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Social and Contextual Factors Influencing Hypertension Among Latino Men Living in California

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This is to certify that the doctoral study by

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Walden University
2025

Abstract

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MPH, California State University, Northridge, 2019

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Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Public Health

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Abstract

Hypertension remains a critical and often silent public health issue that disproportionately affects Latino men in California. This quantitative, retrospective cross-sectional study explored the social and contextual factors influencing hypertension among this vulnerable population. Using the 2019 Behavioral Risk Factor Surveillance System dataset, which included a sample size of 2,060 participants, the study examined the relationship between hypertension and key variables including primary care utilization, health insurance, smoking, physical activity, mental health, and marital status, while controlling for age, education, and income. Guided by the health belief model, binary logistic regression analyses found health insurance and primary care utilization significantly associated with hypertension. Latino men with health insurance had higher odds of hypertension than those without (OR = 2.45, 95% CI [1.49, 4.05], $p < .001$). Compared to very recent healthcare users (<2 years), participants with intermediate (2–5 years) and infrequent (≥5 years) utilization had lower odds of hypertension (OR = 0.22, 95% CI [0.12, 0.40] and OR = 0.09, 95% CI [0.03, 0.30], both $p < .001$), likely reflecting underdiagnosis. Smoking was also significant: former smokers had higher odds of hypertension than current smokers (OR = 1.75, 95% CI [1.07, 2.87], $p = .027$). Older age and lower income were strongly associated with higher prevalence. These findings highlight the need to remove structural barriers and implement culturally responsive, accessible health programs to reduce cardiovascular health disparities and advance health equity with compassion and purpose.

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Dedication

I dedicate this work to my parents, who immigrated to the United States in pursuit of better opportunities. Though you may not have had the chance to continue your formal education, you instilled in me deep-rooted values and principles. Most importantly, you taught me that my education is mine to keep, something no one can ever take away. May my achievements serve as a reflection of your courage, resilience, and unwavering sacrifice.

I dedicate this study especially to my father, whose quiet strength, hard work, and love have shaped the foundation of who I am. You carried the weight of our home and family on your shoulders, often at the expense of your own health. Your selflessness and the toll it took on your well-being became the driving force behind this research. Through this work, I honor your sacrifices and the many untold stories like yours.

This research is also dedicated to the many first-generation sons and daughters who have stepped into the role of caregivers for their parents. To those who encourage their loved ones to see the doctor, take their medication, and fight through health challenges, I see you. The journey is not always easy, but stay strong, and treasure every shared moment.

Acknowledgments

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A special thank you to Gwen, my therapist, whose support, compassion, and wisdom helped me rediscover my self-worth and recognize the depth of my accomplishments. Your guidance has been instrumental in helping me navigate not only this academic journey but also my healing and growth.

I am also immensely thankful to my family, friends, and colleagues who believed in me, checked in during the hard moments, and celebrated every milestone along the way. And to my past self, thank you for holding on, for choosing to keep going, and for believing that this future was possible. This dissertation would not have been possible without each of you.

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Section 1: Foundation of the Study and Literature Review

Introduction

Hypertension is the leading cause of cardiovascular disease, affects about 1.3 billion adults worldwide, and is responsible for the death of 10 million people annually (World Health Organization [WHO], 2023a; World Heart Federation, 2022). In the United States, there are 19 million adults (48% of the population) who have hypertension (Million Hearts, 2023). Hypertension is a chronic health problem, and although preventable, treatable, and manageable, it continues to affect many. Statistics indicate that hypertension disproportionately impacts Latino men in comparison with other groups. This study addressed the social and contextual factors that influence hypertension management behaviors among Latino men, specifically focusing on the relationship between (a) primary care utilization, (b) health insurance, (c) smoking, (d) physical activity, (e) mental health, and (f) marital status and hypertension. This section addresses the research problem and the purpose of the study, states the research questions, provides a hypothesis, discusses theoretical foundations, provides the nature of the study, summarizes pertinent literature, and examines social implications.

Background

Millions of people are affected by hypertension. Hypertension, or high blood pressure, occurs when the pressure pushing against the walls of the arteries, which carry blood from the heart to the rest of the body, is consistently higher than usual (130/80 mmHg; Centers for Disease Control and Prevention [CDC], 2021). There are two stages

of hypertension: Stage 1 is defined by blood pressure at or above 130/80 mmHg, and Stage 2 is defined by blood pressure at or above 140/90 mmHg (CDC, 2023b).

Hypertension is a preventable risk factor for health conditions such as heart disease, heart attack, and stroke, which are the leading causes of death in the United States (Baxter et al., 2024; Mayo Clinic, 2022). Data show that biological, social, and environmental factors, including age, genetics, obesity, diet, and physical activity, exacerbate hypertension prevalence (WHO, 2023a). In 2021, hypertension was the leading cause of death, accounting for over 690,000 deaths in the United States (CDC, 2023b). Hypertension is a preventable, treatable, and manageable disease; however, only one of every four adults has hypertension under control (Million Hearts, 2023). Unfortunately, uncontrolled blood pressure rates are standard and can increase the risk of heart conditions such as heart failure, stroke, kidney disease, and cognitive decline (Ahuja et al., 2018).

Multiple interventions to treat and manage hypertension are available for individuals. There are lifestyle modifications including healthier diets, increased physical activity, balanced weight, reduced alcohol consumption, cigarette use, and prescription medication (Mayo Clinic, 2022; Million Hearts, 2023). Among people who are recommended to take medication to treat hypertension, nonmultiple interventions to treat and manage hypertension are available for individuals. Statistics indicate that 34 million adults in the United States have been recommended to take medication to treat the condition (CDC, 2023c). Routine blood pressure monitoring is critical amongst people with hypertension, mainly if underlying conditions such as diabetes exist. The CDC

(2023c) indicates that six out of 10 people with hypertension also have diabetes, which increases the risk of heart disease and stroke. Hypertension treatment and management are essential for individuals to control their blood pressure to prevent the development of other health conditions.

Hypertension is a significant health issue in the United States, particularly among Latino men. Hypertension prevalence estimates were highest among men of color in comparison to their White counterparts, Black men (58.3%) and Hispanic men (50.6%), highlighting racial disparities (Al Kibria, 2019; Baxter et al., 2024; Gordon & Hsueh, 2021; Odlum et al., 2020; Taso et al., 2022). Hypertension prevalence rates have doubled over the last 30 years among Latino men. From 2009 to 2016, hypertension rates increased from 28.3% to 69.3% (National Center for Health Statistics, 2019). According to the CDC (2019a), Latino adults are more likely to have hypertension compared to non-Hispanic White adults.

Societal factors such as socioeconomic status, health literacy, acculturation, and discrimination play a significant role in hypertension (Thomas & Allison, 2019). Studies indicate that low socioeconomic status is associated with higher prevalence among Latinos (Anstey et al., 2019; Shahu et al., 2019; Xu et al., 2021). Acculturation has also been linked to high hypertension prevalence (McIntyre et al., 2021; Palacio et al., 2019). Discrimination has also been linked with hypertension, as it can trigger stress and lead to coping mechanisms such as unhealthy behaviors (Corliss, 2023; Forde et al., 2020; Jaiswal, 2019). Immigration status also plays a role in receiving the needed care to treat and manage hypertension (Lopez Mercado, 2023).

Familismo, which is described as loyalty, reciprocity, and solidarity among family members among Latinos, plays a role in an individual's health (Cacari Stone et al., 2021). Cacari Stone et al. (2021) conducted a qualitative study to understand how socioecological factors determine health and affect the implementation of interventions in rural communities; in particular, researchers assessed the perceived risks and protective factors associated with hypertension management among Latino adults and their family members. Cacari Stone et al. found five factors that either facilitated or inhibited disease management: individual, social relationships, health system, and environment. This study emphasized health systems and social and environmental factors that contribute to poor hypertension management, such as the importance of family. Nonsupportive family members can affect mental and physical health among Latinos, and the burden of familial responsibilities inhibits the ability to pursue personal interests and physical activity.

Hypertension management among Latinos is influenced by multiple factors, including social relationships, health systems, the environment, and the individual (Cacari Stone et al., 2021). Hypertension prevalence among Latinos is often associated with low awareness, low health literacy, and poor treatment control (Elfassy et al., 2020; Foti et al., 2019; Lor et al., 2019). Contextual factors such as healthcare systems and lack of health insurance have also been linked with higher hypertension prevalence (Lopez Mercado, 2023; Thomas & Allison, 2019). Cultural beliefs about health and illness and language barriers lead to misinformation and miscommunication between medical providers and patients, which can create a lack of trust and mistrust, which can lead to low hypertension management adherence (Al Shamsi et al., 2020; Lopez Mercado, 2023;

Thomas & Allison, 2019). Variations in risk factors for hypertension, such as high sodium intake, low potassium intake, physical activity, and unhealthy diet, also play a role in hypertension prevalence (Mills et al., 2020).

This study focused on the relationship between (a) primary care utilization, (b) health insurance, (c) smoking, (d) physical activity, (e) mental health, and (f) marital status and hypertension to better understand the social and contextual factors that influence hypertension management among Latino men.

Problem Statement

According to national data reported by the CDC, there are high morbidity and mortality rates among the Latino population, especially Latino men (Murphy et al., 2021; U.S. Department of Health and Human Services Office of Minority Health, n.d.). Prevention, early detection, and treatment of a health condition have been known to increase the chances of having more favorable outcomes; however, it is reported that men visit their doctor less frequently compared to women (Cleveland Clinic, 2019). National surveys have shown that many men visit the doctor only when they have a specific problem or avoid seeing a doctor altogether (Cleveland Clinic, 2019). Interestingly, 20% of men who visit the doctor admit to not being fully honest during their appointments. The survey also found that factors such as inconvenience, societal norms around masculinity, health insurance issues, and lack of knowledge contribute to men skipping regular health checkups. Statistics indicate that hypertension is more prevalent among men (51%) than women (39.7%) and is also more common among Latinos compared to other ethnic groups (CDC, 2023c).

Behavioral risk factors contributing to high hypertension rates include poor diet, lack of physical activity, tobacco use, alcohol abuse, and obesity (Carey et al., 2018; WHO, 2023). Intrapersonal factors have been extensively studied, offering insights into Latino men's views on barriers to physical activity. These barriers include work-related fatigue, time constraints, socioeconomic status, the need to prioritize work, and limited access to facilities that encourage exercise, all of which are influenced by individual attitudes (Valdez et al., 2019). However, there is a need to expand the research focus to gain a better understanding of how these factors affect hypertension management behaviors among Latino men.

Current research studies highlight racial disparities among those affected by hypertension and focus on the association between socioeconomic status, health literacy, acculturation, and discrimination and hypertension (Elfassy et al., 2020; Shahu et al., 2019; Thomas & Allison, 2019; Xu et al., 2021). Studies also focus on the influence of built environment and access to urban green spaces on hypertension (Albanese et al., 2022; Grazulevicine et al., 2020; Savin et al., 2022). There is extensive research in these areas; however, there is limited knowledge on the association between hypertension and primary care utilization, health insurance, smoking, physical activity, mental health, and marital status when controlling knowledge on hypertension management is critical to pivot outreach efforts targeting the Latino male population; revamp public health programs and interventions focused on hypertension prevention, treatment, and management; and inform health professionals to improve cultural humility and patient–practitioner engagement.

Purpose of Study

This quantitative research study aimed to explore societal and contextual factors that influence hypertension management behaviors among Latino men. This study specifically focused on the relationship between independent variables of (a) primary care utilization, (b) health insurance, (c) smoking, (d) physical activity, (e) mental health, and (f) marital status and the dependent variable of hypertension. Covariates included age, education, and income. This study used the 2019 Behavioral Risk Factor Surveillance System (BRFSS) questionnaire dataset to enhance understanding of the factors influencing health screenings as a preventive measure among Latino men. Specifically, this study examined how health insurance, smoking, physical activity, mental health, and marital status impact hypertension, with the goal of informing health professionals and improving hypertension management programs.

Research Questions and Hypotheses

Research Question 1: Is there a relationship between primary care utilization, health insurance, marital status, and hypertension among Latino males in California when controlling for age, education, and income?

$H_0$1: There is a relationship between primary care utilization, health insurance, marital status, and hypertension among Latino males in California when controlling for age, education, and income.

H_a1: There is no relationship between primary care utilization, health insurance, marital status, and hypertension among Latino males in California when controlling for age, education, and income.

Research Question 2: Is there a relationship between smoking, physical activity, mental health, and hypertension among Latino males in California when controlling for age, education, and income?

$H_0$2: There is a relationship between smoking, physical activity, mental health, and hypertension among Latino males in California when controlling for age, education, and income.

H_a2: There is no relationship between smoking, physical activity, mental health, and hypertension among Latino males in California when controlling for age, education, and income.

Theoretical Framework for the Study

The theoretical framework for this study was the health belief model (HBM), which was developed in the 1950s by social psychologists to understand and predict health behaviors related to disease prevention, such as health screenings (Glanz & Bishop, 2010). The HBM has since been widely applied to various health behaviors including healthy lifestyle choices, disease prevention, substance abuse, and mental health. The HBM suggests that an individual's beliefs about their personal threats to a health condition and belief in the recommended health behavior will predict the likelihood that the person will adopt a health behavior (LaMorte, 2022). The HBM encompasses two main elements: (a) the desire to prevent an illness or get well if the illness already exists and (b) the belief that a particular action will prevent or cure the illness, thus suggesting that an individual's actions are dependent on their perceived benefits and barriers about health behavior (LaMorte, 2022).

The HBM includes six key constructs: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy (Glanz & Bishop, 2010). The HBM has been applied to health behaviors such as diet, exercise, health screenings, risk behaviors including smoking and alcohol use, condom and contraceptive use, as well as various behaviors about compliance with medical recommendations for illness (i.e., diabetes, renal disease, hypertension; Norman & Conner, 1998). Limitations to the HBM exist, and its application in public health is limited. The HBM does not account for an individual's attitudes or consider habitual behaviors (i.e., smoking, drinking) that play a role in an individual's decision-making process. The HBM also does not address behaviors driven by non-health-related factors, such as social influences or acceptability, and does not account for economic or environmental conditions that may inhibit health behavior (LaMorte, 2022). In this study, the HBM informed many of the independent variables, such as physical activity and smoking, as they are behavioral and at the individual level.

Nature of the Study

This research was a quantitative, retrospective cross-sectional study aimed to explore the relationship between societal and contextual factors and hypertension management among Latino men in California. The independent variables were (a) primary care utilization, (b) health insurance, (c) smoking, (d) physical activity, (e) mental health, and (f) marital status and the dependent variable of hypertension among Latino men in California. The secondary data used in this study were obtained from the 2019 BRFSS questionnaire dataset from the CDC.

A retrospective cross-sectional design gathers data from a population at a single point in time to describe a population and better understand the prevalence of health outcomes (Wang & Cheng, 2020). I used a binary logistic regression to test the relationship between the independent variables (primary care utilization, health insurance, smoking, physical activity, mental health, and marital status) and the independent variable (hypertension).

Literature Search Strategy

A literature review was conducted for this study using academic search engines and databases, including the Walden University Library search catalog, PubMed, Medline, EBSCO, and Google Scholar. The keyword search included terms such as *hypertension, men's health, chronic disease, Latin* or Hispanics, behavior or management, males or men or gender, primary care, insurance or Medicaid, sodium or salt, physical activity, or exercise, mental or psych**, and *marital or marriage.* The literature review focused on peer-reviewed journal articles published between 2019 and 2024.

Literature Review Related to Key Concepts

This section describes the literature on critical variables related to this study. Access to primary health care, utilization, and health insurance among Latino men were explored. Behaviors such as smoking, physical activity, and other variables, including marital status and mental health, were also analyzed in the literature.

Primary Care Utilization and Hypertension

Primary care utilization is impacted by racial/ethnic discrimination and contributes to health condition prevalence, delays in treatment-seeking behaviors, and medical mistrust (Lightfoot et al., 2019). Navigating the healthcare system can be daunting to Latino men due to lack of health insurance and unfamiliarity of resources, which can delay diagnosis and management of hypertension (Green et al., 2022). Perceived health and risk among Latinos contribute to the low levels of primary care utilization among Latinos (Rowland et al., 2021; Smith et al., 2022). Access to primary care is a factor contributing to hypertension and is influenced by perceptions. Smith et al. (2022) conducted a study in which they examined perceptions related to being informed, health status, health utilization, and the facilitators and barriers to chronic disease management among middle-aged and older non-Hispanic Black and Hispanic men with chronic health conditions. The study found that younger age groups exhibited less healthy behaviors and experienced greater frustrations and barriers to self-care (Smith et al., 2022). Lauffenburger et al. (2023) conducted a qualitative study to understand perspectives on hypertension control and management in which participants expressed hesitancy about variations in intensifying medications and recommendations for follow-up care. The study also highlighted that the current care model for hypertension is insufficient and underlined the need for asynchronous interventions focused on lifestyle modifications (Lauffenburger et al., 2023). Strategies to reduce barriers to patient care have been implemented to improve healthcare access for individuals with chronic health conditions, such as mobile clinics and remote patient monitoring (RPM; Coaston et al.,

2023; Tulimiero et al., 2020). Kirkland et al. (2023) implemented RPM to increase access to care and disease management among individuals with chronic health conditions such as diabetes and hypertension across rural communities across South Carolina. RPM improved chronic health management among individuals and helped reduce costs and barriers to care (Kirkland et al., 2023).

Londoño Agudelo et al. (2023) assessed the effectiveness of integrated care systems through an accessible network of family practices among patients with hypertension in Cuba. Researchers found that participants displayed improved adherence to antihypertensive medication by 21% and controlled hypertension by 18.9% (Londoño Agudelo et al., 2023). Lamelas et al. (2019) explored hypertension prevalence, awareness, treatment, and control in Latin American countries. They found that most participants who were aware of hypertension received medical treatment (90.5%), but only 37.6% of the patients had their blood pressure controlled. Lamelas et al. underlined the low rate of controlled hypertension among participants receiving medical treatment, highlighting the low rates of modifiable factors among people with hypertension. Masculine norms and the pursuit of idealized male behaviors are also key motivators and have been shown to impact various aspects of social, familial, and organizational environments (Novak et al., 2019). Novak et al. (2019) investigated why married men who adhere to masculine norms and gender roles often avoid healthcare. Researchers identified factors such as negative perceptions of doctors, family context (both past and present), illness severity, and financial concerns as influences on men's healthcare utilization (Novak et al., 2019).

Health Insurance and Hypertension

Health insurance coverage plays a critical role in managing health conditions such as hypertension. A considerable number of Latino men lack adequate health insurance coverage, which limits their access to hypertension preventive care and management. According to the CDC (2020), 30.4 % of Hispanic adults were more likely to be uninsured due to ineligibility compared to their White counterparts. In addition, 26.8% of males were more likely to be uninsured than their female counterparts (CDC, 2022). Latino men face many barriers when it comes to accessing health care coverage, including high out-of-pocket costs, limited providers accepting uninsured patients, and lack of eligibility due to immigration status (Ornelas et al., 2020). Latino men who do not meet public health care insurance programs due to lack of eligibility may also be unable to access private health insurance due to high premiums (Ornelas et al., 2020). In addition, they may fear that seeking health care could lead to detection by government officials or mistreatment by health care providers (Ornelas et al., 2020).

Health insurance status has been strongly associated with high blood pressure, and trends indicate that people with health insurance are more likely to access health care compared to those who do not have health insurance (Angier et al., 2020; Green et al., 2022; Kressin et al., 2020; Oso et al., 2019). Health insurance instability has been associated with poor health outcomes such as higher rates of uncontrolled blood pressure among Hispanics and Blacks (Kressin et al., 2020). The prevalence of controlled blood pressure is low among uninsured men (Commodore-Mensah et al., 2021). Health

insurance coverage is a characteristic used to predict nonadherence behaviors among adults with hypertension (Li et al., 2019; Oso et al., 2019).

Smoking and Hypertension

Statistics indicate that 7.7% of the adult Hispanic/Latino population in the United States smokes cigarettes; this is 1 in every 13 people, and smoking is more common among men compared to their female counterparts (CDC, 2025). Hypertension is a leading modifiable risk factor for cardiovascular diseases. Smoking patterns among Hispanics vary across national backgrounds, as the prevalence rate of current smokers is higher among Mexicans than among Dominicans, but lower than among Puerto Ricans (32.6%) and Cubans (31.3%). Daily smoking rates are lower among men, whereas nondaily smoking is more common among men of a Mexican background (Kaplan et al., 2014; Kaplan et al., 2020). Lee et al. (2023) explored the association between changes in cigarette consumption behaviors and language acculturation among Hispanics/Latinos and found that the more acculturated male daily smokers increased their cigarettes-per-day use over time. A different study aimed to examine the factors influencing the transition from nondaily to daily smoking among Hispanic/Latino adults and found that nearly 25% of nondaily smokers became daily smokers over time, with contributing factors such as lower education, income, and age (Klugman et al., 2020).

Kaplan et al. (2020) explored the dose-response relationship between smoking and hypertension and found an increased risk for hypertension among current smokers over a 6-year follow-up period. For former smokers, however, there was no indication of an increased risk of hypertension (Kaplan et al., 2020). However, compared to never

smokers, former smokers increased the risk for cardiovascular diseases, but had lower risk than current smokers (Leopold & Antman, 2021). Other studies, however, suggest associations between former smokers and increased risk for hypertension. According to Ning et al. (2019), former smokers have an increased risk of developing peripheral arterial disease, coronary heart disease, and stroke compared to never smokers. Additionally, a study aimed to evaluate the association between the time since smoking cessation and cardiovascular disease found that there was an increased risk of cardiovascular disease among former smokers compared to never smokers, but lower risk compared to current smokers (Duncan et al., 2019).

The association between smoking and hypertension is complex as described by the study findings regarding former smokers' risk of hypertension. Nevertheless, modifiable factors such as smoking contribute to health conditions such as hypertension. Heer and Winham (2020) emphasized areas where men lack awareness of modifiable behaviors that can affect their health perceptions and health prevention strategies, influencing health conditions. Heer and Winham examined how lifestyle factors such as smoking and diet contribute to health risks, highlighting the importance of modifiable behaviors like smoking and adopting healthier habits to prevent health conditions like hypertension.

Physical Activity and Hypertension

Hypertension is increased by health conditions such as diabetes and obesity, as well as diet and physical activity (CDC, 2021). Poor health indicators such as physical inactivity also play a role in high hypertension levels (Odlum et al., 2020). There are

barriers to physical activity such as limited access to safe recreational spaces as lower socioeconomic neighborhoods often lack adequate parks and fitness facilities, which limits the opportunities for exercise. Valdez et al. (2019) conducted a study on overweight Hispanic men of Mexican origin, ages 24–53, exploring their views on health behaviors related to physical activity. The study found that factors such as work-related fatigue, time constraints, socioeconomic status, and the need to prioritize work impede physical activity. Valdez et al. underscored that these perceived barriers to physical activity, which are modifiable, may also influence chronic health prevention, including hypertension, among Latino men.

Cultural perceptions are cemented in the Latino culture, and traditional gender roles and cultural norms such as machismo influence attitudes and behaviors, which may have a negative impact toward physical activity (Valdez et al., 2023). Machismo ideology can significantly influence attitudes towards physical activity among Latino men. Valdez et al. (2023) defined masculinity and the attributes through which Latino men exhibit to reflect their character, values, and gender identity. Study findings revealed that Latino men's views aligned with traditional machismo, highlighting their sense of fulfillment in roles as family providers, protectors, and leaders (Valdez et al., 2023).

Marital Status and Hypertension

Marital status has been identified as a significant social determinant of health associated with hypertension (Adeke et al., 2022; Chambergo-Michilot et al., 2021). Being married, widowed, or divorced has been linked with high hypertension prevalence (Li et al., 2021). The marital status of never-married men has been associated with a

higher risk of hypertension (Ramezankhani et al., 2019; Son et al., 2022). Studies have identified marital status as a protective factor for hypertension (Chambergo-Michilot et al., 2021). Marital status can have an influence in health behaviors, especially among Latino men, as marriage, for instance, can have more of a protective role for men (Dhindsa et al., 2020). Marital status can play a significant role and influence lifestyle, including factors such as diet and physical activity among Latino men (Perez-Escamilla et al., 2010). However, marital status can also contribute to unhealthy behaviors such as smoking and alcohol consumption (Robles et al., 2014). Family engagement can vary and can be in the form of accompaniment (i.e., providing transportation), participation in appointments (i.e., hearing the conversation with the medical provider), being an advocate (i.e., speaking up and asking questions), and having been associated with improved hypertension management (Fort et al., 2020).

Mental Health and Hypertension

Studies have linked psychological risk factors, including social support, social class, and depression, to illness (Syme et al., 2019). Jimenez et al. (2017) examined the interplay between mental health, motivation, participation, and the adoption of health behaviors among Latino adults. They highlighted the complexity behind the causes of poor physical health in individuals with severe mental health problems. Jimenez et al. underlined the importance of considering mental health effects on health behavior change that impact the lifestyle of Latinos. Nonsupportive family members can affect mental and physical health among Latinos, and the burden of familial responsibilities inhibits the ability to pursue personal interests and physical activity (Cacari Stone et al., 2021).

Haman et al. (2020) explored the association between mental health and hypertension and found positive correlations between anxiety, depression, chronic pain, and hypertension that are modulated by physiological and environmental factors.

In California, where the Latino population is the largest ethnic group, understanding societal and contextual factors that contribute to hypertension management among Latino men is critical for developing interventions to address this health disparity and improve health outcomes. Maldonado et al. (2023) explored the influence of Latino settlement patterns on hypertension management practices in Iowa, a new Latino destination, and California, an established Latino destination state. Researchers found that Latinos in Iowa had higher hypertension treatment rates than Latinos in California, emphasizing the need to understand the impact of cultural and structural factors on hypertension management in California.

Definitions and Terms

The following terms are defined as they relate to the study to help clarify their utilization throughout the study.

Acculturation: The process in which immigrants adapt to a new country's norms, attitudes, and practices (Diveny et al., 2019).

Health insurance: Coverage for health services, including prepaid plans like HMOs and government programs such as Medicare or Indian Health Service.

Hispanic: A broad ethnic term used to describe a person of Latin American origin or a Spanish-speaking person residing within the United States (Martinez & Gonzalez, 2020). The term *Hispanic* is often used to include people with heritage from Latin

American-speaking countries in Latin America and Spain and emerged because of changes to federal and governmental classifications.

Hypertension: Blood pressure consistently higher than 130 mm Hg value of systolic blood pressure and a diastolic blood pressure of over 80 mmHg (CDC, 2023a).

Familismo: Described as loyalty, reciprocity, and solidarity among family members. Among Latinos, it plays a role in an individual's health (Cacari Stone et al., 2021).

Latino: A broad ethnic term used to describe a person of Latin American origin or a Spanish-speaking person residing within the United States (Martinez & Gonzalez, 2020). The term *Latino* emerged in the 1990s at a local or regional level to recognize the Latin American struggle and the distinct mestizo cultures and identities. It encompasses individuals with ancestry from non-Spanish-speaking Latin American countries while excluding those of Spanish ancestry outside the Western Hemisphere (Martinez & Gonzalez, 2020).

Marital status: Marital status refers to being married, unmarried, separated, widowed, or never married (CDC, 2023d).

Mental health: Mental health encompasses an individual's emotional, psychological, and social well-being. It influences how an individual thinks and feels, as well as their ability to manage stress and make health choices (CDC, 2023a).

Physical activity: Activities that involve bodily movement and require energy, such as running, cycling, sports, gardening, or walking. Regular physical activity improves health and prevents and manages heart disease (WHO, 2023b).

Primary care utilization: An individual's use of hospital, emergency room, and other healthcare providers' services.

Smoking: Refers to cigarette smoking, which is the leading cause of diseases such as cancer, heart disease, and type 2 diabetes. Smoking is preventable but may lead to death (CDC, 2024).

Assumptions

A few assumptions were made based on secondary data provided by the BRFSS to examine the relationship between primary care utilization, health insurance, smoking, physical activity, marital status, and mental health. Assumptions made in this study included the following: (a) participants self-identified as Latino/Hispanic, (b) participants identified as male, (c) participants answered the questionnaires truthfully and to the best of their ability, and (d) participants understood the questions they answered on the questionnaire.

Scope and Delimitations

The study aimed to explore the societal and contextual factors that influence hypertension management behaviors among Latino men living in California. The study delimitations involved the inclusion of participants who self-identified as Latino men living in California who indicated having been diagnosed with hypertension and taking medication to treat hypertension in the study sample. This study excluded participants who identified as female and confirmed residence in a state other than California. The 2019 BRFSS dataset was used to obtain the data on hypertension and independent

variables of primary care utilization, health insurance, marital status, smoking, physical activity, mental health, and age, education, and income.

The BRFFS questionnaire is an accurate measure and representation of the population in the United States. The BRFSS is a highly reliable and valid source of information. Every state administers the survey annually, and the CDC adjusts the survey for the overrepresentation and underrepresentation of certain groups. However, the results of this study are generalizable to the state of California (CDC, 2019b).

Limitations to the study may include secondary data and participation self-reporting. Self-reporting can result in biased results and even omission of information. In addition, because of secondary data, the research design and instrument selection of the survey data collected were not used to answer the research questions.

Significance

There is limited research on health indicators, preventive health practices, perceptions of hypertension, and utilization of health care services. This study provided a better understanding of the factors that influence using health screenings as a preventive behavior among Latino men, specifically factors such as health insurance, smoking, physical activity, mental health, and marital status that may play a role in hypertension management practices and perceptions. Study findings highlight areas of focus that health behavior professionals and programs could address when engaging the target population.

A thorough understanding of influencing factors can enhance health professionals' cultural competence and inform the creation of culturally tailored health education programs and campaigns to address the health needs and improve health

outcomes of Latino men. In addition, increased knowledge and education will emphasize the importance of health screenings as a health prevention method, encouraging the target population to initiate the steps for health screening. On a grander scale, this study can promote health policy by expanding healthcare delivery systems to address factors affecting the target population, ultimately improving overall health and quality of life. In addition, the study can inform the development of prevention and management strategies for hypertension management among Latino men.

Summary and Conclusion

Hypertension is the leading cause of cardiovascular disease, which leads to chronic health conditions and disproportionately impacts individuals, primarily Latino men. Current research focuses on highlighting racial disparities (Al Kibria, 2019; Baxter et al., 2024; Gordon & Hsueh, 2021; Odlum et al., 2020; Taso et al., 2022); associations with socioeconomic status (Anstey et al., 2019; Shahu et al., 2019; Xu et al., 2021); health literacy, acculturation, and discrimination (Thomas & Allison, 2019); and immigration status (Lopez Mercado, 2023) and the influences of social relationships (Cacari Stone et al., 2021) and cultural beliefs (Al Shamsi et al., 2020; Lopez Mercado, 2023; Thomas & Allison, 2019) on hypertension management.

However, there is limited knowledge on the association between hypertension and primary care utilization, health insurance, smoking, physical activity, mental health, and marital status when controlling for age, education, and income, particularly among Latino men. This study contributes to the existing body of knowledge on hypertension management by providing insight into social and contextual factors influencing

hypertension management among Latino men that can pivot outreach efforts, revamp public health interventions, and inform health practices and policies to reduce barriers in health care and improve health outcomes and quality of life among Latino men.

In this section, I addressed the research problem and the purpose of the study, stated the research questions, provided a hypothesis, discussed theoretical foundations, provided the nature of the study, summarized pertinent literature, and examined social implications. Section 2 of the study will detail the research design and methodology of this study. Section 2 includes an introduction, research design and rationale, methodology, threats to validity, and ethical procedures.

Section 2: Research Design and Data Collection

Introduction

The purpose of this quantitative study is to explore the societal and contextual factors that influence hypertension management behaviors among Latino men in California. A secondary analysis will be conducted on the existing 2019 BRFSS questionnaire maintained by the CDC to obtain the data on hypertension and independent variables of primary care utilization, health insurance, marital status, smoking, physical activity, mental health, and age, education, and income. In this section, I describe the research design and rationale, methodology, threats to validity, and ethical procedures.

Research Design and Rationale

This quantitative, descriptive, cross-sectional study uses secondary data analysis from the 2019 BRFSS administered by the CDC. This design will be used to explore the relationship between the independent variables and the dependent variables. In this study, the independent variables are primary care utilization, health insurance, smoking, physical activity, mental health, and marital status, and the dependent variable is hypertension among Latino men. The covariates include age, education, and income. The research questions examine the relationship between the independent variables in this study, which are primary care utilization, health insurance, smoking, physical activity, mental health, and marital status, and the dependent variable is hypertension. The covariates include age, education, and income. A cross-sectional design is the most appropriate to explore this relationship in the study.

Methodology

In this section, the study population, the sampling and sampling procedures, the sampling size instrumentation and operationalization of constructs, study variables, and threats to validity and ethical procedures are described.

Population

The population for his study includes Latino men residing in California who participated in the 2019 BRFSS questionnaire. In the 2019 BRFSS dataset there are 418,268 records; however, there are only 11,613 records in the state of California.

According to the U.S. Census Bureau (n.d.), in 2019 there were over 15.5 million (39.3%) Hispanic/Latinos living in the state of the California and was deemed the largest ethnic group in the state. Between 2010 and 2019, the Hispanic/Latino population increased by 1.4 million.

Sampling and Sampling Procedures

The secondary dataset utilized in this study was from the 2019 BRFSS which is publicly available. The 2019 BRFSS data utilized was already de-identified; therefore, it was not required for this study. In 2019, the BRFSS interview procedures included obtaining informed consent and the use of Computer- Assisted Telephone Interviews (CATI) systems using the Ci3 WinCATI software package (CDC, 2019a). Data Processing includes data weighing to ensure the data is more representative of the population as well as iterative proportional fitting (raking) to adjust for demographic differences (CDC, 2019a). A prior power analysis was conducted using G*POWER (version 3.1.9.7) to determine the minimum sample size, which was calculated to be 351.

According to Serder et al. (2021), the ideal power is typically set at 0.08 (80%). The parameters of the power analysis included a two-tailed test, an odds ratio of 1.5 for effect size, a level of significance of $\alpha > 0.05$, and a power at 80%.

Instrumentation and Operationalization of Constructs

The research study is based on secondary data utilizing the 2019 BRFSS. The BRFSS system encompasses telephone surveys (i.e., landline and cellular telephone) conducted by interviewers managed by state health departments to gather health-related risk behaviors, chronic health conditions, and preventive services from adult population aged 18 years and older living in the United States. The BRFSS questionnaires include core components, optional modules, and state-added questions, with many of the questions taken from national surveys such as the National Health Interview Survey and the National Health and Nutrition Examination Survey (CDC, 2019a).

This study will use secondary data from the BRFSS to obtain data on the hypertension (dependent variable), primary care utilization, health insurance, marital status, physical activity, and mental health (independent variables), and age, education and income (covariates).

Study Variables

The design allowed for the assessment of the association between the independent and dependent variables while controlling for the covariates of the study. Table 1 shows the variables that will be used in this study including the variable name, variable label, and the level of measurement. The independent variables include primary care utilization, health insurance, smoking, physical activity, mental health, and marital status. The

dependent variable is hypertension among Latino men. The co-variables include age, education, and income. The identified variables allow for the generalization of findings to a broader population.

In this study, primary care utilization refers to the length of time since the last routine checkup. Study participants chose the following options from the BRFSS survey: within the past year (anytime less than 12 months; coded as 1), within past 2 years (1 year but less than 2 years ago; coded as 2), within the past 5 years (2 years but less than 5 years ago; coded as 3), 5 or more years ago (coded as 4). Health insurance refers to the study participants aged 18-64 with health care coverage. Participants chose from the following options from the BRFSS survey: have health care coverage (coded as 1), do not have health care coverage (coded as 2). Smoking refers to the level of smoker status: current smoker (coded as 1), former smoker (coded as 2), and never smoked (coded as 3). Physical activity refers to the study participants who reported doing physical activity or exercise during the past 30 days other than their regular job. Study participants with physical activity or exercise (coded as 1) and participants with no physical activity or exercise in the last 30 days (coded as 2).

Mental Health refers to the number of days in which mental health, including stress, depression, and problems with emotions, was not good in the past 30 days. Study participants who reported a value between 1 and 30 were recorded, and participants who reported no days were (coded as 88). Marital status refers to the marital status of the study participants. Participants who reported being married (coded 1), divorced (coded

2), widowed (coded 3), separated (coded 4), never married (coded 5), or a member of an unmarried couple (coded 6).

The dependent variable of hypertension refers to study participants currently taking blood pressure medication. Participants were asked if they were currently taking medications for blood pressure. Their responses were recorded as yes (coded as 1) and no (coded as 2). In this study, the covariates were age, education, and income. Age refers to the age group of the participants: age 19 to 24 (coded as 1), age 25 to 24 (coded as 2), age 35 to 44 (coded as 3), age 45 to 43 (coded as 4), age 55 to 64 (coded as 5), age 65 or older (coded as 6). Education refers to the level of education completed. Participants who did not graduate high school (coded as 1), graduated high school (coded as 2), attended college or technical school (coded as 3), or graduated from college or technical school (coded as 4). The annual household income in dollars measured income. Participant's response options were less than $10,000 (coded as 1), less than $15,000 (coded as 2), less than $20,000 (coded as 3), less than $25,000 (coded as 4), less than $35,000 (coded as 5), less than $50,000 (coded as 6), less than $75,000 (coded as 7), $75,000 or more (coded as 8).

Table 1

Operational Measures for Key Independent and Dependent Variables

Variable	Variable label	Level of measurement
Primary care utilization	Length of time since the last routine checkup	Nominal
Health insurance	Aged 18–64 with health care coverage	Nominal
Smoking	Level of smoker status	Nominal
Physical activity	Engaged in physical activity or exercise during the past 30 days other than their regular job	Nominal
Mental health	The number of days in which mental health was not good in the past 30 days	Scale
Marital status	Participant marital status	Nominal
Hypertension	Currently taking blood pressure medication	Nominal
Age	Age group of participants	Nominal
Education	Completed level of education	Nominal
Income	Annual income level	Nominal

Data Analysis Plan

Data analysis will be conducted using the IBM Statistical Package for Social Science (SPSS). Descriptive statistics will be generated to provide an overview of the dataset, and SPSS analysis will be used to explore the relationship between the dependent variable of hypertension and independent variables of primary care utilization, health insurance, smoking, physical activity, mental health, and marital status. The covariates that will be used in this study are age, education, and income. These demographic variables such as age, education, and income have a significant role in health behavior and health outcomes; however, controlling for these as variables can help isolate the effect of the independent variables on the dependent variable in this study. This study will use binary logistic regressions for statistical analysis and p-value and coefficient interpretation.

Research Questions and Hypotheses

Research Question 1: Is there a relationship between primary care utilization, health insurance, marital status, and hypertension among Latino males in California when controlling for age, education, and income?

$H_0$1: There is a relationship between primary care utilization, health insurance, marital status and hypertension among Latino males in California when controlling for age, education, and income.

H_a1: There is no relationship between primary care utilization, health insurance, marital status and hypertension among Latino males in California when controlling for age, education, and income.

Research Question 2: Is there a relationship between smoking, physical activity, mental health, and hypertension among Latino males in California when controlling for age, education, and income?

$H_0$2: There is a relationship between smoking, physical activity, mental health, and hypertension among Latino males in California when controlling for age, education, and income.

H_a2: There is no relationship between smoking, physical activity, mental health, and hypertension among Latino males in California when controlling for age, education, and income.

The independent variables in RQ1 are primary care utilization, health insurance, and marital status, and the dependent variable was hypertension. The independent variables in RQ2 are smoking, physical activity, and mental health, and the dependent variable is hypertension. The covariates that will be used are age, education, and income. Binary logistic regression will be used to identify the relationship between independent and dependent variables.

Threats to Validity

In a qualitative research study, validity constitutes credibility, dependability, and soundness of findings (FitzPatrick, 2019). The validity of a study is dependent on the purpose and context of the research (FitzPatrick, 2019). In quantitative research, there are various types of validity to consider, including internal, external, construct, and statistical validity. Internal validity relates to the extent to which the independent and dependent variables establish a cause-and-effect, and the changes observed result from the

independent variables rather than other factors (Hassan, 2024). Threats to internal validity include confounding variables that influence both the independent and dependent variables in a research study (Sidani & O'Rourke, 2020). This study includes covariates (age, education, and income) to reduce confounding variables, increasing the study's internal validity. External validity refers to the extent to which study findings can be generalized to other situations, settings, and people beyond the study sample (Findley et al., 2021). External validity is compromised when the study fails to account for the interaction of variables in a real-world setting, which can include sample features (Cuncic & Goldman, 2022). In this study, the sample selected is Latino men living in California. Accurately identifying a sample that shares characteristics that represent representative of the population allows for results that can be applied and generalized, which increases the external validity of the research findings.

Ethical Procedures

In this study, I will utilize the 2019 BRFSS secondary data set, removing direct interaction with participants and reducing potential ethical issues. The CDC collected, coded, stored, and made the dataset publicly available. I do not foresee any ethical issues utilizing the dataset as it includes de-identified data, which protects participant's identity and the confidentiality of their responses. To further protect and maintain the safety and privacy of participants, data will be accessed via a password-protected private computer. In addition, before conducting data analysis, approval will be obtained from the Institutional Review Board (IRB) at Walden University.

Summary

The purpose of this quantitative study is to explore the societal and contextual factors that influence hypertension management behaviors among Latino men in California. This retrospective, cross-sectional design study utilizes secondary data from the 2019 BRFSS questionnaire maintained by the CDC to obtain data on the independent variables of primary care utilization, health insurance, marital status, smoking, physical activity, mental health, and the dependent variable of hypertension. In this section, I described research design and rationale, methodology, threats to validity, and ethical procedures. In the following section, I will present and discuss the study results and findings for each research question.

Section 3: Presentation of the Results and Findings

Introduction

The purpose of this quantitative study was to examine the association between the social and contextual factors that influence hypertension management behaviors among Latino men. Specifically, it focused on the relationship between (a) primary care utilization, (b) health insurance, (c) smoking, (d) physical activity, (e) mental health, and (f) marital status and hypertension. This study aims to contribute to the existing body of knowledge on hypertension management by providing insights into social and contextual factors influencing hypertension management among Latino men. These findings help inform outreach efforts, enhance public health interventions, and guide health practices and policies aimed at reducing healthcare barriers, improving health outcomes, and advancing the quality of life for Latino men.

Research Question 1: Is there a relationship between primary care utilization, health insurance, marital status, and hypertension among Latino males in California when controlling for age, education, and income?

$H_0$1: There is a relationship between primary care utilization, health insurance, marital status, and hypertension among Latino males in California when controlling for age, education, and income.

H_a1: There is no relationship between primary care utilization, health insurance, marital status, and hypertension among Latino males in California when controlling for age, education, and income.

Research Question 2: Is there a relationship between smoking, physical activity, mental health, and hypertension among Latino males in California when controlling for age, education, and income?

$H_0$2: There is a relationship between smoking, physical activity, mental health, and hypertension among Latino males in California when controlling for age, education, and income.

H_a2: There is no relationship between smoking, physical activity, mental health, and hypertension among Latino males in California when controlling for age, education, and income.

This section outlines the results of the data analysis by addressing the two research questions and their hypotheses, accessing the data set for secondary analysis, the data analysis for this research study, which includes descriptive and inferential statistics, and a summary of the research findings.

Accessing the Data Set for Secondary Analysis

The data for this quantitative, retrospective cross-sectional study were obtained from the BRFSS, which is collaboration project between the CDC and the states across the United States and U.S. territories. The 2019 BRFSS California dataset is drawn from telephone-based surveys and cellular telephone surveys conducted monthly throughout the year 2019. This dual-frame methodology improved the representativeness of the sample as the number of people who use cellular phones increases. The BRFSS survey includes responses from all participating states and U.S. territories, so it was imperative to disaggregate data in order to meet the inclusion criteria: Latino men in California who

participated in the 2019 BRFSS questionnaire. The response rate for the 2019 BRFSS survey was 40.8% for the combined landline and cellphone response rate. In California, specifically, the combined landline and cellphone weighted response rate was 40.2%.

Discrepancies From the Original Research Plan

There were few discrepancies related to the variables of interest for this research study, specifically related to the variables in RQ2, which focused on sodium consumption as a key independent variable and controlling variables like age and gender. Sodium consumption was a critical independent variable for this research question; however, it was not included in the 2019 BRFSS survey for California. While sodium consumption may have been part of the survey modules in previous years, it was not included in BRFSS survey administered in California in 2019. As a result, data on sodium consumption was not available for California that year, which limited the ability to address the research question related to this key independent variable.

Due to the absence of sodium consumption data in the 2019 BRFSS California dataset, which was a key independent variable for RQ2, a new variable, smoking, was selected as a substitute. Since sodium consumption could not be analyzed, smoking was chosen because it is a recognized health risk behavior that may relate to diet and lifestyle factors, providing useful context for the research.

This study focused on the societal and contextual factors contributing to hypertension among Latino men in California, accurate demographic classification was essential. However, the originally selected survey questions for age and gender, “Are you older than 18 years old?” and “Are you male or female?” were not captured in the 2019

California BRFSS dataset, making them ineffective for aggregation and detailed subgroup analysis. These issues compromised the ability to accurately control age and gender in analyses, which could result in biased or incomplete findings.

To address these issues, alternative survey questions were used. For age, since the original question did not provide categories, a question with categories age groups was selected, allowing for better representation beyond the binary classification of the original question and enabling more detailed analysis of health behaviors across different age ranges. For gender, the alternative question selected was “Sex of respondent” in place of the unavailable question.

By replacing sodium consumption with smoking and refining the questions on age and gender, the discrepancies in the 2019 BRFSS California dataset were addressed. These adjustments allowed the research to move forward with a more accurate and inclusive approach, ensuring the analysis could still be completed despite the limitations in the original data.

Finally, the dependent variables in the study were recorded to account for an even distribution, which would allow the model to fit. The dependent variables recorded were health utilization, education, income, smoking, and marital status (see Table 2). These dependent variables were recoded to address issues of distribution and to ensure they were appropriate for binary logistic regression analysis. In their original form, several variables contained numerous small categories with limited cell sizes, which could have resulted in unstable estimates and compromised the statistical power of the model. To reduce sparsity and improve model fit, categories were consolidated into broader yet

conceptually meaningful groups that maintained theoretical relevance while creating a more even distribution across categories.

For instance, income originally consisted of eight distinct brackets. These categories were reclassified into three levels (<$20,000; $20,000 to <$50,000; and $50,000 or more) to reduce sparsity while aligning with meaningful socioeconomic thresholds commonly used in public health research. Similarly, smoking was recategorized from four categories into three (current, former, never) to create more balanced groupings while reflecting established distinctions in health behavior literature. Health care utilization was grouped into three categories (very recent, intermediate, infrequent) to capture meaningful differences in access while improving the stability of the regression model. Education was simplified into three levels (did not graduate high school, graduated high school, attended college or higher) to address the limited distribution across certain categories and to provide a clearer measure of educational attainment. Finally, marital status was combined into three categories (married, previously in a relationship, not currently in a relationship) to ensure sufficient distribution across groups while retaining theoretical distinctions relevant to health outcomes.

This process of recoding was necessary to balance conceptual clarity with statistical feasibility. By consolidating small, sparsely distributed categories into more robust groups, the data better met the assumptions of binary logistic regression while maintaining the theoretical integrity of the constructs under study. Once the dependent variables were recorded, they met the model for Binary Logistic Regression.

Table 2

Dependent Variable Recording

Variable	Original categories	Recoded categories
Health utilization	1 = within past year 2 = within past 2 years 3 = within past 5 years 4 = 5 or more years 8 = never	1 = very recent utilization 2 = intermediate utilization 3 = infrequent utilization
Education	1 = did not graduate high school 2 = graduated high school 3 = attended college or technical school 4 = graduated from college of technical school	1 = did not graduate high school 2 = graduated high school 3 = attended college or higher
Income	1 = less than $10,000 2 = $10,000 to $15,000 3 = $15,000 to $20,000 4 = $20,000 to $25,000 5 = $25,000 to $35,000 6 = $35,000 to $50,000 7 = $50,000 to $75,000 8 = $75,000 or more	1 = less than $20,000 2 = $20,000 to less than $50,000 3 = $50,000 or more
Smoking	1 = current smoker—every day 2 = current smoker—some days 3 = former smoker 4 = never smoker	1 = current smoker 2 = former smoker 3 = never smoked
Marital status	1 = married 2 = divorced 3 = widowed 4 = separated 5 = never married 6 = member of unmarried couple	1 = married 2 = previously in a relationship 3 = not currently in a relationship

Sample Representativeness

The 2019 BRFSS dataset included 418,268 records, for the state of California, in particular, there were only 11,613 records. However, a total of 2,060 records met the inclusion criteria of Latino/Hispanic, male, and responded to the BRFSS survey in California. External validity of this research study was reduced by categorizing respondents according to the inclusion criteria described. Therefore, the sample representativeness of this research study is for Latino men in California who have hypertension.

Results

Descriptive Statistics

Preceding the initial data set analysis, descriptive statistics were performed as shown in Table 3. The majority of the respondents reported having health insurance (69.6%) and having very recent health care utilization falling between the last 12 months (63.5%). Twenty-five (25.7%) of respondents reported intermediate health care utilization between one year and less than five years, while 10.8 % reported infrequent utilization between 5 or more years or never. Forty-two percent (42.6%) of the respondents reported being married, 23.5% reported previously being in a relationship, and 33.9% reported not being currently in a relationship. In relation to smoking, 13.9% of respondents reported being current smokers, 24% indicated they were former smokers and 62.1% reported never smoking. A total of 64.4% indicated being physically active, while 35.6% reported no physical activity. The majority of the respondents were between

the ages of 25 to 34, did not graduate high school (38.9%), and had an income between $20,000 and $50,000 (38.6%).

Table 3

Baseline Frequencies and Percentages for Sample Characteristics (N = 2,060)

Variable	Category	Frequency	Percentage (%)
Hypertension	Hypertension	335	16.3
	No hypertension	1,725	83.7
Health insurance	Have health coverage	1,259	69.6
	No health coverage	551	30.4
Health utilization	Very recent utilization	1,305	63.5
	Intermediate utilization	528	25.7
	Infrequent utilization	223	10.8
Marital status	Married	876	42.6
	Previously in a relationship	483	23.5
	Not currently in a relationship	698	33.9
Smoking	Current smoker	226	13.9
	Former smoker	458	24.0
	Never smoked	1,187	62.1
Physical activity	No physical activity	734	35.6
	Physical activity	1,326	64.4
Age	Age 18 to 24	309	15.0
	Age 25 to 34	444	21.6
	Age 35 to 44	397	19.3
	Age 45 to 54	375	18.2
	Age 55 to 64	310	15.0
	Age 65 or older	225	10.9
Education	Did not graduate high school	798	38.9
	Graduated high school	526	25.6
	Attended college or higher	728	35.5
Income	Less than $20,000	553	30.7
	$20,000 to less than $50,000	694	38.6
	$50,000 or more	552	30.7

Statistical Assumptions

Binomial Logistic Regression

A binomial logistic regression seeks to predict the likelihood of a binary dependent variable using one or more independent variables, which may either be continuous or categorical (Laered Statistics, 2017). In this study, the binary dependent variable was hypertension, and the independent variables were health utilization, health insurance, marital status, smoking, physical activity, and mental health. A binomial logistic regression meets a total of seven assumptions. The first four assumptions relate to the research study design which include (a) have one dichotomous dependent variable (b) one or more independent variables which are either continuous or nominal, (c) independence of observations and the categories of the dichotomous dependent variable and all nominal independent variables should be mutually exclusive and exhaustive, and (d) there should be at least 15 cases per each independent variable (Laered Statistics, 2017).

The remaining three assumptions relate to the nature of the data and are rested using SPSS statistics which are as follows: (e) a linear relationship between the continuous independent variables and the logit transformation of the dependent variable, (f) no multicollinearity, and (g) no significant outliers. Each of these assumptions were evaluated carefully prior to performing the binomial logistic regression. This section will provide additional information on each of the assumptions (Laered Statistics, 2017).

Assumption 1: Have One Dichotomous Dependent Variable

The dependent variable in this research study was hypertension. The survey question asked was confirmed to be dichotomous (yes/no), which met the assumption for a binomial logistic regression.

Assumption 2: One or More Independent Variables That Are Continuous or Nominal

The independent variables in this research study included health utilization (categorical), health insurance (categorical), marital status (categorical), smoking (categorical), physical activity (categorical), and mental health (continuous). The independent variables in this study met this assumption of the binomial logistic regression.

Assumption 3: There Should Be Independence of Observations

When considering the independence of observations and the dichotomous dependent variable, hypertension (yes/no) and the independent variables in this research study (i.e., health utilization, health insurance, marital status, smoking, physical activity, and mental health) it was determined that they are mutually exclusive and exhaustive.

Assumption 4: Bare Minimum of 15 Cases per Independent Variable

The dataset included the bare minimum of 15 cases for each of the independent variables for this research study (health utilization, health insurance, marital status, smoking, physical activity, and mental health). Therefore, this assumption was met.

Assumption 5: Linear Relationship Between Continuous Independent Variable and Logit Transformation of Dependent Variable

The linearity of the continuous variable, mental health, with respect to the logit transformation of the dependent variable, hypertension, was assessed utilizing the Box-Tidwell (1962) procedure. A Bonferroni correction was performed and indicated $p < 0.005$ indicating a linear relationship between the continuous and logit of the dependent variable, thus, meeting this assumption.

Assumption 6: No Multicollinearity

Multicollinearity occurs when there are two or more continuous independent variables that are highly correlated with one another (Laered Statistics, 2017). This research study only includes one continuous independent variable, mental health, so there is no need to test for multicollinearity. This assumption is met.

Assumption 7: No Significant Outliers

There was a total of 13 standardized residuals with the values of 2.767, 3.277, 2.827, 2.826, 2.827, 2.817, 2.857, 2.814, 3.751, 2.804, 2.802, 3.168, 2.667 standard deviations, were present and kept in the dataset. All available data was utilized.

Statistical Findings

A binomial logistic regression was performed to determine the association of societal and contextual factors (health utilization, health insurance, marital status, smoking, physical activity, and mental health) on hypertension management behaviors among Latino men in California. For this research study, IBM SPSS software version 29

was utilized. In this section, the statistical findings for each research question are included.

RQ1

Research question 1 assessed the relationship between primary care utilization, health insurance, marital status, and hypertension. The binomial logistic regression model was statistically significant ($p < .0005$) with a Hosmer and Lemeshow goodness of fit test result of not statistically significant $\chi2(8) = 11.024$ ($p = .200$), indicating the model is not a poor fit. (Table 4). The model explains a 34.9% (Nagelkerke R^2) variation of hypertension (Table 5) and correctly classified 88.9% of cases. The specificity was 97.9%, the sensitivity was 22.8%, the positive predictive value was 58.9%, and the negative predictive value was 90.3%.

The predictor variables that were statistically significant were health insurance ($p < .001$) and Exp (B)= 2.452, and health utilization at intermediate levels of between two years and five years Exp (B)= 0.221 and $p <0.001$ and at infrequent utilization of five years and more Exp (B)= 0.091 and $p<0.001$. Marital status was not statistically significant ($p=0.801$). The overall categories of age ($p= <.001$) and income ($p=.005$) were also statistically significant (Table 6).

Table 4

Hosmer and Lemeshow Test for RQ1

Step	Chi square	*df*	Sig.
1	11.024	8	.200

Table 5

Model Summary for RQ1Binomial Logistic Regression

Step	-2 log likelihood	Cox & Snell *R* square	Nagelkerke *R* square
1	841.574 [a]	.181	.349

[a] Estimation terminated at iteration number 8 because parameter estimates changed by less than 0.001.

Table 6

Contributions of RQ1 Independent Variables to Model

	B	*SE*	Wald	*df*	Sig.	Exp(B)	95% CI for EXP(B)	
							Lower	Upper
Health insurance (1)	.897	.255	12.338	1	< .001	2.452	1.487	4.045
Health utilization			39.143	2	< .001			
Heath utilization (1)	-1.510	.300	25.373	1	< .001	.221	.123	.397
Health utilization (2)	-2.399	.601	15.953	1	< .001	.091	.028	.295
Marital status			.443	2	.801			
Marital status (1)	-.034	.214	.025	1	.876	.967	.635	1.472
Marital status (2)	-.175	.263	.441	1	.507	.840	.501	1.407
Age			92.824	4	< .001			
Age (1)	2.022	1.065	3.606	1	0.58	7.556	.937	60.931
Age (2)	3.376	1.035	10.629	1	.001	29.246	3.843	222.548
Age (3)	4.017	1.033	15.120	1	< .001	55.557	7.333	420.899
Age (4)	4.888	1.030	22.503	1	< .001	132.669	17.608	999.594
Education			.738	2	.692			
Education (1)	.010	.248	.002	1	.967	1.010	.621	1.643
Education (2)	.184	.234	.623	1	.430	1.202	.761	1.901
Income			10.689	2	.005			
Income (1)	-.362	.216	2.813	1	.094	.696	.456	1.063
Income (2)	-.866	.265	10.689	1	.001	.421	.250	.707
Constant	-4.660	1.049	19.732	1	<.001	.009		

RQ2

Research question 2 assessed the relationship between smoking, physical activity, mental health, and hypertension. The binomial logistic regression model was statistically significant ($p < .0005$) with a Hosmer and Lemeshow goodness of fit test result of not statistically significant $\chi2(8) = 9.527$ ($p = .300$) indicating the model is not a poor fit. (Table 7). The model explains a 33.4% (Nagelkerke R^2) variation of hypertension (Table 8) and correctly classified 84.8% of cases. The specificity was 96.8%, the sensitivity was 22.7%, the positive predictive value was 58.2%, and the negative predictive value was 86.6%. The dependent variables that were statistically significant were smoking ($p = .005$), mental health ($p=.052$). Physical activity was not statistically significant ($p=0.893$). The overall categories of age ($p= <.001$) and income ($p=.051$) were also statistically significant (Table 9).

Table 7

Hosmer and Lemeshow Test for RQ2

Step	Chi square	*df*	Sig.
1	9.527	8	.300

Table 8

Model Summary for Binomial Logistic Regression for RQ2

Step	-2 log likelihood	Cox & Snell *R* square	Nagelkerke *R* square
1	1160.440 [a]	.197	.334

[a] Estimation terminated at iteration number 8 because parameter estimates changed by less than 0.001.

Table 9

Contributions of RQ2 Independent Variables to Model

	B	*SE*	Wald	*df*	Sig.	Exp(B)	95% CI for EXP (B)	
							Lower	Upper
Smoking			10.576	2	.005			
Smoking (1)	.560	.253	4.912	1	.027	1.751	1.067	.2.874
Smoking (2)	.066	.242	.075	1	.784	1.069	.665	1.719
New mental health	.017	.009	3.773	1	.052	1.017	1.000	1.035
Physical activity (1)	-.022	.163	.018	1	0893	.978	.711	1.346
Age			178.551	5	< .001			
Age (1)	1.821	1.059	2.957	1	.086	6.177	.775	49.217
Age (2)	3.271	1.022	10.248	1	.001	26.335	3.555	195.101
Age (3)	3.886	1.017	14.605	1	< .001	48.713	6.639	357.419
Age (4)	4.832	1.014	22.710	1	< .001	125.471	17.197	915.463
Age (5)	5.478	1.017	29.022	1	< .001	239.423	32.627	1756.926
Education			1.578	2	.454			
Education (1)	.017	.209	.006	1	.936	1.017	.675	1.532
Education (2)	.234	.197	1.408	1	.235	1.264	.859	1.860
Income			5.964	2	.051			
Income (1)	-.264	.178	2.200	1	.138	.768	.541	1.089
Income (2)	-.526	.219	5.782	1	.016	.591	.385	.907
Constant	-5.585	1.041	28.801	1	< .001	.004		

Summary

This study aimed to answer two research questions (1) Is there a relationship between primary care utilization, health insurance, marital status, and hypertension among Latino males in California when controlling for age, education, and income? and (2) Is there a relationship between smoking, physical activity, mental health, and hypertension among Latino males in California when controlling for age, education, and income? Based on the study findings, the null hypothesis for RQ1 is partially accepted because there is a relationship between health insurance (intermediate levels of between two years and five years and health utilization (infrequent utilization of five years and more) and hypertension among Latino men in California. The categories of age and

income were also significant. In relation to RQ2, the null hypothesis is partially accepted as there is a relationship between smoking. The categories of age and income were also significant. These findings suggest that Latino men with inconsistent health insurance coverage, low income, older age, and a history of smoking may be at a greater risk of developing hypertension.

In this section, the results of the binomial logistic regression were presented. The interpretation of the findings, limitations to the study, the recommendations of future research, and the social change impact implications will be discussed in section 4.

Section 4: Application to Professional Practice and Implications for Social Change

Introduction

The purpose of this quantitative study was to examine the relationship between social and contextual factors that influenced hypertension management behaviors among Latino men. Specifically, this study focused on the association between (a) primary care utilization, (b) health insurance, (c) smoking, (d) physical activity, (e) mental health, and (f) marital status and hypertension. This study aimed to contribute to the existing body of knowledge on hypertension by providing insights into the social and contextual factors that influence hypertension among Latino men. The findings help inform outreach efforts, enhance public health interventions, and guide health practices and policies aimed at reducing healthcare barriers, improving health outcomes, and advancing the quality of life for Latino men.

Research findings indicate the social and contextual factors that best predict hypertension are health insurance coverage, health utilization, smoking behavior, age, and income. Factors such as marital status, mental health, physical activity, and education are mostly not associated with hypertension. The research findings can help shape the future of culturally responsive and evidence-based health interventions, programs, and policies aimed to prevent hypertension among Latino men.

Interpretation of the Findings

Research findings for RQ1 indicate that Latino men in California without health insurance are 2.45 times less likely to have a hypertension diagnosis compared to those with health insurance. This finding likely reflects underdiagnosis among uninsured

individuals, rather than a lower prevalence of hypertension. Inconsistent access to health care may contribute to missed opportunities for routine screenings and early detection. Delayed preventive care may be influenced by structural barriers such as high out-of-pocket costs, limited availability of providers who accept uninsured patients, and complex eligibility requirements for state and local health programs (Ornelas et al., 2020). These findings align with existing literature suggesting that routine care and consistent insurance coverage play a critical role in identifying chronic conditions like hypertension (Green et al., 2022; Liss et al., 2021; Lei et al., 2022). Findings also indicate that less frequent utilization is associated with lower odds of hypertension. Specifically, among individuals with intermediate health utilization within 2- 5 years and infrequent utilization of 5 or more years were 78%, and 91%, respectively, were less likely to report hypertension. These findings suggest that less frequent health care is linked to lower hypertension rates; however, the findings most likely reflect underdiagnosis among Latino men, rather than better health. These findings align with the existing literature in that more frequent checkup, monitoring medication are essential for health disease detection and prevention (Green et al., 2022 Liss et al., 2021; Lei et al., 2022).

In relation to the covariates, age was strongly associated with hypertension particularly among older men. Specifically, Latino men between the ages of 35 to 44 are 7.6 times more likely to have hypertension. Latino men between the ages of 45 to 54 are 29 times more likely, and those aged between 55 to 64 are 56 times more likely, and those aged 65 or older are 133 times more likely to have hypertension compared to Latino men between the ages of 18 to 24. These results are consistent with existing

literature indicating that the prevalence of hypertension increases steeply with age, highlighting the importance of regular health screenings and preventive care among Latino men as they age (Fryar et al., 2024; Cheng et al., 2022). Results indicated income as a significant predictor for hypertension, specifically among Latino men with an income of $50,000 or more, who are 58% less likely to have hypertension in comparison to Latino men with an income less than $20,000. This finding suggests that higher income is associated with a lower likelihood of hypertension. This is consistent with existing research implicating that higher income can result in better access to health care, and healthier living conditions (Anstey et al., 2019). Research findings also indicated marital status and education do not play a significant role in hypertension among Latino men.

Research findings for RQ2 indicate that smoking overall is associated with hypertension. Specifically, among former smokers, who were found to be 1.75 times more likely to have hypertension compared to current smokers. This suggests that the effects of smoking on hypertension may persist even after quitting, possibly due to long-term damage or other health behaviors which are consistent with current literature (Leopold & Antman, 2021; Ning et al. 2019). Age was a statistically significant factor associated with hypertension among Latino men. Compared to men aged 18–24, those aged: 35–44 were 26 times more likely, 45–54 were 49 times more likely, 55–64 were 125 times more likely, 65 or older were 239 times more likely to have hypertension.

These findings suggest that as Latino men age, the likelihood of hypertension increases significantly, with the greater risk during the mid-30s (Cheng et al., 2022).

Income was a significant only for Latino men with the income level of $50,000 or more were less likely to have hypertension compared to Latino men with an income level less than $20,000. This suggests that a higher income can help individuals have better access to healthcare (Anstey et al., 2019). Research findings indicate mental health, physical activity, and education do not play a significant role in hypertension among Latino men.

Limitations to the Study

Limitations to this research study should be acknowledged. This study used secondary data from the 2019 BRFSS which can introduce several limitations as the research design and instrument selection of the data collected were not used to answer the research questions of this study specifically. While the BRFSS is a large, population-based survey, and the responses to questions on health behavior such as hypertension, smoking, and health utilization, were self-reported, which may reduce the validity and reliability of the participant response due to bias. Variables such as acculturation, language barriers, and cultural influences were unmeasured and not accounted for in the dataset. The cross-sectional nature of the BRFSS is a limitation as it captures information at a single point in time. While more recent data exists and would be more ideal, the data used in this study was from 2019. In addition, during the first analysis of the dependent variables, sodium consumption was not included in the 2019 BRFSS survey for California. The missing variable was replaced with the dependent variable of smoking. The secondary dataset utilized in this study represents the Latino men in California who participated in the 2019 BRFSS survey which could affect the generalizability of the study and the application of findings to all Latino men in other geographic locations.

Regardless of these limitations, the BRFSS is valuable in identifying patterns at the population level suitable for this research study.

Recommendations for Future Research

This study found a strong association between health insurance and hypertension among Latino men. Recommendations for future research include examining the impact of insurance type, such as Medi-Cal and private insurance, as well as the continuity of coverage. Further research could help determine how intermittent versus stable health insurance influences hypertension diagnosis, management, and outcomes. The study findings also suggest that low health care utilization may reflect underdiagnosis of hypertension rather than a lower prevalence. Future studies using longitudinal or cohort designs may be useful in identifying whether Latino men with limited health care access are later diagnosed with hypertension over time.

Additionally, findings from this study indicated a higher prevalence of hypertension among former smokers. Future research should consider examining the duration of smoking cessation and overall exposure to tobacco to better understand this relationship. This study also acknowledges the potential influence of acculturation, cultural norms, and masculinity on health care utilization and lifestyle behaviors; however, these factors were not measured in this study. Future research should include the measurement and analysis of these variables to better understand the role they may play in hypertension detection and management among Latino men.

Public Health Practice and Field-Based Products

Findings from this study indicate that Latino men in California without health insurance are significantly more likely to report hypertension than those without, thus highlighting a serious underdiagnosis crisis among the uninsured. Lower healthcare utilization was also associated with reduced hypertension reporting, which likely reflects limited screening opportunities rather than lower disease prevalence. These patterns emphasize that underutilization of care can mask true health risks and delay critical interventions.

Addressing hypertension underdiagnosis among Latino men in California requires intentional and sustained investment in culturally responsive, preventive health strategies. Research findings from this study point to a critical gap in early detection, driven by inconsistent insurance coverage, limited healthcare utilization, and broader structural barriers that hinder engagement with the health system.

Public health practice must prioritize expanding access to stable, affordable coverage through Medi-Cal, strengthening care models that reflect the lived experiences of Latino men, and developing outreach strategies that speak to their values, responsibilities, and health beliefs. Underutilization of health services should not be mistaken for better health as it often reflects unseen and unaddressed risk. Without targeted efforts to remove access barriers, strengthen trust in healthcare systems, and normalize routine preventive care, hypertension will continue to go undiagnosed until it results in avoidable disability or death.

To address this urgent issue, the Policy Brief Memo (Appendix A) and the Community Health Intervention Plan (Appendix B) offer aligned, evidence-informed strategies that center on the needs of Latino men. Together, they provide a blueprint for improving hypertension screening, advancing culturally tailored interventions, and ensuring that health equity is more than a goal, but a practice.

Positive Social Change

Findings from this study have the potential to inform meaningful and measurable improvements in hypertension prevention and management for Latino men in California. At the individual level, increasing access to routine health screenings and expanding insurance coverage can empower Latino men to detect and manage hypertension earlier which results in reducing their risk for cardiovascular complications and improving long-term health outcomes.

At the family level, healthier Latino men are better able to contribute to the emotional and financial well-being of their households. Addressing underdiagnosis can reduce the burden of avoidable health crises, preserve family stability and promote intergenerational wellness.

At the organizational level, these findings highlight the importance of embedding culturally responsive practices into clinical settings. Community health centers, hospitals, and public health agencies can use this research to refine service delivery models that are better aligned with the lived experiences, language needs, and cultural values of Latino men.

At the societal and policy level, this study underscores the critical role of structural barriers such as unstable insurance coverage and underutilization of health care in perpetuating health inequities. By informing policies that expand Medi-Cal access, support community-based outreach, and promote culturally tailored care models, this research can contribute to systemic changes that prioritize equity in chronic disease prevention.

While the scope of this study is specific to Latino men in California, its findings offer valuable insight into how health systems and policies can be recalibrated to address underdiagnosis, close care gaps, and advance population health.

Conclusion

This study highlights a critical and largely unseen public health issue: the underdiagnosis of hypertension among Latino men in California. Findings reveal that limited access to health insurance and infrequent use of preventive care services are not indicators of better health, but signs of undetected risk. These patterns reflect deep structural inequities that hinder early diagnosis and long-term management. Preventive care must be reframed not only as a medical necessity but as a right. Bridging these gaps will require policy reforms, targeted outreach, and community-rooted interventions that center on the lived experiences of Latino men. We cannot afford to let silence and invisibility stand in for wellness.

Demonstration of DrPH Competencies

This research study was grounded in the design and implementation of a rigorous quantitative study using 2019 BRFSS data to explore key social and contextual factors

influencing hypertension among Latino men in California. Drawing on foundational epidemiological methods, this study examined how insurance status, primary care utilization, and behavioral health factors (i.e., physical activity, smoking) intersect to shape health outcomes. The intervention and policy recommendations were informed by the HBM, which provided a useful framework for understanding perceived barriers and motivations while also revealing limitations when applied without cultural adaptation.

Ethical considerations were integrated throughout the research process, particularly in the interpretation and presentation of data in ways that respect the dignity and complexity of the communities represented. Findings were translated into accessible, actionable formats such as the Policy Brief Memo (Appendix A) and a Community Health Intervention Plan (Appendix B) to support engagement from diverse audiences, including policymakers, practitioners, and community leaders. These tools demonstrate the importance of tailoring public health communication to reflect different levels of health literacy and cultural context.

Lastly, the proposed policy to preserve and expand Medi-Cal access reflects an evidence-based solution aimed at addressing a root cause of underdiagnosis. This recommendation is designed not only to improve screening rates but to drive long-term, structural change, ensuring that equity is embedded in the way we approach chronic disease prevention.

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Appendix A: Field Based Product Policy Brief Memo

Title: Unseen and at risk: Addressing Hypertension Underdiagnosis among Latino Men

Problem Background / Context and importance of the problem:

According to national data from the CDC, Latino men experience disproportionately high morbidity and mortality rates, particularly from chronic conditions like hypertension (Murphy et al., 2021; U.S. Department of Health and Human Services Office of Minority Health, n.d.). Although prevention, early detection, and treatment are proven to improve health outcomes, men are less likely than women to engage in routine health care visits, often seeking care only when symptoms arise or delaying care altogether (Cleveland Clinic, 2019). Contributing factors such as societal norms around masculinity, limited health insurance access, and lack of knowledge further reduce the likelihood of regular health screenings among Latino men.

Hypertension is more prevalent among men (51%) than women (39.7%) and disproportionately affects Latinos compared to other ethnic groups (CDC, 2023a). Behavioral risk factors like poor diet, tobacco use, physical inactivity, and obesity contribute significantly to these disparities (Carey et al., 2018; World Health Organization, 2023). Research shows that work demands, socioeconomic constraints, and limited access to supportive environments further hinder preventive behaviors in this population (Valdez et al., 2019).

Moreover, current evidence indicates that hypertension remains substantially underdiagnosed among Latino men, largely due to low healthcare utilization and limited access to continuous, culturally responsive care. Findings from my study using 2019

California BRFSS data reveal that Latino men without health insurance are over twice as likely to report hypertension compared to those without health insurance, suggesting that uninsured men are more likely to have undetected hypertension. This underdiagnosis poses a significant public health threat, as undetected and untreated hypertension leads to costly emergency interventions, disability, and premature death.

The recently enacted Big Beautiful Bill threatens to exacerbate this crisis by imposing significant federal funding cuts to Medi-Cal (California's Medicaid program), preventive services, and community health initiatives. These reductions risk limiting access to essential health services for vulnerable populations, including Latino men, who already face barriers such as inconsistent coverage and mistrust of the healthcare system. Without targeted policy action to address these cuts and prioritize early detection and management of hypertension, the state risks widening health disparities and increasing the burden of cardiovascular disease among Latino men.

Addressing this issue requires intentional, evidence-based strategies grounded in both research and lived experience. Findings from this study, *Social and Contextual Factors Influencing Hypertension Among Latino Men Living in California*, highlight the ways in which limited health insurance coverage, low health care utilization, and lack of culturally responsive outreach contribute to the underdiagnosis of hypertension among Latino men. Without stable access to care, hypertension often remains undetected until complications arise, increasing the risk of disability and premature death. The policy recommendations below reflect practical, research-informed actions that can help

eliminate barriers, improve early detection, and promote more equitable health outcomes across Latino communities in California.

Policy recommendations

Recommendation #1: Preserve and expand Medi-Cal access to prevent further disruption to care among low-income men.

Latino men disproportionately rely on Medi-Cal for access to preventive services like hypertension screening. The Big Beautiful Bill's proposed federal cuts threaten to erode this safety net. California must act to preserve Medi-Cal's reach and integrity by taking the following steps:

- Identify a State Medicaid Stabilization Plan with leadership from the California Department of Health Care Services to establish a funding strategy that safeguards Medi-Cal from the anticipated federal reductions. This would include considering the state budget and dedicating a reserve fund to maintain coverage for at-risk populations.
- Expand Medi-Cal eligibility for working-age adults to include adults ages between 26-49 as Latino men often are excluded from employer-sponsored coverage.
- Provide continuous coverage by enacting a 12-month continuous Medi-Cal eligibility for adults, regardless of changes in income or employment status to prevent preventive care interruptions.

Recommendation #2: Strengthen care models that meet the cultural, linguistic, and social needs of Latino men

Latino men in California face persistent barriers to engaging with primary care due to language obstacles, cultural stigma around help-seeking, and a lack of culturally aligned services. These barriers contribute to the underdiagnosis of hypertension and reduced preventive care. To address this, California must invest in primary care models that reflect and respect the lived experiences of Latino men by implementing the following targeted steps:

- Require cultural humility and gender-sensitive training for providers serving Medi-Cal populations to reduce medical mistrust and support more respectful, effective patient-provider interactions.
- Expand the pipeline of healthcare professionals and community health workers by funding partnerships between community colleges, universities, and public health departments to recruit, train, and employ Latino men health workers who understand the social and cultural dynamics influencing health behaviors.

Recommendation #3: Enhance Outreach and Public Health Education

Latino men are less likely to engage in routine health screenings due to cultural stigma, misinformation, and limited exposure to targeted health messaging. Increasing hypertension awareness requires culturally relevant outreach strategies that reflect the lived experiences of Latino men and promote health-seeking behaviors in trusted

community settings. California can strengthen early detection efforts by taking the following steps:

- Design and implement health education campaigns rooted in the cultural values, language, and daily realities of Latino men by utilizing storytelling, testimonials, and imagery that reflect Latino men's work lives, family roles, and health challenges
- Allocate funding to mobile care teams that provide primary care (i.e., hypertension screenings and counseling) to hard-to-reach communities and non-traditional settings such as construction sites and faith-based centers.

Appendix B: Community Health Intervention Plan

Title

¡Presión Bajo Control! A Culturally Rooted Intervention to Address Hypertension Underdiagnosis Among Latino Men in California

Public Health Problem

Latino men in California face disproportionately high rates of underdiagnosed hypertension due to structural barriers such as lack of consistent insurance, delayed preventive care, and limited engagement with culturally responsive primary care systems.

Findings Summary

Findings from this study suggest that hypertension among Latino men in California is significantly underdiagnosed, particularly among those without consistent access to care. Latino men with health insurance were 2.45 times more likely to have hypertension compared to insured men, highlighting the critical role of routine preventive care in identifying chronic conditions. This disparity likely reflects missed opportunities for diagnosis rather than better health among the uninsured.

Healthcare utilization patterns further underscore this issue. Men who reported visiting a provider within 2–5 years were 78% less likely to report hypertension, while those who hadn’t visited in over 5 years were 91% less likely pointing again to undiagnosed cases due to infrequent care, rather than true lower incidence. These results

align with existing literature that emphasizes regular checkups, blood pressure monitoring, and medication adherence as key components of hypertension management.

Age and income emerged as critical predictors. Compared to men aged 18–24, those aged: 35–44 were 26 times more likely, 45–54 were 49 times more likely, 55–64 were 125 times more likely, 65 or older were 239 times more likely to have hypertension.

These findings reflect the steep increase in hypertension risk as men age, reinforcing the urgency of early detection and ongoing care across the lifespan. Income also played a significant role: Latino men earning $50,000 or more were 58% less likely to report hypertension compared to those earning under $20,000, suggesting that economic stability enhances access to care and promotes better health outcomes.

Additional findings showed that former smokers were 1.75 times more likely to report hypertension than current smokers, indicating lasting cardiovascular impacts of tobacco use. Other variables including mental health, physical activity, marital status, and education were not significantly associated with hypertension in this research study sample.

Collectively, these findings reveal that inconsistent access to care, aging, and socioeconomic status are central to understanding hypertension among Latino men. Underdiagnosis remains a critical concern, particularly among uninsured and underutilizing populations, underscoring the need for targeted, culturally responsive interventions that improve screening, diagnosis, and chronic disease management.

Population

Latino men ages 18, especially men and at midlife or older, residing in California, with a focus on low-income, uninsured, and underinsured individuals, especially those in labor-intensive industries (e.g., construction, agriculture).

Intervention Components

Intervention Components	Specific Elements	Mode of Delivery
Perceived Severity	• Discussions about the risk of unmanaged hypertension	• In-person peer education at trusted spaces (e.g. job sites, faith centers) in English and Spanish
Perceived Susceptibility	• Culturally tailored posters, short videos to share risks of undiagnosed hypertension • Testimonials on the risk of undiagnosed hypertension	• Share via WhatsApp, social media, television commercials, and trusted local areas (e.g. laundromats, job sites)
Perceived Barriers	• Mobile screenings in accessible community settings • Enrollment support in Medi-Cal program and support with language and digital literacy	• Pop-up events in schools, construction sites, and community gathering spaces • Facilitate registration workshops
Perceived Benefits	• Workshops on long-term benefits of early detection, disease management • Infographics on hypertension, with a focus on the difference between feeling fine and being healthy • Host family-friendly events	• Group sessions hosted by community partners, local faith-based organizations • Family health nights at community centers in partnership with community partners
Cues to Action	• Culturally tailored SMS messages reminding participants of health screening fairs, explaining the BP numbers, and linking to nearby free and low-cost clinics	• Ongoing text messages sent in English and Spanish timed around clinic events and mobile screening days

Self- Efficacy	• Hands-on support to check BP, schedule follow-ups, and navigate care systems • Create support group called "Salud Compas" to reinforce confidence and share strategies, celebrate small wins	• Trained male peer educators checking in with participants of "Salud Compas" • Provide culturally relevant BP log sheets and simple instructions for tracking via app or paper journal

Information sheet

To complement the outreach efforts of this intervention, a culturally tailored information sheet was created to address one of the most persistent barriers to early detection: the belief that "feeling fine" means being healthy. The infographics, *Feeling Fine Isn't the Same as Being Healthy*, in English and Spanish (Appendix C) provide clear, accessible education on the silent nature of hypertension, emphasizing that symptoms often do not appear until serious damage has already occurred. Grounded in culturally resonant language and visuals, the sheet features side-by-side comparisons, visuals of risk factors, and short take-home messages designed to engage Latino men across literacy levels. It was intentionally designed to be shared at barber shops, job sites, community events, health clinics, and faith-based centers, all spaces where Latino men already gather. By clarifying the disconnect between how one feels and their actual health status, this tool reinforces the importance of regular screenings and creates an entry point for conversation, reflection, and action.

Intervention Best Practices

This intervention builds upon and adapts elements from existing best practices such as the *Salud Para Su Corazón* campaign and *Barbershop Health Outreach Models*; however, it is specifically tailored to reflect the lived experiences and cultural context of Latino men in California. Rather than applying a one-size-fits-all model, this intervention integrates the HBM to inform both messaging and delivery emphasizing perceived risk, benefits, barriers, and self-efficacy. Adaptations include using male peer health educators (*Salud Compas*), culturally relevant messaging in Spanish and English, and leveraging trusted community settings like barbershops, taquerías, and job sites.

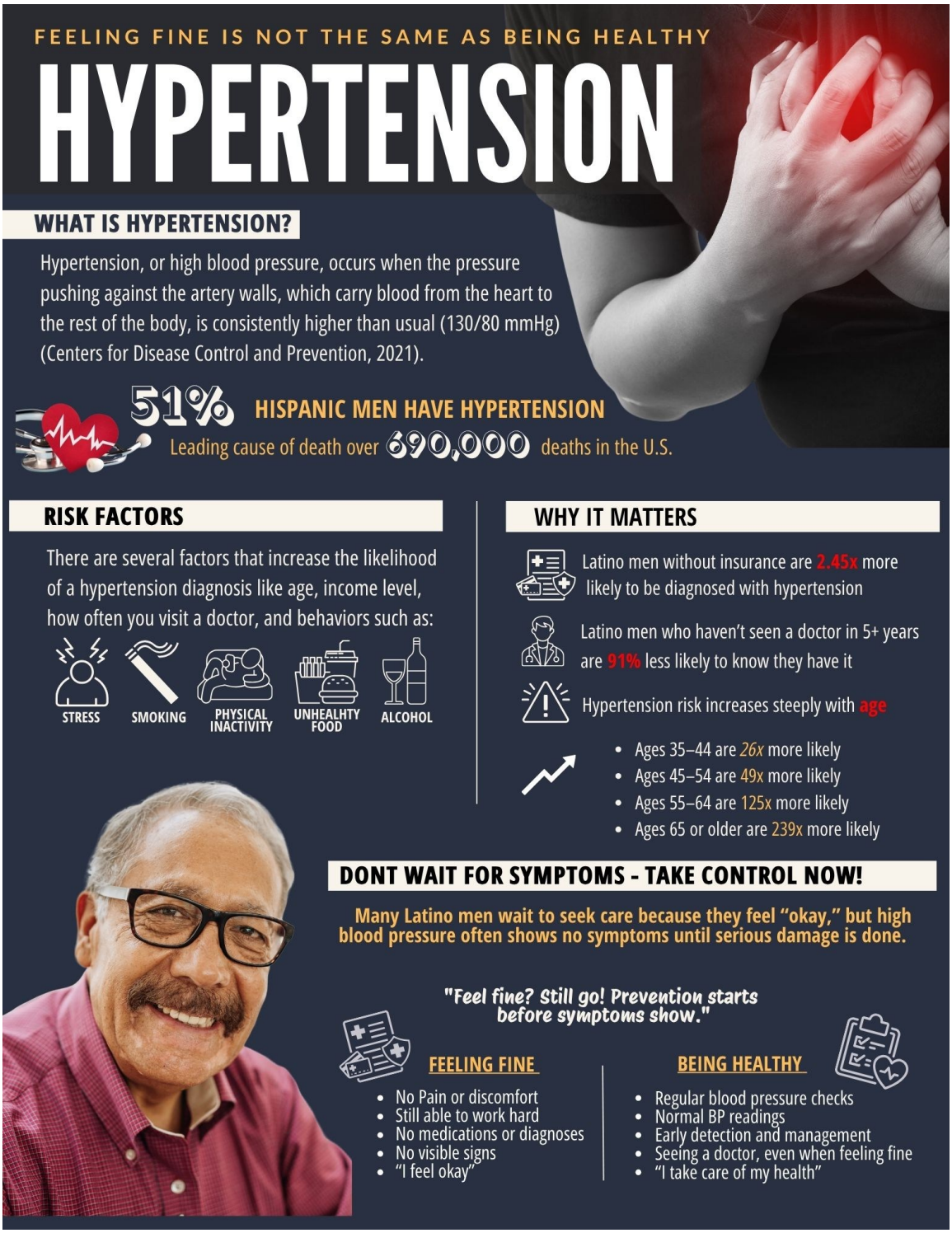
The intervention also adapts to address digital barriers by incorporating low-tech modes of delivery (e.g., WhatsApp, printed infographics) and offering hands-on support for using health apps and portals. By centering cultural values, linguistic accessibility, and structural realities, this adapted intervention ensures that health education and screenings are not just available but accessible, trusted, and actionable.

Intervention Success

Success for this intervention would mean that more Latino men in California are regularly engaging in preventive care, particularly hypertension screenings, and are gaining the knowledge and confidence needed to manage their blood pressure early, before complications arise. In addition, there would be an increase in Medi-Cal enrollment and utilization among uninsured or underinsured Latino men, improved rates of hypertension detection in community settings, and greater self-efficacy in navigating

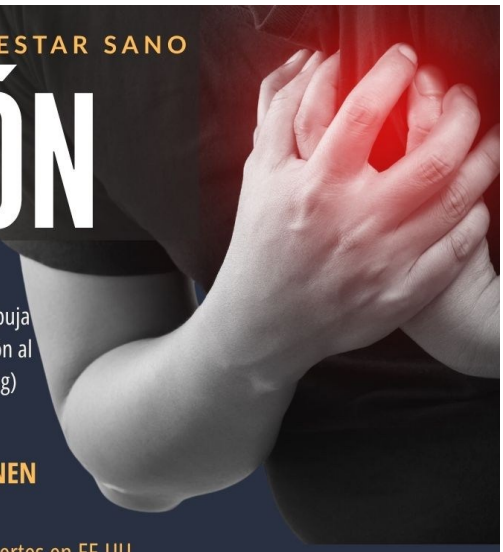
the health system. Culturally grounded outreach and the presence of trusted *Salud Compas* peer educators would help normalize routine care and shift harmful narratives around masculinity and help-seeking behaviors. Ultimately, success would be reflected in reduced underdiagnosis, improved continuity of care, and a narrowing of the health disparity gap in hypertension outcomes among Latino men.

Appendix C: Information Sheets



SENTIRSE BIEN NO ES LO MISMO QUE ESTAR SANO

HIPERTENSIÓN



¿QUÉ ES LA HIPERTENSIÓN

La hipertensión, o presión arterial alta, ocurre cuando la presión que empuja contra las paredes de las arterias, que transportan sangre desde el corazón al resto del cuerpo, es constantemente más alta de lo normal (130/80 mmHg) (Centros para el Control y la Prevención de Enfermedades, 2021).

51% DE LOS HOMBRES HISPANOS TIENEN HIPERTENSIÓN

Causa principal de **690.000** muertes en EE.UU.

FACTORES DE RIESGO

Hay varios factores que aumentan la probabilidad de un diagnóstico de hipertensión, como la edad, el nivel de ingresos, la frecuencia con la que visita al médico y habitos como:

ESTRÉS · DE FUMAR · INACTIVIDAD FISICA · COMIDA POCO SALUDABLE · ALCOHOL

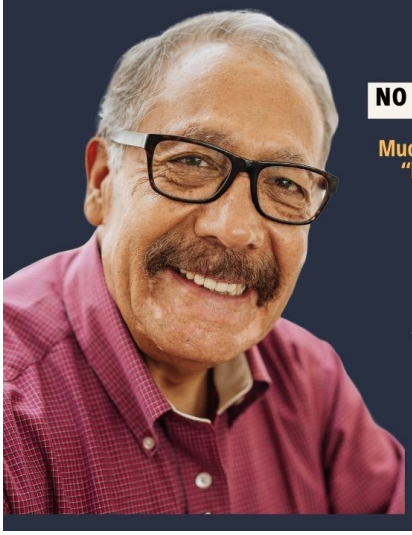
POR QUÉ ES IMPORTANTE

Los hombres latinos sin seguro son 2.45 veces mas probables de ser diagnosticados.

Los hombres latinos que no han consultado a un médico en más de 5 años tienen un 91 % menos probabilidad de saber que lo tienen.

El riesgo de hipertensión aumenta considerablemente con la edad

- Edades de 35 a 44 años tienen 26 veces más probabilidad
- Edades de 45 a 54 años tienen 49 veces más probabilidad
- Edades de 55 a 64 años tienen 125 veces más probabilidad
- Edades de 65 años o más tienen 239 veces más probabilidad



NO ESPERES A QUE APAREZCAN LOS SÍNTOMAS: ¡TOMA CONTROL AHORA!

Muchos hombres latinos esperan para buscar atención médica porque se sienten "bien", pero la presión arterial alta rara vez muestra síntomas hasta que se produce un daño grave.

¿Te sientes bien? ¡Adelante! La prevención empieza antes de que aparezcan los síntomas.

SENTIRSE BIEN

- Sin dolor ni molestias
- Todavía puedo trabajar duro
- Sin medicamentos ni diagnósticos
- No hay señales visibles
- "Me siento bien"

ESTAR SALUDABLE

- Controles regulares de la presión arterial
- Lecturas normales de presión arterial
- Detección temprana y tratamiento
- Ver a un médico, incluso cuando te sientes bien
- "Cuido mi salud"