

# FACTORS CONTRIBUTING TO HEART DISEASE IN HISPANICS

## **Factors Contributing to High Rates of Heart Disease in Hispanics:**

### **A Literature Review**

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# FACTORS CONTRIBUTING TO HEART DISEASE IN HISPANICS

## *Research Question*

What factors contribute to high rates of heart disease in Hispanic communities living in the United States?

## **INTRODUCTION**

The ‘epidemiological transition’ refers to a shift in the recorded causes of death from infectious diseases to chronic diseases. This is due to the technological advancements and the development of health services (Mercer, 2018). A chronic disease that has elevated rates of prevalence in the United States is cardiovascular disease (CVD). The American Heart Association (AHA) reports that approximately 82.6 million people in the United States have one or more forms of cardiovascular disease (Institute of Medicine (US) Committee on a National Surveillance System for Cardiovascular and Select Chronic Diseases, 2011). Common consequences of cardiovascular disease include coronary heart disease (CHD), stroke, hypertension, and congestive heart failure (Institute of Medicine (US) Committee on a National Surveillance System for Cardiovascular and Select Chronic Diseases, 2011). The diseases are differentiated by their etiology, such as arrhythmias, problems of obstructed coronary arteries, and inefficient pumping or ejection of blood into the circulatory system (Balfour et al., 2016).

Although risk factors for cardiovascular disease depend on many factors specific to each person, there are known risk factors that increase the chances of developing heart disease. These include having high blood pressure, high blood cholesterol, and prediabetes or diabetes. Other risk factors include being overweight or obese. Certain habits also contribute to higher chances of developing CVD, such as smoking, unhealthy eating behaviors, and not getting regular physical activity. Furthermore, having a family history of early heart disease or preeclampsia increases the risk of CVD (NIH, 2022).

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Cardiovascular disease is the leading cause of death for both men and women. In 2022, about 1 in every five deaths were due to heart disease, accounting for 702,880 number of deaths (CDC, 2024b). The most prevalent type of heart disease in the U.S. is coronary artery disease (CAD). This disease affects the blood flow to the heart, which can lead to a heart attack (CDC, 2024a). Cardiovascular disease has a high rate of mortality in the U.S. and has a high impact on the economy. Through a combination of healthcare services, medication, and lost productivity, the total economic impact of heart disease in the United States was about \$252.2 billion from 2019-2020 (CDC, 2024b).

Heart disease is a prevalent health concern, particularly among Hispanic communities in the United States. From 2015 to 2018, 52.3% of Hispanic men and 42.7% of Hispanic women aged 20 years and older had cardiovascular disease (AHA, 2021). Mexican American adults are more likely to have a stroke and heart failure than white adults (Cleveland Clinic, 2022). The rates of hospitalization for a heart attack were significantly higher in Mexican Americans when compared to non-Hispanic white males and females (Balfour et al., 2016). Additionally, data from the Hispanic Community Health Study/Study of Latinos (HCHS/SOL), a longitudinal study of the health of people of Cuban, Dominican, Mexican, Puerto Rican, and Central and South American backgrounds, showed high rates of high blood pressure, diabetes, and high cholesterol. These are major cardiovascular risk factors. 59% of participants had high blood pressure, 65% had high cholesterol, and more than one-third had diabetes. In the Hispanic population, 2% of women have had a heart attack, and 1.7% of Hispanic women have had a previous stroke. Young Hispanic women who have a heart attack face a higher risk of dying compared with young Black adults and young white adults (Cleveland Clinic, 2022). Furthermore, 6,300 Hispanic women died as a result of stroke in 2019 alone (AHA, 2024).

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Past studies have extensively explored the factors contributing to elevated rates of heart disease, including lifestyle factors such as smoking, physical inactivity, and high blood pressure (CDC, 2024c). However, there is a need for a more insightful examination of the unique challenges faced by the Hispanic population regarding heart disease prevalence. Understanding these specific challenges will help develop targeted interventions and preventative strategies to address unique heart disease risk factors among Hispanics in the United States, particularly as the proportion of Hispanics in the general population continues to grow (Gomez et al., 2022). This review aims to provide insights into the risk factors contributing to high heart disease prevalence and explore potential interventions specific to Hispanic communities.

### **METHODS**

Through the University of Georgia's library database, a comprehensive search was conducted through PsycINFO and PubMed to select current, peer-reviewed articles answering this literature review's research question. PsycINFO is a comprehensive database providing a wide range of literature in psychology and related fields, such as social sciences and medicine. This database allows easy access to relevant articles studying the contributing factors to heart disease among Hispanic communities. This database encompasses research from around the globe; therefore, it contains research from the United States, a target location of this literature review. PubMed is a large database that covers a wide range of topics within biomedicine and the health sciences. The large selection of articles provides access to relevant articles that address the research question for this literature review. The article selection process is detailed in Table 1.

#### *Inclusion and Exclusion Criteria*

Certain inclusion and exclusion criteria were established to ensure the relevance of the literature reviewed. The first database utilized was PsycINFO. Common synonyms for search

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terms were included in each category. For instance, the keywords “risk factors” and synonyms such as “contributing factors” were utilized in this search to specifically target studies pertaining to risk factors. Additionally, synonyms for search terms related to heart disease were used, such as cardiovascular disease and coronary heart disease, to incorporate all articles relating to the targeted disease. The terms Hispanic and Latinx were used in the search to ensure the inclusion of studies that met all criteria related to researching heart disease among the Hispanic population in the United States. Only peer-reviewed and original research articles were eligible. This excludes systematic reviews and meta-analyses. Only journal articles containing relevant information regarding contributing factors for heart disease in Hispanic populations were considered. Only articles published within the last 10 years (2015-2025) were considered to ensure only current and relevant studies were used. These inclusion and exclusion criteria were used for the second database, PubMed. However, the terms for the search conducted were also specified to be in the Title/Abstract to ensure all articles answered the research question.

### *Rationale for Chosen Articles*

Only one search utilizing the Boolean phrases and keywords found in Table 1 was conducted in each database. The search in PsycINFO yielded 338 results, and the search in PubMed resulted in 520 articles. This approach ensured all articles on the topic were provided. These searches ensured comprehensive coverage of relevant literature while allowing for the exploration of various contributing factors.

Due to the research question being a broad topic, this approach led to a larger selection of journal articles. Therefore, the selection of articles was very specific. To select articles, each title had to be relevant to the topic and had to address the research question. This helped eliminate articles that were unrelated to the research focus. Next, the abstract of each selected article was

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reviewed and had to address the target population and the research topic. Also, articles had to directly address a potential predisposing factor to heart disease for the Hispanic population in the United States. Then, the methods section of each article was reviewed to determine if the sample size was large enough and if Hispanics were adequately represented. Finally, the results section was studied to identify key findings pertaining to risk factors for heart disease in Hispanic communities. Articles were only selected if they had statistically significant findings. Twelve articles were selected from the PsycINFO search, and eight articles were selected from the PubMed search. Overall, this systematic approach led to the selection of 20 articles that not only addressed the research topic but also represented the target population.

*Table 1. PsycINFO and PubMed Search Terms and Yielded Results*

Database	Search Terms	Yielded Results	Articles Selected
PsycINFO	("risk factors" OR "contributing factors" OR "predisposing factors") AND ("cardiovascular disease" OR "CVD" OR "heart" OR "coronary heart disease") AND ("Hispanic*" OR "Latino" OR "Latina" OR "Latinx")	338	12
PubMed	((risk factors[Title/Abstract] OR contributing factors[Title/Abstract]) AND (cardiovascular disease[Title/Abstract] OR CVD[Title/Abstract] OR heart	520	8

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	disease*[Title/Abstract])) AND (Hispanic*[Title/Abstract] OR Latino*[Title/Abstract])		
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## RESULTS

The Hispanic population in the United States experiences high rates of cardiovascular disease overall within their community. Several factors contribute to this problem, and through the articles analyzed in this literature review, three overarching themes arose. Mental health, cultural/ family factors, and access to healthcare all contribute to the high prevalence of cardiovascular disease among the Hispanic community.

### *Mental Health (Individual Factor)*

Hispanic adults face high rates of discrimination, adverse life events, and chronic stressors. Higher levels of discrimination among non-whites and Hispanics may exacerbate CVD risk and other health disparities (Foley et al., 2022). Findings demonstrate that racial/ethnic discrimination is associated with CVD health risk factors. Discrimination experiences were associated with a higher likelihood of using tobacco in the past month and drinking at hazardous levels among a Hispanic population (Foley et al., 2022). Additionally, perceived discrimination contributes to higher levels of salivary IL-6 acute stress response (Saban et al., 2018). In a study of participants from a Hispanic-serving institution, researchers observed a positive relationship between greater levels of racial discrimination and higher BMI, as well as increased severity of symptoms of anxiety and depression, all of which are predictive of CVD (Serpas et al., 2022).

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Chronic stress is related to higher CVD risk and prevalence in Hispanics. In the Hispanic Community Health Study/ Study of Latinos Sociocultural Ancillary Study, chronic stress burden was related to a higher prevalence of coronary heart disease. Chronic stress was also related to a higher prevalence of diabetes and hypertension (Gallo et al., 2014). Several Hispanic populations face stressors such as worrying about deportation. Reporting a lot of worry about deportation was significantly associated with body mass index, greater risk of obesity, larger waist circumference, and higher pulse pressure, and reporting moderate deportation worry was significantly associated with greater risk of overweight and higher systolic blood pressure. (Torres et al., 2018). In a study of 50 Latina women, researchers found that a higher count of lifetime trauma was associated with worse cardiovascular health (Caceres et al., 2022). Additionally, a large portion of the Hispanic community has a lower socioeconomic status (SES). It is seen that SES is related to metabolic variables indirectly through psychosocial factors in U.S Hispanics/Latinos. Hispanics display high rates of metabolic syndrome, a set of cardiometabolic risk factors that includes elevated blood pressure, dyslipidemia, hyperglycemia, and abdominal obesity. Low socioeconomic status is associated with higher metabolic syndrome risk. Furthermore, negative cognitive-emotional factors (e.g, depression, anger, anxiety, loneliness) and psychosocial resources (e.g., self-esteem, mastery, optimism) contributed to associations of SES with metabolic syndrome in middle-aged Mexican Americans (McCurley et al., 2017).

### *Cultural Practices/Family System*

The Hispanic population has a variety of different components to their culture that may put them at a higher risk for developing cardiovascular disease. One of these cultural risk factors is large family unit size, which impacts CVD risk via the influence of structural social support. On average, the Hispanic family units include about four people, larger than other racial/ethnic



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groups, such as non-Hispanic Whites (Marie L. Mallet, 2014). To promote and maintain harmonious familial relationships and cohesion, independent decisions concerning healthy food consumption and diabetes self-care tasks may suffer. In one study, researchers found that as family unit size increased, participants had higher odds of obesity, a risk factor for CVD. A higher total number of living children, parents, and in-laws was associated with 5% higher odds of having a greater BMI. A greater number of close ties with extended family relatives was also associated with higher odds of obesity (Rosalba Hernandez et al., 2018). Hispanics share a set of core family values and strong attachments to the nuclear and extended family. This leads to a significant influence on emotional well-being. It was seen that higher family conflict was associated with an increase in the prevalence of metabolic syndrome, a risk factor for CVD (Penedo et al., 2015). In a culture that values interpersonal connectedness, disruption of familial structures can be more impactful compared to other cultures (Rosalba Hernandez et al., 2018). Furthermore, there is an intergenerational cardiovascular association among Hispanic families. Hispanic adults and youth have higher prevalence rates for obesity compared to most other racial/ethnic backgrounds. In a study of 280 Hispanic adolescents, it was found that adolescents were more than twice as likely to be in the severely obese versus obese weight range when their parents had obesity. Additionally, adolescents who had parents with elevated blood pressure were more than twice as likely to have elevated blood pressure (Kobayashi et al., 2022). In a study, researchers found an association between parent and youth CVD risk factors being driven by the correlation between health risk behaviors. Hispanic/Latino youth share patterns of obesity and CVD risk factors with their parents. Parents who are obese are significantly more likely to have youth who are overweight (Carnethon et al., 2017).

### *Access to Healthcare*

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Minorities are underrepresented in research and experience barriers to healthcare, such as preventative screenings. Sexual minority men with HIV are at an increased risk of cardiovascular disease (CVD) and have been underrepresented in behavioral research and clinical trials. The risk of HIV, as well as CVD as a comorbidity, disproportionately impacts Latinx sexual minority men. The underrepresentation is a catalyst for avoiding care engagement and reduces the opportunities for CVD screening and preventative counseling (Ramos et al., 2024). In a study assessing current estimates of colorectal cancer (CRC) screening practices in relation to cardiovascular disease (CVD) status, it was found that the proportion of Hispanics who had never been screened (35.3%) was higher than non-Hispanic Whites (23.5%) and Blacks (20.6%) (Castañeda-Avila et al., 2021). Additionally, preventative screenings have been unadministered in Hispanic populations due to providers being less knowledgeable. OB/GYNs appear less knowledgeable and concerned with Hispanics' increased CVD risk. Slightly less than half of OB/GYNs (45.9 %) reported that they routinely screen their Hispanic patients for CVD. The most reported provider and patient-related barriers to CVD care were time constraints, patient nonadherence to treatment recommendations, and inadequate training (Jones et al., 2015). Furthermore, a population of low-income Latina women was found to be unaware of heart disease risk factors, despite campaigns to increase CVD awareness. This is due to language barriers, lack of health insurance, and lack of access to preventive health messages, which may further increase their risk of CVD (Koniak-Griffin & Brecht, 2015).

## DISCUSSION

The unique characteristics of the family system of Hispanics, along with the challenges Hispanic communities face, such as mental health and healthcare barriers, all contribute to the high rates of CVD in Hispanic populations. Higher rates of discrimination, adverse life events,

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and chronic stressors that Hispanics face increase behavioral and health risk factors of cardiovascular disease. Certain stressors can be manifested due to the familial values specific to Hispanics, leading them to be more susceptible to being impacted by disruption. The lack of knowledge among providers about the prevalence of CVD in Hispanics leads to poor access to care. Addressing these challenges requires efforts to address discrimination and provide culturally sensitive services to Hispanic communities.

### *Implications for Practice*

A culturally responsive healthcare system is necessary to lower barriers to education, health services, and address the unique health risk factors the Hispanic population faces. Hispanic communities are disproportionately affected and face additional barriers related to immigration, such as discrimination and language proficiency (Quesada et al., 2024). There needs to be an approach for equitable care.

Among Hispanics, data from the HCHS/SOL study suggest that overall prevalence rates of discrimination experiences ranged from 64.9% to 98% (Arellano-Morales et al., 2015). Perceived discrimination is a form of social stress and is associated with a range of negative mental and physical health outcomes, including increased risk of CVD and mortality. Emotional well-being interventions would combat this. Interventions such as one done in a study of a culturally adapted positive psychological intervention for Hispanics/Latinos with elevated risk for cardiovascular disease have been shown to be effective, having most participants showing reliable increases in emotional validity (R. Hernandez et al., 2018). Further research is needed to create stronger associations between stressors, such as lifetime trauma, and cardiovascular health in Latinos.

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Additionally, cultural tailoring for Hispanic communities is highly needed, given the sparse availability of resources for this demographic. There needs to be a focus on familial and interpersonal relationships, along with obtaining information regarding CVD risk factors in parents. This needs to be implemented in healthcare settings and by providers. This will address certain heart disease risk factors in Hispanics. Furthermore, alternate forms of social support, such as healthcare professionals and friends, should be further explored as potential markers of cardiac risk in Hispanics/Latinos.

Community-based educational programs are needed to increase the cardiovascular health knowledge of the high-risk Hispanic population. A culturally tailored Spanish language community-based educational program, Vivir Con Un Corazon Saludable, has been effective in increasing CVD awareness among high CVD risk Hispanic women with low English proficiency and low baseline CVD knowledge (Romero et al., 2016). Furthermore, educational programs offered virtually would allow there to be anonymity (Ramos et al., 2024). This may combat the distrust Hispanic populations have in healthcare settings and lower barriers to receiving critical information. Educational programs need to be provided for healthcare professionals to ensure they know these particular risk factors for CVD in Hispanics.

### *Limitations*

The primary limitation of this literature review is that only twenty articles were analyzed. This does not incorporate all predisposing factors of cardiovascular disease in the Hispanic population in the U.S. Most of the studies analyzed were cross-sectional studies. This limits inferences as they are unable to establish causal relationships between variables. For instance, this prevents knowing if stress is a direct cause of an increase in CVD risk factors, or if they are only associated with each other. Most studies relied on self-reported data from the participants,

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which introduces the probability of recall bias. Participants may have difficulty remembering experiences and their emotions. This leads to inaccuracies in the data. Multiple articles had small sample sizes overall or small sample sizes of Hispanics. This prevents the findings from being generalizable to the entire Hispanic population in the United States. Future research incorporating longitudinal studies would provide greater insight into the contributing factors to CVD that all Hispanics experience.

### *Conclusion*

Certain interventions are being administered to combat unique risk factors of cardiovascular disease that the Hispanic population in the United States experiences. These efforts include educational programs and a change of behavioral habits. Despite these efforts, further research is needed to fully understand what contributing factors increase the prevalence of CVD in Hispanics.

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