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Correlational Study of Health Checkups and Patient Wellness: Epidemiological Evaluation on Prophylaxis Pathways

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Walden University

College of Health Sciences and Public Policy

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Samantha H. Beaubrun

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Walden University

2025

Abstract

Correlational Study of Health Checkups and Patient Wellness: Epidemiological

Evaluation on Prophylaxis Pathways

by

Samantha H. Beaubrun

MS, Walden University, 2022

MHA, Walden University, 2017

BS, Temple University, 2013

AS, Delaware County Community College, 2010

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health - Epidemiology

Walden University

February 2026

Abstract

Health checkups and wellness visits are a vital pathway to early detection and diagnosis of disease. It is not known whether young adults, insured or not, are opting into preventive care services to optimize health status via health checkups/wellness visits at primary care academic health centers. The purpose of this quantitative study was to examine the relation of wellness visits to healthcare insurance and health status while adjusting for gender among young adults ages 18–35 years in the United States.

A descriptive correlational design was used with the 2023 National Health Interview Survey data set ($N = 6,544$). The results of ordinal logistic regression reveal a statistically significant relationship between wellness visits utilization and health status after controlling for gender. Young adults who had not visited a doctor recently for a wellness checkup were less likely to report poorer health compared to those who had ($\beta = -0.367$, $p < .001$). Binary logistic regression showed a statistically significant relationship was found between wellness visits utilization and health insurance coverage after controlling for gender. Young adults who had not visited a doctor recently for a wellness checkup were less likely to report having healthcare insurance coverage compared to those who had ($\beta = -0.269$, $p = .004$). The results emphasize the need for targeted strategies to affect adherence to utilization of preventive care. Findings have potential implications for positive social change that include epidemiological insight into public health primary care services and updated age-specific preventive care guidelines.

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Dedication

First and foremost, all glory and honor to my Lord and Savior, Jesus Christ. This monumental doctoral achievement and scholarly signature of success could not have been attained without His almighty grace, guidance, and divine intervention. I am forever grateful for this doctorate blessing, and proclaim that, *“Every good gift is from above, and cometh down from the Father...”* (James 1:17 KJV). I dedicate this doctoral dissertation to the best parents that I could ever ask for. To my beautiful, strong, courageous, and encouraging mother, the distinguished matriarch of my life, Mrs. Evelyne L. Beaubrun, and my amazing visionary leader, faith-fueled, devoted father, and Pastor, Reverend, Dr. Henock Beaubrun. My parents, you are my everything, and I owe you both the world. Thank you immensely for your powerful prayers, love, and continued support throughout this dissertation journey. I love you, Mom and Dad, and I will continue to make you both proud!

I would also like to dedicate this doctoral dissertation to my one and only gorgeous younger sister, best friend, and biggest supporter, Dr. Elvelyna B. Beaubrun. Even as the youngest sibling, you set forth an exemplary path of recognizable success, unique strength, and relentless determination to triumph and achieve major milestones. I admire and love you so much, sister, and I am excited to see what else we achieve, for together we are unstoppable! This dissertation is dedicated in memorial to my late, sweet, and lovely grandmother, Jeannette Lambert, who was truly the epitome of love. I love and miss you, Grandma. Thank you for pouring so much love and the joy of the Lord into me. In memory of my other adored grandmother, Roosevelt Woeche, my sincere

gratitude for your unwavering, firm loyalty to God's plan for my life, and the legacy of continuing to lead by faith. God knew exactly what He was doing by placing you both in my life, and now as my guardian angels.

I dedicate this doctoral dissertation to every obstacle and challenge that ineffectively attempted to derail and interfere with my path toward success as the now doctoral scholar and practitioner, Dr. Samantha H. Beaubrun. To every failure, to every pivot in life, to all the doubters, a big thank you to you. You provided me with an unrelenting grit to persevere in the midst of adversity, delay, and roadblocks. You invigorated me with a robust and compelling aptitude to push harder and to achieve bigger. Get ready, as I'd like to say that I am just getting started.

Lastly, I dedicate this doctoral dissertation to the field of public health and epidemiology. To all those whose lives were cut short by a preventable disease, and to the millions who deserve a healthier future of optimized health, well-being, and vitality, this dissertation is for you. May the insights of this scientific inquiry within these pages ignite innovative healthcare preventive practices and improve the lives of all. To all the healthcare organizations, hospitals, clinics, and medical centers, may this doctoral dissertation evoke upgrades to preventive care guidelines as well as equity and accessibility in health checkups utilization.

To all the doctors, practitioners, and researchers, such as myself, may this doctoral dissertation set forth a trailblazing path forward toward preventing diseases, promoting wellness, and achieving optimum salutogenesis, a positive health-promoting prototype for generations to come. Thank you.

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Table of Contents

List of Tables	iv
List of Figures	v
Chapter 1: Introduction to the Study	1
Introduction	1
Background	5
Problem Statement	8
Purpose of the Study	9
Research Questions and Hypotheses	9
Theoretical Framework	11
Nature of the Study	12
Definitions	13
Assumptions	15
Scope and Delimitations	16
Limitations	16
Significance	17
Summary	18
Chapter 2: Literature Review	19
Introduction	19
Literature Search Strategy	25
Theoretical Foundation	26
Health Promotion Model	26

Literature Review Related to Key Variables and/or Concepts	28
Public Health and Preventive/Primary Care	29
Public Health and Health Checkups/Wellness Visits Utilization	30
Health Promotion and Health Insurance Coverage.....	31
Health Promotion and Health Status	33
Summary and Conclusions	34
Chapter 3: Research Method.....	36
Introduction.....	36
Research Design and Rationale	37
Methodology	40
Population	40
Sampling and Sampling Procedures	41
Sample Size.....	42
Procedures for Recruitment, Participation, and Data Collection.....	46
Operationalization of Study Variables.....	48
Data Analysis Plan.....	48
Threats to Validity	52
Ethical Procedures	56
Summary	56
Chapter 4: Results	59
Introduction.....	59
Data Collection	61

Results.....	64
Results of Research Question 1	66
Results of Research Question 2	70
Summary	72
Chapter 5: Discussion, Conclusions, and Recommendations	75
Introduction.....	75
Interpretation of the Findings.....	76
Limitations of the Study.....	82
Recommendations.....	82
Implications.....	84
Conclusion	85
References.....	87
Appendix A: Codebook Basic	97
Appendix B: Codebook- DDI.....	99

List of Tables

Table 1. Descriptive Statistics: Frequency of Wellness Visits Utilization	65
Table 2. Descriptive Statistics: Frequency of Health Status.....	65
Table 3. Descriptive Statistics: Frequency of Health Insurance Coverage.....	66
Table 4. Descriptive Statistics: Frequency of Gender	66
Table 5. Ordinal Logistic Regression of Wellness Visits Utilization and Health Status..	69
Table 6. Binary Logistic Regression: Wellness Visit Utilization and Gender	72

List of Figures

Figure 1. G*Power Analysis Calculation of Sample Size (n = 721)	43
Figure 2. G*Power Analysis Input Parameters Box (n = 721)	44
Figure 3. Descriptive Statistics: Histogram of Sample Size (n=6,581)	64

Chapter 1: Introduction to the Study

Introduction

Health checkups and wellness visits are the prophylactic pathway toward preventing the exacerbated plethora of chronic diseases among young adults. Checkup visits are considered healthcare encounters that entail multiple screenings, vaccinations that act as a first line of defense against viruses, and detection of risk factors, to initiate early interventions and to prevent future disease (Liss et al., 2024). The public health challenge tackled by many countries is the mounting healthcare costs correlated with an increasing prevalence of chronic disease (HaGani et al., 2023). Guilamo-Ramos et al. (2024) explained that the United States spends an astounding \$4.8 trillion on health care, with expenditures primarily allocated to treating diseases. Yet only 20% of U.S. adults undergo an annual wellness visit. In 2020, 33.4% of primary care visits were for preventive care, 60% of the wellness visits included screenings, examinations, health education, or counseling, and 40.5% included laboratory tests (Centers for Disease Control and Prevention [CDC], 2022).

Previous literature illustrated strong evidence that proactive participation in clinical preventive practices can help screen and mitigate such morbidities in advance. Varshini et al. (2020) explained that yearly health checkups aid the pathway of early diagnosis of any preventable diseases and that its impetus is to avert premature morbidity and mortality by detecting specific risk factors and early predictions of remediable disease. Current studies suggest young adults ages 18–35 years have fallen behind in proactively complying with their health check-ups and wellness visits (Alawode &

Nicolson, 2023). While prior analyses have assessed pandemic-associated variations in the receptivity of certain types of preventive screenings, many of them have fundamentally focused on older age populations and have not evaluated the extent to which socioeconomic variables, such as lack of healthcare insurance coverage (Alba et al., 2024). Even more remarkable is that the current body of high-quality literature is limited regarding the utilization of clinical preventive practices, such as health check-ups and wellness visits, by young adults ages 18–35 years old within U.S. primary care academic medical centers. This study was needed to address preventive health utilization and public health outcomes among young adults ages 18–35 years, as a way to initiate further health and wellness promotion.

Prophylactic measures have become the prominent catalyst in the emerging integrative fields of both public health and clinical preventive medicine, helping to initiate a passageway of progressive health outcomes. Alawode and Nicolson (2023) emphasized that young adults are least prone to utilize such provisions for screening and prevention of diseases, which can have a sizable effect on their long-term health as they progress through the course of life. Healthy People 2030 trajectory objectives include a core emphasis on increasing preventive care for individuals of all ages. As such, it provides a proactive, comprehensive initiative for individuals to achieve healthy, thriving lives and well-being free of preventable disease, disability, injury, and premature death (Healthy People, 2024). The potential positive social change implications of the study's findings provided vital prophylactic epidemiologic insights into public health outcomes. In particular, this study addressed the challenges of healthcare utilization within primary

care academic medical centers, concerning the variables of health status and healthcare insurance coverage of young adults ages 18–35 years.

The study was conducted to fill a gap in public health literature, and the findings contributed knowledge to public health-affiliated organizations as well as clinical preventive medicine practices. The propositions of this study rendered evidence-based insights on the merging professions of public health-based physicians, epidemiologists, research practitioners, and the general public. Concerning the effectiveness and health optimization outcomes of wellness visits/health checkups uptake, this research has the potential to bridge the gap between preventive care and public health outcomes.

It will also inform healthcare leaders and stakeholders of strategic ways to incorporate and manage innovative approaches to preventive care utilization. By filling a gap, public health professionals will be better trained to address and focus preventive care initiatives by conveying the information from this study into actionable, proactive public health outcomes and measures in primary care academic medical centers. Furthermore, by leveraging a thorough examination of clinical preventive practices of primary care health systems. Accordingly, this study will recommend a potential pathway to connect the existing gap between young adults ages 18–35 years and their adherence to preventive care uptake.

The research also has the potential to impact positive social change in healthcare preventive practices. The results can provide key information for innovation and evidence-based research for preventive screenings, updated guidelines, and will also justify needed attention, funding, and resources towards the consideration of preventive

care, and access to care in prevention planning for young adults ages 18–35 years. This is critical in improving the overall vitality of health, optimization of well-being, and reduction of the burden of disease, hence morbidity and mortality rates among this specific group, and the overall population as a whole. The current study investigated some of the logistical barriers to preventive care uptake, as well as addressed some of the population characteristics and/or social determinants of health (SDOHs) that impede prioritizing routine wellness checkups. Numerous studies have discovered various factors that enable the utilization of preventive healthcare services, such as health checkups, including socioeconomic and demographic features like age, race, sex, level of education, and income. It should also be noted that other influencing factors include healthcare access, health insurance coverage, accessibility to health information, and health literacy, residential locale, self-rated general health, and presence of a chronic illness or disability (Alawode & Nicholson, 2023).

Zeiger et al. (2022) detailed the implications of yearly health check-ups as vital metrics for improving quality performance in large system-wide healthcare organizations. Many researchers have noted that large primary care healthcare systems need effective approaches for establishing equitable, comprehensive completion of essential prevention activities across registered patient populations (Zeiger et al., 2022). According to Alba et al. (2024), with the COVID-19 pandemic in hindsight, physicians, health system leaders, and policymakers have voiced concerns that persistent disturbances in primary healthcare access and preventive health screenings could have long-term detrimental public health

impacts. In that same accord, the researchers analyzed whether healthcare accessibility and preventive screenings ever returned to pre-pandemic levels.

Chapter 1 provides informative knowledge about the comprehensive background of literature and correlating gaps, problem statement, the purpose and rationale of the study, research question(s), and hypotheses, and the theoretical framework.

In addition, this chapter will propose insight into the quantitative nature of the study, and concise definitions of key concepts and variables alongside their correlations. Lastly, this chapter will evoke the assumptions, the scale of the scope of the study, delimitations, as well as limitations, and offer a valuable purview into the significance and potential contribution of the study to advance preventive care practices and public health outcomes, while summarizing the main points of the topic.

Background

The literature review incorporated secondary sources, including peer-reviewed scholarly articles, academic and scientific publications, and data reports from official government agencies and websites. These articles were retrieved through the Walden University research databases derived from the National Health Interview Survey (NHIS), IPUMS Integrated Public Use Microdata Series, EBSCO Discovery Service, PubMed, and the Thoreau Multi-Database Search. Database searches were performed with individual keywords and combination phrases, including *health check-ups, wellness visits, primary care, young adults, preventive health screening, public health, healthcare utilization, epidemiology, health promotion, and clinical preventive medicine.*

Preventive health check-ups have historically projected and prematurely alarmed medical issues in a primary care setting, before symptomatic manifestations. This preemptive process has been known to establish associated risk or genetic factors, hereditary dispositions, the tailoring of treatment plans, and promotional awareness of health status. Annual check-ups or wellness visits were for the longest and are still deemed as preventive steps in ensuring the metrics of well-being, vitality, and overall health of patients. Alawode and Nicolson (2023) focused their research on the health literacy aspect of preventive healthcare uptake, regarding younger adults. Within their findings, they found that the frequency of yearly health checkups was largely contingent on several factors, specifically the age of the patient.

Given that older adults have a greater vulnerability to chronic illnesses, they are more recommended to have regular health check-ups. Hence, more studies have reported that this particular age cohort is expected to undertake health check-ups more frequently, compared to younger individuals (Alawode & Nicolson, 2023). Chien et al. (2020) investigated the motivating factors and barriers for individuals to participate in health screening. The researchers implemented a random sample community-based cross-sectional study design of 204 individuals, ages 30-65 years. The participants engaged in one-to-one interviews and completed questionnaires concerning non-participatory factors in health screening uptake.

According to Chien et al. (2020), 47.5% reported that procedures involved in health screenings were difficult to understand, which correlated with Alawode and Nicolson (2023) study on the importance of health literacy in primary care settings.

Additionally, Chien et al. (2020) noted that when participants believed they could attain realistic tangible advantages from health screening services, they were more prone to being eager to take advantage of primary care services. Hence why Varshini et al. (2020) focused their research on the notion of health awareness concerning health check-ups, and the essential need to increase knowledge about its potential benefits while promoting prevention strategies.

Guilamo-Ramos et al. (2024) focused on a bridged model approach to public health and primary care that fully merges social and clinical care and prioritizes wellness, prevention, and health promotion. The study found that public health provides a framework for prevention and health promotion within primary care. As such, a bridged model of primary care that grasps the clinical expertise of the primary care doctors and paradigm shifts the prominence to prioritization of health prevention and promotion, consistent with the domain of public health, can significantly modify the current trajectory of illness within the United States.

There is limited high-quality evidence of the correlation between the uptake of clinical preventive practices, such as health checkups/wellness visits, among young adults ages 18–35 years. More specifically, the gap in knowledge within primary care academic medical centers in the United States is scarce. Zimmermann et al. (2020) asserted that primary care settings can provide the configuration necessary to implement and systematically explore preventive efforts. Falek et al. (2022) suggested that health-promoting behaviors emphasize efforts aimed at disease prevention, and it is vital to popularize these types of approaches in society on a large scale. The study was needed to

address preventive health utilization and public health outcomes among young adults ages 18–35 years. Public health practitioners can implement the findings of this study to bring about further awareness and health promotion initiatives concerning wellness visits and health checkups. According to Wakasugi and Narita (2023), the correlation of health checkups and improved chronic disease recognition and treatment, risk factor control, preventive service uptake, and improved patient-reported outcomes were evident.

This research study shall provide an accompanying contribution to the scholarly forum and advocate for the implementation of a community-engaged integrated system that encourages public health outcomes via the prioritization of wellness, prevention, and health promotion.

Problem Statement

The research problem addressed through this study is that there continues to be an exacerbated plethora of chronic diseases among young adults. Guilamo-Ramos et al. (2024) explained that the United States spends an astounding \$4.8 trillion on healthcare, with expenditures primarily allocated to treating diseases. There is strong evidence that proactive participation in clinical preventive practices can help screen and mitigate such morbidities. Varshini et al. (2020) explained that yearly health checkups aid the pathway of early diagnosis of any malignancies, and that their impetus is to prevent premature morbidity and mortality by detecting specific risk factors and early predictions of remediable disease.

Consequently, prophylactic measures have become the prominent catalyst in the emerging integrative fields of both public health and clinical preventive medicine,

helping to initiate a pathway of progressive public health outcomes. Arulsevan et al. (2024) asserted that preventive health check-ups have yet to progress or promote preventive care for the general population. The current evidence of consensus and experimental evidence suggests that health checkups can increase preventive care uptake, disease detection, and treatment of chronic disease (Liss et al., 2024). The relevance of this wellness visits uptake problem to the public health discipline has gained prominence over the past decade as a result of lifestyle-associated risks (Kudaci et al., 2023). Its significance to the field of public health and the primary care sector cannot be underestimated, and merits further examination.

Purpose of the Study

The purpose of this quantitative study was to examine clinical preventive health checkups and wellness visits among young adults ages 18–35 years, in correlation with their healthcare insurance coverage status and health status, while controlling for population characteristics of gender. This study had 1 independent and 2 dependent variables. The independent variable was wellness visits, and the dependent variables were health status and healthcare insurance coverage status. Population characteristics of gender served as the covariate variable.

Research Questions and Hypotheses

The research questions and hypotheses that will be implemented to address the research problem for this quantitative study are:

RQ1: Is there a statistically significant relationship between the utilization of primary care wellness visits and health status among young adults ages 18–35 years, controlling for population characteristics of gender?

Null Hypothesis (H_{o1}): There is no statistically significant relationship between the utilization of primary care wellness visits and health status among young adults (ages 18–35 years) when controlling for population characteristics of gender.

Alternate Hypothesis (H_{a1}): The alternate hypothesis (H_{a1}) for this study is that there is a statistically significant relationship between the utilization of primary care wellness visits and health status among young adults ages 18–35 years, controlling for population characteristics of gender.

Ordinal logistic regression was used to examine the relationship between healthcare status and primary care wellness visits and controlled for population characteristics of gender.

RQ2: Is there a statistically significant relationship between health insurance coverage status and utilization of primary care wellness visits among young adults ages 18–35 years after controlling for population characteristics of gender?

Null Hypothesis (H_{o2}): The null hypothesis (H_{o2}) for this study is that there is no statistically significant relationship between health insurance coverage status on primary care wellness visits among young adults ages 18–35 years, controlling for population characteristics of gender.

Alternate Hypothesis (H_{a2}): The alternate hypothesis (H_{a2}) for this study is that there is a statistically significant relationship between health insurance coverage status on

primary care wellness visits among young adults ages 18–35 years, controlling population characteristics of gender.

Binary logistic regression was used to examine the relationship between healthcare insurance coverage and primary care wellness visits and controlled population characteristics of gender.

Theoretical Framework

The theoretical framework that grounds this study included the Health Promotion Model (HPM), first developed by a nurse and professor named Dr. Nola Pender in 1982, and has been revised based on evolving theoretical outlooks and empirical findings. This framework focuses on the theory that the major determinants of health behaviors serve as a source of behavioral guidance to promote healthy lifestyles. This theory stems from both philosophical and theoretical roots (Pender et al., 2011). According to Pender et al. (2021), the philosophical roots originate from the reciprocal interaction worldview in which individuals are viewed from a holistic standpoint, where human beings engage with their setting and mold it to meet their requirements and goals. Furthermore, the theoretical roots of HPM are derived from the expectancy-value theory. In this construct, Pender et al. (2011) emphasized that individuals partake in actions to attain objectives that are perceived as promising and that result in valued outcomes.

The implementation of the HPM theoretical perspective helped guide my research design and implementation and resulted in a logical preventive intervention model. The theoretical objective of this research analysis explored and summarized the current evidence on health promotion interventions among young adults ages 18–35 years, and

outcomes of those health checkup interventions in primary care settings. According to Islam et al. (2023), primary healthcare is at the forefront as a foundational component of public health due to its availability of treatment and the reliability of care. The researchers found that over the years, primary care has progressed to be seen as an essential element of health promotion.

Quilling et al. (2022) inferred that the health promotion purpose is to enable individuals to attain greater control over the social determinants of health. The Health Promotion Model related to the study's approach and research questions, as it set the premise for examining health promotion and primary care prevention interventions that attempted to influence the health status and healthcare utilization adherence of individuals in a complex way (Quilling et al., 2022). However, Islam et al. (2023) stated that in the quest for the promotion of health and well-being, an array of holistic tactics has been integrated into primary care settings, involving good nutrition, physical activity, and the recognition and treatment of chronic diseases. As such, HPM has been selected over HBM because of its broader applicability to this research study.

Nature of the Study

The research problem was addressed using a quantitative approach. A descriptive correlational design was utilized to examine the association of utilization of health check-ups/wellness visits among young adults ages 18–35 years in primary care academic medical centers. Both health status and healthcare insurance coverage status were examined, with population characteristics of gender served as the covariate variable. Correlational design is described as a study that looks at the associations between two or

more variables and does not allow a causal inference to be made. Correlational studies are nonexperimental in style, which indicates that the experimenter does not manipulate or control any of the variables (Cherry, 2023).

For this study's correlational design, the covariate variable of population characteristics of gender were inserted to boost the accuracy and validity of findings by considering extraneous variables that may impact the relationship between the variables of focus. By controlling these considerations, researchers can isolate the particular effect of the primary variables and expand their capacity to discover the true associations.

Definitions

Health Checkup: This is a form of preventive care visit focused on identifying health conditions before they appear (Sanitas Medical Center, n.d.). It often entails an interaction with a healthcare provider, typically a physician, and a combination of screening tests, vaccines, education, and/or counseling to aid individuals in making informed health decisions (Medline Plus, 2024).

Wellness Visit: This is a type of preventive health exam scheduled with a primary care physician (PCP) to detect potential health risks prematurely, before they become serious, and to help you focus on wellness and a healthy lifestyle while identifying important screenings, immunizations, and other essential testing (Weill Cornell Medicine, 2023).

Primary Care: The provision of integrated healthcare services accountable for addressing a large mainstream of personal healthcare needs, cultivating a supported

partnership with patients, and practicing in the setting of family and community (American Academy of Family Physicians, n.d.).

Healthcare Utilization: refers to using primary care (visits to a physician or nurse), emergency care (visits to the emergency unit), inpatient care (i.e., number of hospitalizations and readmissions, length of stay), and outpatient care (visits to a specialist, such as a cardiologist, obstetrician, or psychiatrist) services (HaGani et al., 2023)

Public Health: is the science of protecting and enhancing the health of people, populations, and their communities. This is achieved by promoting healthy lifestyles, researching disease and injury prevention, detecting, preventing, and responding to infectious diseases (CDC Foundation, n.d.).

Epidemiology: The foundation of public health and is defined as the study of the distribution and determinants of diseases within clusters of individuals and the study of learning how to prevent and control them (Columbia University Mailman School of Public Health, 2020).

Clinical Preventive Medicine: It is the practice of promoting preventive health care to enhance patient wellness. The objective is to prevent disease, disability, and death (American College of Preventive Medicine, n.d.).

Health Promotion: The process of empowering individuals to boost control and improve their overall health (World Health Organization, 2024).

Assumptions

Oluyori (2024) defined an assumption as an axiomatic (true without proof) system of analysis that facilitates in comprehending the problem(s), thinking of possible elements within the problem to attain the desired conclusion. General assumptions help construct a proposition for research and form an essential component in the research question creation. Identifying assumptions in research is a major part in safeguarding the validity and trustworthiness of findings (Oluyori, 2024). One assumption of the current study is that wellness visits are a reliable indicator of a patient's complete health status and that increased utilization of these visits corresponds to enhanced health outcomes.

There is also an overall assumption that participants will comply with the instructions for completing the surveys accurately and that they will be honest and precise in their answers. Nonetheless, participants may be hesitant to explain their participation (or lack thereof) in healthcare utilization services such as wellness visits utilization and health checkups. According to the National Health Interview Survey (NHIS), participants were given the conditions of the study that described the requirement for their truthful responses to the survey inquiries. Additionally, participants were informed that the online survey was anonymous and that no identifying information was requested, with the expectation that this would ensure participants felt at ease answering questions honestly. Fisher et al. (2020) asserted that national population health surveys accumulate an expansive scope of information about health status and behaviors, as well as the sociodemographic characteristics from a representative sample of a nation's

public-dwelling population. Many researchers deem these surveys as the basis of population health surveillance.

Scope and Delimitations

Identifying the scope and delimitations of a research study is imperative for distinguishing its parameters and ensuring research efforts are aimed. According to Bhosale (2024), the scope refers to the range of the research study, while delimitation refers to the identifiable components of the research that the study will concentrate on.

Setting limits and having a clear focus area for this study is critical to ensure that the research is practicable, relevant, and able to generate valuable outcomes (Bhosale, 2024). The focus of this study examined wellness visit utilization at primary care academic medical centers. The sample was limited to young adults ages 18–35 years in the United States. Both the health status and healthcare insurance coverage status of this age group were taken into consideration. Odom et al. (2021) pinpointed that determining status related to chronic diseases, health, and performance necessitates research and measurement of associated factors.

Limitations

Limitations are the constraints placed on the capability to generalize from the results and are set in place to describe the boundaries of the study (Bhosale, 2024). A limitation of this quantitative study is that it will rely on the data provided by research participants through the IPIMS NHIS online survey. There is the possibility of response bias when utilizing a self-report survey, such as the one that will be implemented for this study. Social desirability is a form of response bias where participants answer questions

in a manner that is perceived to be socially acceptable, but not completely reflective of one's reality (Bergen & Labonte, 2020).

An additional limitation of this study will be the research design itself. According to Mekonnen (2020), a correlation is a unique kind of association; there is a linear relationship between the values of the variables. Correlational designs can be employed to determine the association between the variables, yet it is incapable of inferring causation from the data.

Significance

The current study will provide significant contributions and vital public health insights concerning the challenges primary care academic medical centers encounter with wellness visits utilization and health checkup uptake among young adults ages 18–35 years. The findings will also contribute to public health practitioners, epidemiologists, clinical preventive medicine sectors, healthcare organizations, and the general public concerning the effectiveness and health optimization outcomes of wellness visits utilization and health checkups. It will also inform healthcare leaders and stakeholders of strategic ways to incorporate and manage innovative approaches to preventive care uptake. By filling a gap, public health professionals will be better trained to address and focus preventive care initiatives by conveying the information into action in the primary care domain. The research also has the potential to impact positive social change in healthcare preventive practices. The results can provide key information used for innovation, evidence-based research, and the revamping of preventive guidelines and standards. As such, the findings from this study justified the needed attention to primary

care comprehensive and age-specific (18–35 years) preventive care guidelines for young adults. This is critical in improving public health outcomes, such as the overall vitality of health, optimization of well-being, reduction of the burden of disease, morbidity, and mortality rates among this specific group.

Summary

Chapter 1 introduced the study, defined the research problem, and discussed the knowledge gap sustained by the literature. This chapter further provided an analysis of the purpose of research, research questions, theoretical framework, research design, assumptions, scope, delimitations, limitations, significance of the study, and the implications for social change. Wellness visits utilization and health checkups are important preventive care measures. However, there is limited high-quality evidence of the correlation of clinical preventive practices uptake, such as wellness visits utilization and health checkups, among young adults ages 18–35 years within primary care academic medical centers in the United States. Chapter 2 will provide a synthesis of information regarding the literature search and theoretical framework. As such, Chapter 2 will follow an exhaustive review of the literature search strategy associated with key variables (i.e., wellness visits utilization, health status, and healthcare insurance coverage). Population characteristics of gender will be the covariate variable of the research study. The chapter will end with a summary and conclusion.

Chapter 2: Literature Review

Introduction

In researching the impact of wellness visits utilization and health checkups on young adults ages 18–35 years within primary care academic health centers, a cohesive synthesis of the literature will be conducted to identify major themes and trends, highlight contradictions and gaps, and build a coherent narrative based on the suggested findings. According to Alawode and Nicholson (2023), the public health literature is abounding with evidence on the social determinants of health of preventive healthcare utilization. Yet, the existing gap among young adults ages 18–35 years is that they are the least likely group to utilize such amenities for disease screening and prevention. Alawode and Nicholson (2023) agree that the frequency of annual health checkups is largely contingent on several factors, particularly age. Additional factors include healthcare accessibility, health insurance coverage, health literacy, residential locality, self-evaluated general health, and the presence of a chronic disease or disability (Alawode & Nicholson, 2023).

Alba et al. (2024) set out to explore variations in measures of healthcare access and preventive health screenings among U.S. adults in 2021 and 2022 compared with pre-pandemic levels in 2019, and assessed whether changes in socioeconomic factors such as income, employment status, or healthcare insurance coverage were a factor in any observed variances in access and screenings. Islam et al. (2023) concur that health promotion in primary care settings requires an all-inclusive approach that focuses on factors of the social structure in addition to personal determinants. Similar to my study's choice of data extraction, Alba et al. (2024) utilized the National Health and Interview

Survey (NHIS), a nationwide, cross-sectional household interview survey of U.S. adults conducted by the National Center for Health Statistics.

The unweighted study population included a sample size of 89,130 U.S. adults, with results of the cohort study suggesting that wellness visits utilization and preventive health screenings have not resumed to pre-pandemic levels. According to the survey, fewer participants had wellness visits in 2022 compared with 2019 (ARR, 0.98; 95% CI, 0.97-0.99), and preventive health screenings in 2021 remained below 2019 levels (i.e., blood pressure: ARR, 0.95 [95% CI, 0.94-0.96]; blood glucose: ARR, 0.95 [95% CI, 0.93-0.96]; and cholesterol: ARR, 0.93 [95% CI, 0.92-0.94] (Alba et al., 2024). Liss et al. (2024) noted that the pandemic exacerbated disparities in services such as cancer screenings. The research findings supported the need for public health efforts to increase the utilization of preventive health screenings among eligible U.S. adults.

Some scholars, such as Liss et al. (2024), study findings were generally consistent with prior studies of health checkups. The study concluded that health checkups offered primary care a chance to screen for numerous chronic diseases, deliver preventive services such as vaccinations, cancer screenings, and promote other preventive services.

This study's results highlight the probable benefit of health checkups for patients who receive primary care in the safety net, and the demand for efforts to promote health checkup completion.

There continues to be an exacerbated plethora of chronic diseases among young adults. The Centers for Medicare and Medicaid Services (2020) noted that the United States spends an astounding \$1.8 trillion on healthcare for young adults between the ages

of 18–35 years, with more than half, nearly 55% (\$985 billion) of the total of the fiscal expenses going towards costs for maternity care. Guilamo-Ramos et al. (2024) argued that the United States healthcare system excessively relies on the costliest diagnostic and treatment procedures, fixated on the management of disease, with insufficient consideration given to how the healthcare structure can be leveraged to better progress wellness, prevention, and health promotion in modes that are equitable and optimal for all.

Many researchers argue that there is strong evidence that proactive participation in clinical preventive practices can help screen and mitigate such morbidities. This is a popular suggestion among other thinkers, with Varshini et al. (2020) explaining that yearly health checkups facilitate the early diagnosis of any malignancies, and that the impetus is to prevent premature morbidity and mortality by detecting specific risk factors and early predictions of remediable disease. Alawode and Nicholson (2023) have noted that young adults are typically more likely to have access to and comprehend health information compared to older adults. Yet, questions persist about how this convert into their uptake of preventive healthcare services like wellness visits utilization and health checkups.

Tong et al. (2021) presented an opposing view, that while wellness visits save time for physicians to examine needs and discuss care with patients, studies have not illustrated that having a wellness visit enhances health outcomes. Results from the study illustrated that while patients were up to date with 80% of the recommended clinical preventive services 3 months post the visit, merely 0.5% of patients were up to date with

all the recommended clinical preventive services (Tong et al., 2021). Furthermore, Tong et al. (2021) research illustrated that, on average, 6.9 clinical preventive service discussions happened during each wellness visit via electronic health records review, with 7.7 clinical preventive service discussions occurring via audio recordings. Concerning disease discovery, the study illustrated a slim average of 0.4 new diagnoses as being identified, including cancer diagnoses, cardiovascular risks, and infections during these wellness visits. This sharp contrast and analytic focus enable another contribution to the mainstream public health literature on healthcare utilization and primary care.

Varshini et al. (2020) investigated and evaluated the awareness level and knowledge of various age groups of people regarding regular health checkups, including (88) healthy and (12) unhealthy individuals (i.e., diagnosed with chronic conditions such as diabetes, heart disease, and high blood pressure). The researchers conducted a cross-sectional questionnaire study among 100 individuals, covering 15 questions centered on demographic records, frequency of visiting doctors, health status, etc. (Varshini et al., 2020). The overall results of the study concluded that only 32% of the individuals go for standard health checkups, and the majority of the population visit hospitals only when they become sick. Varshini et al. (2020) study attributed the reasoning of the results to unawareness, high costs, negative beliefs, a lack of focus on their health, and regular body health checkups.

According to Kudachi et al. (2023), preventive and standard health checkups have acquired prominence over the past decade as a result of lifestyle-associated risks. Studies

of healthcare utilization among young adults ages 18–35 years reveal similar findings regarding the relationships between health status and healthcare insurance coverage. Varshini et al. (2020) noted that individuals are not cognizant of taking regular health checkups and, more importantly, the advantages of it. The research study determined that individuals should be educated about the importance of personal healthcare and the outcome of their general health status.

Consequently, prophylactic measures have become the prominent catalyst in primary care settings. Recent studies of community-based programs supporting healthcare systems delivering preventive services and health promotion reveal similar findings regarding the associations between healthcare utilization and primary care settings (Alsbury-Nealy et al., 2022). The collaborative nature of community-engaged healthcare to bridge public health with clinical care has been discussed by scholars like Guilamo-Ramos et al. (2024). The researchers identified that the sole type of healthcare that has the potential for refining population health is primary care. Still, it is the healthcare sector that receives the least amount of investment, despite its critical role in supporting our nation's health.

Guilamo-Ramos et al. (2024) assert that public health renders a framework for prevention and health promotion within primary care. On the contrary, Islam et al. (2023) have noted that it is not easy to put health promotion and prevention (HPP) programs into practice and assess their success at the primary healthcare level. In particular, for young adults ages 18–35 years, incorporating various strategies to prevent diseases and promote overall health has been lacking. In the emerging integrative fields of both public health

and clinical preventive medicine, preventive care has been evidenced to help initiate a pathway of progressive health outcomes. Orji and Yamashita (2021) expanded on this description that a routine health checkup is a type of preventive healthcare service and is known to boost health promotion and disease prevention.

However, Arulsevan et al. (2024) contended that preventive health checkups have yet to advance preventive care for the overall public. More specifically, within primary care academic health centers in the United States, the literature is scarce.

Quilling et al. (2022) found that academia plays a decisive role within the public health system as it not only educates professionals who work in this domain but also conducts basic and applied research that is desirable for policy advancement and analysis. Similarly, Zimmermann et al. (2020) asserted that primary care settings can provide the configuration necessary to implement and systematically explore preventive efforts. Alsbury-Nealey et al. (2022) postulate that despite the potential advantages of community-based preventive services and health promotion programs, healthcare providers and community program providers encounter barriers to linkage development.

The purpose of this quantitative study was to examine clinical preventive health checkups and wellness visits utilization among young adults ages 18–35 years, in correlation with their healthcare insurance coverage status and health status, with population characteristics as the controlled variable. Findings from this study provide vital prophylactic epidemiological insights into primary care settings to promote health and well-being initiatives. More specifically, the findings render valuable information in supporting early detection of health problems, enabling personalized health plans, and

advising population-level public health strategies, via informed interventions, and improved health status outcomes for young adults ages 18–35 years.

This research contributes knowledge to public health organizations and clinical preventive medicine practices, merging both cohorts and sectors, physicians, epidemiologists, research practitioners, and the general public regarding the significance of wellness visits utilization and health checkups for young adults ages 18–35 years. The study can also inform healthcare leaders and stakeholders of strategic ways to incorporate and manage innovative approaches to preventive care utilization. By filling a gap, public health professionals can be better trained to address and focus preventive care initiatives by conveying the information into action in the primary care domain. This research study also has the potential to impact positive social change in healthcare preventive practices. The results can provide key information used for innovation, evidence-based research, and preventive care planning.

Chapter 2 provides a cohesive synthesis of the literature, including an overview of the literature search strategy, theoretical foundation, literature review of the key variables, summary, and conclusions.

Literature Search Strategy

The literature review incorporates secondary sources such as peer-reviewed scholarly articles, publications, and official government web pages within a 5-year scope. These articles were retrieved via the Walden University research databases derived from the National Health Interview Survey (NHIS), IPUMS Integrated Public Use Microdata Series, EBSCO Discovery Service, PubMed, and the Thoreau Multi-Database Search.

The scope of the literature review will also entail foundational insights and seminal literature from the Journal of Preventive Medicine and Public Health.

Database searches will be performed with keywords and phrases including health check-ups, wellness visits, young adults, healthcare utilization, public health, preventive health screening, epidemiology, health promotion, primary care, and clinical preventive medicine. Articles will be identified through these search terms individually as well as in various combinations. I will also perform a literature search to support my theoretical framework, the health promotion model (HPM). The search strategies will also involve leading government websites such as the United States Preventive Services Taskforce, the CDC, its subdivision, the National Center for Chronic Disease Prevention and Health Promotion, and Healthcare.gov.

Theoretical Foundation

Health Promotion Model

The theoretical framework that justifies this study is the Health Promotion Model (HPM), first developed by Dr. Nola Pender, a nurse and professor, in 1982. It has been revised based on evolving theoretical outlooks and empirical findings. This framework focuses on the theory that the major determinants of health behaviors serve as a source of behavioral guidance to promote healthy lifestyles. The theory stems from both philosophical and theoretical roots (Pender et al., 2011). According to Pender et al. (2021), the philosophical roots originate from the reciprocal interaction worldview in which individuals are viewed from a holistic standpoint, where human beings engage with their setting and mold it to meet their requirements and goals. Furthermore, the

theoretical roots of HPM are derived from the expectancy-value theory. In this construct, Pender et al. (2011) emphasize that individuals participate in actions to attain objectives that are perceived as promising and that result in valued outcomes.

The Health Promotion Model highlights individual experiences and their influence on health outcomes, focusing on various social determinants of health (SDOHs) to understand health decisions. According to Chen and Hsieh (2021), the HPM framework sets the premise for proposing more strategies towards improving healthy lifestyles and detecting the vital components of health-related behaviors among different age groups. Health checkups and wellness visits utilization enable early detection and prevention of diseases, complementing the HPM's focus on proactive health. Pender's Health Promotion Model is one of the most extensively utilized prototypes to detect and modify unhealthy behaviors and promote health (Chen & Hsieh, 2021). Integrating the HPM framework into this quantitative research study can lead to more comprehensive primary healthcare, focused on young adults' health empowerment and evidence-based prevention approaches, health checkups, and wellness visits utilization.

Dr. Pender's Health Promotion Model emphasizes the interchange of major propositions such as the effect of previous behaviors, habits, motivation, promotion, and commitment. These propositions are driven by individual characteristics and experiences, such as age, gender, and prior experiences, which formulate an individual's purview of health and illness. Santos et al. (2025) assert that HPM focuses on the concept of self-efficacy, which is an individual's belief in their capacity to attain an objective, as well as the perceived benefits and barriers to embracing healthy behaviors. The proposition of

this model accentuates the need for health promotion behaviors and a focus on enhancing the well-being of the individual receiving care. Another interesting major theoretical proposition of the HPM is behavioral outcomes, which encompass the health-promoting behavior, such as seeking preventive healthcare.

The Health Promotion Model hypothesizes that individuals actively control their behavior, and that health providers play an essential function in shaping health behaviors. It also postulates that behavior modification necessitates a self-initiated reconfiguration of person-environment connections.

Literature Review Related to Key Variables and/or Concepts

A study conducted by Guilamo-Ramos et al. (2024) focused on a bridged model approach of public health and primary care that fully merged social and clinical care and prioritized wellness, prevention, and health promotion. Results of this study offered insight into bridging the conventional facets of public health to reimagine a more efficient and vigorous primary health care system. Researchers found that public health provides a framework for prevention and health promotion within primary care.

Currently, the United States has a health care system that is exceedingly fixated on the provision of sick care, rather than the prioritization of wellness, prevention, and health promotion. In this same study, Guilamo-Ramos et al. (2024) asserted that the bridged model of primary care can significantly modify the current trajectory of illness within the United States. The overall health status snapshot of the U.S. population emphasized problematic patterns, in the majority of adults 18 years and older have one or more largely preventable chronic conditions (Guilamo-Ramos et al., 2024). The U.S.

health care system heavily depends on the most expensive diagnostic and treatment tools focused on the management of disease, with insufficient commitment given to how the primary health care setting can be facilitated to better address wellness, prevention, and health promotion in ways that are equitable and optimal for all (Guilamo-Ramos et al., 2024). Likewise, research from the study can be employed to set forth public health implications of a community-engaged integrated primary care system that encourages prioritization of wellness, prevention, and health promotion.

Public Health and Preventive/Primary Care

While distinctive, the crossroads of public health and primary care are progressively identified as interdependent and essential for a robust healthcare structure. In 1986, the World Health Organization (WHO) issued the Ottawa Charter for Health Promotion, which was a global petition for action to outline and advocate for fundamental health promotion approaches to be employed by any entity that assumed responsibility for public health (Larson, 2025). Preventive services are an essential component of primary healthcare, and in that same accord, primary care settings can render the setup necessary to execute and thoroughly examine preventive efforts (Zimmermann et al., 2020). Larson (2025) asserted that it is necessary to improve the culture of health within care centers, starting with those organizations serving the largest number of patients, primary care clinics. Subsequently, wellness visits utilization or health checkups within primary care settings should include age-specific preventive care services and screenings.

Public Health and Health Checkups/Wellness Visits Utilization

Orji and Yamashita et al. (2021) conducted a study to identify correlations between routine health checkups and compliance with cancer screening recommendations among women and by race/ethnicity in the United States. Method data were retrieved from 3 sequential years (2017, 2018, and 2019) from the National Cancer Institute's (NCI) Health Information National Trends Survey (HINTS) (n = 12,227) (Orji & Yamashita, 2021). The chosen methodology that was implemented included a survey-weighted logistic regression to assess links between routine health checkups and cervical and breast cancer screening adherence with the established protocols, of the age criteria, and frequency of screening by race/ethnicity (Black, White, Hispanic, and Other) (Orji & Yamashita, 2021).

The researchers discovered that women who underwent routine health checkups seemingly complied with cancer screening guidelines. In particular, among African American women and women from other racial groups, having had a routine health checkup in the past 2 years was linked to 3.59 times the odds and 3.93 times the odds of having received cervical testing, correspondingly (both $p < 0.05$) (Orji & Yamashita, 2021). In addition, Caucasians, having had routine health checkups in the past 2 years were correlated with 4.62 times the odds ($p < 0.05$) of having received a cervical test. Routine health checkup was significantly correlated with cervical testing among Black, White, and other women; however, Hispanic women were an exception.

Orji and Yamashita (2021) inferred this might be a result of primary care physicians' recommendations on the cancer screening process and disease prevention during their routine checkups.

The study offered insights into important implications for public health. Specifically, the demand for primary care providers, policymakers, and the government to advance routine health checkups among women, improve their odds of being diagnosed early, and reduce cancer mortality rates (Orji & Yamashita, 2021). Alba et al. (2024) asserted that primary care providers, health system leaders, and policymakers have declared concerns that persistent interferences in health care access and preventive health screenings could have long-term public health implications. Hence, the results of this cohort study suggest that, in the United States, wellness visits utilization and preventive health screenings have not come back to pre-pandemic uptake levels. These findings support the need for public health efforts to increase the use of preventive health screenings among eligible U.S. adults (Alba et al., 2024).

Health Promotion and Health Insurance Coverage

In a study by Mendoza (2023), a comparative analysis was conducted to investigate health insurance as an instrumental factor of health promotion policy for improving population health and decreasing healthcare expenditures. In my quantitative descriptive correlational study, utilizing healthcare insurance coverage as my dependent variable takes a spin at examining predictor factors, such as population characteristics of gender, perceived health (also known as health status), and demographics as it is related to being insured. Furthermore, my study distinctively provided an examination of

healthcare insurance coverage as a dependent variable that is correlated with wellness visit utilization, such as the use of primary care preventive services. Results from this study offered informative public health insights and provided a means to fund accessibility to promotive health and fostered individual accountability for risk prevention.

According to Mendoza (2023), insurance coverage impacted social attitudes about health. Gilchrist et al. (2024) noted that the Affordable Care Act (ACA), also commonly referred to as *Obamacare*, broadened public and private health coverage, as well as expanded health insurance affordability, decreased healthcare fees, and improved healthcare quality for many in the United States. Yet, notwithstanding ACA provisions, lack of health insurance coverage and other considerations persistently impact working-age women's access to primary care provisions (Gilchrist et al., 2024). In Gilchrist et al. (2024) mixed-methods systematic review, approximately 26 quantitative and qualitative studies were included and reported social determinants of health, barriers, and enablers of primary care access for women ages 18-64 years.

The findings of the study detailed measures of potential accessibility, such as healthcare insurance, and measures of realized access—healthcare service utilization, were entailed (Gilchrist et al., 2024). In comparison, only 48% of studies observed measures of realized access or uptake of healthcare services, such as 43% observed routine checkup, with 26% of receipt of preventive screenings in the past year (Gilchrist et al., 2024).

Health Promotion and Health Status

The World Health Organization (WHO, 2024) asserts, “Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (para. 1). As a means of engaging in health promotion, regular health check-ups have become fundamental in monitoring one’s health status and detecting potential issues early on, hence substantially improving treatment outcomes and preventing complications. Due to lifestyle-related risks, preventive and regular health checkups have gained notoriety over the past years (Kudachi et al., 2023). These check-ups, involving physical examinations, blood/lab tests, and screenings, offer a comprehensive inspection of one’s health and facilitate tracking changes over time.

When it comes to health status, primary care holds a major function in the U.S. healthcare system (Adida & Bravo, 2023). The specialty domain of public health and preventive medicine encompasses population health, public health, as well as general health and wellness. It spotlights health promotion, protection, and the prevention of disease, disability, and premature mortality of individuals in identified populations and communities (Jadotte et al., 2021). Determining status related to chronic diseases, health, and performance involves research and measurement of associated variables. In 1979, Aaron Antonovsky created the concept of *salutogenesis*, derived from the Latin word *salus* (suggesting health) and the Greek word *genesis* (denoting origin or creation). According to Odom et al. (2021), Antonovsky described that salutogenesis concentrates on variables that support positive health and overall well-being, rather than focusing on factors that lead to diseases.

The Salutogenic Wellness Promotion Scale (SWPS) gauges health status via an evaluation of engagement in multidimensional health behaviors (Odom et al., 2021). Odom et al. (2021) conducted a correlational analysis to evaluate the initial measurement of the Short Form Salutogenic Wellness Promotion Scale (SWPS-SF) among college students. The results of the study suggested that proactively engaging in health-promoting actions is a good predictor of enhanced performance. The national health initiative, Healthy People 2030, was established by the U.S. Department of Health and Human Services (HHS), which sets measurable, science-based objectives to enhance the health and well-being of all individuals in the United States (Griffith, 2021). According to Griffith (2021), Healthy People is not only a tool utilized to assess the health of the nation but also influences policies, funding, and programmatic initiatives of public health stakeholders and practitioners at local, state, and national levels.

Summary and Conclusions

Due to the existing gaps, there was an opportunity to comprehend the correlation between the health promotion framework, with an emphasis on health status, through the lens of health checkups/wellness visits utilization among young adults ages 18–35 years at primary care academic medical centers. Considering the enabling factors such as healthcare insurance coverage, the study will contribute to a better understanding of the research questions posed. Chapter 3 will provide an overarching outline of the methodology and descriptive correlational quantitative approach employed as the basis for this research. This includes the role of the researcher in leading this study, an

examination of the alignment of method instrumentation, and a solid description of the theoretical framework.

Furthermore, the methodology employed in this study included the selection and operationalization of the study variables and covariates. The statistical analysis strategy relating to the specific techniques and procedures utilized to examine the data will be detailed. The objective of this chapter is to provide a transparent understanding of how the study was designed to address the research questions and hypotheses, ensuring that the approach was rigorous and suitable for the data assessed.

Chapter 3: Research Method

Introduction

Wellness visits utilization and health checkups are considered a cornerstone of preventive public health services and can significantly impact individual and community health. The purpose of this quantitative study was to examine clinical preventive health checkups and wellness visits utilization among young adults ages 18–35 years, in correlation with their healthcare insurance coverage status and health status, with population characteristics of gender as the controlled variable. I investigated the relationship between health insurance coverage status and health status in wellness visits utilization and health checkups among young adults 18–35 years in primary care academic medical centers and controlled for population characteristics of gender via a descriptive correlational study design. Data was obtained from the 2023 National Health Interview Survey (NHIS) via the Integrated Public Use Microdata Series (IPUMS). The findings of the data analysis, in conjunction with the quantitative research design outlined in Chapter 2, were applied to address the research questions and test whether to accept or reject the hypothesis.

The findings from this study render vital prophylactic epidemiological insights into primary care settings to promote health and well-being initiatives. More specifically, it provides valuable information in supporting early detection of health problems, enabling personalized health plans, and advising population-level public health strategies, via informed interventions, and improved health status outcomes for young adults ages 18–35 years. The NHIS is a national survey that provides annual census data on the

health of the U.S. adult population (CDC, 2024). Likewise, the NHIS data are also utilized by the public health research community for epidemiologic and policy exploration of healthcare timely issues. In this chapter, I will discuss the research design, rationale, and methodology. Details regarding the data analysis plan, threats to validity, ethical procedures, and summary will also be discussed.

Research Design and Rationale

I obtained the IPUMS NHIS data set and utilized it for this quantitative study. The secondary data set analysis was completed using the IBM Statistical Package for the Social Sciences (SPSS) version 29 software. To address the research questions in this study, the specific research design included a descriptive quantitative correlational design with an ordinal logistic regression analysis to examine the relationship between wellness visits utilization and health status (5-categorical variable), with the control of population characteristics of gender. In addition, binary logistic regression was utilized to measure and quantify the relationship between healthcare insurance coverage status and wellness visits utilization, with the control of population characteristics of gender. According to the Office of Research Integrity ([ORI] n.d.), a descriptive study is one in which data are assembled without altering the environment - nothing is manipulated. More specifically, the Office of Human Research Protections (OHRP) labels a descriptive study as “any study that is not truly experimental” (ORI, n.d.). For the core of this study, a descriptive study can render public health information about the naturally occurring health status of a specific group.

Most research scholars have overlooked the examination of healthcare utilization, particularly wellness visits utilization and health checkups among young adults ages 18–35 years in primary care academic medical centers, as it relates to healthcare insurance coverage status and health status. I employed a descriptive correlational study design to examine the IPUMS NHIS data set. This design enables me to control factors such as population characteristics while investigating the relationship between wellness visits utilization/health checkups, health insurance coverage, as well as health status.

Descriptive correlational studies provide a snapshot of correlations and associations within a population and are advantageous for examining existing data as they allow researchers to discover associations between variables without manipulating them (Cherry, 2023). However, the limitations of this study design are limited generalizability as a result of the usage of specific samples and data sets, and the inability to infer causality. Yom et al. (2022) asserted that the generalizability of a study cohort to other populations and settings plays a vital role in translating research into practice.

This study has 1 independent and 2 dependent variables. The main variables for this study are wellness visits utilization, health status, and health insurance coverage status. Population characteristics of gender served as the covariate variable in this research study and were adjusted in the ordinal logistic regression statistical analysis to minimize the impact of potential confounding factors. The selection criteria were comprised of young adults, both men and women, ages 18–35 years. Wellness visits utilization served as the independent variable, while health status and health insurance coverage status served as the dependent variables. The statistical methods that were used

to address my research questions concerning wellness visits utilization included a binary logistic regression to measure health insurance coverage and an ordinal logistic regression to analysis to measure health status (5-categorical variable). The first research question was the following: Is there a statistically significant relationship between the wellness visits utilization and health status among young adults ages 18–35, controlling for population characteristics of gender? The second question was the following: Is there a statistically significant relationship between health insurance coverage status and wellness visits utilization among young adults ages 18–35 years after controlling for population characteristics of gender?

Data were collected and justified with the usage of a descriptive correlational design. Researchers use this type of descriptive methodology of correlational research to primarily answer research questions about associations. In addition, correlational research is often integrated with descriptive research, implying that the research will acknowledge descriptive, comparison, and association questions (Thomas & Zubkov, 2023).

With the implementation of a consensus survey data tool for the collection of statistical insights for correlational research, the objective of this research study was to obtain data on preventive health checkups/wellness visit utilization, considering health status, and health insurance coverage status among young adults ages 18–35 years. The primary data collection tools and sources were derived from the National Health Interview Survey (NHIS) via the Integrated Public Use Microdata Series (IPUMS). As a backup, I also have secondary data sets from the National Ambulatory Care Survey Health Centers (NAMCS HC), if needed. The sample was extracted and inserted into the

IBM SPSS statistical software (Version 29) for further data analysis. A correlational study was suitable for this study to investigate the connection between the three main variables and is consistent with the standard quantitative research design needed to advance public health knowledge via the investigation of correlations and not causation, the identification of patterns and trends, and, most importantly, the foundational insights for future research.

There were no time or resource constraints using this design, as it did not entail experimental procedures. As such, the correlation between variables were measured and the control for population characteristics of gender, as well as data collection were done via the NHIS online surveys and questionnaires. The design selection was reliable with research designs needed to answer the research questions, as it allowed the usage of numerical data and statistical analysis to understand factors related to preventive health checkups/wellness visit utilization among young adults ages 18–35 years.

Methodology

Population

This study focused on participants in the 2023 IPUMS NHIS survey, comprised of women and male young adults in the United States. The targeted population were male and female young adults ages 18–35 years in the United States. I aimed to assess the association between health status, an ordinal variable, considering a 5-level categorical variable, coded as 1-excellent, 2-very good, 3-good, 4-fair, 5-poor, 7 for unknown-refused, 8 for unknown-not ascertained, and 9 for unknown-don't know. For health insurance coverage status, considering as a nominal, binary categorical variable, coded as

0, NIU (not in universe a.k.a. missing data), 1 for Yes- has coverage, 0 for No- no coverage, 7 for unknown-refused, 8 for unknown-not ascertained, and 9 for unknown-don't know (*0, 7-9, are missing data). Concerning the independent variable, wellness visits utilization, in primary care academic medical centers, were defined as nominal, and a binary categorical variable, coded as 0, NIU (not in universe a.k.a. missing data), 1 for Yes, 0 for No, 7 for unknown-refused, 8 for unknown-not ascertained, and 9 for unknown- don't know (*0, 7-9, are missing data).

Young adults ages 18–35 years often encounter obstacles to accessing and utilizing preventive primary care services, such as health checkups and wellness visits utilization, leading to potential health risks and disparities. The target population for this study incorporated both men and women between the ages of 18–35 years. Participants included diverse racial/ethnic groups with a focus on primary care academic medical centers in the United States.

Sampling and Sampling Procedures

The NHIS is administered yearly and includes 100,000 individuals in 45,000 households annually (Blewett et al., 2024). The sampling of data was collected from the 2023 NHIS results. The inclusion criteria included the targeted age selection (18–35 years) within the United States sample. The exclusion criteria dismissed all other age groups that were outside the parameters of the selected age bracket and other geographical locations. A multistage probability sampling, including stratification and clustering, was utilized to select participants via household surveys. The survey design involved selecting a sample of households and noninstitutional group quarters in various

stages, entailing both stratification (dividing the population into subgroups), clustering (grouping households in identifiable regions), as well as oversampling of some subpopulations (e.g., Black, Hispanic, and Asian) (National Center for Health Statistics, 2024).

IPUMS does not collect the sample for the NHIS. IPUMS enables access to data, code variables to simplify analysis over time, and offers documentation as well as other tools for researchers. IPUMS includes all records containing the specific variables that I selected from the original source data.

The NHIS sample is designed to be reflective of the civilian, noninstitutionalized population living in the 50 states and the District of Columbia at the time of the survey. The population number from the Congressional Budget Office (CBO) excludes people under age 16 years old, which is not the case for the NHIS. When including the population of all ages, the sample population size in 2023 was about 332 million (CBO, 2023). Per the IPUMS website, it is recommended that sampling weights be utilized in my analysis in order for my estimates to be representative of this population (Blewett et al., 2024). Though applicable usage of sampling weights will generate precise point estimates (i.e., means, proportions), statistical methods that account for the complex sample design are also necessary to yield precise standard errors and statistical tests.

Sample Size

Sample size was determined by the G* Power (3.1) software to estimate the sample size for the study. Concerning my two dependent variables, a binary logistic regression was used via SPSS to calculate health insurance coverage (1=yes,0=no). Health

status, which is a 5-categorical variable (1-excellent, 5-poor), was measured using SPSS via an ordinal logistic regression analysis, and the G*power analysis was employed to compute the required sample size. The input parameters consisted of two paired sets of data that measured the same observations for two ordinal variables.

A power analysis was performed utilizing G*Power analysis. The primary hypothesis was that the mean difference between the posttest and pretest scores would be greater than zero. Based on the literature, a minimum effect size (d) of 0.5 was assumed, and a significance level of p -value of 0.05 and a power of 0.80 were set. The analysis revealed that a minimum total sample size of $n = 721$ participants was required to achieve the desired power. Per the output parameters, the total minimum sample size calculation was 721 (Figure 1).

Figure 1

*G*Power Analysis Calculation of Sample Size ($n = 721$)*

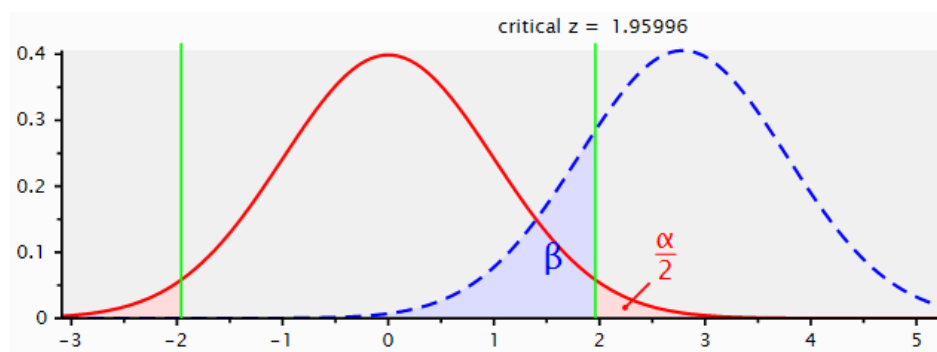


Figure 2

*G*Power Analysis Input Parameters Box (n = 721)*

Test family		Statistical test	
z tests		Logistic regression	
Type of power analysis			
A priori: Compute required sample size - given α , power, and effect size			
Input Parameters		Output Parameters	
Determine =>		Critical z	
Tail(s)	Two	Total sample size	721
Odds ratio	1.3	Actual power	0.8001115
Pr(Y=1 X=1) H0	0.2		
α err prob	0.05		
Power (1- β err prob)	0.80		
R ² other X	0		
X distribution	Normal		
X parm μ	0		
X parm σ	1		

Note. Figure 1 represents an A priori normal x distribution z-test, statistical analysis. The value for the significance level (α) was 0.05, the statistical power ($1-\beta$) was set at 80% (0.80), and an odds ratio of 1.3.

For the study, a binary logistic regression analysis was implemented to compare the mean number of wellness visits utilization for young adults (18–35 years) with whether they have or do not have health insurance coverage. Similarly, I employed an ordinal logistic regression analysis to compare the ranked values of two variables (i.e., health status and wellness visits utilization) to determine if a monotonic relationship existed between young adults (18–35 years). The purpose was to see if there was a statistically significant difference in their health status and uptake of wellness visits utilization. A thorough understanding of the complex sampling design of the survey and

how it affects variance estimation was initiated, alongside the NHIS's usage of sampling weights.

Effect size, alpha level, and power level are three terms that share mutual interconnections, specifically in the computation of the sample size and insights into how a study's conclusions connect to real-world effects. According to Serdar et al. (2020), the sample size significantly influences the hypothesis and the study design. As such, determination of the effective sample size is necessary to assist an efficient study with high significance, encouraging the impact of the outcome. Effect size is a quantitative measure of the scope of the experimental effect; for instance, a substantially large effect size will cultivate a stronger relationship between two variables (McLeod, 2023).

Kang (2021) stated that before conducting a study and stating the hypothesis, the researcher needs to also choose the alpha (α) level at which the hypothesis will be acknowledged *supported*. The α denotes the prospect of rejecting the null hypothesis (H_0) when it is true (Serdar et al., 2020). The most frequently used α level chosen is 0.05, indicating that the researcher is willing to take a 5% probability that a result proving the hypothesis will be untrue in the full population. The power level is described as the likelihood of rejecting a false null hypothesis and is calculated as $1-\beta$ (also stated as 1-Type II error probability) (Serdar et al., 2020). The ideal power of a study is deemed to be 0.8 (which can also be stipulated as 80%). It is important to note that a sufficient sample size should be provided to obtain a Type I error as low as 0.05 or 0.01 and a power as high as 0.8 or 0.9 (Serdar et al., 2020).

Procedures for Recruitment, Participation, and Data Collection

The IPUMS NHIS utilizes a multistage probability sample strategy for recruitment, participation, and data collection (Blewett et al., 2024). The NHIS is performed yearly via a computer-assisted personal interviewing (CAPI) process. The procedures follow a format where a selection of sample address clusters is chosen, and one sample adult from each household. Blewett et al. (2024) asserted that trained interviewers oversee the questionnaire surveys and input responses directly into a laptop.

Informed consent is a cornerstone of healthcare and research, safeguarding ethical treatment outcomes and patient-centered care. Informed consent is a process in which a healthcare professional or researcher educates a patient about the risks, benefits, and alternatives of a given procedure, intervention, or research study (Shah et al., 2024).

The IPUMS-NHIS implemented vigorous procedures for informed consent to safeguard the privacy and protection of survey participants. These procedures involved acquiring written consent from individuals, describing the study's purpose, and facilitating a transparent understanding of the risks and benefits of participation (Blewett et al., 2024). The recruitment strategy implemented the best resources for finding participants who will meet the inclusion criteria. Preliminary email contact was made with IPUMS with briefings about my quantitative study. The proceeding follow-up from IPUMS included ample positive feedback, detailed instructions, and tutorial steps regarding data collection/extraction of the household participants' survey results.

IPUMS NHIS does not include debriefing techniques in a similar way to a survey administered directly to individuals. IPUMS is a data archive rendering corresponding

adaptations of public-use NHIS data. Rather than debriefing, IPUMS recommends resources such as variable documentation, sampling weights, and user notes to assist researchers in understanding the data and its limitations (Blewett et al., 2024). In that same accord, IPUMS NHIS does not have specific follow-up processes. Instead, it focuses on rendering a full, longitudinal database by incorporating data from multiple years of the NHIS. Such a format permits researchers to probe trends and changes over time, even if specific individuals are not monitored across the years.

I was directed on how to create a customized data extract by adding samples (most recent data currently available is from 2023) and variables of my choosing to my data cart. Conveniently, the NHIS website provided a variety of enabling factors (i.e., health insurance coverage), need factors (i.e., health status), and predisposing factors (i.e., age and gender), and other variables concerning wellness visits utilization, screenings, and preventive care. Once all selected data points were selected, an email notification confirming the download was ready was generated, and a data set link was published on the IPUMS website alongside the codebook for my retrieval. Approval from Walden University's Institutional Review Board (IRB) preceded the data collection. Demographic information was collected on age, gender, ethnicity, and type of healthcare utilization (i.e., wellness visits utilization). The data collected will be saved securely on a password-protected laptop for 5 years following dissertation approval. The research complied with Walden University IRB guidelines and regulations for conducting research with human subjects.

Operationalization of Study Variables

Independent Variable

This quantitative study focused on wellness visits utilization (1=yes, 2=no) as the independent variable, nominal, and binary categorical variable for the analysis.

Dependent Variable

The dependent variables in this study were health status and health insurance coverage, specifically examining health status as an ordinal, and 5-level categorical variable, coded as 1-excellent, 2-very good, 3-good, 4-fair, and 5-poor. In addition, health insurance coverage status (1=yes/has coverage, 0=no coverage), as a nominal, binary categorical variable.

Covariate

The population characteristics of gender (1-male, 0-female) served as the covariate of this research study.

Data Analysis Plan

An ordinal logistic regression analysis was used to measure the monotonic relational and directional strength among two ranked variables, ranging from -1 to +1. This descriptive statistic was applied to test and quantify the association between the 5-categorical outcome variable (dependent variable, i.e., health status) and the predictor variable (independent variable, i.e., wellness visits utilization), with the control of population characteristics of gender. A common assumption for this statistical analysis is that there is a monotonous relationship between the two variables, one in which the two variables move in the same overall direction.

My research study data consisted of a minimum sample size of 721 participants. According to Pal (2021), multinomial logistic regression is the statistical technique utilized to approximate the probability of a dichotomous outcome. Health status, which is a 5-categorical variable (Excellent-Poor), was measured using SPSS via an ordinal logistic regression. Binary logistic regression was employed to test and quantify the association between healthcare insurance coverage and wellness visits utilization, and to control for population characteristics of gender. A common assumption for this statistical analysis is the notion of an independent, categorical dependent variable (typically binary), independence of observations, one-dimensionality between independent variables and the log-odds of the dependent variable, nonexistent of multicollinearity among independent variables, and the absence of strongly influential outliers. A large sample size is also recommended for reliability (Bobbitt, 2020).

The rationale for the inclusion of population characteristics of gender as the covariate variable in the ordinal logistic regression analysis was to statistically control its effect on the relationship between other variables and the outcome. This allowed me to isolate the specific effect of the primary independent variable (i.e., wellness visits utilization) of interest by accounting for any variance explained by gender. In an ordinal logistic regression, the main parameter estimates contain model coefficients (β), odds ratios (ORs), confidence intervals (CIs) for ORs, and probability values (p -values). The ordinal logistic regression model is part of a lineage of statistical models referred to as generalized linear models (Harris, 2021). Model coefficients correspond to the change in the log-odds of the outcome for a one-unit change in the predictor variable. Odds ratios

compute the change in odds of the outcome for a unit change in a predictor, with ORs > 1 implying an increased likelihood and ORs < 1 a decreased likelihood. Confidence intervals provide a scope within which the true population OR is likely to fall, and p -values assess the statistical significance of the estimated OR.

Data management and analyses were done using SPSS version 29 software for implemented ordinal logistic regression analysis for RQ1. In addition, a binary logistic regression was implemented for RQ2. SPSS was also employed for descriptive statistics of the participants' demographic information (age [18–35 years], gender [female/male], health status [excellent, very good, good, fair, or poor], and healthcare insurance coverage (yes, has coverage or no, has no coverage). Data were screened and cleaned to identify outliers using the SPSS software.

Surveys were completed online by the participants, with trained interviewers who oversaw the questionnaire surveys and input responses directly into a laptop. Therefore, eliminating the prospect of having missing data as participants could not skip questions. The research questions and hypotheses are:

RQ1: Is there a statistically significant relationship between the utilization of primary care wellness visits and health status among young adults ages 18–35 years, controlling for population characteristics of gender?

Null Hypothesis (H_{o1}): The null hypothesis (H_{o1}) is that there is no statistically significant relationship between the utilization of primary care wellness visits and health status among young adults (ages 18–35 years) when controlling for population characteristics of gender.

Alternate Hypothesis (H_{a1}): The alternate hypothesis (H_{a1}) for this study is that there is a statistically significant relationship between the utilization of primary care wellness visits and health status among young adults ages 18–35 years, controlling for population characteristics of gender.

Ordinal logistic regression analysis was used to examine the relationship between primary care wellness visits utilization and health status, with the control of population characteristics of gender.

RQ2: Is there a statistically significant relationship between health insurance coverage status and utilization of primary care wellness visits among young adults ages 18–35 years after controlling for population characteristics of gender?

Null Hypothesis (H_{o2}): The null hypothesis (H_{o2}) for this study is that there is no statistically significant relationship between health insurance coverage status on primary care wellness visits among young adults ages 18–35 years, controlling for population characteristics of gender.

Alternate Hypothesis (H_{a2}): The alternate hypothesis (H_{a2}) for this study is that there is a statistically significant relationship between health insurance coverage status on primary care wellness visits among young adults ages 18–35 years, controlling for population characteristics of gender.

Binary logistic regression was implemented to examine the relationship between healthcare insurance coverage and primary care wellness visits utilization and controlled for population characteristics of gender. A common assumption for this statistical analysis is the notion of independent observations, that each observation in the data set

should be independent of the others (Harris, 2021). Another assumption is that there is no perfect multicollinearity. This relates to the predictor variables (independent variable) not being too highly correlated with each other (Harris, 2021). Lastly, the other assumption is of the linearity of independent variables and log-odds. Although binary logistic regression adopts a linear relationship among the independent and dependent variables, it assumes a binary outcome and is a robust tool for predicting probabilities.

In ordinal logistic regression, the main parameter estimates contain model coefficients (β), odds ratios (ORs), confidence intervals (CIs) for ORs, and probability values (p -values). The ordinal logistic regression model is part of a lineage of statistical models referred to as generalized linear models (Harris, 2021). Model coefficients correspond to the change in the log-odds of the outcome for a one-unit change in the predictor variable. Odds ratios compute the change in odds of the outcome for a unit change in a predictor, with ORs > 1 implying an increased likelihood and ORs < 1 a decreased likelihood. Confidence intervals provide a scope within which the true population OR is likely to fall, and p -values assess the statistical significance of the estimated OR.

Threats to Validity

Utilizing data from the IPUMS NHIS helped mitigate validity threats. The findings of this study were relevant to young adults ages 18–35 years in the United States. Validity is a quantitative expression that indicates the boundary of which the research measures and what it intends to measure. According to Olmsted (2024), it relates to distinguishing whether a measure does or does not generate accurate results (Olmsted,

2024). It has critical significance, thereby confirming the accuracy and consistency of the research outcomes. This involves how well the results of the measurement tool characterize the true outcomes among the participants of the study, as well as comparable individuals not participating in the study (Ranganathan et al., 2024). Quantitative correlational research has four focal areas of validity: (1) *internal validity*, (2) *external validity*, (3) *construct validity*, and (4) *statistical-conclusion validity*. The validity typology stipulates a classification for categorizing and refining inferences related to the four validity types, entailing ensuring a causal relationship between a treatment and outcome (internal validity) that is precisely predicted (statistical-conclusion validity), well understood (construct validity), and generalizes to the essential conditions (external validity) (Anglin et al., 2024).

Internal validity is shown when variances in a dependent variable can be attributed to changes in an independent variable instead of being caused by other exogenous or endogenous considerations (Clemens et al., 2021). Internal validity applies to causal associations, relationships, and correlational statistics. There are three core constituents needed for internal validity. The primary constituent is the occurrence of a statistically significant association. The secondary constituent that is required for internal validity is that the statistically significant association must not be false (Clemens et al., 2021). Thirdly, if an association is statistically significant and valid, the concluding step mandated to determine internal validity is to warrant appropriate sequential ordering (Clemens et al., 2021).

This study was a nonexperimental quantitative correlational research study, which had population characteristics of gender as the covariate. The internal validity accurately signaled the true relationship between my variables, and the covariate was controlled for and/or reported for in the analysis to isolate the validity of the independent variable on the dependent variable. Threats to internal validity were addressed by considering demographic variables in the study, which entailed age, gender, ethnicity, and type of healthcare utilization (i.e., wellness visits). The association between demographic variables and the dependent variable was assessed and compared with findings from the relationship between the independent and dependent variables.

External validity implies to the extent to which the results of a study can be widespread beyond the exclusive framework of the study to other populations, settings, intervals, and variables (McLeod, 2024). It is prominent because the essential purpose of research is to yield knowledge that can be practical to real-world contexts. According to Berga (2024), this can be completed by implementing a substantial random sample that precisely corresponds to a broader population while abstaining from generalizing about one group to other external groups. This study facilitated the usage of data from IPUMS NHIS' multistage probability sampling, including stratification and clustering, to select participants via household surveys, which does not inherently imply simple random sampling (National Center for Health Statistics, 2024). This could potentially impact on the generalizability of the results, therefore increasing the prospect of threats to external validity. This form of risk can be mitigated through an extensive literature review and by comparing research outcomes with existing literature.

Construct validity evaluates how well a certain measurement echoes the theoretical construct (existing theory and knowledge) it is projected to measure (Nickerson, 2024). Construct validity centers on the implications of the test scores and how they link to the theoretical framework of the construct. According to Nickerson (2024), construct validity should be observed as a continuum rather than a determination that a measure purely is or is not valid. High construct validity means there is substantial theoretical and empirical evidence that a test measures the intended construct, while low construct validity implies the test may be measuring something else unintended or that score interpretations are questionable. A potential threat to construct validity in this study will be a lack of random sampling, which may impact on the applicability of the findings. Conversely, threats to this type of validity will be mitigated by comparing metrics from this study with metrics from existing literature.

Statistical-conclusion validity refers to the rationality of conclusions about the covariation of independent and dependent variables (Anglin et al., 2024). It takes into consideration these piercing inquiries: (1) Has the effect size been properly analyzed? (2) How accurate is approximation, and to what extent should there be trust in the findings of the statistical test of significance? (Anglin et al., 2024). Beyond a binary outcome, statistical conclusion validity also necessitates a precise inference of the effect size and the degree of ambiguity surrounding that estimate (i.e., the confidence interval surrounding the estimated effect) (Anglin et al., 2024).

Ethical Procedures

The research study was conducted in accordance with the procedures, practices, and guidelines of the Walden Institutional Review Board (IRB) for doctoral research. The study was given IRB approval and provided the IRB approval number, 10-13-25-0664913. The study was defended at the IRB to obtain approval for data collection procedures. Relevant research ethics courses were completed via the Collaborative Institutional Training Initiative website for doctoral student researchers, where detailed information about consent, privacy, confidentiality, assessing risks, and general ethical principles was offered. The National Health Interview Survey (NHIS) gathered data through personal household interviews, with a randomly selected sample of households indicative of the U.S. population.

Adarmouch et al. (2020) asserted that protecting the confidentiality of research subjects is broadly acknowledged as one of the standard ethical obligations for clinical research. Ethical issues that may arise from the study involve concerns about anonymity, consent, privacy, and confidentiality. Consequently, nonidentifiable data will be collected and saved securely on a password-protected laptop device. Data will be retained for 5 years following dissertation approval by the Chief Academic Officer and will be expunged from the secured electronic device afterwards.

Summary

This study will examine the association between health status and health insurance coverage status, as it relates to wellness visits utilization, using secondary data from the 2023 IPUMS NHIS. The statistical methods that will be performed to examine

the key variables include an ordinal logistic regression analysis to measure health status (5-categorical variable, with the control of population characteristics of gender. In addition, an odds ratio and 95% confidence interval were reported and interpreted. A binary logistic regression was used to measure the relationship of health insurance coverage and wellness visit utilization, while controlling the population characteristics of gender. For all eligible participants meeting the inclusion criteria, comprising young adults ages 18–35 years, data will be extracted from the 2023 IPUMS NHIS and included in the study. Exclusions will be made for participants who did not fall within the 18–35 years age range and geographical locations outside the U.S. The study’s research questions will be addressed using data and survey responses from the 2023 IPUMS NHIS.

A multistage probability sampling, including stratification and clustering from IPUMS NHIS, will be implemented. Participants will be men and women ages 18–35 years, and their uptake of wellness visits utilization at primary care academic medical centers. This study will examine the role of healthcare insurance coverage status and health status among this age group. A binary logistic regression was used via SPSS to calculate for my binary variable (i.e., health insurance coverage (1=yes, 0=no). Concerning health status, which is a 5-categorical variable (1-excellent to 5-poor), was measured using SPSS via an ordinal logistic regression to examine the association between the study variables. As such, threats to validity and ethical considerations were also reviewed. Chapter 4 will facilitate information regarding data collection, statistical analysis, and results from the study’s findings. Subsequently, Chapter 5 will consider the

interpretation of the findings, limitations of the study, specific suggestions, and implications of the study.

Chapter 4: Results

Introduction

The purpose of this quantitative study was to examine the relationship of health checkups and wellness visits utilization among young adults ages 18–35 years, in correlation with their healthcare insurance coverage status and health status, with population characteristics of gender as the covariate variable. The research questions and hypotheses that will be implemented to address the research problem for this quantitative study are:

RQ1: Is there a statistically significant relationship between the utilization of primary care wellness visits and health status among young adults ages 18–35 years, controlling for population characteristics of gender?

Null Hypothesis (H_{o1}): The null hypothesis (H_{o1}) is that there is no statistically significant relationship between the utilization of primary care wellness visits and health status among young adults (ages 18–35 years) when controlling for population characteristics of gender.

Alternate Hypothesis (H_{a1}): The alternate hypothesis (H_{a1}) for this study is that there is a statistically significant relationship between the utilization of primary care wellness visits and health status among young adults ages 18–35 years, controlling for population characteristics of gender.

Ordinal logistic regression was used to examine the relationship between primary care wellness visits utilization and health status, with the control of population characteristics of gender.

RQ2: Is there a statistically significant relationship between health insurance coverage status and utilization of primary care wellness visits among young adults ages 18–35 years after controlling for population characteristics of gender?

Null Hypothesis (H_{o2}): The null hypothesis (H_{o2}) for this study is that there is no statistically significant relationship between health insurance coverage status on primary care wellness visits among young adults ages 18–35 years, controlling for population characteristics of gender.

Alternate Hypothesis (H_{a2}): The alternate hypothesis (H_{a2}) for this study is that there is a statistically significant relationship between health insurance coverage status on primary care wellness visits among young adults ages 18–35 years, controlling population characteristics of gender.

Binary logistic regression was used to examine the relationship between healthcare insurance coverage and primary care wellness visits utilization.

This chapter outlines the study's purpose, research questions, and hypotheses. I will then explain the procedure of setting up the data set for analysis, including the adjustments to ensure accuracy and suitability. I also review any discrepancies between the intended data collection methods from Chapter 3 and the actual processes applied. Subsequently, I present the descriptive attributes of the data set and provide a synopsis of the analysis plan designed to address the research questions. The results of both the ordinal logistic regression for RQ1, and the binary logistic regression for RQ2, are reported, accompanied by a summary that renders a cohesive overview of the findings and insights. In this chapter, there is a detailed and precise interpretation of the data

collection process, sample characteristics, and statistical analyses, rendering the foundation for explaining the study's findings in subsequent chapters.

Data Collection

I obtained IRB approval from Walden University for this study prior to downloading the data for analysis. The IRB approval number for this study is 10-13-25-0664913. I proceeded to download the 2023 NHIS data set from the IPUMS data page, which included data on wellness visits utilization, health status, healthcare insurance status, and population characteristics, such as gender.

After inserting the data set into SPSS, I thoroughly removed variables that were unrelated to the study, ensuring that the integrity and reliability of the data were preserved. The NHIS is conducted annually by the National Center for Health Statistics (NCHS). The survey is administered yearly and includes 100,000 individuals in 45,000 households annually (Blewett et al., 2024).

The IPUMS NHIS utilizes a multistage probability sample strategy for recruitment, participation, and data collection (Blewett et al., 2024). The NHIS is performed via a computer-assisted personal interviewing (CAPI) process. The procedures follow a format where a selection of sample address clusters is chosen, and one sample adult from each household. The survey design involved selecting a sample of households and noninstitutional group quarters in various stages, entailing both stratification (dividing the population into subgroups), clustering (grouping households in identifiable regions), as well as oversampling of some subpopulations (e.g., Black, Hispanic, and Asian) (National Center for Health Statistics, 2024).

The NHIS sample is designed to be reflective of the civilian, noninstitutionalized population living in the 50 states and the District of Columbia at the time of the survey. The population number from the Congressional Budget Office (CBO) excludes people under age 16 years old, which is not the case for the NHIS. When including the population of all ages, the sample population size in 2023 is about 332 million (CBO, 2023).

When including the population of all ages, the sample population size in 2023 was about 332 million (CBO, 2023). Per the IPUMS website, it is recommended that sampling weights be utilized in my analysis in order for my estimates to be representative of this population (Blewett et al., 2024). Though applicable usage of sampling weights will generate precise point estimates (i.e., means, proportions), statistical methods that account for the complex sample design are also necessary to yield precise standard errors and statistical tests. The IPUMS-NHIS implemented vigorous procedures for informed consent to safeguard the privacy and protection of survey participants. These procedures involved acquiring written consent from individuals, describing the study's purpose, and facilitating a transparent understanding of the risks and benefits of participation (Blewett et al., 2024). The recruitment strategy implemented the best resources for finding participants who will meet the inclusion criteria.

When the NHIS sample was remodeled for 2016–2025, it was projected to generate approximately 27,000 sample adult interviews and 9,000 sample child interviews in an estimated 35,000 households annually. Conversely, the NHIS sample size varies from year to year. NHIS is a sample survey. More specifically, only a subset

of the national noninstitutionalized population is selected to participate in the survey. To justify this factor, sampling weights were produced to represent national approximations.

The final sample sizes for the 2023 NHIS public-use data release household interview unit were 30,670, with 29,522 sample adults interview units. It is important to note that for 537 of the 29,522 sample adults on the 2023 sample, a knowledgeable proxy responded for the sample adult because he/she was mentally or physically inept of responding for himself/herself.

The NHIS 2023 data set included 29,522 adults. Before conducting the analysis, I refined the data set using the 'select cases' function in SPSS to concentrate on the population and variables of interest. As a result, I included 6,581 young adults in the study who was in the 18–35 years old age bracket. I filtered the data based on gender, so *if condition is satisfied*. Concerning the output, SPSS was set to *filter out unselected cases*. $AGE \geq 18 \ \& \ AGE \leq 35$. For the generated histogram, age was the variable of choice (Figure 2). The sample size calculation was conducted via the G* Power analysis. I used the test of the z-test with the statistical test of logistic regression, and a power analysis A priori to compute the required sample size calculation, given α , power, and effect size. My input parameters included a two-tailed test, with an odds ratio of 1.3, with a power ($1-\beta$) of .80, with a normal x distribution. The output parameters generated included a critical z value of 1.959, a minimum sample size $n = 721$, and an actual power of 0.8001 (Figure 1).

During my data collection, I discovered that the 2023 NHIS data set offered a substantial amount of various information on influencing variables that contributed to or

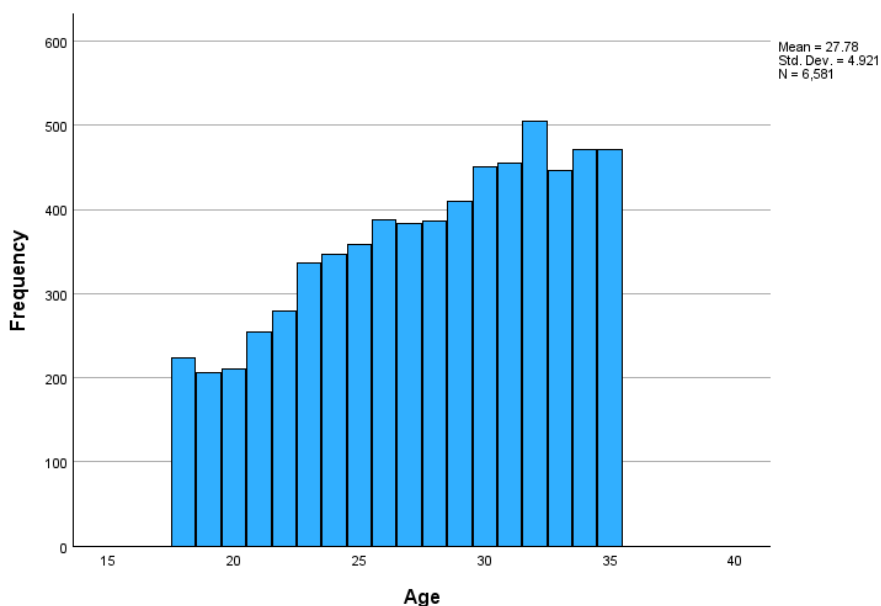
the lack thereof of health check-ups and wellness visits utilization among this specific age group. This inclusion advanced my aptitude to evaluate other population characteristics on the role of health checkups and wellness visits utilization outcomes among surveyed young adults ages 18–35 years old.

I used SPSS version 29 to conduct the univariate analysis of all the variables in the study. A descriptive statistic for independent variables, dependent variables, and the covariate was also conducted. This analysis helped me merge categories within categorical variables based on their percentage and evaluate missing data. The study participants were young adults ages 18–35 years old ($n = 6,581$) from the 2023 NHIS data set (Figure 2).

Results

Figure 3

Descriptive Statistics: Histogram of Sample Size (n=6,581)



Note. Figure 2 represents a histogram of a large sample size ($n = 6,581$) that accurately represents the population distribution. The shape of the distribution is positively skewed, no detailed outlier.

Table 1 presents the descriptive statistics for the independent variable, wellness visits utilization, with a sample size $n = 6487$. Specifically, 1,256 participants (19.1%) stated *yes* that their last doctor visit was a wellness visit, with 5,231 participants (79.5%) stated *no* that their last doctor visit was a wellness visit.

Table 1

Descriptive Statistics: Frequency of Wellness Visits Utilization

Wellness visits	N	%
No	5231	79.5
Yes	1256	19.1
Total	6487	98.6

For Table 2, I examined the descriptive statistics for the dependent variable, health status $n = 6581$. The descriptive statistics showed at the top, that 2,028 participants (30.8%) reported 1 = *excellent* health status, with 65 participants (1.0%) indicating 5 = *poor* health status at the bottom.

Table 2

Descriptive Statistics: Frequency of Health Status

Health status	N	%
Excellent	2028	30.8
Very good	2464	37.4
Good	1598	24.3
Fair	426	6.5
Poor	65	1.0
Total	6581	100.0

For Table 3, I examined the descriptive statistics for the dependent variable, health insurance coverage status. The descriptive statistics showed that 5,760 participants (87.5%) stated *yes*, have coverage, with 784 participants and (11.9%) stated *no*, do not have coverage.

Table 3

Descriptive Statistics: Frequency of Health Insurance Coverage

Health insurance coverage	N	%
No coverage	784	11.9
Has coverage	5760	87.5
Total	6544	99.4

Table 4 provides the descriptive statistics for the covariate variable, gender $n = 6577$, composition of the sample. In particular, 3,133 male participants (47.6%) indicated that their *wellness visit utilization*, and 5,231 female participants (52.3%) reported that their *last doctor visit was their wellness visit*.

Table 4

Descriptive Statistics: Frequency of Gender

Gender	N	%
Female	3444	52.3
Male	3133	47.6
Total	6577	99.9

Results of Research Question 1

RQ1: Is there a statistically significant relationship between the utilization of primary care wellness visits and health status among young adults ages 18–35 years, controlling for population characteristics of gender?

Null Hypothesis (H_{o1}): The null hypothesis (H_{o1}) is that there is no statistically significant relationship between the utilization of primary care wellness visits and health status among young adults (ages 18–35 years) when controlling for population characteristics of gender.

Alternate Hypothesis (H_{a1}): The alternate hypothesis (H_{a1}) for this study is that there is a statistically significant relationship between the utilization of primary care wellness visits and health status among young adults ages 18–35 years, controlling for population characteristics of gender.

Ordinal logistic regression was used to examine the relationship between primary care wellness visits utilization and health status, with the control of population characteristics of gender.

The ordinal logistic regression model assumes an ordinal dependent variable which was the case for the study (a 5-category health status coded 1 for *excellence* up to 5 for *poor* health), and one or more independent variables which could be categorical or continuous (in this case wellness visits utilization, coded as 1 *yes*, 2 *no* and gender coded as 0 for *female* and 1 for *male*). The most critical assumption of ordinal logistic regression is the proportional odds assumption, which states that the effect of each predictor variable on the log odds of the outcome is the same across all possible thresholds of the outcome or dependent variable. This means that the relationship between the wellness visit (and of course gender) and the ordered categories of health status is consistent throughout all cut-points of health status. This assumption was assessed using the test of parallel lines, yielding a nonstatistically significant *p*-value of

0.51, indicating that the assumption was satisfied and ordinal logistic regression model was appropriate for the data of this study. The model fit criteria were also examined using Pseudo-R-square and goodness of fit test. The Nagelkerke R-square was 0.008, implying that only 0.8% of the variation in health status was explained by wellness visit and gender. Nagelkerke R-square gives a purview about the strength of a fitted model and fundamentally illustrates how valuable the model is in predicting the outcome based on the independent variables in the model. Given that less than 1% variation in health status was explained, wellness visit utilization and gender may not be considered as good predictors. However, outputs from the goodness of fit test were indicative of nonstatistically significant p -values for Pearson's chi-square ($p = 0.76$) and deviance ($p = 0.77$), suggesting that what was observed using the data of this study in the ordinal logistic regression model matched what was expected. Also, given that RQ1 involved a multivariate analysis (with two independent variables), it was essential to assess and eliminate the existence of multicollinearity within the model. The diagnostic approach that was implemented for this was the examination of the variance inflation factor (VIF) via the linear regression in SPSS. Typically, any value greater than 10 indicates high variance inflation, and that the variable is redundant with the other variables. In the case of my research, both wellness visits utilization and gender illustrated a VIF value of 1.000 as it related to the dependent variable, health status. This strongly showed that no multicollinearity was observed. Finally, the model also assumes that independence of the observations which was the case in this study as each of the $N = 6,544$ participants for which the data of this study was captured and analyzed were independent entities.

Table 5 below is a depiction of the results of the ordinal logistic regression model with health status as the dependent or outcome variable and wellness visits utilization as the independent variable while controlling for gender. The results shows that young adults who had not visited a doctor recently for a wellness checkup were less likely to report poorer health compared to those who had (effect estimate, $\beta = -0.367, p < .001$). Correspondingly, male young adults were less to report poorer health status compared to their female counterparts ($\beta = -0.112, p < 0.013$). Thus, based on these results, the null hypothesis was rejected holding on the claim that a statistically significant relationship between wellness visits utilization and health status after controlling gender among young adults (ages 18–35).

Table 5

Ordinal Logistic Regression of Wellness Visits Utilization and Health Status

	Estimate	<i>p</i> value	95% confidence interval	
			Lower	Upper
Health status				
[Excellent = 1]	-1.166	<.001	-1.281	-1.050
[Very good = 2]	.421	<.001	.309	.533
[Good = 3]	2.182	<.001	2.048	2.315
[Fair = 4]	4.255	<.001	3.993	4.517
Gender	-.112	.013	-.201	-.023
Wellness visits utilization=no	-.367	<.001	-.480	-.255
Wellness visits utilization=yes	0a	.	.	.
Link function: Logit				

Note. (a) The parameter is set to zero because it is redundant. (b) The reference group of gender is female. (c) The reference group for health status is 5- poor. (d) The reference group of health status is used to indicate levels of health (Health status =1-excellent, 2-very good, 3-good, 4-fair).

Results of Research Question 2

RQ2: Is there a statistically significant relationship between health insurance coverage status and utilization of primary care wellness visits among young adults ages 18–35 years after controlling for population characteristics of gender?

Null Hypothesis (H_{02}): The null hypothesis (H_{02}) for this study is that there is no statistically significant relationship between health insurance coverage status on primary care wellness visits among young adults ages 18–35 years, controlling for population characteristics of gender.

Alternate Hypothesis (H_{a2}): The alternate hypothesis (H_{a2}) for this study is that there is a statistically significant relationship between health insurance coverage status on primary care wellness visits among young adults ages 18–35 years, controlling population characteristics of gender.

Binary logistic regression was used in SPSS version 29 to examine the relationship between healthcare insurance coverage and primary care wellness visits utilization. For the binary logistic regression of the study, the models' assumptions that were checked included the independence of observations, the inclusion of one dichotomous dependent variable (i.e., healthcare insurance coverage status, with two possible outcomes (1=yes, 0=no), as well as one categorical independent variable (i.e., wellness visits utilization – 1=yes, 0=no). My research study exceeded the bare minimum of 15 cases, with a valid sample size of 6,544 cases for the healthcare insurance coverage data. The presence of multicollinearity was checked with the variance inflation factor. The observed VIF value of 1.000 (less than <10) was noted, as it related to the dependent

variable, health insurance coverage status. This illustrated a low variation inflation and nonredundant (independent) of other variables. Therefore, this effectively indicated that no multicollinearity was observed. Concerning the assumption of significant outliers via the linear regression, the output of the residual statistics of the Cook's distance illustrated a maximum of .002. Hence this value (.002) is less than the threshold of values above 1, and therefore no data points are influential outliers in my regression model. Given that this value is quite miniscule and well below normal used thresholds, this implied that removing any single observation would not substantially change the model's fitted values. The Nagelkerke R square was 0.017 which was the amount of variance explained, showed a very weak model fit, suggesting that wellness visits utilization explained only about 1.7% of the variability in health insurance coverage status. Hence, wellness visits utilization were not strong predictors of young adults' health insurance coverage status.

Table 6 summarizes the results of the binary logistic regression analysis for RQ2. Young adults who had not visited a doctor recently for a wellness checkup were less likely to report having healthcare insurance coverage compared to those who had ($\beta = -0.269, p = .004$). Correspondingly, male young adults (ages 18–35) were less likely to report having health insurance compared to female young adults, with 42% decreased odds and this statistically significant ($\beta = -0.112$ or $Exp(B) = 0.58, 95\% CI = .58, p < 0.001$). Based on these results, the null hypothesis was rejected holding on the claim that there was a statistically significant relationship between wellness visits utilization and health insurance coverage after controlling for gender.

Table 6

Binary Logistic Regression: Wellness Visit Utilization and Gender

	B	S.E.	<i>p</i> value	Exp(B)	95% CI	
					Lower	Upper
Gender	-.548	.079	<.001	.578	.496	.675
Wellness visit utilization=no	-.269	.093	.004	.764	.637	.917
Constant	2.359	.063	<.001	10.585		

Note. (a) Variable (s) entered are Gender for the male group, and wellness visit utilization=no for the independent. (b) The dependent variable is health insurance coverage status (yes-1, no-0).

Summary

In summary, the young male adults ages 18–35 years old illustrated statistically significant health statuses (1-excellent, 4-fair) compared to their female reference group, with a *p*-value of <.001 and was statistically significant for wellness visits utilization=no, with a *p*-value of <.001. After recoding gender, wellness visits, and healthcare insurance coverage, the results of the findings indicated that when wellness visit utilization increased, the health status of the participant was poorer. In other words, the findings of the study indicated that participants who reported having a better health status were less likely to indicate *yes* to wellness visit utilization. My study showed a statistically significant relationship between wellness visits utilization and health status after controlling gender. Individuals who had not visited a doctor recently for a wellness checkup tended to report better health status compared to those who had (Effect estimate = -0.367, *p* < .001).

The strong evidence from this research study led to the rejection of the null hypothesis (H_{01}), that there is no statistically significant relationship between the utilization of primary care wellness visits utilization and health status among young adults (ages 18–35 years old) when controlling for population characteristics. Instead, the results of this ordinal logistic regression analysis were in favor of the alternative hypothesis (H_{a1}) that there was a statistically significant relationship between the utilization of primary care wellness visits and health status among young adults ages 18–35 years old.

This study discovered a statistically significant relationship between wellness visits utilization and health insurance coverage after controlling for gender. Individuals who had not visited a doctor recently for a wellness checkup tended to report lack of healthcare insurance coverage compared to those who had (Effect estimate= -0.269, $p < .004$). As indicated, 87.5% of the participants reported insurance coverage and 11.9% reported no coverage. In addition, young male adults ages 18–35 years old illustrated statistically significant health insurance coverage status (1=yes and 0=no) compared to their female reference group, with a p -value of $<.001$ and was statistically significant for wellness visits utilization=no, with a p -value of $<.001$.

The robust evidence from this research study led to the rejection of the null hypothesis, that there is no statistically significant relationship between healthcare insurance coverage status and the utilization of primary care wellness visits among young adults (ages 18–35 years old) when controlling for population characteristics. Instead, the findings of this binary logistic regression analysis were in favor of the alternative

hypothesis that there was a statistically significant relationship between healthcare insurance coverage status and primary care wellness visits utilization among young adults ages 18–35 years old.

Chapter 5 will interpret the results for each research question and the theoretical framework, detail the study's limitations, provide recommendations for future research, and examine the implications for positive social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this quantitative study was to examine health checkups and wellness visit utilization among young adults ages 18–35 years, in correlation with their healthcare insurance coverage status and health status, with the controlled variable of population characteristics of gender. A descriptive correlational design was applied to examine the relationship of wellness visits utilization among young adults ages 18–35 years in primary care academic medical centers. Both health status and healthcare insurance coverage status were assessed, with population characteristics serving as covariate variable. Data were collected via the National Health Interview Survey (NHIS) Integrated Public Use Microdata Series (IPUMS) and examined via an ordinal logistic regression to assess the relationship between wellness visits utilization and health status, with the control for population characteristics of gender. As such, a binary logistic regression analysis was implemented to explore the relationship between wellness visits utilization and health insurance coverage status.

These quantitative approaches simplified a systematic examination and statistical analysis focused on evaluating the associations of the independent variable, wellness visits utilization, and the two dependent variables, health status and health insurance coverage status. My study revealed a statistically significant relationship between wellness visits utilization and health status after controlling gender. Individuals who had not visited a doctor recently for a wellness checkup tended to report better health status compared to those who had (Effect estimate = -0.367 , $p < .001$). In other words,

participants who reported having a better health status were less likely to indicate *yes* to wellness visit utilization.

The results of my binary logistic regression discovered a statistically significant relationship between wellness visits utilization and health insurance coverage after controlling for gender. Participants who had not visited a doctor recently for a wellness checkup tended to report lack of healthcare insurance coverage compared to those who had (Effect estimate= -0.269, $p < .004$). In this chapter, a comprehensive interpretation of the findings and their correlation to the theoretical framework was addressed. Furthermore, the study's limitations, proposed recommendations for future research, and a discussion of the implications for social change were discussed.

Interpretation of the Findings

According to the results, wellness visit utilization was always significant for all levels of health status (1-excellent, 4, fair) with the health status, 5-poor, serving as the reference group. The ordinal logistic regression model showed that both gender and wellness visit utilization were significant predictors of health status. After controlling for other variables, men were significantly less likely than women to report poorer health (Estimate= -0.112, $p = .013$). These findings suggest that both gender and wellness visit utilization are highly statistically significant to health status, and therefore indicated that the null hypothesis should be rejected

Lastly, a binary logistic regression model was performed to examine the dependent dichotomous variable of health insurance coverage status (1-yes, 0-no), and

the independent variable of wellness visits utilization, with population characteristic covariate of gender in SPSS. There was a sufficient sample size ($n = 6,581$).

Individuals who had not visited a doctor recently for a wellness checkup tended to report lack of healthcare insurance coverage compared to those who had (Effect estimate = -0.269 , $p < .004$). As indicated, 87.5% of the participants reported insurance coverage and 11.9% reported no coverage. In addition, young male adults ages 18–35 years old illustrated statistically significant health insurance coverage status (1=yes and 0=no) compared to their female reference group, with a p -value of $<.001$ and was statistically significant for wellness visits utilization=no, with a p -value of $<.001$.

Subsequently, the Nagelkerke R square model illustrated a value of .017 which was the amount of variance explained, showed a very weak model fit, suggesting that wellness visits utilization explained only about 1.7% of the variability in health insurance coverage status. Hence, wellness visits utilization were not strong predictors of young adults' health insurance coverage status. For the variable of gender (0=female, 1=male), the results indicated that men (ages 18–35) were less likely to report having health insurance compared to women, with 42% decreased odds and this showed to be statistically significant (OR = 0.58, 95% CI = .58, $p < 0.001$). Concerning the odds ratio, Exp (B) .578, for men, indicated a negative association.

The results of my study confirm upon knowledge in the discipline of public health and preventive medicine. Gilchrist et al. (2024) noted that 87% of most quantitative studies conveyed measures of potential access, including 61% for insurance coverage and type, as well as 39% for usual source of care/healthcare provider.

In comparison, 48% of limited studies assessed measures of realized access or utilization of healthcare services, such as routine checkups (43%), or receipt of preventive screenings in the past year (26%) (Gilchrist et al., 2024). In 2021, men were more likely to be uninsured compared to women (14% versus 11%). My findings confirm previous systematic reviews inferred that insurance coverage was linked to improved access to healthcare services and better health outcomes in adult U.S. populations (Gilchrist et al., 2024).

These findings emphasize the need for targeted interventions and health policies that address the specific factors faced by this demographic group of young adults, 18–35 years old, affecting their adherence to preventive health checkups and wellness visits utilization.

The study's findings are consistent with and expand upon existing knowledge concerning the suboptimal utilization of health checkups in the U.S., particularly due to various healthcare disparities (Orji & Yamashita, 2020). Furthermore, Orji and Yamashita (2020) research explored the association of routine checkups and preventive screenings adherence among women and noticed the healthcare disparities that they faced with regards to access of healthcare. Their study noted the significance of those participants who attended their health checkups and wellness visits utilization in being more in compliance with preventive screening practices. Their study also noted that the promotion of routine health checkups can potentially aid in the promotion and adherence of recommended screenings among young adults.

Across the literature, the commonality is that routine health checkups are a type of preventive healthcare service and are deemed to improve health promotion and disease prevention. Alawode & Nicholson (2023) implemented the Andersen Healthcare framework, a theoretical model geared towards comprehending the reasons individuals utilize health services, with a focal concentration on 3 key parameters: predisposing (demographics like age), enabling factors (health insurance), and need factors (perceived health also known as health status).

Similar to my study, a binary logistic regression model was implemented, with data from the 2016 Behavioral Risk Factor Surveillance System data (n = 9515). The findings illustrated that 61% of young adults had health checkups in the past year, after adjusting for predisposing need and other enabling factors. The study discovered that there were significant associations with lower odds of health checkups in the past year (Alawode & Nicholson, 2022). Alawode and Nicholson (2022) focused on young adults ages 18 to 29, compared to my age bracket of focus 18 to 35 years old. Nevertheless, their findings also reported that this age group is one of the least likely to utilize health services for screening and prevention of diseases. Findings illustrated that one of the barriers young adults face towards health checkups, wellness visits utilization were challenges with oral and written health literacy and as well as complications obtaining medical information and guidance, all of which were significantly correlated with lower odds of health checkups in the past year.

In comparison, Varshini et al.'s (2020) research data showed that only 36% of the individuals visited their doctor for a health checkup, and the remaining 64% stated that

they do not make appointments for routine health checkups. The reason for the lack of regular health checkups among this group of people was the lack of awareness, high expenditures, and negative notions (Varshini et al., 2020). Arulselvan's et al., (2024) research discovered that age showed a significant negative correlation with the motivator/barrier score; as age increased, the motivator/barrier score decreased. Contrary to my research, Arulselvan et al., (2024) findings revealed that men had high motivation towards health checkups and wellness visits utilization. Also contrary to my findings was that younger age made individuals more proactive in checking health status to prevent future diseases. Majority of the exhaustive research that I found disconfirmed with this suggestion.

According to Alba et al. (2024), providers, healthcare leaders, and policymakers have raised alarms that continual interferences in healthcare access and preventive health screenings could have long-lasting public health consequences. This study provides a comprehensive view of how and the nuanced understanding has the potential to steer future research and health policymaking, ensuring that preventive health checkup and wellness visits resources and guidelines are allocated proficiently and interventions are intended to meet the needs of young adults 18–35 years old.

The analysis of the wellness visit utilization using the health promotion model provides a comprehensive approach towards understanding the factors influencing primary care preventive health check-ups and wellness visits utilization. Over the past years, many researchers have noted just how chronic diseases may cause permanent variations in health status and the fatal possibility that it may lead to mortality (Kudachi

et al., 2023). Wakasugi & Narita (2024) review of randomized controlled trials and observational studies reported that general health checks were linked with improved chronic disease recognition and treatment, risk factor control, preventive service uptake, and improved patient-reported outcomes. The review reported that general health checks were sometimes associated with modest improvements in health behaviors.

According to Islam et al. (2023), employing a theoretical framework to guide research design and implementation can result in a reasonable preventive intervention model. Primary healthcare is well-situated as a foundational component of the public health system, and over time, primary care has progressed to be ensured as a decisive component of health promotion. Islam et al. (2023) asserted that one of the first phases in successfully executing a preventive approach in primary care is recognizing practices for optimal intervention realization grounded on a competent theoretical framework that considers all the determinants of health. Hence, the Health Promotion Model focuses on the importance of enabling individuals to boost control over, and to improve, their health (Quilling et al., 2022).

The HBM theoretical understanding aligns with the notion that health promotion and primary prevention interventions effort to impact the health of individuals in a complex way indirectly through their behavior and the surrounding conditions, such as internal, interpersonal, and organizational aspects, as well as the constructed and natural setting (Quilling et al., 2022). The Health Promotion Model's framework demonstrates the complexity of healthcare utilization in regard to primary care health checkups and wellness visits utilization as a public health issue and underscores the need for multilevel

preventive care guidelines tailored to the specific needs of young adults ages 18–35 years old. There is a consensus among experts that reform is required to advance primary care delivery (Adida & Bravo, 2023).

Limitations of the Study

This study has some limitations. Surveys are the most frequently utilized data-gathering method in quantitative research. However, the usage of this approach entails several constraints, involving potential errors in memory accuracy, and a lack of quantitative dependability (Shipman et al., 2023). Foremost, the data in this research is self-reported, which can render certain biases, factual errors, such as underreporting or overreporting behaviors. According to the CDC (2023), self-reported data are subjective, and clinical justification is scarce; also, the incapacity to generate dependable state-level estimations from public data, makes this approach limited in this study.

Also, the data set contains instances of *unknown* and/or missing data, often causing a minor delay in generating an effective output in SPSS. To counter this issue, the *missing* individuals' values were removed from the analytics for incomplete information.

Recommendations

Future recommendations for public health and preventive medicine research should focus on more specific approaches to refine health promotion strategies through effective preventive care guidelines and wellness protocols for adults ages 18–35 years old. This age cluster has notoriously low rates of preventive care utilization. Therefore, prospective research should pioneer their investigation into focusing on improving the

primary care health checkup and wellness visit experience, as well as engagement, tailoring screenings that are vital and appropriate for this age group and addressing barriers to access. According to Hamer et al. (2023), evidence favoring preventive medicine is strong, but the underutilization of the services is stronger. Disparities in utilization persist throughout sociodemographic groups, especially in relation to health insurance coverage in the U.S. population (Oguntuase et al., 2025).

Guilamo-Ramos et al. (2024) suggested underscoring the urgency of advancing new standards of primary care to strengthen population health and reduce health disparities. This can provide insights into broader preventive care practices and inform targeted health policy guidelines at primary care academic medical centers. By addressing these areas, prospective research can overcome the limitations of current studies and enhance the understanding of health checkups and wellness visits utilization among young adult populations, ages 18–35 years old, leading to more effective and tailored public health strategies.

Additional recommendations for future research will need to focus on other key variables of interest in regard to healthcare utilization outcomes. Aside from the typical demographics and disease state, health checkups and wellness visits outcomes are notably impacted by a broad array of social determinants of health (SDOHs). This includes socioeconomic, behavioral, ecological, and systemic components; all of which needs further investigation of these predictors on healthcare utilization outcomes.

The future of health checkups and wellness visits is being molded by a prophylactic pathway toward personalized and proactive preventive care. This shift seeks

to make primary care health checkups and wellness visits more available, competent, and centered on preventing diseases before they start.

Implications

This study can drive positive social change by rendering vital prophylactic epidemiologic insights into positive public health outcomes. The implications of this study will help indicate where public health resources and efforts should be concentrated within the domain of primary care. This information can lead to developing health promotion and wellness programs that address the specific preventive requirements of young adults ages 18–35 years old and also translate the study’s insights into actionable strategies that will cultivate positive social change.

The need for prevention strategies at a large scale is imperative. Primary care settings have the capacity to provide the infrastructure essential to implement and systematically examine preventive efforts (Zimmermann et al., 2020). It is important to consider what might constitute effective and prudent preventive care in the quest to optimize health outcomes. Zeiger et al. (2022) inferred that to attain high-quality, equitable primary care delivery, large healthcare systems need effective initiatives for engaging diverse, geographically dispersed primary care practices in enhancing their care.

The results can provide key information for innovation and evidence-based research for preventive screenings, updated guidelines, and will also justify needed attention, funding, and resources towards the consideration of preventive care, and access to care in prevention planning for young adults ages 18–35 years. This is critical in

improving the overall vitality of health, optimization of well-being, and reduction of the burden of disease, hence morbidity and mortality rates among this specific group, and the overall population as a whole.

Conclusion

This quantitative descriptive correlational study design aimed to investigate the association of health checkups and wellness visit utilization among U.S. young adults ages 18–35 years in primary care academic medical centers. Two specific outcome (dependent) variables were under analysis, which included health status and health insurance coverage status. The study utilized secondary data from the 2023 NHIS.

By employing a correlational research study design, which included an ordinal and binary logistic regression, the study assessed how the dependent variables influenced wellness visits utilization, with gender serving as the population characteristic.

Ordinal logistic regression was used to examine the relationship between wellness visits and health status and binary logistic regression to examine the relationship between wellness visits utilization and health insurance coverage status all while controlling for population characteristics of gender. The results revealed a statistically significant relationship between wellness visits utilization and health status after controlling gender. Young adults who had not visited a doctor recently for a wellness checkup were less likely to report poorer health compared to those who had (Effect estimate, $\beta = -0.367$, $p < .001$). Also, there was a statistically significant relationship between wellness visits utilization and health insurance coverage after controlling for gender. Young adults who

had not visited a doctor recently for a wellness checkup were less likely to report having healthcare insurance coverage compared to those who had ($\beta = -0.269, p = .004$).

Overall, the study contributes to the vast body of literature on health checkups and wellness visits utilization. More specifically, this research uniquely provides valuable insights into exploring in-depth preventive healthcare utilization, as it relates to health status and health insurance coverage. The findings of this study have the backing of solid evidence-based peer-reviewed articles and support the notion that more research and innovation are needed to transform primary care health checkups and wellness visit utilization.

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Appendix A: Codebook Basic

Samples selected:

2023 NHIS

File Type: rectangular

Case Selection: No

Variable	Columns	Len	2023
AGE	P 71-73	3	X
SEX	P 74	1	X
HEALTH	P 75	1	X
DOCVISLWELL	P 76	1	X
HINOTCOVE	P 81	1	X

RECTYPE Record type

D Dr. visits

SEX	Sex
1	Male
2	Female
7	Unknown-refused
8	Unknown-not ascertained
9	Unknown-don't know

HEALTH	Health status
1	Excellent
2	Very Good
3	Good
4	Fair
5	Poor
7	Unknown-refused
8	Unknown-not ascertained
9	Unknown-don't know

DOCVISLWELL

0
1
2
7
8
9

Last doctor visit was a wellness visit

NIU
No
Yes
Unknown-refused
Unknown-not ascertained
Unknown-don't know

HINOTCOVE

0
1
2
7
8
9

Health Insurance coverage status

NIU
No, has coverage
Yes, has no coverage
Unknown-refused
Unknown-not ascertained
Unknown-don't know

Appendix B: Codebook- DDI

User Extract nhis_00003.dat

§ 1. Document Description

Title Statement	
Title:	Codebook for an Integrated Health Interview Series Data Extract
Subtitle:	DDI 2.5 metadata describing the extract file 'nhis_00003.dat'
Identification Number:	ddi2-cc5e4f30-e243-013d-607e-02420a1c0305-nhis_00003.dat-nhis.ipums.org
Responsibility Statement	
Authoring Entity:	IPUMS
Affiliation:	University of Minnesota
Production Statement	
Producer:	IPUMS
Affiliation:	University of Minnesota
Role:	Documentation
Date of Production:	October 15, 2025
Place of Production:	IPUMS, 50 Willey Hall, 225 - 19th Avenue South, Minneapolis, MN 55455
Distribution Statement	
Contact Persons:	IPUMS
Affiliation:	University of Minnesota
URI:	https://ipums.org

§ 2. Study Description

Title Statement	
Title:	User Extract nhis_00003.dat
Responsibility Statement	
Authoring Entity:	IPUMS
Affiliation:	University of Minnesota
Production Statement	
Producer:	IPUMS
Affiliation:	University of Minnesota
Role:	Documentation
Date of Production:	October 15, 2025

Place of Production:	IPUMS, 50 Willey Hall, 225 - 19th Avenue South, Minneapolis, MN 55455
Distribution Statement	
Contact Persons:	IPUMS
Affiliation:	University of Minnesota
URI:	https://ipums.org
Version Statement	
Date:	2025-10-15

Study Scope

Subject Information	
Topic Classification:	Technical Household Variables -- HOUSEHOLD
	Technical Person Variables -- PERSON
	Core Demographic Variables -- PERSON
	General Health Variables -- PERSON
	Medical Care Variables -- PERSON
	Access to Care Variables -- PERSON
	General Coverage Variables -- PERSON
	Reasons for No Coverage Variables -- PERSON
Summary Data Description	
Time Period:	2023
Country:	United States
Notes	
Note:	Additional notes on a sample that is part of this study: 2023 NHIS

Data Access - Use Statement

Confidentiality Declaration	
<p>The Public Health Service Act (Section 308 (d)) provides that the data collected by the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC), may be used only for the purpose of health statistical reporting and analysis. Any effort to determine the identity of any reported case is prohibited by this law. NCHS does all it can to assure that the identity of data subjects cannot be disclosed. All direct identifiers, as well as any characteristics that might lead to identification, are omitted from the data files. Any intentional identification or disclosure of a person or establishment violates the assurances of confidentiality given to the providers of the information.</p>	

Therefore, users will:

Use the data in these data files for statistical reporting and analysis only.

Make no use of the identity of any person or establishment discovered inadvertently and advise the Director, NCHS, of any such discovery (301-458-4500).

Not link these data files with individually identifiable data from other NCHS or non-NCHS data files.

By using these data, you signify your agreement to comply with the above-stated statutorily-based requirements.

Contact Persons:	Integrated Health Interview Series
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Affiliation:	IPUMS
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URI:	http://www.nhis.ipums.org/
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Citation Requirement

Publications and research reports based on the NHIS database must cite it appropriately. The citation is as follows:

Lynn A. Blewett, Julia A. Rivera Drew, Andrew Fenelon, Miriam L. King, Kari C.W. Williams, Daniel Backman, Etienne Breton, Grace Cooper, and Stephanie Richards. IPUMS Health Surveys: National Health Interview Survey, Version 8.1 [dataset]. Minneapolis, MN: IPUMS, 2025. <https://doi.org/10.18128/D071.V8.1>

If possible, citations should also include the URL for the NHIS site:
<http://www.nhis.ipums.org>.

Please see <http://www.nhis.ipums.org/nhis/citation.shtml> for precise formatting of the citation.

Conditions

The Public Health Service Act (Section 308 (d)) provides that the data collected by the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC), may be used only for the purpose of health statistical reporting and analysis. Any effort to determine the identity of any reported case is prohibited by this law. NCHS does all it can to assure that the identity of data subjects cannot be disclosed. All direct identifiers, as well as any characteristics that might lead to identification, are omitted from the data files. Any intentional identification or disclosure of a person or establishment violates the assurances of confidentiality given to the providers of the information.

Therefore, users must:

Use the data in these data files for statistical reporting and analysis only.

Make no use of the identity of any person or establishment discovered inadvertently and advise the Director, NCHS, of any such discovery (301-458-4500).

Not link these data files with individually identifiable data from other NCHS or non-NCHS data files.

By using these data, you signify your agreement to comply with the above-stated statutorily-based requirements.

Furthermore, users of NHIS data must agree to abide by the conditions of use. Users must agree to the following conditions:

- (1) Use the data in these data files for statistical reporting and analysis only
- (2) Make no use of the identity of any person or establishment discovered inadvertently and advise the Director of NCHS of any such discovery (301-458-4500)
- (3) Do not link these data with individually-identifiable data from NCHS or non-NCHS data files
- (4) No fees may be charged for use or distribution of the data. All persons are granted a limited license to use and distribute these data, but you may not charge a fee for the data if you distribute them to others.
- (5) Cite the NHIS appropriately. Publications and research reports based on the database must cite it appropriately. Please see <http://www.nhis.ipums.org/nhis/citation.shtml>
- (6) NHIS cannot be used to study small geographic areas. The smallest geographical areas identified in the NHIS are regions (groups of states) and a limited number of metropolitan areas.
- (7) This system provides individual-level data only. The NHIS Data Extraction System will not produce tables. You will need to use a statistical software package, such as Stata, SAS, or SPSS, to analyze the downloaded data. Alternatively, you may use the NHIS-SDA tabulator to produce tables online, without making a data extract.

Disclaimer

The user of the data acknowledges that the original collector of the data, the authorized distributor of the data, and the relevant funding agency bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

§ 3. File Description

File

File Name:	nhis_00003.dat
Contents of Files:	Microdata records
Type:	rectangular
File Type:	ISO-8859-1 data file
Data Format:	fixed length fields
Place of File Production:	IPUMS, 50 Willey Hall, 225 - 19th Avenue South, Minneapolis, MN 55455

§ 4. Variable Description

Name:	AGE
Label:	Age
Variable Text:	AGE reports the individual's age, in years since their last birthday. Starting in 2019, "Unknown-refused" and "Unknown-don't know" are allowed responses. Prior to 2019 age is not coded as "unknown" for any persons included in the IPUMS NHIS data. As the public use file's codebooks for 1998-2003 state, "Because age is an important variable for instrument check items and in developing the weights, all respondents must have data on age."
Concept:	Core Demographic Variables -- PERSON
Start Position:	71
End Position:	73
Width:	3
Variable Format:	numeric
Implied Decimal Places:	0
Coder Instructions:	CodesAGE is a 3-digit-numeric variable. 085: Top code for 85 years or older (1963-1968 and 1997-forward) 090: Top code for 90 years or older (1996 only) 099: Top code for 99 years or older (1969-1995) 997: Unknown-refused 998: Unknown-not ascertained 999: Unknown-don't know

Variable: "SEX"

Name:	SEX	
Label:	Sex	
Variable Text:	<p>SEX indicates whether the person was male or female.</p> <p>Starting in 2019, "Unknown-refused" and "Unknown-don't know" responses are allowed. Prior to 2019, SEX is not coded as "unknown" for any persons included in the IPUMS NHIS data.</p> <p>According to the 2020 Survey Description, for some variables, including SEX, the 2020 responses of sample adults that were part of the 2020 longitudinal sample were overwritten with their 2019 responses "to mitigate disclosure risks associated with differences in response from repeated measures among the same Sample Adults" (33). The sample adults' actual 2020 responses can be accessed through a Research Data Center (RDC). For more information on the 2020 longitudinal sample, please see SALNGPRTFLG.</p>	
Concept:	Core Demographic Variables -- PERSON	
Start Position:	74	
End Position:	74	
Width:	1	
Variable Format:	numeric	
Implied Decimal Places:	0	
Categories		
	Value	Label
	1	Male
	2	Female
	7	Unknown-refused
	8	Unknown-not ascertained
	9	Unknown-don't know

Variable: "HEALTH"

Name:	HEALTH
Label:	Health status

Variable Text:	<p>For sample adults and sample children, HEALTH rates an individual's general health (as self-reported by the person in question or evaluated by a family member) on a four-point (1972-81) or five-point (1982 forward) Likert scale, ranging from "excellent" to "poor" (along with an unrated "unknown" category).</p> <p>For 1997-2018, HSTATYR reports whether the health status of sample adults and sample children was better, worse, or about the same as one year ago.</p>	
Concept:	General Health Variables -- PERSON	
Start Position:	75	
End Position:	75	
Width:	1	
Variable Format:	numeric	
Implied Decimal Places:	0	
Categories		
	Value	Label
	1	Excellent
	2	Very Good
	3	Good
	4	Fair
	5	Poor
	7	Unknown-refused
	8	Unknown-not ascertained
	9	Unknown-don't know

Variable: "DOCVISLWELL"

Name:	DOCVISLWELL
Label:	Last doctor visit was a wellness visit
Variable Text:	For sample adults and sample children who saw a medical doctor or other health professional, DOCVISLWELL indicates whether their most recent visit (DVINT) was a wellness visit, physical, or general purpose check-up.
Concept:	Medical Care Variables -- PERSON

Start Position:	76	
End Position:	76	
Width:	1	
Variable Format:	numeric	
Implied Decimal Places:	0	
Categories		
	Value	Label
	0	NIU
	1	No
	2	Yes
	7	Unknown-refused
	8	Unknown-not ascertained
	9	Unknown-don't know
Implied Decimal Places:	0	
Categories		
	Value	Label
	0	NIU
	1	No
	2	Yes
	7	Unknown-refused
	8	Unknown-not ascertained
	9	Unknown-don't know

Variable: "HINOTCOVE"

Name:	HINOTCOVE
Label:	Health Insurance coverage status
Variable Text:	<p>For sample adults and sample children, HINOTCOVE indicates whether the person currently lacks health insurance coverage. Prior to 2019, this variable is available for all persons.</p> <p>HINOTCOVE is a recoded variable created by the National Center for Health Statistics (NCHS) and included in the original NHIS public use data. HINOTCOVE, like other recoded health insurance variables in</p>

	these data, is based on responses to a series of questions and on back editing carried out by NCHS staff. For the 1997 sample only, HINOTCOVE is constructed by IPUMS NHIS staff using back edited variables from the original NHIS public use data. The component variables used by IPUMS NHIS staff are available in IPUMS NHIS as HIPRIVATEE, HIMILITE, HIMCAIDE, HIMCAREE, HICHIPE, HISTATEE, and HIOTHGOVE.	
Concept:	General Coverage Variables -- PERSON	
Start Position:	81	
End Position:	81	
Width:	1	
Variable Format:	numeric	
Implied Decimal Places:	0	
Categories		
	Value	Label
	0	NIU
	1	No, has coverage
	2	Yes, has no coverage
	7	Unknown-refused
	8	Unknown-not ascertained
	9	Unknown-don't know