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# Beliefs, Costs, and Policies Influencing African American Men's Decisions on PSA Screening

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Abstract

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# Abstract

Despite the growing concerns about routine prostate-specific antigen (PSA) screening in men, little is known about the societal and economic impact of screening among the African American population. The purpose of this qualitative case study was to explore beliefs among African American men about PSA screening, funding for screening, and the role of the United States Preventive Service Task Force in addressing the problem. Guided by rational choice theory, data collection consisted of completion of a health beliefs survey, face-to-face interviews, field notes taken during interview, and interview audio recording. The population for the study included African American men residing in a large metropolitan Midwestern city, who are between the ages of 45 and 65, and who have not been diagnosed with prostate cancer disease. Data were analyzed using NVivo10© to identify themes and patterns. Results from the study show that the decision to participate in prostate screening for African American men is hindered due to concerns about access, cost, and affordability. These three factors should be further evaluated in a larger setting for a greater understanding of their roles in more effective screening programs and policies. Insights gained from this study may positively impact future policy by providing a deeper understanding of the beliefs held by African American men on the issue of prostate cancer screening that may eventually lead to developing and successfully implementing policies that can be cost effective.

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# Dedication

This dissertation is dedicated to my loving husband, Willis Carter, who affectionately refers to me as a “scholar” and his “Brainiac.” He never once questioned my lack of domestication and graciously said, “It’s not important right now.” I am very lucky and blessed by God to have a wonderful and loving husband. I will forever be grateful and pray that God will bless me to return the love and support that my husband provided to me while I took this journey.

I also dedicate this work to my mother, Sally Smith, and my siblings Denise, Sonya, Tyrone, Dairrus, Daniel, Rebecca, and Frank who have all been very supportive and encouraging to me over the years. I would not have been able to complete this journey without their love, support, and encouragement. Their strong words of wisdom and optimism will forever be appreciated. This study is also dedicated to those who I have lost along the way, my father, Frank Jackson, and my baby sister, Matilda (Me-Me.), who inspired me to continue to grow and who I miss and will never forget.

Finally, this dissertation is dedicated to everyone as a reminder to believe in themselves, have faith, and trust in God. There were many days when God held me up and kept me going in spite of many obstacles. I kept the faith.

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# Chapter 1: Introduction to Study

Prostate cancer is a disease affecting over 200,000 men and claiming the lives of approximately 30,000 men yearly (Ross & Hall, 2014). It is the second most prevalent cancer diagnosed among American men according to a 2015 report released by the American Cancer Society (ACS). The Cancer Society estimated that 220,800 new cases of prostate cancer occurred in the United States in 2015. Prostate cancer occurs more often in men over age 50 and is most common in men over 65 (Bush, 2012). Further, autopsy studies have shown that more than half of all men over the age of 50 and approximately two-thirds of men over the age of 70 die with undiagnosed prostate cancer (Rundle et al., 2013). In addition, prostate cancer is also a disease characterized by racial and ethnic differences in incidence and mortality (Miller, 2014). Although men of every racial and ethnic background are susceptible to prostate cancer, the incidence of prostate cancer is approximately 60% higher in African American men when compared to Caucasian men, and the mortality from prostate cancer is twice as high as that of any other group of men (Shenfield & Francis, 2015). Williams and Salary (2014) contend that, when compared with Hispanics and Caucasian males, African American men have a higher incidence of prostate cancer, are more likely to be diagnosed with the disease at advanced stages, and have higher mortality rates. There is limited research that identifies better screening strategies that optimize the cost benefits by personalizing the approach to target populations that are at a greater risk to develop prostate cancer (Penson & Resnick, 2016). There is also a lack of information in research literature that can be used by public policy makers regarding the beliefs of African American men toward prostate cancer screening (Williams & Salary, 2014). Based on published reports, this is a public policy concern because the incidence and mortality rates indicate that African American men may not be informed. Policies and funding decisions to address this health concern may be written by policymakers using incomplete or inadequate information about this group of men (Williams & Salary, 2014). Further, the importance of weighing the cost and economic impact of treating men with the disease against benefits of prostate cancer screening cannot be overlooked.

Chapter 1 includes an introduction to the study, background of the study, problem and purpose statements, research questions and theoretical framework underpinning the study. I also include the nature of the study, definitions of terms, the assumptions, limitations, and delimitation. Finally, I provide the significance of the study and implications for social change, as well as a summary of the chapter.

## Background of Study

The Patient Protection and Affordability Care Act (ACA) was signed into law on March 23, 2010 and is the most significant health reform legislation within the United States since the creation of Medicare and Medicaid in 1965 (Straube, 2013). The ACA establishes new directions for the United States healthcare system that includes an emphasis on preventive services and primary care (Zonderman, Ejiogu, Norbeck, & Evans, 2014). The ACA provides insurance reform, improves access to care, and improves quality of care (Sealy-Jefferson, Elam, & Wilson, 2015). The ACA also describes how federal legislation can address the inefficiencies of current federal healthcare efforts by promoting a greater emphasis on disease prevention through improving health outcomes and reducing healthcare costs (Straube, 2013). Prevention and early treatment of prostate cancer is a public policy issue. Despite the growing concerns about routine screening for prostate-specific antigen (PSA) in men, little is known about the societal and economic impact of screening among African American men. A lack of understanding of the beliefs held by this population hinders the establishment of policies to address the problem of prostate cancer screening. Additionally, enforcement of state and national health policies are hindered by the lack of funding available to ensure prostate cancer screening is provided by medical professionals who treat men.

There is controversy surrounding the benefits of prostate cancer screening. While there is much in the literature on the pros and cons of prostate cancer screening from a public health standpoint, little research has been conducted to afford public policymakers the insight needed to make supportive policies for men and prostate cancer screening. This is particularly true for African American men (Kangmennaang, Mkandowire, & Lugenoah, 2016). My study was needed to fill a gap in current literature by examining the beliefs of African American men about PSA screening. Findings from the study may help policymakers assess the cost effectiveness of PSA-based screening among men and identify high risk populations such as African American men or those with a family history of prostate cancer who may benefit the most from screening and treatment. Within the context of prostate cancer screening, I focused my research on the societal and economic impacts of screening and examines the costs and benefits of PSA based screening among African American men and their associated beliefs. My study may also be used to identify subgroups of individuals who may benefit the most from screening and treatment.

According to the American Society of Clinical Oncology (2015), growing concerns regarding preventive screening and the cost of preventive care is creating uncertainties regarding the necessity and benefits of prostate cancer screening (Sealy-Jefferson, Elam, & Wilson, 2015). With the implementation of the ACA, these factors have drawn attention for the need to identify populations who are at the greatest risk to develop prostate cancer and evaluate health care choices, health beliefs, and costs. To better understand the rising cost of health care, health prevention initiatives needs to be addressed and promoted by public policy

Prostate cancer screening is a public policy concern. Eliminating health inequalities is one of the cornerstones of the United States Healthy People 2020 objectives (Williams & Salary, 2014). There are racial disparities in prostate cancer awareness, testing, and knowledge (Lepore et al., 2012). In a study conducted by Iliac (2012), fewer than 47% of African American men had heard of the PSA test compared to 60% of Caucasian men. There is a need to increase the understanding among African American men to participate in prostate cancer screening. Despite poor health outcomes, few interventions have been developed to increase African American men's awareness of prostate cancer screening, and utilization of medical services (Griffith, Allen, & Gunter, 2011). I addressed these gaps in the literature with my study. Additionally, findings from my study may provide data and information that can be used by policymakers to better respond to the problem.

There is an abundance of literature documenting factors that negatively affect prostate cancer screening participation among men (Biddle, Basel, Underwood, & Orom, 2015; Dean et al., 2014; Williams & Salary, 2014). Despite recommendations for preventive care, critical elements such as cultural beliefs, attitudes, and socioeconomics are affecting African American men's participation in prostate cancer screening (Williams & Salary, 2014). Lack of knowledge and skepticism has also been cited as factors that limit screening (Dean et al., 2014). Luque et al. (2013) suggested that decreased participation increases the likelihood of discovering prostate cancer at more advanced stages and decreases survival rates. Incidences of prostate cancer and death caused by prostate cancer can be lowered by having regular health screenings (ACS, 2015).

African American men tend to have poor knowledge about prostate cancer screening issues and limited interactions with their physicians during clinical encounters (McDowell, Occhipinti, & Champers, 2013). Many factors have contributed to this problem such as negative attitudes toward prostate cancer screening, masculinity norms, fear, pain, and embarrassment (Christy, Mosher, & Raw, 2014). For many African American men, the process of testing and retesting produces anxiety and many African American men view prostate cancer screening as a health threat (Biddle et al., 2015). Without understanding how cultural beliefs, attitudes, and socioeconomic factors influence health behaviors, interventions that focus on increasing knowledge and understanding disease-specific information may not be effective; thus, there is a need to raise this concern as a public policy matter (McDowell et al., 2013). Understanding these factors, in addition to potential barriers such as costs and beliefs, is necessary for policymakers to determine public policy initiatives needed to successfully address health and prostate cancer screening behaviors among African American men.

## Problem Statement

Prostate cancer is the second leading cause of death among men in the United States of America (Rim et al., 2014). The rate of occurrence for this disease is 60% higher in African American men than it is among men of other racial and ethnic backgrounds and public policies addressing the problem is lacking. African American men still lead in both prostate cancer incidences and mortality, particularly among those of low socioeconomic status and the medically under-served (Ross & Hall, 2014). In 2013 over 4,900 deaths from prostate cancer occurred among African American men due to detection of prostate cancer after the disease reached an advanced disease stage according to Dean et al. (2014). Despite the health risks for the African American population, there is a lack of research on African American men's personal beliefs about PSA screening, funding for screening, or the role of the United States Preventive Service Task Force (USPSTF) in addressing the problem (see Luque et al., 2013; see Penson & Resnick, 2016; see Williams & Salary, 2014), which is what I address in my study.

Purnell, Thompson, Kreuther, and McBride (2015) found that individuals who do not have health care coverage are least likely to access health care services and are more likely to delay seeking medical treatment. The prevalence of no health care coverage among Michigan adults between18-64 years of age is nearly three percentage points less than the 15.3% United States median (DeNavas-Walt, Proctor, & Smith, 2012). Many

African American men within the United States are also experiencing cancer disparities. According to the Michigan Department of Health and Human Services (2013), males reported a higher prevalence of no health care coverage at 15% than females at just over 10%. The report also indicated that the rate of no health care coverage for African American, non-Hispanics was at 17.6%, for Hispanic adults was at 24.5%, and at 11.3% for Caucasian, non-Hispanic adults. These challenges and the costs to society are predicted to increase as the prevalence and incidence of prostate cancer grows over the next decades (Garg, Raisch, Selig, & Thompson, 2013).

Public policies that support and encourage African American men to seek prostate cancer screening may help in mitigating the cost to society and the pain and suffering endured by men treated for the disease. Findings from this study may add to the body of literature about beliefs, motivators, and knowledge held by African American men about prostate cancer and screening for the disease. Further, findings may provide insight to policymakers when addressing this public problem.

## Purpose of the Study

The purpose of my qualitative case study was to explore beliefs among African American men about PSA screening, funding for screening, and the influence of the USPSTF in addressing the problem. The study may add an understanding of beliefs held by African American men on prostate cancer screening to the discussion of public policy, which may lead to stronger policies that can be cost effective and successfully implemented. The intent was to explore the beliefs among African American men about prostate cancer screening and to gain deeper insights into the how and why of decisions they make about participating in screening. Although many studies associated with prostate cancer screening have been identified, it is unclear whether available research represents African American men as well as what ultimately motivates their decision to participate, or not participate in screening (Glen et al., 2012).

Gaps in research exist regarding the beliefs of African American men toward prostate cancer screening. Findings from my study help to fill the gaps in literature regarding how African American men's perspectives and perceptions influence their decisions regarding prostate screening. Findings should also increase the baseline awareness of when prostate cancer screening should take place and help to remove some barriers that may be preventing African American men from taking advantage of the screening. The impact of my study may also provide insight to public policy lawmakers and healthcare providers about challenges that African American men face as they relate to preventive services and screening for the disease. Further, findings from my study provide additional data that can be used by advocates for public policies addressing early detection of the disease, implementation of culturally sensitive programs, and legislative actions needed to address cancer health disparities. Researchers have found that prostate cancer health care influences the health of men and their families; however, it is not clearly emphasized in national policies or national health objectives within the United States (Sealy-Jefferson et al., 2015).

## Research Questions

This qualitative study was guided by the following research questions:

Research Question 1: How do healthcare costs influence the decisions made by African American men to participate or not participate in prostate cancer screening?

Research Question 2: How, if at all, will public policies regarding prostate cancer screening affect beliefs held by African American men and the choices they make regarding the disease and the screening.

Research Question 3: How do African American men's health beliefs about prostate cancer influence their decisions regarding participation in prostate cancer screening?

## Theoretical Framework

I used the rational choice theory (RCT) for this study. Rational choice theory is also known by several other names such as rational actor model, utility maximizing, public choice and formal theory (Friedman, 1953). Additionally, the framework will provide guidance on how public policy makers can examine the health-seeking behaviors and choices of African American men and improve prostate cancer screening experiences for this target population.

## Rational Choice Theory

According to Becker (1976), RCT is a theory that can be used for understanding human behavior. Rational choice theory is applicable to this study for several reasons. Friedman (1953) argued with RCT that social interactions often produce costs and benefits (e.g., social exchange theory) and individuals will make choices rationally to obtain them. In addition, when individuals make choices, they calculate the cost material and emotional terms by providing benefits to others. Such cases may be seen with men who decide to participate in prostate cancer screening with hopes of determining if they may or may not be at risk to develop prostate cancer. Individuals also calculate the profits from the benefits they receive, such as with an early diagnosis of prostate cancer and having the options to partake or forego medical treatment**.** Friedman (1953) further noted that individuals do not want to feel as though they are disadvantaged or that their actions will incur disapproval.

Health belief factors such as perceived barriers and cues to action from health care providers have been found to significantly affect prostate cancer screening in past studies (Odedina et al., 2011). Green (2002) noted that for decisions or choices to be accepted as rational, six postulates exist that explain the RCT:

1. Identify the agents and make assumptions about their objectives.
2. Identify the constraints faced by each agent.
3. Determine the "rules" of each agent which characterizes how an agent's choices respond to changes of one kind or another.
4. Determine how the decisions may be consistent with one another.
5. Examine whether or not the predictions determined are consistent with the actual experiences.
6. Draw conclusions and recognize implications implied.

Findings from my study are significant because they may enhance understanding of patients' motivation to participate or not participate in prostate cancer screening programs. Further, findings from my study may provide information for public policy makers when considering increased funding for programs for the development of education and screening initiatives that target specific patient populations.

## Nature of the Study

I used a qualitative method and exploratory case study design. I selected this method and design because qualitative research allowed me to explore individuals' health beliefs regarding prostate screening, which was the primary focus of this dissertation. A qualitative method was also chosen because it allows the exploration and understanding of the meanings individuals or groups ascribed to a social or human problem (Yin, 2014). A case study research design is used when searching for meaning and the understanding of an individual's, opinions, attitudes, beliefs, and perceptions (Yin, 2014).

Through this study, I was able to conduct an in-depth exploration of PSA screening decisions among African American men and gain a deeper understanding of the influence of costs and beliefs on those decisions. My study was conducted in a large metropolitan city in the Midwestern part of the United States. The population recruited for the study included African American men between the ages of 45 and 65 years that have not been diagnosed with prostate cancer. I used a purposeful sampling approach, which added credibility to the sample because of the size of the population and the size of the potential sample. It was also appropriate because I examined a specific group and purpose, which is not generalizable (see Patton, 2001); however, through narrative description of the findings policymakers and others can gain deeper insight into the problem (see Eisenhardt, 1989). Potential participants were informed of the study and recruited for the study via flyers (Appendix A) posted in churches and barbershops in the city where the study will be conducted. Luque et al. (2011) found that churches and barbershops are culturally relevant and appropriate venues for community-based prostate cancer initiatives. According to Saunders et al. (2015) the church is also a venue for reaching and recruiting potential participants for preventive screening programs. The first 20 potential participants responding to the flyer and who met the inclusion criteria for this study were selected to participate in the study. Yin (2014) postulated that 15 to 20 interviews with a homogeneous group are all that is needed to reach data saturation, which was also supported by a study in which 15 participants were used to evaluate the perceptions of Haitian and Jamaican men regarding prostate cancer (Savage, 2004). Data collection for this study included a sample group of 20 participants and interviews were completed until data saturation achieved.

Selected participants were sent an informed consent form, which educated them about the purpose and intent of the study and their rights regarding the study, including their right to discontinue involvement in the study at any time. Data collection consisted of two parts: (1) a brief written health beliefs survey (Appendix D) based on the original Health Beliefs Survey (HBM) instrument relating to health beliefs and PSA screening and (2) a one-on-one, face-to-face interview using structured interview questions (Appendix E). Participants were required to complete the survey and participate in a one-on-one interview, which took approximately 30 minutes. Based on previous research studies, the survey is a valid and reliable survey that has been found to be appropriate for obtaining information about individual’s health beliefs (Gash &McIntosh, 2013). The HBM survey has been used to assist healthcare professionals in understanding the nature of health-related behaviors. Responses to the survey were used as part of descriptive narrative addressing findings in response to the questions. Further, information from the survey provided rich data for the study.

Twenty African American men 45-65 years of age were recruited from churches and barbershops in the city where the study was conducted. This age group was selected because research indicates that African American men between the ages of 45 and 65 years are more likely to be at risk for prostate cancer (Miller, 2014). According to the ACS (2014), prostate cancer is typically diagnosed in African American men beginning at 40 years of age. Additionally, the AUS (2013) and the USPSTF (2013) contend that neither screening nor clinical trials have been found to be beneficial in men over 70 years of age. The recommendation is that men over 70 years of age should consult with their health care provider.

According to data released by the United States Bureau of Labor Statistic (2014), the Midwestern metropolitan city in which the study was conducted has experienced economic hardships (e.g., unemployment rate 8.9%) over the last 5 years, affecting the economic and living conditions of the population. Socio-economic status is a health indicator for wellness. According to Healthy People 2020, achieving health equity and eliminating health disparities is a national health goal and a public policy issue (Williams & Sallar, 2014). Important public policy implications are critical to address health disparities and increase awareness in prostate cancer screening among all men, especially African American men. Promoting positive social change by raising the public's awareness regarding prostate cancer screening is an overarching goal for improving the overall survival rates from prostate cancer and decreasing healthcare costs. Insight derived from this research study may be used to identify factors that hinder prostate cancer screening participation in African American men.

## Definition of Terms

The following terms were used throughout this research study:

*African American men:* Black or African American males having an origin in any of the Black racial groups in Africa (Centers for Disease Control [CDC], 2015).

*Cancer:* Malignant tumor growth occurring in the prostate gland (ACS, 2015).

*Digital rectal exam (DRE):* Physician inserts a gloved lubricated finger into the rectum to feel for bumps or hard areas on the prostate that might be cancer. Helps detect any physical signs of prostate enlargement and cancer (ACS, 2015).

*Five-year survival rate:* Refers to the percentage of patients who live at least 5 years after their cancer has been diagnosed (ACS, 2015).

*Healthy People 2020:* The prevention agenda for the nation and a public policy issue. It is a statement of national health objectives designed to identify the most significant and preventable threats to health and to establish national goals to reduce these threats (CDC, 2015).

*Patient decision aids: S*tandardized, evidence-based tools intended to facilitate the process of shared decision making between patients and practitioners. The decision aids help patients personalize the information and the procedures. These aids may include print, audio and or visual media, internet websites, group discussions, or one-on-one conversations (O’Connor, Llewellyn, & Flood, 2004).

*Prostate:* A gland in the male reproductive system just below the bladder. The prostate surrounds part of the urethra, the canal that empties the bladder and produces a fluid that forms part of semen (ACS, 2015).

*Prostate biopsy:* A procedure in which a sample of body tissue is removed and then looked at under a microscope (ACS, 2015).

*Prostate specific antigen (PSA) blood test:* A protein substance made by cells in the prostate gland (both normal cells and cancer cells). Most health men have levels under 4nanograms per milliliter (ng/bl) of blood. Discovered in a blood test to find cancerous cells associated with the prostate gland (NCI, 2014).

*Screening:* An attempt to look for prostate cancer (PSA) in an early, subclinical stage, and before it causes any symptoms (NCI, 2014).

*Shared decision making (SDM):* A process in which patients are involved as active partners in clinical decisions. It has been conceptualized in several different ways but usually involves a process in which an individual learns about the seriousness of the illness; the benefits, harms, alternatives, and uncertainty of preventive or treatment options; weighs his or her values; and participates in the decision-making process with the clinician in a shared role. The central feature of SDM is participation in the decision-making process with the clinician (at least enough to abdicate a shared role if this is what they wish). This shared participation is what distinguishes SDM from informed decision making. It also is, theoretically, what allows doctors to clarify men's understanding of key facts and relevant values, highlight the unique circumstances that might alter the decision for any individual, and add a considered perspective on the decision (Allen, Lthus, Hart, Mohllajee, & Bowen, 2011).

*Socioeconomic status:* The social standing or class of an individual or groups. It is often measured as a combination of education, income and occupation (CDC, 2015).

## Assumptions

This study targeted African American men between the ages of 40-65 years. The first assumption in this study was that beliefs affect prostate cancer screening participation among African American men. It was assumed that study participants would answer the questions completely and honestly. It was also assumed that African American men who are interested in their health outcomes would want to participate in the study, therefore, creating an adequate number of men for the study group.

## Limitations

Data collection for my study was limited to African American men in one metropolitan area; therefore, findings do not represent the total African American population. I was aware that because I am a female some of the male participants may be uncomfortable discussing their personal health issues. I remained objective and established a rapport with the participants. I was also cognizant of the fact that my gender might affect the participant's willingness to participate in the study. As the researcher, I minimized any biases and interpretive nonverbal responses displayed among the participants. I relied upon direct observations from my interactions with the participants while examining issues from the participant's perspectives as much as possible. Approaching the participants with interest and in a nonjudgmental manner was critical to the success of the research study.

## Delimitations

The delimitation of my study was that it is a qualitative case study exploring the beliefs of African American men. My study was also linked to the importance of health beliefs as a factor in determining prostate cancer screening participation. Through this study, I examined factors that delay and/or motivate African American men to participate in prostate cancer screening. The scope of my study was limited to African American men who reside in one large Midwestern metropolitan city. In other words, Caucasian or men from other ethnic groups were not included in this study. The rationale for this decision was that although recent studies have addressed socio-demographics and psychosocial predictors of prostate cancer screening, fewer studies have examined why beliefs impact health disparities that exist for prostate cancer screening among African American men. More information about the population and sample size will be discussed in Chapter 3.

## Significance of Study

Health disparities continue to be a national concern and conquering prostate cancer is a public policy issue (ACS, 2015). Though mortality due to prostate cancer has been declining, it remains more than 2 times greater among African American men compared to Caucasians (Wray et al., 2011). While the significance of prostate cancer screening is controversial, Antwan et al. (2013) found that African American men have shorter survival rates after diagnosis of prostate cancer when compared to Caucasian men. My study is significant because it is designed to increase the body of literature and knowledge about public policies and prostate cancer screening. Policymakers may use findings when setting laws and policies designed to help with reducing the number of cases and diagnosis of advanced states of prostate cancer among African American men. Limited access to medical services, socioeconomic factors, and patient/provider beliefs about treatment have also contributed to many of the barriers affecting African American men (Schoenfeld & Francis, 2015).

My research study is important because it explored why African American men are less likely to participate in prostate cancer screening. My study also identifies additional information for public policymakers regarding beliefs that affect African American men's decisions about this issue. A greater understanding of how barriers (e.g., costs and benefits) beyond the medical system influence prostate cancer prevention could reduce the loss of lives (Raisch, Selig, & Thompson, 2013). My study will also be beneficial in uncovering, identifying, and examining lack of knowledge and beliefs associated with prostate screening and the resulting social and financial implications. The impact of my study may raise awareness of the need for a strong public policy addressing screening. Findings may also prove to be helpful in getting men to consider the importance of early screening, and early detection and encourage men, especially African American men, to participate in prostate cancer screening.

## Implications for Social Change

Preventive screening is a global health issue and a public policy initiative, as deemed by Healthy People 2020. Understanding the experiences of African American men within the metropolitan area where the study was conducted benefits not only African American men but all men. Although my findings are not generalizable, narrative descriptions of findings may influence the need for national and international policy makers to view screening as a global health issues. Social change can be achieved for African American men through the identification of barriers that impact prostate cancer screening initiatives. Findings from my study may assist nurses, physicians, and the healthcare community in better understanding factors that interfere with early screening interventions. Findings from my study also provide insight into how and why choices are made based on beliefs, costs verses benefits implications, and USPSTF recommendations. The implications of my study may prompt policymakers to take the beliefs and feelings of the target population into consideration when making public policy decisions. Understanding prostate cancer screening behaviors is significant to policy changes that may increase preventive services and help lower health care costs.

The findings from my study address the gaps in literature on possible economic burdens, health beliefs, and knowledge of African American men toward prostate cancer screening. Once barriers to prostate cancer screening are identified and reduced, African American men may be able to benefit from prostate cancer screening services. Furthermore, African American men may become more educated, informed, and motivated to seek prostate cancer screening. As health care and public policies move toward preventive care for consumers, tools can be designed to promote education about disease prevention and increase participation in prostate cancer screening.

Findings from my study provide additional insight to public policy lawmakers and healthcare providers about challenges that African American men face as they relate to healthcare costs, preventive services, and screening for the disease. My findings provide additional data that can be used by advocates for public policies addressing early detection of the disease, implementation of culturally sensitive programs, and legislative actions needed to address cancer health disparities.

## Summary

The purpose of my qualitative case study was to explore beliefs among African American men about PSA screening, funding for screening, and the role of USPSTF in addressing the problem. Arming public policymakers with this information may enhance their abilities to strategically address the problem. Chapter 1 consists of an introduction to the study, background of the study, problem statement, purpose for conducting the study, and nature of the study. Also covered in Chapter 1 are the research questions guiding the study, theoretical framework underpinning the study, definitions, assumptions, scope, limitations and delimitations. I also discussed the significance of the study and implications for the study. A review of literature, identifying factors that influence African American men's participation in prostate cancer screening, is presented in Chapter 2. Chapter 2 includes a discussion on benefits and detractions of cancer screening for men and implications of nonscreening. The literature review also contains a discussion of the RCT, which is the theoretical framework underpinning the study. The HBM survey is also discussed in Chapter 2 as well as the justification for this study and gaps in the literature. Chapter 3 includes the research methodology that was employed, research design, protection of participants’ privacy and confidentiality, data collection and interview protocol, instrumentation, and data analysis procedures.  Chapter 4 consists of findings and results from the study. Chapter 5 is composed of the conclusion, limitations of the study, recommendations for further research, and implications of the research on social change.

# Chapter 2: Literature Review

## Introduction

The purpose of this qualitative case study was to explore beliefs among African American men about PSA screening, funding for screening, and the role of the USPSTF in addressing the problem. Increasing prostate screening rates among African American men and preventing prostate cancer is a social and public policy issue (ACS, 2015). Within the United States, African American and Latino men, when compared to Caucasian men, have higher incidence, prevalence, and mortality rates with prostate cancer (Williams & Sallar, 2014). The Surveillance, Epidemiology, and End Result's Program (2015) estimates that between 2014 and 2015 there were 220,800 newly diagnosed cases of prostate cancer and 27,540 deaths. Eliminating health disparities is a cornerstone of the U.S. Healthy People 2020 objectives and a public policy initiative (Williams & Sallar, 2014).

Whether or not screening offers potential benefits to men is controversial (Arkes & Gaissmaier, 2013). According to the USPSTF, PSA testing can detect early prostate cancer but produces frequent false-positive results (USPSTF, 2012). Another issue is that some cancers detected by PSA screening are slow growing and do not need to be treated, especially in men over age 70 (Enck, 2013). Cancer organizations hold different views of the potential benefits of PSA screening (Garg et al., 2013). Improvements in early detection and treatment options may increase survival rates and improve the quality of life for all men (Gash & McIntosh, 2013). This study may start discussions on the pros and cons of screening and opportunities to fill gaps in literature on this public health problem.

Findings from my study may raise public policy makers' awareness on the importance of providing continued federal funding to support research for the advancement of prostate cancer screening and promoting community awareness. This research was also necessary to explore why African American men are less likely to participate in prostate cancer screening and uncover factors that motivate or deter health-seeking behaviors. My research may provide a greater understanding to the public regarding health beliefs that affect African American men. The literature review includes an extensive discussion on the topics of prostate cancer, prostate cancer screening, prostate cancer screening beliefs, prostate cancer screening shared decision making, and barriers to prostate cancer prevention and treatment. I also present relevant literature on the theoretical framework in the literature review.

## Literature Search Strategy

To identify relevant literature for my review I searched the following electronic databases for literature published within the last 10 years: SAGE, the Cumulative Index to Nursing and Allied Health (CINAHL), the Cochrane Library, Academic Search Complete, PSYINFO, Educational Resources Information Center (ERIC), ProQuest, Ovid Nursing Journals, and Google Scholar. Various key terms utilized to identify the literature included *prostate cancer, prostate cancer screening guidelines and recommendations, prostate cancer screening attitudes & health beliefs, shared decisions, Rational Choice, Rational Choice Theory, and the Health Belief Survey.*

## Prostate Cancer and Related Issues

Prostate cancer is the most prevalent cancer diagnosed in men (ACS, 2015). In 2014 an estimated 233,000 new cases of prostate cancer occurred within the United States, according to the CDC (2015). With an estimated 29,480 deaths in 2014, prostate cancer is the second leading cause of death due to cancer in men (CDC, 2015). Although men of every racial and ethnic background are susceptible to prostate cancer, the incidence of prostate cancer is approximately 60% higher and the mortality rate is 2 to 3 times greater in African American men than in Caucasian men (Powell et al., 2010). Prostate cancer occurs more often in men over 50 and is most common in men over 65 years old (Bush, 2012). When compared with Hispanics and Caucasian males, African American men have a higher incidence of prostate cancer, are more likely to be diagnosed with the disease at advanced stages, and have higher mortality rates (Williams & Sallar, 2014).

Similar findings have also been reported for Latino men who have lower survival rates when diagnosed with prostate cancer (ACS, 2014). Prostate cancer is also the most commonly diagnosed (131.1 per 100,000) cancer among Latino men in the United States (ACS, 2015). Subsequently, in 2014 there were over 230,000 cases of newly diagnosed prostate cancer among Latino men and 30,000 deaths occurred in this group. When compared to Caucasian men, Latino men have 12% lower diagnostic rates for prostate cancer and lower survival rates when diagnosed (ACS, 2014; Hicks, Litwin, & Maliski, 2014).

Additionally, studies of low-income uninsured Latino men with prostate cancer have shown that they have significantly lower health related quality of life than men in the general population (Oduro, Connor, Litwin, & Maliske, 2013). When diagnosed with prostate cancer, Latino men have low confidence in their ability to communicate with physicians, less physical function, and more sexual concerns when compared to non-Hispanic Caucasian men and men with higher incomes (Oduro et al., 2013). These findings on screening behaviors for African American and Latino men are a public policy concern. Understanding what influences these behaviors may assist policy makers with improving the healthcare and community's knowledge regarding prostate screening participation.

Equally important is that the proportion of African American men who report awareness of the risks of prostate cancer and participate in prostate screening is small (Miller, 2013). However, this population carries the heaviest burden of the disease and has the poorest survival rate when compared to men of other racial or ethnic backgrounds (Ferrante, Shaw, & Scott, 2011). This is a public health and public policy concern given the fact that African American men are also at an increased risk for the disease as a result of ethnicity and family history (Glen et al., 2012). Prostate cancer screening participation and access to preventive services is a public concern for all men, but it is a problem for African American men given the racial disparities in incidence, mortality, and 5-year survival rates (Odedina et al., 2011).

## Prostate Cancer Screening Beliefs

Beliefs that African American men hold about the health care system, including mistrust of health care professionals, poor patient-physician communication, and limited access to care, are among factors contributing to delays in seeking care and ineffective use of the health care system (Lehto et al., 2010). When compared to Caucasian men, some African American men are more likely to believe that physicians treat Caucasians with greater respect, and this influences their decision to seek health care (Daario et al., 2011). African American men operating under the assumption that their illnesses and concerns are not valued by physicians may be expressing long-held cultural and personal beliefs as suggested by Daario et al. (2011). The history of limited access to preventative healthcare services and financial constraints and challenges may also contribute these beliefs. When compared to Caucasian men, African American men are more likely to rely on religion for coping and on community based programs (Dilorio et al., 2011). For preventive services to be successful, and to ensure more men benefit from preventive and screening services, barriers and benefits of prostate cancer screening should be addressed by adding to research on the topic.

How a patient views prostate cancer has an impact on how the patient will react to prostate cancer screening (Luque et al., 2011). Smith and Britwhistle (2012) designed a patient questionnaire to determine what patients knew regarding the risks associated with PSA testing and how effective and important they believed PSA testing was to their health. Forty-nine percent of Canadian men between the ages of 41 to 80 report having undergone a PSA test in the past 2 years. According to Smith and Britwhistle (2012), Canadian men have strong opinions of PSA screening; however, many are unaware of any risks associated with its use. Understanding and addressing disparities in preventive screening is a key issue for public policymakers (Winham & Jones, 2011).

Lack of knowledge, beliefs, and perceived risks are all barriers that lead to a lack of participation in prostate cancer screening (Miller, 2014). Men tend to have varying beliefs surrounding the efficacy of prostate cancer screening that may be attributed to their ethnicity or environment. For example, according to Rivera-Ramos and Buki (2011), Latino men report that health care is needed for symptoms rather than prevention. Many Latino men associate sexual connotations and loss of masculinity to digital rectal examinations (Rivera-Ramos & Buki, 2011). Some Latino men also report embarrassment when discussing and obtaining DREs. Providing health information that addresses values and health beliefs may influence health-seeking behaviors among this and other groups of men (Gash & McIntosh, 2013).

Physician recommendations and increased knowledge about prostate cancer are motivators for patients deciding to elect prostate cancer screening (Luque et al., 2011). Physicians possess the most accurate, reliable, and up to date sources of health information (Davis et al., 2013). Although great strides in communication about the disease are being made, disparities continue to exist with prostate cancer screening behaviors, increasing the need for informed public policy.

## Prostate Cancer Screening

Prostate cancer screening is associated with early detection of the disease (Ross & Hall, 2014). There are two different screening methods for prostate cancer: the prostate specific antigen—PSA, a blood test that examines the levels of the prostate specific antigen—and the digital rectal exam—a standard procedure in which a physician introduces a finger into the rectum to feel for any growth that might be cancerous (Rivera-Ramos & Buki, 2011). Screening guidelines promoted by the ACS, the American Urological Association (AUA), the National Medical Association (NMA), the National Cancer Institute (NCI), and the USPSTF all differ as to at what age screening tests should begin. There is a consensus that screening should be offered to men age 50 and older with a life expectancy greater than 10 years, African American men, and men with a family history of the disease (Davis et al., 2010).

Recommendations regarding prostate cancer screening continue to vary. Research findings reported in the media have the potential to confuse the public regarding the benefits of prostate cancer screening (Luque et al., 2011). According to Glen et al. (2012), there is no consensus regarding the benefits of prostate cancer screening for asymptomatic men. Disagreements among major public health organizations regarding routine screening continues, even for African American men who suffer a disproportionate burden from the disease (Ross & Hall, 2012). At the same time, the medical and scientific community cannot come to a consensus on whether to offer routine screening for prostate cancer to asymptomatic men.

Researchers who conducted a large randomized multicenter European study examined prostate cancer screening and mortality and found that although screening reduces the rate of death from prostate cancer by 20%, it is also associated with significant over diagnosis (Lehto et al., 2010). The European trial revealed small benefits for the reduction of prostate cancer deaths when compared to the greater risk of over diagnosis (Oliver et al., 2011). The USPSTF (2012) released a draft of evidence for a recommendation against PSA screening for the general population of men within the United States. Other opponents argued that widespread use of PSA testing leads to over-diagnosis, overtreatment, and morbidity due to treatment complications (Glen et al., 2012). According to Glen et al. (2012), results from the Prostate Lung Colorectal Cancer trial provided no support for the benefits of prostate cancer screening. Byrne, Tannenbaum, Gluck, Hurley, and Anton (2014) also agreed that recent U.S. trials show no benefits.

These reports support the controversy surrounding prostate cancer screening. Continuous debates leave patients and physicians in doubt regarding how to best balance the risks and benefits of regular PSA testing (Smith & Britwhistle, 2012). Constant changes on health from various sources make determining what the most accurate information is challenging. Contradictory information also contributes to the skepticism which African American men have toward medical treatment (Arkes & Gaissmaier, 2012). Despite the controversy supporting the position of opponents to PSA testing, there are no clear recommendations. The purpose of prostate cancer screening is to reduce deaths through early detection of the disease so that life longevity may be increased (Miller, 2014). Findings from this research study may add to the body of literature needed by policymakers to address the costs and benefits of this public policy issue.

## Shared Decision Making

Shared decision making is a communication process where clinicians collaborate to help patients understand medical information and reach value-congruent medical decisions in cases where there is medical uncertainty (Feng et al., 2013). Physicians may also address questions about prostate cancer screening and the potential consequences of the decision (Luque et al., 2011). Many organizations recommend that physicians engage patients in discussions concerning the appropriateness of screening and suggest that primary care physicians and patients discuss the significance of shared decision making (Ross & Hall, 2014). As information continues to accumulate regarding the risks and benefits of prostate cancer screening, men who are at a greater risk should engage in shared decision making with their health care providers (Sheridan et al., 2012).

Shared decision making requires physicians to engage in three broad groups of behaviors during consultations regarding PSA testing. According to Feng et al. (2013), these involve “(a) providing information that includes the potential harms and benefits, (b) elicitation of the patient’s perspective, and(c) guiding the final decision making about cancer screening” (p. 316). The ACS (2015) recommends that healthcare providers discuss the benefits and limitations of prostate cancer screening with men age 50 or older who have a life expectancy of at least 10 years and who are at an average risk of developing prostate cancer. In addition, the American College of Preventive medicine recommends that individuals at high risk for prostate cancer be provided with information about prostate cancer screening by their physicians so that they can make informed personal health decisions (Lehto et al., 2010). On the same note, the USPSTF and ACS recommend that health care providers discuss the potential benefits and downsides derived from prostate cancer screening with their patients so that patients can make informed screening decisions (Rivera-Ramos & Bake, 2011). Shared decision making is central to understanding and increasing prostate cancer screening rates among African American men.

Primary care providers are the first to encounter men to discuss shared decision making. The characteristics and views of health care providers also play a significant role in shared decision. These may include cultural differences, physician attitudes, beliefs, and patient-physician relationships (Yang, Matthews & Anderson, 2013). Ross and Hall (2014) analyzed data from the 2007-2008 National Survey of Primary Care Physician Practices regarding prostate cancer screening. The study included 604 African American primary care physicians. The purpose of the study was to assess prostate screening attitudes and behaviors among African American primary care physicians. The authors examined (a) whether prostate screenings tests were offered to asymptomatic men 40 years of age and older, (b) usages of prescreening discussions to involve patients in the decision to be screened, and (c) whether or not discussion policies were available to encourage patients to obtain PSA screenings. Four findings from the study are significant. First, 94% percent of African American primary care physicians offer prostate cancer screening using PSAs. Second, 80% of African American physicians conduct prescreening discussions with their male patients to involve them in the screening decisions. Third, 77% of African American primary care physicians have discussion policies that encourage patients to obtain PSA screening tests. Finally, Ross and Hall (2014) discovered that African American primary care physicians who work in suburban and urban inner-city locations have higher odds of having discussions with their patients about prostate cancer screening tests when compared to African American primary care physicians who are located in rural areas.

Although current guidelines recommend that men be informed of the potential risks and benefits before undergoing PSA screening, this is not happening (Ferrante et al. 2011). According to Zully, Ramos, and Buki (2011), 68% of Latino men who have insurance coverage are least likely to be informed about prostate cancer, and associated screenings among individuals of all major ethnic and racial groups. Ross and Hall (2014), suggested that this is consistent with prior literature that finds most discussions emphasize the pros of screening more often than the cons. Ferrante et al. (2011) suggested that educating men, high risk groups, and family members in the community via mass media about the potential risk versus benefits of prostate cancer screening may be more effective.

Others have argued that policy makers can provide additional funding to support the development of prostate cancer awareness programs to assist populations most likely to be in need of shared decision-making (AUA, 2015). Regional differences that exist in prostate cancer incidence may also be the result of prostate cancer screening awareness (Conwell, 2015). Singh, Williams and Mulhollen (2011) indicated that there is some evidence that suggest men in rural areas have higher prostate cancer mortality than their urban counterparts. According to Conwell (2015), African American men have 22% higher mortality rates in rural areas than in most urbanized areas. It is likely that these disparities are due to differences in access to care, screening practices, and awareness of the disease (Aiken, Jones, Ragin, & James, 2015). Reductions of health inequalities, including those in cancer incidence, mortality, and survival, continue to be a public policy issue and a major goal of the Healthy People 2020 initiative. Improving access to cancer screening programs among the disadvantage may reduce cancer disparities among population groups and geographic areas.

Other studies have examined the effects of educational interventions designed to improve discussions between primary care physicians and their patients (Feng et al., 2013). It is important to note that the majority of physicians perform poorly in counseling regarding prostate cancer screening and discussions regarding shared decision-making. Similar to previous studies, physicians also demonstrate minimal efforts in obtaining the patients perspectives (e.g., knowledge, concerns, values, etc.) regarding prostate cancer screening (Allen et al., 2011). Feng et al. (2013) also asserted that the success of shared decision often involves physicians promoting active discussions with their patients.

A study by Hoffman et al. (2014) assessed the degree to which shared decision making occurred and whether or not healthcare providers were presenting the benefits and harms of screening and the screening decision outcomes. The authors found that some of the men who underwent screening for prostate cancer were less confident in their decisions and could not recall receiving information about the potential harms of screening, when compared to those making a shared decision (Hoffman et al., 2014). The results indicate that when physicians discuss screening they do not routinely present information about the benefits and harms of screening, or ask about patient preferences, according to Hoffman et al. (2014). Publicized prostate cancer screening guidelines and the USPSTF (2012) report highlight the need for supporting shared decision making.

Using data from the 2010 National Health Interview Survey, Han et al. (2013) conducted a descriptive study to provide population based evidence regarding the prevalence of shared decision making in PSA screening and non-screening. The authors focused on shared decision-making and the extent to which providers provided key information to their patients. The study included men who reported testing for routine PSA screening and had no prior history of testing. Han et al. (2013) analyzed the extent of physician- patient discussions regarding the advantages, disadvantages, and uncertainties associated with PSA testing in screened and unscreened men between the ages of 50 to 74.

A second analysis was conducted to estimate the United States populations' prevalence of PSA screening and non-screening in the presence and absence of shared decision (Han et al., 2013). The measurement of physician discussions regarding prostate cancer screening used questions such as, "Did the provider speak with you about the advantages and disadvantages of the PSA test?" and "Did the provider ever tell you that some experts disagree with whether or not men should have PSA tests?" Physician recommendations for PSA screening was measured by questions such as, "Has a doctor ever recommended that you have a PSA test?" Han et al. (2013) found that 65.1% of the respondents reported no physician-patient discussions of either advantages or disadvantages, and 16.9 % of the respondents reported advantages. Additionally, 88% of non-screened men reported no shared decision making, and 3% reported full-shared decision making.

The use of shared decision making provides an opportunity for physicians to engage and inform patients about the pros and cons of screening, limitations of screening, and what the results of a PSA test could mean to their health (Han et al., 2013**).** Furthermore, men need to be invited to participate in treatment decisions. The shared decision-making process may improve communication between the patient and provider and reduce fears and concerns associated with prostate cancer screening. Given the recent national attention to promote shared decision-making, this is a public policy concern.

Components of shared decision involve participation with patients and families in decisions regarding their care (Coxeter, Hoffmann, & Del Mar, 2014). Having accurate and reliable health care information about cancer prevention and treatment plans is critical within the shared decision process (Epstein & Grambling, 2013). Previous research studies indicate that women act as advocates for their families (Friedman et al., 2012) and may assist in the decision-making process. Additional strategies for encouraging communication and decision making about prostate cancer screening may include involving church members and pastors (Friedman et al., 2012). This is supported by Dean et al. (2014) who noted that family, religious institutions, and partners are influential on African American men's decision to pursue prostate cancer screening. Additional sources of informed decision-making include television, magazines, and health educators located throughout local communities (Friedman et al., 2012).

According to Friedman et al. (2012), men indicated that their physician is the preferred source of cancer information, followed by community health educators. Incorporating individual preferences into screening practices through shared decision-making may improve adherence to treatment recommendations. In addition, men who perceive themselves to be at high risk for illnesses, who desire a greater level of control in decision making, and who convey positive social influences are more likely to make explicit informed decisions (Allen et al., 2011). On the same note, confidence in decision-making is associated with having spoken to a provider (Friedman et al., 2012).

Allen et al. (2011) conducted a randomized trial in 12 Massachusetts worksites to test the efficacy of a tailored computerized shared decision-making intervention. Men who participated in the surveys were more than 45 years of age and permanently employed for more than 20 hours per week. The majority of men in the sample were Caucasians and non-Hispanics with a mean age of 52 years. Over half of the men had an annual household income of over $75,000. Allen et al. (2011) found that men in the study had low levels of knowledge regarding prostate cancer screening. Also, perceived risks and social influences were not associated with the decision to participate in prostate cancer screening. The study found that many of the men were unfamiliar with limitations of the PSA test and lacked information regarding risk factors associated with prostate cancer screening. As part of their findings, Allen et al. (2011) discovered that decision aids could improve short term disease specific knowledge and intent to discuss screening. Decision aids may also improve communication between the patient and provider, as well as assist patients to discuss their disease with family members (Friedman et al., 2012).

Hoffman et al. (2014) suggested that providing patients with decision aids to support shared decision might increase knowledge and involvement in the decision-making process and reduce decisional conflict.

Other researchers have examined the extent to which men have been fully informed or involved in decisions about screening when using decision aids. Decisions aids are designed to increase knowledge about specific disease states, estimate personal risks, help clarify personal values, and help patients communicate effectively with their providers (Friedman et al., 2012). In a randomized controlled study, Feng et al. (2013) found that providing interactive web based educational activities improves shared decision making when engaging patients in discussions regarding the usages and limitations of PSA screenings.

## Prostate Cancer Screening Support Systems

The decision to participate in prostate cancer screening is influenced by personal, social, and health system factors (Miller, 2011). Experiences with close family members who have prostate cancer may influence men's decisions to undergo screening. Research supports the association of increased levels of social support to positive health outcomes (Ross & Hall, 2014). For many African American men, an encounter that includes support may be the first opportunity to share fears and concerns about prostate cancer screening. For example, having a regular primary care provider and a usual source of health care is correlated to a greater likelihood of participating in prostate cancer screening (Ross & Hall, 2014). Qualitative studies exploring the perceptions and experiences of older African American men seeking medical care have identified that family members who have cancer or friends who are viewed as role models, may encourage African American men to participate in prostate cancer screenings (Miller, 2011). Family and spousal support may also serve as valuable motivators and facilitators for African American men to seek and obtain prostate cancer screening and make sound health care decisions (Shaw et al., 2013).

Schoenfeld and Francis (2015) studied family member's influences on men's prostate cancer screening, diagnosis, and treatment decisions. The study found that in the absence of clear directions from the physician, the wife became an important resource for her husband by addressing relevant information and assisting with the decision-making process. With regards to treatment decisions, the study also found that women effectively monitored the health behaviors of their family members and influenced the decision-making process for prostate cancer screening (Schoenfeld & Francis, 2015). The study by Schoenfeld and Francis (2015) confirms the findings of Shaw et al. (2013) who found that family ties may influence prostate cancer screening decisions.

African American men report being appreciative of health care providers who seem to understand what is meaningful to them and take into consideration personal attributes which influences their abilities to schedule and keep medical appointments (Griffith et al., 2011). African American men also report positive perceptions of health care providers who individualize their care and who address and acknowledge successes and challenges that they have overcome. According to Griffith et al. (2011), communication that is personalized and addresses real life experiences of African American men is more acceptable within the health care system. This information suggests that the ability to understand social and cultural factors, that affect African American men, may be significant in providing guidance and education with preventive screening.

## Barriers to Prostate Cancer Screening

Barriers to engaging in shared and informed decision making regarding prostate screening include patient co morbidities, limited health literacy, forgetfulness, and limited physician time (Luque et al., 2011). For example, during health promotion events men may receive prostate cancer information in the form of pamphlets. Recent studies have shown that promoting informed decision making in this format is not effective (Byrne et al., 2014). Luque et al. (2011) also found that limited understanding of prostate anatomy and low literacy may serve as barriers to informed decision making.

Early detection through screening is important to reducing ethnic disparities in morbidity and mortality from prostate cancer (Conde et al., 2011). Due to gender differences, socialization skills, and lifestyle practices, men are more likely to adopt attitudes that influence their belief systems (Harvey & Alston, 2011). According to Christy, Mosher, and Rawl (2014), gender role conflict is associated with engagement in health risk and poor attitudes toward colon, rectal, and prostate cancer screening. Stoicism, gender, and the presence of masculinity are additional barriers that influence men’s health seeking behaviors (Iliac, 2012).

Barriers to prostate cancer screening include, lack of awareness and knowledge, limited education and resources, negative beliefs and fears, socioeconomics, and healthcare disparities (Sly et al., 2012). Dilorio et al. (2011) found that African American men tend to report higher levels of mistrust, rate experiences with their physicians more negatively, and report more bias within the healthcare system than do Caucasians. Moreover, concerns of African American men about masculinity may present barriers and influence prostate cancer screening. Also, societal factors such as a history of discriminatory experiences and perceived racism in healthcare are associated to medical mistrust, underutilization of health services, delays in seeking medical treatment, and poor adherence to medical treatment plans (Sly et al., 2012)

In a pilot study by Friedman et al. (2012), among the 25 African American men who participated in focus groups and individual interviews, embarrassment, lack of resources, and limited family communication were identified as barriers to seeking health information. According to Conde et al. (2011), additional factors associated with barriers to participation in prostate cancer screening include busy lifestyles, limited knowledge regarding prostate cancer screening, fear associated with DRE's, and fear of cancer diagnosis. As noted in research findings, there is a general lack of trust and fear toward physicians. African Americans' history of mistreatment, misdiagnosis, and unethical research conducted on them over time, has led to skepticism, and mistrust of the health care delivery system (Griffith et al., 2011). In addition, Byrne, Tannenbaum, Gluck, Hurley, and Antoni (2014) discovered that African Americans have more mistrust than Caucasians regarding preventive care, even if they are not able to accurately explain historical discriminatory events such as the Tuskegee experiment. Byrne et al. (2014) noted that African American men also share concerns regarding not wanting to be "guinea pigs."

Additionally, Luque et al. (2011) found that cultural barriers and lack of adequate information are potential barriers affecting prostate cancer screening, especially as it pertains to DREs (Luque et al., 2011). Misconceptions about masculinity may also prevent adequate evaluation for prostate cancer screening (Machado et al., 2013). Luque et al. (2011) asserted that developing culturally appropriate educational materials and programs may dispel myths, eliminate misconceptions, and change fatalistic attitudes about cancer and prostate cancer screening. The medical community and policy makers may also consider cultural differences and develop preventive programs to promote health awareness among all men, especially African American men.

Bastina et al. (2012) and Mitchell (2011) suggested that, similar to African American men, Latino men also perceive more barriers to prostate cancer screening and have less knowledge regarding risk factors for the disease. Using the California Cancer Registry to examine ethnic difference in prostate screening among Latino men, Bastina et al. (2012) found the lowest rate of PSA testing among Latinos. Findings from these studies underscore significant barriers that negatively impact prostate screening behaviors among minorities.

In related studies, Cristancho, Peters, and Garces (2014) also found that most disparities suffered by Hispanic and Latino men are the result of insufficient information or communication barriers that stem from problems within the health care system. Byrne et al. (2014) conducted a pilot study to explore factors associated with the willingness to participate in clinical trials and perceived clinical barriers. The study was taken from the Florida Cancer Data System and included 1,000 participants who were at least 21 years of age or older. As for barrier to participation in prostate cancer screening, Byrne et al. (2014) found that, a large percentage of Hispanics report fears of adverse effects. The same author noted that significant barriers for not participating in clinical trials include concerns regarding insurance. Also, more Hispanics, when compared to Caucasians or African Americans, voice not knowing about research studies as a barrier to participation.

Oduro et al. (2012) found data supporting Byrne et al. (2014) when they conducted a qualitative study in California with 60 Latino men between the ages of 50 to 65 years. The authors found that poor coordination of care among the medical team increased distrust of physicians and decreased levels of comfort with the health care system. For example, miscommunication and misunderstandings regarding treatment options, and plans of care leaves participants feeling disempowered. Miscommunication between providers and the participants is often due to language barriers, low levels of health literacy, and limited understanding regarding medical terminology (Oduro et al., 2012) Communication may also be a barrier for some African American men.

Physician competence is not a significant factor in deciding to have prostate cancer screening (Zang et al., 2013). Many patients believe that skills and techniques used within the health care system are trustworthy. This contrast in trust may be explained by prior research studies which found patients who have greater trust in their physicians and are satisfied with their care, are less likely to change physicians (Lepore et al., 2012), and more likely to adhere to their physician's recommendations (Griffith et al., 2011)**.** Apart from an increased effort to improve prostate cancer screening, education and income are barriers that may be associated with screening (Zang et al., 2013).

Rundle et al. (2013) offered that income and education are associated with knowledge of prostate cancer screening beliefs and decisions to participate or not participate in screening. At the same time Cerimajic (2013) acknowledged that socioeconomic factors influence cancer incidences, treatment, and outcomes. This was demonstrated in a study that examined the association of socioeconomic status with prostate cancer screening behaviors, prostate cancer incidences, and tumor aggressiveness at diagnosis (Rundle et al., 2013). Research is available to show that men with higher socioeconomic status have a higher risk of prostate cancer diagnosis, yet a lower risk of late stage diagnosis (Zang et al., 2013). Higher socioeconomic status is also associated to more PSA tests and higher rates of participation with prostate cancer screening. According to Rundle et al.(2013), men with higher socioeconomic may have greater access to health and screening services, which results in earlier detection.

Lehto et al. (2010) found that lower socioeconomic factors, as well as ethnicity, is associated with advanced stages of cancer at diagnosis. The effects of social inequalities in treatment is important in patients with later stage disease than those with early stage disease, because of the higher mortality burden of stage III through stage IV prostate cancers (Rundle, 2013). In similar studies, Odedina et al. (2011) claimed that men with low socioeconomic status report low confidence in their ability to reduce their risk of getting prostate cancer and early detection of prostate cancer. It is essential for policy makers to address socioeconomic factors that may limit access to prostate cancer screening and early diagnosis. Improving screening behaviors may help decrease the likelihood that African American men will be screened at a late stage, and may reduce the disparities in prostate cancer mortality rates (Dean et al., 2014). Based on the literature reviews, public policies ensuring a more equitable access to screening are needed to reduce these health disparities (Zang et al., 2013).

While most studies on prostate cancer screening have focused on age, demographics, and income, Griffith et al. (2011) found that secure men report more frequent DRE screenings than does dismissiveness men. Hunter et al. (2015) conducted a qualitative study in North Carolina with African American men and women to identify African Americans perceptions and beliefs about prostate screening in lieu of the USPSTF guidelines. The purpose of the study was to share and discuss various types of educational resources that would be needed for prostate cancer screening within the community.

Hunter et al. (2015) reported at least four significant findings from the study. First, many of the participants verbalized that being African American was a risk factor for developing prostate cancer. Second, participants identified social factors such as discrimination and unequal treatment in the health care system as systemic barriers (Hunter et al., 2015). Third, most of the participants believe that the increased risk for prostate cancer among African American men results from genetics and intergenerational psychosocial factors such as oppression and stress. Fourth, Hunter et al. (2015) noted that additional barriers included fear, sexual difficulties, and negative side effects arising from prostate biopsy exams. This supports previous research findings, which suggests that mistrust of the health care system and institutional racism are health system barriers to African American men's help seeking behaviors (Griffith et al., 2011). By understanding factors involved in the behaviors and culture of men facing prostate cancer screening, this study may be useful in developing public policies to promote prostate cancer screening awareness among African American men.

Common themes for not seeking medical care include intergenerational stressors, fear of diagnosis, and difficulty adhering to prescribed treatment regimens. Additional themes include perceptions of receiving minimal benefits from preventive care and poor experiences with providers (Griffith et al., 2011). These variables underscore findings from Consedine, Tuck, and Fiori's (2013) study that men who are highly mistrustful of the medical system are twice as likely to delay medical care. In contrast to poor experiences with providers, Griffith et al. (2011) found that men who convey receiving medical tests think highly of their providers, even if they dislike the testing procedures. This proposed study is expected to contribute to existing literature in the field because public policies can be developed to promote and encourage men to obtain prostate cancer screening.

Fear and anxiety have been documented in other studies as intrapersonal barriers to participation in cancer and colonoscopy screenings (Sly et al., 2012). In similar studies, Hunter et al. (2015) found that for African American men, barriers to screening is largely associated with fears of negative side effects such as blood in the urine and sexual difficulties arising from the need to have a prostate biopsy examination. On the same note, personal and health system barriers may lead African American men to delay or avoid medical services (Griffith et al., 2011).

There is a need for the medical community to understand psychological and psychosocial barriers that deter men from participating in prostate cancer screening programs. Men's beliefs in traditional masculinity roles predict engagement in health risk and health promoting behaviors (Christy et al., 2014). In a study conducted by Christy et al. (2014) on masculinity, it was found that most men agreed that prostate examinations can affect masculinity. Yang, Matthews, and Anderson (2013) found that fear of screening and sexual orientations are associated with prostate cancer screening frequencies. Machado et al. (2013) supported their findings stating. "Embarrassment is a potential barrier to seeking prostate screening, and the presence of masculine attitudes is perceived as the greatest barrier" (p. 339). Understanding the factors that lead to higher screening rates is important in understanding how to motivate men to get screened earlier, especially those who are at highest risk for late stage disease detection (Dean et al., 2014).

Prostate cancer does not appear to be more aggressive in African American males when treated early and the outcomes for African American and Caucasian men are similar (Dilorio et al., 2011). However, the incidence of prostate cancer is highest among African American men who are likely to be diagnosed at more advanced stages of the disease and are more likely to die from prostate cancer than Caucasian men (Dilorio et al., 2011). The argument for prostate cancer screening lies on the rationale that screening can save lives because survival correlates with the state of the disease at the time of diagnosis (ACS, 2015). Failure to attend to preventive screening is a public policy issue, especially as it helps to improve health outcomes and minimize health disparities for African American men.

According to Gash and McIntosh (2015), the ACS found that when barriers to screening are removed, (e.g., socioeconomic inequalities, disparities in education, access to healthcare) from African American men and other groups, participation in screening increases. Identifying perceived barriers may decrease the likelihood that an individual will not adhere to recommended prostate cancer screening. There has been limited research that explains the underlying beliefs of African American men related to prostate cancer screening behaviors. Additionally, a full investigation of the determinants of these fundamental beliefs and socioeconomic factors among African American men has not been done and is not prevalent in research literature.

## Prostate Cancer Growth

A commonly held perception about prostate cancer in the public and within the scientific community is that prostate cancer is an indolent disease and therefore not as deadly because individuals who are diagnosed with prostate cancer often die of other causes unrelated to the cancer (Shenoy, Packianathan, Chen, & Vijayakumar, 2016). Because of these differences, it is the contention that this view should not apply to all prostate cancer patients, especially to those of African American descent (Zonderman, Ejiogu, Norbeck, &Evans, 2014). Due to differences in the natural course of the disease and social issues that impact African Americans, many African American men face greater health burdens when compared to their Caucasian counterparts once they have been diagnosed with prostate cancer (Shenoy et al., 2016).

Powell et al. (2014) found evidence which suggests that prostate tumors grows faster among African American men than Caucasian American men. According to autopsy results, prostate cancer starts at similar ages among African American men and Caucasian American men with similar stages and grades at diagnosis (Shenoy et al., 2016). Vickers et al. (2013) found that subsequent development of distant metastasis occurs at a disproportionate rate of approximately three African American men to one Caucasian American men.

A study of outcomes after treatment from 1991 to 1996 for clinically localized prostate cancer reported more advanced disease and greater PSA recurrence among African American men when compared to Caucasian American men of ages 40 to 69 years (Jemal, Ma, & Siegel, 2016). This difference in disease severity and recurrence, in addition to disproportionate mortality among African American men, provides strong evidence that African American men should be tested more aggressively and at earlier ages than Caucasian American men (Powell et al., 2014).

With the increase in disparities and mortality rates for African American men and a commensurate increase in public cost, policymakers need to be aware, develop and implement adequate support for all men. It is hoped that policymakers will be more informed about the types of support that will mitigate future public cost of the disease, as well as provide funding and support for preventive screening initiatives.

## USPSTF Recommendations

In May 2012, the United States Preventive Service Task Force recommended against PSA screening of healthy men (Powell et al., 2014). This recommendation was based on the PLCO (Prostate, Lung, Colon, and Ovarian) prospective randomized clinical trial, which reported no decrease in mortality rate in the screened arm and therefore no PSA screening benefit. However, this recommendation applied to men in the United States population who did not have symptoms that were highly suspicious for prostate cancer, regardless of age, race, or family history (Barocas, Mallin, Graves, Penson, & Palis, 2015). Also only 4% of the PLCO population represented African American men. Second, the PLCO results understated the impact of screening on prostate cancer mortality due to a high contamination rate in the control arm (Barocas et al., 2015).

Jefferson et al. (2015) pointed out that the USPSTF cancer screening recommendations are based on data from non-Hispanic Caucasians not minorities because to date the benefits of prostate cancer screening and treatment advances' have not been fully investigated evenly across racial and ethnic groups. This is supported by differences in incidence and mortality rates (Barocas et al., 2015). Moyer (2012) found that here was insufficient data about optimal screening in minority populations for malignancies and the disparate impact on minority populations.

Pinsky et al. (2010) reported that 85% of the controls had a PSA test before or during the study, and only 15% of the PLCO controls never had a PSA test. Lastly a 7-year median follow-up time was inadequate for estimating an impact of PSA screening on prostate cancer mortality, as the study was designed to report the mortality rate comparison after 13 years. It is critical to provide the most available scientific data to evaluate the benefits of PSA testing of African American men younger than 55 years of age (Powell et al., 2014).

According to Schafer (2016), the USPSTF recommendations have been associated with a marked drop in PSA screening. One study using the National Health Interview Survey data found that 31% of men over the age of 50 years surveyed in 2013 reported having a PSA test in the prior year, which is down from 38% in 2010 and 41% in 2008 (Jemal et al., 2016). Schafer (2016) notes that data through 2015 indicates that declining PSA screening may have negative implications.

In another study utilizing the National Cancer Database, Heijnsdijk et al. (2015) found that annual incidence of metastatic prostate cancer had risen by 72% between 2004 and 2013. The researcher further concluded that the incidence may be due in part to the USPSTF recommendations (Jemal et al., 2016). Other individuals have begun to criticize the PLCO study cited in the USPSTF recommendations. A commentary in the Journal of Clinical Oncology argues that a significant portion of the unscreened population in the PLCO study had been screened for PSA previously, thereby skewing the results (Shoag, Schlegel, & Hu, 2016).

## Prostate Cancer Expenditures and Government

Aggarwal, Ginsburg, and Food (2014) suggested that within the United States a consensus among public policymakers is that the costs for delivering high-quality and equitable cancer care is presenting challenges to the nations budgets. For example, within the United States it is estimated that cancer care expenditures in 2020 will be $157 billion dollars (Gulati, Gore, & Etzoni, 2013). This increase is being driven by a number of factors that includes technological advances, rising costs preventive care, aging populations and increase in the proportion of individuals susceptible to cancer.

The economic burden of prostate cancer is substantial. Within the United States in 2006 a total of $9.86 billion dollars was spent on related care (Garg et al., 2013). These costs included an average annual cost per patient of $10,612 in the initial phase after diagnosis, $2134 for continuing care and $33,691 during the last years of life. These statistics show that prostate cancer is a significant public policy concern and public health problem within the United States (Garg et al., 2013).

The rising costs of health care is also impacting the federal and state government and creating disparities. Within the United States the economic impact of cancer disparities is increasing. Thorpe, Richard, Bowie, LaVeist, and Gaskin (2013), suggested that estimating the financial cost of preventive care may assist policy makers and legislatures to allocate resources, and create policies that address disparities. Investing in disease prevention not only saves lives, but also produces a return on investment. The cost of screening middle age African American men can be largely offset by long- term Medicare savings in preventing prostate cancer which is costly (Garg et al., 2013). In 2015 the estimated cost of racial and ethnic disparities was $193 billion dollars for premature deaths, $2.3 billion dollars for direct medical costs and $471.5 million dollars for loss of productivity (Garg et al., 2013).

According to Antwi et al. (2013), men dying of prostate cancer incur significant costs in their last years of life. Referencing Powell et al. (2014), the cost of death due to prostate cancer in the United States is over three quarters of a billion dollars a year, and the cost of prostate cancer death and care before death is greater than the cost of treatment of local diseases. In comparison, the cost of FDA approved biologically targeted therapies for metastatic disease is approximately $8,000.00 per month, and the cost is significantly higher for immunotherapeutic agents (Gulati et al., 2013). Because African Americans have a 2.4 times greater mortality rate and risk of metastatic disease than Caucasian men, it would be wise to eliminate this disparity and save the prostate cancer health system dollars. Prevention programs can assist government to address the growth in healthcare treatment cost for Medicare, Medicaid and private health care plans **(**Garg et al., 2013)**.**

When developing coverage policy for government, payers have been known to follow the USPSTF recommendations and or CMS guidelines. Within certain states, coverage for PSA screening is questionable, however Medicare still covers annual PSA tests in men over 50 years of age (Centers for Medicare and Medicaid Services, 2016). For payers, the implications of getting PSA screening “wrong” are significant. Screening tests and associated office visits are generally inexpensive; however, they become more expensive when considering that more than 40 million men are 50 years of age or older (Vickers et al., 2013).

Broad PSA testing would cause payers to incur costs associated with treatment of an additional prostate cancer diagnoses (Sealy-Jefferson et al., 2015). If the PLCO study is accurate, the added costs would not have an effect on the patient’s life expectancy (Heijnskijk et al., 2015). Thorpe et al. (2013) found that the cost to manage patients with metastatic prostate cancer is a major cause for concern. Existing research has found that for payers, patients dying of prostate cancer incur higher costs in the last years of life that are far greater than patients with less advanced disease (Zonderman et al., 2014).

## Cost Effectiveness

Within the United States chronic diseases are rising in prevalence and accounts for half of the increases in healthcare spending (Oduro et al., 2013). Problems with rising costs of health care means that efforts to identify populations that are at a greatest risk to develop prostate cancer is needed. In addition, preventive services that safeguard freedom of choice ensure representation of equity and cost effectiveness is needed throughout the United States. The cost of healthcare has increased over the past 3 decades and is consuming large shares of the United States Gross Domestic Product (Straube, 2013). The United States spends more per capita on health care than other nations in the world (Straube, 2013). There are wide geographic differences in healthcare costs and quality while best practice guidelines often go un-noticed (Straube, 2013). Although the ACA has successfully expanded access to insurance and cancer care services, millions of Americans remain uninsured, and other individuals with public and private plans continue to lack sufficient coverage for high quality cancer preventive care (Peters et al., 2013).

The challenge for the cancer prevention community is to remain a vital voice in the implementation phase of ACA and to highlight inadequacies as the basis for future amendments or revisions (Zonderman et al., 2013).

According to the CMS (2016), despite medical care falling to a four-decade low, health care spending reached 17.9 % of the United States GDP in 2012, and if current trends continue, it will hit 20 % in 2022. Thorpe et al. (2013) noted that within the United States, public sources provide the greatest share of total funding for the prevention of chronic diseases. According to the CMS (2016), public spending represented 3% of the health care spending in 2009, while expenditures on chronic disease accounted for 75% of health care costs.

Citizens place a high priority on having the freedom to choose their health preferences and the providers who deliver their care. Having the freedom to choose creates problems in terms of cost, availability and quality of care. There is little in the public policy administration research that addresses the urgency for policy makers to garner support to the needs of preventive screening. It is not known if hearing the voices and experiences of African American men will allow policymakers to better understand the public support that is needed for them. Efforts to improve health could have a long-term effect on disease prevalence and help reduce health care cost spending.

## Cost Effectiveness and Health Related Quality of Life

A study by Heijnskijk et al. (2015) examined the cost-effectiveness of prostate cancer screening based on data from the ERSPC trial. Using cost-effectiveness studies to measure quality of life (QALY) gained; Heijnskijk et al. (2015) found that screening strategies with short screening intervals of three years were more cost effective than those using longer intervals. Overall analysis of the data showed that PSA-based screening can be cost-effective when it is limited to men between ages 55 to 60 with intervals of one or two years (Heijnskijk et al., 2015). Gulati et al. (2012) further suggested that starting screening at age 40 years may improve cost or at least lead to comparable prostate cancer mortality reductions with less harm.

Prostate cancer can significantly lower the health-related quality of life in men suffering from it. According to Loeb (2015), the Caucasian Randomized Study of Screening for Prostate Cancer (ERSPC) trial showed a significant 29% prostate cancer mortality reduction with prostate specific antigen (PSA) screening. However, marked negative impacts on quality adjusted life years gained due to the effects of over-diagnosis on quality of life were noted (Heijnsdijk et al., 2015).

Vickers et al. (2013) conducted a case study to examine whether or not PSA concentrations could be used to predict the long term risk of metastasis or death from prostate cancer. The researchers found that men with low risk of death from prostate cancer without screening had little to gain from being screened but still risked over-diagnosis and over-treatment and men likely to die from prostate cancer without screening could avoid cancer specific mortality if they choose to be screened. Overall the researchers found that all men with a reasonable life expectancy could be screened for PSA in their mid to late 40's. This is an important discovery on the need to address PSA testing while a greater emphasis should be placed on men in the highest 10% of PSA concentrations at age 45-55, while these men will contribute to half of all deaths from prostate cancer before the age of 70-75 years of age (Vickers et al., 2013).

### Cost Effectiveness of Other Cancer Screening Programs

A number of researchers also recommend opportunistic screening for high- risk individuals in certain circumstances (Toscano et al., 2015). In similar studies using a Markov-based cost effectiveness model to examine the long- term cost and benefits of screening for Type 2 Diabetes, Toscano et al. (2015) found that the cost-effectiveness analyses of screening aimed to detect not diabetes, but those at high risk to develop the disease. The authors concluded that screening, followed by an intensified program to promote and support lifestyle changes may be not only cost-effective, but also cost-saving (Toscano et al., 2015**)** found that preventive screening can be applied to cost-effectively support the diagnosis and management of prostate cancer in specific populations such as African American men over 45-65 years of age.

## Theoretical Framework

I used the RCT as the theoretical framework of this study. The RCT supports an exploration and examination of the health beliefs of African American men about need, cost, and controversy surrounding USTPF recommendations regarding prostate cancer screening. In this study, I examined African American men's beliefs about cancer screening and how health beliefs, socioeconomics, demographics, and cost relate to their decisions about prostate screening.

According to Dietrich and List (2013), the RCT implies that individuals have beliefs and desires, and acts to satisfy the desires in accordance to their beliefs. Scott (2010) further noted that individuals are motivated by their wants or goals when expressing their preferences. Additionally, individuals act on the basis of information that they have about the conditions under which they are acting. Hogarth, Reder and Melvin (1987) noted that rational individuals choose alternatives that are likely to give them the greatest satisfaction. Concerns about necessity might be attached to PSA screening in light of recent USPSTF recommendations and the burden of mortality among African American men. Owumi and Sakiru (2013) argued that the ideal of rational choice has been taken to imply that human behavior is not spontaneous and free, but determined. The RCT also claims that individuals behave as if they are utility maximizers (Friedman, 1953). Using RCT, individuals are motivated by their needs, wants, or goals that express their preferences (Ogu, 2013).

The RCT was used to understand health-seeking behaviors and alternative care practices individuals engage in (Owumi & Sakiru, 2013). Rational behavior also involves assumptions and formulation of problems that are objective and measurable (Becker, 1976). For example, with prostate screening, researchers found that individuals will often prefer to refuse treatment rather than take an exam that they believe is unfair (Purnell, Thompson, Kreuter, & Mcribe, 2015). Additionally, among some African American men there is a perception that a prostate biopsy is a higher quality procedure than a digital rectal exam. This suggests that low-income and minority adults, especially those who mistrusts medical providers or have experienced discrimination in past encounters, might reject screening altogether if the only test they were offered was one they perceived to be inferior to other options (Kangmennaang et al., 2016).

The underlying principle which supports RCT is that individuals do their best under prevailing circumstances. According to Owumi and Sikiru (2013), the rational choice theorists presumes that choices made by individuals are the choices that best helps them to achieve their objectives, given all relevant factors that are beyond their control.

### Cost Benefits and Rational Choice

Many factors determine health seeking behaviors and choices to participate in prostate cancer screening among African American men. Cost is a factor that determines the choice in treatment for prostate cancer screening (Thorpe et al., 2013). Access to prostate cancer treatment is also constrained by cost. Lack of adherence to treatment guidelines and controversy surrounding practices of providers are challenges that affect the demand for prostate cancer screening (Shenoy et al., 2016). According to Purnell et al. (2015), individuals discount future rewards on immediate gratification rather than long term benefits. Tversky, Amos, and Dahneman (1986) noted that it may be effective to reframe the costs of screening as minimal and identify immediate benefits, such as the ability to prevent cancer.

In a study conducted by Vickers et al. (2013) on detecting prostate cancer antigen among men 40-55 years of age, the authors found that the cost benefit ratio strongly supported early PSA testing, early diagnosis, and appropriate treatment for African American men and selected populations, given the improved survival and disparity reduction. The AUA (2015) strongly recommended aggressive prostate cancer testing at the age of 40 years in the African American community to avoid increased prostate cancer health care cost, premature prostate cancer deaths and the reduction and elimination of racial disparities.

## Public Policy and Rational Choice

McCaughey and Bruning (2010) suggested that RCT assumes that with evidence based decision making, public policymakers have the knowledge to interpret, understand, and determine the validity of scientific evidence relevant to impact policy changes. According to Peters, Klein, Kaufman, Meilleur, and Dixon (2013), public policy makers play key roles in reviewing, recommending, and implementing policies that impact the public's health. Public policy makers can also support and promote health screening by providing information about the benefits and risk of unhealthy behaviors and the usages of preventive services.

Many factors determine health seeking behaviors and choices for prostate cancer screening made by African American men and this should be understood for improvement in the use of preventive screening. Perceived and actual quality of care provided at all levels of health care is major determinants of health outcomes and consumer's choices for treatment. According to Boudon (2009), choice and preference is also influenced by socioeconomic status, cost, and access. Desmond, Brubaker, and Ellner (2013) offered that individual behaviors are influenced by social, political, cultural and physical factors which may be beyond one's control. Many individuals make health decisions based upon health choices, which highlights the importance of understanding how decisions are made and determines whether or not it is possible to encourage individuals to do the same (Boudon, 2009).

Ajzen and Fishbein (1980) argued that behavioral intentions are a predictor of actual behavior. The relationship between perceived behavioral control and behavior suggests that individuals are more likely to engage in behaviors over which they have control (Joseph et al., 2014 cited in Lumpkin et al., 2015). Additionally, perceived behavior control represents an individual's past experiences, as well as, an individual's anticipated barriers and perceived obstacles associated with prostate cancer screening (Ajzen, 1991; Ajzen & Fishbein, 1980). The perceived behavior control for African American men regarding prostate cancer screening is their perception or relative degree of ease, difficulty, or perceived hardship associated with participation in the prostate cancer screening process. African American men also experience the influences of subjective norms and perceived social pressures of whether to participate or not participate in prostate cancer screening.

## Summary

Prostate cancer statistics show that despite policy interventions, under representation of African American men for prostate cancer screening remains a public policy issue. Health care choices and health seeking behaviors are motivated by individuals based on the best information they have and their perceived choices (Ghodsbin et al., 2014; Owumi & Sikiru, 2013). It is important to discuss gaps in literature about African American men's beliefs and what they need to know in order to make informed decisions about screening (Williams & Sallar, 2011).

Chapter 2 provides an overview of rational choices, cost benefits, prostate cancer, prostate cancer screening, and the health beliefs among African American men. Summing up these studies and overcoming barriers to prostate cancer screening is significant toward improving compliance among African American men. African

American men continue to be disproportionately underrepresented in prostate cancer screening. The literature review has illustrated that participation rates for African American men may be affected by many variables that include fear of diagnosis, distrust of the health system, and lack of knowledge concerning appropriate treatment plans. It is important to understand, from a public policy perspective, health-seeking behaviors that motivate African American men so that public health measures can be enhanced. This research will help fill these gaps by examining African American men's knowledge and beliefs regarding prostate cancer screening. Findings from the study may lead to public policies that can be address issues pertaining to access, education, and the affordability of health services for African American men. Chapter 3 includes the methodology and research design I used for the study. I also included protection of participants' privacy and confidentiality, data collection and interview protocol, instrumentation, and data analysis procedures in Chapter 3.

# Chapter 3: Research Methodology

The purpose of this qualitative case study was to explore beliefs among African American men about PSA screening, funding for screening, and the influence of the USPSTF in addressing the problem. Past research on prostate cancer screening has focused on controversy surrounding whether PSA screening is beneficial to all men such as whether all men should undergo PSA screening because of cost and possible complications of treatment options (Harvey & Alston, 2011). With African American men having the highest rate of prostate cancer in the world, and twice the incidence rate compared to non-Hispanic Caucasian men, prostate cancer screening among African American men is a public policy and health issue. It is important to eliminate these inequalities, which is one of the cornerstones of the U.S. Healthy 2020 objectives (Williams & Sallar, 2014). Exploring African American beliefs relative to prostate cancer screening may identify determinants in whether African American men seek education and treatment.

Chapter 3 includes a discussion of the research design and its rationale, the research questions guiding the study, participant/recruitment procedures, the role of the researcher, population and sample, sampling procedures, data collection, and analysis. This chapter will also include a discussion of instrumentation and strategies to establish reliability and validity. Finally, I will discuss measures taken to protect the participants and ethical considerations.

## Research Questions

The following research questions research questions guided my study on beliefs of African American men regarding prostate cancer screening:

Research Question 1: How do healthcare costs influence the decisions made by African American men to participate or not participate in prostate cancer screening?

Research Question 2: How, if at all, will public policies regarding prostate cancer screening affect beliefs held by African American men and the choices they make regarding the disease and the screening.

Research Question 3: How do African American men's health beliefs about prostate cancer influence their decisions regarding participation in prostate cancer screening?

## Research Design and Rationale

Limited studies on health beliefs of African American men and prostate cancer screening, funding for screening, and USPSTF recommendations have been conducted using qualitative and quantitative approaches. I used a qualitative method and a case study design. A qualitative research methodology is consistent with the purpose of this study, which was to explore the health beliefs of African American men about prostate cancer screening. Qualitative research methodology allows for the studying of people's lives under real-world conditions and represents the views and perspectives of individuals (Yin, 2014). Qualitative research is also useful in conducting in-depth studies of smaller populations and groups (Yin, 2014). Lastly, qualitative researchers seek to collect, integrate, and present data from a variety of sources: interviews, observations, and audiovisual recordings (Yin, 2014). Smith and Birtwhistle (2014) are among the authors who suggested the appropriateness of a qualitative design for exploring prostate cancer screening among African American men

I selected a qualitative case study design was selected as the methodology for this study. Yin (2014) noted that case studies are needed to understand complicated social issues. Case studies can refer to either a single or multiple case study that represents two types of case study designs (Yin, 2014). A case study gives researchers a holistic view of events. In comparison, an embedded case study can exist with single or multiple case studies. In a single case study, the researcher is focused on an issue or concern and uses one bounded case to illustrate the issue. In a collective case study, the researcher searches multiple cases to convey the issue. In addition, a case study approach can have a clear identity, such as a person, group, process, or activity (Yin, 2014). A case study is also an empirical inquiry that investigates a contemporary phenomenon within its real-life content, and addresses a situation in which the boundaries between phenomenon and context are not clearly understood (Yin, 2014). A case study is initiated when the researcher purposefully selects a case. One advantage of using a case study approach is that significant statements made by the participants are analyzed, and data can be gathered by spending a short period of time in the field (Yin, 2014). The results cannot be generalized, but through narrative description of the case, readers are able to learn from the research (Eisenhardt, 1989). Numerous approaches to qualitative research were considered for this study but not selected. Yin noted three other qualitative research approaches that could have been used for this study: (a) ethnographic, (b) grounded, and (c) phenomenological.

An ethnographic approach requires that the researcher observe the group over an extended period to understand the everyday life of the participants involved (Yin, 2014). This method was not selected because the intent of my study did not involve field research and investigating a specific culture. Instead, the purpose of this study was to investigate the beliefs of African American men regarding prostate cancer screening.

A second qualitative approach that could have been used was the grounded theory design. This approach provides a framework for studying concepts, explaining actions and processes, and the development of additional theories (Yin, 2014). My study was about exploring how real-life experiences influence health decisions and not about developing additional theories; therefore, this approach was not selected.

A third qualitative approach is phenomenological research. A phenomenological approach is used in studying a small number of subjects to gain insights into experiences and feelings associated with those experiences and to develop patterns and relationships of meaning related to those feeling (Yin, 2014). Although very closely related to ethnographic, this strategy was not selected because I sought to learn about themes from a specific culture and formulate explanations from participants' responses regarding attitudes, beliefs, and behaviors and not about participants' feelings.

## Role of the Researcher

I am a Registered Nurse administrator who works in the health care industry. My self-awareness of health beliefs and prostate cancer incidence confronting African American men have encouraged me to take a proactive approach and explore public policy issues confronting African American men. My role was to collect the data, analyze the data, and organize it into categories and themes. Yin (2015) proposed that researchers identify biases, values, and personal backgrounds such as gender, history, and culture, which may shape interpretations formed during the study.

For this case study, I employed purposive sampling of 20 African American men between 45-65 years who reside in the metropolitan city where the research was conducted. As the only researcher for the study, I identify culturally with the prospective participants as I am a part of the African American community. To establish research credibility, I prepared to report all personal and professional information that may affect participant selection, responses, data collection, analysis, interpretation, and conclusions (Yin, 2015). Due to my current working experiences with men who are at risk to develop prostate cancer, I was careful not to bring certain biases to this study. According to Creswell (2009), bracketing is the process in which individuals in research must set aside their personal experiences with the phenomenon of the study as much as possible. To minimize bias, the participants selected for the study were not from the healthcare organization in which I am employed.

According to Patton (2002), the credibility of the researcher is important in qualitative research as the person who is the major instrument of data collection and analysis. To remain objective, I was aware that my interpretation of what I hear or understand may or may not be what the participants meant during the interview process. My role as the researcher was to use member checking to ensure that what I hear, record, and wrote the intentions of the interviewees' responses. Member checking provided participants with an opportunity to correct errors and challenge what they perceived as wrong interpretations (Angen, 2000). I informed each participant at the beginning of each interview to ask questions for further explanations if they did not understand the questions proposed. As part of the member-checking process, each participant was provided with an opportunity to review the transcribed information for accuracy. I also informed each participant of his right to discontinue the study at any time, by informing the researcher by telephone or e-mail, without any problems.

Kaiser (2009) noted that qualitative case studies contain rich descriptions of participants, which makes confidentiality breeches and deductive disclosures a concern. Qualitative case study researchers may also encounter conflicts between conveying detailed accurate accounts of social issues and protecting the identity of individuals who choose to participate in the research (Kaiser, 2009). To preserve confidentiality and avoid misrepresentation of the participants, I took measures to ensure that observations and interviews were protected with privacy for the participants. Methods employed to ensure confidentiality and privacy included obtaining the participants' permission to audiotape interviews, removing participant identifiers such as last names and addresses, and use of pseudonyms in transcription of interview notes and audio recordings.

Yin (2014) also noted that interviews and observations are data collection tools that are commonly used in qualitative studies. I utilized semi-structured interview questions and responses from the HBM survey to obtain information about the health beliefs of study participants. Responses to the survey provided discussion points during the interview. During the interview sessions, I avoided bias by not discussing my own views or opinions. According to Patton (2002), interviewing is an effective approach to learn from individuals what they believe, how they think, and how certain issues affect their lives. Interviews afforded me with opportunities to ask questions, identify emerging themes, and clarify terms or responses on the HBM survey that were unclear.

## Methodology

### Population

The population for this study consisted of African American men between the ages of 45 and 65 who had not been diagnosed with prostate cancer and who resided in the large metropolitan city in the southeastern region of Michigan. This population was chosen because data from the United States Bureau of Labor Statistic (2014) indicated that the area has experienced economic hardship (e.g., unemployment rate 8.9%) over the last 5 years, and socio-economic status is a health indicator for wellness. There is also a high concentration of African American men in the city where the study was conducted who met the criteria for inclusion in the study.

### Sampling and Sample Procedures

I used a purposeful sampling approach for the study. Purposeful sampling added credibility to the sample because of the size of the population and the size of the potential sample. It is also appropriate because I focused my study on a specific group and purpose (Patton, 2002); however, this means the sample is not generalizable. Potential participants were informed of the study and recruited for the study via flyers (Appendix A) posted in churches and barbershops where permission was obtained from owners (Appendix B) in the city where the study was conducted. The first 20 potential participants responding to the flyer, meeting the criteria for the study, and completing the informed consent form were selected as the sample group. Interviews were then scheduled for these 20 participants.

## Recruitment

Pastors of local churches and local barbershop owners were contacted to gain permission to post flyers. Historically, during the era of slavery for African Americans the church provided a sanctuary for slaves and was a safe haven from inhumane atrocities (Griffith et al., 2011). As is currently the case, the church in the past provided leadership, promoted education, encouraged economic growth, and espoused political goals to advance African Americans. Additionally, the barbershop has always been a social structure for African American men (Griffith et al., 2011). The barbershop is a venue that operates as a central meeting place and informally creates a forum or opportunity for African American men to share ideas, communicate, debate, and gain information regarding politics, religion, relationships, and race relations (Griffith et al., 2011). The barbershop also serves as a safe venue where African American men can bond with each other to discuss controversial issues (Lumpkins et al., 2015).

Upon approval from Walden University's Institutional Review Board (IRB; 05-09-17-0016830), I posted recruitment flyers on bulletin boards at the local barbershops and church where permission had been granted. Recruitment flyers (Appendix A) contained the purpose of the study, criteria for inclusion in the study, and contact information for the researcher. The flyer also served as an invitation to participate in an approximately 30-minute, face-to-face interview to discuss health beliefs related to PSA screening for African American men. The flyer generated conversations that encouraged potential participants to join the study.

## Data Collection

I contacted and met with the pastor of my church and local barbershop owners with an outline of this proposal. I obtained signed letters of permission to post the flyers and distribute flyers at each establishment (Appendix B). Following IRB approval for the research proposal, I posted flyers and invited potential participants. Individuals contacting me and indicating a willingness to be a part of the study were sent an informed consent form either by mail or by e-mail attachment. The first 20 potential participants to complete, sign, and return the informed consent form became the study sample group. I then contacted each participant agreeing to be in the study and scheduled times and locations for interviews that were convenient to all parties involved. Interviews took place in a quiet room in the church or public library to allow for confidentiality and privacy during the interviews. The duration of the interviews was approximately 30 minutes. Information from the HBM survey was used to prompt participants' thinking and enhance discussions during the semi-structured interviews. Narrative descriptions (frequencies) from the survey are used as part of data triangulation.

I followed appropriate interview protocol. After introductions were given to make participants feel at ease, the participants were again informed that they may choose not to answer any of the questions and may withdraw from the study at any time without any problems. The primary source of data was from face-to face-interviews. According to Yin (2015), in a qualitative study in-depth interviews are the primary processes used in collecting data. Semi-structured interviews allowed the participants to speak openly and freely about what they view as important.

Data collection consisted of completion of a health beliefs survey, face-to-face interviews, field notes taken during interviews, and audio recorded interviews. All participants agreed to be audio taped so no additional interview time was needed to take notes or immediately member check. With permission from the author of the HBM survey (Appendix C), I edited the in the HBM survey instrument (Appendix D) to focus on health beliefs of African American men (Champion, 1984). Prior to submitting the proposal, the interview questions (Appendix E) were field tested using experts in the field, including a urology specialist. I conducted a field test to ensure validity and reliability of the interviews questions. Because of the field test, two questions were added and one question was revised.

After meeting with participants, introducing myself, and making the participants feel comfortable, I initiated the interviews. Participants were asked to complete the HBM survey (Appendix D). After completing the survey, I assigned participants an alphanumeric code to avoid using identifiable names and to protect confidentiality of participants and placed the code at the top right-hand corner of the survey. The code was also recorded as the first message on the audio recording, placed on the interview notes, and given to the participant. I informed participants that they may use the code to withdraw from the study should they decide not be a part of the study prior to the study being completed. I also used the alphanumeric codes as a way of keeping data organized as it was collected, in addition to using codes to protect the identity of participants. The interview questions (Appendix E) covered perceived benefits, perceived barriers, influence of costs and funding for screening on choices, and health motivation as it pertains to African American men and PSA screening. At the end of the interview, I provided each participants with a list of resources regarding prostate cancer screening. Compensation in the form of a $10 dollar Starbucks gift card was offered for completed participation in the study. I physically handed the gift cards to participants at the end of the interviews.

## Data Analysis

I analyzed data for the study using NVivo10© software. NVivo software supports organizing and analyzing data by identifying themes and patterns and based on key words identified. Once interviews were completed, I transcribed audio files and created individual transcripts for each participant. According to Creswell (2009), the plan of analyzing data might have several components. Data I collected and transcribed were read over and over and key words and phrases coded. After reading data, codes were developed into themes. I followed the four data analysis steps that Creswell (2009) identified. First, I organized and prepare data for analysis. Second, I read through all data to obtain a general sense of the information and the overall meaning. Third, I began a detailed analysis with a coding process. Coding is the process of organizing materials into chunks or segments of text before bring meaning to information (Yin, 2015). Fourth, after the themes had been developed, the results were analyzed and narrative was written to describe how the themes relate to attitudes and beliefs of African American men and prostate cancer screening.

## Validity and Reliability

In evaluating qualitative research, validity refers to the researcher's ability to check for the accuracy of by employing certain procedures (Creswell, 2009). In this study, I used member checking to enhance trustworthiness and credibility of data. Moustaskas (1994) contended that member checking helps to improve and ensure the validity of the study. According to Yin (2015), cross checking is based on whether two or more coders agree on codes used for the same passages in the text. I also called the participants and read various portions of their transcripts that I needed clarification on, and then asked the participants to confirm their responses if clarification was needed. Patton (2002) noted that the triangulation involves multiple data sources in an investigation to produce understanding. Specifically, in this study I triangulated data collected and transcribed from interviews, field notes taken during interviews, and data obtained from HBM survey to establish validity of data. I also used member checking to add validity to study findings.

## Data Storage

All written and electronic data were reported as aggregates and were stored in a password word protected computer secured and locked file at my residence when not being transferred or analyzed. Had there been a need to highlight a single response, the identification of the participant would have been concealed. I, as the researcher, have access to the participants' data. The findings and analysis of data collected from the study will be shared with the Walden University community. Data has been transcribed, encrypted, and saved on a data storage device(s). Data will be kept for five years and destroyed. Any paper files, not included in the dissertation, will be properly destroyed by shredding after five years.

## Protection of Human Participants

An obligation of conducting research is to protect the rights and welfare of the participants. Research participants were volunteers who gave their informed consent and were treated fairly and respectfully. Research participants were exposed to minimum to no risk. Research participants were advised that they could discontinue the research study at any time. Participants were also informed that their identities would not be revealed and that their responses were coded with alphanumeric codes to protect their identity.

## Summary

The purpose of my qualitative case study was to explore beliefs among African American men about prostate-specific antigen (PSA) screening, funding for screening, and the influence of the USPSTF in addressing the problem. The intent was to gain deeper insights into the how and why of decisions they make about participating in screening. A qualitative method and case study design were used to explore the research questions for the study. In qualitative study the researcher strives to explore and understand the meaning of individuals or groups ascribed to a social or human problem (Yin, 2014). Obtaining and understanding participants' beliefs and gaining their perspectives about prostate cancer screening is needed to address the research questions and understand what factors motivate prostate cancer screening among African American men. Also, included within this chapter is the research methodology, data collection procedures, rationale chosen to conduct this research proposal, and how the participant's rights would be protected. Furthermore, this chapter includes how the data collection instruments were chosen, the criteria that were used to establish reliability and validity, and an explanation of how the participants' rights were protected.

# Chapter 4: Results

The purpose of this qualitative case study was to explore beliefs among African American men about PSA screening, funding for screening, and the role of the USPSTF in addressing the problem. Discussions and public policy decisions, infused with an understanding of the beliefs held by African American men on prostate cancer screening, may lead to policies that can be cost effective and successfully implemented. The intent was to explore the beliefs among African American men about prostate cancer screening and to gain insight into the how and why they make decisions about participating in screening. I used rational choice theory for this study, which is also known as rational actor model, utility maximizing, public choice, and formal theory (Friedman, 1953). Chapter 4 is a detailed report of the data collection and analysis. Data were collected via semi-structured, face-to-face interviews using the Health Belief Survey Instrument (Appendix D). Data were analyzed using NVivo10$^{©}$ software to identify themes and patterns. In Chapter 4, I address the results of the study, central themes, and findings addressing the research questions.

## Setting

According to Creswell (2009) qualitative research does not typically require the researcher to bring the participants to a laboratory, but rather to meet them in their natural setting or environment where real time, face-to-face interaction can occur over a prescribed period. This was the case in this study, as all the participants were interviewed in person and face to face. Participants were given the option of meeting in a public facility, such as the library or the church to ensure convenience, safety, and confidentiality. The interviews took place in a mutually agreed upon area that was convenient for the participants. Eight of the participants were interviewed in the local library and 12 of the participants were interviewed in the church library. Participants did not exhibit any discomfort during the interview process. There were no conditions identified that influenced participants or their experiences at the time of the study that may have influenced interpretation of the study results.

## Demographics of Participants

The population for the study included African American men residing in a large metropolitan Midwestern city, who were between 45 and 65 years of age, and who had not been diagnosed with prostate cancer disease. A purposeful sampling approach was used for the study. Purposeful sampling added credibility to the sample because of the size of the population and the size of the potential sample. It was also appropriate because I had a specific purpose and looked at a specific group.

## Data Collection and Analysis Procedures

Data collection for this study took place after receiving an IRB approval number (05-09-17-0016830). All the ethical procedures, as required by Walden University, were followed throughout the study. Following IRB approval of the research proposal, flyers were posted in local churches and barber shops inviting potential participants for the study. The initial recruitment strategy involved meeting with the pastor of a local church and a neighborhood barbershop owner to provide a detailed outline of my proposal, discuss the significance of the study, and obtain permission to post flyers and use the church and barbershop as research sites.

Potential participants who contacted me and indicated an interest and willingness to be a part of the study were sent an informed consent form either by mail or by e-mail attachment. The first 20 potential participants to complete, sign, and return the informed consent form, and who met the criteria for the study, became part of the study sample group. Participants were contacted by phone to validate their eligibility to be a part of the study. Each phone call took 7 minutes and if the participant met the study qualifications it was agreed that a date, time, and location were to be established within 5 days. Each of the research participants understood that all information provided would remain confidential at all times. The consent forms also included this information, and I explained that only I would have access to all information provided.

I used an interview guide to ensure consistency in all of the semi-structured interview questions (Appendix E). Interviews took place in a quiet room in the church and public library to allow for confidentiality and privacy. Prior approval for the use of the facilities had been obtained. The duration of the interviews ranged between 30-45 minutes. Completion of the health belief survey scale took 10-15 minutes. The health belief survey was not scored, but the information from the health belief survey was used to prompt participants' thinking and enhance discussions during the semi-structured interviews. I used narrative descriptions (Appendix I) from the health belief survey as part of data triangulation. The appropriate interview protocol was followed. After introductions were given and participants were made to feel at ease, the participants were again informed that the study was voluntary; that they could choose not to answer all the questions, and that they could withdraw from the study at any time without any problems.

Prior to completing the survey, the participants were assigned an alphanumeric code to avoid using identifiable names and to protect their confidentiality. The code was placed at the top right-hand corner of the survey and interview notes. The code was also recorded as the first message on the audio recording and given to the participant. Participants were informed that they could use the code to withdraw from the study should they decide not to be a part of the study prior to the study being completed. Data collection consisted of face-to-face interviews, field notes taken during interviews, and audio recorded interviews. I took field notes that captured my observation of nonverbal cues and responses that stood out to me. All participants agreed to be audio-taped.

With permission from the author, I edited the Health Belief Survey instrument to focus on health beliefs of African American men. Before interview questions began, participants were informed that they would be asked to complete a health belief survey to understand their health beliefs and experiences and what they thought they could do to improve their health. The health belief survey was not scored but the information from the survey was used to prompt participants’ thinking and enhance discussions during the semi-structured interviews. Narrative descriptions from the health belief survey were used as part of data triangulation.

Participants were also informed that they could stop the interview process at any time if they were experiencing any discomfort from the survey questions or interview. The health belief survey consisted of structured questions with a Likert scale ranging from *somewhat agree* to *disagree* were first introduced to augment and triangulate the qualitative questions. There were 16 questions on the survey that were categorized into four sub-headings. Each participant was asked to rank their answers relative to their health beliefs. This technique triangulated the qualitative response, providing the opportunity to explore the deeper meanings behind the rankings. The written survey section captured the health beliefs of the participants that would be used to further compare their thoughts. Responses to the survey provided discussion points during the interview. Participants spent about 15 minutes completing the survey.

Prior to submitting the proposal, I tested the interview questions using experts in the field, including a urology specialist. I conducted the field test to ensure validity and reliability of the interview questions. Based on field test feedback, two questions were added and one question was revised. I began interviews in May, 2017 and continued for approximately 3 weeks until June, 2017. Interviews were audio-taped using an audio recording device, and I placed each interview on a separate recording cassette.

Each participant was informed of his right to discontinue the study at any time by contacting me by telephone or e-mail, without any problems. Participants were also informed that they could refuse to answer any question, and no explanation would be required of them. I began each interview by thanking the participants, explaining the background, and purpose of the study. Participants were also notified that minimal risk was involved, and the study had been approved by IRB. However, if they wished, they could discontinue the study at any time. I explained to the participants that they could contact me at the number listed in the consent form if they had additional questions regarding the study. None of the participants discontinued the interviews or refused to answer any of the questions. All participants were asked the same 16 semi-structured interview questions.  Respondents were reminded during the interview that there was no right or wrong answers to the questions.  I made sure to provide a short pause to allow the participants to complete their thoughts and answer questions.  Every attempt was made to assure that each question was answered fully.

After completion of the interviews I placed the participants' responses in a yellow envelope to assure confidentiality.  I asked permission of each participant to contact him if I found the need for additional clarity of their responses during the transcription and data analysis process.  All participants gave me permission to contact them by telephone if needed. The participants verified their responses during the interview when asked for clarification.  After transcription, there was not a need to contact the participants for further clarity.  At the end of the interview, I provided the participants with a list of resources regarding prostate cancer screening.  When the interview was over, I offered a $10 dollar Starbucks card for participation in the study.

Once the interviews were completed, audio files were used for transcription and individual transcripts were created for each participant.  I informed each participant at the beginning of each interview to ask questions for further explanations if they did not understand the questions proposed.  As part of the member-checking process, each participant was provided with an opportunity to review the transcribed information for accuracy.  Member checking provides participants with an opportunity to correct errors and challenge what are perceived as wrong interpretations (Angen, 2000).  After each interview, I entered the data into a Microsoft Access spreadsheet for storage until all the interviews were completed.  I transcribed each audio recording verbatim and saved it to an Access database on a password protected drive. The survey and interview results were confirmed with the transcript. The data collection phase presented no deviation from the plan as described in Chapter 3.

## Data Analysis

Data for the study were analyzed using NVivo10©, which is qualitative research data analysis software used in organizing and analyzing data by identifying themes, patterns, and key words. I used NVivo10© for Windows software to develop codes and capture emergent themes that were derived from the data and the RCT that was used as the framework in this study. I used inductive coding to put the data and themes together. NVivo 10© software is a product of QSR International, and a qualitative program used for coding. Use of the NVivo 10© software allows the researcher to increase data analysis abilities by reducing the time needed to code and organize large amounts of data produced from 20 interviews and related background information, and making interpretation and analysis more feasible (QRS International, 2012). The software was installed on a Microsoft Word notebook Version 10. Transcribed files were uploaded to the system and made available for coding and classifying.

I began data analysis by transcribing the audio recordings from each participant's interview and typed my field notes. The process of transcribing each interview and conducting a review of the audio recordings with the transcripts provided me with an opportunity to explore each individual's lived experience (Creswell 2009). I used the interview and surveys to gain an in-depth understanding of each participant's experiences. To manually code the research data, I read the transcripts repeatedly for clarity to become familiar with the narratives, to gain a general understanding of the data, and to identify themes in the data. I highlighted key phrases statements, and responses. Reading of data multiple times made it possible to obtain a general sense of the information and the overall meaning. A detailed analysis resulted in a coding process that helped to organize the materials and bring meaning to the information. I began to analyze and code the data by developing a list of significant statements about the influences of healthcare choices, cost and beliefs. I developed a list of non repetitive and non overlapping statements (Creswell 2009).

I used the coded data to generate common ideas that could be transformed into themes. To generate themes, I looked for reoccurring words, keywords and phrases, the context in which the keywords and phrases were used, and connected words and meanings to signify casual relationships (Creswell, 2009). Fifteen codes were initially created to show relevance, themes, patterns, and links from data generated from each interview. The codes were compared, contrasted, and then labeled **(**lack of knowledge, fear, not knowing, embarrassing situation, healthcare cost, minimize stigmas, health beliefs, masculinity, shame, perception of screening, public policy, harms, benefits, government role, decision to participate, decision to not participate, barriers to preventive screening). The developed themes allowed for analysis and the written narrative of the results to describe how the themes related to beliefs, cost and health choices of African American men and prostate cancer screening.

Finally, I examined the themes for meaning, the lived experiences of the participants, and the relationships of the themes to the phenomenon of prostate cancer screening beliefs and to the research questions. This was critical to explaining the phenomenon being studied. During this step, I was able to engage with the data and de-bracketed to interpret the data. I explained all the data and connected the results and themes with the literature reviewed and the RCT theoretical framework in Chapter 2.

Detailed themes were further compared and contrasted in a constant review of logical relationships and patterns as part of the ongoing analytic process, comparing and contrasting themes within and across groups. Using a *constant comparison method* helped detect similarities and differences in the data (Glaser & Strauss, 1967). Subcategories were then analyzed and critically reviewed before being placed into larger thematic groupings showing the relationship between the three themes and patterns established from the coding process. The codes were linked with the research questions (Appendix F). I identified three categories as themes to manage the large amounts of data that was collected:

(1) Health Care Cost Influence Decisions to Participate or not Participate,
(2) Health Beliefs, Health Choices and Stigmas Impact Decision Making and
(3) Public Policy and Government Involvement with Supporting Prostate Cancer Screening Policies are Important.

Coded data were reviewed for accuracy and examined for links to other codes. This axial coding connected code categories and identified relationships between codes that are suggestive of themes (Strauss & Corbin, 1998).

## Research Questions

The study was guided by three research questions:

Research Question 1: How do healthcare costs influence the decisions made by African American men to participate or not participate in prostate cancer screening?

Research Question 2: How, if at all, will public policies regarding prostate cancer screening affect beliefs held by African American men and the choices they make regarding the disease and screening?

Research Question 3: How do African American men's beliefs about prostate cancer influence their decisions regarding participation in prostate cancer screening?

## Themes and Findings

The discussion in this section provides an overview of how the responses to the interview questions provided information to answer the research questions. Themes are provided throughout the discussions and supported by direct quotations from the participants to provide rich details. The original themes and concepts are a general representation of the choices and beliefs of African American men interviewed for the study. Table 1 categorizes some of the individual responses from the men generating 15 themes that were initially developed from the interviews. I placed the responses to each of the interview questions in a node container that related to each of the three research questions.

Table 1

*Common and Overlapping Themes*

| Original Themes | Key Word Themes | Combined Themes |
|---|---|---|
| Lack of Knowledge | Lack of education; know nothing about prostate cancer, not being educated, no knowledge, symptoms, prevention. recommendations, prevention. | Public policy and government involvement with supporting prostate cancer screening policies are important. |
| Fear, Not Knowing | Afraid, scared and do not want to know. Life expectancy, Worry, life-style may change, anxiety. | |
| Health Care Cost | Free screening, no cost, no health insurance, finances, affordable, access, not having a job, no time to go to the doctor, financial strain. | |
| Minimize Stigmas | Perceptions of screening, Personal sanity, anal stuff. | Health beliefs, health choices and stigmas impact decision making. |
| Health Beliefs | Anxiety, psychological affects, family first. | |
| Masculinity | Decreased sexuality, macho, impotence. | |
| Shame | Ashamed, embarrassed, low self-esteem, back door. | |
| Perception of Screening | Saved uncle, good, saves lives | |
| Public Policy | Barriers to early detection, Advocate, Access, Government, confusion, do not know who is right or wrong, who is really telling the truth, over-diagnosis. | |
| Harms | Perforation, bleeding, sterility, finances, cost, psychological effects, costs, now money | |
| Benefits | Save my life, have more information, live longer, early treatment, good for my health | |
| Government Role | Health insurance, insurance, provide money. | |
| Decisions to participate | Live longer, family responsibilities, role model for son and nephews | Healthcare influences decisions to participate or not participate. |
| Decisions to Not participate | Fear, pain, avoiding needles embarrassing moments, no money. time constraints | |
| Barriers to Preventive Screening | Health insurance, finances, cultural beliefs | |

I narrowed the emerging themes down to three that were directly related to the three research questions. I followed Braun and Clarke's (2006) three general steps in thematic analysis, tailored to match my study: (a) I broke down the body text from the interviews; (b) I examined and explored the text; and (c) I combined overlapping findings after the exploration. Once findings were categorized in the various nodes, I was able to identify the predominant themes that reoccurred in at least 100% of the responses. I then coded and developed each concept as a theme where findings from data analysis represented the majority of the respondent's views on the particular research questions (Table 2).

Table 2

*Emerging Themes*

| Themes | Participants | Percentage |
|---|---|---|
| Healthcare cost influences decision to participate or not participate | 20/20 | 100% |
| Health beliefs, health choices, and stigmas impact decision making | 20/20 | 100% |
| Public policy and Government involvement with supporting prostate cancer screening policies are important | 20/20 | 100% |

## Research Question 1

Research Question 1 asked, *How do healthcare costs influence the decisions made by African American men to participate or not participate in prostate cancer screening?*

Interview questions 5, 11, 12, and 14 were used to help answer this research question. Interview question 5 related to various reasons why African American men would choose to participate or not participate in prostate cancer screening. Interview question 11 related to influences of prostate cancer screening on African American men and whether free or affordable screening would change their feelings or opinions about prostate cancer screening. Interview question 12 related to whether or not African American men believed that healthcare cost shaped their choices to participate or not participate in prostate cancer screening. Interview question 14 related to participant's decisions to consider screening.

When responding to interview question 5, which asked, As *an African American man, why would you choose not to participate in prostate cancer screening*?, 13 (65%) of the 20 participants indicated that they would choose to participate in screening, echoing Participant #11's response: "I would always participate, that is no longer an option." Lack of knowledge, fear, and embarrassment were reasons given by 6 of the 20 participants for choosing not to participate in screening; one participant did not respond to this question.

When responding to interview question 11, which asked, *How would a public policy mandating free or affordable PSA screening change your feelings and opinions about prostrate screening?* Participants #1, #9, #13, and #18 indicated that a public policy would not change their feelings or opinions about screening, 15 of the 20 participants (75 %), however, indicated that their feelings and opinions would change.

Participant # 10 stated, "My feelings would change a whole lot." Others shared similar responses.

Participant #11 said, "Free screening, if done properly can be beneficial to all…" and Participant #12 indicated that "[It would], make me become more involved and provide more participation." Participant #17 stated, "If it's out there more people would participate for their personal sanity. More people would also tell others. Men talk to men about all kinds of stuff, however, men do not want to disclose information about a prostate exam." Participants #3 and #5 agreed and suggested that, "If they [the government] were to provide funding for screening at no cost it would be beneficial; everyone would get tested, some cannot afford to be screened due to insurance concerns and lack of coverage." Participant #7 stated that [perhaps] "Policies could make it where men should not be charged." Participant #8 also shared that "If there was a public policy mandating, I would consider being an advocate for prostate cancer screening."

When responding to Question 12, which asked *How does healthcare cost shape your choice to participate or not participate in prostate cancer screening?,* 18 of the 20 participants (90%) indicated that cost impacted their decision in a number of ways. Participant #13 shared that, "By having insurance, this provides me with a choice to go or not to go." Participant #17 stated that, "Cost impacts my decision a lot. If people are worried about their income, living, and eating- they may not think about their health." Participant #19 stated that, [health care cost shaped my choice] "Very much. Money spent, co-pays, time off, damage earning potential."

Nine of the 20 participants indicated that cost did not make a difference in their choice to participate; for five of the nine, costs did not matter, because as Participant #8 stated, “I have health insurance, so I do not worry too much about it.” Participants #16, #11, #14, and #6 agreed, responding with very similar answers.

Question 14 asked, “*What would prevent you from participating in prostate cancer screening?* Five of the 20 participants suggested that *cost and affordability would* prevent them from participating in screening. Participant #8 stated, “No insurance and if I had to pay out of pocket that might prevent me from participating.” Participant #9 said, “If I could not afford the screening, I would not participate.” Participants #8 and #9 echoed the opinions of seven other participants. Fifteen of the 20 participants stated that nothing would prevent them obtaining screening. A repeated theme was participants’ concerns about cost and participants’ opinions that screening was important and participation should not be considered as an option. Several participants narrated challenges faced by other men and families they were acquainted with who were unable to obtain prostate cancer screening because of cost. According to most of the participants, only those who can afford to pay, or have some form of insurance coverage, will get the screening.

Equally important to note is most of the participants voiced that cost is largely associated with African American men’s motivation to participate in prostate cancer screening. Additionally, many of the participants voiced the need for policies to be implemented so that low cost screening and equal access could be provided to all men. In addressing research question 1 the major theme that emerged was Healthcare cost influences decisions to participate or not participate.

**Research Question 2**

Research Question 2 asked*, How, if at all, will public policies regarding prostate cancer screening affect beliefs held by African American men and the choices they make regarding the disease and the screening?* The emerging theme for research question 2 was public policy and government involvement with supporting prostate cancer screening policies is important.

Interview questions 10 and 11 provided most of the data to answer this research question. Interview question 10, which related to the influences of government and policy makers regarding decisions to be screened, asked, *"In your opinion, is there a role for government and policymakers to play in your decisions regarding screening?* Participant #2 said, "Yes the government could provide more funding to get the word out." Participant #3 responded, Yes, if they are going to make it mandatory. However, government does not have the right to force you. They can provide public announcements and screening should be readily available." Particpant#4 stated, "Yes, government can provide more free testing centers that are accessible. Provide transportation to screening facilities while being conscious of the time and location for African American men." Participant #6 stated, "Yes, I think that government should highlight portions of the exam, such as screening only takes seconds. Government can also minimize stigmas associated to the exam. Men are afraid and do not want to know that they may have prostate cancer." Participant # 7 expressed sentiments along the same lines, "Yes, if you have medical coverage, if you work and do not make money, that's a bill and it may cause financial distress. Government should attempt to minimize stressors through financing free screening. Also there are a lot of men without healthcare, ultimately this causes more bills." Participant #14 indicated, "Not, really, because I am more concerned about my health, people do not know or care about anything else regarding the government right now." Participant #14, however, felt that, "Government can minimize stigmas associated to the exam. Men are afraid and do not want to know that they may have prostate cancer." Participant # 19 stated that, "Government would be involved with understanding the barriers and engage the African American men population. Government could also bring private corporations into the picture and set up role models." Participants # 2 and #4 indicated that government involvement would "Provide a better understanding to all men; it would provide knowledge and more information to men." Participant #20 indicated, "Yes. Only as it relates to finding out the causes and making it possible for others to have screening if they cannot afford to have screening."

When responding to interview question # 11 *How would a public policy mandating free or affordable PSA screening change your feelings and opinions about prostrate screening?,* Participant #20 replied, "I do not know if it would change my personal opinions, it would be great for those who could not afford to have screenings." Participant #2 said, "My feelings would change a lot. A start would be reaching more young men before it is too late." Participant #4 indicated, "Free screening or affordable screening would make me become more involved and provide more participation." Participant# 18 stated, "If there was a policy mandating, I would consider being an advocate for prostate cancer screening." Participant #11 indicated, Government would be involved with understanding the barriers and engage the African American men population. Government could also bring private corporations into the picture and set up role models." Participant #6, stated, "Research can be provided, pass laws with funding for research, provide public literature and messages throughout." Participant # 8 stated, "Yes, government can make prostate screening more affordable like breast cancer screening."

Ninety-five percent of the participants expressed a need to have public policy initiatives and government support to promote the awareness of prostate cancer screening for the African American population. In addressing research question #2, public policy and government involvement, needed to support prostate cancer screening policies emerged as a core theme.

### Research Question 3

Research question 3 asked, *How do African American men's health beliefs about prostate cancer influence their decisions regarding participation in prostate cancer screening?*

Interview questions 3, 8 and 13 were used to address this question. Interview question #3 addressed whether or not African Americans believe that it is important to know about prostate cancer? Interview question #13 addresses whether or not health beliefs affect choices to participate or not participate in prostate cancer screening. When responding to Interview Question #3, *Do you think/believe that it is important for you to know about prostate cancer*? Participant #2 responded, "Yes if there is a family history it is especially important and you need to follow-up." Participant #3 responded, "My knowledge of prostate cancer should be increased to benefit myself and my son." Participant #7 responded, "Yes, because prostate cancer affects so many African American men." Participant #8 responded, "Yes, because I am an African American male." Participant #10 stated, "Yes, any *cancer early can have a* higher cure rate than others. If you want one this is the one to have because it is treatable." Participant #13 replied, "Yes, it is important, I do not want to leave here early." Participant # 20 indicated, "Yes, it is a cancer that males get and it is more prevalent in African American males, and I am at that age where African American men are diagnosed with prostate cancer**."** When responding to Interview Question #13**,** which asked*, How do your beliefs or concerns about prostate cancer screening affect your choice to participate or not participate in prostate cancer screening?* Participant #2 stated, "It's the choice of an individual, to not know, it's like signing your own death certificate." Participant # 6 stated, "My beliefs are to participate and be screened. Prevention is the key." Participant #7 replied, "Not so much beliefs, but concerns. If possible, I will be screened- but I will have to think about if first." Participant #9 stated, "My beliefs are important. I have a family history. I have also seen the success of screening and radiation treatment such as the case of my brother. My brother is doing well. Being aware through early detection is important." Participant # 11 stated, "I understand healthcare. I must be proactive, think about family, self, teach African American men, engage and educate everyone." Participant #13 answered, "Beliefs do not play a factor. My spirituality is a part of the bigger."

Question # 8 asked, *Why do you think that a great number of African American men do not want to get tested for prostate cancer?* Participant #1 replied, “I guess they do not love themselves.” Participants #2, 9 and 13 stated, “Because it is painful and no one wants someone digging in the “back door.” Participant # 3 stated, “Embarrassed of the procedure, overly concerned about the rectal exam and fear of choosing the wrong doctor. You have to be comfortable with the doctor performing the test.” Participant #5 indicated, timing does not allow for testing and there is also a lack of knowledge on our end.” Participant #6 stated, “This is a violation to them. Not being educated or informed. Screening procedures can be dehumanizing.” Participants #7, 10 and 18 stated, “They would rather not hear the bad news or would prefer to deal with it when it comes. Do not want pressure when they cannot be in control of it.” Participant #11 stated, “There are two sides. Digital rectal exam causes fear and masculinity [issues]. They are vulnerable. Culture also plays a role; a lot of African American men are not knowledgeable about their health.” Participants #12 and 15 stated, “African American men are afraid and have fear of the unknown.” Information from the HBM survey indicates that 84% of participants shared the opinions expressed by participants #12 and 15. Further, over 78% of participants indicated on the survey that they were not afraid of having the screening done based on whether or not they understood the result.

When responding to Interview Question #16 which asked, *What would you say was the single most memorable aspect of the statements on the health belief survey and Why*? Interview question # 16 helped to address the most significant aspects of the health belief survey that the participants believed were top priorities in their lives. Participant

#2 stated, “All are important, however what sticks out is ‘I am afraid to have a prostate cancer screening because I might find out something is wrong.’ I believe that this is how the majority of African American men think.” Participant #2, 3 and 20 stated, “Maintaining good health is extremely important, and I want to be around for my family.” Participant #1 and 12 indicated that health motivation was significant because it allows for one to discover health problems early. Participants #17 stated, “When I participate in prostate cancer screening I do not worry much about prostate cancer because I know that if something is found there is treatment available.” Participant #19 agreed. In addressing research question 3 the theme that emerged was “Health beliefs, health choices, and stigmas impact decision making”. This theme was further supported by finding from the HBM Survey. Although the survey was not scored and used only as a way to help prompt participants’ thinking and enhance interview discussions, findings from the survey helped to triangulate data from the study.

## Evidence of Trustworthiness

Trustworthiness in this study was established by the development of credibility, transferability, dependability and confirmability (Creswell, 2012). During the interview process I remained non-biased when listening to the participants. I established credibility by making certain that all of the salient issues were identifiable; for example, ensuring that interviews with participants were not interrupted and did not end abruptly or prematurely. I also developed notes and themes to maintain credibility. Additionally, I used direct quotes from participants, systematically coded each interview and developed themes. Secondly, member checking was performed with the participants in order to provide accuracy of the transcripts. For example, participants were contacted after the interview, and transcripts were read and reviewed for accuracy. Additionally, I utilized unidentifiable fictitious names for the participants and protected the participants' privacy by password protecting, storing and locking data in my home office.

Transferability is the level to which individuals have the ability to generalize the results within their own context (Yin, 2012). In qualitative studies, however, transferability is the responsibility of the individual seeking to transfer the findings to a different situation or population, rather than that of the investigator of the original study (Yin, 2012). It is important to note that no generalization is being attempted in this study due to the small sample size.

Dependability was maintained by putting the data into different formats, as well as using NVivo10© software to help establish codes and themes for my analysis. Consistent research methods were utilized throughout the study so that other researchers can replicate and perhaps expand on the study. Bracketing was used to separate my personal views from the perceptions of the participants during the data analysis process. There was no conflicting interpretation of the data or coding schemes, because I was the only researcher and transcriber for the study. Triangulation of different data sources and collection methods were also utilized. The data sources and collection methods used in this study include in-depth interviews, field notes, previous research studies and interview guides, to ensure the consistency of the interviews

Confirmability was enhanced by checking and rechecking the data throughout the study. I also listened to the audio recorded interviews of the participants multiple times.

The responses were transcribed verbatim, based on what was provided by each research participant. According to Yin (2015), cross checking is based on whether two or more coders agree on codes used for the same passages in the text. Cross checking was not used in this study as there was no other researcher involve. I used member checking to enhance trustworthiness and to add validity and credibility to the data. Moustaskas (1994) contended that member checking helps to improve and ensure the validity of the study. After transcription of data, member checking was used, whereby the participants were contacted so that they could review the transcripts for accuracy. Various portions of the transcripts, that may have needed clarification, was read to participants and then participants were asked to confirm their responses if clarification was needed. Patton (2002) noted that triangulation involves multiple data sources in an investigation to produce understanding. Specifically, this study used data collected and transcribed from interviews, field notes taken during interviews, and data obtained from Health Belief survey to support validity of data. The questions from the HBM instrument were edited in order to specifically focus on health beliefs of African American men. The HBM was not scored, but the information from the HBM was used to prompt participants' thinking and enhance discussions during the semi-structured interviews. Narrative descriptions from the HBM are used as part of data triangulation.

## Discrepant Cases

According to Creswell (2009) discrepant cases are variations in the data and an active search for disconfirming evidence is essential to analysis rigor. In other words, I looked for ambiguous cases and responses contrary to what was found in the literature. I also searched for differences and opposing positions among the participants individual and aggregate responses. Finally, a search for inconsistencies in the participant's responses was conducted. If a participant gave one response to an interview question, and gave a contradictory response in another interview question, for example, this would be considered a discrepant case and inconsistent. In addition, if one or two participants out of the 20 provided answers that none of the others provided, these answers would then be considered discrepant cases. No discrepant cases were found among the participants.

## Summary

The purpose of my study and a review of the research questions are presented in Chapter 4. This chapter also contained the data collection and analysis process as described in Chapter 3. There were no deviations in the data collection and analysis between the chapters. The main sources of data for the study were from in depth interviews with 20 African American men who had not been diagnosed with prostate cancer. The thematic analyses of the processes used to obtain the results for the study are also included in this chapter. The results and findings of my study and a detailed interpretation of the findings, as it relates to the literature reviewed and the conceptual framework, are provided in Chapter 5. Chapter 5 contains limitations of this study, recommendations for action and further research, and implications for social change as a result of this study. My experience as the researcher and a conclusion of all five chapters are also provided.

# Chapter 5: Recommendations and Conclusions

The purpose of this qualitative case study was to explore beliefs among African American men about PSA screening, funding for screening, and the role of the USPSTF in addressing the problems related to prostrate screenings in the African American community. Discussions and public policy decisions, infused with a deeper understanding of the beliefs held by African American men on the issue of prostate cancer screening, may lead to policies that can be cost effective and successfully implemented. Although many studies associated with prostate cancer screening have been identified, it is unclear whether available research represents African American men, as well as what motivates their decision to participate or not participate in screening (Glen et al., 2012). The intent was to explore the beliefs among African American men about prostate cancer screening and to gain insight the decisions they make about participating in screening. Chapter 5 contains the interpretation of results, implications for social change and the limitations of this study. This chapter also includes recommendations for action and further research, a discussion of my experience as the researcher, and a conclusion of the study.

## Demographics of Participants

The population for the study included African American men residing in a large metropolitan Midwestern city, who were between ages 45 and 65, and who had not been diagnosed with prostate cancer disease. I used a purposeful sampling approach; purposeful sampling added credibility to the sample because of the size of the population and the size of the potential sample. It was also appropriate because I studied a specific purpose and group.

## Data Collection and Analysis Procedures

Data collection for this study took place after receiving approval from Walden University's IRB. All ethical procedures, as required by Walden University, were followed throughout the study. Following IRB approval of the research proposal, flyers were posted in local churches and barber shops inviting potential participants for the study. The initial recruitment strategy involved meeting with the pastor of a local church and a neighborhood barbershop owner, to provide a detailed outline of my proposal, discuss the significance of the study, and address questions. Permission was granted for flyers to be posted in the church and barbershop.

Potential participants who indicated an interest and willingness to be a part of the study were sent an informed consent form either by mail or by e-mail attachment. The first 20 potential participants to complete, sign, and return the informed consent form, and who met the criteria for the study, became part of the study sample group. Participants were contacted by phone to validate their eligibility to be a part of the study. Each phone call took 7 minutes, and if the participant met the study qualifications, it was agreed that a date, time, and location for an interview were to be established within 5 days. The recruitment process ended when 20 participants committed to participate in the study. Two days before their interview, participants were contacted as a reminder to confirm the date, time, and location of the interview. Consent forms were signed prior to appointments being made. It was my intention to gain insight and add substance to literature used by policy makers in providing quality care and support for African American men. The study was inductive and expanded on the knowledge of African American men's beliefs by highlighting the meaning and importance of their voices (see Creswell, 2009). A qualitative method and case study inquiry design were appropriate to capture the voices of this population in a way that policymakers might hear it.

## Findings

Key findings from the study included:

1) Healthcare coverage and cost were problematic for African American men and hindered their decision to participate in prostate cancer screening. Access to prostate cancer screening by African American men is hindered due to affordability.
2) Public policy can play a role in the effective implementation of strategies to increase preventive services, including prostate cancer screening, when attention is given to how cultural differences and societal factors such health beliefs, health choices, and stigma impact decision making on this issue.
3) There is a consensus that the mixed messages released by the USPSTF (government) and primary care providers, regarding the need to have prostate screening create confusion for African American men. A comprehensive communication strategy (government facilitated) that is culturally appropriate and tailored to meet the needs of African American men is warranted for fostering acceptance and uptake of prostate cancer screening.

The results and findings from the face-to-face interviews and the HBM survey narrative summary (Appendix I) illustrate that the decision to participate in prostate screening for African American men is hindered due to concerns about access, cost, and affordability. Ensuring access, especially to the African American populations, is an essential component of a prescription for successful implementation. The findings are consistent with results of studies examined in Chapter 2. These findings resulted in three major themes:

- Theme I: Healthcare costs influence decisions to participate, or not participate, in prostate cancer screening.
- Theme II: Health beliefs, health choices, and stigmas impact decision making.
- Theme III: Public policy and government involvement supporting prostate cancer screening policies are important.

## Interpretation of Findings

I explored the beliefs of African American men and their decisions to participate in prostate cancer screening, funding for screening, and the influences of the USPSTF in addressing the problem. The results of my study contribute to the body of knowledge in the southeastern portion of Michigan about prostate cancer screening participation rates among African American men 45-65 years old who live in Michigan.

Through the review of the literature, participant interviews, and narrative from the HBM survey (Appendix I), key themes emerged and provided insight to address the interview questions. In the literature review, I sought to describe health care beliefs, cost and influences of the USPSTF as it relates to African American men and prostate cancer screening. Findings from my research study also illuminate factors that may influence or hinder African American men to participate in prostate cancer screening and evaluate the rational choice theory for determining how choices are made in regard to costs and benefits. Building on the findings in the literature review and the participants' interview responses, I explored health beliefs, rational choices, and cost. My goal was to further explore the determinants of prostate cancer screening among African American men between 45-65 years of age and to identify factors that may hinder or facilitate participation in prostate cancer screening and to inform public policy makers to increase funding for prostate cancer screening.

In this section, the results of my study are interpreted based on the scholarly literature presented in Chapter 2 and participants' responses. Findings from my study confirm and extend previous literature addressing prostate cancer screening beliefs among African American men. My study confirms that in Michigan prostate cancer screening beliefs and participation need to be addressed with special consideration for reducing disparities among African American men (see Rundle, 2013). Additionally, to a limited extent, my study confirms the importance of knowledge and awareness. Detailed attention is not only needed for the quality of the information provided, but also the channels through which this information is transmitted. I present an analysis of themes relating to the three research questions in Chapter 5:

### Theme I: Healthcare Cost Influences Decision to Participate or Not Participate in Prostate Cancer Screening

Cost is a significant barrier to participation in prostate cancer screening. As described in Chapter 2, cost posed barriers to participation in prostate cancer screening among African American men. Funding for prostate cancer screening is limited, and in some cases nonexistent. Affordability and access to screening, for example, are influenced by factors such as insurance coverage and availability of screening programs. The results from my study are consistent with other studies (see Antwi, Tucker, Coker, & Fleming, 2013; see Cerimajic, 2013), which confirmed differences in prostate cancer morbidity and mortality experienced by certain groups, especially African American men and those of low socioeconomic status. Cerimajic (2013) further indicated that ethnic differences and socioeconomic factors have major impacts on cancer diagnosis and treatments. For example, different cultures have different belief systems and socioeconomic influences will guide how much and the quality of health care a patient can afford.

Lack of health insurance and cost were barriers preventing many of the African American men from participating in prostate cancer screening. Once an individual is screened for or informed about prostate cancer, significant financial and personal time investment is often necessary to address the problem. Results from my study and the literature review collectively showed that the rising cost of healthcare is impacting the federal and state government, creating disparities. An illness or disease may affect society, for example, not only as related to services to treat the illness, but also through the loss of an individual’s contribution to his or her family and society over his or her lifetime, due to having the illness (e.g., cost-benefit analysis). According to Zondervan et al. (2013), the ACA is expected to improve access to individuals by reducing the number of uninsured. Many participants stated that lack of insurance is a problem if an individual does not have work-sponsored health plans. This finding was similar to that of Garg, Raisch, Selig, and Thompson (2013), who determined that African American participants who had difficulty accessing quality health care are unlikely to have a prostate cancer test. In addition, the authors noted that low socioeconomic status and race also influences treatment and survival rates. For example, African American disparities in prostate cancer are linked to barriers of poverty (access to care) and health insurance. In another study conducted by Shenoy, Packianathan, Chen, and Vijayakumar (2016), when comparing men over the age of 50, only 81% of African American men are likely to have health insurance compared to 90% of Caucasians.

Unfortunately, low-income and minority populations suffer a disproportionate share of the burdens. According to Healthy People 2020, disparities in prostate cancer persist among African American men. Participants in my study reported a range of explanations. Socioeconomics (income), insurance coverage, and access to care were frequently echoed. An individual can infer that having health insurance or coverage of preventive services among this population is likely to positively influence use of prostate cancer screening. Within the United States, and especially within the African American community, there is a crisis in lack of health care coverage and access to treatment.

While it is true that prostate cancer screening is a preventive measure, the actual expense of attending screening includes education and counseling; whereas the ACA has yet to determine the actual cost. Public policy makers and the medical community acknowledge that the economic impact of prostate cancer screening is high, but defining direct cost can be difficult. It may be effective to reframe the costs of screening as minimal and identify immediate benefits, such as the ability to prevent cancer, as noted by Tversky, Amos, and Dahneman (1986). Thorpe et al. (2013) suggested that estimating the financial cost of preventive care may assist policy makers and legislatures in allocating resources and creating policies that address disparities. The burden of prostate cancer diseases is considerable and has substantial direct and indirect costs, both to the individual, families and society. Medical costs and loss of productivity, for example, pose a burden and affect the health of our nation. Also, the state of democratic capitalism has always been torn between the two conflicting principles of resource allocation, which involves balancing cost and social needs.

Prevention programs can assist the government in addressing the growth in healthcare treatment costs for Medicare, Medicaid and private health care plans (Garg et al., 2013). Investing in disease prevention not only saves lives, but also produces a return on investment. Williams and Sallar (2014) noted, because African Americans have a 2.4 times greater mortality rate and risk of metastatic disease than Caucasian men, it would be wise to eliminate this disparity and save the prostate cancer health system dollars.

## Theme II: Health Beliefs, Health Choices, and Stigmas Impact Decision Making

Choice is also influenced by cost, income, lack of information, and the difficulties men have in assessing preventive screening. Beliefs about health, as well as an individual's health practice and behaviors, are affect decision making at different levels. I employed the RCT framework to guide exploration into factors that might hamper or facilitate the decision to participate in prostate cancer screening. Sly et al. (2012) explored the relationship between health beliefs and health choices among African American men and found that most men at risk for noncancer screening behavior have barriers to prostate cancer screening. The barriers included lack of awareness and knowledge, limited education and resources, negative beliefs and fears, socioeconomics, and healthcare disparities. My research findings also identified barriers, as 100% of the African American men interviewed verbalized that their beliefs about prostate cancer screening were influenced by factors that were similar to African American men of all ages, such as guilt, embarrassment, fear, anxiety and intrusion.

Overall, there was a high level of embarrassment with the prostate cancer digital rectal exam, which supports earlier research (Cristancho, Peters, & Garces, 2014). The majority of participants described feeling as if they were violated. Depicting prostate cancer screening as a negative experience carries with it a social stigma associated with decreased masculinity and feelings of shame. Results of my study further support previous research, which indicates that stigmas associated with a rectal exam may pose barriers to participation in prostate screening among African American men (Machado et al., 2013). The results of my study offer insight into the determinants of health choices and decision making within the context of prostate cancer screening.

One can assume that an insufficient understanding of prostate cancer and prostate cancer screening has some bearing on African American men's beliefs. As evidenced in my study's results and the literature review, an African American man's opinion of the screening exam positively correlates to decision making to participate in prostate cancer prevention efforts. An individual can infer that a person's ability to understand disease risks relies heavily on knowing about prostate cancer and the disease process. The myths and stigmas associated with the digital rectal exam have perpetuated shame and fear among African American men and discouraged participation in prostate cancer screen programs. By discussing the identified barriers (e.g., life-style, support systems, values concerning health and illness) that contribute to the high rates of diseases among African American men, stigmas can be shifted away from individuals and the health care community and public policy makers can assume more responsibilities for addressing the disparities. The value and importance of education and information for preventive efforts are equally important to personal decision making.

Consistent with Consedine, Tuck, and Fiori (2013), the findings of my research revealed that trust has been found to be very important to African American men in regard to beliefs and health seeking behaviors. Understanding how these trusting relationships work would be crucial for health care, and educators who work with African American men. I also found that African American men could benefit from receiving support, and spending time with others, when developing and maintaining these relationships. Additionally, consistent with Consedine, Tuck, and Fiori (2013), I found that when developing interventions for African American men more emphasis could be placed on addressing cultural myths and decision-making strategies. In another study Dean et al. (2014) found that prostate cancer screening initiatives promoted in community settings are effective ways to promote discussions among African American men and develop trusting relationships in prostate cancer screening discussions. Ross and Hall (2014) suggested that the intention to undergo prostate cancer screening and develop trusting relationships is higher if it is recommended by a physician during the shared decision-making process. These findings also support the significance of physicians understanding what is meaningful to African American men while taking into consideration personal attributes which influences the development of trusting relationships. In addition, community based interventions delivered by African American health educator in a church setting is a feasible strategy for developing trust among African American men and improve health outcomes (Consedine et al., 2013).

### Theme III: Public Policy and Government Involvement with Supporting Prostate Cancer Screening Policies are Important

There is some evidence that policy ambiguity exists. There are arguments in support of and against each of the policy options (USPSTF, 2012). Results of my collected data illustrate that prostate cancer prevention is an issue of importance among African American men. One can infer that the costs of health insurance or the cost of preventive services among African American men is likely to influence use of prostate cancer screening prevention approaches.

While prostate cancer screening appears to be regarded as beneficial by many health care providers, its efficacy varies widely across medical discipline opinions, and potentially engenders equality in access to and availability of screening services. The USPSTF recommendations are against prostate cancer screening (Powell et al., 2014). Also, only 4% of the PLCO population represented African American men. Second, the PLCO results understated the impact of screening on prostate cancer mortality due to a high contamination rate in the control arm (Barossa et al., 2015). A significant finding in this study revealed a perceived or real bias against prostate cancer screening for African American men.

Various interpretations of the recommendations from the USPSTF to not screen raised concerns among the participants, as it may impose barriers to accessing preventive screening among African American men. These findings demonstrate that policies and knowledge about prostate cancer screening may not be universally known or widely accepted. Disparities in access to and the availability of prostate cancer screening information will further expand the health gap between those who may or may not participate in preventive screening.

Also, as discussed in Chapter 2 of my study, Powell et al. (2014) reported that prostate cancer continuum of care describes the best method for men to move through health screenings for prostate cancer. The cancer care continuum may be impeded for men who are not able to participate in prostate cancer screening as recommended by USPSTF screening policy. This barrier may delay conversations and screening with their providers about the importance of early detection and preventive screening, resulting in increased prostate cancer incidences and mortality for African American men. While acknowledging that further research is needed in this area, it may be possible to engage public policy makers to provide funding to support additional research and community activism addressing the phenomenon. Additional opportunities with regards to public policy include eliminating health disparities that exist among African American men.

The opportunity to provide a strategic focus to the populations that are at a greater risk to develop prostate cancer and that require more support, will afford public policy makers with an opportunity to provide all citizens with a chance to live a healthy and productive life. Also, without funding and resources for education, individuals may be ill-equipped to make rational choices. Education can increase health knowledge and allow individuals to make informed decisions. Also, more long-term research is needed to answer questions regarding screening and diagnosis of prostate cancer**.** As new prostate cancer screening treatments are introduced and recommendations are made for their use, public policy makers will need to respond. In Chapter 2, Thorpe et al, (2013) provided evidence that supports the Healthy People 2020 goal, which is to reduce disparities and improve health outcomes.

The participants in my study also echoed that their health was important to them. Aggarwal and Food (2014) suggested that within the United States there is consensus among public policymakers that estimating the financial cost of disparities can be useful in assisting policy makers with the allocation of resources and the creation of policies. This would include legislation that is consistent with the financial impact that disparities can impose upon society (Thorpe et al., 2013). As noted in Chapter 2, Garg et al. (2013)

believed that such actions by public policy makers, which entail investing in disease prevention, not only saves lives, but also yields a significant return on investment. Referencing Powell et al. (2013), the provision of preventive programs may assist our country with addressing the increase growth in healthcare treatment costs in Medicaid, Medicare and private healthcare.

## Relating the Study Findings to Previous Studies Discussed

Findings from my study support the concerns expressed in studies, such as Aggarwal, Ginsburg, and Food (2014), about health care cost and the nation's budget. For example, in 2015 the estimated cost of racial and ethnic disparities was $193 billion dollars for premature deaths, $2.3 billion dollars for direct medical costs, and $471.5 million dollars for loss of productivity (Garg et al., 2013). Gulati, Gore, and Etzoni (2013) estimated that increases in cancer care and preventive measures will be driven by a number of factors including technological advances, rising costs, and increases in the proportion of the number of individuals susceptible to cancer. My study results and the literature review collectively showed that cost of preventive services and insurance coverage among African American men affects the decision to participate or not participate in prostate cancer screening. Data I collected illustrated that 80% of the participants had concerns about cost and insurance. The results underscored the need for policymakers to garner financial support and address the needs of preventive screening. As noted by Thorpe et al. (2013), investing in disease prevention not only saves lives, but also produces a return on investment.

My study also supports the concerns expressed in studies from Peters et al. (2013) regarding the Affordable Care Act and millions of Americans who remain uninsured. Oduro et al. (2013) highlighted the need to identify populations that are at a greater risk to develop prostate cancer. Oduro et al. also recommended that preventive services safeguard freedom of choices to ensure that equity and cost effectiveness in needed throughout the United States. These previous studies each indicate the challenge for policy makers and the community is to remain a vital voice, and highlight inadequacies as the basis for future amendments and revisions of the ACA (Zonderman et al., 2013).

A majority of the men in my study sample associated fear, embarrassment, and decreased masculinity with the digital rectal exam. More than half, however, voiced that they would still be willing to participate in prostate cancer screening. These results, to a large extent, support the notion that there is a need for the medical community to understand the psychological and psychosocial barriers that deter men from participating in prostate cancer screening. Machado et al. (2013) also noted that embarrassment is a potential barrier to seeking prostate cancer screening, and the presence of masculine attitudes is the greatest barrier. The need to understand factors that lead to higher screening rates among African American men was also reinforced by Christy et al. (2014) and Dean et al. (2014).

When developing policy coverage for government, payers have been known to follow the USPSTF recommendations and or the CMS guidelines. From the USPSTF recommendations against prostate cancer screening, Moyers (2012) found that there was insufficient data about optimal screening in minority populations for malignancies and the disparate impact on minority populations. Heijnsdijk et al. (2015) also found that the annual incidence of metastatic prostate cancer had risen by 72% between 2004 and 2013. Further, Jemal et al. (2016) noted that the incidence may be due in part to the USPSTF recommendations against prostate cancer screening. Results from my study and the literature reviewed illustrate that conflicting reports may lead African American men to avoid screening. Over three quarters (90%) of the men in the study sample believed that the government should minimize confusing and conflicting information regarding prostate cancer screening and support prostate cancer policies for all men, especially African American men.

## Relating the Study Findings to the Theoretical Framework

I based my study on the theoretical framework that encompasses the RCT. The RCT was instrumental in developing an explanation of the phenomenon of choices as it emerged from this study. As discussed in Chapter 2, one premise of the RCT is that individuals will make decisions based on cost and benefits, and the opinions of others do not affect decision making (Bourdon, 2009). The participant's responses were supportive of this theory. Eighteen out of 20 participants' responses were consistent with RCT because they indicated that cost and affordability have a significant influence on their choices to participate in prostate cancer screening. This finding supports the literature review in Chapter 2, which suggests that individuals will make health choices under the best prevailing circumstances.

Another premise of the RCT as it relates to this study is to explain how rational actors, African American men, come to their choices based on the phenomenon they are experiencing. Despite the difficulty of cost and affordability, participation in prostate cancer screening was listed as a barrier among many of the participant in the study. In addition, it was my assumption that a majority of the participants made rational choices based upon their socioeconomic conditions.

Hector et al. (2009) noted that choice is influenced by prices (e.g., traveling and time cost of seeking treatment), income, lack of information about appropriate treatment, and the difficulties patients have in assessing quality treatment. An in-depth study of screening decision making among the participants revealed that time was a factor for not participating in prostate cancer screening. A few of the participants indicated that time away from their jobs would limit their abilities to make money, and that taking care of their families was a top priority.

Scholars like Hector et al. (2009) believe that any argument that takes actors and their goals as primitives or basic, and then progresses towards the explanation of how the given actors' pursuit of the goals leads to systematic trends and tendencies in observed human behavior, is regarded as *rational choice.* A rational choice can be seen as one that is reasoned and also optimal for achieving a goal or solving a problem. According to McCaughey and Burning (2010), the RCT assumes that evidence based decision making policymakers have the required cognitive abilities and knowledge to interpret, process, understand and determine the validity of scientific evidence relevant to policy decision. The utilization of the RCT and prostate cancer screening decisions is a behavior driven activity and it was believed that the rational choice theory could be used for examining choices, as it applies to costs, benefits, and whether or not to participate in prostate cancer screening.

## Limitations of the Study

It is important to note the limitations of my study. The findings are tied to the context of African American men in Southeastern Michigan, and the small sample needed for interpretive research may not be generalizable or transferable to other populations of African American men. Because policy makers would be acting from the state level to support prostate cancer screening, they would need the findings of studies to be as generalizable as possible. The small sample size also indicates that the RCT should be further investigated. Similarly, while the RCT suggests cost and benefits are based upon maximum utility, the methodology employed is not designed to test causality but to highlight beliefs of the relationships among the constructs.

Through my study, I was able to get a better understanding of factors that may hinder or facilitate choices to participate in prostate cancer screening. Data collected provided a basis to answer all the research questions, however there were limitations to this study. First, I used the study to only look at the health beliefs of African American men who had or had not adopted the health practices of routine screening for prostate cancer. Another limitation of my study was related to the key participant interviews. The relatively small sample size, the sampling methodology, and participation may have introduced selection bias. This limitation was partially addressed thorough purposeful inclusion of representatives in each of the sampling categories, through maximizing variations as described in Chapter 3.

Also, limitations of the key participant interviews included heavy reliance on their beliefs and health care experiences. Study limitations were primarily addressed through validation techniques, such as triangulation of data sources. Additionally, even though this study draws attention to the health seeking behaviors of African American men, these experiences may not be similar to men of other races or ethnicities (e.g., Latinos, African American men who consistently participate in prostate cancer screening) belonging to socially stigmatized groups. Without a comparison group, it is difficult to assess if the health seeking beliefs of one group is different from those of other groups. The strength of this qualitative approach was that the discussions were grounded in real life experiences of African American men. Lastly, this study was based upon substantial bodies of literature supporting an integration of the constructs.

## Academic Recommendations

Based on findings from my research study and reviewing the literature on prostate cancer screening, beliefs, costs, and policies influencing decisions, the following are recommendations for further research. My study identified new gaps that could be explored, such as looking at African American men who have specifically adopted the health practices of participating in prostate cancer screening programs. Additional qualitative studies could be performed to compare African American men who participate in prostate cancer screening with men who do not participate in prostate cancer screening. The results of future studies might assist with a highly effective formula to increase health beliefs among all African American men. Also, different sample populations could be interviewed including Caucasian men and the LGBT community. These populations could generate different themes and results on health behaviors that may or may not hinder prostate cancer screening. It is important for prevention screening programs to decrease health disparities and address the needs of all citizens within the United States. This would support one of the goals of Healthy People 2020.

While the findings from my study add to literature in the field, and help to fill the literature gap of African American beliefs about prostate cancer screening, funding for screening and the role of government, the results have also created more gaps that may be filled by further research. Because there is a need for additional research and education about cost and preventive screening, I would recommend more qualitative and quantitative studies that explore cost-benefits and cost-effectiveness of preventive screening programs and health outcomes. Investing in disease prevention not only saves lives, but also produces a return on investment. There is little in the literature on public health cost and prevention specifically addressing African American men and prostate cancer screening. Prevention programs help our nation address the increased growth in healthcare treatment costs in Medicaid, Medicare, and private healthcare. The cost of screening middle-age, African American men can be largely offset by long- term Medicare savings in preventing prostate cancer, which is costly. Policymakers, as a function of the policymaking process, should invest in funding research that strengthens and supports the need to improve health outcomes.

In view of the uncertainty of USPSTF recommendations and cultural barriers and mistrust of the medical community, interventions inside of the African American church have the potential to increase prostate cancer screening awareness and informed decision making regarding prostate cancer screening. I would also recommend that the USPSTF ensure that representatives on the taskforce are familiar with men’s health and urological diseases, particularly men of color. In order to share in the decision-making process, individuals who are prostate cancer experts should be involved in conversations as their training and expertise are critical to the USPSTF’s policy design and recommendation process. Another recommendation is for the implementation of a collaborative approach to addressing the complex nature of policies across states and among varying populations. There is some evidence that many if not all have their own unique challenges, especially those groups having the lowest screening compliance.

Despite advances in cancer treatment and declines in cancer death rates for Americans, health disparities among African American men still exist. Findings from my study may also encourage policymakers to focus attention on developing more effective treatment options and clinical research trials that are specific to prostate cancer screening. Such research may be aimed at early detection for the most vulnerable groups such as African American men between the ages of 45-65 years. Inclusion of community members and the vulnerable population of high risk African American men should be sought out to assist with the development of clear policy an agenda that specifically addresses early preventive programs. With hopes of providing transitions of care, funding and incentives for technological systems that integrate clinical and community health data is recommended in healthcare settings so that links to vulnerable populations can be established.

Public policy makers should also create and incentive organizations to become anchor models for preventive health. The development of gender based policies to that targets specific need of African American men being is also recommended. Successful policy initiatives require effective communication, collaboration, and coordination among government, agencies, health care providers, and stakeholders, and are dependent on a myriad of interventions targeted at various levels of government (local, regional, and national), as well as individual, whole community and environmental. This can be further enhanced by the government's support of public policies.

## Practice Recommendations

While there are a number of advocates involved in prostate screening initiatives, my research did not identify no one central authority for prevention policy within the federal government. This conclusion was largely based on the literature review and the interview responses. I used personal narratives from African American men to understand prostate cancer screening beliefs. Conclusions from my study suggest that support and information about prostate cancer screening can be obtained from narrative stories from other African American men. Narrative stories can be a great source of information to assist African American men to increase their participation in prostate cancer screening programs. Policies affect large numbers of citizens, as well as social norms, while having a large potential for preventing illnesses. Existing policies should also be re-evaluated to ensure that they help the population that needs them the most.

Early detection and preventive screening play a critical role in prostate cancer mortality in high risk individuals between the ages of 45-65 years (Miller, 2014). When prostate cancer is detected among African American men, it has usually progressed to a later stage. A clear need exists for health care professionals to partner with and advocate for educational partners to assist with the implementation of prostate cancer screening programs and education for high risk communities. Based on the participants' responses, programs should be conveniently scheduled in the evening and after work hours. Many African American men have either no insurance or inadequate coverage, or often times, they have no ongoing relationship with a physician. Collaborative efforts should include marketing campaigns and interdisciplinary approaches that encourages partnerships across medical and nonmedical entities and community-based partnership research

In populations that experience major health disparities, screening is the key to reducing the portion of advanced cancer at the time of diagnosis. If screening to detect those at high risk for prostate cancer is implemented, previously undetected prostate cancer can be identified. Increasing the awareness among the African American population regarding shared decision making and informed decision as it applies to prostate cancer screening is important. Nurses, health care professionals, and health care community leaders can become advocates and assist with providing knowledge of identify risk factors and available resources to the community. Effective patient centered communication is important in preventing misinformation and confusion related to prostate cancer screening and reducing health disparities. There is also a need for a cultural shift that promotes more discussions on men's health issues in a context where women have traditionally been the subject of many debates.

Healthcare leaders can also become instrumental in developing educational programs to assist the health care community with decisions of how to identify and support priority populations. Leaders can also help to develop evidence of best practices on what works for men's health through the early identification of health problems among African American men between the ages of 45-65 years. The development of research clinical trials that avoid over-diagnosing men with clinically insignificant prostate cancer, while still identifying those with clinically important diseases, should be advocated and promoted by health care professionals.

The integration of quality improvement programs and performance measures would also be beneficial to improve the health of African American men within the United States. Incentives should be provided to organizations that monitor the outputs of quality improvement programs and establish best practices to meet the needs of vulnerable populations. A multifaceted approach such as the development of partnerships between organizations and local government could be beneficial with improvements in preventive screening.

The results of my study add to the existing body of research indicating that early detection of prostate cancer is critical for African American men between the ages of 45-65 years. The study also reflects a need for creative approaches that address prostate cancer screening for African American men. Technology and the internet capabilities offers opportunities to reach African American men because it is anonymous, confidential, and allows men to investigate health information at their leisure. Social media, the Internet, You-Tube, and Facebook can be used as tools to assist African

American men in over-coming potential barriers with expressing their feelings and concerns about health.

## Implications for Social Change

Social change within the selected population of Southeastern Michigan can be achieved through the evaluation of prostate cancer screening barriers. Public policy is a strong tool for preventive screening, because policy shapes the environment in which we live. Through the collaborative work of public policy makers and health care professionals, the findings of my study can be used to improve the outcomes for the second leading causes of death in African American men. This study supports social change because it evaluates the relationship of preventive services to cost and choices, and supports the Health People 2020 goal, which is to reduce health disparities. Prostate cancer is a matter of public policy because the burden of the disease extends beyond screening; it also extends to diagnosis and treatment and involves psychosocial and socioeconomic issues that may come at an additional cost to government. It is hoped that findings from my study will increase the baseline awareness of when prostate cancer screening should take place and help remove barriers that may prevent African American men from taking advantage of screening.

The potential impact of my study toward positive social change may be realized at the federal and state levels of government for preventive health, such as providing insight to public policy lawmakers and the health care community about the challenges that all men face especially, African American men, as it relates to preventive services and screening for the disease. Legislative issues pertaining to screening policy makers usually falls into categories such as cost, access, and equity. As new screening guidelines are introduced and recommended, policy makers will have to respond. Estimating the financial cost of disparities can be useful in aiding policy makers with the allocation of resources and the creation of policies and legislation consistent with the financial impact that disparities imposes on society (Thorpe et al., 2013). Benefits of such measures could also reduce the public's cost over time as preventive screening may save lives. Also, because prostate cancer screening programs can be beneficial, an increase in funding for existing programs would go a long way in minimizing the burden of the disease. This could reduce public cost and improve the health and well-being of all men.

My study identified an important concern for all men. The American Cancer Society identified African American men as having the highest risk for developing prostate cancers, and focuses on increasing screening rates. Further, my study illustrates that a bi-partisan effort should be expanded to educate African American men and all men as prostate cancer is the second leading cause of death among men. Findings from my study may provide additional research data that can be used by policy makers to address early detection of the disease and implement culturally sensitive programs. It is important to understand the beliefs and choices of African American men from a social standpoint, as described by their experiences, in order to appeal and encourage funding.

## Conclusion

Cost and the availability of health care coverage were frequent concerns mentioned by the participants. Most of the participants voiced that their beliefs, cost and health care coverage influenced their choices to participate or not participate in prostate cancer screening. Participants also raised several issues associated with cost of prostate cancer screening, such as the need for greater options, the provisions of free screening for individuals who could not afford to pay for insurance and the expansion of insurance coverage to the underprivileged.

Participants without coverage voiced that they were least likely to participate in prostate cancer screening, though they held strong beliefs regarding the urgency of prostate cancer screening. Another finding was that men who had limited access to their doctors because of cost were not influenced to attend prostate cancer screening programs. According to Sen (1990), rationality emerges from an individual's capacity to calculate and attach costs and benefits to available options and select the best course of action that maximizes their utility.

Public policy initiatives and government support to assist those without health care coverage were strongly voiced among many participants. Many of the participants voiced an urgency of policy makers to promote prostate cancer screening within the African American community. The vast majority of the participants also expressed a belief that the role of government and public policymakers was to increase awareness of prostate cancer screening practices to the African American population and share data about the burden of the disease among the African American population. Participants suggested that public policy makers and the government take a prominent role in becoming involved with funding free testing centers and promoting education awareness. A majority of participants also voiced strong support for prostate cancer screening due to their experiences and family histories of the disease, and reiterated that nothing would deter them from participating, because they had health insurance.

Skepticism about the role of the USPSTF and the data reported on African American men and prostate cancer screening was expressed on a few occasions. Many of the participants did not believe the conflicting results published from the USPSTF and believed that it is important to provide accurate, consistent and transparent information. This was based on either friends or family members dying from prostate cancer. One participant suggested that data reporting about African Americans was sometimes confusing, however overall beliefs to participate in prostate cancer screening would not be hindered.

African American men's beliefs, choices, and influences to participate in prostate cancer screening were impacted by numerous factors. The participants believe that having routine prostate cancer screening exams is important to their overall health status. The participants expressed beliefs that if there were more health information being provided to African American men, especially in areas concerning dispelling myths, the choice to participate in prostate cancer screening would be accepted and recognized as a preventive measure that could save lives. All of the participants indicated beliefs that prostate cancer screening is important for all African American men, and everyone should be aware that if the diagnosis is made early, lives could be saved. The benefits of screening, and whether or not to participate, were not debated among a majority of the participants. The participants expressed that if other African American men are not aware of the screening benefits, they would be at risk for losing their life as a result of prostate cancer. There was consensus among the participants that screening would be beneficial.

Overwhelmingly, the participants voiced beliefs that a lack of resources, education, and cost were influences affecting African Americans' decision about the need for screening belief to participate. A few of the participants requested information regarding free prostate cancer screening sites. In using the health belief survey, a majority of the participants acknowledged that (a) their health was important, (b) there is need to promote healthy lifestyles, and (c) there is an urgency to have regular health screenings was a top priority. Finally, findings from my study demonstrated that the participants believed that choices made regarding their overall health and the decision to participate in prostate cancer screening can make a difference in their overall health and quality of life.

Building a healthier nation is critical to the health outcomes of all citizens within the United States. Currently, some populations are at a greater risk to develop illnesses and disease than others and these groups should receive higher priority in policy efforts. Legislative actions are greatly needed to address health disparities. The premise of the ACA is to address the public's health issues at the state and community level and promote a healthier nation.

Hearing the voices and experiences of African American men is significant, and will allow policymakers to better understand the funding and public support that is needed for them. Insight from health behaviors may lead to improved policy outcomes that are cost- effective. Evidence from both the literature review and the study findings is needed to understand the health seeking behaviors of African American men, so that increased funding can be provided to develop evidence based research, provide education, and support prevention programs. Overall, participants in the study echoed responses to have government support and funding to support screening programs.

Efforts to protect and improve health among all men could have a long-term effect on disease prevention and help reduce health care cost spending. Policy makers can seek to not only understand the cost effectiveness of preventive screening, but also understand the burden that it plays on the populations' health. Health prevention, with an emphasis on the social health determinants, is a key element of a comprehensive health reform strategy aimed at improving the health outcomes of individuals and reducing the social and financial burdens imposed by preventive illnesses.

The results of my study will help fill gaps in the literature regarding how African American men's beliefs and perspectives influence their decisions regarding participation in prostate cancer screening. Findings from my study may increase the baseline awareness of when prostate cancer screening should take place, and help to remove some barriers that may be preventing African American men from taking advantage of the screening. The impact of my study may also provide insight to public policy lawmakers and healthcare providers about challenges that African American men face as they relate to preventive services and screening for the disease. Additionally, findings from my study may provide data that can be used by advocates for public policies addressing early detection of the disease, implementation of culturally sensitive programs, and legislative actions needed to address cancer health disparities.

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## Appendix A

## Flyer – Invitation to Participate

### INVITATION TO PARTICIPATE IN A PROSTATE CANCER SCREENING RESEARCH STUDY FOR AFRICAN AMERICAN MEN

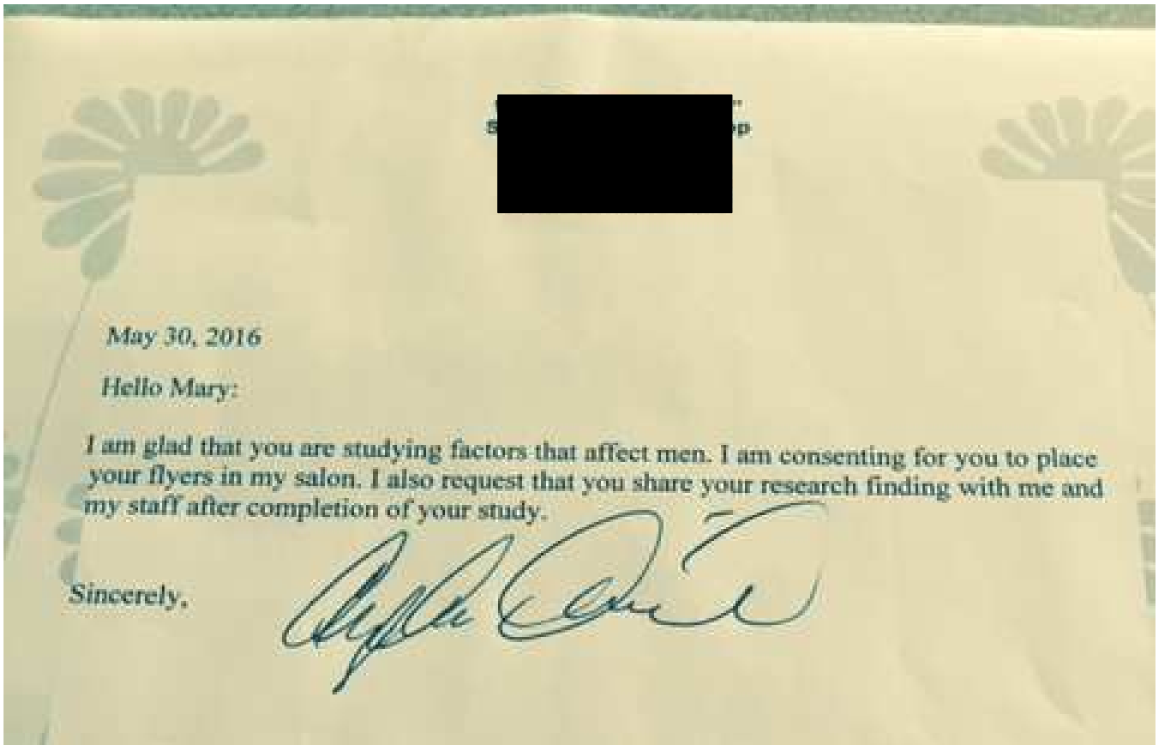
| | |
|---|---|
| **PURPOSE:** | You are invited to take part in a research study of African American men. This study will investigate prostate cancer beliefs among African American men. |
| **ELIGIBILITY:** | • You are an African American man.<br>• You are between 40–65 years of age.<br>• You have not been diagnosed with prostate cancer. |
| **BENEFITS:** | You will be able to share your health beliefs about prostate cancer screening and receive literature about factors that may improve outcomes. |
| **COMMITMENT:** | You are able to participate in an approximately 30 minute in-person interview and questionnaire. |

A $10 Starbuck Gift Card will be offered to you upon completion of the interview.

If you would like to participate in this research study or would like more information, contact:
**Researcher/Ph.D. Candidate Mary Carter at**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Please contact researcher,<br>Mary. Carter ([redacted]** | **Please contact researcher,<br>Mary. Carter ([redacted]** | **Please contact researcher,<br>Mary. Carter [redacted]** | **Please contact researcher,<br>Mary. Carter [redacted]** | **Please contact researcher,<br>Mary. Carter ([redacted]** | **Please contact researcher,<br>Mary. Carter [redacted]** | **Please contact researcher,<br>Mary. Carter [redacted]** | **Please contact researcher,<br>Mary. Carter [redacted]** |

# Appendix B: Permission Letters for Research Sites



[redacted]

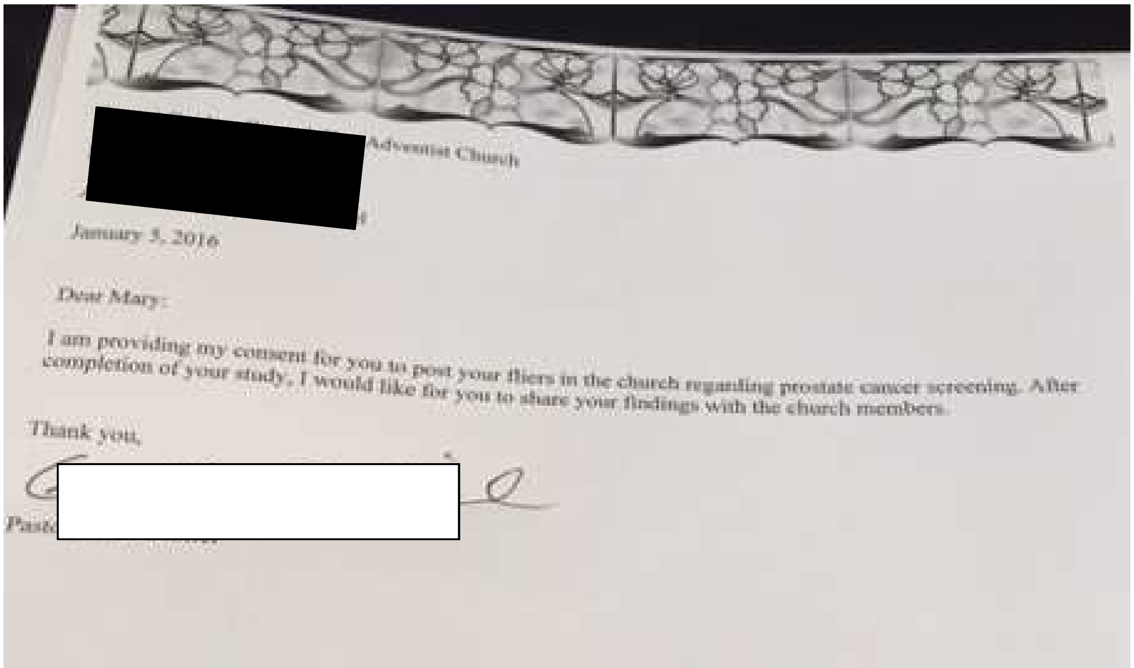
May 30, 2016

Hello Mary:

I am glad that you are studying factors that affect men. I am consenting for you to place your flyers in my salon. I also request that you share your research finding with me and my staff after completion of your study.

Sincerely,

---



[redacted] Adventist Church

[redacted]

January 5, 2016

Dear Mary:

I am providing my consent for you to post your fliers in the church regarding prostate cancer screening. After completion of your study, I would like for you to share your findings with the church members.

Thank you,

[redacted]

Past [redacted]

# Appendix C: Permission to use Health Belief Survey Scale

INDIANA UNIVERSITY
SCHOOL OF NURSING
Center for Research and Scholarship

November 13, 2015

Mary Carter, BSN, MHSA
Program Director, Urology/Gynecology
Vattikuti Urology Institute
Walden University
Minneapolis, MN  55401

Dear Ms. Carter,

Thank you for your interest in my work.  You have permission to view, modify, and use the Health Belief Model Scale for your use as long as you cite my work and send me an abstract of your completed project.

Victoria Champion

Sincerely,
Victoria Champion, Ph.D., R.N., F.A.A.N.
Distinguished Professor
Edward W. and Sarah Stam Culliphen Endowed Chair
Associate Director Cancer Prevention and Control/Population Sciences
Indiana University Simon Cancer Center

VC:dg

# Appendix D: Health Beliefs Survey

## Health Beliefs Survey Related to Prostate Cancer

(V.C. Champion, 1993 adapted with permission)

Using the survey below, please indicate your beliefs related to the following:

| **Please Circle Your Response** | | | | | |
|---|---|---|---|---|---|
| | **Strongly Disagree** | **Moderately Disagree** | **Neutral** | **Moderately Agree** | **Strongly Agree** |
| **<u>BENEFITS</u>** | | | | | |
| **When I participate in prostate cancer screening I feel good about myself.** | **1** | **2** | **3** | **4** | **5** |
| **When I participate in prostate cancer screening I don't worry much about prostate cancer.** | **1** | **2** | **3** | **4** | **5** |
| **Participating in prostate cancer screening will allow me to detect prostate cancer early.** | **1** | **2** | **3** | **4** | **5** |
| **If I participate in prostate cancer yearly it will decrease my chance of dying from prostate cancer.** | **1** | **2** | **3** | **4** | **5** |
| **If I find a cancer through participating in prostate cancer screening, my treatment may not be so bad.** | **1** | **2** | **3** | **4** | **5** |
| **<u>BARRIERS</u>** | | | | | |
| **I am afraid to have a prostate cancer screening because I might find out something is wrong.** | **1** | **2** | **3** | **4** | **5** |
| **I am afraid to have a prostate cancer screening because I don't understand what will be done.** | **1** | **2** | **3** | **4** | **5** |
| **Participating in prostate cancer screening will be embarrassing to me.** | **1** | **2** | **3** | **4** | **5** |
| **Participating in prostate cancer screening will take too much time.** | **1** | **2** | **3** | **4** | **5** |
| **Participating in prostate cancer screening will be too painful.** | **1** | **2** | **3** | **4** | **5** |
| **<u>HEALTH MOTIVATION</u>** | | | | | |
| **I want to discover health problems early.** | **1** | **2** | **3** | **4** | **5** |

| | | | | | |
|---|---|---|---|---|---|
| **Maintaining good health is extremely important to me.** | **1** | **2** | **3** | **4** | **5** |
| **I search for new information to improve my health.** | **1** | **2** | **3** | **4** | **5** |
| **I feel that it is important to carry out activities which will improve my health.** | **1** | **2** | **3** | **4** | **5** |
| **I eat well balanced meals.** | **1** | **2** | **3** | **4** | **5** |
| **I exercise at least 3 times a week.** | **1** | **2** | **3** | **4** | **5** |
| **I have regular health check-ups even when I am not sick.** | **1** | **2** | **3** | **4** | **5** |

# Appendix E: Interview Questions

1. Please tell me what you know about prostate cancer.
2. As an African American man, what do you think is the cause of prostate cancer?
3. Do you think that it is important for you to know about prostate cancer? Please explain why.
4. As an African American man, why would you choose to participate in prostate cancer screening?
5. As an African American man, why would you choose not to participate in prostate cancer screening?
6. How would you describe strategies to prevent prostate cancer?
7. As an African American man, how likely are you to get tested for prostate cancer if you do not have symptoms?
8. Why do you think that a great number of African American men do not want to get tested for prostate cancer?
9. Do you participate in prostate cancer screening? If not, what would motivate you to participate in prostate cancer screening?
10. In your opinion, is there a role for government and policymakers to play in your decisions regarding screening?
11. How would a public policy mandating free or affordable PSA screening change your feelings and opinions about prostrate screening?
12. How does healthcare cost shape your choice to participate or not participate in prostate cancer screening?
13. How do your beliefs or concerns about prostate cancer screening affect your choice to participate or not participate in prostate cancer screening?
14. What would prevent you from participating in prostate cancer screening?

15. What advice do you have for young African American men about prostate cancer and early detection?
16. I would like to discuss the health belief survey that you completed earlier. What would you say was the single most memorable aspect of the statements on the survey? Why do you think that is so?

# Appendix F: Research Question 1

## Emerging Themes and Participant Responses

| Research Question 1 How does healthcare cost influence the decisions made by African American men to participate or not participate in prostate cancer screening? | Theme 1: Healthcare cost influences decision to participate or not participate |
|---|---|
| Interview Question 5- As an African American man, why would you choose not to participate in prostate cancer screening? | • Cost is impacted a lot. If people are worried about their income, living eating, they may not think about their health.<br>• Finance and not being educated regarding how prostate cancer can impact your life.<br>• It is expensive and I may not do it as often as I should. If it is cheaper, I might participate as well as others.<br>• The cost for screening is too much, I cannot afford it.<br>• They should make it affordable, like breast cancer screening for women.<br>• If, it's out there more people would participate for their personal sanity. More people would also tell others. Men talk to men about all kinds of stuff, however men do not want to disclose information about a prostate exam.<br>• There needs to be free health care. There are a lot of African American men without health care. Ultimately to participate would cause more bills.<br>• Cost does not affect me. I have a job, but for those without a job, there are major struggles.<br>• No insurance and lack of financial resources affects participation.<br>• Insurance without health coverage is a reason to not participate. Many just cannot afford the co-pays and extra bills. |
| Interview Question 11- How would a public policy mandating free or affordable PSA screening change your feelings and opinions about prostate cancer screening? | • Government could be involved with understanding the barriers and engage the African American men population. Government could also bring private corporations into the picture and set up role models for African American men. |

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| | • If prostate cancer screening were free, it would be nice, but this would not entice me. Time management is my concern. Many reach a plateau over time. African American men often change with their timelines. Older African American have more time because they are probably more settled in the lifestyles and have retired benefits. children are grown, no bills, you know what I am speaking of.<br>• I think that government and public policy should be involved. Public policies could mandate screening for everyone especially the young men working. This would minimize the potential to obtain prostate cancer which would cause a higher health care cost for the public.<br>• If policies were to highlight funding for screening that would be nice and many would participate.<br>• A policy would make me happier because it would provide knowledge and more information to African American men.<br>• Everyone would get tested, some cannot afford due to insurance concerns and lack of coverage.<br>• Policies could make it where if individuals participated, they could be rewarded (e.g., compensation or rewards for screening), lower insurance rates. Also men should not be charged.<br>• If there was a public policy mandating prostate cancer screening, I would consider being an advocate so that more men would participate. I do not know if it would change my personal opinion. It would be great for those who could not afford to have coverage. I believe that more men would participate. |
| Interview Question 12- How does health care cost shape your choice to participate or not participate in prostate cancer screening? | • If, prostate cancer was free, I would definitely participate.<br>• Financing is important. African American men do not have the finances, so if it were free I would participate. |

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| | • If doesn't matter, I would still participate. If I have to pay a co-pay, money is not an object.<br>• If the cost were affordable, and accessible, I would place prostate cancer screening as a priority.<br>• By having insurance this provides me with a choice to go or not go. I do not want to incur cost, such as hidden fees should be up front.<br>• I am fortunate because I have insurance. Cost in the United States is absorbent - something should be done to make PSA screenings more affordable and save lives of African American men.<br>• If it is expensive, I may not do it as often as I should. If it is cheaper, I would participate more often.<br>• Cost does not shape my choice; my health comes first.<br>• Cost is impacted a lot. However, if individuals are worried about their income, living and eating, they may not think about their health.<br>• Cost does not affect me. I have a job and not struggling financially. For those without a job, there are major struggles.<br>• It plays a major factor. Food comes first, if you cannot afford to eat.<br>• I have insurance. Others who do not cannot afford cannot o come out of their pocket and pay for screening. |
| Interview Question 14 What would prevent you from participating in prostate cancer screening? | • Not having a job!<br>• If my doctor told me that I did not need it anymore.<br>• Only if it was found that there were fallacies (I doubt that would happen, however I question the USPSTF) or if a physician was not competent.<br>• Cost and affordability.<br>• Time – Work comes first.<br>• Nothing!<br>• Cost<br>• Nothing Really<br>• Finances and not being educated regarding prostate cancer and the impacts on your life. |

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| | • Nothing because I love live.<br>• No insurance, this would be questionable, and lack of financial resources.<br>• Insurance without health coverage.<br>• Nothing, I have to set up an appointment right now.<br>• No knowledge and the cost would be a factor.<br>• Inaccessibility<br>• No insurance and if I had to pay out of pocket that might prevent me from participating.<br>• If I could not afford the screening, I would not participate. |

# Appendix G: Research Question 2

## Emerging Themes and Participant Responses

| Research Question 2 How, if at all, will public policies regarding prostate cancer screening affect beliefs held by African American men and the choices they make regarding disease and screening? | Theme III: Public policy and government involvement with supporting prostate cancer screening policies are important. |
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| Interview Question 10 In your opinion; is there a role for government and policymakers to play in your decisions regarding screening? | • Possibly, if they can provide motivation (e.g., something going towards a college fund and etc.).<br>• Yes, if you have medical coverage, if you work and do not make enough money, that's a bill and it may cause financial distress. Government should attempt to minimize stressors by financing screening.<br>• Yes, they should make it affordable like breast cancer screening for ladies.<br>• Yes, there needs to be free health care. There are a lot of men without healthcare, ultimately this creates more bills.<br>• Yes, the government could provide more funding to get the word out.<br>• Yes, if they are going to make it mandatory. However, the government does not have the right to force you. They can provide education, public announcement and screening should be readily available for everyone.<br>• Yes, provide more free testing centers that are accessible. Provide transportation to screening facilities, while being conscious of time and location for African American men.<br>• Yes, Research can be provided. Pass laws with funding for research – Provide public education and messaging throughout the United States.<br>• Yes, they can make it more available and get information to men.<br>• Yes, the government needs to know what populations or who is healthy and not healthy. This can be validated with insurance. There can be an interface to |

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| | some degree, such as attempting to reach men thorough census data and etc.<br>- No other than providing the education, teaching and what to look for.<br>- Not really, I am more concerned about my health, people do not know or care about anything else regarding the government right now.<br>- Yes, they should may men can be aware of the signs and symptoms and early detection.<br>- Yes, the government can make sure that resources are available.<br>- Yes, if the government made it more visible to African American men across the world, they would be aware. Basically if it is known to the public, it would help men and more screening would take place. More lives could be saved.<br>- Yes, only as it relates to finding out the causes and making it possible for others to have screening if they cannot afford the screening. |
| Interview Question 11 How would a public policy mandating free or affordable PSA screening change your feelings and opinions about prostate cancer screening? | - If prostate cancer screening were free it would be nice, but this would not entice me to go. Time management is my concern. Many reach a plateau over time. African American men often change with their timelines. Older African American may have more time (e.g., retirement, less working hours and etc.)<br>- My thoughts would change; it should be free and available to everyone especially if it is an epidemic for African American men.<br>- If it was mandated, it would be better for everyone especially the young.<br>- Public mandates would not change my feelings or opinions. If anything, it would provide opportunities to learn more about health options.<br>- My feelings would change a whole lot. A start would be reaching more young men before it is too late.<br>- Free screening if done properly could be beneficial to all. |

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| | • Free screening would make me become more involved and provide more participation.<br>• If it's out there more individuals would participate for their personal sanity. More people would also tell others. Men talk to men about all kinds of stuff, however men do not want to disclose information about a prostate exam.<br>• A policy would make me happier because it would provide knowledge and more information to men.<br>• I already have a positive perspective about prostate cancer screening, this would provide additional reassurance to me and I coach my friends and family. |

# Appendix H: Research Question 3

## Emerging Themes and Participant Responses

| Research Question 3 How do African American men's health beliefs about prostate cancer influence their decisions regarding participation in prostate cancer screening? | Theme II Health beliefs, health choices, and stigmas impact decision making |
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| Interview Question 3 Do you think that it is important for you to know about prostate cancer? Please explain why | • Yes, so that I can have a long life with my family.<br>• Yes, because prostate cancer affects so many African American men.<br>• Yes, because I am an African American male and have high risk factors.<br>• Yes, finding cancer early can have a higher cure rate than others. If you want one, this is the one to have because it is treatable.<br>• Yes, you got to know what's going on in your life in order to get ahead of your health status.<br>• Yes, If there is a family history of cancer it is especially important and you need to follow-up.<br>• My knowledge of prostate cancer should be increased to benefit myself and my son.<br>• Absolutely, being well informed and prevention is important, especially if I am diagnosed. This would ease some of the mental and potential physical pain that I might be subjected to.<br>• Yes, timing is of essence with prostate cancer. If caught in time, the life expectancy can be better.<br>• Yes, because prostate cancer can affect your overall health- men can die from it or someone you know. It is important to inform others of the disease.<br>• Yes, we need to know about our health so that we can function at our optimal levels.<br>• Yes, to my understanding, prostate cancer is the biggest cancer killer of Black men. I believe over sixty percent.<br>• Yes, it is important. I do not want to leave here early or die early. |

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| | • Yes, if you have it, and seek early treatment, it may not spread to other parts of the body. My grandfather died of prostate cancer he lived with it for twenty years.<br>• Yes, part of knowing is to have an overall health maintenance. I also believe in early detection because this can lead to successful outcomes.<br>• Yes, if you know about prostate cancer, you may be able to prevent yourself from having it. You can also do work for your body for example, eating a healthy diet and exercising.<br>• Yes- It is a cancer that males get and it is more prevalent in African American males. And I am at the age where African American men are diagnosed. |
| Interview Question 8 Why do you think that a great number of African American men do not want to get tested for prostate cancer? | • We are irresponsible when it comes to going to the doctor to have yearly physicals.<br>• Timing does not allow for testing and there is also a lack of knowledge on our end.<br>• They would rather not hear the bad news or would prefer to deal with it when it comes (e.g., when they are diagnosed).<br>• Men do not want pressure for example we need to be in control.<br>• Because many African American men do not believe in going to the doctor.<br>• Fear of finding out.<br>• I guess they do not love themselves,<br>• Because the test is painful, and no one wants to have someone ‘digging in the “back door”.<br>• Embarrassed of the procedure, overly concerned about rectal exams and fear of choosing the wrong doctor. You have to be comfortable with the doctor performing the exam.<br>• They fear that they may actually have prostate cancer.<br>• This is a violation to them. Not being educated or informed. Also the screening procedures can be dehumanizing. |

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| | • Embarrassed, of that digital exam. No one wants to be violated.<br>• There are two sides- Digital rectal exams, causes fear and affects masculinity. They are vulnerable. Culture also plays a role; a lot of African American men are not knowledgeable about health prevention.<br>• African American men do not want to find out something is wrong, especially “down there”, that part of the male body is important.<br>• Many have heard horrible stories, stories about the rectum and blood coming from the rectum after the exam.<br>• Stigmas, associated with the testing process, not knowing that there is more than one test. |
| Interview Question 13 How do your beliefs or concerns about prostate cancer affect your choice to participate or not participate in prostate cancer screening? | • I did have a PSA way back when I was younger, however at that time, I did not understand. Now I understand the necessity and urgency. I am going to make an appointment this month to be tested.<br>• Not so much beliefs, but concerns. If possible, I will be screened, but I will think about it after this interview.<br>• My beliefs do not affect my choices; I will just have to think about it. I am still in the lane of the stigmas.<br>• My beliefs are important, I still have fears and very uncomfortable with the exam.<br>• My beliefs often affect my choice to participate. I fear the pain and intrusion. I am in the middle.<br>• I’m thinking, I’m thinking, I am so! So! Just not sure.<br>• It’s the choice of an individual. To not know is like signing your own death certificate.<br>• I will always participate.<br>• My beliefs are important because this involves my life and family. I want to live longer to provide for them.<br>• My beliefs are to participate and be screened. Prevention is the key.<br>• My beliefs are important. I have a family history. I have seen the success of screening as the case of my brother. My |

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| | brother is doing well. Being aware through early detection is important.<br>• I understand healthcare. I must be proactive, think about family, self, teach African American men, engage and educate everyone.<br>• This is a hard question to answer. Since I have always had good insurance, my belief is to participate.<br>• Beliefs do not play a factor; my spirituality is a part of the bigger picture. I go with m conscious which leads me to participate because I want to live longer.<br>• I would always participate, because I want to be healthy and know about prostate cancer and other illnesses.<br>• Because of this interview, I am motivated to participate.<br>• My beliefs affect my choices to participate. |

# Appendix I: Health Belief Survey Narrative Summary

The questions from the Health Belief Model Scale for Measuring Beliefs (HBM) instrument were edited in order to specifically focus on health beliefs of African American men. The HBM was not scored, but the information from the HBM was used to prompt participants' thinking and enhance discussions during the semi-structured interviews. Narrative descriptions from the HBM are used as part of data triangulation.

- Seventeen of the 19 participants (89%) indicated that they feel good about themselves when they participate in cancer screening. This was also found as a result of interview questions #1.
- Data showed that nine out of 19 participants, approximately 42 percent said they still worry about prostate cancer even when they participate in screening; slightly over half of participants, 53% indicated that they did not worry. Worry was also not found to be a theme from interview responses.
- On the question of early detection and decreased chance of dying with the disease, approximately 95% of participants agreed that screening would allow them to detect the disease early and 90% of participants felt it would decrease their chances of dying from the disease.
- On the subject of being afraid of the screening and/or the results of the screening, 84% of participants indicated that they were not afraid of what they might find out.
- Over 78% of participants indicated that they were not afraid of having the screening done based on whether or not they understood the result. Along the

same lines, participants over 84% indicated that they would not be embarrassed to take the screening and 79% did not see a problem with the time need for the screening.

- Sixty three percent of participants indicated that they did not feel that the screening would be too painful; 95% agreed that they wanted to discover any health problems early, and 95% also said that maintaining good health was extremely important to them.
- Participants agreed that information to improve health (89%), activities to improve health (95%), healthy meals (50%), and exercise (47%) were important for them.
- Fourteen, 73% of participants, indicated that they have regular health check-ups even when they are not sick.