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Krista K. Laursen

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Walden University
2013

Abstract

Leadership Strategies and Initiatives for Combating Medicaid Fraud and Abuse

by

Krista K. Laursen

MS, University of Washington, 1992

BS, University of Oregon, 1989

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

July 2013

Abstract

An estimated 3-10% of the $2 trillion spent annually on health care in the United States is lost to fraud. Improper payments undermine the integrity and financial sustainability of the Medicaid program and affect the ability of federal and state governments to provide health care services for individuals and families living at or below the poverty level. This study explored how health care leaders in the state of Arizona described factors contributing to the invisible nature of Medicaid fraud and abuse and necessary strategies for counteracting the business opportunities of Medicaid fraud and abuse. The institutional choice analytic framework grounded the study. Data were gathered from the review of documents and information received from 10 interviews with health care leaders responsible for the administration, delivery, and regulation of Medicaid services in Arizona. Collected data were coded to identify underlying themes. Key themes that emerged from the study included the need for health care leaders to use modern technologies to combat Medicaid fraud and abuse and concentrate and strengthen Medicaid fraud and abuse mitigation efforts at the state level. Study data might contribute to social change by identifying Medicaid fraud and abuse mitigation strategies that will protect the financial and structural integrity of the Medicaid program, ensuring Americans living at or below the poverty level have access to quality health care services.

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Dedication

This doctoral study is dedicated to my husband, Luca Cinquini, who provided me with steadfast support, encouragement, and humor at each stage of my doctoral journey. I also dedicate this work to my sons, Isak and Tycho Cinquini. They understood and forgave my absences from family events when I needed to study and provided me with a constant stream of encouragement and energy-instilling hugs when I sorely needed both. In exchange for their love and humor, I hope I have taught them that learning and growth are possible at any age. This doctoral study is also dedicated to my father, Hal Laursen, who from my earliest years in school pushed me to challenge myself no matter the subject and has always believed in my ability to succeed. Finally, I dedicate this study to the memory of my mother, Karla Laursen. She was, and is, my role model for how to live a life of learning, passion, humor, and integrity. I can only hope that what I have accomplished personally, professionally, and academically is a testament to the gifts she gave me and the values she instilled in me.

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Section 1: Foundation of the Study

In 1973, William Sherman, a reporter for the *New York Daily News*, wrote the first exposé on Medicaid fraud (Jesilow, Pontell, & Geis, 1993). Posing as a Medicaid recipient seeking medical treatment, Sherman chronicled his visits to a series of Medicaid providers in the Lower East Side of New York City and documented several instances of physicians billing for unnecessary services and overbilling for services they provided (Jesilow et al., 1993). Sherman found that fraudulent activities on the part of providers represented only a portion of the problem. Throughout the 1970s, reporters and government officials uncovered evidence of recipients defrauding Medicaid to secure payments for unwarranted and expensive treatments and high-ranking administrative personnel accepting kickbacks from companies in exchange for awarding companies Medicaid fraud control contracts (Jesilow et al., 1993).

Four decades later, the problem of Medicaid fraud and abuse—indeed, of fraudulent activity within the U.S. health care system at large—not only persists, it continues to spread and occurs with ever-increasing frequency and impact (Dube, 2011). As annual health care expenditures within the United States continue to grow, academics and health care leaders have increasingly focused attention on fraud and abuse mitigation as a necessary strategy for cost containment and the preservation of federally funded health care programs (Iglehart, 2009; Orszag & Emanuel, 2010). Despite the existence of federal statutes intended to combat fraud and abuse and the commitment of funds to fraud monitoring and control efforts, concerns regarding the efficacy of fraud mitigation efforts persist (Sparrow, 2008; U.S. Government Accountability Office, 2011b).

Ongoing efforts to strengthen strategies for preventing health care fraud and abuse and to safeguard the financial viability of federally funded health care programs require a complete understanding of the factors that influence the design and implementation of fraud and abuse mitigation plans. I undertook a qualitative, descriptive case study of how health care leaders in the state of Arizona describe impediments to the detection and mitigation of Medicaid fraud and abuse. This study described the organizational structures and individual experiences that influence administrative and regulatory responses to the problem of Medicaid fraud and abuse in the state. Study findings might support the identification of leadership models necessary for the implementation of effective fraud and abuse mitigation programs.

Background of the Problem

Health care fraud is a form of white-collar crime. The U.S. Department of Justice (as cited in Champion, 2011) defines white-collar crime as illegal acts in which individuals engage in deceit, concealment, or violation of trust without the threat of force or physical violence. The financial cost associated with white-collar crimes exceeds the cost of street crime (Perri, 2011). Additionally, white-collar crimes undermine social systems by damaging the economy, increasing the divide between the poor and the wealthy, destroying trust, and depriving individuals and organizations of necessary resources (Perri, 2011).

Practitioners, providers, recipients, companies, and criminal organizations perpetrate health care fraud, targeting schemes at private and public health care programs and health care recipients (Dube, 2011; Hill & Hill, 2011; Jones & Jing, 2011;

Kesselheim & Studdert, 2008; Matos, 2011). Traditional practitioner fraud schemes include billing for services not rendered, billing for more expensive medical services than those rendered, providing medically unnecessary products or services, and accepting kickbacks (Kesselheim & Studdert, 2008). Fraud schemes perpetrated by health care providers, companies, and criminal organizations include illegal marketing of products or services, misuse of government funds, providing ineffective products or substandard services, and theft of electronic medical data (Kesselheim & Studdert, 2008).

The absence of physical violence does not mean health care fraud is a crime without victims. The loss of health care expenditures to fraud drives up the costs of legitimate health care services and forces medical service providers to recoup losses through higher insurance premiums and higher health care copayments (Price & Norris, 2009; Sullivan, 2009). Physicians performing unnecessary medical procedures or providing unneeded prescriptions jeopardize patient safety (Price & Norris, 2009). False medical histories created by medical providers billing for services never rendered might cause patients to be denied health insurance coverage or charged higher premiums for coverage because of previously documented (and nonexistent) medical conditions (Price & Norris, 2009; Sullivan, 2009).

Fraudulent health care charges place a significant burden on federal and state governments and financial systems. The Federal Bureau of Investigation has estimated that financial losses to fraud and abuse amount to roughly 3-10% of the approximately $2 trillion spent annually on health care (Morris, 2009). Recovery of these losses—an amount of $68 billion to in excess of $200 billion per year—would be sufficient to

provide health care coverage for all uninsured Americans (Rosenbaum, Lopez, & Stifler, 2009).

Lawmakers created Medicare and Medicaid as part of the Social Security Act of 1965 ("Key Milestones in," 2005/2006). The federal government funds Medicare, which provides health care to the elderly (Birnbaum & Patchias, 2010). Jointly funded by federal and state governments, Medicaid provides health insurance coverage for children in low-income families, individuals with disabilities, and a portion of the elderly population (Rosenbaum, 2010).

Since the creation of Medicare and Medicaid, annual expenditures for each program have grown significantly. Between 1970 and 2010, annual Medicare spending increased from approximately $8 billion to $525 billion, and annual Medicaid spending increased from roughly $5 billion to $401 billion (Centers for Medicare & Medicaid Services, 2012). Analysts forecast that annual spending for each program will increase to double the 2010 amounts by 2020 (Keehan et al., 2011). The size of Medicare and Medicaid makes both programs lucrative targets for waste, fraud, and abuse (Iglehart, 2010a; Sparrow, 2008; Thrall, 2011). Clarity regarding how best to monitor for and mitigate waste, fraud, and abuse in Medicare and Medicaid might support the efforts of health care leaders to safeguard the integrity and continued viability of both programs.

Studies of the problem of health care fraud have included a focus on assessments of the intent and efficacy of various legal and enforcement strategies in combating fraudulent activity (Evbayiro, 2011; Kraybill, 2008; Yamada, 2008). Studies have also produced descriptions of data analysis methodologies and technological solutions that

might prove effective in supporting efforts to identify cases of health care fraud (Appari & Johnson, 2010; Li, Huang, Lin, & Shi, 2008; Shin, Park, Lee, & Jhee, 2012). Responses to the problem of health care fraud and abuse—whether administrative, legislative, or technological in nature—are ultimately the outcome of individual actions and organizational adaptations. Accordingly, health care leaders and medical service providers require an understanding of how various sociological, economic, and political factors might collectively affect efforts to detect and mitigate health care fraud and abuse. Such understanding will enhance the efficacy of health care leaders and medical service organizations and will provide supportive organizational structures necessary for the adoption and implementation of effective fraud and abuse control programs.

Problem Statement

Health care spending in America consumes a higher percentage of the gross domestic product (GDP) than in other developed countries (Lobb, 2009). Fraudulent billings contribute significantly to these costs, with 3-10% of the approximately $2 trillion spent annually on health care estimated to be attributable to inappropriate expenditures (Morris, 2009). The U.S. Government Accountability Office (GAO; 2011b) estimated the improper payment rate for Medicaid to be 9.4% in fiscal year 2010, with the federal share of funds lost amounting to approximately $23 billion. The general business problem is the need for reforms to ensure the integrity and financial viability of the federally funded health care system (Orszag & Emanuel, 2010). The specific business problem is the invisible nature of health care fraud and the business opportunity inherent

in the commitment of fraud, both of which limit the effectiveness of efforts to detect and control fraud in the Medicaid program (Sparrow, 2008).

Purpose Statement

The purpose of this qualitative case study was to explore how health care leaders in the state of Arizona describe limitations to the detection of Medicaid fraud and abuse and characterize strategies necessary for counteracting the financial incentives motivating the commitment of Medicaid fraud and abuse. I gathered data from documents and 10 interviews with leaders having responsibility for the administration, delivery, and regulation of Medicaid services in Arizona. Study participants were representatives of (a) the state Medicaid administration agency, (b) the state legislature, (c) an antifraud technology company, (d) health care provider organizations, and (e) a law enforcement agency.

I used document reviews and semistructured interviews to investigate how study participants describe issues, claims, and concerns pertaining to the efficacy of Medicaid fraud and abuse detection and mitigation efforts. Findings from this study might support the development of leadership models suitable for the propagation of effective fraud identification and control strategies. This study might contribute to social change because such strategies are necessary to (a) halt the growth in unwarranted Medicaid costs and white-collar criminal activities, (b) enhance the capability and efficiency of health care leaders and organizations rendering medical services, and (c) ensure funds remain available to meet the health care needs of Americans living at or below the poverty level.

Nature of the Study

I selected a qualitative, descriptive case study approach for the study of leadership characterizations of Medicaid fraud and abuse in the state of Arizona. Qualitative research supports the cultivation of understanding through the exploration and interpretation of meanings assigned by individuals to experiences and realities (Denzin & Lincoln, 2011; Stake, 1995). Gephart (2004) argued qualitative research is of particular value to management scholarship because of the qualitative focus on describing and explaining the human interactions, meanings, and processes that constitute organizational environments. The intent of the study to build understanding of how leaders characterize impediments to the detection and control of Medicaid fraud and abuse most closely aligned with the goals of qualitative research.

The descriptive case study approach provided the opportunity for in-depth exploration and description of leadership perceptions of the issue. Case study researchers use varied sources of information to develop detailed descriptions of phenomena (Yin, 2012). I used multiple sources of information (i.e., document reviews and interviews) to provide contextual depth and breadth to the study of Medicaid fraud and abuse and to enable the deep exploration and identification of emergent themes that are characteristic of case study research (Yin, 2009).

Use of a phenomenological design would have focused data collection efforts solely on the conduct of interviews (Marshall & Rossman, 2011) to the exclusion of information collection from the review of documents, thereby diminishing the desired scope and depth of description for the study. Accordingly, I viewed a phenomenological

design as less suitable for the study. Ethnographic and grounded theory designs—that center on extended cultural examination and derivation of a central guiding theory from the collection of field data, respectively (Marshall & Rossman, 2011; Mello & Flint, 2009)—were also not consistent with the study intent of rich case exploration and description.

I conducted an exploratory study to describe how leaders in the state of Arizona perceive limitations to the detection and control of Medicaid fraud and abuse. Accordingly, a quantitative research method did not meet the goals of the study. Similarly, a mixed methods approach that included a qualitative method for one study phase and a quantitative method for the other phase (Leech & Onwuegbuzie, 2009) was also unsuitable for the conduct of the study.

Research Question

The following primary research question guided conduct of this study: how do health care leaders in the state of Arizona describe factors contributing to the invisible nature of Medicaid fraud and abuse and necessary strategies for counteracting the business opportunities posed by the commitment of Medicaid fraud and abuse? I also identified the following study subquestions in order to promote rich exploration of leadership characterizations of the problem of Medicaid fraud and abuse in Arizona:

1. How do health care leaders charged with the administration, delivery, and regulation of Medicaid services in the state of Arizona perceive the problem of Medicaid fraud and abuse?

2. What do health care leaders perceive to be strategies necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program?
3. How do health care leaders describe changes that need to be made at the national level to help individual states develop effective strategies for the detection and mitigation of Medicaid fraud and abuse?
4. What do health care leaders perceive to be necessary strategies for combating the invisible nature of Medicaid fraud and abuse?
5. What do health care leaders perceive to be necessary strategies for combating the business opportunity inherent in the commitment of Medicaid fraud?

Interview Questions

Study participants responded to semistructured, open-ended interview questions in order to explore their experiences and knowledge regarding the problem of Medicaid fraud and abuse in Arizona. In order to safeguard the confidentiality of study participants, I designed interview questions that did not require participants to reveal identifying information. Participants responded to each of the following interview questions during the conduct of the study:

1. How long have you been involved with the administration, delivery, or regulation of Medicaid services in the state of Arizona?
2. How do you or individuals in your organization or in others involved with the administration, oversight, and regulation of the state of Arizona Medicaid program perceive the problem of health care fraud and abuse in general and

the problem of Medicaid fraud and abuse in the state of Arizona specifically? In your estimation, how varied or accurate are these perceptions and why?

3. How do you or other individuals in your organization or in others involved with the administration, oversight, and regulation of the state of Arizona Medicaid program describe their roles, responsibilities, and experiences in combating the problem of health care fraud and abuse? In your estimation, how do these descriptions vary or align and why?
4. What have been your experiences regarding fraud and abuse within the state of Arizona Medicaid program?
5. How have your experiences as a health care leader shaped your beliefs and opinions about Medicaid fraud and abuse?
6. What do you or other individuals in your organization or in other organizations involved with the administration, delivery, and regulation of state of Arizona Medicaid services perceive to be limitations in the detection of fraud and abuse within the Arizona Medicaid program? In your estimation, how varied or accurate are these perceptions and why?
7. What are your opinions regarding the necessity and efficacy of the Anti-Kickback Statute and the Stark Law for promoting the detection of Medicaid fraud in the state of Arizona and for counteracting the business opportunities posed by such fraud?
8. What are your opinions regarding the necessity and efficacy of accountability and compliance programs within health care provider organizations as a tool

for promoting the detection of fraud in the state of Arizona Medicaid program and for counteracting the business opportunity posed by such fraud?

9. How do you believe the introduction of pay-for-performance under the Patient Protection and Affordable Care Act (PPACA) will affect efforts to detect fraud within the state of Arizona Medicaid program and to counteract the business opportunity posed by such fraud?
10. What specific initiatives can you identify that might be undertaken or that are recognized but not yet implemented that would enhance efforts to combat the invisible nature of Medicaid fraud and abuse?
11. What specific initiatives can you identify that might be undertaken or that are recognized but not yet implemented that would enhance efforts to combat the business opportunity inherent in the commitment of Medicaid fraud?
12. What changes do you feel are needed at the national level to help individual states develop effective strategies for the detection and mitigation of Medicaid fraud and abuse?

Conceptual Framework

Studies of health care fraud and abuse have highlighted the significant financial drain of both problems on the U.S. health care system (Iglehart, 2009; Morris, 2009; Rosenbaum et al., 2009; Sparrow, 2008). However, efforts to describe reasons for the persistence of the problem and to articulate plans for the implementation of effective fraud mitigation strategies have lagged. Sparrow (2000) noted a possible explanation for the lack of research into health care fraud mitigation might be that responsibility for fraud

control does not fall within the purview of a single discipline (e.g., criminal justice, medicine, public policy, or economics). Sparrow also cited a lack of fraud control education and training as contributing to the inattention paid by Medicaid, Medicare, and insurance industry officials to fraud and abuse mitigation. More recently, Fuchs (2009) argued some individuals working within the health care system are resistant to the implementation of fraud reduction efforts because of a desire to protect income gained from fraudulent activity.

In 2011, the U.S. GAO conducted a review of Medicare program management by the Centers for Medicare and Medicaid Services (CMS) and cited pervasive internal control problems that could lead to the loss of billions of taxpayer dollars to improper payments (U.S. GAO, 2011b). The GAO also reviewed CMS's management of the Medicaid program and noted the need for CMS to acquire reliable tools for assessing the appropriateness of Medicaid expenditures in order to reduce improper payment rates (U.S. GAO, 2011b). Additionally, the GAO expressed concern about the adequacy of fiscal oversight of the Medicaid program and highlighted the need for effective programmatic control as Medicaid continues to expand in the coming decade (U.S. GAO, 2011b).

Observations regarding a lack of education or awareness, the possible role of wealth preservation, and compromised communication and integrity assessment efforts suggest health care fraud and abuse are phenomena caused by multiple contributing factors. The selection of a conceptual framework that allowed for multilevel analyses supported examination of the influence of individual behaviors and institutional

structures in creating the conditions for fraud and abuse to occur. Accordingly, I selected the institutional choice analytic framework as the conceptual framework for the study.

Collier (2002) proposed the institutional choice analytic framework as a model suitable for examining the underlying causes of political corruption. The institutional choice framework combines elements of the Institutional Analysis and Development (IAD) and constructivist frameworks. A key tenet of the IAD—and, hence, the institutional choice—framework is recognition that institutional cultures and rules bind the decision-making capabilities and social behaviors of individuals or groups (agents; Collier, 2002; Ostrom, 2011). However, decision-making outcomes and social behaviors also affect institutional structures and rules (Collier, 2002). Within the institutional choice analytic framework, individuals and institutions cocreate each other (Collier, 2002; Ostrom, 2007). Explanations for social phenomena emerge from examination of the interactions among institutional structures, agent decision-making processes, and material resource factors that incentivize or disincentivize agents from engaging in specific behaviors (Collier, 2002; Ostrom, 2007).

Application of the institutional choice analytic framework requires researchers to engage in multiple levels of analyses (Ostrom, 2007). The framework provides researchers with a template for combining multiple theories of behavior to create a new theory to describe a social phenomenon (Collier, 2002; Blomquist & deLeon, 2011). Conduct of the qualitative case study through the lens of the institutional choice framework supported a holistic, integrated examination of the factors that contribute to

Medicaid fraud and abuse and supported my efforts to identify elements of an actionable strategy for detecting and controlling Medicaid fraud and abuse to protect program funds.

Definition of Terms

Beneficiary: An individual with the right to receive medical care and who receives such care (Aldhizer, 2009).

Double billing: A fraudulent billing practice that involves a practitioner or health care services organization submitting a bill for the same procedure on different dates (Phillipsen, Setlow, & Jacob, 2008).

Drop box scheme: The use of a private mailbox facility by a criminal to establish an address used in submitting fraudulent billings to Medicare, Medicaid, and private insurance companies (Iglehart, 2010b).

Fake storefront scheme: The creation of a nonexistent storefront location by a fraudulent health care organization for the purposes of generating and submitting fraudulent billings to Medicare, Medicaid, and private insurance companies to receive insurance checks for those billings (Taitsman, 2011).

Health care abuse: The unintentional, unknowing, inadvertent, and nonwillful commitment of a practice that leads to an overpayment to a health care provider (Rudman, Eberhardt, Pierce, & Hart-Hester, 2009).

Health care fraud: The knowing, willful, and intentional commitment of a practice that results in an inappropriate health care payment (Rudman et al, 2009).

Improper payments: A category of inappropriate health care payments that includes payments made for fraudulent or abusive practices or for errors in billing committed by providers (Iglehart, 2010b).

Medicaid: A federal program jointly funded and administered by the federal government and the states to provide health care coverage for low-income children and adults, the disabled, and a portion of the elderly population (Rosenbaum, 2010).

Medicaid administrator: An individual with a fiduciary responsibility to federal and state governments to pay Medicaid claims accurately and efficiently (Aldhizer, 2009).

Medicare: A federally funded and administered program that provides health care coverage for the majority of Americans at the age of 65 and over (Birnbaum & Patchias, 2010).

Nonprovider: An individual or organization involved with the delivery or receipt or health care services in a nonpractitioner capacity (e.g., hospital, durable medical equipment supplier, pharmaceutical company, health insurer, laboratory facility, and beneficiary; Shah, Johnston, Smith, Ziv, & Reilly, 2009).

Phantom billing: A practice in which a provider submits a bill for undelivered health care products or services (Kesselheim & Studdert, 2008).

Provider: An individual who delivers health care services to beneficiaries, with providers including physicians, dentists, podiatrists, psychologists, pharmacists, physical and respiratory therapists, speech and language pathologists, nurses, and clinical social workers (Shah et al., 2009).

Qui tam: A provision of the civil False Claims Act (FCA) that allows a private individual with direct knowledge of an alleged fraud incident to initiate litigation on behalf of the U.S. government (Kesselheim, Studdert, & Mello 2010).

Self-referral: A form of questionable financial relationship in which a physician refers patients to other facilities in which the physician holds a financial interest (Hillman & Goldsmith, 2010).

Unbundling: A practice whereby practitioners or hospital personnel submit separate bills for a procedure or visit that should be billed as a single (less expensive) procedure or visit (Phillipsen et al., 2008).

Upcoding: A fraudulent billing practice in which providers use codes corresponding to higher payment rates instead of using the billing codes corresponding to the actual medical services provided (Jones & Jing, 2011).

Assumptions, Limitations, and Delimitations

Assumptions

Three assumptions guided the data collection and analysis plans for the study. First, I assumed that the documents reviewed provided an accurate and current portrayal of organizational positions and individual perspectives regarding Medicaid fraud and abuse. Organizational documents are a form of artifact: visible representations of the values and cultural elements that characterize organizations (Marshall & Rossman, 2011). Exploration and description of leadership perspectives regarding impediments to the detection and mitigation of Medicaid fraud and abuse relied on the assumption that the

documents reviewed offered a reliable portrayal of individual and organizational values and cultural responses to health care fraud and abuse.

A second study assumption pertained to the integrity of the interview process. I assumed study participants provided honest, candid, and complete answers to interview questions. A third study assumption pertained to the accurate capture of key ideas and themes during the recording, coding, and analysis of the study data.

The structure of the case study design supported the mitigation of risk associated with the assumption of public document veracity. Insights and perspectives gathered from the conduct of interviews provided a mechanism to triangulate the themes noted during document reviews. Structuring and conduct of the interview process supported the mitigation of concerns regarding the integrity of the interviewee responses. By employing open-ended (rather than leading) questions, listening actively, engaging with suitable follow-up questions, and asking interviewees to reconstruct their experiences (Rubin & Rubin, 2012), I was able to create an interview environment in which participants felt comfortable in sharing their experiences and insights with candor.

Transcription of qualitative data creates an opportunity for the introduction of inaccuracy and misinterpretation (Rubin & Rubin, 2012). The use of a methodical and consistent approach to the reduction of data and summarization of findings mitigated the risks associated with the gathering, coding, and analysis of collected data. I used qualitative data analysis software (ATLAS.ti) to code collected data and as a means of triangulating, verifying, and grouping themes to emerge from the review of documents and conduct of interviews.

Limitations

Qualitative researchers acknowledge and discuss the shortcomings of studies undertaken, with a goal of defining the trustworthiness of findings (Marshall & Rossman, 2011). One limitation was the number of interview participants in the study sample corresponded to a potential lack of diversity of opinions and perspectives. A second limitation was the case study design selected for conduct of the study. Findings from this case study might not be transferable to other geographic settings or to Medicare and privately funded health care programs.

I conducted interviews with a purposeful sample of leaders with responsibility for the administration, delivery, and regulation of Medicaid services in the state of Arizona. Interviewees possessed unique knowledge and experience with the problem of Medicaid fraud and abuse and contributed information with a high degree of relevancy to the study topic. However, the purposeful selection of interview participants could have precluded the collection of information and insights from other individuals with unique perspectives and experiences to offer.

Delimitations

Delimitations were the (a) problem selected for study, (b) study location, (c) sample population, and (d) sample size. Researchers have identified the problem of fraud and abuse as endemic throughout both state and federally funded health care programs (e.g., Morris, 2009). However, I elected to examine fraud and abuse within the Medicaid program. The qualitative case study focused on the exploration of leadership perspectives

regarding impediments to the detection and mitigation of Medicaid fraud and abuse in the state of Arizona only.

The study sample population included leaders involved with the administration, delivery, and regulation of Medicaid services in the state of Arizona. I selected interviewees on a purposeful basis from (a) the Arizona Medicaid administration agency, (b) the Arizona legislature, (c) an Arizona antifraud technology company, (d) Arizona health care providers, and (e) an Arizona law enforcement agency. The study sample excluded Medicaid beneficiaries.

Sample sufficiency and saturation are key criteria for the determination of adequate sample size for interview research (Rubin & Rubin, 2012). Rubin and Rubin argued that qualitative researchers achieve balance and thoroughness during the qualitative interview process when the number of respondents selected is sufficient to ensure suitable depth and diversity of perspectives and insights offered. Based on the selected number of study sites (five) and a recommendation for the conduct of two to three interviews at each site to achieve saturation (Rubin & Rubin, 2012), I targeted a total interviewee pool size of 10 to 15 interviewees.

I employed purposeful sampling to identify and recruit study participants and achieved appropriate depth and breadth of perspectives and insights after the completion of 10 interviews. Bernard (2013) noted that small sample sizes are typical of qualitative studies involving the use of purposeful sampling. O'Reilly and Parker (2013) observed that the nature of the study and the sufficiency of sample size for enabling adequate exploration of study research questions determine sample size. Francis et al. (2010)

asserted that the range of views and experiences offered by study participants informs study sample size. My use of purposeful sampling and my assessment of the depth and diversity of perspectives provided by study participants supported the use of a sample pool of 10 interviewees.

Significance of the Study

Contribution to Business Practice

Oversight and administration of private and public health care programs is the joint responsibility of a wide spectrum of individuals and entities. Practitioners, medical service providers, program administrators, insurers, and government officials all bear responsibility for ensuring the provision of health care in an appropriate and cost effective fashion. The Medicaid program is a partnership among federal and state governments to deliver health care to groups of low-income individuals in the United States (U.S. GAO, 2011a). Similar partnerships must be forged and maintained among practitioners, providers, administrators, law enforcement personnel, and government officials as part of the effort to combat fraud and abuse within the Medicaid program. However, the creation and sustenance of such partnerships require individuals and organizations with responsibility for Medicaid program integrity to develop an understanding and appreciation of the beliefs, perspectives, and organizational structures that shape actions taken to mitigate fraud and abuse.

This qualitative, descriptive case study of Medicaid fraud and abuse in the state of Arizona enabled the identification and description of the individual experiences and organizational structures that influence administrative and legislative responses to the

problem of fraud and abuse. Findings from this study might contribute to the development of leadership models needed for the introduction of effective and integrative fraud mitigation strategies. The identification and introduction of effective leadership models will enhance the capability and efficiency of health care leaders and organizations to deliver medical services and will position health care provider and service organizations to realize cost savings from reductions in fraudulent activity.

Implications for Social Change

Between 1999 and 2007, annual real per capita health care spending in the United States grew at an average rate of 2% faster than the GDP (Chernew, Hirth, & Cutler, 2009). Within this period, health care spending consumed an estimated 36% of the real increase in per capita income (Chernew et al., 2009). Under the assumption of a continued 2% gap between real per capita health care spending and GDP growth, 47% of income growth will go to health care over the next 4 decades (Chernew et al., 2009). By 2020, Medicaid expenditures could increase to more than double the 2010 expenditure amount of $401 billion (Keehan et al., 2011).

Rising health care costs pose a significant burden on economically disadvantaged individuals and families (Chernew et al., 2009). Escalating health care costs also affect state governments. Confronted with the need to balance budgets in the midst of economic weakness and rising federal health care program costs, states might enact cuts to education and social services programs (Chernew et al., 2009).

Studies of the U.S. health care system have highlighted administrative simplification, provider spending behavior modification, and pricing regulation as

reforms that are necessary to slow the growth in health care spending (Fisher et al., 2009; Oberlander & White, 2009; Orszag & Emanuel, 2010). However, health care cost containment efforts must also include fraud and abuse mitigation initiatives (Sparrow, 2008). Health care leaders and medical services organizations will benefit from increased understanding of effective leadership models, and they might be able to apply this knowledge to efforts to halt the escalating growth in unwarranted Medicaid costs and to ensure funds remain available to meet the health care needs of Americans living at or below the poverty level.

A Review of the Professional and Academic Literature

The purpose of this literature review was to provide context and substantiation of the basis of inquiry for the primary research question: how do health care leaders in the state of Arizona describe factors contributing to the invisible nature of Medicaid fraud and abuse and necessary strategies for counteracting the business opportunities posed by the commitment of Medicaid fraud and abuse? The review of the literature begins with an overview of Medicare and Medicaid, with foci on the history, similarities, and differences of the two programs. The literature review next includes summaries of primary health care fraud and abuse schemes and the consequences of fraud and abuse. Review content includes descriptions of current responses to the problem and assessments of the efficacy of fraud and abuse mitigation strategies. The review also includes discussion of the underlying causes and motivators for health care fraud and the conceptual framework for the study. The literature review concludes with a description of the general problem of Medicaid fraud and abuse and the rationale and potential impact of the study.

Literature compiled for the review included peer-reviewed and other scholarly journal articles, published dissertations, books, and government documents. Website content and media accounts (e.g., online newspaper and magazine articles) served as supporting evidence for the currency of Medicaid fraud and abuse. I also obtained documents from online databases available through the Walden University Library, with specific databases used including (but not limited to) Academic Search Complete/Premier, ProQuest Central, ScienceDirect, Emerald Management Journals, Sage Journals, and LexisNexis Academic. Use of the Google search engine enabled the identification of government documents of relevance to the study topic. Government websites (e.g., Centers for Medicare and Medicaid Services and U.S. Government Accountability Office) served as the source for identified government documents.

Medicare and Medicaid

The federal government enacted Medicare and Medicaid in 1965 as part of the Social Security Act (Berkowitz, 2005/2006). Creation of both programs was the culmination of a multidecade effort on the part of American progressives and political leaders to introduce a publicly funded insurance program to safeguard the health of workers (Berkowitz, 2005/2006). Efforts early in the 20th century centered on the creation of health insurance programs funded by the states (Berkowitz, 2005/2006). By the 1940s, legislative proposals for a national health insurance program focused on federal rather than on state administration (Berkowitz, 2005/2006).

The introduction of community-based, private health insurance programs in the 1950s created an impediment to the passage of a national health insurance program as a

greater percentage of the population was receiving health care coverage from private insurers (Berkowitz, 2005/2006). The rise in private insurance coverage led to a course change in planning for a national insurance program. Health care reformers moved for the institution of a program to provide health insurance coverage for the elderly, a demographic group that typically encountered difficulty in obtaining insurance coverage (Berkowitz, 2005/2006).

The federal government created Medicare to provide elderly Americans with access to health care and to eliminate the financial hardships posed to the elderly by medical costs (Berkowitz, 2005/2006). Medicare began in July 1966, with the program initially serving 19 million Americans (“Key Milestones,” 2005/2006). In 1972, the government extended Medicare coverage to individuals under the age of 65 with long-term disabilities and end-stage renal disease (“Key Milestones,” 2005/2006). Further congressional actions during the last 4 decades have resulted in programmatic expansions. The Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003 created a prescription drug discount card, introduced competition among health plans to engender greater innovation and flexibility in coverage, and provided coverage for new preventive benefits (“Key Milestones,” 2005/2006).

While the federal government created Medicare to provide health care for the elderly, the Medicaid program emerged as a mechanism for providing health care coverage to welfare recipients (Berkowitz, 2005/2006). Federal government officials established the Kerr-Mills program in the early 1960s prior to creating Medicaid (Berkowitz, 2005/2006). The Kerr-Mills program served as a mechanism for the

government to give grants to the states to provide health care to indigent elderly Americans (Berkowitz, 2005/2006). Medicaid emerged as an expansion to the Kerr-Mills program with mandates added for the provision of health care to all individuals on welfare (Berkowitz, 2005/2006). Under Medicaid, the federal government continued to provide funding to the states for support of the program, with federal funding to the states beginning in January 1966 ("Key Milestones," 2005/2006). Today, Medicaid provides health insurance coverage for low-income families, individuals with disabilities, and elderly and disabled Medicare beneficiaries (Rosenbaum, 2010).

During the debates over creation of health care programs for elderly and low-income Americans, the federal government considered the creation of Medicaid to be a lower priority than the establishment of Medicare (Berkowitz, 2005/2006; Iglehart, 2011). However, Medicaid has emerged as a vital and vast component of the U.S. public health care system. Medicaid provides health insurance coverage for a diverse pool of beneficiaries, including low-income adults and children, people with disabilities, and a portion of the elderly population (Rosenbaum, 2010). Additionally, Medicaid has become a vital stopgap insurance mechanism. Medicaid provides coverage for beneficiaries confronted with Medicare or private insurance coverage limitations and assists beneficiaries with meeting the costs of such social services as long-term care (Iglehart, 2011). Medicaid has also absorbed the health insurance needs of individuals and families contending with financial losses resulting from individual events or larger economic recessions (Iglehart, 2011). As a result of the economic downturn of 2007 to 2009, Medicaid enrollment grew by nearly 9% (Iglehart, 2011).

Medicare and Medicaid share a common attribute as public health insurance programs. However, the funding models differ for each program. The federal government finances Medicare using a combination of taxes and general revenues, with additional financing coming from 25% of the care that Medicare recipients pay for through premium or out-of-pocket expenses (Baicker & Chernew, 2011). The federal and state governments jointly fund Medicaid using federal and state taxes and state revenue sources, with the federal government contributing approximately 50-80% of Medicaid costs (Rosenbaum, 2010).

In the nearly 5 decades since the inception of Medicare and Medicaid, annual expenditures for each program have grown significantly. Between 1970 and 2010, annual Medicare spending increased from $7.7 billion to $525 billion (CMS, 2012). Within the same span, annual Medicaid spending increased from $5.3 billion to $401 billion (CMS, 2012). Keehan et al. (2011) forecasted that annual spending on Medicare and Medicaid will reach $922 billion and $908 billion, respectively, by 2020. The projected growth in Medicare spending is attributable to anticipated higher enrollments of aging baby boomers who will leave private health insurance plans to receive health coverage from the federal government (Keehan et al., 2011). Keehan et al. (2011) observed that Medicaid spending growth will result from an increasing share of aging beneficiaries requiring care from the program and the expansion of Medicaid under the PPACA (Keehan et al., 2011).

The sheer size and complexity of Medicare and Medicaid render both programs highly susceptible to waste, fraud, and abuse (Iglehart, 2010a; Sparrow, 2008; Thrall,

2011). As spending on Medicare and Medicaid increases in the coming years, a commensurate rise in the volume of expenditures lost to waste, fraud, and abuse might also occur. Efforts to identify and to mitigate fraud and abuse within the federally funded health care system require acknowledgment and understanding of the forms of fraudulent activity that can occur.

Health Care Fraud Schemes

The business literature is replete with stories and examples of fraud. In recent years, studies have included reports on cases, causes, and regulatory responses to telecommunications, credit card, mortgage, securities, and accounting fraud (Becker, Volinsky, & Wilks, 2010; Bottiglieri, Reville, & Grunewald, 2009; Carswell & Bachtel, 2009; Kueppers & Sullivan, 2010; Perri & Brody, 2011). A wide spectrum of forms of health care fraud and abuse mirrors the multitude of forms of corporate fraud.

Both providers and nonproviders commit health care fraud and abuse (Shah et al., 2009). Health care providers perpetrate the majority of fraud and abuse, with approximately 70-80% of the reported cases committed by providers and the remaining 20-30% committed by other groups including consumers and insurers (Rosenbaum et al., 2009; Shah et al., 2009). Scholars, health care professionals, and legal experts have identified numerous health care fraud and abuse schemes. Categories of schemes include health care fraud and abuse related to billing, treatment, identity theft, kickbacks, and physician self-referrals.

Billing fraud. A common form of health care billing fraud in the U.S. is upcoding. Upcoding occurs when a provider uses a billing code that corresponds to a

higher payment rate instead of the billing code corresponding to the actual medical service provided (Jones & Jing, 2011). Dafny and Dranove (2009) found that the practice of upcoding was more prevalent in for-profit hospitals, suggesting the profit motive might be a driving factor behind upcoding.

The prospective payment system (PPS) used within the Medicare program can lead to upcoding. Within the PPS model, providers assign patients to diagnostic groups (Goates, 2010). Each group corresponds to a set amount Medicare agrees to pay to hospitals for treatment (Goates, 2010). Hospitals that are able to treat a condition for less than the fixed cost retain the difference, while hospitals that spend more to treat a condition face a financial loss (Goates, 2010). Goates (2010) found that upcoding of both Medicare and non-Medicare patients occurred in hospitals in which providers treated a significant number of Medicare patients.

Unbundling is also a form of health care billing fraud. Unbundling occurs when practitioners or hospital personnel submit separate bills for a procedure or visit that they should have billed as a single (less expensive) procedure or visit (Phillipsen et al., 2008). Double billing is yet another fraudulent billing practice and involves a practitioner or health care services organization submitting a bill for the same procedure on different dates (Phillipsen et al., 2008). Additionally, providers might engage in phantom billing: a practice in which providers submit bills for undelivered health care products or services (Rudman et al., 2009).

Criminals employ drop box and fake storefront schemes to defraud Medicare, Medicaid, and private insurance companies. Fraudulent health care companies use either

a private mailbox facility or a fake storefront location to establish an address used to submit fraudulent billings to Medicare and Medicaid and receive insurance checks for fraudulent claims for services or durable medical equipment (Iglehart, 2010b; Taitsman, 2011). Individuals who use the mail or interstate wire communications to commit health care fraud can face prosecution for mail or wire fraud (Blank, Kasprisin, & White, 2009).

Treatment (health care service delivery) fraud. Individuals and organizations responsible for the delivery of medical services to patients perpetrate a myriad of fraudulent schemes. Schemes include the provision of medically unnecessary treatments for obtaining Medicare, Medicaid, or insurance payments and the misrepresentation of uncovered treatments as being medically necessary in order to secure reimbursement (Rosenbaum et al., 2009). Providers might also commit fraud by falsifying patient diagnoses in order to justify tests, procedures, or surgeries that are not medically necessary (Kesselheim & Studdert, 2008; Rosenbaum et al., 2009).

Federal and state prosecutors have begun pursuing the delivery of substandard, negligent, or harmful medical care as a form of health care fraud. Using provisions of the False Claims Act (FCA), federal and state agencies have asserted the delivery of substandard medical care and the subsequent submission of billings to Medicare, Medicaid, or private insurers represent attempts to commit fraud (Schindler, 2009). Federal and state regulators are increasingly relying on the use of federal fraud statutes such as the FCA to promulgate quality of care standards (Schindler, 2009).

Inappropriate provider financial relationships. Questionable relationships among physicians and health care product and service organizations are also the subject

of fraud and abuse investigations (Becker & Wolff, 2011). Kickbacks are one form of inappropriate financial relationship. Kickbacks involve physicians accepting payments in the form of money or other items of value as a means of influencing medical decisions (Krause, 2012). Kesselheim and Studdert (2008) determined that kickbacks occur in approximately 16% of health care fraud cases. Rosenbaum et al. (2009) documented kickback cases involving the participation of physicians, hospitals, and pharmaceutical companies (Rosenbaum et al, 2009).

Self-referrals are another form of questionable financial relationships and occur when physicians refer patients to other facilities in which the same physicians have a financial interest (Hillman & Goldsmith, 2010). Physicians engaging in self-referrals do so in an effort to profit from the performance of additional medical services. The practice of self-referral represents a clear conflict of interest for physicians and poses a risk to patient safety as physicians make clinical judgments based on financial incentives instead of medical necessity (Becker & Wolff, 2011). Self-referral can result in the performance of a greater number of medical procedures. Hollingsworth et al. (2010) determined that physician ownership of ambulatory surgery centers resulted in a higher surgical volume.

Medical identity and information theft. Theft of medical identity and other patient health information is not a fraudulent scheme in and of itself. However, fraudsters use stolen identity and medical information to commit other schemes. Organized crime groups are increasingly engaging in medical identity theft as the foundation of their efforts to defraud the Medicare and Medicaid programs (Dube, 2011). Recognition of the forms of medical identity and information theft is essential for enhanced understanding of

how fraudsters perpetrate various health care fraud and abuse schemes. Advances in technology and increased use of electronic medical data have created new opportunities for the theft of medical identity and health information and are driving changes in the forms of health care fraud schemes that are now appearing (Appari & Johnson, 2010).

Medical identity theft is the theft of an individual's personally identifiable information to obtain medical services or goods (Sullivan, 2009). Individuals, providers, health care service administrators, and members of organized crime rings commit medical identity theft (Dube, 2011; Sullivan, 2009). Motivators for the perpetration of medical identity theft include the need or desire to secure health care services, to support drug-seeking habits, or to defraud public and private insurers (Sullivan, 2009).

Medical identity theft leads to the creation of inaccurate medical records and financial losses, both of which directly affect consumers (Sullivan, 2009). However, consumers are not the only individuals adversely affected by medical identity theft. Physicians are also increasingly at risk. Unique identifiers for physicians include the National Provider Identifier (NPI), Tax Identification Number (TIN), and medical license information (Agrawal & Budetti, 2012). Fraudsters can use stolen physician identification information to order or refer patients for health care services and bill and authorize payments for ordered services (Agrawal & Budetti, 2012). Fraudsters can also bill directly for medical services using stolen physician identification data (Agrawal & Budetti, 2012). Physicians with compromised identification numbers can be at risk of financial and tax obligations for salaries not received or for services and products ordered and authorized using their names (Agrawal & Budetti, 2012).

Paying the Price: Consequences of Health Care Fraud and Abuse

Federal, state, and local governments invest a significant amount of funds in health care on an annual basis. Federal, state, and local entities spent approximately $925 billion on Medicare and Medicaid in 2010 (CMS, 2012). Assuming a 3-10% loss of this investment to fraud and abuse (Iglehart, 2009; Morris, 2009), federal, state, and local governments surrendered $28 billion to $93 billion to fraud and abuse in 2010. By virtue of dollars lost to fraudulent and abusive practices, government agencies are the first—but by no means only—victims of health care fraud and abuse.

Financial losses to fraud and abuse threaten the security and long-term health of federally funded health care programs and adversely affect the ability of government agencies to meet the growing demand for services from the Medicare and Medicaid programs (Aldhizer, 2009; Orszag & Emanuel, 2010). Recipients of government-funded health care services—elderly Americans and citizens living at or below the poverty level—can, therefore, be viewed as another demographic group victimized by health care fraud and abuse. Federal, state, and local health care dollars lost to fraudulent and abusive activities are also dollars lost to other vital social programs. Rapidly escalating health care costs (specifically, rising Medicaid expenditures) have led to increasing pressure on state budgets and a need for many state governments to make cuts to education programs and other social services in order to preserve funding for health care (Chernew et al., 2009). Recognition that a fraction of rising health care expenditures is attributable to fraudulent and abusive practices translates into knowledge that health care fraud and abuse are depriving federal and state governments of funds needed to sustain and grow

other social programs. As highlighted by Rosenbaum et al. (2009), recovery of the estimated $220 billion lost to health care fraud in 2007 would have been sufficient to provide health care coverage for all uninsured Americans.

Investments made in health care fraud and abuse mitigation programs are dollars unavailable for other federal and state programs and initiatives. As part of an ongoing federal effort to eliminate waste, fraud, and abuse in federally funded health care programs, the 2010 PPACA included provisions to increase funding for fraud enforcement efforts (Markette, 2011). The federal government spent an estimated $1.7 billion on antifraud activities in 2011, an amount that included the largest 1-year increase in antifraud program spending ($250 million) since the creation of the Health Care Fraud and Abuse Control (HCFAC) program by Congress in 1997 (Iglehart, 2010a). Elimination of all federal spending on fraud and abuse mitigation efforts and reallocation of antifraud dollars to other social programs are, perhaps, unrealistic goals. However, the magnitude of current investments in antifraud efforts serves as an indication of the funds lost and therefore unavailable for other federal programs.

Health care fraud and abuse also affect the financial and physical well-being of individuals. Confronted with financial losses caused by fraudulent and abusive activity, medical service providers seek to recover costs by imposing higher insurance premiums and health care copayments on beneficiaries (Price & Norris, 2009; Sullivan, 2009). Individuals who have had their medical identities and information stolen also might face the financial pressures of needing to pay for health care services accrued by fraudsters (Sullivan, 2009).

Physicians performing unnecessary medical procedures or prescribing unneeded medications in order to secure higher revenues from billings jeopardize patient safety (Price & Norris, 2009). Victims of medical identity theft can receive incorrect—and potentially life threatening—medical treatments because of the alteration of their health histories (Mancilla & Moczygemba, 2009). False medical histories resulting from the theft of beneficiary identity and health information can result in the denial of health care coverage to individuals or the assessment of higher health care premiums for previously existing (but false) medical conditions (Sullivan, 2009). Medical identity theft victims might also experience losses of credit or negative impacts to their reputations should their health status become public knowledge because of identity theft (Sullivan, 2009).

The severity of the problems encountered by individual victims of health care fraud and abuse has led to calls for patient-centered health care fraud recovery efforts. Sullivan (2009) noted that structural and regulatory features of the U.S. health care system make it difficult for victims of medical identity theft to discover and to fix damaged and incorrect medical records. Accordingly, Sullivan (2009) asserted that federal officials must create a regulatory initiative model similar to that made available to victims of financial identity theft to enable individuals to protect their personal health records.

Members of the health care services profession as a whole suffer reputational harm because of fraudulent and abusive behavior. Organizations that engage in counternormative or socially irresponsible behavior can lose customers and employees and can suffer the consequences of lawsuits, financial losses due to legal settlements, and

reputational damage (Lange & Washburn, 2012). White-collar crime such as fraud results in serious harm to corporate reputations (Gottschalk & Solli-Sather, 2011). Commitment of fraudulent or abusive activities by some individuals and entities within the health care system damages the reputation of the entire medical profession and creates an opening for the ethical conduct of all medical professionals to be questioned (Price & Norris, 2009).

Health care fraud and abuse results in indiscriminate financial, physical, and reputational harm to individuals and institutions across U.S. society. Given the persistent nature of fraud and abuse and the resulting toll on social and financial systems, government officials have proposed and adopted a spectrum of approaches for mitigation of the problem. Historical and current approaches have focused on (a) statutory and regulatory responses, (b) detection, and (c) individual and organizational accountability and compliance structures.

Responses to Health Care Fraud and Abuse

Statutory and regulatory responses. Over the past 3 decades, the federal government has enacted or applied existing statutes to combat fraud and abuse within the health care system. Government officials have promoted specific regulatory responses in an effort to address the impact and prevalence of specific fraud schemes. Primary federal antifraud statutes reflect the federal government's increasing focus on the problem of health care fraud and abuse and represent an ongoing, multiyear effort to strengthen and to expand legal provisions available for combating the problem.

Civil False Claims Act (FCA). Congress enacted the FCA in 1863 in an effort to stop suppliers from defrauding the Union Army during the Civil War (U.S. Department of Justice, 2011). The FCA establishes liability for any individual who knowingly submits a false claim to the government or causes another person to submit a false claim to the government (U.S. Department of Justice, 2011). The federal government has amended the FCA several times since the original enactment, and as presently written the FCA requires that individuals found guilty of knowingly submitting a false claim pay three times the amount of the government's damages plus a civil penalty of between $5,500 and $11,000 for each claim (U.S. Department of Justice, 2011).

The U.S. government employs the FCA as a tool for combating Medicare and Medicaid fraud. Fraudulent health care claims pursued using the FCA have traditionally involved the submission of claims for services not rendered or for instances of upcoding (Krause, 2006). The federal government also uses the *qui tam* provision of the FCA to pursue false claims cases. A *qui tam* case allows for a private individual—referred to as a *relator* or *whistleblower*—to file a suit for violations of the FCA on behalf of the federal government (U.S. Department of Justice, 2011). During the last 2 decades, the number of FCA *qui tam* actions has increased significantly, with suits based on complaints of regulatory noncompliance (i.e., noncompliance with health care anti-kickback and self-referral statutes) and failure to meet health care quality standards (Krause, 2006; Kraybill, 2008; Schindler, 2009).

Anti-Kickback Statute. The Anti-Kickback Statute provides criminal and civil penalties for individuals and organizations that knowingly and willfully offer, pay, solicit,

or receive remuneration to induce the referral of patients for Medicare or Medicaid services (Krause, 2010). Violation of the statute carries a punishment of up to 5 years in prison and a fine of up to $25,000 (Krause, 2010). Individuals and organizations found guilty of violating the statute are also subject to exclusion from serving as providers within the federal health care programs (Krause, 2010).

In response to concerns within the medical community regarding the application of the Anti-Kickback statute, the federal government has enacted *safe harbor* provisions (Birkhahn et al., 2009). Safe harbor provisions detail common business arrangements within the medical profession that if followed limit the potential for prosecution under the Anti-Kickback and related antifraud statutes (Birkhahn et al., 2009). Examples of safe harbors include provisions pertaining to personal service and management contracts, investment or ownership in an industry, and physician referrals (Birkhahn et al., 2009).

Ethics in Patient Referral Act (Stark Law). Congress enacted the Ethics in Patient Referral Act (commonly referred to as the *Stark Law*) to combat a specific fraudulent health care scheme: the practice of physician self-referral. The act’s name references the sponsor of the legislation, Representative Fortney “Pete” Stark (Sutton, 2011). Lawmakers enacted the Stark Law in 1989 as a mechanism to prevent physicians from referring Medicare patients requiring clinical laboratory services to entities in which physicians or family members of physicians have financial interests (Sutton, 2011). In the Omnibus Budget Reconciliation Act of 1993, Congress extended the ban on physician self-referral to include several additional services and extended the ban on self-referral to Medicaid (Sutton, 2011).

Violation of the Stark Law carries significant financial penalties that include (a) denial of payment and a requirement for violators to return payments received, (b) civil monetary penalties of $15,000 per service in which violations of the law occurred knowingly, and (c) exclusion from the Medicare and Medicaid programs (Sutton, 2011). Violations of the Stark Law can also result in the implication of physicians for violating the FCA. Physicians who submit claims to Medicare or Medicaid for services rendered as part of prohibited referrals are at risk of violating provisions of the FCA (Sutton, 2011). Simultaneous violation of the FCA and the Stark Law magnifies the financial impact of the fraud committed because the monetary penalties levied for FCA violation compound the civil monetary penalties within the Stark Law (Sutton, 2011).

Prosecutors wanting to employ the Stark Law to pursue providers for health care fraud and abuse confront a key difficulty: the need to prove intent on the part of providers (Sutton, 2011). Researchers have noted the Stark Law has thus far not proven to be a sufficient deterrent for inappropriate physician self-referral because of the difficulty of clearly establishing intent to commit fraud (Krause, 2006; Sutton, 2011). Sutton (2011) also argued that the variety of complex, changeable definitions within the various provisions of the law render compliance with the statute difficult.

Health Insurance Portability and Accountability Act (HIPAA). The U.S. Congress enacted the Health Insurance Portability and Accountability Act in 1996 in an effort to improve the portability and continuity of health insurance coverage for individuals (Richards, 2009). Provisions within the act simplified health insurance administration through the creation of standards and requirements for the electronic

transmission of health care information (Richards, 2009). However, the accountability elements of the act—the provisions targeted at the reduction of health care waste, fraud, and abuse—have had a greater impact on the landscape of U.S. health care provision by supporting the expansion of efforts to combat health care fraud and abuse (Blank et al., 2009).

Passage of HIPAA stiffened the penalties for commitment of health care fraud and provided the federal government with greater authority for the criminal investigation and prosecution of fraud cases at both state and federal levels (Blank et al., 2009). Provisions within HIPAA also provided for the creation of new structures and funding streams to support efforts to combat health care waste, fraud, and abuse. The federal government created the Health Care Fraud and Abuse Control Program (HCFACP), Medicare Integrity Program (MIP), and Beneficiary Incentive Program (BIP) following the passage of HIPAA (Blank et al., 2009).

The U.S. Attorney General and the U.S. Department of Health and Human Services (HHS) jointly administer the HCFACP, a program created for the coordination of fraud control efforts across all levels of government (Blank et al., 2009). Representatives of the HCFACP perform investigations, audits, inspections, and evaluations of health care providers and maintain a national database of providers sanctioned for committing health care fraud (Blank et al., 2009). Health and Human Services uses the MIP as a mechanism for contracting with private companies to perform a variety of fraud control services (Blank et al., 2009). Additionally, personnel working within the MIP have responsibility for the education of providers, recipients, and the

public about Medicare program integrity issues (Blank et al., 2009). Government officials use the BIP as a mechanism to provide incentive payments to beneficiaries who provide information leading to monetary recoveries from fraud investigations (Blank et al., 2009).

Patient Protection and Affordable Care Act (PPACA or ACA). Signed into law in March 2010, the PPACA (also referred to as the ACA) includes a range of provisions intended to reform and to enhance the U.S. health care system. Elements of the PPACA designed to expand health insurance coverage have received extensive attention from scholars, politicians, and members of the public media (Gable, 2011). However, lawmakers also included key provisions within the law to promote health care cost control. Cost containment provisions within the PPACA promote administrative streamlining, better coordination of care, and the reduction of waste, fraud, and abuse within Medicare and Medicaid (Gable, 2011).

Provisions within the PPACA amend and strengthen existing criminal, civil, and administrative antifraud laws and focus more attention on provider securitization during enrollment and validation (Iglehart, 2010a; Markette, 2011). Lawmakers strengthened the Anti-Kickback Statute with the inclusion of provisions in the PPACA to make it easier for prosecutors and government officials to establish that providers have violated the statute (Markette, 2011). The PPACA also includes provisions for larger criminal and civil penalties for the commitment of fraud (Markette, 2011). Additional antifraud provisions within the PPACA include (a) the implementation of more rigorous screening procedures for applicants wanting to bill Medicare for services, (b) a requirement for providers and suppliers wanting to participate in Medicare to adopt compliance programs

meeting criteria developed jointly with the HHS Office of Inspector General (OIG), and (c) enhanced transparency on the part of providers to disclose and report their relationships with entities within the health care industry (Iglehart, 2010a). The PPACA includes a provision requiring providers, suppliers, and managed care organizations to report and repay any overpayments from Medicare or Medicaid within 60 days or face a liability claim under the FCA (Iglehart, 2010a).

State statutes. The federal government has not acted alone to combat health care fraud and abuse via statutory and regulatory responses. Numerous states have enacted fraud laws, with some laws designed to address fraud in general and others targeted specifically at the problem of health care fraud (Rosenbaum et al., 2009). As of 2009, roughly half of the states and the District of Columbia had enacted false claims acts with *qui tam* provisions (Rosenbaum et al., 2009). A review conducted in the same year revealed that 37 states plus the District of Columbia had enacted antikickback laws and 34 states plus the District of Columbia had enacted self-referral (“mini-Stark”) laws (Rosenbaum et al., 2009). Additionally, 42 states have created Medicaid Fraud Control Units with responsibility for prosecuting health care crimes committed by health care organizations receiving Medicaid funding (Payne, Dabney, & Ekhomu, 2013).

Detection. The CMS has long operated using a pay and chase antifraud model. Because of prompt payment requirements, Medicare and Medicaid personnel pay claims first and then conduct audits months or years later (Iglehart, 2010a; Krause, 2012; Morris, 2009). Medicare and Medicaid personnel attempt to track down fraudsters and secure the return of wrongful payment only after they have identified questionable claims (Krause,

2012). Government officials based the pay and chase model on the premise that increases in the penalties levied on providers and a higher likelihood of fraudster detection and apprehension will deter fraudulent behavior (Krause, 2012). In such a model, federal and state antifraud statutes are an essential tool in combating health care fraud.

In recent years, the foci of health care fraud and abuse reduction efforts have widened to include more proactive approaches centered on detection. In the mid-2000s, CMS began working with contractors to implement various information technology solutions for the collection and analyses of claims data for detecting improper payments (U.S. GAO, 2011a). The U.S. GAO (2011a) argued that health care leaders must enhance nascent efforts to apply technology to the detection of fraud in order to ensure the integrity of the Medicare and Medicaid programs. Technology researchers and scholars have responded to the growing interest in fraud detection strategies with the proposal of various electronic approaches for the identification and prevention of fraudulent and abusive behavior.

Statistical methods involving the application of manually or automatically selected algorithms to the analysis of electronic claims data help detect potentially fraudulent or abusive behavior. Health care data analysts apply algorithms to the analysis of data in an effort to identify features that discriminate fraudulent or abusive behavior from normal activities (Li et al., 2008). The number of features used for fraud detection during the application of statistical methods ranges from 10 to 30 (Li et al., 2008). The degree of conformity between health care data characteristics and model assumptions governs the effectiveness of statistical fraud detection methods (Li et al., 2008).

Researchers have also developed and proposed modeling approaches for the detection of fraudulent and abusive practices. Musal (2010) described the analysis of databases containing electronic health claims data in order to assemble a model of fraudulent and abusive behavior. Musal (2010) clustered data by zip code and grouped data by socioeconomic factors (e.g., population, average house value, and income per household) in order to look for outlying rates of medical service use and detect potential instances of Medicare fraud (Musal, 2010). Shin et al. (2012) outlined the development of a scoring model used to analyze electronic claims data for the purpose of quantifying the degree of potential abuse and grouping health care providers with similar patterns of questionable billing behavior.

Health care professionals and researchers are also exploring and applying biometric applications as part of fraud and abuse mitigation efforts. Biometric measurements collected for patients can include facial recognition, fingerprints, iris scans, vein recognitions, or palm prints (Brown, 2012). Providers collect and include biometric information with other patient identification information to authenticate patient identity and reduce the potential for medical identity theft (Brown, 2012). The capability to verify patient identity at the time of service provides health care providers with a proactive means for preventing fraud.

Electronic health records (EHRs) containing biometric and additional patient information might function as a valuable tool for the prevention of health care fraud and abuse. However, health care leaders must take measures to secure and to safeguard the vast amounts of electronic patient information they collect and store. Concerns about the

potential for cyberattacks and theft of EHR data persist, and health care leaders must address public concerns about the privacy and protection of electronic medical data in order to gain general support for biometric fraud prevention applications (Brown, 2012). Failure on the part of health information technologists to protect and secure EHRs might contribute to an increased potential for fraud to occur (Appari & Johnson, 2010).

Accountability and compliance. Statutory, regulatory, and detection-based responses to health care fraud and abuse represent third party, externally driven approaches to combating the problem. Responsibility for preventing and eliminating fraudulent and abusive behavior must also be cultivated at the individual and organizational levels. Providers and administrators must be accountable for the processes used to prepare and submit claims and the implementation of effective health care compliance structures.

The PPACA contains provisions intended to encourage greater provider accountability for the quality of care and to foster compliance with federal antifraud statutes. A key provision of the law enables the creation of accountable care organizations (ACOs), groups of health care entities (e.g., hospitals, provider groups, clinics, and health care systems) that collaborate to provide integrated patient care (Richman & Schulman, 2011). The primary incentive guiding the creation of ACOs is the interest of the federal government in increasing the efficiency and reducing the cost of medical care provided to patients (Goodson, 2010). Establishment of integrated health care teams might also be expected to result in less duplication of treatment and a

correspondingly lower improper payment rate stemming from the mistaken submission of duplicate claims.

Provisions within the PPACA require strengthened compliance efforts on the part of Medicare providers. The PPACA empowers HHS to determine which Medicare providers should create compliance programs in order to increase the providers' vigilance in preventing fraud and abuse (Iglehart, 2010a). Providers determine compliance program criteria in partnership with the HHS Office of Inspector General (Iglehart, 2010a).

Federal statutes and law enforcement efforts play a crucial role in incentivizing providers and health care organizations to take action against perpetrators of fraud and abuse. However, statutory and regulatory structures are not sufficient to promote commitment to accountability and compliance on the part of individuals and organizations. Health care organization leaders must also expend the effort to create cultures supportive of accountability and compliance. Studies of the problem of fraud and abuse in the health care field, generally—and the home health care field, specifically—have provided evidence of the need for physicians and home health care workers to be taught the value of ethical conduct (Price & Norris, 2009; Rowe & Kellam, 2011). Leaders of health service organizations need to create cultures that emphasize the importance of compliance with state and federal regulations and the need to communicate and demonstrate the value and importance of regulatory compliance (Rowe, 2010; Rowe & Long, 2009).

The complexity and scale of the problem of health care fraud and abuse requires the application of a multitude of strategies to combat the problem. Statutory, regulatory,

detection, and accountability and compliance approaches are complementary responses to the problem and ensure individuals, health care service providers, and government entities are all engaged in efforts to reduce fraud and abuse (Matos, 2011). Assessment of the measured or perceived efficacy of various responses to health care fraud and abuse provides insight regarding the strengths, limitations, and challenges of present fraud and abuse mitigation efforts.

Mitigation Efficacy

Published assessments of the effectiveness of health care fraud and abuse mitigation efforts have largely focused on the efficacy of federal regulations. Evbayiro (2011) conducted a historical analysis of federal regulatory responses to health care fraud and abuse and examined the impact of federal laws and policies on the commission of fraudulent and abusive practices. Evbayiro (2011) studied application of the FCA, Anti-Kickback Statute, Stark Law, Deficit Reduction Act, HIPAA, Fraud Enforcement and Recovery Act, and the PPACA and argued the use of the FCA and other statutes by the federal government is curbing fraud and abuse committed by providers. Evbayiro (2011) asserted the *qui tam* and penalty provisions of the FCA contribute to the overall efficacy of the FCA as deterrents to fraud and abuse.

Boumil, Nariani, Boumil, and Berman (2010) also argued the *qui tam* provisions of the FCA have proven to be a useful tool in combating health care fraud and abuse. Boumil et al. (2010) examined *qui tam* actions in the U.S. pharmaceutical industry and asserted the whistleblower provision has proven to be highly effective in exposing fraudulent marketing practices in the industry, with *qui tam* settlements in the United

States since the beginning of the 21st century, yielding $5 billion. Looking beyond the pharmaceutical industry and the U.S. health care system, Boumil et al. (2010) concluded *qui tam* laws are a valuable regulatory asset in any health care system in which concern exists about the need to protect federal government funds for the provision of health care.

Kraybill (2008) presented a different picture of the efficacy of federal laws and policies in combating Medicare fraud and abuse. Kraybill (2008) performed a content analysis of FCA opinions written by federal courts between July 1, 1966 and December 31, 2006 and noted growing use of the FCA against Medicare providers. During the approximately 40-year period included in the study, Kraybill (2008) detected a pattern of increasing use of the FCA against health care service providers in quality of care claims. However, government officials have achieved only mixed success with their efforts to use the FCA as a weapon against health care fraud and abuse. Kraybill (2008) noted government cases involving the application of the FCA have been more effective than *qui tam* cases. Nevertheless, Kraybill (2008) concluded the FCA is an inefficient substitute for effective management and oversight of the Medicare program.

Yamada (2008) examined the impact of the FCA on Medicaid fraud and abuse by assessing the influence of the law on overall Medicaid spending. Yamada estimated that use of the FCA to combat fraud and abuse results in a 5% reduction in Medicaid spending. However, Yamada noted the majority of this reduction occurs in payments for hospital, physician, and clinical services. Spending for dental and nursing home services—two Medicaid service areas noted as being highly susceptible to fraud and abuse—is affected less by application of the FCA (Yamada, 2008). Yamada

acknowledged that the identified 5% reduction in Medicaid spending does not necessarily correspond to a 5% reduction in dollars lost to fraud. However, Yamada's findings do suggest that health care leaders must acknowledge uncertainty regarding the effectiveness of the FCA in combating Medicaid fraud and abuse.

Evbayiro (2011) cited funds recovered from FCA prosecutions and cost savings gained from federal antifraud programs as evidence of the success of federal government efforts to combat health care fraud and abuse. From fiscal year 2001 to fiscal year 2010, the HHS Office of Inspector General recovered and saved an estimated $292 billion (Evbayiro, 2011). Gaskin, Jenny, and Clark (2012) noted the number of government settlements with pharmaceutical companies regarding fraud and abuse claims has increased significantly as has the size of the accompanying fines paid by the companies. However, Gaskin et al. (2012) viewed the increase in fines paid not as an indicator of enforcement success but rather as a sign that fines are not an effective deterrent for the committal of health care fraud and abuse.

Researchers and government analysts have acknowledged that measures of mitigation effectiveness are lacking. Evbayiro (2011) noted a lack of criteria for objectively assessing the efficacy of antifraud legislation and concluded the development of such criteria is worthy of further research and attention. In a 2011 report, the U.S. GAO noted that CMS lacked the means to measure the effectiveness of efforts to ensure the appropriateness of Medicaid expenditures (U.S. GAO, 2011b).

Factors Contributing to Health Care Fraud and Abuse

Fraudulent and abusive behavior has continued in health care for decades and remains a significant source of concern and attention (Aldhizer, 2009; Orszag & Emanuel, 2010; U.S. GAO, 2011b). The pervasiveness of the problem prompts the following two questions: what are the causes of fraudulent and abusive activities, and what contributes to the persistency of the problem? Researchers have identified and discussed various contributors to the problem of fraud and abuse. The factors proposed by scholars and analysts are inclusive of systemic and behavioral explanations and collectively paint a picture of white-collar crime as fueled by a complex array of environmental conditions.

System and structural contributors. Sparrow (2008) examined the topic of systemic and structural contributors to health care fraud and abuse and argued characteristics of the U.S. health care system make it particularly vulnerable to fraud, abuse, and waste. Sparrow cited the fee-for-service structure, private sector involvement, and automated claims processing systems as structural failings of the U.S. health care enterprise that create opportunities for fraud and abuse. Sparrow also argued that the assignment of claims processing personnel to reviews of claims accuracy instead of to the verification of services delivered permits and facilitates the ability of fraud perpetrators to submit claims "correctly" to escape detection. Finally, Sparrow asserted the focus of postpayment audits on medical appropriateness rather than truthfulness also allows fraud perpetrators to generate fictitious medical documents to substantiate their claims. As argued by Sparrow, the identified structural failings of the U.S. health care system

account for false claims remaining the most egregious, pervasive, and far-reaching fraud issue within the health care system.

The sheer size of the Medicare and Medicaid programs serves as an enticement to fraudsters. The Medicare and Medicaid programs combined constitute the largest single purchaser of health care in the world, with more than 20% of U.S. federal government spending committed to the two programs (Blank et al., 2009). The amount of money spent annually on Medicare and Medicaid—estimated to be over $900 billion in 2010 (CMS, 2012)—makes both programs an attractive and potentially lucrative target for individuals and organizations interested in committing fraud.

Statutory and regulatory complexity. The federal government has enacted several statutes and regulations as part of a multidecade, ongoing effort to combat health care fraud and abuse. Civil FCA, Anti-Kickback Statue, Stark Law, HIPAA, and PPACA legislation comprise a network of legal tools intended to deter individuals and organizations from engaging in fraudulent or abusive activities. However, the complex, multilayered nature of this network might actually contribute to the incidence of health care waste, fraud, and abuse. Krause (2006) noted that contradictory or unclear wording in the language of various provisions complicates provider efforts to comply with the various statutes and regulations. Lawyers attempting to provide guidance to clients in the health care industry must navigate through and interpret significant amounts of statutory, regulatory, case law, and agency guideline documentation in order to discern which activities are permissible and which are not (Krause, 2006). Statutory and regulatory complexities do not justify the actions of fraudsters who willfully and consciously

attempt to secure improper payments for health care services. However, the complex nature of the antifraud statutory and regulatory environment might contribute to unintentional abuse of health care programs by medical providers who are unclear how to interpret the myriad provisions of various statutes and regulations.

A specific provision of the PPACA could create circumstances in which government officials unjustly accuse health care providers of fraudulent or abusive practices. The PPACA allows for the creation of accountable care organizations (ACOs), health care provider collectives in which participants agree to be responsible for the quality, cost, and overall care for Medicare patients (Leibenluft, 2011). Providers within an ACO receive encouragement to refer patients to other qualified providers within the same ACO (Leibenluft, 2011). The federal government views ACOs as an important mechanism for raising the quality of health care while simultaneously controlling health care costs. However, providers interested in forming ACOs might be fearful of accusations of committing health care fraud and abuse as government officials might judge referrals to other providers within the same organization to be violations of the Anti-Kickback and Stark laws (Leibenluft, 2011). Leibenluft argued in order to remove barriers to the creation of ACOs and stimulate the creation of organizations committed to the provision of quality care, the HHS must reverse some of its opinions regarding the appropriateness of certain physician financial arrangements. Leibenluft also asserted the HHS must create guidelines and safe harbors that will permit physicians to form ACOs.

Complexity of the antifraud statutory and regulatory network also complicates efforts to pursue and to prosecute claims of fraud. Violations of the FCA, Anti-Kickback

Statute, and Stark Law legislation require proof of the defendants' intent to commit fraud (Krause, 2006; Sutton, 2011). Prosecutors must demonstrate defendants accused of health care fraud knowingly and willfully committed fraud, an effort that requires abstraction and interpretation of complex and, oftentimes, unclear terminology within various provisions (Krause, 2006; Sutton, 2011).

Profit motivation. Fuchs (2009) noted the role of profit motivation in driving fraud, waste, and abuse in the U.S. health care system. Arguing every health care dollar spent in America corresponds to income received by health care providers, Fuchs reasoned that individuals and organizations wanting to preserve profit margins might resist efforts to reduce waste, fraud, and abuse. Reinhardt (2012) also asserted the strong links among health care spending and individual and organizational profit works against efforts to combat waste, fraud, and abuse in the U.S. health care system.

Educational and training deficiencies. Taitsman (2011) argued compliance training in American medical schools and residency programs is necessary in order for physicians to be educated about fraud and abuse. In a 2010 survey conducted by the DHS Office of Inspector General, two-thirds of medical institution officials responding to the survey indicated their institutions provide some level of training regarding fraud and abuse (Taitsman, 2011). However, Taitsman asserted more comprehensive training is necessary in order to ensure all medical students, residents, and fellows learn the fundamentals of compliance early and they do not begin engaging in fraudulent or abusive practices upon beginning their professional careers.

Phillipsen et al. (2008) cited careless billing as a threat to the integrity of the U.S. health care system and argued nurse practitioners should not use a lack of familiarity with correct coding and billing processes as an excuse for improper billing. Phillipsen et al. argued nurse practitioners should attend seminars, read health plan documents, or hire trained consultants to aid their efforts to engage in accurate coding and billing practices. Gasquoine and Jordan (2009) asserted psychologists wanting to serve as Medicare and Medicaid providers must become familiar with program billing rules and guidelines in order to reduce the risks of investigation for fraud or abuse and to contribute to the overall integrity of both programs. Matos (2011) argued health care practitioners should not claim ignorance of billing rules and regulations in order to avoid responsibility for fraud and abuse. Health care practitioners should become educated about all relevant billing practices in order to ensure the integrity of their records and submitted billings (Matos, 2011).

Health care reform provisions. The PPACA contains provisions targeted at further reducing waste, fraud, and abuse within Medicare and Medicaid (Gable, 2011). Ironically, a key provision of the PPACA might create conditions conducive to the perpetration of more fraud and abuse. The PPACA contains a provision whereby HHS must create a value-based purchasing (VBP) program in which the government makes incentive payments to hospitals providing Medicare and Medicaid services if the hospitals meet certain performance standards (Schmitt, 2012). The planned VBP is a pay-for-performance system, a system in which providers receive payments based on the quality of services provided rather than the volume of services delivered (Schmitt, 2012).

Providers delivering higher quality care will receive higher reimbursements (Schmitt, 2012).

Health care program officials will base provider reimbursements on reported quality of service data (Schindler, 2009). Accordingly, health care providers might submit false reports on the quality of services they have provided in order to secure higher payments (Schindler, 2009). With a pay-for-performance system, practitioners and health care service organizations struggling to stay afloat financially might feel pressured to engage in fraudulent or abusive practices in order to secure needed profits (Schindler, 2009). Government officials intend the implementation of pay-for-performance to address longstanding concerns about the quality of care provided in federally funded health programs. Given the potential for pay-for-performance to introduce greater amounts of fraud and abuse, government entities must consider if potential quality improvements will offset possible threats to the integrity of Medicare and Medicaid.

The combination of a variety of factors at organizational and regulatory levels creates the conditions in which fraudulent and abusive practices can occur. A holistic assessment of the causes of health care fraud and abuse should not ignore the role of the individual. Fraudsters make a personal decision to engage in unethical and illegal behavior. However, better understanding of the relative importance of various factors will enable government officials and health care service providers to determine how best to take action to detect and mitigate fraud and abuse. I conducted interviews with a variety of individuals involved with the administration and oversight of the Medicaid program in

the state of Arizona in order to gather insights and observations regarding the role of various factors in inhibiting the detection and mitigation of Medicaid fraud and abuse.

Conceptual Framework

Academic researchers examining the problem of health care fraud and abuse have previously applied theoretical frameworks focused on developing understanding of the actions and behaviors of individuals and organizations. Evbayiro (2011) applied agency theory and accountability theory as two lenses through which to explore the roles of health care providers and government entities in ensuring the integrity of U.S. federal health care programs. Kraybill (2008) used the economic theory of agency to examine the problematic aspects of the contractual relationships among CMS, Medicare providers and contractors, the U.S. Congress, and the executive, judicial, and legislative branches of government that contribute to the problem of Medicare fraud.

Preceding applications of agency and accountability theory have provided insights regarding the role of human and institutional interactions in contributing to health care fraud and abuse. However, numerous factors at individual, organizational, and regulatory levels create conditions in which fraud and abuse can occur. Individuals and groups might elect to engage in fraudulent behavior, but the complicated administrative, statutory, and regulatory environment of the U.S. health care system might create an environment in which fraudulent and abusive practices can flourish undetected. In order to expand the area of inquiry and to admit the role of complex individual-institutional interactions in contributing to health care fraud and abuse, I grounded the planned study in the institutional choice analytic framework as the guiding conceptual framework.

Collier (2002) proposed the institutional choice analytic framework as the basis for a study of political corruption. Institutional choice combines elements of the Institutional Analysis and Development (IAD) framework and the constructivist framework proposed by Nicholas Onuf (Collier, 2002). Elinor Ostrom, Roy Gardner, and James Walker developed the IAD framework and based the model on the premise that the decision-making capabilities of agents and the surrounding structure created by political, economic, and cultural rules bound the decision-making capabilities of agents and the choices made by individuals (Collier, 2002; Ostrom, 2011). The IAD framework supports examination of how institutional structures affect individual agent decision-making and how individual agents affect institutional structures (Collier, 2002). Within the IAD context, institutions include formal organizations as well as the rules developed to structure patterns of interaction and behavior across organizations (Ostrom, 2007).

In the IAD model, physical and material conditions, community attributes, and governing rules serve as inputs to what Ostrom (2007) described as the *action arena*. Elements of the action arena are the action situation (participants, outcomes, information, etc.) and the actors who influence actions and behaviors in the arena. Factors shaping the action situation include (a) the resources agents bring to a situation, (b) the value actors assign to actions taken, (c) the way actors process and acquire knowledge and information, and (d) the processes actors select to engage in certain behaviors or activities (Ostrom, 2011). Outcomes and patterns of interaction emerge from the action arena and, in turn, influence physical and material conditions, community attributes, and rules-in-use (Ostrom, 2007). The feedback loop that exists among outcomes and interactions and

inputs to actions and behaviors creates a cycle of continuous behavioral modification and adjustment.

Onuf (1997) included the IAD framework element of cocreation in his model of constructivism. Within the constructivist model, agents (individuals or groups) and society coconstitute each other in a continuous manner (Collier, 2002; Onuf, 1997). Neither agents nor institutions are more important than the other in terms of influencing social behavior; rather, agents and institutions interact and exert equal influence on the evolution of behavior and outcomes (Collier, 2002). Constructivists emphasize the importance of rules. Rules drive the behavior of agents and cause agents to become active participants in society (Onuf, 1997). The acts undertaken by agents influence society materially and socially and changes in rules redefine agents and their relationships with institutions (Collier, 2002; Onuf, 1997).

The IAD framework also includes discussion of the role of rules in shaping social behavior. As noted by Ostrom (2007), agents create rules to represent shared understandings of required, prohibited, or permitted actions. Rules evolve from a desire among humans to create order and predictability (Ostrom, 2007). However, rules are changeable and do not exist at only a single level. Individual agents at a particular level will make decisions about how to interpret and apply rules (Ostrom, 2007). However, agents will make those decisions within the context of rules that exist at higher levels (Ostrom, 2007). Agents combine multiple sets of rules to make decisions and display forms of social behavior (Blomquist & deLeon, 2011). Agent decisions and behaviors can

in turn lead to changes in the rules and patterns of interaction (Blomquist & deLeon, 2011).

Collier (2002) developed and applied the institutional choice analytic framework for a study of political corruption, combining several disparate theories of political, economic, and cultural behavior to form a single interdisciplinary social behavior theory to explain the causes of corruption. Judge, McNatt, and Xu (2011) applied Collier's (2002) institutional choice framework to an examination of national corruption. Pillay and Doraswamy (2010) also discussed the application of institutional theory to national corruption, with their investigation centering on national culture as a mediator of discretion and accountability and, therefore, serving as a potential source or stimulator of corrupt behavior. Applications of institutional choice theory—specifically, of the IAD framework—have extended beyond studies of corruption. Studies involving application of the IAD framework have produced an understanding of the behaviors and interactions that structure child care provisions, natural resource use and protection, common pool resources management, public administration, urban policing, education, and health care provisions (Blomquist & deLeon, 2011; Ostrom, 2007).

The institutional choice analytic framework encourages researchers to adopt a holistic, interdisciplinary approach to the analyses of factors contributing to specific social phenomena. As determined from a review of the literature, a multitude of factors might contribute to the problem of health care fraud and abuse and might undermine efforts to combat the problem. Provider decisions and behaviors, administrative practices, and a complex network of statutes and regulations combine to create conditions in which

fraudulent and abusive practices can occur. The feedback-driven model of the institutional choice analytic framework supported the conduct of a holistic study of the factors that might impede Medicaid fraud and abuse detection and mitigation efforts. Use of the institutional choice analytic framework also enabled the identification of strategies necessary for the introduction of Medicaid fraud mitigation programs that are reflective of the realities of agent behaviors and institutional structures.

The Problem of Medicaid Fraud and Abuse

Fraud and abuse affect both private and public health care programs in the U.S. However, the problem is particularly acute in the federally funded Medicare and Medicaid programs. Recognizing the susceptibility of Medicare and Medicaid to improper payment issues, the U.S. GAO (2011b) added both programs to the high-risk list in 2011. Whether the result of provider or recipient malfeasance, misinterpretation or misunderstanding of program billing requirements, or complexity introduced by the network of administrative and regulatory requirements, fraud and abuse in Medicare and Medicaid pose a threat to the long-term financial viability of both programs. The U.S. GAO (2011b) expects the demand for Medicare and Medicaid services to rise in the coming years as health care reform leads to a significant expansion of the rolls of eligible participants. Efforts to delineate impediments to the detection of fraud and abuse in federally funded health care programs and develop strategies for combating fraud and abuse are necessary in order to limit the financial losses suffered by federal and state governments and ensure allocated program funds remain available to provide health care for those eligible to receive it.

Fraud and abuse within the Medicaid program is particularly worthy of attention. In the years since program creation, Medicaid has evolved to become an essential stopgap insurance mechanism. Beneficiaries encountering Medicare eligibility limitations and gaps in coverage can receive health care from Medicaid (Iglehart, 2011). Individuals and families suffering financial losses caused by personal events or economic recessions can also receive insurance coverage from the program (Iglehart, 2011). Medicaid will continue to grow in size and importance because of the PPACA, which offers access to Medicaid services for more low-income individuals and families (Gable, 2011).

Keehan et al. (2011) estimated that annual spending on Medicaid will reach $908 billion by 2020. Assuming an estimated improper payment rate of 9.4% (U.S. GAO, 2011b), the amount of this total that could be lost to waste, fraud, and abuse is $75 billion. The loss of over $70 billion represents funds that will not be available to provide health care services to Americans in need. Additionally, Medicaid dollars lost to waste, fraud, and abuse place a strain on federal and state government budgets at a time when government leaders are struggling to meet rising costs associated with provision of Medicaid services (Chernew et al., 2009).

By interviewing health care leaders from the state Medicaid administration agency, the state legislature, an antifraud technology company, health care provider organizations, and a law enforcement agency, I was able to explore how leaders describe limitations in the detection and mitigation of Medicaid fraud and abuse. Health care leaders in Arizona provided observations of actions needed at the state and national level to enhance Medicaid fraud and abuse detection and mitigation efforts. Case study

findings might support the development of leadership models and strategies supportive of effective fraud and abuse mitigation strategies and might bolster efforts in Arizona and other states to combat the problem of Medicaid fraud and abuse.

Transition and Summary

The review of the literature regarding health care fraud and abuse revealed the problem to be one fueled by a myriad of potential causes. Scholars and government officials examining the problem of fraud and abuse have articulated a variety of possible solutions. State and federal government entities have responded with the enactment of several statutes and regulations intended to discourage fraudulent and abusive practices in the health care industry. However, health care fraud and abuse continue to persist at considerable cost to the federal and state governments and to the American public. Case study problem and purpose statements supported exploration of how health care leaders in Arizona describe impediments to the detection and mitigation of Medicaid fraud and abuse. Additionally, use of the institutional choice analytic framework enabled an integrated examination of how the interplay of various factors might create impediments to the detection and control of Medicaid fraud and abuse. Section 2 includes a description of study structuring and conduct.

Section 2: The Project

Document reviews and semistructured interviews formed the basis of this qualitative case study of how health care leaders in the state of Arizona describe impediments to the detection and mitigation of Medicaid fraud and abuse. The primary research question addressed by the study was how health care leaders in the state of Arizona describe factors contributing to the invisible nature of Medicaid fraud and abuse and necessary strategies for counteracting the business opportunities posed by the commitment of Medicaid fraud and abuse. Conduct of a review of the professional and academic literature established context for the general problem of health care fraud and abuse and enabled exploration of the factors that might undermine efforts to mitigate the problem. Additionally, the review of the literature supported examination of the economic and sociological threats posed by Medicaid fraud and abuse. The identified conceptual framework for the study supported the conduct of an integrated and holistic exploration of possible impediments to Medicaid fraud and abuse detection and mitigation efforts. Study findings might enable the elucidation of leadership models that are necessary to support the development and promulgation of effective Medicaid fraud and abuse mitigation strategies.

This section includes discussion of the research design used for conduct of the study, with content focusing on the role of the researcher, participant selection process, and research method and design. This section also includes discussion of the study population and sampling protocol used and the data collection, organization, and analysis

methods used for the study. Finally, I provide descriptions of the strategies and techniques employed to ensure study dependability, credibility, and transferability.

Purpose Statement

This qualitative case study explored how health care leaders in the state of Arizona describe limitations to the detection of Medicaid fraud and abuse and characterize strategies necessary for counteracting the financial incentives motivating the commitment of Medicaid fraud and abuse. I gathered data from a review of documents and from semistructured interviews conducted with leaders having responsibility for the administration, delivery, and regulation of Medicaid services. Study participants were representatives of the following entities in Arizona: (a) the state Medicaid administration agency, (b) the state legislature, (c) an antifraud technology company, (d) health care provider organizations, and (e) a law enforcement agency.

I reviewed documents in order to examine individual and organizational representations and perspectives regarding impediments to the detection and mitigation of Medicaid fraud and abuse. Interviewees participated in semistructured interviews and shared information regarding issues, claims, and concerns relevant to the problem of Medicaid fraud and abuse. Findings from this case study might enable the identification and development of leadership models supportive of effective fraud and abuse mitigation strategies. Promotion of such strategies is necessary to (a) halt the growth in unwarranted Medicaid costs, (b) enhance the capability and efficiency of health care leaders and organizations providing medical services, and (c) ensure the availability of funds to meet the health care needs of Americans living at or below the poverty level.

Role of the Researcher

I noted personal beliefs and biases regarding the study topic prior to beginning the document review and participant interview process and remained cognizant of personal biases throughout the data analysis process. Identification and management of personal biases ensured the integrity of the data collection and analysis process. Biases noted included my belief that (a) Medicaid fraud and abuse occur largely as a result of ill intent on the part of individuals or organizations, (b) efforts to mitigate Medicaid fraud and abuse can be implemented in a cost effective and societally and organizationally acceptable manner, (c) health care leaders believe that fraud and abuse mitigation efforts are an important strategy for reducing Medicaid program costs, and (d) the identification of solutions for combating the invisible nature of Medicaid fraud and abuse and the business opportunity inherent in the commitment of fraud should be possible.

Unbiased interview techniques supported the conduct of all interviews. I posed interview questions in a neutral manner and listened attentively throughout each interview. Interviewees had the opportunity to respond to each identified interview question and to offer additional insights and perspectives on the problem of Medicaid fraud and abuse.

Participants

Study participants included 10 health care leaders with responsibility for the administration, delivery, and regulation of Medicaid services in the state of Arizona and with direct experience with the problem of Medicaid fraud and abuse. Of the 10 interviewees included in the participant pool, three were Medicaid program

administrators, three were state legislators, one worked in the antifraud technology field, two were health care professionals, and one worked in law enforcement (Appendix A). Study participants resided in the Phoenix, Arizona area and had a minimum of 2 years to a maximum of 32 years of experience with the administration, delivery, and regulation of Medicaid services in the state of Arizona (Appendix A). Three of the participants were female and seven were male (Appendix A).

I employed purposeful sampling to select interviewees for the study. Piekarri, Plakoyiannaki, and Welch (2010) emphasized purposeful sampling as a best practice during the conduct of qualitative case studies. Ardichvili, Mitchell, and Jondle (2009) used purposeful sampling during the conduct of a qualitative study of how business executives characterize ethical business cultures. Individuals from a diversity of organizations contributed perspectives and experiences regarding various facets of Medicaid services provision (e.g., program administration, legislative oversight, technological delivery, health care delivery, and law enforcement). The collected data set included these diverse opinions.

Identified participants received e-mail letters that included a description of the study objectives and intent. The letters included sufficient information for prospective participants to determine if they wished to participate in the study. Appendix B includes the template for the cover letter used to recruit study interviewees. The second member of my doctoral committee provided contact information for some of the initial study participants. A review of publicly available documents and websites resulted in the

names of additional, potential study participants. Initial study participants recommended additional interviewees.

Each study participant received an informed consent form (Appendix C) to review and sign. Potential interviewees had the opportunity to decide whether to participate based on the letter contents and information provided in the consent form. During the conduct of interviews, I worked to develop effective working relationships with interviewees by encouraging interviewees to share information from their individual perspectives, framing initial and follow-up questions in an open-ended manner, and listening attentively (Marshall & Rossman, 2011).

Research Method and Design

Method

The primary research question underlying the study was as follows: how do health care leaders in the state of Arizona describe factors contributing to the invisible nature of Medicaid fraud and abuse and necessary strategies for counteracting the business opportunities posed by the commitment of Medicaid fraud and abuse? The guiding framework for exploration of the study research question was descriptive and interpretive, characteristics of the qualitative research method (Denzin & Lincoln, 2011; Gephart, 2004). Accordingly, I selected a qualitative research method for the study.

Use of a qualitative approach to explore how health care leaders in the state of Arizona describe impediments to the detection and mitigation of Medicaid fraud and abuse was consistent with the application of qualitative methods within the field of business and management research. Pratt (2009) asserted the value of qualitative research

for addressing management-related issues and described the applicability of the qualitative method for developing understanding of phenomena from the perspective of study participants. Carsten, Uhl-Bien, West, Patera, and McGregor (2010) employed a qualitative approach to examine how employees working in various industries construct and describe their roles as followers. McMahon, Watson, and Bimrose (2012) used a qualitative research design to explore the experiences of older women regarding career transition and adaptability.

Quantitative research centers on the quantification of phenomena with the goal of testing a theory or examining causal relationships (Gephart, 2004; Rubin & Rubin, 2012). Mixed methods research involves the use of both quantitative and qualitative methods to study a phenomenon (Denzin & Lincoln, 2011; Leech & Onwuegbuzie, 2009). The study objective of understanding and describing responses to the problem of Medicaid fraud and abuse did not require the quantification and analysis of factors. Accordingly, I did not select a quantitative or a mixed methods research approach for the study.

Research Design

A case study design supported the conduct of the study of leadership responses to Medicaid fraud and abuse in Arizona. Case study design supports the exploration of a specific phenomenon and enables the investigation and description of the phenomenon within a particular, contemporary context (Yin, 2009). Researchers conducting case studies strive to represent the multiple realities described by study participants and interpret data collected from document reviews, observations, and interviews in order to construct descriptions of phenomena (Stake, 1995). Barratt, Choi, and Li (2011) asserted

the value of qualitative case studies for exploring and understanding modern phenomena within the field of operations management. Similarly, Beverland and Lindgreen (2010) noted the importance of case study research to the development of theory within the business marketing research arena and emphasized the suitability of the case study design for the examination and description of complex and evolving events. Accordingly, I used a case study design to explore how health care leaders and professionals in the state of Arizona characterize impediments to the detection and mitigation of Medicaid fraud and abuse.

Other qualitative research designs did not support the rich case exploration and description desired for the study. Application of a phenomenological design would have permitted data collection from the conduct of interviews (Marshall & Rossman, 2011) but would not have allowed for the gathering of information from publicly available documents. Ethnographic study designs are appropriate for the examination of the beliefs and behaviors of culture-sharing groups (Marshall & Rossman, 2011), a focus that was not appropriate for the study of Medicaid fraud and abuse. Grounded theory study design—intended for the generation or discovery of an underlying theory (Mello & Flint, 2009)—did not support the study objective of in-depth case exploration and analysis.

Population and Sampling

The sample population for the study consisted of individuals in leadership positions in the state of Arizona with responsibility for the administration, provision, and regulation of Medicaid services. The objective of the study was the collection of data from documents and from participants with specific knowledge of Medicaid program

structuring and Medicaid fraud and abuse in the state of Arizona. Accordingly, I employed purposeful sampling in order to recruit participants (interviewees) with relevant knowledge and experience sets.

I initially employed maximum variation sampling to identify and recruit study participants. Maximum variation sampling centers on the purposeful selection of participants from a range of groups in order to ensure the exploration of a multiplicity of perspectives regarding the phenomenon of interest (Onwuegbuzie & Leech, 2007a). The use of maximum variation sampling also facilitates the identification of common patterns in collected data (Marshall & Rossman, 2011). Williams, Round, and Rodgers (2009) employed maximum variation sampling in a study of the motives of informal entrepreneurs in Ukraine in order to ensure the representation of a suitable range of economic environments in the collected study data.

I also used snowball sampling as a mechanism for identifying and recruiting additional study participants. Snowball sampling is a form of network sampling and facilitates the identification of respondents within difficult to recruit or elite populations (Bernard, 2013). Application of the snowball sampling method involves asking current study participants to identify and recommend additional participants (Onwuegbuzie & Leech, 2007a). In a business research context, Liu (2011) employed snowball sampling to recruit participants for a qualitative study of the integration experiences of ethnic Chinese business people working within Australian culture and noted the value of snowball sampling for expanding the study sample size to ensure optimum participant variability.

Application of snowball sampling enabled the identification of suitable sample size for the study of Medicaid fraud and abuse in the state of Arizona.

I determined an appropriate sample size for the study of responses to Medicaid fraud and abuse in the state of Arizona from consideration of the number of participant sites (state Medicaid administration agency, state legislature, an antifraud technology company, health care providers, and a law enforcement agency) and the targeted number of interviewees from each site. As argued by Rubin and Rubin (2012), the number of sites selected for a qualitative study is dependent on the nature of the study research questions and the number of factors that might influence the study phenomenon. Leaders with responsibility for the administration, delivery, and regulation of Medicaid services in the state of Arizona contributed perspectives on the problem of Medicaid fraud and abuse.

Rubin and Rubin (2012) asserted that the inclusion of a large number of interviewees is not necessary in order to achieve balance and thoroughness during the conduct of a qualitative study. A minimum of two to three interviews per subsample area is sufficient to ensure the achievement of a suitable depth and diversity of perspectives (Rubin & Rubin, 2012). Based on the five site types included in the study and an assumption of two to three interviews per site type, I determined a minimum pool size of 10 to 15 interviewees to be appropriate.

I achieved saturation and diversity of perspectives and insights at the completion of 10 interviews. Researchers using purposeful sampling to identify and recruit study participants can use small sample sizes (Bernard, 2013). O'Reilly and Parker (2013)

observed that sample population adequacy for a qualitative study is a function of study topic, participant availability, and sufficiency of sample size for permitting the examination of study research questions. Francis et al. (2010) asserted that qualitative researchers should determine sample size from the consideration of study purpose and the assessment of the diversity of opinions and perspectives offered by study participants.

Ethical Research

Study participants did not encounter risks to their safety or wellbeing and therefore did not require protection. Participants only experienced some risk of minor discomforts such as fatigue, stress, or becoming upset should sensitive topics arise for discussion. During the conduct of each interview, participants experienced minimal to no discomfort.

The Walden University Institutional Review Board (IRB) process guided the structuring and conduct of the study data collection phase and no data collection occurred prior to receipt of IRB approval of the submitted research plan. The Walden University approval number for this study is 01-23-13-0238976 and the approval expires on January 22, 2014. Before beginning data collection, I successfully completed a National Institutes of Health (NIH) web-based training course pertaining to the protection of human subjects during the conduct of research.

Prior to the conduct of interviews, I provided participants with information about the study objectives and intent and provided each participant with an informed consent form (Appendix C) to review and sign. Potential interviewees did not receive incentives in exchange for participation. Additionally, all interviewees had the opportunity to decide

if they wished to participate in the study based on information provided in the consent form.

I ensured the privacy of all study participants and their affiliated institutions via deidentification of participants during the data analysis process. Participants did not share information they felt would compromise their professional status. Additionally, participants did not respond to specific interview questions if they felt uncomfortable doing so.

I am storing all data collected during the data gathering and analysis process in a safe, secure location for a period of 5 years in order to protect the rights of participants. Participants received notification that they could inform me if they wanted to withdraw from the study process at any time without consequence, identification, or memorialization of their inputs or data. A password-protected computer contained electronic copies of all collected data and analysis files. Finally, a locked container holds all hard copies of data and analytical materials.

Data Collection

Instruments

I collected study data from a review of documents and the conduct of interviews with leaders with responsibility for the administration, provision, and regulation of Medicaid services in the state of Arizona. The use of multiple sources of data supported study construct credibility through data triangulation (Marshall & Rossman, 2011). As described by Yin (2009), case study researchers use data triangulation via the collection of information from multiple sources in order to corroborate the same phenomenon and

to ensure overall study quality. Denzin (2009) defined data triangulation as the use of several different data sources to support the comprehensive examination of identified phenomena. As described by Denzin (2009), data sources are not the methods used to gather evidence but are instead the observational units (time, space, or people) that form the basis for the collection of information.

A case study protocol served to ensure the dependability of a study by outlining the procedures and rules to be followed during the conduct of research and by ensuring that study data collection, analysis, and reporting efforts remain focused on the study line of inquiry (Marshall & Rossman, 2011; Yin, 2009). Based on case study protocol guidance outlined by Yin (2009), I prepared and followed a case study protocol that included (a) an overview of the intended project; (b) a description of the protocol purpose and intended use; (c) a description of study data collection procedures; (d) an outline of the case study report content; (e) a list of the case study interview questions; (f) a summary of the data analysis techniques and tools to be used; and (g) a description of the study dependability, credibility, and transferability methods. Appendix D includes the case study protocol.

Qualitative researchers can enhance the dependability of case studies by creating and using case study databases (Yin, 2009). I organized and maintained a case study database for the study of Medicaid fraud and abuse in Arizona. The database included (a) notes taken during the review of documents and the conduct of interviews; (b) copies of documents, interview audio files, and transcripts; (c) tables of codes and thematic

elements resulting from the analysis of collected data; and (d) initial (draft) narratives written during the analysis of collected data and summarization of study findings.

I established the credibility of the study using (a) the assessment of rival explanations, (b) researcher bias identification, and (c) member checking (Marshall & Rossman, 2011). Rich descriptions of the study context and feedback provided by a field review panel on the suitability of research processes and findings supported study transferability. Qualitative researchers enhance the transferability of their social science research by selecting representative study samples and by providing rich descriptions of study contexts (Bernard, 2013). Subject matter experts who served on the field review panel provided feedback regarding the suitability of research processes and the transferability of study findings. The combination of rich descriptions of the study population and context with the use of a field review panel provided readers with the information necessary to assess the transferability of the study findings and conclusions.

Collection of data for the case study resulted in an amount of data (e.g., documents and interview transcripts) too voluminous for inclusion as appendices to the study. Accordingly, I will make raw data for the study available upon request. Appendix E includes the list of documents included in the case study. Appendix F includes the list of codes used during the analysis of documents and interview transcripts and includes the total count for each code.

Data Collection Technique

I collected study data from the review of documents and information obtained from interviews. Researchers conducting case studies can use letters, memoranda, e-mail

communications, written reports, administrative documents, and newspaper articles as forms of documentation (Yin, 2009). Lee (2009) conducted reviews of industry association data and statistics, corporate reports, news media accounts, and government environmental regulation reports as part of a case study of green management practices within small- and medium-sized enterprises (SMEs). Hilletofth, Ericsson, and Christopher (2009) gathered information from the review of strategic documents and an annual report during a case study of the structuring and execution of demand chain management processes in a manufacturing company.

Information from the review of publicly available documents supported the exploration and description of how health care leaders in the state of Arizona conceive of and respond to the problem of Medicaid fraud and abuse. Study participants had the opportunity to provide copies of e-mail messages, administrative documents, reports, and/or memoranda that they believed provided information useful for the assessment of individual and organizational representations and perspectives regarding the problem of Medicaid fraud and abuse. I did not require study participants to provide documents and emphasized that the provision of such materials was voluntary.

Study participants elected not to provide documents for inclusion in the study. However, participants did recommend specific publicly available documents for inclusion in the study. Based on the review of documents referenced by study participants and an independent search for documents relevant to the study research question and subquestions, I selected eight publicly available documents for inclusion in the qualitative case study. The eight documents included (a) four state auditor assessments of responses

of the Arizona Medicaid administration agency to the problem of fraud and abuse, (b) the 2013 program integrity plan produced by the state of Arizona Medicaid administration agency, (c) testimony given by Arizona health care leaders to the Arizona legislature and the U.S. Congress on responses to the problem of Medicaid fraud and abuse, and (d) a video of Arizona health care leaders discussing the Arizona health care safety net (Appendix E).

I used semistructured interviews to explore and describe how health care leaders with responsibility for the administration, delivery, and regulation of Medicaid services in the state of Arizona describe impediments to the detection and mitigation of Medicaid fraud and abuse. Semistructured interviews allow investigators to focus discussion on topics specifically related to study research questions (Rubin & Rubin, 2012). Lamberti and Lettieri (2009) employed semistructured interviews of managers to explore perspectives regarding the use of corporate social responsibility (CSR) strategies to gain stakeholder trust about corporate products and behavior. Trkman (2010) used semistructured interviews to determine how bank employees describe critical success factors for business process management programs in the banking sector.

Nine interviewees participated in face-to-face interviews at locations of their choosing. Because participants selected their interview locations, they experienced minimal inconvenience and were able to participate in the interviews effectively. During the conduct of each interview, I monitored and assessed the participant's emotional and physical responses to each question in order to ensure that lines of discussion did not create undue discomfort for the participant.

One interviewee participated in an interview over the telephone. Irvine, Drew, and Sainsbury (2013) noted that telephone interviews provide a less effective means for building rapport with interviewees and may result in interviewees providing less detail or elaboration in response to interview questions. However, Cachia and Millward (2011) argued that researchers can use the telephone to conduct interviews that follow a specific agenda and line of questioning. Additionally, Holt (2010) asserted that telephone interviews are equally effective as face-to-face interviews and might reduce the discomfort experienced by participants during the interview process. During the phone interview, the participant had the opportunity to respond to each interview question and to follow-up questions at length and to the level of desired detail.

I recorded all interviews. Participants provided permission for recording prior to the start of their interviews. A password-protected laptop stored electronic copies of all interview audio files for the subsequent creation of interview transcripts for analysis.

Data Organization Techniques

I created and maintained a data log on a password-protected computer and included an entry for each article of data that included information on (a) data type (document or interview), (b) data identification (document name or interviewee number), (c) document file name on the computer, (d) date of collection, (e) location of collection, and (f) corresponding research notes file name. I also recorded notes during the review of collected documents and the conduct of interviews and referenced the collected notes during the data analysis process. Yin (2012) described note taking during the conduct of case study research as an essential practice for ensuring that researchers capture the

essence of reviewed documents and interviews during and immediately following the collection of data in the field.

I stored primary copies of all study materials (documents, interview recordings, interview transcripts, coded data files, and analytical files) on a password-protected laptop computer. A cloud storage system served as a backup archival system for secondary copies of study materials. Interview note sheets included comments and observations gathered during the conduct of each interview and supported the identification of codes and themes.

The data collection and analysis process included the deidentification of study participants. Accordingly, data and analysis files included references to interviewee identification numbers only. I will store collected data and analytical results for 5 years. Destruction of all data copies (both electronic and hard copy) will occur after 5 years.

Data Analysis Technique

I developed interview questions to facilitate exploration of the primary research question guiding conduct of the qualitative case study: how do health care leaders in the state of Arizona describe the factors contributing to the invisible nature of Medicaid fraud and abuse and necessary strategies for counteracting the business opportunities posed by the commitment of Medicaid fraud and abuse? Structuring of interview questions in an open-ended fashion encouraged study participants to share and describe their perspectives and experiences regarding limits to the detection and mitigation of Medicaid fraud and abuse. Study participants responded to the following interview questions:

1. How long have you been involved with the administration, delivery, or regulation of Medicaid services in the state of Arizona?
2. How do you or individuals in your organization or in others involved with the administration, oversight, and regulation of the state of Arizona Medicaid program perceive the problem of health care fraud and abuse in general and the problem of Medicaid fraud and abuse in the state of Arizona specifically? In your estimation, how varied or accurate are these perceptions and why?
3. How do you or other individuals in your organization or in others involved with the administration, oversight, and regulation of the state of Arizona Medicaid program describe their roles, responsibilities, and experiences in combating the problem of health care fraud and abuse? In your estimation, how do these descriptions vary or align and why?
4. What have been your experiences regarding fraud and abuse within the state of Arizona Medicaid program?
5. How have your experiences as a health care leader shaped your beliefs and opinions about Medicaid fraud and abuse?
6. What do you or other individuals in your organization or in other organizations involved with the administration, delivery, and regulation of state of Arizona Medicaid services perceive to be limitations in the detection of fraud and abuse within the Arizona Medicaid program? In your estimation, how varied or accurate are these perceptions and why?

7. What are your opinions regarding the necessity and efficacy of the Anti-Kickback Statute and the Stark Law for promoting the detection of Medicaid fraud in the state of Arizona and for counteracting the business opportunities posed by such fraud?
8. What are your opinions regarding the necessity and efficacy of accountability and compliance programs within health care provider organizations as a tool for promoting the detection of fraud in the state of Arizona Medicaid program and for counteracting the business opportunity posed by such fraud?
9. How do you believe the introduction of pay-for-performance under the Patient Protection and Affordable Care Act (PPACA) will affect efforts to detect fraud within the state of Arizona Medicaid program and to counteract the business opportunity posed by such fraud?
10. What specific initiatives can you identify that might be undertaken or that are recognized but not yet implemented that would enhance efforts to combat the invisible nature of Medicaid fraud and abuse?
11. What specific initiatives can you identify that might be undertaken or that are recognized but not yet implemented that would enhance efforts to combat the business opportunity inherent in the commitment of Medicaid fraud?
12. What changes do you feel are needed at the national level to help individual states develop effective strategies for the detection and mitigation of Medicaid fraud and abuse?

Study participants shared insights and perspectives regarding the various factors that might limit efforts to detect and mitigate Medicaid fraud and abuse. Document reviews supported the assessment of how individual, institutional, and societal factors affect Medicaid fraud detection and control initiatives. I aligned the collection and analysis of study data with the conceptual framework selected for the study: the institutional choice analytic framework.

As described by Collier (2002), the institutional choice analytic framework combines elements of the Institutional Analysis Development (IAD) and constructivist frameworks. As prescribed by the IAD and constructivist frameworks, the decision-making capabilities of agents and the surrounding structure of political, economic, and cultural rules established by institutions bound the choices and actions of individuals or groups (agents; Collier, 2002). Agents and institutions interact continuously and exert equal influence on the evolution of behavior and social outcomes (Collier, 2002). The institutional choice approach provides a framework for researchers to undertake holistic, multilevel investigations of complex social phenomena (cf. Judge et al., 2011; Pillay & Doraswamy, 2010). With the institutional choice approach as the guiding conceptual framework, I conducted document reviews and interviews for collecting data to characterize the various factors that influence and impede efforts to detect and control Medicaid fraud and abuse.

I employed coding as the primary data analysis technique for the qualitative case study. Qualitative researchers use coding as a mechanism for categorizing and describing

collected data. Coding methods include deductive coding and inductive (open) coding (Bernard, 2013).

The use of both deductive and open coding supported the thorough analysis of data collected for the qualitative case study. I first employed deductive coding to develop initial codes for the analysis of collected document review and interview data. Pedersen (2010) used deductive coding in a study of management perspectives regarding CSR to identify themes of personal responsibility not explicitly identified by the interviewees but believed to be of importance to the analytical process. Höner and Mohe (2009) employed deductive coding to derive coding categories from the interview questions used during a case study of managers' perspectives on the use of consultants to conduct company business. The generation of deductive codes from the review of the interview questions enabled the identification and isolation of key words and themes related to the conceptual framework selected for the study.

Open coding involves the identification of concepts and themes that emerge during the review of collected qualitative data (Bernard, 2013; Rubin & Rubin, 2012). In addition to using deductive coding during an exploration of management opinions of CSR, Pedersen (2010) employed open coding to capture issues and themes that emerged from the analysis of managers' responses to interview questions. Karlsson and Honig (2009) used open coding to identify new themes and theoretical concepts during the review of data collected during the conduct of a qualitative study of the use of business plans within new businesses. Similarly, I employed open coding during the review of documents and interview data collected during the conduct of the case study in order to

surface and examine concepts and themes that were supplemental to the deductive codes used during the analysis process. The use of open coding supported the application of theory triangulation: the exploration of alternative explanations for an observed social phenomenon (Stake, 1995).

Categorization of the deductive and open codes by research subquestion and conceptual framework facilitated the identification of themes related to the study research question and conceptual framework. The creation of additional subcategories of codes enabled the evaluation of the nature of interviewee responses and document content. I also created code subcategories to capture responses or content by interviewee group (Medicaid administration, legislator, antifraud technology, health care provision, and law enforcement) and to capture miscellaneous topics of discussion that emerged during the interview transcript and document analysis process. Appendix F includes the list of codes used during the analysis of collected data.

I used the software tool ATLAS.ti to support the handling, sorting, and analysis of document and interview data collected during the study. Use of ATLAS.ti supported performance of (a) keywords-in-context (KWIC) analysis, (b) constant comparison analysis, and (c) classical content analysis. Application of ATLAS.ti to perform KWIC, constant comparison, and classical content analyses enabled me to ensure that exploration and analysis of collected study data was suitably robust via data analysis triangulation (Leech & Onwuegbuzie, 2007).

As described by Leech and Onwuegbuzie (2007, 2011), researchers conduct KWIC analyses to explore the use of key words in context and to identify underlying

connections within document wording or language used by interviewees (Leech & Onwuegbuzie, 2007, 2011). The conduct of KWIC analyses using ATLAS.ti supported the identification of open codes within the collected study data. Constant comparison analyses involve the identification of underlying themes within collected data via the deductive and inductive coding of passages of text (Leech & Onwuegbuzie, 2007). I used ATLAS.ti to perform constant comparison analyses of collected documents and interview transcripts and to identify and document emerging themes.

I used ATLAS.ti to perform classical content analyses of collected study data in order to determine the total count for each code used during analysis. Information regarding code counts supported the determination of the relative importance of deductive and inductive codes and the identification of key underlying themes within the data. Additionally, the use of ATLAS.ti to conduct co-occurrence analyses enabled the exploration of relationships between codes.

I used information regarding the frequency of codes across all study source materials (documents and interview transcripts) to assess code *saliency* and to determine which codes to retain during final thematic analysis. Bernard (2013) noted that the frequency of a code within a data set is an indicator of the saliency (importance) of the code. Carsten et al. (2010) argued that researchers should establish a minimum frequency of occurrence, with codes with frequencies below this minimum removed from further analysis. Carsten et al. (2010) established a minimum code frequency of approximately 19% for their qualitative study of social constructions of followership. In their presentation of a qualitative case study example for a vaccine trial, Guest and McClellan

(2003) used a benchmark of 20% and deleted codes from further thematic analysis if fewer than 20% of study respondents provided information associated with a code. The use of a minimum code frequency of 20% supported the development of themes.

Reliability and Validity

Reliability

Qualitative researchers demonstrate the trustworthiness of their research through a focus on dependability rather than reliability (Denzin, 2011; Marshall & Rossman, 2011). Dependability is a key consideration during the study design phase, and qualitative researchers include mechanisms for ensuring dependability in the design of their studies in order to ensure the integrity of collected data and findings (Marshall & Rossman, 2011). Researchers can use case study protocols and case study databases to demonstrate case study dependability (Yin, 2009).

In order to ensure the dependability of study findings, I developed and adhered to a case study protocol that included (a) an overview of the intended project; (b) a description of the protocol purpose and intended use; (c) a description of study data collection procedures; (d) an outline of the case study report content; (e) a list of the case study interview questions; (f) a summary of the data analysis techniques and tools to be used; and (g) a description of the study dependability, credibility, and transferability methods. Appendix D includes the case study protocol. Beverland and Lindgreen (2010) asserted the importance of the use of case study protocols during the conduct of qualitative case studies in the business and management fields in order to ensure study dependability. Trkman (2010) developed and used a case study protocol to document

study research questions, study methods, and data collection and analysis guidelines during a study of bank employee perceptions of critical success factors for business process management programs.

I created and maintained a case study database for the study of leadership perspectives regarding limitations in the detection and control of Medicaid fraud and abuse in Arizona. The database contained (a) notes taken during the review of documents and the conduct of interviews; (b) copies of documents, interview audio files, and transcripts; (c) tables of codes and thematic elements resulting from the analysis of collected data; and (d) initial (draft) narratives written during the analysis of collected data and summarization of study findings. Use of the case study database enhanced study dependability by providing other investigators with insight into the data products and analytical methods used to derive study findings and conclusions.

Validity

Quantitative researchers focus on study internal and external validity as key measures of research quality. In contrast, qualitative researchers ensure the integrity of their research by implementing measures to ensure study credibility and transferability (Denzin, 2011; Marshall & Rossman, 2011). I used the following methods to demonstrate study credibility: (a) data triangulation, (b) the assessment of rival explanations, (c) researcher bias identification, and (d) member checking.

Piekkari, Welch, and Paavilainen (2009) discussed the use of multiple sources of information during the conduct of case studies to enhance credibility. Borges, Hoppen, and Luce (2009) used document reviews, interviews, and direct observations to achieve

study credibility and enhance the quality of a case study of the use of information technology to support market orientation within e-businesses. Similarly, I collected study data from the review of documents and information from semistructured interviews and used the data gathered from both sources to triangulate findings and enhance overall study quality. The gathering of study data across multiple sites within Arizona ensured appropriate spatial variability in the study observational units and supported the comprehensive examination of leadership perspectives regarding limitations in the detection and mitigation of Medicaid fraud and abuse.

Within the field of qualitative research, the corollary to internal validity is credibility (Denzin, 2011). Yin (2009) argued that credibility is primarily a concern for explanatory case studies only. I conducted a descriptive case study of leadership perspectives regarding limitations in the detection and mitigation of Medicaid fraud and abuse. Accordingly, methods described by Yin (2009) as suitable for establishing credibility for explanatory case studies (e.g., pattern matching and explanation building) were not strictly applicable to my study. However, one method suggested by Yin (2009) for achieving credibility—the assessment of rival explanations—could be applied. The use of researcher bias identification and member checking also enhanced study credibility.

As described by Yin (2012), rival explanations for phenomena do not undermine case study designs or procedures but do pose a challenge to the interpretation of study findings and the formulation of study conclusions. Onwuegbuzie and Leech (2007b) noted that researchers risk the introduction of a threat to the credibility of their research if

they do not identify and investigate plausible rival explanations for findings during the data interpretation phase. Mullen, Budeva, and Doney (2009) conducted a review of research methodologies used by small business and entrepreneurship researchers and concluded that researchers wanting to demonstrate the credibility of their studies must identify and rule out competing explanations for their findings.

A single conceptual framework—the institutional choice analytic framework (Collier, 2002)—supported the collection and analysis of study data. I explored alternative conceptual frameworks during the data analysis process and examined the suitability of systems theory as a framework for study findings. As described by von Bertalanffy (1972), the premise of systems theory is that the interactions and interrelationships between elements of a system govern the properties and behaviors of the system. Flood (2010) asserted that systems theory provides a foundation for action research by encouraging researchers to conduct studies that incorporate various elements of human experience. Chai and Yeo (2012) applied systems theory to the development of a framework for the creation of energy efficiency policies within industrial organizations.

While systems theory provided a framework for the interrelationships between individual, organizational, and governmental actions contributing to the problem of Medicaid fraud and abuse, the institutional choice analytic framework served as a more suitable overarching structure for participant observations and document content pertaining to Medicaid fraud and abuse. Specifically, the focus on economic and political rules as governing elements within the institutional choice analytic framework was consistent with participant observations regarding the role of economic and political

considerations in shaping efforts to combat Medicaid fraud and abuse. Accordingly, I centered my analysis and interpretation of study findings on consideration of the institutional choice analytic framework. The examination and refutation of rival theories during the data analysis process enhanced the credibility of study findings and conclusions.

I employed researcher bias identification as a second strategy for ensuring credibility of the case study. As discussed by Yin (2012), researchers' theories, personal values, or preconceptions might influence the structuring and conduct of their intended studies. Onwuegbuzie and Leech (2007b) noted that researchers who do not recognize and manage their biases might influence the responses of participants in studies and might corrupt data collection and analysis processes. Stige, Malterud, and Midtgarden (2009) argued that researchers must engage in self-reflection prior to the conduct of qualitative studies in order to identify and articulate attitudes about the research topics that may influence the collection and analysis of data.

I conducted a personal assessment of biases prior to initiating data collection for the study of Medicaid fraud and abuse in Arizona. The assessment matrix included each identified bias and a narrative description for each bias. Consultation of the bias identification matrix throughout the data collection and analysis process and during the preparation of study findings and conclusions enabled the effective management of recognized biases.

I used member checking as a third technique for establishing the credibility of the qualitative case study. As described by Marshall and Rossman (2011) and Stake (1995),

member checking is a process in which researchers provide study participants with selected data products and draft findings and conclusions and ask the participants to comment on the accuracy of the materials provided. López-Gamero, Claver-Cortés, and Molina-Azorín (2009) employed member checking during a study of business sector perceptions of environmental regulations, providing study participants with copies of draft study findings and asking the participants to assess and comment on the credibility of the findings.

Study participants received a copy of initial study findings and conclusions and had the opportunity to review and offer comments. Feedback from participants enhanced the accuracy and credibility of study data collection and analysis efforts. After final approval of the study, I will provide study participants with a summary of study findings, recommendations, and conclusions. The summary will include findings, recommendations, and conclusions detailed in this study and will be no more than two pages in length in order to ensure that study participants receive a document they can read and reference efficiently.

Qualitative researchers focus on the transferability—rather than the external validity—of study findings (Denzin, 2011; Marshall & Rossman, 2011). Gibbert and Ruigrok (2010) argued that case study researchers enhance the transferability of case studies by providing rich descriptions of the rationale for the selection of case study populations and describing the details of case study contexts. Dubois and Gibbert (2010) asserted that qualitative researchers conducting qualitative case studies demonstrate the transferability of studies by providing clear descriptions of the rationale for study

population selections and the study contexts. Thomas and Magilvy (2011) argued that qualitative researchers demonstrate the transferability of study findings by providing rich descriptions of the populations studied and the demographics and geographic boundaries of the studies.

I provided detailed descriptions of the sample population and geographic boundaries for the study. The inclusion of rich descriptions of the study population and the context for the collected data and study findings enabled readers to judge the transferability of study findings and conclusions. Specifically, readers received the information necessary to assess the transferability of findings and conclusions to aspects of health care fraud and abuse beyond the boundaries of the problem of Medicaid fraud and abuse.

I used a field review panel to review and comment on the accuracy and trustworthiness of draft study findings. Bernard (2013) noted that panels of subject matter experts are an effective mechanism for the collection of feedback regarding the suitability of research processes and findings. Experts with experience in the conduct of qualitative research and the presentation of findings served on the field review panel. Review panel members did not gather study data, and study participants did not serve on the field review panel. Field review panel members assessed study findings only and did not have access to collected data and participant information. Feedback from the panel regarding the presentation and completeness of study findings supported my efforts to obtain an independent, expert assessment of the transferability of the study findings and conclusions.

Transition and Summary

Section 2 included an outline of the intent, research design, population sample, and analytical methods used for the study of Medicaid fraud and abuse. The conduct of a qualitative case study enabled exploration of how health care leaders in the state of Arizona perceive limitations in the detection and mitigation of Medicaid fraud and abuse. I gathered data from the review of documents and the conduct of semistructured interviews in order to build understanding and knowledge of leadership strategies that might support more effective state and national efforts to detect and control Medicaid fraud and abuse. Section 3 includes an overview of the study and a presentation of findings from the analysis of collected data. Section 3 also includes discussion of applications of the research to professional practice and the presentation of recommendations, reflections, and conclusions resulting from the conduct of the study.

Section 3: Application to Professional Practice and Implications for Change

In this section, I present findings from the study of leadership responses to the problem of Medicaid fraud and abuse in the state of Arizona. Analysis of study data supported the identification of themes and the exploration of the relationship between collected data and the conceptual framework for the study. This section includes (a) a study overview, (b) the presentation of findings, (c) discussion of the applications of study conclusions to professional practice and implications of the study for social change, (d) recommendations for action and further study, (e) reflections on the research process, and (f) a summary of study conclusions.

Overview of Study

I conducted a qualitative, descriptive case study of how health care leaders in the state of Arizona describe impediments to the detection and mitigation of Medicaid fraud and abuse. The following primary research question motivated conduct of the study: how do health care leaders in the state of Arizona describe factors contributing to the invisible nature of Medicaid fraud and abuse and necessary strategies for counteracting the business opportunities posed by the commitment of Medicaid fraud and abuse? Identification and examination of the following research subquestions promoted the rich exploration of leadership characterizations of the problem of Medicaid fraud and abuse:

1. How do health care leaders charged with the administration, delivery, and regulation of Medicaid services in the state of Arizona perceive the problem of Medicaid fraud and abuse?

2. What do health care leaders perceive to be strategies necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program?
3. How do health care leaders describe changes that need to be made at the national level to help individual states develop effective strategies for the detection and mitigation of Medicaid fraud and abuse?
4. What do health care leaders perceive to be necessary strategies for combating the invisible nature of Medicaid fraud and abuse?
5. What do health care leaders perceive to be necessary strategies for combating the business opportunity inherent in the commitment of Medicaid fraud?

I collected study data from the review of publicly available documents and the information received from 10 semistructured interviews with leaders from (a) the Arizona Medicaid administration agency, (b) the Arizona legislature, (c) an Arizona antifraud technology company, (d) Arizona health care providers, and (e) an Arizona law enforcement agency (Appendix A). Purposeful and snowball sampling supported the identification and recruitment of study participants. Identified health care leaders received initial e-mail letters requesting study participation (Appendix B) and confirmed the logistical details (date, time, and location) of their interviews during subsequent phone conversations. Nine interviewees participated in face-to-face interviews at locations of their choosing, and one interviewee participated in a telephone interview. Case study information sources included eight documents (Appendix E), with document selection based on referrals offered by study participants and an independent search for documents relevant for examination of the study research question and subquestions.

I conducted the interviews in the Phoenix, Arizona area over two separate three-day periods in March 2013 and gathered the documents included in the case study during the same two periods. During the interviews, the 10 participants responded to each of the twelve interview questions included in the case study protocol (Appendix D). Each participant received an informed consent form (Appendix C) for review and signature prior to the start of the interview. Participants gave permission for recording prior to the start of their interviews and provided corrections to their interview transcripts prior to the start of the data analysis process.

I used the software tool ATLAS.ti to perform deductive and open coding of collected data and conduct frequency and co-occurrence analyses of coded data segments. Code frequency and co-occurrence results supported the identification of key themes. Members of the field review panel received copies of draft study findings and provided comments on the accuracy and trustworthiness of the findings (Bernard, 2013). Study participants also received copies of draft findings as part of member checking (Stake, 1995) and had the opportunity to assess the accuracy of the materials provided. The conduct of member checking enhanced the credibility of the qualitative case study.

Coding of the collected data revealed a diversity of perceptions regarding impediments to the detection and mitigation of Medicaid fraud and abuse and strategies believed to be necessary in Arizona and in other states for combating the problem (Appendix F). The following primary themes emerged from the analysis of minimum code frequency thresholds and rates of code co-occurrence:

1. The prevalence of Medicaid fraud and abuse

2. Assessment of regulatory and organizational responses
3. Motivations for action
4. Limitations to detection and mitigation
5. Consequences of Medicaid fraud and abuse
6. Use technology
7. Build needed capabilities
8. Create transparency and awareness
9. Move from national to state control
10. Build beneficiary accountability and responsibility
11. Use biometrics
12. Proactive monitoring and investigation
13. Enact a state false claims act
14. Economic and political rules shape perceptions about responses to Medicaid fraud and abuse

Participant responses and document content as captured in Themes 1-5 provided affirmation of information gathered from the literature review regarding the nature and consequences of Medicaid fraud and abuse and current limitations of efforts to combat the problem. Themes 6-14 suggested strategies that might warrant attention at the state and national level for combating Medicaid fraud and abuse.

Presentation of the Findings

The creation and categorization of codes by research subquestion and conceptual framework facilitated the examination of the primary study research question and

subquestions. I used the software tool ATLAS.ti to code all case study information and to conduct code frequency and co-occurrence analyses for identifying key themes. Thirteen themes emerged from the analysis of the study research subquestions, and one theme emerged from the examination of the relationship between the study conceptual framework and participant perceptions of the problem of Medicaid fraud and abuse.

Research Subquestion 1

The research topic explored with this subquestion was as follows: how do health care leaders charged with the administration, delivery, and regulation of Medicaid services in the state of Arizona perceive the problem of Medicaid fraud and abuse? Examination of participant responses to interview questions 2, 3, 4, 5, 7, 8, and 9 (Appendix D) and the content of documents included in the qualitative case study (Appendix E) enabled exploration of this subquestion. I examined the total counts for codes in the perceptions subcategory (Appendix F) and identified themes relevant to the research subquestion by screening for codes by minimum code frequency and total count per code. Figure 1 shows the five thematic areas and associated codes for research subquestion 1.

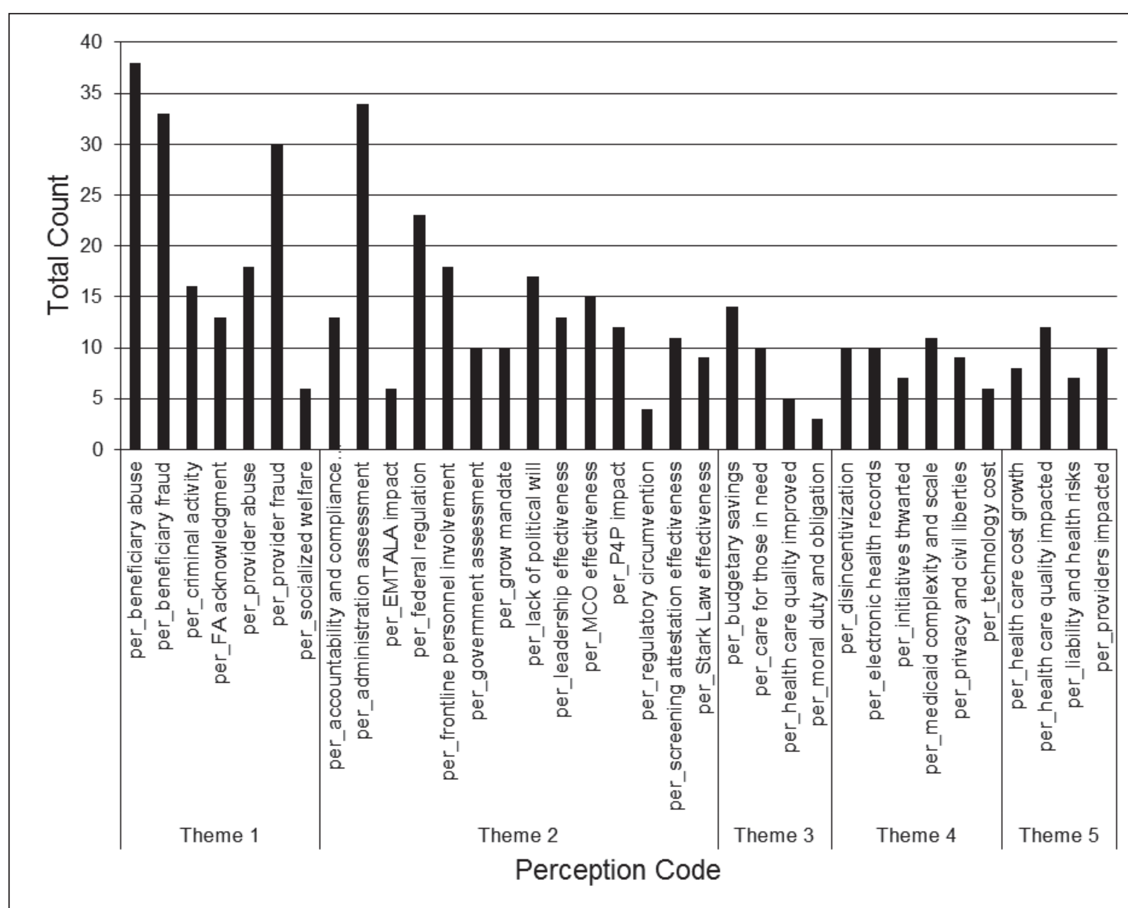

Figure 1. Themes for research subquestion 1.

Theme 1: The prevalence of Medicaid fraud and abuse. All participants in the study (Participants 1-10) acknowledged the existence of fraud and abuse in the Medicaid program. As noted by one participant, “we know it’s there…it’s just a matter of ferreting it out” (Participant 5). Participant 6 described Medicaid fraud and abuse as “inherent in the system and unavoidable” and Participant 7 observed, “certainly fraud and abuse is clearly a problem in the health care system.”

In characterizing the magnitude of Medicaid fraud and abuse, the majority of study participants (Participants 1, 2, 3, 6, 7, and 10) described the magnitude of

beneficiary abuse as high. One participant described Medicaid beneficiaries as using emergency room physicians "like their primary care doctor" (Participant 8). Another participant observed:

> We have people that use taxis to go to their doctor and then the taxis take them to Costco. And these people have cars, it's not like they couldn't go. They have cars, they have smartphones. It's not like these people are really poor. There's a huge abuse of the system and unfortunately it's going to more and more bleed the state dry. (Participant 1)

In contrast, health care leaders included in the Arizona health care safety net panel discussion presented in Document 8 (Appendix E) expressed the opinion that beneficiary abuse within the Arizona Medicaid program is low. The three leaders serving on the panel expressed the opinion that beneficiary abuse within the program is not as high as perceived, with one panelist from a charity health care clinic noting that abuse is "not what you think that it would be" (Document 8). In addressing concerns that some Medicaid beneficiaries in Arizona use emergency departments inappropriately, a second panelist observed:

> I just ask people to think about that because if you empower emergency departments to start being judge and jury, saying "you shouldn't have gone here" you had better on the other end have a place for them to go. (Document 8)

The majority of participants (Participants 1, 2, 3, 5, 6, 9, and 10) characterized the magnitude of beneficiary fraud as high. Participant 3 described beneficiaries who use the identities of deceased individuals to obtain Medicaid services and Participant 5

characterized beneficiary fraud as having a significant impact on the Medicaid program. A third participant observed:

> We see patients coming in with ID that is fairly obviously not theirs. This is ascertained by the electronic medical records system pulling up previous patient visitations, and when you take a look at the amalgamation of visits and the deductions from those visits you realize that this could not be a single person. (Participant 10)

Four study participants (Participants 2, 3, 6, and 7) characterized the magnitude of provider abuse as high. One participant noted:

> While I think I was originally correct about the relatively small or low nature of true fraud, there's a lot of waste and abuse that physicians are unaware that they contribute to because they're not used to thinking in terms of "gee, what is the least expensive way for me to treat this patient's problem first. Let's try that. If it doesn't work I can always go on to more expensive things later." And that's where the waste and abuse comes in. (Participant 7)

Participant 5 described incorrect billing on the part of medical service providers as a source of provider abuse.

Five participants (Participants 2, 3, 6, 9, and 10) characterized the magnitude of provider fraud as high. Participant 3 described the prevalence of forms of provider fraud including false billing, upcoding, and credential sharing. Participant 9 noted the practice of "providers using multiple codes when they are putting their codes down on their treatments." The individual cited in Document 7 also characterized the magnitude of

provider fraud as high and described the practice of providers submitting billings for patient visits that never happened.

Two participants characterized the magnitude of provider fraud (Participants 7 and 10) as low. Participant 7 described provider fraud as “the smaller of the problems” and asserted that the incidence of provider fraud in Arizona is not at the same level as in states like New York and Florida. Participant 10 observed that a financial incentive for providers to commit fraud may not exist and stated:

> In the systems that I worked in, there is no benefit to the provider in provider fraud. They’re paid a salary based on the number of hours they work, they’re not in any form remunerated based on the number of patients they see nor on the profitability of the center.

Study participants referenced and discussed beneficiary abuse and fraud at a higher frequency than provider abuse and fraud (Figure 1). Shah et al. (2009) noted that providers commit the majority (70-80%) of health care fraud and abuse. The focus of study participants on beneficiary abuse and abuse in the Arizona Medicaid program might be reflective of personal experiences and opinions of the incidence of beneficiary fraud and abuse and might not serve as a quantitative indicator of the relative significance of beneficiary versus provider fraud and abuse.

Four study participants (Participants 3, 4, 7, and 10) noted criminal activity as a source of Medicaid fraud, with three participants (Participants 3, 4, and 10) describing the magnitude of criminal activity as high and one (Participant 7) characterizing the magnitude of criminal activity as low to neutral. The respondent cited in Document 7 also

referenced the commitment of Medicaid fraud by crime rings. Participant 3 noted the involvement of individuals in the drug and human trafficking rings in the trade of false identities in the state of Arizona and also commented that "the FBI indicates that they believe that Al Qaeda and Hezbollah are actually defrauding our Medicaid program and funding terrorism." One participant described the existence of organized crime groups in other countries that are "very aggressively engaged in defrauding the American healthcare system, especially Medicare, though perhaps not as much in Medicaid systems" (Participant 4). Another participant observed:

> The fraud that seems to have the highest dollar amount attached to it are the establishment of felonious clinics that don't even really exist, basically an empty store front or mail drop or a felonious retail operation that supposedly supplied durable medical goods which are everything from boots to electric scooters, etc. and bill the system for these and bilk for millions of dollars and in some reported cases hundreds of millions of dollars in just a matter of months and never, ever actually have delivered any legitimate goods or service to the insured. (Participant 10)

Participant perceptions and document content regarding criminal organizations as perpetrators of Medicaid fraud are consistent with references in the literature. Dube (2011) noted the increasing involvement of criminal organizations from foreign countries in the perpetration of Medicaid and Medicare fraud. Jones and Jing (2011) described the involvement of organized crime rackets in the theft of patient information and the establishment of fake companies for engaging in phantom billing. Policastro and Payne

(2013) referenced organized crime groups as perpetrators of durable medical equipment (DME) fraud in the Medicaid program.

In assessing the problem of Medicaid fraud and abuse, four participants (Participants 1, 2, 6, and 9) referenced the nature of Medicaid as a social welfare program as a contributing factor. One participant described Medicaid as a “socialized medicine system” (Participant 1) in which fraud and abuse occur because beneficiaries receive health care benefits without needing to bear any of the cost. Participant 6 expressed the opinion that fraud is inevitable in the Medicaid program because the government is providing a service at no cost to recipients. Another participant observed that given “how big and widespread the social welfare health care programs were in the state…you just generally assume that if there’s $10 billion in a program there’s probably some fraud somewhere along the way” (Participant 9). Thrall (2011) alluded to the social welfare status of federal health care programs as a possible stimulus for fraud and abuse, noting that beneficiaries and providers who do not bear financial responsibility for health care costs may feel less responsibility to spend funds prudently.

Theme 2: Assessment of Regulatory and Organizational Responses. Study participants had the opportunity to offer perceptions and opinions on the necessity and efficacy of federal regulations for detecting and mitigating Medicaid fraud and abuse. Participants shared observations regarding the necessity and efficacy of specific federal regulations for combating Medicaid fraud and abuse. Nine of the participants (Participants 1, 2, 3, 4, 6, 7, 8, 9, and 10) and content in Document 4 indicated a negative perception of federal regulation as a mechanism for combating Medicaid fraud and abuse.

Negative perceptions of federal regulation included concern over the number and complexity of statutes (Participants 1, 4, and 6), the contradictory and confusing content within statutes (Participant 8), and the general ineffectiveness of statutes (Participants 2, 3, 7, 9, and 10). One participant noted, “because of government coming in and creating a myriad of regulations it’s put us in a position where it’s getting harder and harder for doctors to practice even” (Participant 1). Participant 8 described federal antifraud regulations as “a lot of red tape” and further observed:

> It stifles people from being businesspeople. It’s really going to be, I think, the end of private practice coming down the road because you can’t run it like anyone would from standard business principles. It’s so heavily regulated. I think next to the nuclear industry medicine is now the most heavily regulated. So yes, we need to protect people but I think that also it’s going to be the end of the physician practice.

In assessing the effectiveness of federal regulations as a mechanism for combating Medicaid fraud and abuse, four participants (Participants 2, 4, 8, and 9) observed that providers can circumvent regulations. Participant 2 noted that providers can find ways to get around provisions included within regulations, and Participants 4 and 8 observed that exceptions and loopholes within existing regulations create opportunities for providers to commit fraud and abuse. Participant 9 expressed the belief that some of the regulations are so ill-defined that providers can “fudge all along the way to try to get your money.”

Four study participants commented specifically on the necessity and efficacy of the Stark Law for combating the business opportunity posed by Medicaid fraud. Three participants (Participants 5, 6, and 7) indicated negative perceptions of the Stark Law, citing the complexity, convoluted nature, and unintended consequences of the law as areas of concern. Participant 5 noted that it is "almost impossible to make a Stark case" and further observed:

> It is so convoluted, it's so technical, and there are exceptions after exceptions. So, to make a Stark case.…If you go to a prosecutor and go "I think I have a Stark violation" their eyes cross, their head drops, and it's like "oh no." Nobody wants to…I won't say nobody but very few people want to get involved in Stark violations because they're just difficult.

Participant 6 expressed the opinion that the Stark Law prevents health care providers from "developing nice cost effective means of delivering care that could benefit the health care system by saving the health care system money and improve patient care." Participant 7 observed that the law "becomes a hindrance in many ways to running good businesses." Participant 8 provided a neutral assessment of the Stark Law, noting that the law might be effective in preventing some cases of Medicaid fraud but that it might also provide a financial benefit to attorneys who elect to pursue Stark cases.

Sutton (2011) asserted that the complex nature of definitions within the Stark Law makes compliance with the statute difficult. Krause (2006) and Sutton (2011) noted that the Stark Law is not an effective deterrent for inappropriate physician self-referrals because of the difficulty of proving intent to commit fraud on the part of providers.

Participant observations about the limitations of the Stark Law are consistent with discussions in the literature and suggest that the law is not an effective tool for combating Medicaid fraud and abuse.

Eight participants (Participants 3, 4, 5, 6, 7, 8, 9, and 10) offered opinions on the introduction of pay-for-performance under the PPACA as a mechanism for counteracting the business opportunity inherent in Medicaid fraud. Participants 3, 4, 6, 7, and 10 expressed negative opinions of pay-for-performance. Two participants expressed the belief that the introduction of pay-for-performance might lead some providers to manipulate health care records in order to secure higher reimbursements (Participants 4 and 7). Another participant commented that pay-for-performance might result in less access to care for seriously ill patients and observed:

> It's going to cause cherry picking. Basically, if my payment is based upon outcomes then if I happen to be a really good cardiologist and all of the toughest cases come to me because I can handle the most challenging cases. By definition, I'm getting people who come to me with much more complicated and severe cases of heart disease so their outcomes are going to be not as good as people with more routine cases. So my data is going to not look that good. And I'm going to get paid less. So that's going to make me want to take the easy cases. (Participant 6)

References in the literature support participant perceptions that pay-for-performance might lead to instances of provider fraud and diminished patient care. Schindler (2009) noted that the linking of provider payments to the quality of care

delivered could provide an incentive for providers to submit false reports of treatment outcomes. Doran and Roland (2010) examined the introduction of pay-for-performance in primary care practices in the United Kingdom and noted that providers admitted to falsifying reports of achievement in the quality of care delivered to patients. Chang, Lin, and Aron (2012) studied data pertaining to the enrollment of patients with diabetes in a pay-for-performance program in Taiwan and found that the design of the program encouraged providers to enroll the healthiest patients and exclude complicated patients, leading to the provision of substandard care to a significant fraction of diabetic patients in the country.

Four study participants (Participants 1, 3, 6, and 8) offered observations on the impact of the Emergency Medical Treatment and Active Labor Act (EMTALA), with each participant providing a negative opinion of EMTALA. Enacted in 1985, EMTALA requires hospitals to admit patients for emergency care regardless of the patients' ability to pay (Menzel, 2011). Menzel (2011) and Simonet (2009) noted that the requirement for treatment under EMTALA might contribute to beneficiary abuse as patients become more likely to seek medical attention from emergency department providers rather than from primary care physicians. Participants 1, 3, 6, and 8 expressed opinions that confirm the findings of Menzel (2011) and Simonet (2009), noting that EMTALA might promote waste and abuse in the Medicaid program as beneficiaries elect to seek more expensive care in emergency rooms rather than at primary or urgent care facilities. One participant observed:

> EMTALA makes Medicaid pick up the tab, even if someone may or may not even be legal in the country. So that really precipitates a lot of fraud, waste, and abuse right there. And doesn't allow them to triage them and send them to, say, urgent care or a primary care physician. So we the taxpayer wind up paying at the most expensive rate in an emergency room. That also precipitates the fraud, waste, and abuse. (Participant 3)

In addition to offering perceptions regarding the necessity and efficacy of federal regulations in combating Medicaid fraud and abuse, participants provided opinions and insights on the effectiveness of state of Arizona Medicaid program administration personnel and government personnel in detecting and mitigating Medicaid fraud and abuse. All study participants offered opinions on the effectiveness of Arizona Medicaid program administration personnel, with seven participants (Participants 1, 2, 3, 6, 8, 9, and 10) expressing negative views of Medicaid program administration personnel and three (Participants 4, 5, and 7) expressing positive views. Positive assessments of Medicaid program administration personnel were evident in Document 1, with negative assessments evident in Document 6.

In providing negative assessments of the effectiveness of Medicaid administration personnel, participants cited (a) agency personnel denial regarding the presence of waste, fraud, and abuse in the Medicaid program (Participant 1), (b) the high degree of regulation within the agency (Participant 8), and (c) a lack of transparency within the agency regarding actions taken to combat Medicaid fraud and abuse (Participant 9).

Participant 3 expressed the opinion that Medicaid program administration personnel do not conduct adequate reviews of suspected Medicaid fraud and abuse cases and noted:

> They'll put up a dog and pony show of how they check but when you start to vet in and ask detailed questions of their dog and pony show all of a sudden they close the show up and go home and won't talk to you anymore.

Content within Document 1 indicated a need for Medicaid program administration personnel to conduct investigations in a timely manner and improve efforts to recover settlements from Medicaid fraud and abuse cases.

In providing a positive evaluation of the effectiveness of Medicaid program administration in combating fraud and abuse, Participant 7 cited the proactive manner in which the Medicaid program Office of Inspector General's office investigates and takes action to resolve cases of fraud and abuse. Participant 5 noted the vigilance of Medicaid agency personnel in detecting and mitigating Medicaid fraud and abuse. Participant 4 and content in Document 6 highlighted the effectiveness of Medicaid program administration personnel in eliminating the perpetration of Medicaid fraud by individuals using the identities of deceased individuals.

Some participants providing negative evaluations of Medicaid program administration described a perceived focus of administration personnel on growing the agency mandate. Participants 1, 2, 3, and 10 characterized the perceived unwillingness of Medicaid program administration personnel to take action against Medicaid fraud and abuse as being a byproduct of the agency's desire to retain funds needed to expand the size and mission of the agency. One participant observed:

> The fraud squad for [the Arizona Medicaid agency] grows and receives funding and receives accolades based upon its ability to find a physician or a member of the public who has committed health care fraud, to investigate, to bring them to trial, receive a conviction, and then extract those funds in return. If you authenticate and eliminate a huge portion of that health care fraud up front, that department is almost unnecessary because you have prevented through authentication, the health care fraud before it's perpetrated. Therefore, you don't need a whole team to investigate, research, track, analyze, watch, prepare the information ready for court system. All of that goes away because you've actually prevented the fraud happening. (Participant 10)

Participants 2, 3, and 6 provided negative assessments of the effectiveness of state and federal government personnel in combating Medicaid fraud and abuse in the state of Arizona. Participant 3 commented on the unwillingness of the Arizona governor and some legislators to confront the problem of Medicaid fraud and abuse. Two participants (Participants 3 and 6) expressed the perception that the federal government impedes the efforts of Arizona legislators and Medicaid administration personnel to combat Medicaid fraud and abuse by denying permission to the state to introduce cost efficiencies into the Medicaid beneficiary transportation program and require program beneficiaries to pay copays.

Participant assessments of the effectiveness of Medicaid program administration and government personnel were in some cases accompanied by assessments of the general leadership effectiveness of individuals and organizations involved with efforts to

combat Medicaid fraud and abuse in the state of Arizona. Participant 2 expressed the belief that leaders within the state Medicaid administration agency act in a self-serving manner to justify their positions and actions and noted "the refusal of leadership to really take any real, proactive measures." Participant 3 cited the perceived obstruction of some state legislators to discussions of Medicaid fraud and abuse in the state of Arizona and highlighted the unwillingness of legislators to safeguard state health care funds by taking action against Medicaid fraud and abuse:

> People died last year because we didn't have the moral courage to put the right amount of money in transplants and mammograms and things of that nature.
>
> Children and people died because my colleagues don't care enough to look into it.

In contrast to negative assessments of the leadership effectiveness of Medicaid administration and government personnel, Participant 4 offered a positive evaluation of a former leader within the Arizona Medicaid administration agency. Participant 4 described the individual as "an amazing leader as well as someone I trusted very much to work with because he really believed so much in his job."

A recurrent subtheme across many study participants' characterizations of Medicaid administration, government, and leadership effectiveness was the perception that many individuals at the state and federal level lack the political will to take action against Medicaid fraud and abuse. Participants 2 and 10 described the perceived unwillingness of Arizona Medicaid administration personnel, some state legislators, and members of the federal government to require the use of technologies to support the verification of patient identity at the time of medical service. Participant 3 noted

perceived opposition at the state and federal government levels to discussing and introducing substantive measures to combat Medicaid fraud and abuse and characterized the federal government as “complicit…in creating fraud, waste, and abuse.”

Ormond (2010) discussed the necessity of political will for undertaking the reform of public institutions and observed that the complex problems confronted by modern society require that individuals maintain pressure on government systems to implement solutions. Abdulai (2009) examined the role of political will in efforts to combat corruption in Singapore, Hong Kong, and Ghana and concluded that the control of corruption requires a commitment to effect change on the part of senior political officials. Post, Raile, and Raile (2010) developed a definition of political will and asserted that political will requires the involvement of a sufficient number of decision makers, common understanding of the problem, commitment from those engaged in solving the problem, and a shared understanding of a potentially effective solution. The models for building political will suggested by Ormond (2010), Abdulai (2009), and Post et al. (2010) might be applicable to the problem of Medicaid fraud and abuse and suggest that sustained engagement on the part of political leaders in Arizona and other states is necessary for the introduction and sustenance of strategies for detecting and mitigating fraud and abuse.

Study participants provided observations on the effectiveness of various organizational structures in facilitating the mitigation of Medicaid fraud and abuse. Eight participants commented on the effectiveness of accountability and compliance programs as a mechanism for combating Medicaid fraud and abuse, with four participants

(Participants 2, 6, 8, and 20) providing negative assessments and four participants (Participants 4, 5, 7, and 9) providing positive assessments. Documents 1 and 5 contained neutral references to Medicaid accountability and compliance programs in the state of Arizona. Document 1 included references to requirements on the part of the Arizona Medicaid administration agency for the creation of Medicaid accountability and compliance programs. Document 5 contained references to the Arizona Medicaid administration agency's continued commitment to improve compliance activities intended to support fraud and abuse mitigation efforts.

One participant providing a negative evaluation of Medicaid accountability and compliance programs described concern that medical providers running such programs will not be able to police their own behavior (Participant 2). Another participant expressed worry that the level of effort associated with the establishment and maintenance of accountability and compliance programs might represent a challenge to providers (Participant 8). Participant 10 observed that accountability and compliance programs do not address "the core issues of health care fraud" and "[do] not eliminate the possibility of entirely fictitious patient visits, it does not eliminate the ability for fraud gangs to create fictitious facilities providing fictitious services."

One participant providing a positive evaluation of Medicaid accountability and compliance programs cited a belief that such programs lead to reductions in fraud and abuse (Participant 4). Another participant expressed the opinion that accountability and compliance programs lead to enhanced accountability on the part of health care organizations providing Medicaid services (Participant 5). Participant 7 expressed the

opinion that Medicaid accountability and compliance programs in the state of Arizona are "very successful in the sense of there's millions of dollars that come back to the program from these kinds of compliance programs where we detect things that shouldn't have been paid."

Rowe (2010) and Rowe and Long (2009) argued that leaders of health care service organizations need to create organizational cultures that demonstrate and promote the value and importance of regulatory compliance. The positive evaluations offered by some of the study participants indicate that some health care leaders believe compliance programs can build greater accountability within organizations. However, the negative evaluations offered by some participants indicate that support for accountability and compliance programs as a mechanism for combating Medicaid fraud and abuse is not uniform. Further evaluation of how Medicaid accountability and compliance programs should be structured and managed might result in the development of program models that engender widespread support.

Document 1 contained content identifying Medicaid applicant screening as a tool used by the Arizona Medicaid agency to determine the eligibility of individuals for receiving Medicaid services. Three participants (Participants 1, 5, and 6) commented on the efficacy of applicant screening and attestation as a mechanism for reducing Medicaid fraud and abuse, and Documents 3 and 4 also contained references to screening and attestation. Participants 1 and 6 expressed negative opinions of screening and attestation, noting that applicants for Medicaid benefits might falsify information provided during the application process.

Document 3 contained references to limitations in the Arizona Medicaid agency's execution of applicant screening, with instances of caseworkers not following screening process procedures cited in the document. In contrast, Participant 5 commented on the effectiveness of the Arizona Medicaid agency's applicant screening efforts and noted that applicant screening within the agency has led to the denial of benefits to some individuals and the saving of millions of dollars within the Medicaid program. Similarly, Document 4 contained content characterizing Medicaid applicant and provider screening as resulting in "an increase in the percentage of cases investigated and a corresponding number of individuals were found ineligible and denied services."

Study participants provided positive assessments of Medicaid managed care organizations (MCOs) as a mechanism for combating Medicaid fraud and abuse. As outlined in Document 4, government officials created the Arizona Medicaid program in 1982. The Arizona government established the Medicaid program as a managed care agency in order to control costs within the state Medicaid program. Participant 1 described the Arizona managed care model as a better way of providing Medicaid services, and Participant 5 expressed the opinion that the magnitude of fraud is much less in MCOs. Participant 7 observed that fraud occurs at a lower level in MCOs because providers receive payments on a capitated basis. As noted by Participant 7, providers "only get so much money per member and so it's in their interest to make sure that it's used efficiently." Participant 7 also asserted that the managed care model in Arizona contributes to the delivery of higher quality care to Medicaid beneficiaries because only providers meeting certain standards of performance become Medicaid providers.

Goodson (2010) noted that patients are often wary of the managed care model based on a belief that MCOs undervalue the provision of primary care services. Similarly, Somers, Martin, and Hendricks (2013) asserted that many states are hesitant to rely on MCOs for the delivery of patient care services because of the perceived weakening of primary care provider networks that can occur in managed care networks. Positive evaluations of MCOs by health care leaders in Arizona might serve to stimulate further examinations of MCOs as a viable mechanism for combating Medicaid fraud and abuse. State health care leaders might find the creation of MCOs useful for balancing budgets as the cost of federal health care programs continues to rise (Chernew et al., 2009).

Study participants and documents included in the case study highlighted the critical role of frontline personnel in health care organizations and the Arizona Medicaid agency in supporting efforts to detect and mitigate Medicaid fraud and abuse. Participants 4 and 10 observed that frontline personnel (e.g., receptionists, medical and dental assistants, and caseworkers) serve as a crucial initial point of contact with Medicaid beneficiaries and have responsibility for verifying eligibility for services. Participant 4 also noted that frontline personnel often develop impressions about beneficiary need for Medicaid services based on assessments of beneficiary appearance (e.g., clothing, jewelry) but might feel unempowered to investigate possible instances of Medicaid fraud or abuse based on beneficiary appearance alone. Document 3 contained content describing incorrect application of Medicaid beneficiary screening processes by Medicaid agency caseworkers and included references to data entry errors made by caseworkers during the eligibility determination process.

Theme 3: Motivations for action. Study participants offered insights regarding why they worked to combat Medicaid fraud and abuse and provided opinions as to the motivators that should stimulate organizational and governmental action to combat the problem. Six participants (Participants 1, 2, 4, 5, 6, and 8) cited a desire to care for those in need as a stimulus for action. While expressing concerns about the degree of beneficiary fraud and abuse within the Arizona Medicaid program, Participants 1 and 2 also expressed a desire to be compassionate and care for those in need. Participant 4 described the desire of individuals working in the health care field to provide mechanisms for securing insurance coverage for individuals in need. Participant 8 observed:

> If you're a health care provider—so I think of the physicians who own practices and that type of thing—if someone comes in and they say "I'm John Doe and I have this insurance," it addresses their altruism to be able to take care of John Doe.

Two of the participants (Participants 3 and 7) characterized their desire to combat Medicaid fraud and abuse as a moral duty and obligation. One participant observed:

> We're the purse strings of the peoples' treasury. Moreover, we have a moral duty and obligation to preserve their money. And when we have reason to believe there's a tremendous amount of waste, fraud, and abuse being perpetrated it's tantamount upon us to do something. (Participant 3)

Participant 7 asserted that health care leaders in Arizona have a duty "to identify instances where fraud, waste, and abuse are occurring" and take action. The individual

cited in Document 4 observed that the American people entrust individuals working within the Arizona Medicaid program with responsibility for managing the program effectively.

Six participants (Participants 2, 3, 6, 7, 8, and 10) cited state and federal budget savings as a likely outcome from action taken to detect and mitigate Medicaid fraud and abuse. Participants 2, 3, 8, and 10 described the magnitude of state and federal budget savings that could result from the mitigation of Medicaid fraud abuse. Participant 3 noted that the introduction of authentication systems at the point-of-service would result in health care cost savings of $1 billion per year in Arizona. Participant 10 asserted that national efforts to curb health care fraud and abuse generally could save approximately $200 billion in health care costs per year. Participant observations of the impact of cost savings from the mitigation of fraud and abuse are consistent with the assertions of Rosenbaum et al. (2009), who noted that recovery of the approximately $220 billion lost to health care fraud in 2007 would have been sufficient to pay for health care coverage for all uninsured Americans.

Participants 2, 3, and 7 observed that health care leaders could use funds recovered from the detection and mitigation of Medicaid fraud and abuse to improve the quality of health care delivered to beneficiaries. Participant 2 noted that enhanced efforts to decrease waste, fraud, and abuse could result in funds being available to improve the services delivered to Medicaid beneficiaries. Participant 3 expressed the opinion that a 20% reduction in the size of the Arizona Medicaid program would result in a 20% increase in the amount of funds available for the delivery of enhanced care.

Theme 4: Limitations to detection and mitigation. Study participants cited several limitations to the detection and mitigation of Medicaid fraud and abuse. Five participants (Participants 2, 3, 6, 9, and 10) observed that the complexity and scale of the Medicaid program serves as an impediment to efforts to detect and mitigate fraud and abuse. Participants 2, 6, and 9 each noted that the amount of money invested in the Medicaid program makes the program susceptible to fraud and abuse and serves as an incentive for individuals to commit fraud and abuse. Participant 6 characterized fraud and abuse within the Medicaid program as inevitable because of program size. Participant 9 observed:

> Frankly, as long as the program is so big there's just no way to have, in my opinion, you'll never get to zero in any program. But I don't think you're going to get to even a healthy reduction rate in fraud and abuse because the program's too big.

Participant observations about the size of the Medicaid program contributing to the incidence of fraud and abuse are consistent with the assertions of Iglehart (2010a), Sparrow (2008), and Thrall (2011) who each noted program size as making Medicare and Medicaid lucrative targets for waste, fraud, and abuse.

Six participants (Participants 2, 3, 6, 8, 9, and 10) identified disincentivization within organizational and political structures as limiting efforts to detect and mitigate Medicaid fraud and abuse. Participant 2 expressed the opinion that internally defined initiatives do not sufficiently incentivize individuals to take action against Medicaid fraud and abuse. Participants 3, 6, 9, and 10 described the size and financial interests associated

with the Medicaid program as discentivizing health care leaders from combating Medicaid fraud and abuse. One participant observed:

> [Arizona Medicaid program] is an enormous, burdensome bureaucracy whose perceived strength and political influence is determined by the size of its budgets which is related to the number of supposed patients and clinical incidents served. If you were to remove 10, 15, 20% of the budget because you were eliminating that amount of fraud, that department isn't rewarded. It has its budgets decreased and that may have a resulting decrease in staffing manpower and in its perceived political strength. So there is no incentive within that department to reduce the actual government expenditures on health care through the effective use of preprovision of service, anti-fraud measures. (Participant 10)

Participants described the thwarting of initiatives as limiting efforts to combat Medicaid fraud and abuse in the state of Arizona. Participants 2 and 3 described having had initiatives intended to combat fraud and abuse derailed by Medicaid administration or state and federal government personnel. One participant observed:

> We have the capacity to check, the computer systems to check, but we just don't. We just don't do it. And anybody like me with any degree of authority and ability to say "wait a second, what the hell's going on here" is so shut down. (Participant 3)

Participant 9 expressed the opinion that government officials had blocked the efforts of Arizona state legislators to introduce antifraud measures because "the executive branch has a vested interest to minimize it [the problem of Medicaid fraud and abuse]."

Five participants (Participants 1, 4, 7, 9, and 10) characterized the move toward the use of electronic health (medical) records as impacting efforts to combat Medicaid fraud and abuse. Participants 4 and 10 observed that many health care providers lack experience in using and managing the security of electronic health records and might contribute to instances of fraud and abuse because of ineffective or inappropriate collection and use of patient data. One participant observed:

> You have an awful lot of physicians and front office staff who are now using EMRs [electronic medical records] for the very first time who have previously been entirely paper-based prior to that. So for them the whole issue of going over to an EMR is torturous enough as it is, let alone now making sure that they adhere to strict security measures in the utilization of those EMRs. (Participant 10)

Participant 7 observed that the structure of electronic health records might lead to instances of Medicaid fraud and abuse, noting:

> There are actually instances where the forms are prepopulated, they are actually filled out already, and the doc's supposed to go in and uncheck things that they don't do. Instead of checking a box of what you did do they're constructed in a way where "we're going to check all the things you typically do and you uncheck things that you didn't do."

If health care providers completing prepopulated forms do not uncheck procedures that they did not perform, the providers submit incorrect billings to Medicaid (Participant 7).

Participant concerns about the possible impact of electronic health records on the incidence of Medicaid fraud and abuse are consistent with themes in the literature. Sharpe

(2005) asserted that identity thieves can mine or steal unprotected electronic records, and Khansa, Cook, James, and Bruyaka (2012) highlighted the need for enhanced efforts to safeguard private patient information during the creation of electronic health records. Simborg (2013) noted that the introduction of electronic health records has led to an increase in upcoding by providers.

Five study participants (Participants 1, 4, 6, 9, and 10) cited the need to protect patient privacy and civil liberties as a concern during the identification of electronic validation tools to be used to detect and mitigate Medicaid fraud and abuse. Participants noted the importance of patient privacy protection but also expressed the opinion that uncertainty over which patient information can be gathered and shared might adversely affect efforts to develop and deploy electronic validation tools. One participant observed:

> There needs to be some marrying of goals in the legal, in the civil rights community, the medical community, and the law enforcement community. You know, we all want the same kind of data to use in a slightly different way, but we also have to understand what we can and can't share and what is private and what isn't and what compromises we have to make. (Participant 4)

Participant 10 expressed the belief that health care leaders might use concern over privacy and civil rights as a reason for preventing the introduction of antifraud technologies. As observed by Participant 10:

> There seems to be a lack of political will. They're able to fall back on the issues of "well, it would perhaps be unacceptable to the public, the public generally doesn't like to be fingerprinted, fingerprinting is analogous to criminal activity."

Participant observations about the need for the protection of patient privacy and civil rights as part of patient identity authentication are consistent with discussion in the literature. Brown (2012) noted that biometric information collected for patient identity verification is sensitive and asserted that health care providers must manage biometric information appropriately. Biometric data can reveal genetic information and are susceptible to misuse or theft (Brown, 2012). Avancha, Baxi, and Kotz (2012) discussed the use of mobile technology for improving the quality, cost, and efficiency of health care monitoring and delivery but also asserted that providers must safeguard the security and privacy of patient information gathered using mobile devices.

Four participants (Participants 4, 5, 7, and 10) identified the cost of technological solutions as a possible limitation to the detection and mitigation of Medicaid fraud and abuse. Participant 4 expressed the belief that the high cost of biometric patient identity verification equipment could impede efforts to introduce such technology in provider offices. Participants 5 and 7 described modeling programs and claims processing systems used by the Arizona Medicaid agency in screening for cases of Medicaid fraud and abuse as costing several million dollars and observed that the high cost of such tools limits the willingness of the state legislature to pay for the tools.

Theme 5: Consequences of Medicaid fraud and abuse. In offering their perceptions of Medicaid fraud and abuse, several study participants highlighted the consequences of the problem. Five participants (Participants 1, 3, 4, 6, and 8) noted the impact of Medicaid fraud and abuse on the quality of care delivered to patients. Participants 1 and 3 observed that dollars lost to Medicaid fraud and abuse in the state of

Arizona have caused the quality of care provided to Medicaid beneficiaries to go down. Participant 3 noted that the loss of funds to fraud and abuse limited the ability of the Arizona state government to make funds available for such procedures as mammograms and transplants.

Participants 6 and 8 observed that Medicaid fraud and abuse mechanisms such as pay-for-performance might cause declines in the quality of patient care as providers might elect not to treat complex patients. Berwick and Hackbarth (2012) asserted that the wasteful delivery of health care services—in the form of failures to deliver and coordinate care and overtreatment of patients—results in diminished quality of care and worse treatment outcomes. Study participant observations are supportive of Berwick and Hackbarth's (2012) findings and reinforce the argument that Medicaid fraud and abuse jeopardize patient welfare.

Study participants also expressed concerns about the impact of Medicaid fraud and abuse mitigation efforts on health care providers. Participant 3 noted that the loss of state budget funds in Arizona to Medicaid fraud and abuse forced the Arizona legislature to cut $10 million from educational programs for medical students. Participant 10 expressed the belief that reductions in reimbursements to physicians providing health care to Medicaid patients might not be necessary if health care leaders took action to combat fraud within the Medicaid program. Participant 8 observed that regulations enacted to combat Medicaid fraud and abuse adversely impact health care providers, noting, "you just feel like the deck is stacked against you and it's why, I think, fewer and

fewer people are going to want to go into medicine and fewer and fewer people are going into primary care."

Three study participants observed that the perpetration and regulation of Medicaid fraud and abuse might lead to growth in health care costs. Participant 1 expressed the opinion that beneficiary abuse within the Arizona Medicaid program (e.g., beneficiaries taking taxis to go to health care appointments) is leading to significant cost increases within the state Medicaid program. Participant 6 observed that federal antifraud regulations such as the Anti-Kickback Statute and the Stark Law prevent health care providers from developing and implementing more cost effective methods for delivering care to patients and might result in increased program costs. Participant 10 noted, "the country can't afford what the FBI and Reuters estimates as $200 billion plus worth of health care fraud in the United States annually."

Finally, three participants (Participants 1, 2, and 4) highlighted the liability concerns and health risks to patients that result from Medicaid fraud and abuse. Participants 1, 2, and 4 discussed the risks to patient health posed by identity theft, with Participant 1 stating, "if you do have people using other peoples' identities when they go to get serviced and somebody has a condition the other one person doesn't know about they could kill somebody." Content in Document 7 highlighted the fact that the introduction of beneficiary validation technologies could prevent provider misdiagnoses resulting from beneficiary use of false identity information. Price and Norris (2009) asserted that providers who perform unnecessary medical procedures or prescribe unneeded medications place patient health at risk. Mancilla and Moczygemba (2009)

noted that victims of medical identity theft could receive incorrect or unnecessary medical care because of alterations to their health information.

Research Subquestion 2

The research topic explored with this subquestion was as follows: what do health care leaders perceive to be strategies necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program? Analysis of participant responses to interview questions 2, 4, 5, and 6 (Appendix D) and examination of the content in Documents 1-8 (Appendix E) supported exploration of this subquestion and the identification of primary strategies. I examined the total counts for codes in the general strategies subcategory (Appendix F) and identified themes relevant to the research subquestion by screening for codes by minimum code frequency and total count per code. Figure 2 shows the three thematic areas and associated codes for research subquestion 2.

Theme 6: Use technology. A dominant theme to emerge from the analysis of participant responses and the review of documents was the need for health care leaders to use technology for the detection and mitigation of Medicaid fraud and abuse in the Arizona Medicaid program. The majority of study participants (Participants 1, 2, 3, 4, 5, 7, 8, and 10) emphasized the importance of technological solutions to efforts to combat Medicaid and fraud and abuse. Additionally, content in Documents 1, 5, and 7 highlighted the need for health care leaders to use technology to support the detection and mitigation of Medicaid fraud and abuse. In referencing the need for technological solutions, participants noted the need for early detection and pattern analysis tools (Participants 1 and 5 and Document 1), enhanced claims evaluation systems (Participants

4 and 7), and biometric identification systems (Participants 1, 2, 3, 4, and 10 and Documents 5 and 7).

Over half of the participants (Participants 1, 2, 3, 4, 8, and 10) identified point-of-service authentication as a technological solution essential for the detection and mitigation of Medicaid fraud and abuse in the Arizona Medicaid program. Content in Document 7 also highlighted the need for point-of-service authentication. As described by Participants 2 and 8, providers use point-of-service authentication systems to verify beneficiary identity at the time of medical service. Study participants identified point-of-service authentication as necessary for validating Medicaid beneficiary identity at the time of service (Participants 1, 2, 3, 4, 8, and 10) and as an effective strategy for reducing Medicaid program costs in the state of Arizona. In discussing the possible cost savings from the introduction of an acoustic signature verification technology in Medicaid provider offices in Arizona, one participant observed:

> I had them [antifraud technology company] testify before a committee I was on two years ago and they believe that by properly implementing that system, about $5 million statewide, that we would save upwards of $1 billion a year here in Arizona. With a "b," one billion. That's huge. (Participant 3)

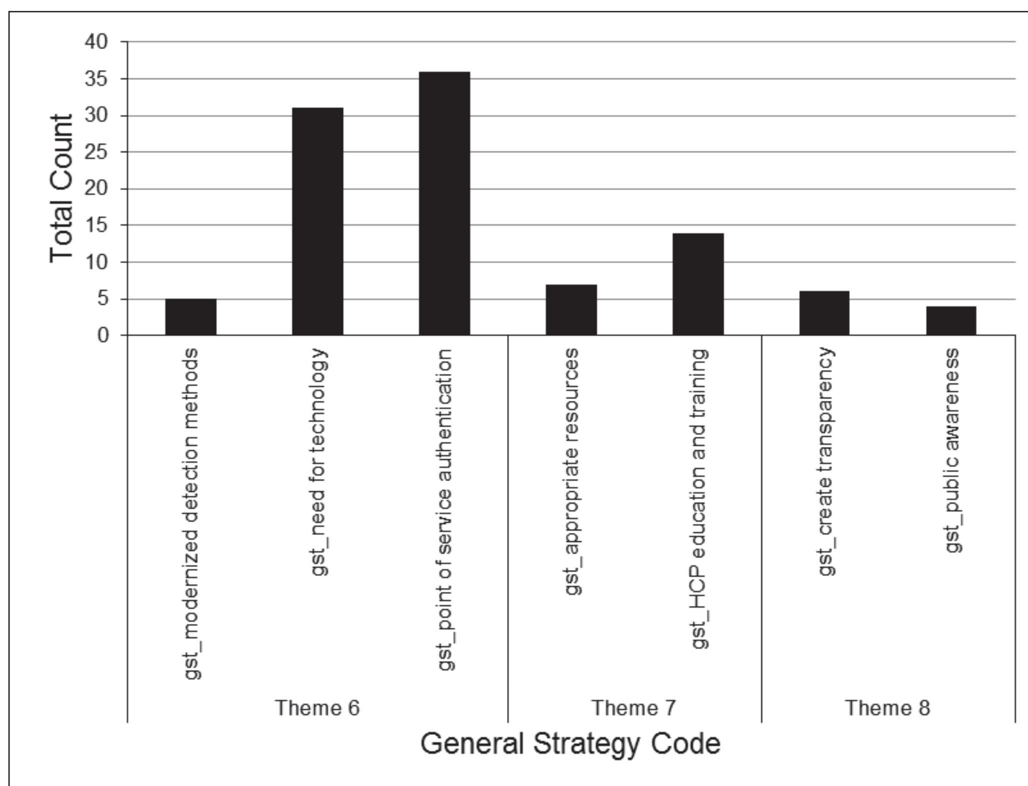

Figure 2. Themes for research subquestion 2.

Participants 1 and 10 also asserted the value of point-of-service authentication as a mechanism for mitigating the spread of nonexistent health care facilities and for combating the practices of upcoding and phantom billing creation. As observed by one participant:

> The fundamental, most significant decrease in health care fraud, in my opinion, will arise from authenticating patients. If you authenticate a patient at the time they present for clinical treatment, you then eliminate the entirely fictitious facilities and you also eliminate doctors increasing the profitability of their practice by creating fictitious visits. (Participant 10)

The individual cited in Document 7 noted the value of point-of-service authentication for preventing the misdiagnosis of patient conditions because of false histories stemming from beneficiary identity theft or sharing within the Medicaid program.

Khansa et al. (2012) asserted the value of health care information technology systems for supporting patient identity authentication. Brown (2012) argued that the use of technology to authenticate patient identities is essential for combating health care fraud. Participant observations and document content provide support for assertions in the literature that the use of technology to authenticate patient identity at the time of medical service is a crucial strategy for the detection and mitigation of Medicaid fraud and abuse.

In discussing the need for technology to be used to combat Medicaid fraud and abuse in the state of Arizona, participants highlighted the need for modernization of technological tools. Participant 2 characterized current technological tools in use in Arizona as "way behind." Participant 4 observed that Arizona health care providers cannot meet clinical and regulatory requirements for the use of electronic health records using technology that is currently available. Participant 5 described the challenge faced by Arizona Medicaid program administration personnel in maintaining up-to-date software tools and observed:

> Very few states—in fact I don't know of any state—that can afford every year to buy new software. But, unfortunately, software continues to evolve and it's constantly being improved. Just like when you buy a computer, take it out of the box, turn it on. But six months later it's outdated. But can you afford to go buy a new better one? So it's just a problem.

Theme 7: Build needed capabilities. A second general detection and mitigation strategy to emerge from the examination of participant responses and documents was the need for enhancement of health care provision and administration capabilities. Half of the study participants (Participants 4, 5, 7, 8, and 10) cited education and training as necessary for improved efforts to detect and mitigate Medicaid fraud and abuse in the state of Arizona. Participants 4 and 10 expressed the opinion that education and training of health care provider personnel regarding the correct and appropriate use of electronic identity verification and health record systems is essential for combating Medicaid fraud and abuse. Participants 5 and 7 observed that physician training in coding and billing processes is necessary as part of efforts to reduce the incidence of provider fraud and abuse in the Medicaid program. Participant 8 expressed the belief that all individuals involved with the delivery of health care services require education in federal antifraud regulations, noting:

> Should people be aware, should people know about inducements, should people know about Anti-Kickback, yes. And everyone needs to have some exposure to that including your marketing people, and everyone else. They need to understand what you can and can't do in the industry.

Passages in Documents 1, 3, and 5 indicated the need for enhanced administrative and provider personnel training. Documents 1, 3, and 5 included content describing the need for Medicaid administration personnel to receive ongoing training in the use of agency tools for determining Medicaid applicant eligibility and the need for continued training of integrity program personnel. Document 1 included content describing the need

for contracted health plan and Medicaid provider personnel in the state of Arizona to receive training in the definition of Medicaid fraud and abuse and in processes necessary for the identification and reporting of fraud and abuse within the program.

Participant observations and document content emphasizing the need for education and training are consistent with observations in the literature. Sparrow (2000) asserted that a lack of fraud control education and training undermines Medicaid and Medicare fraud and abuse mitigation efforts. Taitsman (2011) argued that American medical students and residents require compliance training in order to reduce the incidence of provider fraud and abuse. Phillipsen et al. (2008) noted that careless billing is a threat to the integrity of the U.S. health care system and argued that nurse practitioners should undergo training in correct coding and billing processes in order to support health care fraud and abuse mitigation efforts.

The second element of a strategy to build capabilities is the need for Medicaid program administration personnel to receive appropriate resources. Three participants (Participants 4, 5, and 9) expressed the opinion that more staffing and financial resources are necessary for Arizona Medicaid agency personnel to combat fraud and abuse within the program. Participants 4 and 9 observed that the integrity and fraud investigation units within the Arizona Medicaid administration agency are in need of more personnel and larger budgets. Participant 5 expressed the opinion that the Arizona Medicaid administration agency needs more money to update predictive modeling systems used to look for possible cases of provider fraud and abuse. Content in Documents 1 and 4 highlighted the fact that a lack of experienced staff members within the Arizona

Medicaid agency contributes to a backlog in the investigation and resolution of Medicaid fraud cases.

Theme 8: Create transparency and awareness. Study participants discussed transparency and greater public awareness as elements of an additional strategy for the detection and mitigation of Medicaid fraud and abuse. Three participants (Participants 1, 4, and 9) asserted that the enhancement of the efficacy of Medicaid fraud and abuse mitigation efforts requires greater transparency across Medicaid beneficiary, administration, and government regulation groups. Referencing the need for greater beneficiary awareness of Medicaid fraud and abuse, Participant 1 observed, "anything that you can do to shed, to create transparency and to make sure that people know there will be consequences if they cheat the system is healthy." Participant 4 argued that greater transparency among medical providers might support efforts to combat fraud and abuse, observing:

> I think explaining or using some "poster children" with serious outcomes, such as being done now in the HIPAA violation world, publicizing the corrective action packages that must be undertaken and sharing the corrective interventions amongst those not just at targeted forums where fraud and abuse is the topic, but making it more of a mainstream discussion. You know, at legal meetings, medical meetings to help people understand how it impacts the ability to care for more people—so we together can work on reducing fraud the maldistribution of some health care services. I think that will go a long way as well.

Participant 9 expressed the opinion that legislators and policymakers should work to promote greater transparency regarding Medicaid fraud and abuse mitigation efforts in order to convey the sense that they are taking action to address the problem.

Three participants (Participants 2, 3, and 8) expressed the opinion that greater public awareness of the problem of Medicaid fraud and abuse will support detection and mitigation efforts. Participants 2 and 3 observed that enhanced public awareness of the existence and extent of Medicaid fraud and abuse might lead to increased pressure on Medicaid program administrators and government officials to take action to combat the problem. Participant 3 observed:

> What's our greatest impediment? People just don't know. And they like it that way. If people knew, if the average citizen knew what I know now they would be so infuriated. They'd be like "my child died because I didn't have a heart transplant? Because some bureaucrat wants to preserve how much money they spend every year?" That would be unconscionable.

Participant 8 expressed the opinion that public awareness and understanding of medical billing processes and terminology might contribute to Medicaid fraud and abuse mitigation efforts. Specifically, Participant 8 observed that beneficiaries can support fraud and abuse mitigation efforts by "looking at what they're being billed and knowing that they can pick up the phone and get answers to things."

Research Subquestion 3

The research topic explored with this subquestion was as follows: how do health care leaders describe changes that need to be made at the national level to help individual

states develop effective strategies for the detection and mitigation of Medicaid fraud and abuse? The examination of participant responses to interview question 12 (Appendix D) and the review of contents in Documents 1-8 (Appendix E) supported the exploration of research subquestion 3. Individual study participants identified several national changes that they believed would support the efforts of states to develop effective strategies for combating Medicaid fraud and abuse (Appendix F). I conducted an analysis of minimum code frequencies and total count per code and determined that one dominant national change theme was apparent within the collected data. Figure 3 shows the theme and associated codes for research subquestion 3.

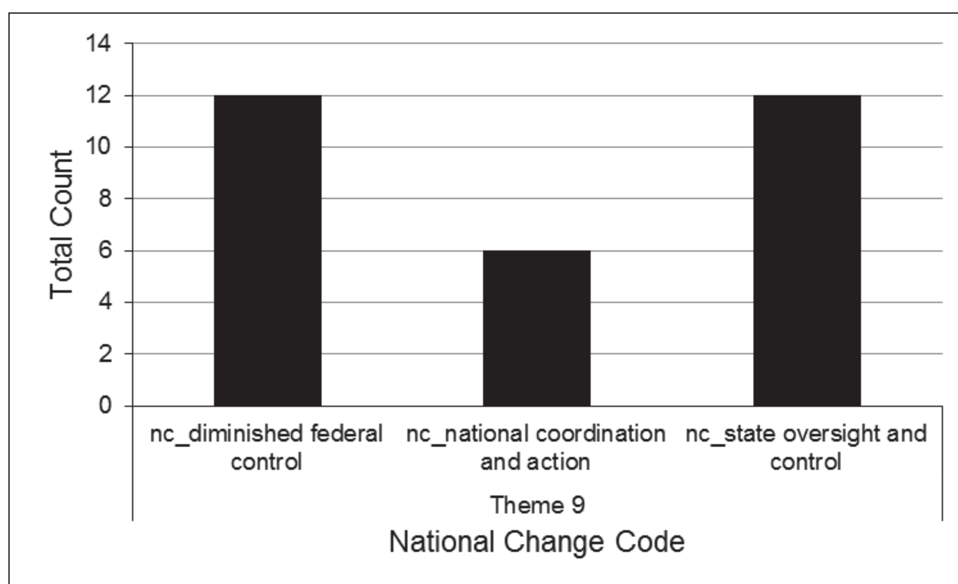

Figure 3. Theme for research subquestion 3.

Theme 9: Move from national to state control. Four participants (Participants 1, 6, 7, and 9) expressed the opinion that the federal government needs to exert less control over how states administer the Medicaid program and should instead allow the states to provide oversight and control for the Medicaid program. Participants 1 and 7

expressed concern that the federal government interferes with Medicaid program administration at the state level and obstructs the implementation of strategies intended to combat Medicaid fraud and abuse. Participant 7 observed, “we need permission for everything and sometimes they [the federal government] say no and it may not be apparent why.” Participant 7 also noted, “there are things that we would like to do with Medicaid here that we just can’t do because the federal rules just don’t allow us to organize that way.” One participant observed that the federal government prohibits states from enacting specific programs intended to combat Medicaid fraud and abuse:

> So the legislature wanted to allow us to charge a copay for patients, a smaller copay for patients who don’t keep their appointments, like a penalty that’ll be due when they finally reschedule. Just like a psychiatrist will charge you if you don’t keep your appointment as a disincentive. But that was not allowed. They had to get a waiver and HHS [Health and Human Services] wouldn’t allow it. So we’re kind of stuck. (Participant 6)

Participant 9 expressed concern that the structuring of the federal government is not conducive to the introduction of efficient strategies for reducing Medicaid fraud and abuse.

Participants arguing for diminished federal control of the Medicaid program coupled their statements with assertions that state oversight and control of the program will support the implementation of strategies necessary to combat Medicaid fraud and abuse. Participant 1 expressed the belief that state governors and legislators require direct control of federal programs like Medicaid so that state governments can enact strategies

for reducing fraud and abuse. Participant 9 asserted that the state health care leaders are better qualified to develop and implement effective Medicaid fraud and abuse mitigation strategies because “we’re here, we’ll see the problems more quickly and can be more nimble in responding.” The individual cited in Document 4 observed that the states are “best equipped and most informed” to deal with the problem of Medicaid fraud and abuse because of state familiarity with the challenges of administering the Medicaid program. One participant articulated a specific plan for providing the states with responsibility for the oversight and control of the Medicaid program:

> I think the best proposal—I’m trying to be realistic, I’m trying not to be idealistic here—realistically in today’s world the best proposal is to block grant all Medicaid to the states. This is not a cookie cutter, one size fits all issue. Different states have different populations and different dynamics at play and if the states are block granted the money and it’s a capped amount that’s going to provide states incentives to design programs that are more cost effective and not only that, that’s the whole beauty of a federalist system. You can have 50 different states each trying their own methods, each watching what each other’s doing. Maybe Colorado comes up with a better solution than Arizona and then Arizona decides to adopt Colorado’s method. It’s much better when you have 50 different states trying to deal with the problem than just one central authority in Washington. (Participant 6)

Four participants (Participants 2, 3, 4, and 10) articulated a need for federal government officials to provide national coordination and incentivization for efforts to

combat Medicaid fraud and abuse. Participants expressed the opinion that the federal government needs to dedicate appropriate resources to the fight against Medicaid fraud and abuse by hiring individuals with the expertise and commitment to combat the problem (Participant 2) and by putting in place federal-level requirements for point-of-service authentication and conduct of recovery audits at the state level (Participant 3). Participants 4 and 10 argued that national coordination of Medicaid fraud and abuse mitigation efforts is necessary to ensure the application of consistent strategies for detection and mitigation and to ensure that enacted strategies have the backing of the federal government.

Participant assertions that national coordination and control of Medicaid fraud and abuse mitigation efforts are necessary might appear to contradict the opinion of several participants that state oversight and control of the Medicaid program is more appropriate. However, national coordination efforts and a movement toward state control are complementary strategies for combating Medicaid fraud and abuse. State government officials could decide independently how best to design and implement systems to meet federal requirements.

Krause (2010) asserted that decentralized health care administration systems increase the potential for fraud to occur and can become an impediment to the detection and mitigation of fraud and abuse. Discussing the impending 2012 presidential election, Adashi, McDonough, and Venkatesh (2012) described the Republican candidate’s proposal to turn Medicaid into a block grant program and cap the amount of funds provided to the states for Medicaid. Opinions from study participants and document

content expressing support for movement from federal to state control of Medicaid are consistent with references in the literature and suggest that a transition to state-based program control might be a strategy worth exploring for supporting the development of effective strategies for combating Medicaid fraud and abuse.

Research Subquestion 4

The research topic explored with this subquestion was as follows: what do health care leaders perceive to be necessary strategies for combating the invisible nature of Medicaid fraud and abuse? The analysis of participant responses to interview question 10 (Appendix D) and the examination of Documents 1-8 (Appendix E) supported the exploration of research subquestion 4. Study participants identified seven strategies (Appendix F) they believed were necessary for combating the invisible nature of Medicaid fraud and abuse. I analyzed minimum code frequencies and total count per code and determined that two dominant themes emerged from the analysis of strategies for combating the invisible nature of fraud and abuse. Figure 4 shows the two themes and associated codes for research subquestion 4.

Theme 10: Build beneficiary accountability and responsibility. Six of the study participants (Participants 1, 2, 4, 5, 6, and 8) identified beneficiary accountability and responsibility as a necessary strategy for combating the invisible nature of Medicaid fraud and abuse. Several participants expressed the opinion that because Medicaid beneficiaries do not pay for any portion of the medical care they receive they do not seek cost effective care. Participant 1 observed, “there is no skin in the game for the participant—they don’t pay copays, they get very generous benefits, they can see

specialists, it's a total inclusive." Similarly, Participant 6 observed that Medicaid beneficiaries might abuse the program because when a service is free "you want to take advantage of it." Another participant observed:

> If I'm a Medicaid patient, I pay nothing out of pocket and so I don't know whether it's abuse, I guess it is abuse. They're using an ER when they could use an urgent care, but to them what's the difference? (Participant 8)

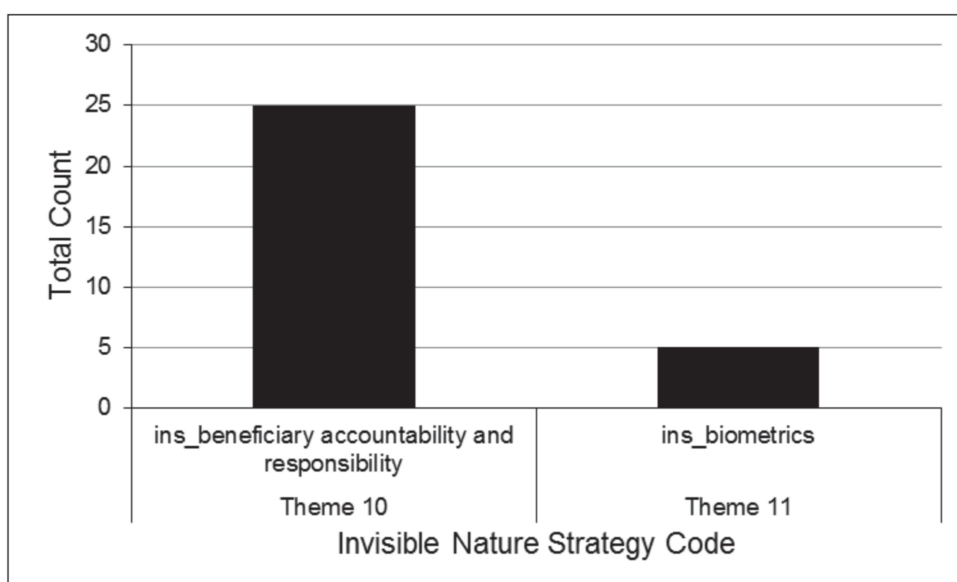

Figure 4. Themes for research subquestion 4.

Participants offered opinions about strategies health care leaders could use to build beneficiary accountability and responsibility for the use of Medicaid program services. Participant 6 expressed the belief that beneficiaries should participate more actively in the Medicaid program and described the Medicaid program in Indiana in which beneficiaries have health savings accounts and catastrophic health insurance plans. As Participant 6 observed:

> The money left over in health savings accounts stays in that account. It's the property of the Medicaid recipient. And they found that their utilization has gone down dramatically. The abuse has gone down dramatically because all of sudden there's skin in the game, there's an incentive.

Participant 4 expressed the opinion that Medicaid beneficiaries should be educated in the appropriate use of program services in order to reduce beneficiary abuse within Medicaid. Participant 5 identified loss of Medicaid services as a necessary strategy for encouraging beneficiary accountability and responsibility. Participant 5 noted that Medicaid beneficiaries convicted of defrauding the program are eligible to reapply for Medicaid services immediately upon finishing their jail sentences. Participant 5 further asserted that beneficiaries should become ineligible for services following conviction for Medicaid fraud.

Porter and Tosto (2012) described a Medicare health care system model in use in St. Louis, Missouri and argued that patient engagement and accountability are essential to the success of the model. Specifically, Porter and Tosto (2012) asserted that patients must help reduce abuse and waste within the health care program by bearing financial responsibility for an appropriate portion of the services received. Nadash, Doty, Mahoney, and Von Schwanenflugel (2012) presented findings from a study of European long-term care programs and noted that requirements for beneficiary accountability within long-term care programs in England resulted in cost-effective use of program resources. Participant opinions regarding the need for Medicaid beneficiaries to bear some financial responsibility for medical services received are consistent with findings in

the literature and suggest that Medicaid beneficiary accountability and responsibility might be encouraged by the introduction of some level of beneficiary financial responsibility and management.

Theme 11: Use biometrics. Two study participants (Participants 4 and 10) identified the introduction of biometrics as a necessary strategy for combating the invisible nature of Medicaid fraud and abuse. Study participants expressed the belief that technological solutions are a necessary general strategy for combating Medicaid fraud and abuse (Figure 2). However, Participants 4 and 10 specifically noted biometrics as a form of technology that might be most effective for combating the invisible nature of Medicaid fraud and abuse.

Participant 4 expressed the opinion that the use of biometric identification tools to verify beneficiary identity at the time of medical service would mitigate fraud associated with the sharing of identification cards and beneficiary information. Similarly, Participant 10 observed, "a piece of physical identification like a chip and pin card combined with a biometric backup" will enhance efforts of Medicaid providers to combat the invisible nature of Medicaid fraud and abuse. Arizona Medicaid agency officials have expressed support for the use of biometrics in combating fraud and abuse, with content in Document 5 referencing agency plans to release a Request for Information (RFI) for biometric solutions. Consistent with participant observations and content in Document 5, Brown (2012) described the use of biometric measurements in combination with other forms of patient identification to authenticate patient identity and reduce the potential for health care fraud.

Research Subquestion 5

The research area explored with this subquestion was as follows: what do health care leaders perceive to be necessary strategies for combating the business opportunity inherent in the commitment of Medicaid fraud? The analysis of participant responses to interview question 11 (Appendix D) and the examination of Documents 1-8 (Appendix E) supported the exploration of research subquestion 5. Study participants identified six strategies (Appendix F) they believed were necessary for combating the business opportunity inherent in the commitment of Medicaid fraud and abuse. I analyzed minimum code frequencies and total count per code and determined that two dominant themes emerged from the analysis of strategies for combating the business opportunity inherent in the commitment of Medicaid fraud and abuse. Figure 5 shows the two themes and associated codes for research subquestion 5.

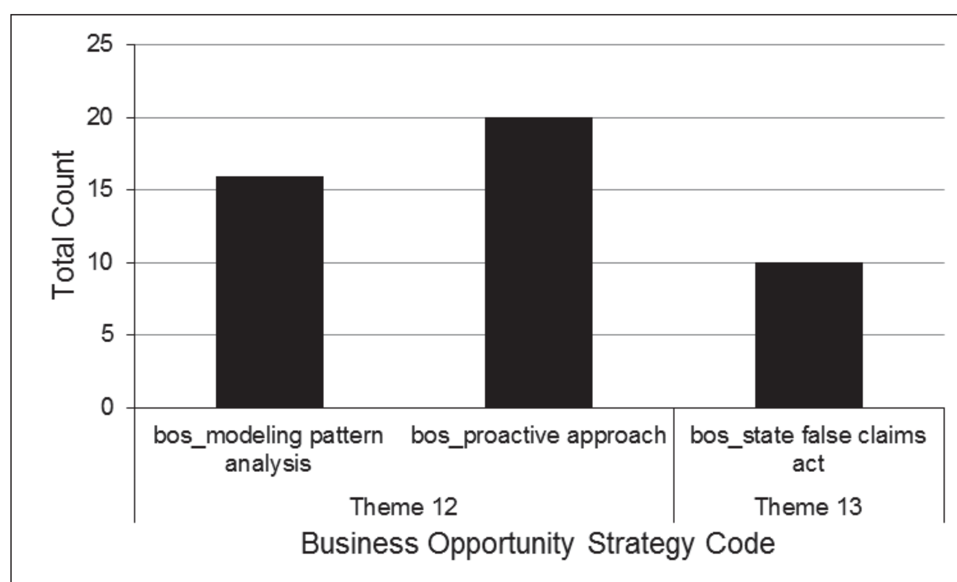

Figure 5. Themes for research subquestion 5.

Theme 12: Proactive monitoring and investigation. The majority of study participants commented on the need for health care leaders to engage in a more proactive manner in the monitoring and investigation of Medicaid fraud and abuse. Participants 1, 2, and 4 expressed the opinion that Medicaid administration agencies, government officials, and health care provider organizations need to be more proactive in the identification and implementation of programs to detect and mitigate Medicaid fraud and abuse. Participant 2 observed that health care leaders need to stop addressing the problem "cosmetically," and Participant 4 described the need for "eternal vigilance" and "proactive monitoring." Participants 7 and 10 described the need for proactive assessments of Medicaid claims. Document 1 contained assessments of the Arizona Medicaid agency's effectiveness in investigating Medicaid fraud and abuse cases and highlighted the need for the Office of Inspector General within the agency to conduct and resolve investigations in a timelier manner.

Six study participants identified predictive modeling and analysis techniques as necessary strategies for combating the business opportunity inherent in Medicaid fraud and abuse. Participants 1, 4, 5, 7, 8, and 10 described predictive modeling software as an effective tool for detecting questionable patterns in Medicaid provider billings and for stopping payments in which fraud or abuse might be apparent. One participant observed:

> The biggest thing we need to do—in all states, including Arizona—is have software systems that have predictive modeling tools built-in that will enable us to stop the payments before they ever happen because pay and chase really doesn't work. (Participant 5)

Participant 8 characterized the value of predictive modeling and analysis systems as “an analytics that starts to send a ‘this doesn’t look right’ before a payment is made versus after the payment is made.” Documents 1, 4, and 5 contained content describing the importance of the Arizona Medicaid administration agency continuing to identify and implement predictive modeling and data analysis tools for detecting patterns of fraud and abuse in Medicaid provider claims data.

Participant observations and document contents highlighting the importance of predictive modeling and analysis systems are consistent with assessments in the literature. Musal (2010) described the use of software to analyze databases of electronic health claims data in order to model fraudulent and abusive behavior. Similarly, Shin et al. (2012) discussed the development of a scoring model program for the analysis of electronic claims data and the identification potential patterns of fraud and abuse. Pande and Maas (2013) asserted that the use of predictive modeling software is essential for detecting and mitigating Medicare provider fraud.

Theme 13: Enact a state false claims act. Participants 3 and 5 articulated the need for Arizona to enact a state false claims act as a mechanism for combating the business opportunity inherent in the commitment of Medicaid fraud and abuse. As Participant 3 explained, Arizona does not presently have a state false claims statute in place, which limits the ability of state authorities to collect financial damages from Medicaid fraud cases. Participant 3 expressed the opinion that the institution of a false claims act in Arizona would provide an incentive for lawyers to pursue cases of Medicaid fraud:

> If they've got the ammo and the motivation to go pursue these things they'll file suit against the kind of stuff we've talked about here. They'll file suit against bad actors and go, "you just defrauded Arizona by $500 million" and if they file their False Claims Act, and that lawyer wins that claim for $500 million he stands to make five or six million himself. Well worth their time. So unless we put something in the statute like the False Claims Act, with teeth, I really don't think we're going to see any significant movement on protecting the taxpayers' dollars.

Participant 5 asserted that enactment of a false claims act in Arizona would allow the state to collect a greater amount of money from Medicaid fraud case settlements. As observed by Participant 5, "if the state [false claims act] mirrors the federal statute, you're allowed to keep a higher percentage of the recovery." Participant 5 noted, however, that the Arizona Attorney General had previously expressed reluctance to introduce a state false claims act based on concern that insufficient staff would be available within the Attorney General's office to address the expected higher volume of *qui tam* lawsuits.

Study participants provided observations about the value of a false claims act in Arizona that are consistent with discussion in the literature. As outlined by Rosenbaum et al. (2009), the Deficit Reduction Act of 2005 provided incentives for states to enact false claims laws by permitting states to retain up to 10% of fraud recovery amounts payable to the federal government. As of 2009, roughly half of the states and the District of Columbia had enacted false claims acts including *qui tam* provisions (Rosenbaum et al., 2009). Weaver, Glasser, and Erdfarb (2010) described the enactment of the Connecticut

False Claims Act (CFCA) in 2009 and asserted that the CFCA has strengthened health care fraud, waste, and abuse investigation efforts in the state.

Relationship to Conceptual Framework

The institutional choice analytic framework served as the conceptual basis for the qualitative case study of how health care leaders in the state of Arizona describe impediments to the detection and mitigation of Medicaid fraud and abuse. The institutional choice analytic framework includes the premise that the decision-making capabilities of individuals or groups (agents) and the surrounding structure created by political, economic, and cultural rules influence the choices made by agents (Collier, 2002; Ostrom, 2011). I created codes based on the decision-making and rules elements of the institutional choice analytic framework (Appendix F) and examined all interview transcripts and study documents to determine the presence of the conceptual framework codes.

Examination of the co-occurrence of the conceptual framework codes with perception, national change, and strategy codes supported the exploration of the relationships between the institutional choice analytic framework and participant responses and document content. The analysis of co-occurrences enabled the identification of relationships between the economic and political rules conceptual framework codes and study perception codes. I used a co-occurrence frequency threshold of 20% (Carsten et al., 2010; Guest & McClellan, 2003) and only retained co-occurrences found in 20% or more of interview transcripts. One dominant theme emerged from the conceptual framework co-occurrences examination.

Theme 14: Economic and political rules shape perceptions about responses to Medicaid fraud and abuse. Participants observed that economic considerations and structures influence the efficacy of Medicaid administration personnel in the state of Arizona (Figure 6). Two participants (Participants 3 and 10) expressed the opinion that Medicaid administration and government personnel work to expand the agency mandate because of their desire to grow program budgets and receive more funding. Participant 3 observed, "when governments start to get big they live on the fact that they get bigger." Participants also noted that economic considerations within the state of Arizona disincentivize Medicaid administration and health care provider personnel from working to combat Medicaid fraud and abuse. Participant 3 expressed the opinion that health care leaders in Arizona will not take action to combat Medicaid fraud and abuse because of "big money interest" in the program. Participant 9 observed, "as long as you have the perverse incentives that you have when there is so much money on the table there is virtually no way to get true accountability."

Participants 3 and 10 associated the lack of political will in combating Medicaid fraud and abuse with economic considerations, with Participant 10 expressing the opinion that as Medicaid administration personnel grow the size of the Medicaid program budget they become less willing to reduce the amount of fraud and abuse in order to maintain program size. Participants also linked perceptions about the size and complexity of the Medicaid program with perceived economic considerations. Participant 3 expressed the opinion that health care leaders in the state of Arizona will not enact strategies to combat fraud and abuse in the Medicaid program because of "big money interest" in maintaining

the size of the program. Participant 9 offered the opinion, “you [health care leaders] will never have widespread success as long as the programs are this big.”

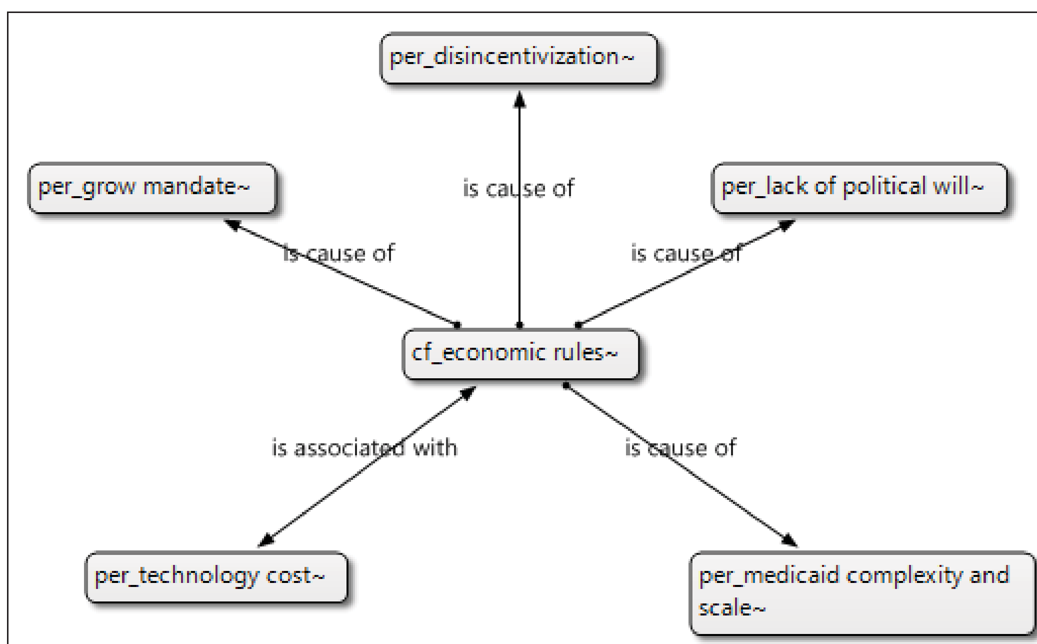

Figure 6. Relationship between economic rules and participant perceptions.

Two participants (Participants 5 and 7) noted the relationship between Medicaid antifraud technology costs and economic considerations in the state of Arizona. In describing the inability of Medicaid administration agencies in various states to secure funds for upgrading predictive modeling software used for the detection of fraud and abuse, Participant 5 observed:

> In my consulting role, I deal with other states and I’ve been to many, many states that have hired me as a consultant to look at things and you can’t really expect a legislative body to continue to pour out money. They just won’t do it. It’s not, it’s just not good business sense for them to get re-elected.

Similarly, Participant 7 observed that a new claims system could cost $100 million and that justifying that cost to the state government could be difficult.

Study participants also noted relationships between the perceived efficacy of Medicaid fraud and abuse mitigation efforts and political considerations and structures (Figure 7). Participant 2 expressed the belief that a "political expedient to get more money to increase their mission and to increase their budget and to increase their influence" motivates the actions of state Medicaid administration personnel. Participant 10 characterized the Medicaid administration agency as "an enormous, burdensome bureaucracy whose perceived strength and political influence is determined by the size of its budgets."

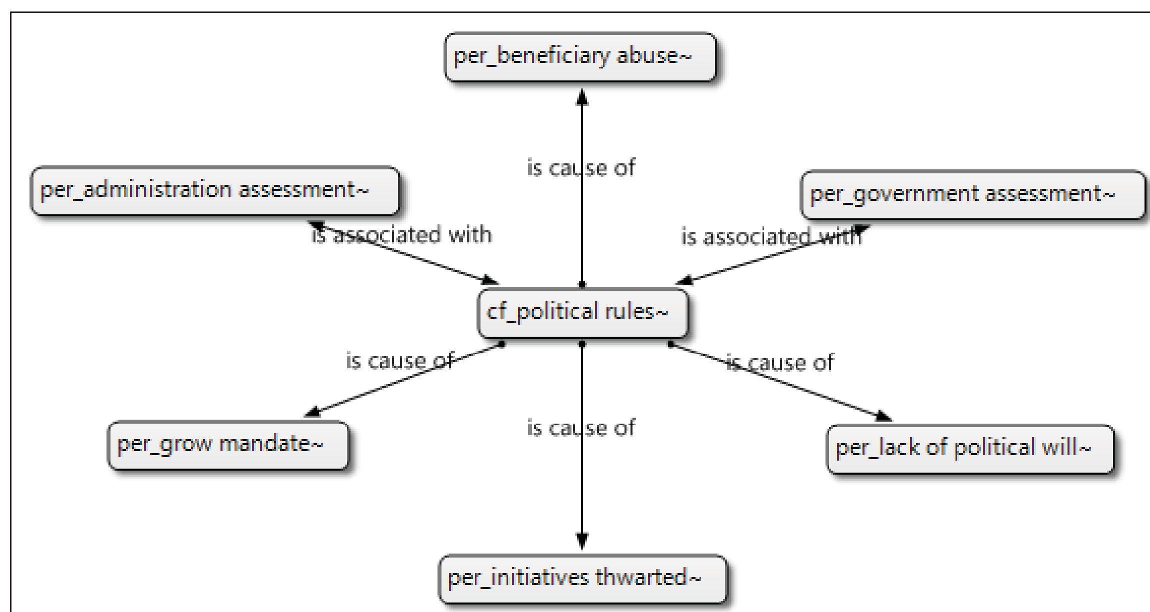

Figure 7. Relationship between political rules and participant perceptions.

Participants observed that political structures and rules influence Medicaid agency and government effectiveness in combating Medicaid fraud and abuse. Participant 2

expressed the opinion that "politics and self-serving interests at the top echelons" of the leadership structure within the Arizona Medicaid administration agency influence actions taken to detect and mitigate Medicaid fraud and abuse. Participant 10 characterized the state Medicaid administration agency as using "creative opposition" and "every political shenanigan known" to avoid answering questions about agency strategies for combating fraud and abuse. In providing assessments of the effectiveness of state and federal government personnel in combating Medicaid fraud and abuse, one participant noted actions taken by Arizona legislative personnel to block discussions of Medicaid fraud and abuse (Participant 3). Another participant described decisions made at the federal government level to prevent the Arizona Medicaid administration agency from putting in place measures intended to combat Medicaid fraud and abuse. As observed by Participant 6, "the legislature has wanted to have copays but again when you have a federal-state program there's no such thing as state sovereignty."

Participants 3 and 9 expressed the belief that political considerations thwart initiatives that health care leaders might undertake to detect and mitigate Medicaid fraud and abuse. Participant 3 described an instance of the Arizona legislature using political procedures to limit legislative committee discussion of Medicaid fraud and abuse. Participant 9 expressed the belief that the executive branch of government has blocked legislative efforts to combat fraud and abuse because they have "a vested interest to minimize it [fraud and abuse] because political accountability or political blame that can be attributed."

In describing the problem of beneficiary abuse within the Medicaid program, Participants 3 and 8 noted the negative influence of political structures and considerations. Participant 3 characterized beneficiary abuse as “rampant” within the Arizona Medicaid program but observed that the problem is difficult to address because of too many vested political interests in maintaining the size of the program. Participant 8 discussed the need for health care providers to address the problem of excessive emergency room utilization by Medicaid beneficiaries but expressed the belief that members of the American College of Emergency Physicians (ACEP) are unwilling to take action because emergency room physicians benefit from higher numbers of patients seeking care in emergency rooms.

The premise of the IAD framework that political, economic, and cultural rules influence agent choices or actions was evident in the observations of several study participants. Participants asserted that economic and political considerations undermine efforts and initiatives intended to further efforts to detect and mitigate Medicaid fraud and abuse. Additionally, participants characterized the overall structure and size of the Medicaid program as shaped by economic and political forces.

Study findings demonstrating the role of economic and political structures in influencing responses to the problem of Medicaid fraud and abuse are consistent with other cases in the literature. Pillay and Doraswamy (2010) addressed the role of national culture in influencing responses to corruption and found that national culture can mediate individual discretion and accountability, thereby increasing the extent to which corruption occurs. Judge et al. (2011) conducted a study of national corruption and found

correlations between political/legal, economic, and sociocultural structures and corruption. Tillman (2009) examined the origins of three corporate fraud cases in the U.S. and concluded that the regulatory and legal environments surrounding each case created conditions in which fraud could occur.

Feedback Model of Study Findings

I created a feedback model to illustrate the causal relationships between the demand, delivery, and health care outcome elements of the Medicaid system and depict the influence of Medicaid fraud and abuse on outcomes within the system (Figure 8). The synthesis of literature review and case study findings supported the derivation of the variables and relationships depicted in the feedback model. Sterman (1989) argued that feedback models are an effective mechanism for representing the complex relationships between managerial decisions and outcomes. Wikström (2009) asserted that the causal loop structure of feedback models facilitates understanding of the structure and nature of interactions between system elements. Wikström (2009) further observed that feedback models support the study of a specific problem and do not facilitate the illustration of entire systems. Ghaffarzadegan, Lyneis, and Richardson (2011) discussed the use of a feedback model to provide policymakers with an enhanced understanding of how interactions between housing, business, and population sectors affect urban system development.

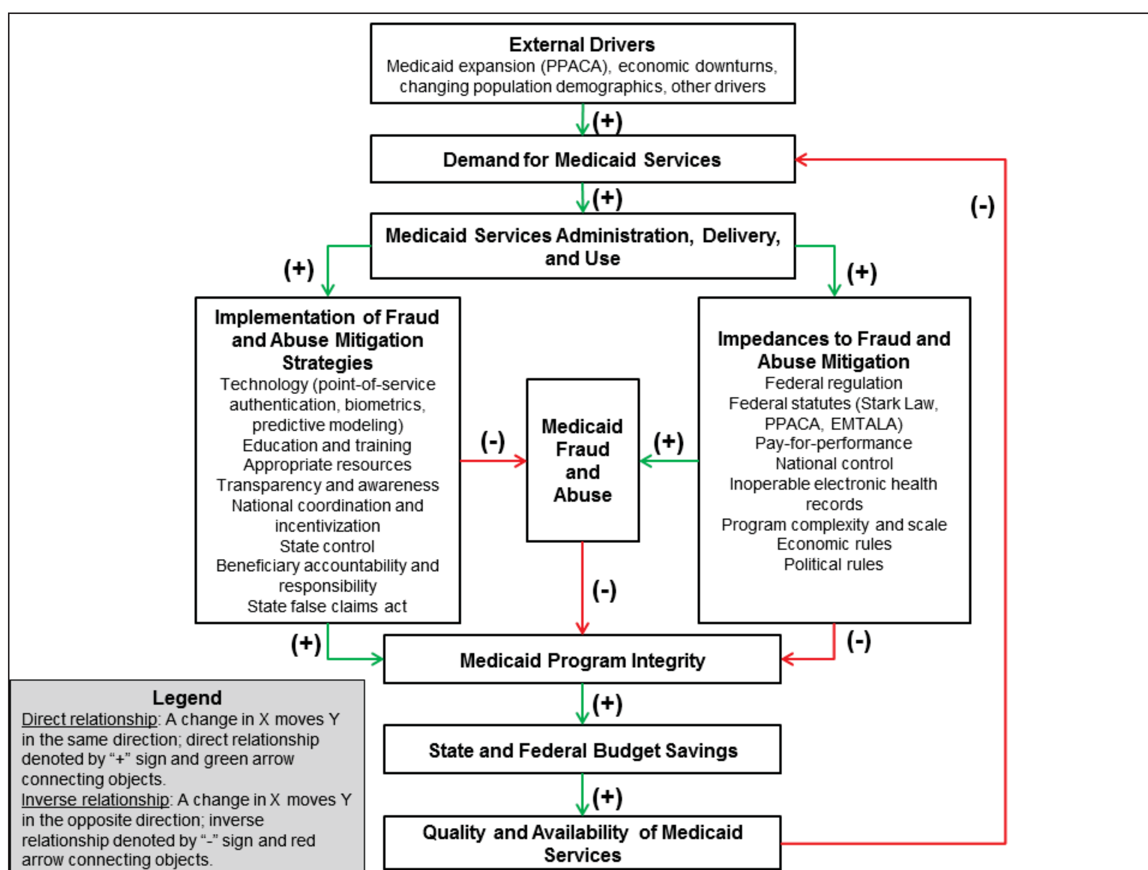

Figure 8. Feedback model of study findings. Model developed in consultation with K. D. Gossett and J. Corey.

Positive causal (direct) relationships are those in which a change in X moves Y in the same direction. Negative causal (inverse) relationships are those in which a change in X moves Y in the opposite direction. Within the Medicaid system model, external drivers such as economic downturns and Medicaid expansion under PPACA lead to increases in the demand for Medicaid services (Figure 8). An increase in demand for Medicaid services leads to an increased need for the administration, delivery, and use of Medicaid services (Figure 8).

Factors influencing the impact of Medicaid fraud and abuse include the implementation of fraud and abuse mitigation strategies and the presence of impedances to the mitigation of Medicaid fraud and abuse (Figure 8). Study participants identified such strategies as the use of technology, education and training, allocation of necessary resources, transparency and awareness, state control, and beneficiary accountability and responsibility as necessary for the detection and mitigation of Medicaid fraud and abuse (Figures 3-5). The implementation of such strategies might lead to Medicaid fraud and abuse reductions (Figure 8). Conversely, the presence of impediments to fraud and abuse mitigation efforts might lead to increases in the incidence of Medicaid fraud and abuse (Figure 8). Study participants identified several potential impedances to Medicaid fraud and abuse mitigation efforts, including federal regulation, specific federal antifraud statutes, pay-for-performance, national control, electronic health records, and the complexity and scale of the Medicaid program.

As depicted in Figure 8, increases in Medicaid fraud and abuse and impedances to fraud and abuse mitigation efforts negatively affect the integrity of the Medicaid program. Within the context of the feedback model, Medicaid program integrity encompasses financial integrity and the integrity of services provision. Orszag and Emanuel (2010) noted a negative causal relationship between fraud and abuse and Medicaid program integrity like that shown in Figure 8. Orszag and Emanuel (2010) noted the need for enhanced fraud and abuse mitigation efforts in order to safeguard the financial viability of Medicaid and Medicare. Study participants noted concerns about the impact of Medicaid fraud and abuse on health care providers, observing that if dollars

lost to fraud and abuse lead to cuts in payments made to Medicaid providers an increasing number of health care professionals may refuse to treat Medicaid beneficiaries. In contrast to the negative impacts of Medicaid fraud and abuse and mitigation impediments on Medicaid program integrity, the implementation of fraud and abuse mitigation strategies should lead to enhanced program integrity (Figure 8).

Enhanced Medicaid program integrity might contribute to state and federal budget savings (Figure 8). Study participants expressed the belief that efforts to reduce waste, fraud, and abuse in the Medicaid program will result in significant savings to state and federal budgets. Budgetary savings at the state and federal level might translate to improvements in the quality and availability of Medicaid services (Figure 8). Study participants observed that health care leaders could apply dollars recovered from fraud and abuse mitigation efforts to the provision of improved health care services to Medicaid beneficiaries. Similarly, Rosenbaum et al. (2009) observed that recovery of the approximately $220 billion lost to health care fraud in 2007 would have been sufficient to provide health care coverage for all uninsured Americans.

Finally, improvements to the quality and availability of Medicaid services might lead to a reduction in demand (need) for Medicaid services (Figure 8). Share et al. (2011) noted that improvements made to the quality of patient care result in better patient treatment outcomes and reductions in overall treatment spending. Medicaid service quality improvements made possible by reductions in fraud and abuse might lead to reductions in Medicaid services demand and spending. Such reductions in Medicaid program cost will be essential to offsetting a portion of the escalating amount that

researchers forecast the federal and state governments will spend on federal health care programs in the coming decade (Keehan et al., 2011).

Applications to Professional Practice

The purpose of this qualitative case study was to explore how health care leaders in the state of Arizona describe limitations to the detection of Medicaid fraud and abuse and characterize strategies necessary for combating the problem. Participant observations, document contents, and literature review findings provided a consistent picture of the magnitude, forms, consequences, and underlying contributors to Medicaid fraud and abuse. Participant perceptions regarding the pervasiveness of Medicaid fraud and abuse and the impact of fraud and abuse on state and federal financial systems, beneficiaries, and health care providers reinforce assertions in the literature that Medicaid fraud and abuse are problems of economic and social significance that require attention and action from health care leaders (Iglehart, 2009; Morris, 2009; Orszag & Emanuel, 2010; Sparrow, 2008).

In addition to validating characterizations of the problem of Medicaid fraud and abuse, study findings highlight changes that needed in the focus of strategies to mitigate Medicaid fraud and abuse. For the past three decades, statutory and regulatory responses have played a central role in federal government efforts to combat fraud and abuse in the U.S. health care system. The U.S. government has used the FCA, Anti-Kickback Statute, Stark Law, and HIPAA to fight fraud and abuse in Medicaid and Medicare and, more specifically, to enforce quality of care standards and discourage the practices of provider kickbacks and physician self-referrals (Blank et al., 2009; Krause, 2006, 2010; Schindler,

2009; Sutton, 2011). Lawmakers included provisions in the PPACA to strengthen health care fraud mitigation efforts (Iglehart, 2010a; Markette, 2011). Study findings suggest that regulation at the federal level is a less effective strategy for combating Medicaid fraud and abuse. Participants expressed negative opinions of federal regulation and voiced concern that the number, complexity, and contradictory nature of such antifraud regulations as the Stark Law render regulatory efforts ineffective as a mechanism for combating Medicaid fraud and abuse.

Study findings suggest the need for a shift from federal oversight and regulation to local (state) control and empowerment in order to advance efforts to combat Medicaid fraud and abuse. Participants expressed the opinion that the states need to provide oversight and control of the Medicaid program in order to have the latitude to design and implement effective fraud and abuse mitigation programs. Participants further observed that frontline personnel within the state Medicaid administration agency and health care provider organizations play a vital role in efforts to detect and mitigate fraud and abuse and require the training and tools needed to ensure that they can perform their jobs effectively. Ezcurra and Rodríguez-Pose (2009) asserted that subnational governments are able to allocate resources for social programs more efficiently than national governments and are better able to meet the needs of local populations. Meyer and Hammerschmid (2010) observed that decentralization of authority and responsibility within government systems can improve resource allocation and service delivery and can lead to greater empowerment of leaders and employees. If health care leaders at the state level have overall authority and responsibility for managing Medicaid program funds,

opportunities might be created for the introduction of more effective fraud and abuse detection and mitigation initiatives.

Study findings also highlight the need for health care leaders to adopt proactive approaches to combating Medicaid fraud and abuse. The federal government has long used a “pay and chase” antifraud model in which Medicaid and Medicare make payments to providers and then conduct audits months or years later to identify and seek recovery of wrongful payments (Iglehart, 2010a; Krause, 2012; Morris, 2009). Study participants observed that “pay and chase” does not work as a deterrent to Medicaid fraud and abuse. Participants advocated for proactive approaches to combating the problem that center on patient identity authentication before service provision and the performance of predictive modeling to look for patterns of potential fraud and abuse in Medicaid claims data before the release of payments. In the past few years, the federal government has placed increasing emphasis on the need for more proactive health care fraud and abuse mitigation efforts (U.S. GAO, 2011a). Findings from this study reinforce the need for proactive approaches to Medicaid fraud and abuse detection and mitigation and indicate support among health care leaders for the enhanced use of technology to improve such mitigation efforts.

Findings from the study call attention to the unintended consequences of health care reform efforts that might exacerbate the problem of Medicaid fraud and abuse. A key provision of the PPACA is a requirement for the introduction of a pay-for-performance system in which providers receive payments based on the quality of services provided rather than the volume of services delivered (Schmitt, 2012). Schindler (2009)

noted that pay-for-performance might incentivize providers to submit false reports on the quality of services they provide in order to secure higher payments. Study participants also expressed a concern that pay-for-performance might lead to the manipulation of health care records. Additionally, participants observed that pay-for-performance might result in less care for seriously ill patients because providers may not want to treat complicated patients.

The introduction and widespread use of electronic health records might also exacerbate the problem of Medicaid fraud and abuse. The U.S. Congress passed the Health Information Technology for Economic and Clinical Health (HITECH) act in 2009 and included a provision in the act for health care providers to receive approximately $14-27 billion as an incentive for the adoption and use of electronic health records (Buntin, Burke, Hoagland, & Blumenthal, 2011). Buntin et al. (2011) characterized the impact of electronic health records introduction as largely positive, citing the utility of electronic health records for promoting innovation in the delivery of care and payment for care. However, study participants noted that the use of electronic health records might lead to more instances of Medicaid fraud and abuse as incorrectly completed forms can result in the submission of improper claims to Medicaid. Findings from the study indicate that health care leaders wanting to introduce measures to improve health care delivery in the U.S. must consider the downstream impacts of such measures in order to ensure that potential negative outcomes do not outweigh the benefits.

Economic and political considerations emerged as factors influencing the efforts of health care leaders to implement initiatives to combat Medicaid fraud and abuse. Study

participants observed that the financial and political interests of government entities, health care provider organizations, and insurance companies are disincentives to the implementation of Medicaid fraud and abuse mitigation initiatives and undermine the efficacy of fraud and abuse mitigation efforts. Judge et al. (2011), Pillay and Doraswamy (2010), and Tillman (2009) highlighted the correlation between economic, political, and social structures and the incidence of corruption. Health care leaders wanting to affect change and work to combat Medicaid fraud and abuse might need to explore strategies that move beyond the boundaries of existing political structures and that incorporate wholly independent entities as agents of change. As noted by one participant, unless health care leaders create and empower independent entities to investigate instances of Medicaid fraud and abuse and develop and enforce mitigation strategies, efforts to combat the problem "are not going to get far" (Participant 2).

Implications for Social Change

Chernew et al. (2009) estimated that over the next four decades Americans will devote approximately 50% of their personal income growth to meeting health care costs. Keehan et al. (2011) noted that government spending on health care will significantly increase as coverage expansions under the PPACA begin. Expanded Medicaid coverage and continued growth in Medicare enrollment under the PPACA could increase the federal government share of health care spending to roughly 30% by 2020 (Keehan et al., 2011).

As Medicaid grows in size, the program might become an even more lucrative target for fraud and abuse. Study participants expressed concern that the expansion of

Medicaid without an enhanced focus on the detection and mitigation of fraud and abuse in the program might result in the loss of more money that could be spent to meet the health care needs of Medicaid beneficiaries. Participants also expressed the belief that fraud and abuse in the Medicaid program will continue to erode state and federal budgets. Faced with declining budgets, state governments might need to enact cuts to other vital social services programs (Chernew et al., 2009).

Study findings point to strategies and initiatives that might support the efforts of health care leaders to combat Medicaid fraud and abuse and take action to protect state and federal investments in a vital stopgap insurance program. Medicaid administration agency and provider use of modern technological methods to authenticate patient identity prior to service delivery and to look for patterns of fraud and abuse in claims databases might strengthen efforts to combat beneficiary and provider fraud and abuse. The transition of Medicaid program control from the federal to state governments might foster greater innovation and efficiency in the introduction of fraud and abuse mitigation initiatives. Medicaid beneficiaries who are responsible and accountable for their use of program dollars can become allies in government efforts to safeguard Medicaid funds for the benefit of all Americans living at or below the poverty level. The provision of education and training to individuals with responsibility for the administration and delivery of Medicaid services and the enhancement of general awareness about the problem of Medicaid fraud and abuse will collectively serve to build understanding and accountability necessary for inculcating and sustaining efforts to combat fraud and abuse in Medicaid.

Implementation of the strategies identified from this study might increase the efficacy of health care leaders and support their efforts to combat the invisible nature of Medicaid fraud and abuse and the business opportunities inherent in the commitment of fraud and abuse. Reductions in the amount of fraud and abuse in Medicaid will bolster the financial and structural integrity of the Medicaid program and will enable state and federal governments to reduce the amount of money invested in the program. Health care leaders could reinvest budgetary savings from Medicaid fraud and abuse mitigation efforts in health care services for Medicaid recipients, resulting in enhanced quality and availability of care.

Recommendations for Action

I examined study participant responses and case study documents and identified multiple themes pertaining to participant perceptions of the problem of Medicaid fraud and abuse and strategies believed to be necessary for combating the invisible nature of fraud and abuse and the business opportunities inherent in the commitment of fraud and abuse. The synthesis of themes 6-13 (Figures 2-5) supported the identification of recommended actions that U.S. health care leaders should consider for enabling effective detection and mitigation of fraud and abuse in the Medicaid program. The Medicaid program is a partnership between federal and state governments to deliver health care services to individuals living at or below the poverty level (U.S. Government Accountability Office, 2011a). The effective delivery of Medicaid services requires the efforts of health care leaders from the fields of Medicaid administration, health care provision, law enforcement, and government. Recommendations resulting from this study

might guide the actions of health care leaders working in all areas of Medicaid services delivery.

First, health care leaders should promote proactive approaches to combating Medicaid fraud and abuse that make use of modern technologies. Rather than relying on the “pay and chase” model of seeking to recover funds months or years after the release of improper payments, health care leaders should require the use of technological solutions that support detection and mitigation before fraud and abuse can occur. Health care leaders should promote the use of biometrics to verify patient identity at the point of service and the application of predictive modeling techniques to look for patterns of fraud and abuse in Medicaid claims databases. Health care leaders working to deploy biometric technologies for purposes of combating fraud and abuse must ensure the privacy and security of collected patient information (Brown, 2012).

Second, health care leaders should work to concentrate and strengthen Medicaid fraud and abuse mitigation efforts at the state level. State control of Medicaid administration might permit the introduction of more innovative and cost effective strategies for combating Medicaid fraud and abuse (Ezurra & Rodríguez-Pose, 2009) and might empower state health care leaders to assume a more proactive role in working to combat Medicaid fraud and abuse (Meyer & Hammerschmid, 2010). The transfer of federal Medicaid funds to the states via a block grant program might address concerns about the scale and complexity of Medicaid creating opportunities for fraud and abuse. The award of Medicaid funds to individual states will create smaller Medicaid programs that state government officials can effectively administer and safeguard. States such as

Arizona that have not yet enacted state false claims acts should do so in order to strengthen Medicaid fraud and abuse investigation efforts and enable the recovery of larger sums of money resulting from fraud and abuse investigations (Rosenbaum et al., 2009; Weaver et al., 2010).

A third recommendation resulting from the study is the need for health care leaders to require beneficiary accountability and responsibility for use of Medicaid funds and services. Beneficiaries who must pay a copay for medical services or get prequalified before receiving medical care might manage their use of Medicaid services more effectively. Health care leaders might also consider providing Medicaid beneficiaries with health savings accounts and catastrophic insurance plans—an approach implemented within the Indiana Medicaid program (Participant 6)—in order to encourage responsible use of Medicaid program dollars.

A move toward greater beneficiary accountability and responsibility is inseparable from the need for state control of Medicaid program administration. As noted by study participants, the federal government must approve beneficiary accountability initiatives and sometimes will not grant approval. The transfer of Medicaid administration responsibility to the states might create opportunities for greater accountability for the use of program funds on the part of both health care leaders and beneficiaries.

A fourth recommendation stemming from the study is the need for health care leaders to build Medicaid fraud and abuse mitigation capabilities via education, training, and the provision of needed resources. Health care leaders should ensure that medical

service providers receive training in the proper use of electronic identity verification and electronic health record systems and should require that physicians receive training in proper coding and billing processes. Medicaid administration agency personnel require ongoing education in the use of tools for determining Medicaid applicant eligibility and in the application of program integrity protocols and methods.

Health care leaders should ensure Medicaid administration personnel have access to the resources they need to combat fraud and abuse. The availability of adequate staffing and financial resources will support Medicaid agency efforts to purchase and utilize predictive modeling systems to look proactively for patterns of fraud and abuse in claims databases. Medicaid administration agencies with necessary numbers of staff will be better able to conduct and resolve investigations of fraud and abuse in a timely manner.

A final recommendation centers on the need for health care leaders to promote greater transparency and public awareness of the problem of Medicaid fraud and abuse. Health care leaders should work to ensure that Medicaid beneficiaries are aware of the consequences of committing fraud or abuse. Enhanced transparency among medical providers—for example, via the publication and discussion of significant fraud investigation cases during medical conferences—might lead to greater understanding within the medical community regarding the impacts of fraud and abuse. Greater transparency and sharing of information between Medicaid administration personnel and government officials might result in the identification and implementation of new

strategies for combating fraud and abuse and would convey a sense to the public that health care leaders are taking action to address the problem.

Increased public awareness of the problem of Medicaid fraud and abuse might lead to increased pressure on Medicaid administration and government personnel to take action to combat the problem. Additionally, enhanced public awareness and understanding of Medicaid billing processes and terminology might support fraud and abuse mitigation efforts. Beneficiaries who have a better understanding of the information provided on bills they receive might be more inclined to ask questions about charges they receive, and such questioning might lead to the identification of cases of fraud and abuse.

Findings and recommendations from this study are of direct relevance to the efforts of health care leaders working in the areas of Medicaid administration, provision, and regulation. The use of a variety of channels for the dissemination of study findings will maximize the opportunity for health care leaders to gain access to the information resulting from this study. Publication of the approved study in the ProQuest/UMI dissertation database will ensure that interested students and researchers have access to the study. Additionally, study participants will receive a summary of study findings and recommendations. I will also prepare an article based on my study findings for publication in a peer-reviewed journal and will pursue opportunities to present and discuss study findings at professional conferences and business and leadership organization meetings.

Recommendations for Further Study

I used a purposeful sample of health care leaders in the state of Arizona and selected publicly available documents as the basis for the study of leadership characterizations of the problem of Medicaid fraud and abuse. My analysis of the data gathered from semistructured interviews with participants and the review of documents enabled me to identify key perceptions of the problem of Medicaid fraud and abuse and strategies that might prove effective for enhancing the detection and mitigation of such fraud and abuse. The conduct of further research that expands beyond the geographical, programmatic, and sample population boundaries of this study might lead to additional clarity and insight regarding strategies necessary for combating a problem that significantly affects U.S. social and financial systems.

One recommendation for further study includes the exploration of leadership responses to the problem of Medicaid fraud and abuse in other states and at the federal government level. Researchers could employ a qualitative approach similar to that used for this study of Medicaid fraud and abuse in Arizona to explore how a broad spectrum of health care leaders across the U.S. describe limitations to the detection and mitigation of Medicaid fraud and abuse. Alternatively, researchers could use findings from this study to develop a survey that serves as the basis for a quantitative assessment of how health care leaders across the nation characterize necessary responses to the problem of Medicaid fraud and abuse.

A second recommendation for further study centers on the need for exploration of leadership characterizations of the problem of Medicare fraud and abuse. Like Medicaid,

Medicare is highly susceptible to waste, fraud, and abuse (Iglehart, 2010a; Sparrow, 2008; Thrall, 2011). The federal government first designated Medicare as a high-risk program in 1990, and in fiscal year 2010 the estimated improper payment rate for Medicare was $48 billion (U.S. GAO, 2011b). The federal and state governments jointly fund Medicaid (Rosenbaum, 2010). The federal government funds and administers the Medicare program (Baicker & Chernew, 2011). Financing and administration differences between the two federally funded health care programs suggest that strategies identified for combating fraud and abuse in the Medicaid program might not translate directly to the Medicare program. Researchers wanting to identify appropriate strategies for the detection and mitigation of Medicare fraud and abuse should conduct additional studies.

Finally, understanding of beneficiaries' experiences and perceptions of the problem of Medicaid fraud and abuse requires that researchers conduct further studies. I excluded Medicaid beneficiaries from the study sample and focused my exploration on the perceptions and beliefs of health care leaders in the state of Arizona. As noted by some study participants, beneficiary desperation for medical assistance and evolving social structures and values (e.g., individuals who feel a moral responsibility to care for the children of others) can lead to real or perceived instances of Medicaid fraud and abuse. Exploration of the circumstances that lead to Medicaid beneficiaries perpetrating fraud and abuse might enable the identification of strategies for combating the problem that safeguard the rights and needs of beneficiaries while also protecting the financial integrity of the Medicaid program.

Reflections

My goal in conducting the case study was to build my competence as a qualitative researcher while exploring a topic of national significance. Engagement with study participants in an open and inquiring manner enabled exploration of limitations to the detection and mitigation of Medicaid fraud and abuse. I remained mindful of my identified personal biases throughout my conduct of the study and retained a focus on capturing and representing the opinions and perspectives of participants in an unbiased manner.

Prior to commencing data collection for the study, I noted a personal bias that the identification of solutions for combating the invisible nature of Medicaid fraud and abuse and the business opportunities inherent in the commitment of fraud should be possible. All study participants acknowledged the existence of fraud and abuse in the Medicaid program, and some participants expressed the opinion that because of the scale and complexity of the program eradication of all fraud and abuse will not be possible. My assessment of participant observations required a re-evaluation of my belief that health care leaders can eliminate all fraud and abuse in the Medicaid program. Conduct of the study resulted in my cultivation of an awareness that efforts to combat Medicaid fraud and abuse require the implementation of targeted initiatives designed to detect and mitigate the most common forms of fraud and abuse in a cost-effective manner.

Previous studies of fraud and abuse in Medicaid and Medicare have centered on assessments of the efficacy of federal regulatory responses to the problem via the analysis of historical documents and the outcomes of legal proceedings (Boumil et al., 2010;

Evbayiro, 2011; Kraybill, 2008; Yamada, 2008). Conduct of the qualitative case study enabled direct engagement with health care leaders with responsibility for the administration, delivery, and regulation of Medicaid services in the state of Arizona and supported the exploration of the experiences of health care professionals in confronting the problem of Medicaid fraud and abuse. Study participants provided candid responses to the interview questions. Additionally, observations offered by the participants validated content in the business literature describing the extent and consequences of fraud and abuse in the federally funded health care programs. Based on the analysis of participant responses and document content, I was able to identify strategies and initiatives that might enhance efforts to detect and mitigate fraud and abuse in the Medicaid program.

Summary and Study Conclusions

The conduct of a qualitative case study supported the exploration of how health care leaders in the state of Arizona describe limitations to the detection of Medicaid fraud and abuse and characterize strategies necessary for counteracting the financial incentives motivating the commitment of Medicaid fraud and abuse. I used information gathered from document reviews and interviews to investigate how leaders with responsibility for the administration, delivery, and regulation of Medicaid services perceive the problem of Medicaid fraud and abuse and describe initiatives necessary for enhancing the efficacy of fraud and abuse mitigation efforts. The use of a case study protocol and a case study database supported the demonstration of study dependability. The use of multiple data sources, rival explanations assessment, researcher bias identification, and member

checking contributed to the credibility of study findings. Rich description of the study sample population and context and the use of a field review panel supported the transferability of study findings.

Use of the software package ATLAS.ti supported the deductive and open coding of collected data and the conduct of code frequency and co-occurrence analyses for the identification of primary themes. I created a feedback model of study findings to illustrate the causal relationships between the demand, delivery, and health care outcome elements of the Medicaid system. The feedback model also illustrated the influence of Medicaid fraud and abuse on Medicaid program and health care delivery elements within the health care system.

Study findings were consistent with results of the literature review and reinforced the characterization of Medicaid fraud and abuse as a pervasive problem that negatively affects the wellbeing of beneficiaries and undermines the integrity of U.S. social and financial structures. A key recommendation resulting from the study is the need for health care leaders to promote proactive approaches to combating Medicaid fraud and abuse using modern technologies. Another recommendation is the need for the concentration and strengthening of Medicaid fraud and abuse mitigation efforts at the state level. An additional recommendation is for health care leaders to implement systems to foster beneficiary accountability and responsibility for the use of Medicaid program funds as a means of mitigating fraud and abuse.

Health care leaders should work to build Medicaid fraud and abuse mitigation capabilities via the delivery of necessary education and training to administrative and

provider personnel and through the provision of the financial and human resources needed to deploy and sustain fraud and abuse detection and mitigation systems. Health care leaders should promote greater transparency and public awareness of the problem of Medicaid fraud and abuse. Enhanced transparency and communication between the administrative, provider, and regulatory groups with responsibility for Medicaid services delivery might lead to greater accountability on the part of health care leaders for combating fraud and abuse. Dissemination of information about Medicaid fraud and abuse to the public might lead to increased pressure on Medicaid administration and government agencies to implement measures necessary for the detection and mitigation of fraud and abuse. Medicaid beneficiaries provided with information regarding Medicaid billing processes and terminology might possess the knowledge and awareness needed to recognize and report possible instances of fraud and abuse.

The strengthening of efforts to detect and mitigate Medicaid fraud and abuse might enhance the integrity of the Medicaid program and lead to budget savings at the state and federal government levels. Health care leaders could use cost savings resulting from efforts to combat Medicaid fraud and abuse to improve the quality and availability of care for beneficiaries. As the Medicaid program expansion continues as part of health care reform, the need for effective fraud and abuse mitigation initiatives will become more acute. Adoption of the recommendations from this study might enable health care leaders to control Medicaid program costs and ensure that health care services continue to be available to Americans living at or below the poverty level.

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Appendix A: Case Study Participants

Participant identification	Group	Gender	Years experience
Participant 1	Legislature	Female	2
Participant 2	Medicaid administration	Male	7
Participant 3	Legislature	Male	5
Participant 4	Medicaid administration	Female	5
Participant 5	Law enforcement	Male	11
Participant 6	Health care provision	Male	32
Participant 7	Medicaid administration	Male	9
Participant 8	Health care provision	Female	22
Participant 9	Legislature	Male	11
Participant 10	Antifraud technology	Male	8

Appendix B: Cover Letter

Date

Dear ____________:

My name is Krista Laursen and I am a Doctor of Business Administration (DBA) candidate at Walden University. I am conducting a doctoral study project to examine how health care leaders in the state of Arizona describe limitations in the detection and mitigation of Medicaid fraud and abuse. My study is intended to explore the following question: how do health care leaders in the state of Arizona describe (a) factors contributing to the invisible nature of Medicaid fraud and abuse and (b) necessary strategies for counteracting the business opportunities posed by the commitment of Medicaid fraud and abuse?

Based on your experiences with the administration, provision, or regulation of Medicaid services in the state of Arizona, I would like to interview you in order to gather information about your perceptions and beliefs about limitations in the detection and mitigation of Medicaid fraud and abuse. The interview will require 60-90 minutes of your time and will be scheduled at your convenience within [INSERT TIME PERIOD FOR INTERVIEW PROCESS FOLLOWING COMPLETION OF IRB PROCESS]. I will conduct this in-person interview at a location that is most convenient for you. I am also inviting you to share with me any e-mail messages, administrative documents, reports, and/or memoranda that you feel may provide additional information about current limitations in the detection and mitigation of Medicaid fraud and abuse. However, I note that the provision of any documents on your part is entirely voluntary. If you do not wish to provide documents I am still asking that you participate in the study as an interviewee.

Your participation in my study will be instrumental in ensuring that I gather data from a spectrum of health care leaders in the state of Arizona with direct knowledge of the Arizona Medicaid program and the problem of Medicaid fraud and abuse. If you decide to participate in my study, I will send you an informed consent form via e-mail for your review and signature. This informed consent form provides background information on the study and outlines your rights during the interview process. Please contact me if you have any questions or require additional information.

I kindly request a response to this letter indicating your agreement to participate or your declination by [RESPONSE DATE TO BE INSERTED AFTER INTERVIEW TIME PERIOD IS FINALIZED FOLLOWING IRB APPROVAL]. I thank you in advance for your consideration and your support of my study of a topic of national significance.

Sincerely,
Krista Laursen

Appendix C: Informed Consent Form

CONSENT FORM

You are invited to take part in a research study of how health care leaders in the state of Arizona describe limitations to the detection and mitigation of Medicaid fraud and abuse. The researcher is inviting health care leaders with experience administering, providing, and regulating Medicaid services in the state of Arizona to participate in the study. This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

This study is being conducted by Krista K. Laursen, a Doctor of Business Administration (DBA) candidate at Walden University. The researcher is conducting this study in her capacity as a doctoral candidate at Walden University. The study has no relationship to the researcher’s professional activities and affiliations.

Background Information:
The purpose of this study is to examine and explore how health care leaders in the state of Arizona describe (a) factors contributing to the invisible nature of Medicaid fraud and abuse and (b) necessary strategies for counteracting the business opportunities posed by the commitment of Medicaid fraud and abuse.

Procedures:
If you agree to be in this study, you will be asked to:

- Participate in a single interview requiring no more than 60-90 minutes of your time
- Agree to having the interview audiotaped for later transcription and analysis by the researcher
- Provide copies of documents (e-mail messages, administrative documents, reports, and/or memoranda) that provide additional information and perspectives on limitations in the detection and mitigation of Medicaid fraud and abuse
- Review a copy of initial study findings and conclusions provided to you by the researcher and to provide the researcher with feedback on the accuracy of the findings and conclusions

The provision of documents to the researcher is entirely voluntary and you are not obligated to do so. If you are not comfortable providing documents to the researcher you are still requested to participate in the single interview described above.

Questions for the interview are as follows:

- How long have you been involved with the administration, delivery, or regulation of Medicaid services in the state of Arizona?
- How do you or individuals in your organization or in others involved with the administration, oversight, and regulation of the state of Arizona Medicaid program perceive the problem of health care fraud and abuse in general and the problem of Medicaid fraud and abuse in the state of Arizona specifically? In your estimation, how varied or accurate are these perceptions and why?

- How do you or other individuals in your organization or in others involved with the administration, oversight, and regulation of the state of Arizona Medicaid program describe their roles, responsibilities, and experiences in combating the problem of health care fraud and abuse? In your estimation, how do these descriptions vary or align and why?
- What have been your experiences regarding fraud and abuse within the state of Arizona Medicaid program?
- How have your experiences as a health care leader shaped your beliefs and opinions about Medicaid fraud and abuse?
- What do you or other individuals in your organization or in other organizations involved with the administration, delivery, and regulation of state of Arizona Medicaid services perceive to be limitations in the detection of fraud and abuse within the Arizona Medicaid program? In your estimation, how varied or accurate are these perceptions and why?
- What are your opinions regarding the necessity and efficacy of the Anti-Kickback Statute and the Stark Law for promoting the detection of Medicaid fraud in the state of Arizona and for counteracting the business opportunities posed by such fraud?
- What are your opinions regarding the necessity and efficacy of accountability and compliance programs within health care provider organizations as a tool for promoting the detection of fraud in the state of Arizona Medicaid program and for counteracting the business opportunity posed by such fraud?
- How do you believe the introduction of pay-for-performance under the Patient Protection and Affordable Care Act (PPACA) will affect efforts to detect fraud within the state of Arizona Medicaid program and to counteract the business opportunity posed by such fraud?
- What specific initiatives can you identify that might be undertaken or that are recognized but not yet implemented that would enhance efforts to combat the invisible nature of Medicaid fraud and abuse?
- What specific initiatives can you identify that might be undertaken or that are recognized but not yet implemented that would enhance efforts to combat the business opportunity inherent in the commitment of Medicaid fraud?
- What changes do you feel are needed at the national level to help individual states develop effective strategies for the detection and mitigation of Medicaid fraud and abuse?

The researcher will provide you with a copy of the transcript from your interview and you will have the opportunity to review and concur with the transcript contents prior to the researcher proceeding with analysis of the transcript contents. At the completion of the study, the researcher will provide you with a brief document (no more than two pages in length) that summarizes findings, recommendations, and conclusions from the study.

Voluntary Nature of the Study:
This study is voluntary. You will not be provided with any thank you gifts, compensation, or reimbursement (for travel costs, etc.) in exchange for your participation in this study. Your decision regarding whether or not to participate in the interview and provide documents will be respected, and you will not be treated differently by the researcher

should you elect not to participate. If you decide to participate in the study now, you can still change your mind during or after the study. You may end your participation in the study at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of minor discomforts that can be encountered in daily life, such as fatigue, stress, or becoming upset should sensitive topics arise for discussion. The risk of such discomforts occurring is, however, considered to be low. Additionally, the researcher will endeavor to ensure that the potential for personal discomfort is kept to a minimum during conduct of the interview. Being in this study would not pose a risk to your safety or wellbeing.

Participation in the study will provide you with the opportunity to share your knowledge, thoughts, and experiences with the state of Arizona Medicaid program and limitations in the detection and mitigation of Medicaid fraud and abuse. This study could contribute to greater understanding of how administrative and leadership responses are formulated in response to a problem (Medicaid fraud and abuse) of national significance. Conduct of this study might support the development of leadership models supportive of effective Medicaid fraud and abuse mitigation strategies.

Privacy and Limits to Confidentiality:
Information you provide will be kept confidential. However, should you reveal evidence of criminal activity or abuse during conduct of the interview, the researcher is obligated to report such evidence to relevant law enforcement authorities. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name, organizational affiliation, or any other information that could identify you in study reports. Electronic data will be kept secure by participant deidentification and archival on a password protected laptop computer and a private cloud data storage account accessible only to the researcher. Any hard copies of data (e.g., printed interview transcripts used for notation and analysis) will be stored by the researcher in a lockable container. The researcher will keep data for a period of at least 5 years, as required by Walden University.

Contacts and Questions:
You may ask the researcher any questions you have at this time. Should you have questions following conduct of the interview, you may contact the researcher via phone or e-mail. If you want to talk privately about your rights as a participant, you can contact the Walden University Research Participant Advocate via phone at 1-800-925-3368, extension 1210 within the USA or at 001-612-312-1210 from outside the USA. You may also contact the Walden University Research Participant Advocate via e-mail at irb@waldenu.edu. Walden University's approval number for this study is **01-23-13-0238976** and it expires on **January 22, 2014.**

The researcher will give you a copy of this form to keep.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant ______________________________

Date of Consent ______________________________

Participant's Written or Electronic* Signature ______________________________

Researcher's Written or Electronic* Signature ______________________________

* Electronic signatures are regulated by the Uniform Electronic Transactions Act. Legally, an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically.

Appendix D: Case Study Protocol

A. Case Study Introduction
   1. Research Question
      a. How do health care leaders in the state of Arizona describe factors contributing to the invisible nature of Medicaid fraud and abuse and necessary strategies for counteracting the business opportunities posed by the commitment of Medicaid fraud and abuse?
   2. Research Subquestions
      a. How do health care leaders charged with the administration, delivery, and regulation of Medicaid services in the state of Arizona perceive the problem of Medicaid fraud and abuse?
      b. What do health care leaders with responsibility for the administration, delivery, and regulation of Medicaid services in the state of Arizona perceive to be strategies necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program?
      c. How do health care leaders with responsibility for the administration, delivery, and regulation of Medicaid services in the state of Arizona describe changes that need to be made at the national level to help individual states develop effective strategies for the detection and mitigation of Medicaid fraud and abuse?
      d. What do health care leaders with responsibility for the administration, delivery, and regulation of Medicaid services in the state of Arizona perceive to be necessary strategies for combating the invisible nature of Medicaid fraud and abuse?
      e. What do health care leaders with responsibility for the administration, delivery, and regulation of Medicaid services in the state of Arizona perceive to be necessary strategies for combating the business opportunity inherent in the commitment of Medicaid fraud?
   3. Conceptual Framework
      a. Institutional choice analytic framework (Collier, 2002)

B. Protocol Purpose and Intended Use
   1. Protocol to be used by the researcher to guide and inform all study data collection, analysis, and findings and conclusions preparation efforts
   2. Researcher will use the protocol to ensure dependability of case study methods, findings, and conclusions

C. Data Collection Procedures
   1. Data to be collected from the review of documents and the conduct of semistructured interviews with health care leaders with responsibility for the administration, delivery, and regulation of Medicaid services in the state of Arizona
   2. Researcher will recruit interviewees from (a) the Arizona Medicaid administration agency, (b) the Arizona legislature, (c) an Arizona antifraud

technology company, (d) Arizona health care providers, and (e) an Arizona law enforcement agency

3. Specific study sites and contact persons at each site to be identified after letters are sent and responses received to finalize sites and interviewees
4. Expected preparation activities to take place prior to site visits to conduct interviews
    a. Collection and review of documents for each organization to be represented in study to assess organizational perspectives regarding Medicaid fraud and abuse
    b. Preparation of informed consent forms for each interviewee
    c. Review and finalization of planned interview questions
5. Data collection tools
    a. Digital audio recordings
    b. Researcher field notes
    c. Case study database

D. Outline of Case Study Report Contents
1. Overview of study
2. Presentation of the findings
3. Applications to professional practice
4. Implications for social change
5. Recommendations for action
6. Recommendations for further study
7. Reflections
8. Summary and study conclusions

E. Case Study Interview Questions
1. How long have you been involved with the administration, delivery, or regulation of Medicaid services in the state of Arizona?
2. How do you or individuals in your organization or in others involved with the administration, oversight, and regulation of the state of Arizona Medicaid program perceive the problem of health care fraud and abuse in general and the problem of Medicaid fraud and abuse in the state of Arizona specifically? In your estimation, how varied or accurate are these perceptions and why?
3. How do you or other individuals in your organization or in others involved with the administration, oversight, and regulation of the state of Arizona Medicaid program describe their roles, responsibilities, and experiences in combating the problem of health care fraud and abuse? In your estimation, how do these descriptions vary or align and why?
4. What have been your experiences regarding fraud and abuse within the state of Arizona Medicaid program?
5. How have your experiences as a health care leader shaped your beliefs and opinions about Medicaid fraud and abuse?
6. What do you or other individuals in your organization or in other organizations involved with the administration, delivery, and regulation of

state of Arizona Medicaid services perceive to be limitations in the detection of fraud and abuse within the Arizona Medicaid program? In your estimation, how varied or accurate are these perceptions and why?

7. What are your opinions regarding the necessity and efficacy of the Anti-Kickback Statute and the Stark Law for promoting the detection of Medicaid fraud in the state of Arizona and for counteracting the business opportunities posed by such fraud?
8. What are your opinions regarding the necessity and efficacy of accountability and compliance programs within health care provider organizations as a tool for promoting the detection of fraud in the state of Arizona Medicaid program and for counteracting the business opportunity posed by such fraud?
9. How do you believe the introduction of pay-for-performance under the Patient Protection and Affordable Care Act (PPACA) will affect efforts to detect fraud within the state of Arizona Medicaid program and to counteract the business opportunity posed by such fraud?
10. What specific initiatives can you identify that might be undertaken or that are recognized but not yet implemented that would enhance efforts to combat the invisible nature of Medicaid fraud and abuse?
11. What specific initiatives can you identify that might be undertaken or that are recognized but not yet implemented that would enhance efforts to combat the business opportunity inherent in the commitment of Medicaid fraud?
12. What changes do you feel are needed at the national level to help individual states develop effective strategies for the detection and mitigation of Medicaid fraud and abuse?

F. Data Analysis Techniques and Tools
    1. Coding (deductive and inductive)
    2. Analysis tools
        a. ATLAS.ti
        b. Microsoft Excel

G. Study Dependability, Credibility, and Transferability Methods
    1. Dependability methods
        a. Case study protocol use
        b. Case study database creation
    2. Credibility and transferability methods
        a. Multiple data sources (credibility)
        b. Assessment of rival explanations, research bias identification, and member checking (credibility)
        c. Rich description of study sample population and context and use of field review panel (transferability)

Appendix E: Case Study Documents

Document identification	Description
Document 1	Arizona Medicaid administration agency performance audit: Medicaid fraud and abuse prevention, detection, investigation, and recovery processes
Document 2	Arizona Medicaid administration agency performance audit: coordination of benefits
Document 3	Arizona Medicaid administration agency performance audit: Medicaid eligibility determination
Document 4	Arizona Medicaid administration agency Inspector General testimony on waste and abuse in government health care
Document 5	Arizona Medicaid administration agency 2013 program integrity plan
Document 6	Arizona Auditor General vital records review letter
Document 7	Alaris testimony to Arizona House of Representatives
Document 8	Arizona health safety net panel discussion video

Appendix F: Case Study Code Book

Code	Description	Total Count
*AD	Response or content attributed to Medicaid administration group	58
*AFT	Response or content attributed to antifraud technology group	18
*E_EVALUATION	Category of evaluation codes	0
*Eval_negative	Negative evaluation of object or subject	88
*Eval_neutral	Neutral evaluation of object or subject	19
*Eval_positive	Positive evaluation of object or subject	35
*HCP	Response or content attributed to health care provider group	42
*LE	Response or content attributed to law enforcement group	20
*LEG	Response or content attributed to legislator group	45
*M_MAGNITUDE	Category of magnitude categorization codes	0
*Mag_high	Object or subject characterized as having high magnitude	41
*Mag_low	Object or subject characterized as having low magnitude	6
*Mag_neutral	Object or subject characterized as having neutral magnitude	11
B_BUSINESS OPPORTUNITY STRATEGY	Category of codes describing strategies necessary for combating the business opportunity inherent in Medicaid fraud and abuse (RSQ5)	0
bos_accountable care organizations	Statements or content indicating that accountable care organizations may help combat the business opportunity inherent in the commitment of Medicaid fraud	1
bos_code use standardization	Statements or content indicating that standardization of code use by providers is necessary for combating the business opportunity inherent in the commitment of Medicaid fraud and abuse	2
bos_modeling pattern analysis	Statements or content indicating predictive modeling or analysis of provider treatment patterns as a necessary strategy for combating the business opportunity inherent in the commitment of Medicaid fraud	16
bos_proactive approach	Statements or content indicating that proactivity is necessary for combating the business opportunity inherent in the commitment of Medicaid fraud	20
bos_state false claims act	Statements or content indicating that a state false claims act is needed in Arizona to combat the business opportunity inherent in committing Medicaid fraud	10

(table continues)

Code	Description	Total Count
bos_sustained awareness and expertise	Statements or content indicating that sustained awareness and expertise are necessary to combat the business opportunity inherent in the commitment of Medicaid fraud	3
CF_CONCEPTUAL FRAMEWORK	Category of conceptual framework codes	0
cf_cultural rules	Statements or content indicating decisions or actions influenced by cultural rules	1
cf_economic rules	Statements or content indicating decisions or actions influenced by economic factors	20
cf_independent decision-making	Statements or content indicating agents exercising independent decision-making capabilities	0
cf_political rules	Statements or content indicating decisions or actions influenced by politics	33
G_GENERAL STRATEGY	Category of codes describing general strategies necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program (RSQ2)	0
gst_appropriate resources	Statements or content indicating that appropriate resources (staff, budget, technologies) are necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program	7
gst_compliance authority	Statements or content indicating that compliance officers with authority are necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program	2
gst_create transparency	Statements or content indicating that transparency is needed to support the detection and mitigation of fraud and abuse in the Arizona Medicaid program	6
gst_database aggregation	Statements or content indicating that database aggregation (information sharing) is necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program	4
gst_database protection	Statements or content indicating that databases containing biometric and other patient data must be protected in order to guarantee the security of the data	3
gst_effective coordination of benefits	Statements or content indicating that coordination of benefits is necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program	5
gst_HCP education and training	Statements or content indicating that health care professional (HCP) education and training (in coding, claims preparation, electronic health records use, etc.) are necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program	14

(table continues)

Code	Description	Total Count
gst_modernized detection methods	Statements or content indicating that modernized detection methods are necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program	5
gst_need for technology	Statements or content indicating that technological solutions are necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program	31
gst_point of service authentication	Statements or content indicating that point-of-service authentication is necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program	36
gst_provider screening registration	Statements or content indicating that provider screening is necessary to help prevent Medicaid fraud and abuse	3
gst_public awareness	Statements or content indicating that public awareness of Medicaid fraud and abuse is necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program	4
gst_recovery audit	Statements or content indicating that recovery audits are necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program	4
gst_statute enforcement	Statutes or content indicating that enforcement of federal antifraud statutes is necessary for the detection and mitigation of fraud and abuse in the Arizona Medicaid program	2
I_INVISIBLE NATURE STRATEGY	Category of codes describing strategies necessary for combating the invisible nature of Medicaid fraud and abuse (RSQ4)	0
ins_beneficiary accountability and responsibility	Statements or content indicating beneficiary accountability and responsibility to be necessary for combating the invisible nature of Medicaid fraud and abuse	25
ins_beneficiary prequalification for services	Statement or content indicating beneficiary prequalification as necessary for combating the invisible nature of Medicaid fraud and abuse	3
ins_biometrics	Statements or content indicating biometric technologies are necessary for combating the invisible nature of Medicaid fraud and abuse	5
ins_followup	Statement or content indicating that follow-up with beneficiaries is necessary to detect and mitigate Medicaid abuse	3
ins_independent oversight and authority	Statement or content indicating that independent (external) oversight and authority to take action are necessary for combating the invisible nature of Medicaid fraud and abuse	6

(table continues)

Code	Description	Total Count
ins_privatization	Statements or content indicating privatization of Medicaid is needed to combat fraud and abuse	1
ins_quality of care focus	Statements or content indicating a focus on the quality of care delivered is necessary for combating the invisible nature of Medicaid fraud and abuse	5
M_MISCELLANEOUS	Category of codes describing statements or content of interest not directly related to conceptual framework or research subquestions	0
misc_accountable care organizations	Statements or content pertaining to the impact of accountable care organizations (ACOs) on Medicaid services delivery	1
misc_economic impacts	Statements or content pertaining to the impact of Medicaid fraud and abuse on the U.S. economy	1
misc_government expansion	Statements or content pertaining to expansion of state and/or federal governments	3
misc_health care system sustainability	Statement or content pertaining to concerns about health care system sustainability	2
misc_illegal immigration impacts	Statements or content pertaining to the impact of illegal immigration on the Medicaid system	7
misc_loss of freedom	Statements or content pertaining to concerns about loss of freedom or independence	1
misc_medicaid expansion concern	Statements or content pertaining to concerns about Medicaid expansion	7
misc_medicaid structure care quality	Statements or content pertaining to concerns about the structure of the Medicaid program (reimbursement model, bureaucracy, etc.) impacting beneficiary quality of care	2
N_NATIONAL CHANGE	Category of codes describing changes needed at the national level to help individual states develop effective strategies for the detection and mitigation of Medicaid fraud and abuse (RSQ3)	0
nc_adequate provider reimbursement	Statements or content indicating that adequate reimbursement for Medicaid providers is a national change necessary for combating Medicaid fraud and abuse	2
nc_beneficiary loss of service	Statements or content indicating beneficiary loss of service as a national change necessary for the detection and mitigation of Medicaid fraud and abuse	3
nc_diminished federal control	Statements or content indicating diminished federal control of state Medicaid program administration as a national change necessary for the detection and mitigation of Medicaid fraud and abuse	12

(table continues)

Code	Description	Total Count
nc_enhanced agency reimbursement	Statements or content indicating enhanced agency (Office of Inspector General, Medicaid Integrity Program, etc.) reimbursement as a national change necessary for the detection and mitigation of Medicaid fraud and abuse	1
nc_humane investigations	Statements or content indicating more humane Medicaid fraud and abuse investigations as a national change necessary for the detection and mitigation of Medicaid fraud and abuse	2
nc_medicaid elimination	Statements or content indicating Medicaid program should be eliminated to combat Medicaid fraud and abuse	1
nc_MFCU recipient fraud prosecution	Statements or content indicating allowing Medicaid Fraud Control Units (MFCUs) to prosecute beneficiary fraud as a national change necessary for the detection and mitigation of Medicaid fraud and abuse	1
nc_national coordination and action	Statement or content indicating national (federal) coordination and action as a national change necessary for the detection and mitigation of Medicaid fraud and abuse	6
nc_provider government collaboration	Statements or content indicating more collaboration/less contention between health care providers and the government is a national change necessary for the detection and mitigation of Medicaid fraud and abuse	4
nc_publicized outcomes	Statements or content indicating publication of Medicaid fraud and abuse investigation and prosecution outcomes as a national change necessary for the detection and mitigation of Medicaid fraud and abuse	1
nc_reimbursement rate	Statements or content indicating that higher reimbursement rates should be provided to Inspector General or Program Integrity Offices to support Medicaid fraud and abuse detection and mitigation	2
nc_state oversight and control	Statements or content indicating enhanced state oversight and control of Medicaid programs as a national change necessary for the detection and mitigation of Medicaid fraud and abuse	12
P_PERCEPTIONS	Category of codes describing Arizona health care leaders' perceptions of the problem of Medicaid fraud and abuse (RSQ1)	0

(table continues)

Code	Description	Total Count
per_accountability and compliance effectiveness	Perception of the effectiveness of accountability and compliance programs in health care provider organizations as a tool for promoting the detection of fraud in the Arizona Medicaid program and for counteracting the business opportunity posed by such fraud; effectiveness assessed using an accompanying *Eval code	13
per_administration assessment	Perception of Medicaid program administration effectiveness in combating Medicaid fraud and abuse; effectiveness assessed using an accompanying *Eval code	34
per_administration cost	Perception that the cost of administration is a deterrent to the introduction of antifraud technologies	1
per_Anti-Kickback effectiveness	Perception of the effectives of the Anti-Kickback Statute for promoting the detection of fraud in the Arizona Medicaid program and for counteracting the business opportunity posed by such fraud; effectives assessed using an accompanying *Eval code	3
per_attitude hardening	Perception that health care leaders become hardened from encountering Medicaid of fraud and abuse	5
per_beneficiary abuse	Perception of the incidence, type, and magnitude of beneficiary Medicaid abuse; magnitude assessed using an accompanying *Mag code	38
per_beneficiary desperation	Perception of Medicaid beneficiary desperation as a motivating factor for the commitment of fraud or abuse	1
per_beneficiary fraud	Perception of the incidence, type, and magnitude of beneficiary Medicaid fraud; magnitude assessed using an accompanying *Mag code	33
per_budgetary savings	Perception of state and federal budget savings as an outcome of Medicaid fraud and abuse mitigation and detection efforts	14
per_business practices stifled	Perception that federal regulation intended to promote the detection and mitigation of Medicaid fraud and abuse stifles businesspeople and health care practitioners	2
per_capabilities exist	Perception that capabilities (e.g., regulations, technologies, processes, etc.) needed for the detection and mitigation of Medicaid fraud and abuse exist	5
per_care for those in need	Perception that desire of Medicaid services administration, delivery, and regulation is to help those individuals in need	10

(table continues)

Code	Description	Total Count
per_code complexity	Perception that the complexity of medical codes prevents Medicaid recipients from understanding billings and verifying services were provided	1
per_criminal activity	Perception of criminal activity (organized crime, terrorist groups, etc.) as a source of Medicaid fraud; magnitude assessed using an accompanying *Mag code	16
per_denial avoidance	Perception that denial or avoidance of Medicaid fraud and abuse exists	6
per_difficult to quantify	Perception of amount of Medicaid fraud and abuse as difficult to quantify	2
per_dishonest unethical	Perception that antifraud regulations assume health care professionals (HCPs) are dishonest and unethical	1
per_disincentivization	Perception that system elements or structures disincentivize actions taken to detect and mitigate Medicaid fraud and abuse	10
per_electronic health records	Perception of the impact of electronic health records on the incidence of Medicaid fraud and abuse; impact assessed using an accompanying *Eval code	10
per_EMTALA impact	Perception of the impact of the Emergency Medical Treatment and Labor Act (EMTALA) on the commitment of Medicaid fraud and abuse; impact assessed using an accompanying *Eval code	6
per_FA acknowledgment	Perception of fraud and abuse (FA) acknowledged to be present within the Medicaid program	13
per_federal regulation	Perception of the necessity and efficacy of federal regulation promoting the detection of Medicaid fraud in the state of Arizona and for counteracting the business opportunities posed by such fraud; necessity and efficacy assessed using an accompanying *Eval code	23
per_fiduciary responsibility	Perception of fiduciary responsibility as a role of Arizona health care leaders in combating Medicaid fraud and abuse	3
per_financial incentive	Perception that financial incentives may motivate providers to commit Medicaid fraud and abuse	6
per_free abuse	Perception that Medicaid beneficiaries abuse the program because services are free	7
per_frontline personnel involvement	Perception of frontline personnel (medical and dental assistants, receptionists, etc.) as individuals with key roles in combating Medicaid fraud and abuse	18
per_global fee	Perception that a global fee is paid to mitigate the risk of Medicaid fraud and abuse	1

(table continues)

Code	Description	Total Count
per_government assessment	Perception of state and/or federal government effectiveness in combating Medicaid fraud and abuse; effectiveness assessed using an accompanying *Eval code	10
per_gray area	Perception of gray areas surrounding definition of fraud and abuse	4
per_grow mandate	Perception that mandate growth and budget and influence increases are priorities of the state of Arizona Medicaid agency	10
per_HCP sympathy empathy	Perception that sympathy and empathy on the part of health care professionals may influence their actions regarding fraud and abuse committed by Medicaid beneficiaries	1
per_HCPs unempowered not responsible	Perception that health care professionals (HCPs) are unempowered and/or not responsible for investigating suspected Medicaid fraud and abuse	7
per_health care cost growth	Perception that Medicaid fraud and abuse contributes to growth in health care costs	8
per_health care quality impacted	Perception that Medicaid fraud and abuse negatively impacts the quality of health care delivered	12
per_health care quality improved	Perception that the action will improve health care quality	5
per_implementation difficulty	Perception that Medicaid antifraud measures are difficult to implement	1
per_initiatives thwarted	Perception that initiatives to detect and mitigate Medicaid fraud and abuse are thwarted	7
per_investigation invasiveness	Perception that investigations of alleged cases of Medicaid fraud or abuse or too invasive	5
per_lack of accountability	Perception that a lack of government or administration accountability contributes to incidence of Medicaid fraud and abuse	2
per_lack of political will	Perception that health care leaders lack the political will to take action to combat Medicaid fraud and abuse	17
per_lack of urgency	Perception that a catastrophe or system collapse must occur before fraud and abuse in the Medicaid program is addressed	5
per_leadership effectiveness	Perception of health care leader effectiveness in combating Medicaid fraud and abuse; effectiveness assessed using an accompanying *Eval code	13
per_liability and health risks	Perception of liability concerns and health risks associated with Medicaid fraud and abuse	7
per_MCO effectiveness	Perception of the effectiveness of Managed Care Organizations (MCOs) in mitigating Medicaid fraud and abuse; effectiveness assessed using an accompanying *Eval code	15

(table continues)

Code	Description	Total Count
per_medicaid complexity and scale	Perception of Medicaid program complexity and scale as a factor contributing to incidence of fraud and abuse	11
per_moral duty and obligation	Perception of health care leaders as having a moral duty and obligation to combat Medicaid fraud and abuse	3
per_P4P impact	Perception of the impact of the introduction of pay-for-performance (P4P) on efforts to detect fraud in the Arizona Medicaid program and to counteract the business opportunity posed by such fraud; impact assessed using an accompanying *Eval code	12
per_perpetration easy	Perception that beneficiaries or providers can easily perpetrate Medicaid fraud	2
per_PPACA effectiveness	Perception of the effectiveness of antifraud provisions with the Patient Protection and Affordable Care Act (PPACA) for promoting the detection of fraud in the Arizona Medicaid program and for counteracting the business opportunities posed by such fraud; effectiveness assessed using an accompanying *Eval code	2
per_privacy and civil liberties	Perception of privacy and civil liberties as a consideration in the development and implementation of strategies to combat Medicaid fraud and abuse	9
per_process breakdown	Perception that breakdowns in processes in frontline offices (agency, provider, etc.) contribute to incidence of Medicaid fraud and abuse	2
per_provider abuse	Perception of the incidence, type, and magnitude of provider Medicaid abuse; magnitude assessed using an accompanying *Mag code	18
per_provider fraud	Perception of the incidence, type, and magnitude of provider Medicaid fraud; magnitude assessed using an accompanying *Mag code	30
per_providers impacted	Perception that health care providers are negatively impacted by the problem of Medicaid fraud and abuse	10
per_provision assessment	Perception of provider effectiveness in combating Medicaid fraud and abuse; effectiveness assessed using an accompanying *Eval code	1
per_regulatory circumvention	Perception that health care providers circumvent federal regulations in order to commit Medicaid fraud and abuse	4
per_screening attestation effectiveness	Perception of beneficiary screening and/or attestation of qualification for Medicaid as effective; effectiveness assessed using an accompanying *Eval code	11

(table continues)

Code	Description	Total Count
per_shifting social situations	Perception that shifting social situations impact perceptions of Medicaid fraud and abuse	2
per_socialized welfare	Perception of the Medicaid program as being a socialized medicine system and/or related to the existence of a welfare state	6
per_societal goals and FA definition	Perception that societal goals regarding the provision of health care should inform the definition of fraud and abuse	3
per_Stark Law effectiveness	Perception of the effectiveness of the Stark Law for promoting the detection of fraud in the Arizona Medicaid program and for counteracting the business opportunities posed by such fraud; effectiveness assessed using an accompanying *Eval code	9
per_technology cost	Perception of antifraud technology costs as impacting implementation for the detection and mitigation of Medicaid fraud and abuse	6
per_threat of violence	Perception that individuals working to combat Medicaid fraud and abuse may be exposed to threats of violence	2
per_unavoidable	Perception that Medicaid fraud and abuse are unavoidable	9

Curriculum Vitae

KRISTA K. LAURSEN

PROFESSIONAL EXPERIENCE

National Ecological Observatory Network, Inc. (NEON, Inc.) 2012 - Present

PROJECT MANAGER AND CHIEF OPERATING OFFICER (2012 – Present)

Currently managing the NEON project, a National Science Foundation (NSF)-funded program to construct a continental-scale observatory to gather data to facilitate the study of the impacts of climate change, land use change, and invasive species on natural resources and biodiversity. Also serve as an officer of NEON, Inc. with responsibility for the oversight and management of corporate operational functions. Responsibilities include: managing the approximately $430 million NEON project budget and ensuring effective cost and schedule performance; overseeing and guiding the work of all NEON project management, engineering, scientific, administrative, and field operations personnel working on the project; representing the project to internal (NEON, Inc.) and external (scientific and general community and NSF) stakeholders; leading NEON project personnel in the preparation for and participation in all required project reviews; ensuring all aspects of the project are conducted in accordance with applicable NEON, Inc., NSF, and U.S. government regulations; as Chief Operating Officer, providing oversight and guidance for NEON, Inc. information technology (IT), environmental health and safety (EH&S), and general operational functions.

National Center for Atmospheric Research (NCAR) 1992 - 2012

NWSC PROJECT DIRECTOR, NCAR (2007 – 2012)

Served as the project manager for the NCAR-Wyoming Supercomputing Center (NWSC) project, a multi-million dollar, multiple-partner effort to design, build, and commission a new high-performance computing facility to support the Earth System sciences community. Responsibilities included: preparing and submitting project proposal documents and project management plans; working with NCAR, University Corporation for Atmospheric Research (UCAR), and NSF personnel to develop and gain approval for project budgets; managing the approximately $80 million program budget and establishing appropriate cost and schedule baselines; overseeing the work of all NCAR, UCAR, and subcontractor personnel working on the project; monitoring general schedule and cost performance; representing the project to internal (NCAR and UCAR) and external (scientific community, NSF, and Wyoming partner) stakeholders; ensuring that development of the NWSC proceeded in appropriate technical and engineering directions in order to meet community computing needs; ensuring that all aspects of the project were conducted in accordance with applicable UCAR, NSF, and U.S. governmental regulations; regularly interacting with the NSF Program Officer and NSF senior management in order to report on the status of the development effort and on overall project conduct.

Key Achievements:

- Led NWSC construction proposal development and approval effort and secured $2.5 million of NSF funding for the NWSC Project Office (NPO).
- Facilitated and coordinated the efforts of NPO personnel to prepare for and support conduct of NSF Preliminary and Final Design Reviews (PDR and FDR) for the project, leading to unqualified panel recommendations that the project be advanced to the construction phase and receive NSF funding.
- Oversaw successful completion of the NWSC project construction phase, with facility construction completed approximately two months ahead of schedule and significantly under budget.

SPECIAL PROJECTS MANAGER, NCAR DIRECTORATE (2005 – 2007)

Served as the special projects manager and projects liaison for the NCAR Directorate. Responsibilities included: facilitating planning for possible infrastructure development projects within the NCAR laboratories and serving as the Directorate liaison with NSF for these organizational efforts; serving as the program manager for the joint NCAR, University Corporation for Atmospheric Research (UCAR), and UCAR Office of Programs (UOP) effort to develop new financial tools and processes for the institution; serving as a member of the original project team established to coordinate planning for the new NCAR supercomputing center.

Key Achievement:

- Recipient of an American Meteorological Society (AMS) Special Award for Exemplary Management of the Acquisition and Modification of a Mid-size Jet to Make Transformative Atmospheric Measurements, 2007.

HIAPER PROJECT OFFICE DIRECTOR, NCAR DIRECTORATE (2002 – 2005)

Project manager for the acquisition, modification, and initial development of the National Science Foundation (NSF)/NCAR Gulfstream V (GV) research aircraft. Critical responsibilities included: managing the $81.5 million program budget; overseeing the work of all NCAR and UCAR staff members and project subcontractors involved with the HIAPER; serving as the primary point of contact for all inquiries regarding the program; representing the program to internal (NCAR and UCAR) and external (scientific community) stakeholders and ensuring that the GV development effort proceeded in appropriate technological and scientific directions; ensuring that all aspects of the project were conducted in accordance with applicable UCAR and NSF policies and procedures and U.S. governmental regulations; regularly interacting with the NSF Program Officer and NSF senior management in order to report on the status of the development effort and on overall project conduct.

Key Achievements:

- Restructured program budgets upon assuming position as Project Director and applied necessary fiscal discipline, resulting in the project being completed $3 million under budget.
- Led efforts of HIAPER Project Office (HPO) staff members to implement earned value management system (EVMS) budget and schedule reporting tools for the project, the first time such project management tools were utilized within NCAR and UCAR.
- Created several integrated project team (IPT) subgroups to lead the development of critical infrastructure systems for the GV and to make measurement and instrumentation recommendations for the platform, a process which involved key NCAR and community engineering and scientific expertise in the development of the GV and facilitated wider internal and external involvement with the project.
- Initiated cross-divisional collaborations with the UCAR Education and Outreach (E&O) program to pursue the creation of a school and public education program based on the GV development effort.
- Recipient of General Services Administration (GSA) recognition for Contributions of the Acquisition, Modification and Operations/HIAPER Team to Federal Aviation, 2004.

PROJECT MANAGER/ASSOCIATE SCIENTIST IV, NCAR/Atmospheric Technology Division (ATD) (2001 – 2002)
PROJECT MANAGER/ASSOCIATE SCIENTIST III, NCAR/ATD (1996 – 2001)
PROJECT MANAGER/ASSOCIATE SCIENTIST II, NCAR/ATD (1993 – 1996)
SCIENTIFIC VISITOR, NCAR/ATD (1992 – 1993)

Primary responsibility for the management of aircraft field deployments, involving: supervision of a broad spectrum of personnel (pilots, mechanics, technicians, engineers, software engineers, and scientists); establishment and monitoring of project schedules and budgets; oversight of logistics preparations for aircraft deployments; and processing, quality checking, and release of numerous aircraft data sets. Simultaneous responsibilities included leading an instrument development team, acting as the primary resource person for ATD/Research Aviation Facility (RAF) radiometric instrumentation, and conducting independent research involving active and passive remote sensing devices.

Key Achievements:

- Project manager or assistant project manager for 14 aircraft field projects involving deployments of the NSF/NCAR C-130, Electra, and King Air.
- Team lead for the re-design, modification, and return to service of the multichannel cloud radiometer (MCR).
- ATD/RAF resource person for passive broadband and spectral radiometric instrumentation and measurements.
- Development and implementation of an algorithm to remove the effects of aircraft attitude on hemispheric radiometer data collected on NSF/NCAR aircraft.

- Research involving the retrieval of aerosol optical properties and atmospheric boundary layer height from backscatter lidar data.
- Awarded the 1998 UCAR Outstanding Performance Award for Outstanding Publication with colleagues D. Lenschow of NCAR and L. Russell of the Scripps Institution of Oceanography.

EDUCATION

Doctor of Business Administration (DBA)
Social Impact Management, 2013
Walden University

Master of Science (MS)
Atmospheric Sciences, 1992
University of Washington

Bachelor of Science (BS)
Physics, 1989
University of Oregon

SYNERGISTIC PROFESSIONAL ACTIVITIES

Idaho NSF EPSCoR Research Infrastructure C2 Grant Project Advisory Board Member,
2011 - 2013

ALMA Management Advisory Committee (AMAC)/ALMA Annual External Review (AAER) Member, 2010 – Present

Developer and Instructor, Project Management Fundamentals Course
University Corporation for Atmospheric Research (UCAR), 2009 – 2012

UCAR Executive Leadership Program (ELP) Graduate, July 2008

Certified Project Management Professional (PMP), May 2008
Project Management Institute

UCAR Leadership Academy (LA) Graduate, June 2006

NASA Headquarters Independent Review Team (IRT) Member for the Stratospheric Observatory For Infrared Astronomy (SOFIA) Program, October 2005