, Mays, Carman, Levey, McGeorge, & Fardo, 2014.). Public and institutional policy makers require data to substantiate funding policies that would be favorable for moving

hospitals upstream in their ACA-mandated population health efforts. The data may be available, but is not being accessed nor analyzed in a way that helps inform those decisions in a meaningful way. There is no evidence to suggest that the questions posed in this study have been addressed as yet in the research literature.

This study is significant to public health and healthcare policy makers because it provides data from community benefit reports submitted by all mandated nonprofit hospitals on the actual amount of charitable dollars invested in the upstream investments that have been identified as having a strong influence on the health of populations, and that are currently difficult to sustain with current funding policies. It also provides needed data on the type of upstream community building activities that these hospitals are funding. The study contributes to determining if the ACA and the IRS's current legislative and regulatory changes that seek greater transparency and accountability in the use of hospital's tax-exempt dollars has effected any change in those investments. It is significant to communities served by hospitals that enjoy a tax exemption for their community benefit activities. Community leaders look to hospitals to be a visible contributing partner, if not the backbone of health improvement in the community.

Health advocates, practitioners, and researchers have been engaged in dialogue on the federal government's most recent focus on hospitals' charitable investments in the health of their communities. Given the importance of hospitals' participation in local public health initiatives, concern about incentives and disincentives for investment in community building by these hospitals has surfaced in research, editorials, and forums in the field. Positive social change begins with clearly identifying and understanding the issue of interest and the context surrounding it. It is expected that this research will

contribute to this dialogue in and about a state (California) that has been engaged in this work for nearly 2 decades, thus informing opportunities for continued research, advocacy, and policy and program development.

Summary

Like many other sectors of tax-exempt organizations, nonprofit hospitals are being held to new standards of accountability and transparency. These new standards include community benefit regulations contained in the 2010 IRS code along with California's state community benefit statute, expressed in its Health and Safety Code, Section 127345. There are discrepancies between the state and federal frameworks, including whether community benefits include activities that address the root causes of community health problems. These activities are referred to as community building. The framework of community building as a strategy to address the social determinants of health relies on eco-social theory, which combines the psychosocial and social production models of health to examine the interaction of physical and social environments with not only biology, but also the way in which individuals internalize and express these environments. There are also discrepancies between federal legislation and regulations of the ACA, directing hospitals to actively engagement in public health, and the new IRS community benefit standard, which excludes community building activities from the definition of a "community benefit" and places the special burden of reporting them at all as a charitable donation by requiring additional data that proves their linkage to an improved community health outcome.

Given the importance of hospitals' participation in local public health initiatives, concern about incentives and disincentives for investment in community building by

these hospitals has surfaced in research, editorials, and forums in the field. While limited to the state of California, this study fills a gap in the literature and could lead to the development and funding of health protection activities that address the social determinants of health in local communities through favorable hospital funding policies and practices.

Chapter 2 reviews the research literature on the concept of community building in the context of community health improvement, as well as key strategies employed in community building in public health. The review also reveals the differences between the broader, common understanding of "community building" in public health and IRS' definition of "community building" for nonprofit hospitals. The differences include two of these strategies (leadership development and coalitions), as well as more concrete activities, such as housing and economic development.

Chapter 3 describes the study's quantitative approach and correlational design. Data from California's nonprofit hospitals' community benefit reports submitted to that state's Office of Statewide Healthcare Planning and Development (OSHPD) for the years prior to and following the establishment of federal reporting requirements in IRS Form 990 Schedule was analyzed. Matched-pairs *t* test and chi square goodness of fit tests were used to identify if a significant difference exists, as well as the direction of that difference. Independent sample and ANOVA were used to determine if the three characteristics of the hospitals studied were associated with any of the changes found.

Add previews of Chapter 4 and Chapter 5.

Chapter 2: Literature Review

Background

In Chapter 2, the current literature on the role of nonprofit hospitals in community health improvement efforts through investment in community building strategies is reviewed. Unlike community-based healthcare activities that are traditionally supported by hospitals, community building strategies address the social determinants of health.

This chapter covers the differences between the broader, common understanding of "community building" in public health and the IRS definition of "community building" for nonprofit hospitals. To answer the study's research questions, the following topics are explored: (a) perspectives from the field on community building and key community building strategies, (b) the types of community building activities considered reportable by the IRS for nonprofit hospitals' charitable investments, and (c) hospitals' investments in community building. This chapter is divided into four sections: the search strategy used for this review, the study's theoretical foundation, the results of the literature review on the topics listed above in (a), (b), and (c); and a summary of the review, including justification for the selected methodology.

Search Strategy

. The following databases were used to find relevant literature in body of public health literature that is still limited: Academic Search Complete, ProQuest, CINAHL, MEDLINE, Google Scholar, and Science Direct. Google Scholar was also accessed to broaden the search. The following keywords were used: *community benefit, community building, community organizing, leadership development, community engagement,*

community empowerment, and *social change*. The search was initially limited to articles published between 2007 and 2012, and then expanded to include those published between 2002 and 2015. The search was also limited initially to U.S. studies, but this limitation was removed while reviewing the literature. Several of the studies reviewed cited works from other countries where community engagement research and practice is also undertaken, including Australia, England, and Canada. Articles in which the key terms were found were related to several disciplines relevant to this study: health, public health, community development, and other social sciences. A total of 96 articles were used in the review.

Eco-social Theory

This study was grounded in eco-social theory of disease distribution; the framework of community building as a strategy to address the social determinants of health relies on this theory. Eco-social theory focuses on who and what drive changes in health equities/inequities, at both micro and macro levels (McLaren, Hawe, 2005; & Krieger, 2001). It also lays a foundation for exploring the external influences on the investment of charitable resources in community-level, multilevel health protection strategies. As noted by Lounsbury and Mitchell (2009), political and regulatory changes are examples of second-order changes that help explain the dynamics of systems change. The theory is especially relevant in health research that explores strategies such as community building, which seeks a more level playing field on which to address health inequities, in that it is focused on the linkage between social and health disparities (McLaren & Howe, 2005).

Eco-social theory of disease distribution has four core constructs. According to Krieger (2006), the first is "embodiment," which refers to how, biologically, we incorporate, or embody, the context in which we live. Krieger called the second construct "pathways of embodiment," which refers to the ways in which this context is incorporated. The third construct, "cumulative interplay of exposure, susceptibility, and resistance across the life course," (p. 937) states that the duration, accumulation, and response to these exposures is important in the influence of health outcomes. The fourth construct is "accountability and agency." By this, Krieger (2006) means those persons, groups and institutions that generate or continue inequities as well as the researchers who develop theories to explain away those inequities. In this study, the construct of accountability and agency is particularly relevant to the nonprofit hospitals that acknowledge the importance of social determinants in the health disparities evident in theircommunities. However, these hospitals may or may not choose to invest in upstream activities to address them.

While no research that specifically uses eco-social theory to study hospital community benefit investments was surfaced, there are many studies that use this theoretical framework to explore interventions that address the social determinants of health problems. This research focuses on hospital's charitable investments in community building; or activities addressing the social determinants. As such, eco-social theory is relevant and useful for this study. In the Operational Definitions section of Chapter 1, I included a review of types of community building activities found in the literature. It is also noted in that chapter that the IRS has established a narrower definition of community building than that found in the literature on the topic. In regards to the relevance of eco-

social theory to investment in activities addressing the social determinants of health, in his book on breast cancer in the United States, Schettler (2013) explored the eco-social framework of the disease; emphasizing that the development of the malignancy takes place not only within the physical body, but also within the social, economic, cultural and political context in which the person lives. Some of the prevention interventions proposed by Schettler (2013) include environmental and policy changes that increase opportunities for healthy eating and physical activity, which are activities already supported by some hospitals through their community benefit investments (Zuckerman, 2013). In a study on the contributions of farmers markets to community health, the Moon, et al. (2006) chose to ground their research in eco-social theory, which they determined is an appropriate framework for the study of the social determinants of health and upstream interventions that affect community health at multiple levels.

Addressing the Social Determinants of Health

The key concepts that provide the foundations for this study include the framework for nonprofit hospital involvement in community health, community benefit regulation and practices. They also include those associated with upstream public health interventions that engage the community in understanding and addressing the social determinants of health. These include community building, community engagement, community empowerment, social change, community organizing, grassroots leadership development, and community coalitions (Williams, 2012; Minkler & Wallerstein, 2012; Verity, 2007).

Perspectives on Community Building

The concept of community has been explored by many disciplines in the social sciences, including public health. MacQueen et al. (2001) were the first to try to generate an evidence-based definition of community for public health through their research on HIV prevention with community stakeholders. In this study, the participants defined community as a group of diverse individuals with shared social ties and perspectives, and who are engaged in collective action in a specific place or setting (MacQueen, et al., 2001). Minkler, the public health researcher and practitioner, has worked extensively on the role of community building and community participation in health improvement. She has summarized these by defining communities as geographic spaces that meet people's basic needs, units of organized social interaction, units of shared identity, and units of collective action to achieve change (Minkler, 2006). Walter (2006) d builds on this by proposing a multidimensional definition of community that not only addresses what elements community includes, but also how they interact. These researchers and others have provided the external validity needed to allow researchers, practitioners and evaluators to more effectively assess the impact of community building strategies in community health improvement initiatives.

The principles of the Centers for Disease Control and Prevention (CDC) state that public health practitioners wishing to engage the communities they serve need to also help build capacity at all levels in order to mobilize them for to engage in health improvement (CDC, 2011). One innovative study explored the impact of building the capacity of populations experiencing health inequities to advocate for community health through increased access to technology (Parker, et al., 2012). Researchers found that a technology project mobilized a group of such persons to not only improve their own

health, but also to act as community health advocates (Parker, et al., 2012). These researchers recommend that such capacity building should be further researched, as a strategy to address the social inequities influencing disproportionate unmet health needs among certain populations (Parker, et al., 2012). Public health researchers and practitioners are also joined by funders interested in building evidence to support the use of community building to reduce health inequities, as evidenced by the work of the Robert Wood Johnson Foundation's Commission to Build a Healthier America (Braveman, Egerter, & Mockenhaupt, 2011; Braveman, Egerter, Woolf, & Marks, 2011). There is a growing body of evidence, and increased diversity of that evidence and of the stakeholders committed to building community to improve the health and wellbeing of all populations; especially those experiencing a disproportionate burden of morbidity and mortality. Even broader is the literature available regarding which community building strategies are most effective in achieving that end.

Community Building Strategies

Community building strategies attempt to reconstruct aspects of traditional communal living that are made difficult in the realities of current times. These strategies increase concern for the community among its members, enhance connectedness, and increase its members respect for each other and willingness to take action, not only for the common good, but to take it collectively and publicly (Verity, 2007). The community building strategies that most surface in the literature in reference to community health improvement and reduction of health inequities are: community engagement, community empowerment, community organizing, leadership development, and community coalitions.

Community engagement. Both research and practice have demonstrated that success of community interventions that address the social determinants of health requires participation of all sectors in the community, requiring efforts to build the community's capacity to engage in and even lead these changes (Kieffer, & Reischmann, 2004; & Traverso-Yepez, Maddalena, Bavington, & Donovan, 2012). Individuals holding traditional positions of power within communities and organizations, such as elected officials, CEOs, and agency directors are accustomed to making decisions about what needs to be changed in order to achieve a particular outcome and how it out be changed. However, when those most directly impacted are not only involved in the thought process but also in the processes of decision-making, taking action and evaluation that is community engagement (Heritage & Dooris, 2009). It has been determined by some researchers that community building efforts must by definition engage residents as decision-makers and agents of change (Foster-Fishman, Cantillon, Pierce, & Van Egeren, 2007). To the contrary, the absence of authentic community engagement in health promotion efforts can greater hinder their ability to achieve the desired improvements in health status due to a lack of participation and cooperation on the part of the intended beneficiaries (Breslow, & Cengage, 2002). As it builds on a community's own wisdom, capacity, and assets, the outcome of successful community engagement is a program or intervention that truly represents community needs and expectations, and is understandable and accessible to the community members (De Vos, De Ceukelaire, Malaise, Pérez, Lefèvre, & Van der Stuyft, 2009).

Community engagement is not a simple black and white circumstance, but rather part of a complex, multi-phased continuum of community involvement (CDC, 2011).

This continuum begins with outreach, simply making contact with the community of interest to share information and open up lines of communication. As it deepens and builds in complexity, the community engagement process leads to greater collaborative, trusting working relationships and social cohesion (CDC, 2011). According to social epidemiological research, this enhanced degree of social cohesion increases public demand for needed services and for policy and environmental changes that correct inequitable conditions associated with ill health (Wallenstein, Yen, & Syme, 2011). The CDC's principles of community engagement have been embraced by all federal agencies, and hence also be the private agencies participating in federally-funded public initiatives. Given the extensive use of these principles, their influence as guiding values for community health work across the country cannot be under-estimated.

Community Empowerment. The World Health Organization has said that community empowerment is central to health promotion. Health promotion seeks to engage populations and communities in planning, decision-making, and implementation actions that will help them achieve improved health outcomes (Heritage & Dooris, 2009). On a community level, empowerment occurs when there is authentic participation in collective decision-making and leadership to resolve problems and improve the quality of life for all its inhabitants (Bartholomew, Parcel, Kok, & Gottlieb, 2006). Empowerment also serves to address and change the inequitable social determinants of health that lead to adverse health outcomes for vulnerable populations (Wallerstein, Yen, & Syme, 2011). At the same time, there are some researchers who challenge this framework, concerned that it is too exclusive of population groups not considered to be especially vulnerable. They take the position that a focus on overall community capacity is more appropriate

and effective (Smith, Littlejohns, & Roy, 2003). For a community to be empowered, the members of that community must first believe in their capacity to effect social and political change, referred to as collective efficacy (Bartholomew, Parcel, Kok, & Gottlieb, 2006). Health promotion activities can focus on fomenting this sense of efficacy, and then helping to build the capacity that supports social change efforts addressing the social determinants of health (Heritage & Dooris, 2009).

The CDC principles have been expressed in different terms by many researchers and practitioners, and there seems to be general agreement as to their relevance and importance. One of the principles of community social change and empowerment often referred to in health promotion is that of doing with rather than for people (Huff & Kline, 2007). In fact, ensuring active participation by the population or community of interest is considered essential to health promotion (Breslow, & Cengage, 2002). And while semantics may vary as to the phrase "community empowerment," it is generally recognized that neither health promoters nor anyone else can empower someone else, they can only help establish conditions and processes that support people in empowering themselves (Huff & Kline, 2007). The principle of self-determination is also widely recognized as paramount in health promotion, recognizing that those most affected by a particular condition are the most appropriate ones to make decisions about priorities and change strategies (Breslow, & Cengage, 2002). According to this principle, the community defines both the problem and the solution, albeit with support from professionals (Laverack, & Labonte, 2000).

Community organizing. Community health problems are complex with influential factors at individual, family, population, community and systems levels. As

such, prevention efforts cannot just be directed at individuals without mobilizing the community to ensure the conditions needed to support individual behavior change. While there are a variety of community organizing models, they share certain core beliefs: that communities are capable of assessing and addressing their own problems, that community members need to be in charge of their own decision-making processes, that they are capable and desirous of change, that a comprehensive and holistic approach to community health improvements is more effective than isolated interventions, and that democratic process requires active participation and respectful collaboration (McKenzie, 2008). Despite differences of style and emphasis, the core elements of community organizing and mobilizing are essentially the same among the different models. These include: immersion in the target community and relationship building; identifying and obtaining support of community representatives and natural leaders; engaging this core group in assessing and analyzing community strengths and needs; facilitating the development of the community's shared vision, priorities, and goals; facilitating the development, implementation, and ongoing evaluation of an action plan; and continually building relationships and partnerships to facilitate its success (McKenzie, 2008).

Community organizing, like all community building strategies, cannot be proven to have a direct causal relationship to improved population health status. An early study of neighborhood-based organizing in Seattle was unable to prove conclusively that the grassroots mobilization initiative undertaken failed to produce a measurable effect; although the researchers concluded that they could not determine if this was due to the lack of effectiveness of the strategy, or weakness of the intervention executed (Cheadle, et al., 2001). Since that time, however, public health researchers and practitioners have

continued to apply community organizing techniques to community and population health improvement initiatives. However, given pressure from donors and other powerful institutions invested in the health of vulnerable communities to engage in innovative community building strategies such as organizing, practitioners must grapple with the ethical challenge of determining the true impulse and focus of social change. They have to ask if it is authentically representative of community aspirations, capacity and leadership; or primarily externally driven and, ultimately, symbolic (Minkler, Pies, & Hyde, 2012). Community organizing is a challenging endeavor, however there is now evidence to demonstrate the organized neighborhoods with the involvement resident activists not only have a greater sense of power and collective capacity to effect positive change, but also better neighborhood conditions, associated with that social change (Foster-Fishman, Cantillon, Pierce, & Van Egeren, 2007). The *National prevention council action plan: Implementation of the National Prevention Strategy* (National Prevention Council, 2012) and the recent study, *Hospitals Building Healthier Communities* (Zuckerman, 2013) recognize community organizing as a promising community building strategy for health improvement in communities experiencing health inequities.

Leadership Development. The deepest level of the continuum of community involvement is shared leadership, representative of authentic community engagement in all moments of the health improvement process (CDC, 2011). Researchers studying community health partnerships with collaborative leadership found that these leadership development efforts applied several of the CDC's community engagement principles. These leaders represent neighborhood and special populations, as well as public and

private agencies (Alexander, Comfort, Weiner, & Bogue, 2001). Given the challenge of engaging stakeholder commitment to assuming a leadership role, whether it be the overworked agency official or the passionate but disempowered resident, it is essential that the practitioner find accessible entryways into leadership development. This is frequently through participation in a focused, sometimes disease-specific initiative (Barten, Mitlin, Mulholland, Hardoy, & Stern, 2007). Once engaged in leadership training and mentoring, the new leader not only can engage others in successful community health improvement initiatives, but like a ripple in a pond, often expands participation to additional contributions. Community leaders mentored through community health initiatives also can go on to join community boards, start new community groups or organizations, and even to hold elected office (Ranghelli, 2009). Leadership training is a community building strategy that increases the effectiveness of the other strategies mentioned here and is critical to their sustainability.

Community Coalitions. Community coalitions have long been employed to address community health issues. They are an important strategy for engaging and building capacity of communities to address community health problems. Participation in coalition activities have been associated with improved community health outcomes. This may be due to both changes in health behaviors and changes in health-related or health-impacting policies (Wallerstein, Yen, & Syme, 2011). According to the Community Coalition Action Theory, one of the initial tasks of a coalition is to build a core group that reflects the diversity of stakeholders most involved with and impacted by the issue to be addressed. This group includes not only agencies and professionals, but also residents and community groups (Kegler, Rigler, & Honeycutt, 2010). This diverse coalition

membership is important for the group to understand the multi-level factors influencing the health issue of concern, and to develop comprehensive, multi-level interventions that include services, individual behavior change, and policy and system changes, as well (Clark, et al., 2010). The pairing of leadership development with coalition building increases the group's potential for success, by preparing its members for their role as agents of change (Verity, 2007).

The capacity of its members is just one factor at play in determining the sustainability of a community health coalition and of its efforts. The literature offers evidence of an abundance of examples of community coalitions formed to address issues such as asthma, diabetes, and breast cancer, among others. However, there is less evidence of the sustainability of these efforts beyond the initially funded projects or initiatives. Program outputs, such as the completion of community education campaigns, increased enrollment in prevention services, or improved coordination among community providers are important; but are not the end goals. Complex, comprehensive community collaborations are long-term approaches and must be sustained long enough for these systemic changes to produce their desired effects (Alexander, et al., 2003). Achieving this sustainability can be challenging, and is not always realized. The very nature of a coalition, a voluntary collaboration of diverse perspectives and positions, makes loss of members and/or of collective momentum an ongoing risk (Alexander, et al., 2003). While the coalition depends on the voluntary participation of the community leaders who serve as its core members, sustainable coalitions more often than not also have paid staff to support the operationalization of the ideas of these leaders (Goytia1, et al., 2013).

As is common in community building research and practice, there are those who challenge the effectiveness of coalition building for health improvement, and those who believe there is sufficient evidence to continue develop the practice of this strategy (Granner & Sharpe, 2004; Clark, et al., 2010). Researchers evaluating coalition effectiveness have determined that there are common characteristics of collaborative groups that succeed in achieving their long-term goals: sustained participation of core members, versus large numbers of less active members; a focus on systemic change, versus service delivery; and broad representative participation that includes individual community members (Clark, et al., 2010). However, more research is needed to generate the scientific evidence needed to substantiate and sustain the use of this community building strategy. Some consider that there is still a weakness in the tools developed to demonstrate the reliability and validity of the measures used to measure coalition effectiveness; which would strengthen the coalitions themselves and the positive social changes and health outcomes they aspire to achieve (Granner & Sharpe, 2004). These questions may also influence a funder's decision to invest in coalition building.

Community Building Activities Reportable to the IRS

Looking upstream to the factors that impact the health of communities and populations has always been central to public health however this vision has not always been clear in modern U.S. public health plans until the 21st century. Healthy People 2010 explicitly recognizes multidisciplinary approaches that extend into areas traditionally outside of the field of public health, including housing, transportation, jobs, education and others (Metzler, 2007). In the same period, the IRS established its first explicit criteria for reporting of community benefits provided by nonprofit hospitals. In Schedule

H of its 990 Form, the IRS also defines for the first time what it considers to be community building as activities that address the root causes of health problems (Catholic Health Association, 2006). While inclusive of some of the elements of community building as described above, specifically leadership development and coalition building, the majority of these activities are more concrete and more easily quantifiable. They include physical improvements and housing, economic development, community support, environmental improvements, community health improvement advocacy, and workforce development (IRS, 2009). The need for hard data that demonstrates the effectiveness of the "softer" community building activities the IRS make their inclusion in hospitals' community benefit plans challenging, but not less important (Courtney, 2011).

Community Building as Community Health Improvement Service

The IRS considers community health improvement services to be a reportable community benefit expense for nonprofit hospitals. These services must address a documented community health need, must be subsidized by the hospital, and may not generate a patient bill (IRS, 2009). Typically, community health services include activities like health education classes, immunization programs, mobile clinics, and visiting nurses, among others (Bakken & Kindig, 2012). While leaving the door open to the possibility that some community building activities might also meet its broad definition of community health improvement services, the IRS provides no guidelines or direction on how that might be. Some institutions, such as the Hilltop Institute and the Catholic Health Association, have offered evidence to support this linkage (Rosenbaum, Rieke, & Byrnes, 2014), advocating for further policy change on the part of the IRS. In the meantime, however, it falls to each individual reporting hospital to justify each

individual community building activity that it wants to claim as a community health improvement service on its tax returns (Rosenbaum, Rieke, & Byrners, 2014); significantly reducing the possibility that they will include community building strategies as part of their reportable community benefit work.

Hospital Investment in Community Building

As the understanding and acceptance of the social determinants of health has grown, many public health interventions have shifted from focusing on individual behavior changes to include an even greater focus on community-level changes. This understanding extends even beyond the sphere of public health professionals to the general public. The Commission to Build a Healthier America (2009) found that over three-quarters of registered voters in the United States believe that underlying social factors such as education and income influence differences in health status. However, despite the science and social acceptance of the influential role of social determinants in the health status of communities, there is evidence of a lack of political and economic support of this upstream investment. Relatively few investments are made by hospitals in actions that address these factors; when compared to investments in individually-focused service delivery. A 2007 study of public health spending found that less than 5% was allocated to primary prevention (Gostin, Jacobson, Record, & Hardcastle, 2011). Likewise, a 2006 study of nonprofit hospitals conducted by the IRS found that 56% of their charitable dollars were spent on uncompensated healthcare, as compared to 6% spent on community programs (Courtney, 2011).

The relatively small percentage of total funding for prevention is also documented in federal funding. Initial implementation of the ACA has seen research and public debate

on the legislation's funding mechanisms and related regulations. Congress continues to debate the merits and the viability of what's referred to as the individual mandate (Tran, 2013); the requirement of nearly all individuals in the U.S. to have healthcare insurance coverage that is seen as foundational to the ACA (Mach, 2014). Less attention has been given to the funding of community-based prevention initiatives through the ACA's discretionary funding streams, also includes many other areas, such as the costs of community health centers, healthcare workforce development, nursing homes, and others (Redhead, Colello, Heisler, Lister, & Sarata, 2011). While the ACA legislation The law's intent is broad, including not only access and funding issues, but also systems change and a shift in focus from treating illness to promoting prevention and wellness (McDonough, 2012). Despite this, only 4.3% of ACA-related funding has been allocated for public health and prevention activities (Snyder & Tolbert, 2012).

Likewise, research on the depth and breadth of the systems reform of the hospital community benefit field through the IRS standard's new accountability and transparency measures (CHA, 2014) is in its initial stages. An extensive literature search found that there is more research available on issues related to accurately reporting the use of charitable dollars to cover unfunded and underfunded patients than on a shift in the use of those dollars to primary prevention-focused activities. Medical librarian researchers have found that efforts to support community benefit leaders, hospital administrators, and policymakers alike are currently limited by the complexity of community benefit-related definitions, and by the fact that the majority of the existing research is focused on regulatory issues (Tao, Freeman, & Evashwick, 2010). They also suggested that the task of finding the evidence needed to develop the innovative community benefit policies and

programming needing in the context of the new demands is currently so daunting that debates regarding how hospitals use their money to address community health problems will continue to be controversial and emotionally charged (Tao, Freeman & Evashwick, 2010).

This gap in research made this study's literature review challenging, as it is not so much concerned with community benefit legislation in its entirety; but rather with the specific area of hospital investments in upstream community building activities, as a demonstration of their commitment to addressing the social determinants of health. At this relatively early stage in the field of community benefit in the current context of a new IRS Standard and the ACA, it is more likely to find researchers addressing questions about whether or not these new legislative and regulatory frameworks are or will impact the amount and integrity of hospital contributions to the health of the communities they are mandated to serve. This is evidenced by the findings in this review. The number of materials surfaced during the search for literature on hospital community benefits and on their investment in community building activities, according to their primary focus is as follows: (a) 21 on legislation and regulations, (b) 13 on finances, (c) 15 on collaboration, (d) 7 on health improvement, and (e) 7 on community building. Each of these articles was read and analyzed for its relevance to this study, after which some of those primarily related to general community benefit legislation or financing that did not add either new information or perspectives were excluded from the study.

Review of Literature Related to Methodology

As described in Chapter 2, the IRS definition of community building activities includes a broad range of activities that address the social determinants of health. Most of

the studies reviewed on community building strategies that focus on processes like collaboration, community engagement and community capacity building are qualitative in nature (Goytia1, et al., 2009; Kegler, Rigler, & Honeycutt, 2010; Parker, et al., 2012; & Verity, 2007). They used methods that include case study, evaluation research, and participatory community-based research. Studies reviewed on community building strategies that address housing and other aspects of the built environment, as well as those exploring that association between community building activities and changes in health outcomes favor quantitative designs; including cross-sectional, correlational, and randomized controlled trial studies (Braverman, Egerter & Mockenhaupt, 2011; Cheadle, et al.; Lovasi, Neckerman, Quinn, Weiss, & Rundle, 2009).

Correlational studies are conducted when the researcher suspects the existence of a relationship between the variables (Chen, 2012), as in this study's examination of the potential relationship between federal community benefit regulations and nonprofit hospital investment of charitable dollars in community building activities. In fact, correlational study designs are among the most commonly used in social science research (Crosby, DiClemente, & Salazar, 2006). This design is helpful to explore and measure the strength and direction of a relationship between variables (Chen, 2012), but it does not determine causality (Crosby, DiClemente, & Salazar, 2006). The question of the inability of community building research to determine causality is controversial. There is recognition in the field of the significant influence of the social determinants of health on community or population health status (Mamot, 2007). There is also acknowledgement that community-level action that addresses these factors, such as social change strategies, can improve health status (Parker, Kantroo, Lee, Osornio, Sharma, & Grinte, 2012).

However, those actions are rarely carried out in isolation of action types of interventions, nor have they proven to directly cause these positive changes (Woolf, 2009). For example, increasing high school graduation rates in a low-income neighborhood has been shown to be important, but not enough to foster healthy weight among its population, without the inclusion of interventions that increase availability and access to affordable healthy foods and recreation opportunities, among other strategies (Woolf, 2009). While the identification and analysis of relationship between the study's variables may not be established as having a causal effect on health outcomes, it can determine the need, or not, for further research of the topic (Woolf, 2009). These and other studies help to ground this dissertation research in the correlation design proposed, and discussed in the following chapter.

Summary

The review of literature for this research attempting to answer the question, "Do IRS community benefit reporting requirements affect investments in community building activities made by not-for-profit hospitals in California?" revealed strong agreement among researchers and practitioners on the validity and importance of the role of community building as an upstream strategy to address community health problems and inequities. It also revealed less of a consensus in the field on what constitutes evidence of effective community building. As in other research and practice areas in the field of public health, some hold that the gold standard of evidence used for evidence-based medicine is the only valid standard for health research. Others, however, are of the position that the complexity of strategies addressing the social determinants of health,

which are multilevel, multidirectional, and multi-sectorial, make it impossible to strictly adhere to a model of scientific proof initially based on individually-focused interventions.

This debate will continue and evolve. In the meantime, a body of policy and programmatic research and practice are being shown to effectively engage diverse stakeholders in working together in new ways, new roles and new power relations to improve health-related conditions and outcomes in vulnerable communities. Among those stakeholders are hospitals, beholden to their communities for their tax-exempt status, looking to meet new expectations established in federal legislation regarding their role in community health. Review of the literature also revealed the validity of the methodology proposed for this study.

Add preview of the Chapter 3.

Chapter 3: Research Method

Introduction

This chapter includes a brief description of the study's quantitative approach and design. The study design tested the primary research question about the relationship between the IRS' community benefit standard and nonprofit hospitals' investments of charitable dollars in community building activities that address the root causes of health inequities. These subsections then follow: the hypotheses, a description of the setting and purposive sample, a description of the data collection and analytical techniques, a discussion of the study's instrumentation and materials, a brief statement about the protection of human participants.

Research Design and Approach

This quantitative, correlational study used secondary data. Data analysis was conducted using matched pairs *t* test, ANOVA, chi square goodness of fit tests. The use of secondary data, in this case archival documentation of hospitals' community benefit investments, provided relatively easy access to historical data that had already been validated (Johnson & Turner, 2003). Correlational research explores either association or relationship between an independent and a dependent variable. While an association refers to only strength, relationship refers to both strength and direction (Chen & Popovich, 2002). Correlational ratios, or indexes, can provide this information about relationship, but they do not explain the reason for the relationship. Causality between variables cannot be assumed based on common sense rather than hard data (Chen & Popovich, 2002). However, current public health research, particularly research based on

eco-social theory, acknowledges that this research does not necessarily fit the clean simplicity of definitive causal relationships between variables (McLaren & Hawe, 2005).

This dissertation was a study of relationships between variables. The correlational design was appropriate for this dissertation because it generated information that was used to determine whether there were significant changes in the investment of hospitals' charitable dollars in community building activities following new federal community benefit reporting requirements based on evidence from hospitals' annual reports. In addition, statistical tests provided important information about the strength and direction of any significant relationship. For instance, it is possible that nonprofits may decrease, increase, or keep their spending stable.

The study used the matched-pairs *t* test to determine whether there were significant changes in the spending patterns between 2009 and 2012 of the group of California's mandated reporting nonprofit hospitals by determining differences between the percent of hospitals' total community benefit contributions that are invested in community building activities. To determine if there were differences in the types of community building activities supported by these investments, the dependent variable regarding types of community building activities was analyzed by using chi square goodness of fit tests. This analysis was conducted to reveal if there was a difference between its means in 2009 and 2012; indicating a shift in the hospitals' use of charitable resources, or a change in the profile of its investments in community building. Finally, after determining if there have been any changes in hospital investments in community building, independent-sample *t* test and ANOVA were used to determine if three characteristics of the hospitals studied are predictive of each one of the changes found.

The hospital characteristics are included in the annual community benefit reports submitted by all nonprofit hospitals to the State of California (OSHPD, 2014). This data was included in the study's description of the population.

This approach was appropriate for this dissertation because it was used to determine first whether there were statistically significant changes between 2009 and 2012 and second, in which directions these changes occurred. This design is used when there is a suspicion that a relationship exists between variables (Chen, 2012). Correlation techniques have previously been used to study the relationship between community benefit law and hospital investment in health promotion (Ginn, Shen, & Moseley, 2009).

Setting and Sample

The target study sample included all nonprofit hospitals located in the state of California required to submit community benefit reports on their use of charitable dollars to improve community health. Public not-for-profit hospitals that are not required to submit a report, but have voluntarily chosen to do so in both 2009 and 2012, were also included. Hospitals that did not submit reports at both points in time were excluded. The new IRS regulation being studied has generated a change not in content, but in the structure of some hospitals' community benefit reports (IRS, 2009). Formerly, multi-hospital health systems were free to either combine the data from their individual facilities into one report, or file separate reports. The new federal regulation requires that each licensed nonprofit hospital file its own community benefit report (IRS, 2009). This change increased the number of reports from 2009 to 2012, although the data contained within those reports addresses the charitable investments of the same facilities. For purposes of this dissertation, only hospitals that have submitted facility-specific reports at

both points of the study (2009 and 2012) will be included. According to the information available on the website of California OSHPD there are 217 nonprofit hospitals that are mandated reporters (State of California, 2014); but only 206 of them submitted reports. As some hospitals are included in consolidated reports submitted by the health system with which they are affiliated, a total of 151 reporting entities representing 184 hospitals fit all the inclusion criteria for this study. The selection process used to determine the study population reduces threats of external validity, making the results generalizable to other states with community benefit legislation prior to the new federal standard. Threats to statistical conclusions were addressed through the statistical power of the sample, as well as ensuring that the assumptions of statistical tests used were not violated.

Although this research used purposive sampling and that the statistical power analysis was not a necessary step, it was conducted as an additional process. A statistical power analyses was run using G*Power 3.1.7. It was determined that at least 134 surveys were recommended, as illustrated below in Figure 1; which were enough cases to determine whether there were significant differences in hospital spending, community activities, and health improvement services between 2009 and 2012. There are 184 nonprofit hospitals in California represented in the population studied, out of a total of 217 required to report their community benefits; as some did not submit reports in 1 of the 2 years studied or submitted reports that did not contain financial data.

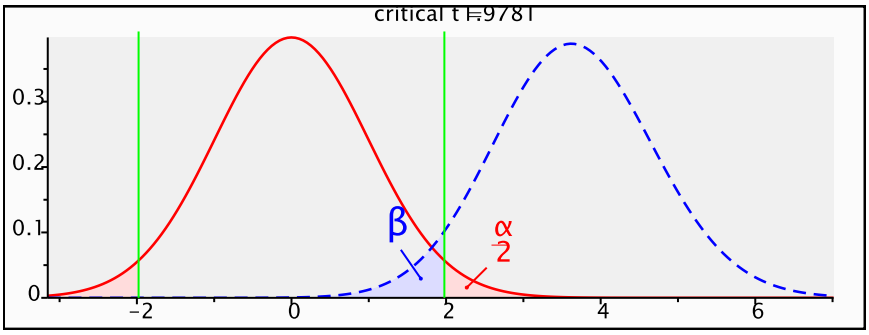

Figure 1. Power analysis.

Analysis: A priori: Compute required sample size

Input: Tail(s) = Two Effect size |ρ| = 0.3 α err prob = 0.05 Power (1-β err prob) = 0.95

Output: Non-centrality parameter δ = 3.6404323 Critical t = 1.9780988 Df = 132 Total sample size = 134 Actual power = 0.9509217

For-profit hospitals are not bound by community benefit legislation and were not included in the sample. Thus, this study has direct implications for only nonprofit hospitals. The study used a purposive sampling, which relies on the researcher's judgment to select a representative sample (Frankfort-Nachmias & Nachmias, 2008)). Although the specifics of state-level community benefit legislation vary across those states according to the State statute in force prior to recent federal regulations, the sampling of California's nonprofit hospitals is representative of the broader population of nonprofit hospitals in other states facing conflicts between state and federal expectations and demands.

Instrumentation and Materials

The archival data consisting of the 2009 and 2012 community benefit reports submitted to State of California's Office for Statewide Healthcare Planning and Development (OSHPD) were the instruments used to measure the relationship between the federal reporting requirements and the investments in community building made by the reporting hospitals with their charitable dollars. The data were publicly available through OSHPD, as well as through the individual reporting hospitals. A table of the participating hospitals, with a link to the OSHPD website through which the community benefit reports were accessed has been provided as an appendix to this study.

The first independent variable in this dissertation was the IRS community benefit standard implemented in 2010. The difference between values reported between 2009 and those reported in 2012 takes into account the change in law regarding IRS community benefit reporting requirements. Three independent predictive variables were specific characteristics of the hospitals studied: affiliation with a multi-hospital healthcare system, number of beds, or the type of institution (faith-based, secular, or teaching). The first dependent, or outcome, variable was interval: the percent of the hospital's total community benefits dollar amount invested in 2009 and 2012 in activities categorized as community building. The second dependent variable, the type of community building activity supported, was categorical and were quantified into a nominal variable and organized in a contingency table. For each type of community building activity identified, such as leadership development, community organizing, and the like, a nominal variable was created by asking entering 1 for yes or 0 for no to its inclusion in the hospital's community benefit report. A similar technique has been used previously by researchers

exploring hospitals' contributions to community health (Mosely, Shen, & Ginn, 2012). A summary description of this study's variables is found in Table 2.

Table 2.

Description of Variables

Variable Name	Variable Type	Levels of Measurement
IRS community benefit standard implemented in 2010.	Categorical dependent variable	1 for "yes" the standard has been implemented (2012 reports) or 0 for "no" the standard has not been implemented (2009 reports)
Percent of the hospital's total community benefits dollar amount invested in 2009 and 2012 in activities categorized as community building	Interval dependent variable	Dollar amount
Hospital characteristic: affiliation with a multi-hospital healthcare system	Independent predictive variable	1 for yes or 0 for no
Hospital characteristic: number of beds	Independent predictive variable	A dummy nominal variable was created for each category of hospital size by number of beds, coded 1 for yes or 0 for no
Hospital characteristic: type of institution (faith-based, secular, or teaching)	Independent predictive variable	A dummy nominal variable was created for each type, coded 1 for yes or 0 for no
Type of community building activity supported	Categorical dependent variable	A dummy nominal variable was created by asking entering 1 for yes or 0 for no to its inclusion in the hospital's community benefit report

Data Collection and Analysis

Data for this study was manually extracted from 2009 and 2012 community benefit reports that have been submitted by nonprofit hospitals to the State of California's

Office for Statewide Healthcare Planning and Development (OSHPD) and entered into SPSS software for analysis. Data was collected at two points of observation, 2009, pre-event, and 2012, post-event; the event being IRS reporting requirements initiated in 2010.

This quantitative study had two outcome or dependent variables. The dependent variables were the amount of charitable dollars spent on community building activities and the type of community building activities supported; and three descriptive dependent variables, which are the hospital characteristics of health system affiliation, size, and type of institution. The independent variable was the IRS community benefit standard.

Research Questions and Hypotheses

The overarching research question for this study was as follows:

Did the 2010 implementation of a new federal standard for nonprofit hospitals' community benefits affect the use of their charitable resources used in California to address the social determinants of health, defined as "community building" activities, as reflected in their 2009 and 2012 community benefit reports?

The following sub-questions and hypotheses further determined the impact of change in IRS reporting requirements:

1. What is the difference between the percentage of the hospitals' total community benefit contributions that were made to community building activities, as reflected in their 2009 and in 2012 community benefit reports?

   H_o1 – There is no significant difference in the percentage of hospitals' community benefit contributions made to community building activities after the 2010 implementation of the new IRS community benefit Standard?

H_a1 – There is a significant difference in the dollar amount invested in community building after IRS reporting requirements.

2. What is the difference between the types of community building activities funded by hospitals, as reflected in their 2009 and in 2012 community benefit reports?

   H_o2 – There is no significant difference in the types of activities in which investments are made after IRS reporting regulations.

   H_a2 – There is a significant difference in the types of activities in which investments are made after IRS reporting regulations.

3. In what way are changes in hospitals' investments in community building since the 2010 implementation of the new IRS community benefit Standard dependent on the following characteristics of the hospitals: affiliation with a multi-hospital health care system, number of beds, or the type of hospital institution?

   H_o3 – Affiliation with a multi-hospital healthcare system is not predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

   H_a3 – Affiliation with a multi-hospital healthcare system is predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

   H_o4 – Hospital size is not predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

H_a4 – Hospital size is predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

H_o5 – Whether a hospital is a faith-based, secular, or teaching institution is not predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

H_a5 – Whether a hospital is a faith-based, secular, or teaching institution is predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

Data Analysis

Once collected and entered into SPSS, the data was analyzed using the statistical tests previously mentioned, the matched-pairs *t* test, chi square goodness of fit test, independent-sample *t* test and ANOVA. Matched-pairs *t* test are used to determine whether the difference between paired means is significant or if the difference occurs by chance (Chen, 2012). This type of test is most often conducted when the same group of subjects is being studied on a factor at two points in time; or a study of the subjects' before-treatment and after-treatment (Chen, 2012). In this dissertation, the matched pairs studied were the dollar investments made by the same group of hospitals in 2009 and 2012 reported by this same group in these two years. The treatment was the implementation of the new IRS rules for the reporting of community benefits by not-for-profit hospitals. *t* tests are appropriate to use with both large and small groups of subjects, as they take the number of cases into account when the probability level is calculated

(Chen & Popovich, 2002). The statistic obtained through the t-test is used together with degrees of freedom to determine the probability that any difference between the means occurred by chance, rather than due to the treatment's influence (Field, 2005).

The first step in the analysis of data through the matched-pairs *t* test is to define the paired differences, or the data in 2009 and the data in 2012 that corresponds to the variables of the dollar amounts invested in community building. This step is represented in the following way: $d = x_1 - x_2$. The next step is to define the hypotheses, which have been defined and presented above; and then a significance level between 0 and 1 is selected; with 0.05 being the level most commonly used (Field, 2005). Following this step, the degrees of freedom are calculated, after which the *t* test statistic is computed (Field, 2005). The calculation of the p-value, which tells us the probability that the difference occurred by chance, is the final step prior to evaluating the null hypothesis, which is done by comparing the level of significance to the p-value. If the p-value is less than the significance level, then the null hypotheses is rejected (Field, 2005).

The matched-pairs *t* test can be found in the "Analyze" and then "Compare Means" tabs of SPSS. After selecting the matched pair's *t* test from the drop-down menu, the pair of variables representing the conditions to be studied are selected. For this dissertation, the *t* test conducted was the dollar amounts invested in community building in 2009 and 2012.

The SPSS calculation of the matched-pairs *t* test produced three sections. The first section, descriptive statistics, includes the means, the number of cases, standard deviations, and standard error for each mean (Field, 2005). The second section, the correlation between the paired variables, includes the number of cases, correlation

statistic and significance level (Field, 2005). The third section, the inferential statistics, includes data on the paired differences, such as the means, standard deviations, standard error, confidence interval, t-statistic, degrees of freedom, and significance level. Together, this information was used to reject or accept the null hypotheses H_o1.

Chi-square tests are used to determine if there is a significant relationship between two categorical variables (White, & Korotayev, 2004). They are used to compare the frequencies observed in a category to the frequencies in that category that could be expected to occur by chance (Field, 2005). These tests make two assumptions. The first assumption is that two variables are categorical, and the second is they need to consist of at least 2 categorical groups (Garczynsk, 2011). The categorical variables studied in this dissertation are the types of community building activities supported by nonprofit hospitals in California in 2009 and those supported by these same hospitals in 2012. Each variable consists of eight categorical groups, representing the types of community building activities recognized by the IRS. These are: physical improvements and housing; economic development; community support; environmental improvements; leadership development and training; coalition building; community health improvement advocacy; and workforce development. The data analyzed through the chi square goodness of fit test was used to either reject or accept H_o2.

In order to analyze changes in the relative frequencies of occurrence of the 8 different types of community building activities, the before-treatment proportions were used to create the expected values for the after counts. The chi-square's null hypothesis is that there will be no statistically significant change (Breezeel, 2003). The chi-square goodness of fit test was accessed via the "analyze," then "nonparametric," and then "Chi-

Square" functions in SPSS. The test output includes the chi-square value, degrees of freedom, and significance level for the chi-square statistic (Breezeel, 2003). With a confidence level of 95%, the differences between the observed and expected values are not statistically significant is the value is not over .05. In this were case, the null hypothesis would be accepted (Breezeel, 2003).

Independent-sample *t* test and analysis of variance (ANOVA) were run using SPSS to compare the means of three hospital characteristics and determine if they are predictive of changes in the amount and type of hospital investments made in community building activities that address the social determinants of health. In order to do this, certain assumptions must be met. The first assumption is that the dependent variables are continuous (Field, 2005). The second assumption is that the independent variables are either continuous or categorical (Field, 2005). The remaining assumptions were checked by SPSS (Field, 2005). After meeting the assumptions for this test, the following procedure was following in SPSS. The test begins with clicking "Analyze", them "Compare Means," and "Independent Samples *t* test" from the top menu; and then the dependent and independent variables are transferred into the appropriate boxes in the independent samples *t* test box.

The analysis of variance, or ANOVA, was run to determine of there were any significant differences between the means community building investments of three independent groups: small, medium and large hospitals. The procedure used to verify assumptions that was used for the independent samples *t* test was repeated to establish that the assumptions were met for ANOVA, as part of that procedure. There is an 8-step procedure to run ANOVA in SPSS, which begins by clicking "Analyze," "Compare

Means," and "One-Way ANOVA" from the top menu. As with the previous test run, SPSS then directs the user to select independent and dependent variables in the One-Way ANOVA box, after which she clicks "PostHoc" button and then the Tukey checkbox in the One-Way ANOVA Post Hoc Multiple Comparisons box. A significance level of .05 is then selected before continuing to the next step. After clicking "Options," the user checks "Descriptive" in the statistics area, and then continues and clicks "OK." Table 4 summarizes which dependent variables, independent variables, and statistical tests are associated with each research question in this study.

Table 4.

Statistical Tests

Research Question	Dependent variable	Independent variable	Statistical test
Primary Question: Did the 2010 implementation of a new federal standard for nonprofit hospitals' community benefits affect the use of their charitable resources used in California to address the social determinants of health, defined as "community building" activities, as reflected in their 2009 and 2012 community benefit reports?	Use of California hospitals' community benefit resources to address the social determinants of health (following 2 dependent variables listed in table)	IRS community benefit standard implemented in 2010.	Matched-pairs *t* tests, chi-square goodness of fit tests
What is the difference between the percentage of the hospitals' total community benefit contributions that were made to community building activities, as reflected in their 2009 and in 2012 community benefit reports?	Percent of the hospital's total community benefits dollar amount invested in 2009 and 2012 in activities categorized as community building	IRS community benefit standard implemented in 2010.	Matched-pairs *t* test
What is the difference between the types of community building activities funded by hospitals, as	Type of community building activity	IRS community benefit standard	Chi-square goodness of

reflected in their 2009 and in 2012 community benefit reports?	supported: physical improvements and housing; economic development; community support; environmental improvements; leadership development and training; coalition building; community health improvement advocacy; and workforce development	implemented in 2010.	fit test
In what way are changes in hospitals' investments in community building since the 2010 implementation of the new IRS community benefit Standard dependent on the following characteristics of the hospitals: affiliation with a multi-hospital health care system, number of beds, or the type of hospital institution?	Changes in hospitals' investments in community building	Characteristics of the hospitals studied: affiliation with a multi-hospital healthcare system, number of beds, or the type of institution (faith-based or secular)	Independent sample *t* test, ANOVA

Protection of Human Participants

This study used secondary data from nonprofit hospital's community benefit reports, and does not involve human participants. The data collected is public information available from the state of California's Office of Statewide Healthcare Planning and Development, as well as from the submitting hospitals themselves. As such, there are no measures needed to protect human participants. However, this study complies with Walden University's Institutional Research Board for Ethical Standards in Research

(IRB) guidelines for archival research. The University's IRB ensures that all research conducted by its faculty and students complies with both federal regulations and Walden's own ethical standards (Walden University, 2014). Even researchers using only archival data must apply for IRB approval of their study, to ensure protection of the data's stakeholders; either those who participated in the data's creation, or who are potentially impacted by the research (Walden University, 2014). Walden University's IRB reviewed and approved (approval number 09-09-15-0171451) the completed application for this archival research prior to collection of the data for this study.

This chapter described the methodological aspects of this study, which is a quantitative correlational study that compared 2009 and 2012 data on charitable dollars used to support community building activities; as reflected in data drawn from community benefit reports submitted by nonprofit hospitals to the California's Office of Statewide Healthcare Planning and Development. This description including the research design; variables; purposive sampling; data collection and analysis, including matched-pairs *t* test, chi square goodness of fit, independent sample *t* test and ANOVA; and ethical considerations.

Chapter 4 will present the result of the procedures described here in Chapter 3.

Chapter 4: Results

Introduction

The purpose of this study was to explore if and how nonprofit hospitals in the state of California have altered their investments in community building activities since implementation of the IRS' 2010 community benefit reporting regulations and enhanced by the ACA. This research explored the dollar amount of investments in community building activities made by California's nonprofit hospitals, as well as the type of activities undertaken. This study compared data from 2009 to data from 2012. The data were drawn from community benefit reports submitted to California OSHPD. This chapter includes a review of the study's research questions and hypotheses, the data collection processes, and the results of descriptive and inferential statistical procedures.

Research Questions and Hypotheses

This quantitative study had three outcome or dependent variables. The dependent variables were the amount of charitable dollars spent on community building activities, the type of community building activities supported, and the number of community building activities reported as a community health improvement service. The independent variable was the IRS community benefit standard.

The overarching research question for this study was *Did the 2010 implementation of a new federal standard for nonprofit hospitals' community benefits affect the use of their charitable resources used in California to address the social determinants of health, defined as 'community building' activities, as reflected in their 2009 and 2012 community benefit reports?* In order to answer this question, matched-pair

t test and chi square goodness of fit tests were conducted. The results are presented below.

The subquestion *What is the difference between the percentage of the hospitals' total community benefit contributions that were made to community building activities, as reflected in their 2009 and in 2012 community benefit reports?* was answered by using a matched-pair *t* test to test the null hypothesis H_o1. This null hypothesis stated there is no significant difference in the percentage of hospitals' community benefit contributions made to community building activities after the 2010 implementation of the new IRS community benefit standard. The next sub-question *What is the difference between the types of community building activities funded by hospitals, as reflected in their 2009 and in 2012 community benefit reports?* was answered by conducting chi-square goodness of fit tests to test the null hypothesis, H_o2. This hypothesis stated that there is no significant difference in the types of activities in which investments are made after IRS reporting regulations.

Three null hypotheses were tested by using independent sample *t* tests and one-way ANOVA in order to answer the final subquestion *In what way are changes in hospitals' investments in community building since the 2010 implementation of the new IRS community benefit standard dependent on the following characteristics of the hospitals: affiliation with a multi-hospital health care system, number of beds, or the type of hospital institution?"*. The study's third null hypothesis, H_o3, stated that affiliation with a multihospital healthcare system was not predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements. The next, H_o4, stated that hospital size is not predictive of a change in

hospital investments in community building since the implementation of current IRS reporting requirements. Null hypothesis H_o5 stated that whether a hospital is a faith-based, secular, or teaching institution is not predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements.

Data Collection

Hospitals' community benefit reports were collected by submitting a written request was submitted to the community benefit program of California OSHPD for all hospital community benefit reports received for the years 2009 and 2012. The number of reporting entities for the hospitals varied between 2009 and 2012; as some of the reporting hospitals submitted individual reports, and some multi-hospital health systems submitted consolidated reports that included data from all the hospitals in their system or in a particular region of their system. Hospital reports that did not include financial data were excluded, as were reports of hospitals that did not submit reports in both 2009 and 2012.

The financial data extracted from the hospital reports included the total amount of funds reported as unsponsored community benefits. As per OSHPD regulations, the shortfall of Medicare payments is included in the hospital report; however, it is listed separately. Leaders in the field, led by the American Hospital Association, Volunteer Hospitals of America, and the Catholic Hospital Association, agree that community benefits should be calculated without the Medicare shortfall (Graybill, 2010). For purposes of this study, the total community benefit amount excluded the Medicare shortfall, as per the industry standard. Data on the type of hospital, its size, any

affiliation, and the community building activities in which the hospital invested was extracted from the narrative sections of the report.

Results

Descriptive Statistics

In 2009, 181 reports on community benefit data from 190 hospitals were submitted to CA OSHPD. In 2012, 172 reports were submitted on 206 hospitals. A total of 151 reporting entities met all the established criteria and were included in the study, representing 184 hospitals. This satisfied the number of subjects needed for the study, as defined by the power analysis described in Chapter 3. Of the 151 reporting entities, 114, or 75.5% represented hospitals affiliated with a multi-facility health system and 37, or 24.5% represented stand-alone independent hospitals; as shown below in Figure 2.

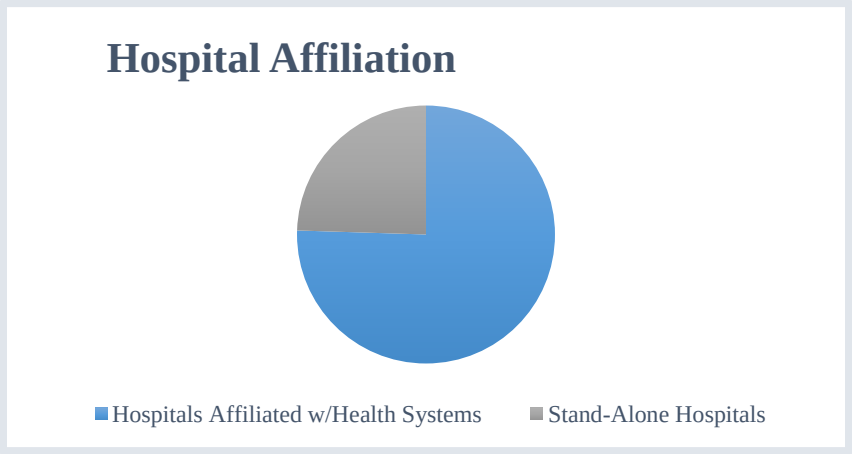

Figure 2. Hospital Affiliation (*N* = 151)

There were 84 secular hospitals, 55.6%, included in the population studied; and 67, 44.4%, were faith-based hospitals. This demographic statistic is presented in Figure 3.

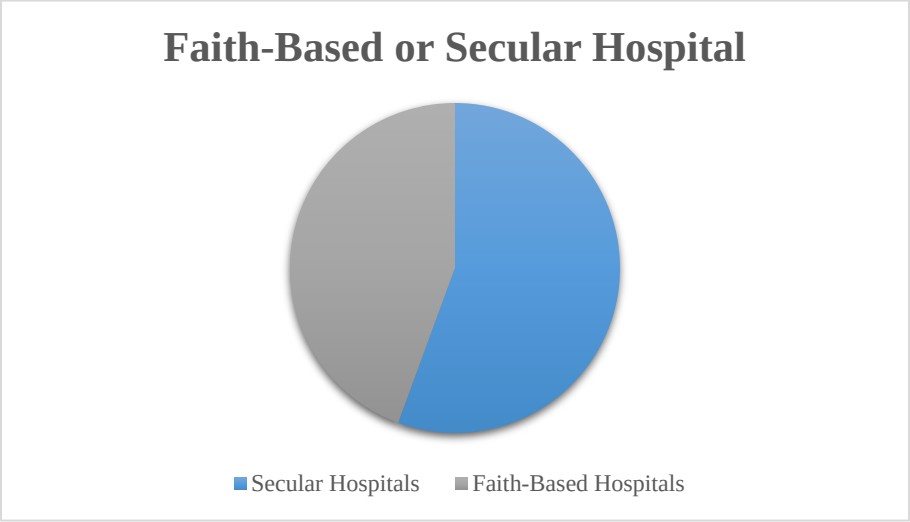

Figure 3. Faith-based or secular hospital. (N=151)

Hospital size was organized into three categories: small (fewer than 170 beds), medium (170-269 beds), and large (270 beds). The distribution of hospitals according to their size is presented below in Figure 4. One hospital did not include its size in its community benefit report, and so N-150 for this variable.

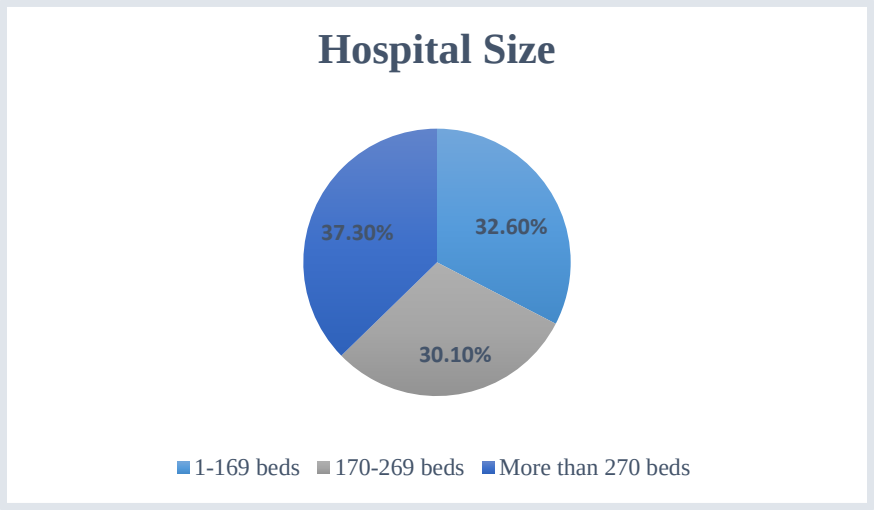

Figure 4. Hospital size (N=150)

The types of activities that were considered community building activities for reporting purposes include: physical improvements and housing; economic development; community support; environmental improvements; leadership development and training; coalition building; community health improvement advocacy; and workforce development. In 2009, 42 of the 151 reporting entities, or 27.8%, reported a financial investment in community building activities. In 2012, the number of reporting entities reporting financial investment in community building activities increased to 69, or 45.7%. Figure 5 illustrates this increase in the percentage of hospitals that make some investment in community building activities.

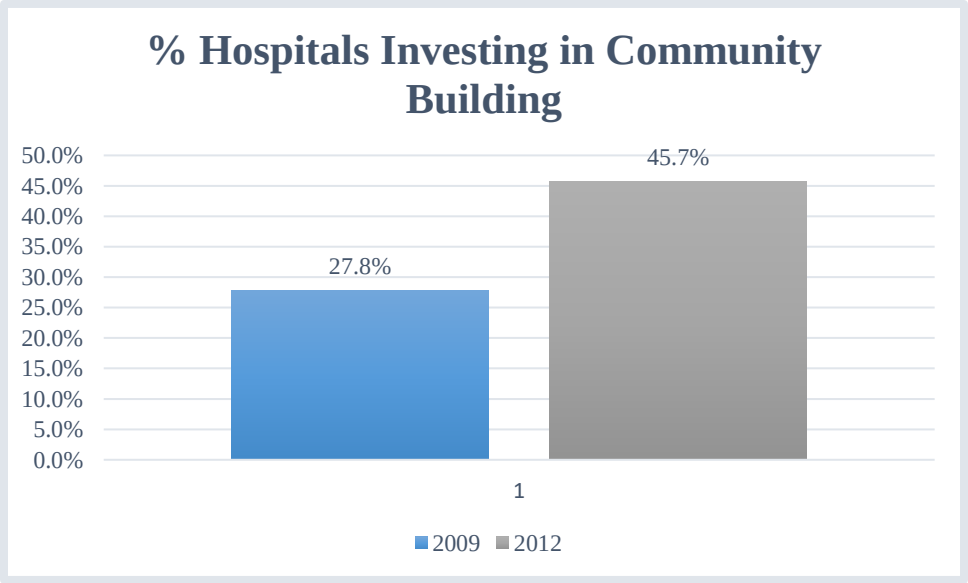

Figure 5. Percent of hospitals investing in community building (N=151)

Demographic statistics along with the percent of their total reported community benefit dollars that were invested in community building activities are presented below in Table 4.

Table 4.

Demographic Statistics

			% Community Building		
	Frequency	Percent	2009	2012	Change
Affiliation					
Affiliated	114	75.5	0.25%	0.30%	0.05%
Not Affiliated	37	24.5	0.52%	1.72%	1.20%
Type					
Faith-based	67	44.4	0.45%	0.44%	-0.02%
Secular	84	55.6	0.21%	0.82%	0.61%
Size[a]					
1 - 169 beds	49	32.6	0.49%	0.87%	0.38%
170 - 269 beds	45	30.1	0.18%	0.96%	0.78%
More than 270 beds	56	37.3	0.28%	0.21%	-0.07%
Total	151	100.0	0.32%	0.65%	0.33%

NOTE: N=151

[a] One reporting entity did not report the size of its hospital.

Research Question 1

A matched-pairs *t* test was conducted to determine if there was a difference between the percentage of the hospitals' total community benefit contributions that were made to community building activities, as reflected in their 2009 and in 2012 community benefit reports. It was done by comparing the mean percent of total community benefit dollars that were invested in community building in 2009 versus 2012. There was not a significant difference between the scores for the community building investments in 2009 (M=.0032, SD=.0121) and those in 2012 (M=.0065, SD=.0331). The summary statistics for the hospitals' charitable dollars invested in community building activities are presented below in Table 5.

Table 5.

Paired samples summary statistics. Hospitals' community building investments.

	Mean	N	Std. Deviation	Std. Error Mean
Percent of Ttl CB $ 2009	.00315808	151	.012082319	.000983245
Percent of Ttl CB $ 2012	.00647328	151	.033139576	.002696860

NOTE: N=151

The matched-pairs *t* test revealed no statistically significant difference in means between 2009 and 2012, $t(150) = 1.183$, $p = 0.239$. This test indicated that the percent of the hospitals charitable contributions through community benefit that were made in community building did not significantly change from 2009 to 2012. As such, the null hypothesis H_o1, which states that there is no significant difference in the percentage of hospitals' community benefit contributions made to community building activities after the 2010 implementation of the new IRS community benefit Standard, cannot be rejected and was retained. The results of the matched-pairs *t* test are presented below in Table 6.

Table 6.

Change in % total community benefit investments made in community building

	Mean	S.D.	T	Df	P	Confidence Interval	
						Lower	Upper
Change in % Ttl CB	0.332%	3.444%	1.183	150	0.239	-0.222%	0.885%

NOTE: N=151

Research Question 2

Chi-square goodness of fit analysis was conducted to determine if there was a difference between the types of community building activities funded by hospitals, as reflected in their 2009 and in 2012 community benefit reports. This analysis was used to compare the observed frequency of each type of community building activity with the

expected frequency of that type of activity for each year studied, with the assumption that the 2009 and 2012 data are independent of each other. Chi-square goodness of fit analysis was conducted for each individual type of community building activity. The analysis revealed an increase in the relative frequency of investments in leadership development, physical improvements, and advocacy. It also revealed no change in investments in coalition building, economic development, and community support; and a decrease in frequency of investments in workforce development. Overall, a statistically significant change was discovered in the relative distribution types of community-building activities from 2009 to 2012, $\chi^2(15) = 39.78$, $p < 0.001$, as presented below in Table 7. Null hypothesis H_o2, which states that there is no significant difference in the types of activities in which investments are made after IRS reporting regulations, was rejected and the alternative hypothesis H_a2 that there is a significant difference in the types of activities in which investments are made after IRS reporting regulations was accepted.

Table 7.

χ^2: Change in type of community building activities

	2009		2012	
Activity Type	Observed	Expected	Observed	Expected
Leadership Development	12	16.11	17	12.89
Coalition Building	116	115.00	91	92.00
Physical Improvements	1	7.22	12	5.78
Economic development	9	8.33	6	6.67
Community Support	135	138.33	114	110.67
Environ. Improvement	6	5.56	4	4.44
Advocacy	56	62.22	56	49.78
Workforce Development	90	72.22	40	57.78

NOTE: N=151

Research Question 3

There were three hypotheses tested to answer the third research question, which asked in what way are changes in hospitals' investments in community building since the 2010 implementation of the new IRS community benefit Standard dependent on the following characteristics of the hospitals: affiliation with a multi-hospital health care system, number of beds, or the type of hospital institution. An independent sample *t* test was performed to test H_o3, which stated that there is no statistically significant relationship between the hospital characteristic of affiliation with a multi-hospital health system and a change in the percent of hospitals' total community benefit dollars that was invested in community building activities. The test compared the scores of non-affiliated hospitals (M = .0119, SD = .0668, n= 37) with the scores of affiliated hospitals (M = .0005, SD = .0109, n = 114). Summary statistics for the independent variable affiliation are presented in table 8.

Table 8.

Independent sample t test statistics. Affiliation.

	Affiliation	N	Mean	Std. Deviation	Std. Error Mean
Change in % of Ttl CB	Not Affiliated	37	.01199895	.066827763	.010986416
	Affiliated	114	.00049674	.010897495	.001020644

NOTE: N=151

Running an independent sample *t* test for affiliation with a 95% confidence interval resulted in Levene's test for equality of variances indicated that the variability in the two conditions was significantly different, p=<0.001. The Levene's test for equality of variances is presented in Table 9.

Table 9.

Levene's test for equality of variances. Affiliation.

	Levene's Test for Equality of Variances	
	F	Sig.
Change in % of Ttl CB		
Equal variances assumed	16	.000
Equal variances not assumed		

NOTE: N=151

The *t* test for equality of means performed found no significant difference between the means, $t(36.62) = 1.042$, $p = .304$. Given these results, the null hypothesis H_o3 was retained. The results to the independent sample *t* test for hospital affiliation are presented below in Table10.

Table 10.

t test for equality of means. Affiliation.

	t test for Equality of Means						
						95% Confidence Interval of the Difference	
	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Change in % of Ttl CB							
Equal variances assumed	1.778	149	.077	.011502209	.006469312	-.00128124	.024285655
Equal variances not assumed	1.042	36.62	.304	.011502209	.011033724	-.01086201	.033866424

NOTE: N=151

An independent sample *t* test was also performed to test H_o4, the next hypothesis tested to answer the third research question. This null hypothesis stated that the type of hospital, secular or faith-based, had no significant relationship with a change in the

percent of hospitals' total community benefit dollars that was invested in community building activities. The test compared the scores of faith-based hospitals (M = .0002, SD = .0131, n= 67) with the scores of secular hospitals (M = .0061, SD = .0446, n = 84). Summary statistics for the independent variable hospital type are presented below in Table 11.

Table 11.

Independent t test statistics. Type of hospital

	Type	N	Mean	Std. Deviation	Std. Error Mean
Change in % of Ttl CB	Faith-based	67	-.00018128	.013064463	.001596078
	Secular	84	.00610399	.044606975	.004867020

NOTE= 151

Running an independent sample *t* test for affiliation with a 95% confidence interval resulted in Levene's test for equality of variances indicated that the variability in the two conditions was not significantly different, *p*=.123. The Levene's test for equality of variances is presented below in Table 12.

Table 12.

Levene's test for equality of variances. Type of hospital.

	Type	N	Mean	Std. Deviation	Std. Error Mean
Change in % of Ttl CB	Faith-based	67	-.00018128	.013064463	.001596078
	Secular	84	.00610399	.044606975	.004867020

NOTE: N=151

Levene's test for equality of variances		
	F	Sig.
Change in % of Ttl CB		
Equal variances assumed	2.405	.123
Equal variances not assumed		

The *t* test for equality of means performed found no significant difference between the means, t(149) = -1.115, p = .267. Given these results, the null hypothesis H_o4 was retained. The results to the independent sample *t* test for hospital affiliation are presented below in Table13

Table 13.

t test for equality of means. Type of hospital.

	t test for Equality of Means						
						95% Confidence Interval of the Difference	
	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Change in % of Ttl CB							
Equal variances assumed	-1.115	149	.267	-.00628527	.005636225	-.01742253	.004851982
Equal variances not assumed	-1.227	100.352	.223	-.00628527	.005122045	-.01644683	.003876283

NOTE: N=151

In order to answer research question number three, H_o4 was tested by performing a one-way ANOVA to analyze the final independent variable, hospital size. H_o4 stated that hospital size had no significant relationship with a change in the percent of hospitals' total community benefit dollars that was invested in community building activities. One hospital report did not contain information regarding the hospital's size, for which N=150

for this test. Descriptive statistics for the ANOVA are presented below in Table 14.

Table 14.

Descriptive statistics ANOVA. Hospital size

Hospital Size	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
1.0000	44	.00423232	.031744008	.004785589	-.00541874	.01388338	-.075155	.174898
1.5000	2	-.00002450	.000034648	.000024500	-.00033580	.00028680	-.000049	.000000
1.6667	3	.00000000	.000000000	.000000000	.00000000	.00000000	.000000	.000000
2.0000	43	.00816528	.055037837	.008393191	-.00877287	.02510343	-.026621	.358744
2.3333	1	-.00088000	.	.	.	.	-.000880	-.000880
2.5000	1	.00000000	.	.	.	.	.000000	.000000
3.0000	56	-.00069198	.009818606	.001312066	-.00332142	.00193746	-.067351	.018497
Total	150	.00331766	.034552661	.002821213	-.00225709	.00889241	-.075155	.358744

NOTE: N=150

As part of the analysis of variance, the Levene test was run to verify that the variances are equal across the samples homogeneity of variances. The results of this test were that the variances are homogeneous, and are presented in Table 15.

Table 15.

Test of homogeneity of variances. Hospital size.

Levene Statistic	df1	df2	Sig.
1.265[a]	4	143	.287

a. Groups with only one case are ignored in computing the test of homogeneity of variance for Percent_Change_Ttl_CB.

NOTE: N=150

A one-way analysis of variance (ANOVA) was calculated on hospital size, based

on number of beds. The analysis was not significant, $F(6,143) = .275$, $p = .948$. The results of the ANOVA run are presented below in Table 16.

Table 16.

ANOVA. Hospital size.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.002	6	.000	.275	.948
Within Groups	.176	143	.001		
Total	.178	149			

NOTE: N=150

Regression analysis was planned, however determined to be unnecessary, as the independent variables, hospital characteristics of affiliation, size and type, were not found to be associated with the dependent variable. All null hypotheses relevant to the third research question, *In what way are changes in hospitals' investments in community building since the 2010 implementation of the new IRS community benefit Standard dependent on the following characteristics of the hospitals: affiliation with a multi-hospital health care system, number of beds, or the type of hospital institution?* were retained. These include H_o3, which states that affiliation with a multi-hospital healthcare system is not predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements; H_o4, stating that hospital size is not predictive of a change in hospital investments in community building since the implementation of current IRS reporting requirements; and H_o5, stating that whether a hospital is a faith-based, secular, or teaching institution is not predictive of a change in hospital investments in community building since the implementation of current IRS

reporting requirements.

Summary

The statistical tests used to test the study's hypotheses were matched-pair *t* test, chi-square goodness of fit test, independent sample *t* test, and ANOVA. The results of the matched-pair *t* test found no statistically significant change in the percent of total community benefit dollars that were invested in community building activities from 2009 to 2012, for which the first null hypothesis is retained. The chi-square revealed that there was a significant change in the types of community building activities invested in by the reporting entities from 2009 to 2012, for which the second null hypothesis is rejected. One independent *t* test found that there was a change in how hospitals' investments in community building were distributed. Specifically, it showed an increase in relative frequency of investments in leadership development, physical improvements, and advocacy activities. It also showed a relative decrease in the frequency of investment in workforce development. Overall analysis of all the data collected on California's nonprofit hospitals' reported investments in community building activities with their community benefit dollars in 2009 and 2012 revealed no significant change in financial investments prior to and following the implementation of new federal community benefit frameworks created by Schedule H of the IRS' 990 Form and the ACA. There was, however, a change in the frequency with which investments were made in some of the types of community building activities; resulting in the only null hypothesis (H_o2) to be rejected in the study. All other null hypotheses were retained. The findings of this chapter will be explored further in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

Hospital participation in local public health initiatives is important and expected in the current regulatory framework (IRS, 2009, Crossley, 2013). Concern about incentives and disincentives for investment in community building by these hospitals has surfaced in research, editorials, and forums in the field. This study explored changes in the support of community building activities by nonprofit hospitals in California. Their charitable contributions prior to and following 2010 changes in federal community benefit standards were analyzed. The study is significant to both public health and healthcare sectors because it provides data from community benefit reports submitted by all mandated nonprofit hospitals in California on the actual total of charitable dollars invested in the upstream investments. These upstream interventions have been identified as having a strong influence on the health of populations, but are difficult to sustain with current funding policies. It is also significant to communities served by hospitals that enjoy a tax exemption for their community benefit activities and look to them to be impactful partners. This quantitative, correlational study analyzed secondary data to determine if relationships exist between independent variables and the dependent variable.

Responses to the subquestions, detailed below, were used to answer the study's overarching research question. Research in past literature on hospitals' community benefits investments in Texas found that legislative changes did not increase their spending in charity care (Kennedy, Burney, Troyer & Stroup, 2010). Likewise, this study found that the 2009 and 2012 community benefit reports submitted by nonprofit hospitals

to California do not reflect a significant change in their charitable investments in community building activities following the 2010 implementation of the new federal standard.

The first research subquestion asked about the difference between the percentage of the hospitals' total community benefit contributions that were made to community building activities, as reflected in their 2009 and in 2012 community benefit reports. Analysis using a matched-pair *t* test found that there is no statistically significant difference. The chi-square goodness of fit test was used to answer the next study question about the difference between the types of community building activities funded in 2009 and 2012 by hospitals. The chi-square found that there were four differences between the types of funded community building activities. However, there were no data that allowed conclusions to be drawn as to what influenced those changes. The changes in types of activities funded are detailed more fully below. Finally, independent-sample *t* tests and analysis of variance (ANOVA) were run to answer the third additional research question: *In what way are changes in hospitals' investments in community building since the 2010 implementation of the new IRS community benefit standard dependent on the following characteristics of the hospitals: affiliation with a multi-hospital health care system, number of beds, or the type of hospital institution*? These tests found that none of the hospitals' characteristics predicted changes in their investments in community building since the 2010 implementation of the new IRS community benefit Standard. This chapter presents (a) an interpretation of the findings of the study, (b) a discussion of the study's limitations, (c) the recommendations for action and further study on the primary research question, and (d) the overall conclusions.

Interpretation of Findings

Review of the community benefit reports revealed a lack of uniformity in both content and format of the reports submitted. This is true of unaffiliated stand-along hospitals, as well as between hospitals within the same multi-hospital health system. This is consistent with findings in the review of the background literature on community benefit reporting found earlier in this dissertation (Somerville, 2012; Rauscher & Vyzas, 2012). Gaps found in the community benefit reports submitted to the state of California affirm concerns expressed by researchers in past literature that the inconsistent standards could create confusion for hospitals and negatively impact the quality of their reporting ((Rauscher & Vyzas, 2012; Rosenbaum, Rieke, & Byrners, 2014; Tao, Freeman, & Evashwick, 2010). Despite requirements put in place at a federal level since 2010 that each licensed hospital facility submit a separate report on its community benefit investments and activities (IRS, 2009), on a state level in California, there are still a number of multi-hospital health systems submitting consolidated reports on a number of its hospitals; sometimes by region and sometimes as a system overall. Eleven hospitals did not submit any community benefit report at all. The problems found in the reports reviewed raise a question about whether state agencies like OSHPD have the resources needed to enforce compliance with current reporting expectations and requirements. It has been suggested in the literature that insufficient research in the field creates difficulty for not only hospitals, but also regulatory agencies like OSHPD (Tao, Freeman, & Evashwick, 2010). The inconsistencies and deficiencies found through this study of hospital community benefit reporting in California, create a significant hurdle to achieving the dual goals of increased transparency and increased accountability within

the new federal framework for the use of nonprofit, tax-exempt hospitals' charitable dollars. The multiple stakeholder groups interested in these reports, including legislators, healthcare industry leaders and advocates, patient advocates, and the reporting hospitals themselves are hindered in their efforts to improve community health and reduce health inequities by the lack of reliable, high quality reporting by hospitals and health systems.

Increase in Proportion of Dollars in Community Building

Analysis of the financial data submitted by the 151 reporting entities revealed that there was an increase in the frequency of investments in community building activities by the hospitals. However, this did not translate into a significant increase in the percentage of their total community benefit dollars being invested in community building. Congruent with concerns surfaced during this study's literature review (Crossley, 2012; Rausch & Vyzas, 2012) and contrary to the potential of this type of contribution (Crossley, 2012; Trust for America's Health, 2013; Prybil, Scutchfield, Killian, Kelly, Mays, Carman, Levey, McGeorge, & Fardo, 2014), this dissertation research found that the hospitals made relatively small investments in community building as compared to under-compensated patient care and individually-focused health improvement services. This finding is contrary to the goals of the ACA in regards to the role of hospitals in their communities, which seek a shift from individually-focused care to participation in community-level population health and public health efforts (Crossley, 2012). Although the proportion of all the hospitals' community benefit dollars invested in community building activities in 2012 was greater than it was in 2009, it still did not rise to even 1%. There was no literature specific to this question, however research was reviewed on hospital investment in community-based programming; which one government study

found to be at 6% of their total charitable contributions (Courtney, 2011). Another study on hospital investments in primary prevention found that number to be 5% of the total (Gostin, Jacobson, Record, & Hardcastle, 2011). By comparison, the 0.65% investment in community building by California's hospitals is extremely low; and too low to measure any meaningful change from 2009 to 2012. Recent research and initiatives focused on multisector collaboration to build communities that are accountable for population health suggest that the pooling of hospitals' community benefit dollars for upstream health protection activities such as those discussed in this dissertation could serve as leverage for additional resource and could increase the effectiveness and impact of these community-driven efforts (Corrigan, Fisher, & Heiser, 2015).

Change in Distribution of Community Building Investments

The only significant change found in any data in this study was in the relative proportion of the type of community building activities the hospitals supported. When comparing observed frequencies to expected frequencies in each category, analysis showed more frequent investments in leadership development, physical improvements, and advocacy in 2012 than in 2009. This could be interpreted as hospitals learning from and integrating with public health efforts, as the literature review showed that leadership development and advocacy are among the community building activities most frequently referenced in research on community health improvement programming (Wallerstein, Yen, & Syme, 2011; Heritage & Dooris, 2009; Alexander, Comfort, Weiner, & Bogue, 2001; Ranghelli, 2009). At the same time, the literature also concluded that less concrete community building activities like leadership development and advocacy would be less likely to be funded by hospitals, given the IRS requirement that hard data be provided to

prove their positive effect on community health improvement (Rubin, Sing, & Jacobson, 2013; Cheadle, Wagner, Walls, Diehr, Bell, Anderman, McBride, Catalano, Pettigre, Simmons, and Neckerman, 2001; Alexander, Weiner, Metzger, Shortell, Bazzoli, Hasnain-Wynia, Sofaer, & Conrad, 2003; Granner & Sharpe, 2004; Courtney, 2011). This, however, did not hold true in the findings of this dissertation. The chi-square goodness of fit analysis also showed a decrease in the frequency of investments in the category of workforce development in 2012. This decrease could have "paid for" the increases seen in the categories with increased frequency of investments. Review of the hospitals' narrative reports, which were limited and inconsistent across the population studied, also point to diverse definitions of "leadership development." Several examples given of the activities invested in under this category could be interpreted as the development of the hospitals own healthcare and community health teams, rather than the development of leadership in the communities served. So, again, the deficiencies in the reports leave open questions requiring further exploration. For example, job shadowing of hospital staff by teens and youth has been included by some reporting entities as leadership development and by some as workforce development. They also leave open the possibility of activities being erroneously reported as community building.

Effect of Hospital Characteristics on Community Building Investments

Analysis determined that none of the hospital characteristics studied were predictive of changes in investments between 2009 and 2012. Given the additional resources available to hospitals through affiliation with a multi-hospital health system, one might expect that these hospitals could make more substantial investments in community building activities. Likewise, an assumption can be made that the historical

commitment to community partnership professed by faith-based hospitals might also lead to these types of collaborative, upstream investments. However, the data collected and analyzed here do not support those assumptions. This study cannot conclusively determine why hospitals' 2009 investments in community building do not predict their investments in community building in 2012. However, past research in the literature revealed that hospitals' use of their charitable dollars tends to follow patterns that are not evident here. The question remains whether the changes in the industry created through the new federal framework also led hospital leadership to use a new framework for making decisions about their community benefits. Review of the literature revealed that while community health and health equity researchers and advocates see hospitals' community benefit dollars as an opportunity for their communities (Crossley, 2012; Principe, Adams, Maynard, & Becker, 2012; Trocchio, 2015; Health System Learning Group, 2013; Barnett, 2014), hospitals tend to use them to off-set the financial burden for both the government and themselves of responding to under-funded healthcare needs.

Limitations of the Study

This study was limited by inconsistencies and gaps in the data in the reports submitted by the hospitals to the state. The study relied exclusively on the reports submitted on hospital community benefits to the State of California, though OSHPD's community benefit program; and did not include tax filings to the IRS by these same hospitals. The reason for this exclusion is that the research was focused on determining if there were differences in the hospitals' investments in community building in the years 2009 and 2012, and the changes in IRS' 990 Form that call for specific identification of community building investments was not fully implemented until 2010. Hence,

California's pre-existing reporting requirements allow for a comparison between the two years that the tax filings do not.

It was also impossible to include each individual hospital as a reporting entity. The lack of uniformity in report formats and content, as well as in reporting entities created a challenge and additional steps in the extraction of the relevant data from the reports obtained from CA OSHPD. The number of consolidated reports submitted by health systems for their hospitals was also inconsistent, both between health systems and within health systems from year to year. As a result of these challenges, the number of reporting entities was reduced to 151, rather than the total number of hospitals required to report. These reports contained data on 184 individually licensed hospital facilities, exceeds the 134 hospitals recommended by the G-Power for a sample size.

Recommendations for Further Research

This research fills a gap in the literature and could lead to the development and funding of health protection activities that address the social determinants of health in local communities through favorable hospital funding policies and practices. However, further study is recommended. Mixed method research would provide a more complete analysis of hospital investments in community building in the context of legislative and regulatory frameworks. Qualitative research is needed to explore the factors influencing the decisions made regarding the types and amount of nonprofit hospitals' contributions to activities that address the social determinants of health of the populations in their service areas.

Given the inconsistencies found between the inclusion of community building activities in hospitals' narrative description of community benefits provided and the

exclusion of reported funds allocated to conduct these activities, further research is needed to explore the factors influencing these discrepancies. It is possible that hospital leaders and their finance and community benefit staff require more education about community building in general and about the standards and regulations for the reporting of activities in this category. It is also possible that the additional burden of proving that these activities contribute to improved health outcomes stipulated in the new IRS framework serve as a disincentive to their inclusion in the reports. It is also possible that the discrepancies between the federal reporting framework and the less structured state framework are evident here, and that the contributions to community building activities appear on Schedule H of the IRS 990 Form, while not appearing on the report to OSHPD.

In recent years, researchers and practitioners in the fields of hospital community benefit and public health have been exploring the opportunity for enhancing population health through community health trusts and the possible role of hospitals in those efforts. (McGinnis, Crawford & Somers, 2014; Choksi, Singh & Stine, 2014). As a new area of investigation, case studies that explore the effect and impact of hospitals' participation in community health trusts as a vehicle for pooling and maximizing their investments in community building would be helpful to both stakeholders and decision-makers. Researchers and practitioners alike have pointed to the need for further study of the issue of community building activities funded through hospitals' community benefit dollars. This is a critical support to advocacy efforts that will improve state and federal legislations and regulations; and remove barriers to more effectively leverage these funds to further national and local goals to improve population health, reduce health care costs and reduce health inequities.

Recommendations for Action

Even without the additional knowledge that could be acquired through further study of this issue, it is clear that nonprofit hospitals, at least in California, are making only small financial contributions to activities that address the social determinants of health. As partners in their communities' local public health systems and as organizations accountable for the health of the populations they serve, this runs counter to current understanding and acceptance of the important role played by these social factors in health outcomes. It is reasonable to recommend actions that need not wait for further research. These recommended actions include:

- The development of hospital community benefit funding criteria that align resources with strategies and activities that address the social factors demonstrated to be correlated with positive community health and population health outcomes (social determinants of health);
- The development of hospital community benefit funding strategies that increase accountability for outcomes associated with these social factors;
- Adequate resourcing and oversight of state reporting offices, including CA OSHPD, to ensure consistent reporting formats and content, as well as enforcement of reporting compliance among mandated hospitals; and
- Participation of hospitals in Accountable Health Communities, Collective Impact, Resilient Communities and other national innovations; including joining with other sectors such as the CDC, financial institutions and other community development entities, to jointly fund upstream, health protective community building activities.

Implications

As the nation moves forward in its development of a more integrated system of health that emphasizes accountability for positive population health outcomes, policy makers need data to substantiate funding policies that would be favorable for moving hospitals upstream in their ACA-mandated population health efforts. This study provides data from community benefit reports submitted in California on the actual amount of charitable dollars invested in the upstream investments that have been identified as having a strong influence on the health of populations, and that are difficult to sustain with current funding policies. It also provides needed data on the type of upstream community building activities that these hospitals are funding, and if the ACA and the IRS's current legislative and regulatory changes that seek greater transparency and accountability in the use of hospital's tax-exempt dollars has effected any change in those investments. Hospitals are currently expected to participate in local public health initiatives, and the results of this study are useful to the researchers, practitioners, and advocates expressing concern about incentives and disincentives for investment in community building by these hospitals. Positive social change begins with clearly identifying and understanding the issue of interest and the context surrounding it. This research has contributed to this dialogue in and about a state (California) that has been engaged in this work for nearly two decades, informing opportunities for continued research, advocacy, and policy and program development.

Conclusion

Neither the hospitals' characteristics of affiliation, type or size, nor the amount invested in community building activities in 2009 were predictive of their community

building investments in 2012; although there were some changes in the relative proportion of the frequency of investments made in each type of community building activity. There are a number of potential factors influencing the failure of this model to predict 2012 investments, which could include the impact of the 2008 recession on the industry, changes in hospital leadership, financial, political and operational changes in the industry resulting from the ACA, among others. We cannot merely assume the factors underlying the actions of California's nonprofit hospitals' decision-makers in regard to the use of their institutions' charitable dollars to address the social determinants of health. However, further study using qualitative methods could explore these directly with the industry leadership. What can be concluded from this study is that, despite growing acceptance of the significant influence of the social determinants of health on population health outcomes, the majority of these charitable dollars in California both prior to and follow changes in the national community benefit framework through IRS tax code and the ACA has been spent on individual interventions such as unfunded or underfunded healthcare services at all levels, health insurance enrollment and health education. The U.S. has entered a new era since 2010, working towards a national system focused on promoting health and wellbeing. However, the expansion of health insurance coverage, elimination of pre-existing conditions limitations, and mandatory inclusion of preventive healthcare screenings have not been enough to achieve the ultimate aims of the ACA. Nor has the establishment of a new federal community benefit framework for hospitals' planning, budgeting and reporting of charitable contributions been enough to increase transparency and accountability for the use of those dollars to improve the health of the communities they serve. Much less, have nonprofit hospitals taken full advantage of the

opportunities afforded those communities through community benefit dollars to address the social factors influencing population health outcomes and inequities, as part of multi-sector collective efforts. Missed opportunities need not be permanent, but it can be harder to reform bad practice than to invest the time and resources to build on well-researched and grounded innovation in the early stage of this new post-ACA era.

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Appendix A: Participating Hospitals *

Hospital	Affiliation
Adventist MC Hanford	Adventist Health
Adventist MC Reedley / Selma	Adventist Health
Central Valley General Hospital	Adventist Health
Feather River Hospital	Adventist Health
Frank R Howard Memorial Hospital	Adventist Health
Glendale Adventist MC	Adventist Health
San Joaquin Community Hospital	Adventist Health
Simi Valley Hosp & Healthcare Services	Adventist Health
Sonora Regional MC	Adventist Health
St Helena Clear Lake	Adventist Health
St Helena Hospital Napa Valley	Adventist Health
Ukiah Valley MC	Adventist Health
White Memorial MC	Adventist Health
Children's Hosp OC at Mission	Children’s Hospital of Orange County
Children's Hospital Orange County	Children’s Hospital of Orange County
Goleta Valley Cottage Hospital	Cottage Health System
Santa Barbara Cottage Hosp	Cottage Health System
Santa Ynez Valley Cottage Hospital	Cottage Health System
Citrus Valley MC - IC Campus	Citrus Valley Health Partners
Foothill Presbyterian Hospital	Citrus Valley Health Partners
Presbyterian Intercommunity Hospital	Citrus Valley Health Partners
Arroyo Grande Community Hosp.	Dignity Health
Bakersfield Memorial Hospital	Dignity Health
CA Hospital MC	Dignity Health
Community Hosp. of San Bernadino	Dignity Health
Dominican Santa Cruz Hosp - Soquel	Dignity Health
French Hospital	Dignity Health
Glendale Mem Hosp & Health Center	Dignity Health
Marian MC	Dignity Health
Mark Twain St Joseph's Hospital	Dignity Health
Mercy General Hospital	Dignity Health
Mercy Hospital of Folsom	Dignity Health
Mercy MC Mount Shasta	Dignity Health
Mercy MC Redding	Dignity Health
Mercy Merced MC	Dignity Health
Mercy San Juan MC	Dignity Health

Methodist Hospital of Sacramento	Dignity Health
Northridge Hospital MC	Dignity Health
Sequoia Hospital	Dignity Health
Sierra Nevada Memorial Hospital	Dignity Health
St Bernardine MC	Dignity Health
St Elizabeth Community Hospital	Dignity Health
St Francis Memorial Hospital	Dignity Health
St John's Pleasant Valley Hospital	Dignity Health
St John's Regional MC	Dignity Health
St Joseph's Behavioral Health Center	Dignity Health
St Joseph's MC of Stockton	Dignity Health
St Mary MC Long Beach	Dignity Health
St Mary's MC San Francisco	Dignity Health
Woodland Memorial Hospital	Dignity Health
O'Connor Hospital	Verity Health
Seton MC	Verity Health
Seton MC Coastside	Verity Health
St Francis MC Lynwood	Verity Health
St Louise MC	Verity Health
St Vincent MC	Verity Health
Community Reg MC - Clovis	Fresno Community Medical Center
Community Reg MC - Fresno	Fresno Community Medical Center
Fresno Heart & Surgical Hospital	Fresno Community Medical Center
Fremont Rideout MC	Fremont Rideout Health Group
Tri-City Regional MC	Gardens Regional Health
John Muir Behavioral Health Center	John Muir Health
John Muir MC Concord Campus	John Muir Health
John Muir MC Walnut Creek Campus	John Muir Health
Kaiser Anaheim	Kaiser Permanente
Kaiser Antioch	Kaiser Permanente
Kaiser Baldwin Park	Kaiser Permanente
Kaiser Downey	Kaiser Permanente
Kaiser Fontana	Kaiser Permanente
Kaiser Freemont	Kaiser Permanente
Kaiser Fresno	Kaiser Permanente
Kaiser Harbor City	Kaiser Permanente
Kaiser Hayward	Kaiser Permanente
Kaiser Irvine	Kaiser Permanente
Kaiser Los Angeles	Kaiser Permanente
Kaiser Manteca	Kaiser Permanente

Kaiser Modesto	Kaiser Permanente
Kaiser Moreno Valley	Kaiser Permanente
Kaiser Oakland	Kaiser Permanente
Kaiser Panorama City	Kaiser Permanente
Kaiser Redwood City	Kaiser Permanente
Kaiser Richmond	Kaiser Permanente
Kaiser Riverside	Kaiser Permanente
Kaiser Roseville	Kaiser Permanente
Kaiser Sacramento	Kaiser Permanente
Kaiser San Diego	Kaiser Permanente
Kaiser San Francisco	Kaiser Permanente
Kaiser San Jose	Kaiser Permanente
Kaiser San Rafael	Kaiser Permanente
Kaiser Santa Clara	Kaiser Permanente
Kaiser Santa Rosa	Kaiser Permanente
Kaiser South Sacramento	Kaiser Permanente
Kaiser South San Francisco	Kaiser Permanente
Kaiser Vallejo	Kaiser Permanente
Kaiser Walnut Creek	Kaiser Permanente
Kaiser West Los Angeles	Kaiser Permanente
Kaiser Woodland Hills	Kaiser Permanente
Little Company of Mary Hosp San Pedro	Providence Little Company of Mary Health
Little Company of Mary Hosp Torrance	Providence Little Company of Mary Health
Loma Linda Univ MC	Loma Linda Univ. Medical Center
Loma Linda Univ Behavioral Medic Ctr	Loma Linda Univ. Medical Center
Community Hosp. of Long Beach	MemorialCare Health System
Earl & Lorraine Miller Children's Hosp	MemorialCare Health System
Long Beach Memorial MC	MemorialCare Health System
Saddleback Memorial MC	MemorialCare Health System
Orange Coast Memorial MC	MemorialCare Health System
Barlow Respiratory Hospital	NONE
Beverly Hospital	NONE
Casa Colina Hospital for Rehab Med	NONE
Cedars Sinai MC	NONE
Children's Hospital Oakland	NONE
Children's Hospital of Central CA	NONE
Children's Hospital of Los Angeles	NONE
City of Hope National MC	NONE
Community Hosp. of Monterey Penins	NONE
Comm. Mem. Hosp. San Buenaventura	NONE

Dameron Hospital	NONE
Delano Regional MC	NONE
Downey Regional MC	NONE
Eisenhower MC	NONE
El Camino Hospital	NONE
Emanuel MC	NONE
Enloe MC	NONE
Good Samaritan Hospital	NONE
Jewish Home for Aged & Disabled	NONE
Henry Mayo Newhall Mem Hospital	NONE
Hoag Mem Hosp Presbyterian	NONE
Huntington Memorial Hospital	NONE
Joyce Eisenberg Keefer Memorial	NONE
Lodi Memorial Hosp	NONE
Madera Community Hospital	NONE
Methodist Hospital of Southern CA	NONE
Motion Picture & Television Hospital	NONE
Oroville Hospital	NONE
Pomona Valley Hospital MC	NONE
Rady Children's Hospital San Diego	NONE
Redlands Community Hospital	NONE
San Antonio Community Hospital	NONE
St Agnes MC	NONE
St Rose Hospital	NONE
Tarzana Treatment Center	NONE
Torrance Memorial MC	NONE
Valley Presbyterian Hospital	NONE
Providence Holy Cross MC	Providence Health System
Providence St Joseph MC	Providence Health System
Proovidence Tarzana MC	Providence Health System
Marin General Hospital	Sutter Health
Eden Medical Center	Sutter Health
Alta Bates Summit MC	Sutter Health
Sutter Delta MC	Sutter Health
CA Pacific MC	Sutter Health
St. Lukes Hospital	Sutter Health
Sutter Lakeside Hospital	Sutter Health
Sutter MC Santa Rosa	Sutter Health
Novato Community Hospital	Sutter Health
Sutter Amador	Sutter Health

Sutter Aubern Faith Hospital	Sutter Health
Sutter Davis Hospital	Sutter Health
Sutter MC Sacramento	Sutter Health
Sutter Roseville MC	Sutter Health
Sutter Solano MC	Sutter Health
Sutter Maternity & Surgery Center *	Sutter Health
Sutter Memorial Hospital	Sutter Health
Sutter Tracey Community Hospital	Sutter Health
Sharp Chula Vista MC	Sharp Health
Sharp Coronado Hospital & Health Ctr	Sharp Health
Sharp Grossmont Hospital	Sharp Health
Sharp Mary Birch Hospital for Women	Sharp Health
Sharp Memorial Hospital	Sharp Health
Sharp Mesa Vista Hospital	Sharp Health
Stanford University Hospital	Stanford University
Queen of the Valley Hospital	St. Joseph Health
Redwood Memorial Hospital	St. Joseph Health
Santa Rosa Memorial Hosp	St. Joseph Health
Mission Hospital	St. Joseph Health
Petaluma Valley Hospital & MC	St. Joseph Health
St Joseph Hospital Eureka	St. Joseph Health
St Joseph Hospital Orange	St. Joseph Health
St Jude MC	St. Joseph Health
St Mary's Regional MC Apple Valley	St. Joseph Health
Verdugo Hills Hospital	University of Southern California
Valley Care MC	Valley Health Care
Valley Memorial Hospital	Valley Health Care

*All hospital reports were retrieved through http://www.oshpd.ca.gov/HID/SubmitData/CommunityBenefit/