Factors That Influence the Health Seeking Behavior and Degree of Health Service Utilization of Ethiopian Immigrants Living in One of the Midwest Cities of the United States: A Mixed Methods

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FACTORS THAT INFLUENCE THE HEALTH SEEKING BEHAVIOR AND DEGREE OF HEALTH SERVICE UTILIZATION OF ETHIOPIAN IMMIGRANTS LIVING IN ONE OF THE MIDWEST CITIES OF THE UNITED STATES: A MIXED METHODS STUDY

by

Sisay B. Mersha

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Nursing at The University of Wisconsin-Milwaukee

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ABSTRACT

FACTORS THAT INFLUENCE THE HEALTH SEEKING BEHAVIOR AND DEGREE OF HEALTH SERVICE UTILIZATION OF ETHIOPIAN IMMIGRANTS LIVING IN ONE OF THE MIDWEST CITIES OF THE UNITED STATES: A MIXED METHODS

by

Sisay B. Mersha

The University of Wisconsin-Milwaukee, 2021
Under the Supervision of Professor AkkeNeel Talsma, PhD, RN, FAAN

Immigrants have a significantly higher prevalence of chronic diseases, such as diabetes, hypertension, heart disease, and worse health outcomes than native-born individuals in the United States. The disproportionate adverse outcomes have been associated with structural, systemic, and socioeconomic inequalities and individuals’ Health-Seeking Behavior (HSB) and patterns of Health Service Utilization (HSU). The purpose of this study was twofold. First, the survey explored (a) factors influencing the HSB of Ethiopian immigrants and the extent of HSU, (b) the relationship of predisposing and enabling factors related to HSU. Secondly, the study examined the role of religious and community leaders in influencing the HSB of their members. The study used a combined conceptual framework adapted from Andersen Behavioral Health and Health Belief Models. This cross-sectional, parallel convergent, community-based mixed-method study employed survey questions to collect data on HSB, access, and HSU, and a seven Focus Group Discussions (FGDs) of faith and community leaders. The result demonstrated that lack of insurance coverage (p=.009), immigration status (p=.005), English language proficiency (p=.045), and acculturation (p<.000), time to schedule urgent (p=.007) and non-urgent (p=.031) appointments were found to be associated with AHS, while English Language Proficiency (ELP)
was associated with HSU (p=.034). In addition, COVID-19 related health behavior changes demonstrated that 72.9% (n=153) participants practice social distancing and limit social gathering, 70% (n=153) wash their hands more often, 65.7% wear masks in public, 63.3% (n=133) stopped handshaking/hugging, 56.2% (n=118) clean grocery carts, and 28.6% closely watch what other people do with their hands. Findings from the FGDs found that pre-immigration health practice, mistrust of professionals and the health system, lack of knowledge about the US health system and common diseases, and fear of the unknown about their health were key factors influencing their health behavior. Community engagement aimed at sharing health information with the Ethiopian immigrants to increase awareness and partnering with faith and community leaders could help influence their health behaviors.
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Dedicated to

the memory of my late mother, Yeshe Gebrewold Amenu, who gave me a chance to live

in this world and the reason of what I became today,

and to my late biological parents, Aster Bekele and Tilahun Melesse
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I. Introduction

Immigrants face numerous challenges and obstacles in their quest for better lives in the new country they settle in. Immigrants in the United States also share the same concerns with challenges ranging from difficulties in adaptation to the new culture, language, and way of life to establishing economic independence, including gaining access to healthcare services (Agbemenu, 2016; Amiri, Heydari, Dehghan-Nayeri, King, & Vedadhir, 2019; Chang, 2017; Sacks, 1993). For immigrants, reconciling their cultural and personal health beliefs with the new norms could contradict their usual health behaviors and practices. As a result, navigating through the health system to receive care becomes a daunting challenge.

Immigrants have one of the worst health outcomes than native-born individuals (Brzoska, 2018; Nuhu, 2018; Ijoma, 2013; Boundaoni, 2015; Boateeng, 2012). Furthermore, African immigrants have a much higher prevalence of chronic diseases, such as diabetes, hypertension & heart diseases as compared to immigrants from other parts of the world in the United States (Commodore-Mensah et al., 2018; Nuhu, 2018; Ijoma, 2013; Boundaoni, 2015; Boateeng, 2012). These disproportion outcomes have been related to several systematic disparities, sociodemographic, political, and economic inequalities and the outcomes were significantly associated with their health-seeking behavior. Consequently, these unique and additional burdens lead to increased morbidity and mortality.

A plethora of literature exists on the Health Seeking Behavior (HSB) of immigrants in the United States related to their adaptation and acculturation to the new culture and the associated with multipronged challenges they face (Amri & Bemak, 2013; Chang, 2017; Chaumba, 2011;

While much of this literature focuses on immigrants from Asia, Latin America, and Mexico, little is known about African immigrants' health-seeking behavior, particularly Ethiopian immigrants in the United States (Commodore-Mensah et al., 2016; Nsamenang, 2014; Obisesan et al., 2017). Presently, research studies on factors influencing the health-seeking behavior of Ethiopian immigrants living in the United States demonstrate limited information on the mechanism by which Ethiopian immigrants' health-seeking behavior was shaped and influenced (Boundaoni, 2015; Chiatti, 2014; Jaranson et al., 2004). Studies also indicate that such limited knowledge of these immigrants' health-seeking behavior could contribute to the adverse health outcomes and the inappropriate use of healthcare services (Da Silva, Contandriopoulos, Pineault, & Tousignant, 2011; Dias, Severo, & Barros, 2008; H. Fenta, I. Hyman, & S. Noh, 2007).

I.1. Background

The first African immigrants who voluntarily immigrated to the United States were recorded in the 1960s and 1970s, most to pursue higher education (Takougang & Tidjani, 2009). However, after the passage of the 1980 Refugee Act, a relatively higher number of Africans started coming to the United States, most to settle permanently. In 2018, immigrants from African countries made up approximately 4.5% or 2.1 million of the total United States immigrant population (Pew Research Center, 2018). Of these African immigrants, Ethiopian immigrants living in the United States were the second-largest population, preceded by Nigerian immigrants and were estimated to be a little more than 278,000, which makes up about 13.8% of all African immigrants in the United States (MPI, 2018).
In previous studies, undocumented immigrants were classified as one of the most vulnerable populations, with the risk of having the poorest health outcomes (Aday 1994; Brzoska, 2018; Nuhu, 2018; Ijoma, 2013; Boundaoni, 2015; Boateeng, 2012). Depending on the age at which individuals immigrated to the host country, immigrants come with learned characteristics and behaviors, cultures, and health beliefs that were entirely different from the natives and potentially influencing their transition (Ejika, 2017; Lim, Gonzalez, Wang-Letzkus, & Ashing-Giya, 2009). To this end, influenced by their experiences, each immigrant has a unique health behavior and needs that were not similar to the native-born individuals, such as how they respond to illnesses (Fred, 1979; Beckwith, 2005; Boundaoni, 2015). These variations in origin, culture, health beliefs, and how they adapt to the United States culture appear to contribute to their health-seeking behaviors. In Chapter I, other factors discussed are immigration, unemployment, insurance coverage statuses, governmental policies, and health access issues.

In this study, the most essential construct that was the focus of the research was the concept of immigrants' health behavior and health-seeking behavior. HSB is an action taken by individuals to improve personal health habits with or without apparent health problems (Oberoi, Chaudhary, Patnaik, & Singh, 2016). As discussed in the previous paragraphs, individuals' health-seeking or help-seeking behaviors involve the decision-making process and taking action to look for help for their perceived or evaluated healthcare needs (Andersen, 1995). Andersen and Newman (1973) described individuals' behavior as a "function of characters of the individual himself, characteristics of the environment in which he lives, and some interaction of these individual and societal forces" (p.96). Therefore, the individual immigrant's HSB is a product of
continued behavioral development and environmental interaction processes influenced by numerous factors in the host country. Such long behavioral development and adaptation, which is also known as acculturation, was the central concept in HSB for immigrants. Berry (1994, 2001) stated four strategies of acculturation where individuals take based on their situation. These were integration, assimilation, separation, and marginalization. In integration, immigrants tend to maintain their own cultural identity while becoming a participant in the host culture. In assimilation, immigrants tend to give up their own cultural identity and become absorbed into the host culture. In separation, immigrants tend to maintain their identity and reject any involvement with the host culture. In marginalization, the immigrant does not identify themselves in either their culture or the host culture. An additional concept brought to the acculturation world was alternation, a concept by LaFramboise, Coleman, and Gerron (1993), which described immigrants having bicultural competence and going back and forth between the two cultures. Whichever strategy immigrants use to cope with the host country, the resultant effect influences how they react to the factors within the host country.

Through acculturation of language and culture of the host country, immigrants become acquainted and informed about the health care system and the health concerns, which would help them make decisions about healthcare choices (Enriquez-Haass, 2010; Galanis et al., 2013; Hayes, 2011; Ijoma, 2013) (Boateng, Nicolaou, Dijkshoorn, Stronks, & Agyemang, 2012; Galanis et al., 2013; Otero-Garcia, Goicolea, Gea-Sánchez, & Sanz-Barbero, 2013). Globally, several research studies explored numerous health-seeking behaviors of immigrants and barriers to access and health service utilization, including the influence of immigrants' culture and health
beliefs, low pre-immigration education level, and pre-immigration experiences with healthcare access and utilization (H. Fenta et al., 2007; Shipp, Francis, Fluegge, & Asfaw, 2014).

In a systematic review conducted by Gil-González et al. (2015), one of the three main categories of barriers to healthcare access was highlighted as patient barriers, which included immigrants’ health-seeking behavior. These three major categories of barriers integrated most of the remaining barriers related to system structure, healthcare provider, and patient barriers (Gil-González et al., 2014). Structural barriers have to do with the healthcare system, such as coverages, policies, and healthcare organization availabilities. Providers' barriers include the fit between the patient's need and the provider's specialty, the provider's availability, the language spoken by the provider, and his/her cultural competency. Patient barriers include health-seeking behavior, cultural and belief factors, language, knowledge of the health system, knowledge about diseases, awareness of help availabilities, etc. (Gil-González et al., 2014).

One of the categories of factors influencing HSB among immigrants in the United States includes social determinants of health (SDoH), which according to Health and Human Services (HHS), refers to conditions in the environment where immigrants were born, live, learn, work, play, worship, and age, and subsequently affect a range of health outcomes, functioning and quality of life (HHS, 2020). Among immigrants, significant determinants of cultural beliefs, lack of understanding of how the healthcare system works, perception of health and illness, mistrust of the healthcare system and providers were all well-known and studied influencing factors (Amri & Bemak, 2013; Andersen & Newman, 2005; Andersen, 1995; Boateng et al., 2012; Chung, Seo, & Lee, 2018).
I.2. Statement of the Problem

Ethiopian immigrants' health behavior in the United States was not a well-documented phenomenon compared to many immigrants from other parts of the world. Earlier studies such as Hodes (1997) and Parenti, Lucas, Lee, and Hollenkamp (1987) described the Ethiopian refugees as generally looking healthy upon immigration. However, detailed health behavior study that combined qualitative and quantitative data was not available. Eshete (2014) studied 230 the healthcare behavior of Ethiopian immigrants in the Washington DC area and the effect of predisposing, enabling and need factors on health utilizations. The states number of diagnoses and being on medication were the predictors for use of health service (Eshete, 2014). Another qualitative study by Chiantti (2014) was conducted on Ethiopian immigrants living in the Mid-Atlantic regions to identify and describe the culture care beliefs and practices. The study found patterns of care among this community, which includes Ethiopian immigrants were acculturated but maintained their culture-based care (Chiatti, 2014).

Some studies investigated the correlation of specific factors such as age and level of immigrants' education with current health practices at the time of entry to the United States. Others explored the association of a priori health behavior and acculturation status of immigrants or the strategy they chose to acquaint themselves with the host culture with health-seeking behavior (Agbemenu, 2016; Ijoma, 2013; Okafor, Carter-Pokras, Picot, & Zhan, 2013).

Few studies described a priori health-seeking behaviors of immigrants as highly attributable to health behavior, which were also evident in the post-immigration period and could guide immigrants' health-seeking behavior. Studies such as Hodes (1997) and Fenta, Hyman, and Noh (2007), demonstrated that Ethiopian immigrants carry over many of their cultural and
religious practices and remedies they use to combat illnesses here in the United States (Haile Fenta et al., 2007). These population characteristics tend to counter positive acculturation steps to further integrate into American life.

An important finding described in studies such as Swali et al. (2015) was significantly low self-awareness of diseases such as cardiovascular diseases through self-reporting surveys of Ethiopian immigrants (Sewali et al., 2015). Hodes (1997) and Chaitti (2014) stated that Ethiopian immigrants characterize illnesses in their own understand and unique way. For example, heart disease is characterized as "heartburn" or "heat exhaustion," which could minimize its severity to providers who may or may not understand this characterization.

Similarly, when someone experiences problems in regulating body sugar (high or low), the term "sugar" is used to refer to diabetes. While the actual prevalence of these diseases among Ethiopian immigrants in the United States was not well-documented data, it is estimated that most of these diseases, including stroke, are on the rise. With such limited evidence of scientific assessment and low self-awareness of diseases in this population, it is an area where future studies could make a significant difference through further investigation of these diseases in the community to raise awareness.

Procrastination to see healthcare professionals and delayed presentations for evaluation were also historically known factors in immigrants, including Ethiopian immigrants, related to their pre-immigration health practice and have a significant implication on the prognosis of diseases and the outcome associated with them. Like any other immigrant group, many Ethiopian immigrants work more than one job and long hours to sustain income and support their families here in the United States and back home. Lack of disposable time to think about self and inability
to follow up accordingly when any health matter arises were some of the culprits for delaying and procrastinating to see professionals. As a result, when one immigrant is sick and stops being a breadwinner, everyone in the family who depended on this individual would automatically suffer as well. While the magnitudes of the consequences of procrastination and delayed presentation to health care professionals were significant, they were opposite forces between their a priori health practice and the need to sustain their everyday life.

Lack of health literacy is a widely studied phenomenon in immigrants, which coincides with their health-seeking behaviors (Jacobs, Caballero, Ownby, & Kane, 2014; Lubetkin et al., 2015; Soto Mas, Schmitt, Jacobson, & Myers, 2018). Some of these factors influencing Health Seeking Behaviors of immigrants were modifiable through increasing health literacy and patient activation to become more involved in their care. While these factors appear to be examined in many other immigrant populations, a scientific assessment of these determinants among Ethiopian immigrants remains unexplored.

I.3. Purpose & Specific Aims of the Study

This study's primary purpose was to explore the relationship between factors influencing the HSB of Ethiopian immigrants and the extent of health service utilization (HSU) using the theoretical frameworks by Andersen Behavioral Health Model (1995) and Rosenstock et al.'s Health Belief Model. The study explored the different predisposing, enabling, and need factors related to individuals' perception of their health behaviors, potentially influencing their access to health care, HSB, and extent of health service utilization (HSU) among Ethiopian immigrants. The study also examined the role of religious and community leaders in influencing the HSB of
their congregants/community members in addition to their primary role as spiritual or community leaders. This study had four aims:

**Aim 1:** Identify factors that influence Access to Healthcare Services (AHS), Health-Seeking Behavior (HSB), and the extent of Healthcare Service Utilization (HSU) of Ethiopian immigrants living in Midwestern city of the United States.

**Aim 2:** Examine the impact of acculturation on the HSB and HSU by Ethiopian immigrants in the U.S.

**Aim 3:** Examine the influence of COVID-19 pandemic on Health Seeking Behavior of Ethiopian Immigrants.

**Aim 4:** Examine the role of religious/community leaders in influencing the HSB of their members among the Ethiopian immigrants' faith institutions (churches, mosques, community associations) living in the Midwestern city of the United States?

These four aims were central to this study. As discussed later in the result chapter, the findings should contribute to the body of knowledge on HSB of Ethiopian immigrants in the United States, particularly in the Midwest area, where such literature pieces were widely unavailable.

**I.4. Nature of the Study**

In this cross-sectional, parallel convergent, community-based mixed-method study, using quantitative survey questionnaires and a qualitative Focus Group Discussion (FGD), data on health-seeking behavior, access and utilization of health services and the role of Pastors, Priests, Imams, and community leaders among Ethiopian immigrants living in one of the Midwest cities were collected and analyzed. A Chi-square and Pearson's r correlational analyses were used to
explore whether a significant relationship (p<.05) existed between selected barriers, enablers, and sociodemographic characteristics. These analyses were also used to identify relationships between the outcome and predictor variables.

**Research Questions**

1. What are the factors that influence **Health Seeking Behavior (HSB)** of Ethiopian immigrants living in Midwestern city of the United States?
2. What are the factors that influence access to healthcare for Ethiopian immigrants?
3. What are the factors that influence **Health Service Utilization (HSU)** of Ethiopian immigrants living in Midwestern city of the United States?
4. What is the association between self-rated health status and HSU among Ethiopian immigrants living in Midwestern city of the United States?
5. What is the relationship between acculturation, HSB, and HSU?
6. What is the influence of the current COVID-19 pandemic on the HSB and HSU of Ethiopian immigrants?
7. What is a community & religious leaders' role in influencing the HSB of their community members and congregants?

**I.5. Significance of the Study**

While Ethiopian immigrants are the second-largest African immigrants in the United States, there is a significant lack of literature on health-seeking behavior, access to healthcare, and health service utilization for this population. Few of those research studies conducted in the United States and Canada used Ethiopian immigrants as part of the study together with other African immigrants such as Nigerians, Somalis, Ghanaians or Kenyans (Boundaoni, 2015;
Chaumba, 2011; Nasser B. Ebrahim, Sharon Davis, & Joe Tomaka, 2016; Haile Fenta et al., 2007). Other studies such as Chiatti (2014) and Hodes (1997) were conducted on Ethiopian immigrants in the United States but highly focused on Ethiopian immigrants' cross-cultural health beliefs and practices. To this end, there had not been a single health behavior study conducted solely focused on Ethiopian immigrants, investigating factors influencing health-seeking behavior and the effect of faith and community organization leaders in influencing their congregant's health behavior. This study was also unique, being the first to investigate health behavior changes due to the current COVID-19 pandemic among Ethiopian immigrants. A health-seeking behavior study of this kind was thought to be informative about the population and be a resource to governmental and non-governmental agencies. Data about the population could also be necessary to appropriately reach and meet their health needs, such as health promotion, disease prevention, and other community outreaches.

Moreover, as discussed in the introductory part of this chapter, health-seeking behavior encompasses aggregate behaviors and actions that individuals take to improve their health habits, with or without actual health problems. These actions are influenced by several factors such as cultural, social, and economic statuses and health system determinants (Oberoi, Chaudhary, Patnaik, & Singh, 2016). Most significantly, individuals' health behavior by far plays a significant role, particularly immigrants who had prior health practices that were quite different from the western healthcare practices. Therefore, a study exploring and examining specifically Ethiopian immigrants' health behavior to provide these insights was fundamental.

As a precursor to this study, faith-based organizations' concern about diseases that have been observed to be prominent among congregants of Ethiopian immigrants, such as heart
diseases, high blood pressure, diabetes, or cancer, was additional compelling significance. Similar to the HSB study among Ethiopian immigrants in the U.S., to date, there was no single study found in the literature search that studied the role of Ethiopian immigrant faith and community leaders in influencing the health-seeking behavior of their congregants. This cross-sectional mixed-methods study was exploratory to this phenomenon and informative with the findings of their perception and role.

I.6. Operational Definition of terms

**Access:** For this study, access was defined as the fit between the need of the individuals and the availability, accessibility, affordability, acceptability of service that accommodate the condition of the individual (Penchansky & Thomas, 1981); (Aday & Andersen, 1974); (Andersen, 1995).

**Acculturation:** A process of adapting attitudes, values, beliefs, and behaviors by an individual from another culture, or a dual strategy of cultural and psychological changes resulting from contact between two or more cultural groups (Berry, 2005; Lum & Vandersaa, 2010).

**Faith-Healing:** Healing is achieved by religious belief, prayer, and practices rather than medical treatment (Pattison, 1973).

**Health Behavior:** Intentional or unintentional actions taken by individuals affect health or mortality (Short & Mollborn, 2015).

**Usual Source of Care:** A place an individual goes to receive a professional healthcare service or other when sick (Boundaoni, 2015; Enriquez-Haass, 2010; Vargas Bustamante et al., 2012).

**Health (As seen by Ethiopians):** To Ethiopians, health is an equilibrium between the body and the outside (Hodes, 1997).
Health (WHO): Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (WHO, 1946).

Host Country: The country that hosts the immigrant, or where the immigrant immigrated to.

Immigrant: Individuals born outside of the host country, such as the United States (Ijoma, 2013).

Length of residence (LOR) – the number of years the immigrant resided in the host county, such as the United States (Ijoma, 2013).

Health Service Utilization: A scheduled or unscheduled visit to receive healthcare service at any of the clinics, hospitals, private clinicians, or community Potential barriers to the use of health services among ethnic minorities-based health organizations (Sheppers et al., 2006).

A regular place to go – Similar to a usual source of care - a place an individual goes to receive a professional healthcare service or other when sick (Boundaoni, 2015; Enriquez-Haass, 2010; Vargas Bustamante et al., 2012).

I.7. Chapter Summary

In summary, the United States spent $3.8 trillion in total healthcare expenditure or $11,582 per person in 2019, which accounts for 17.7 percent of the Gross Domestic Product (GDP), and it was the highest healthcare expenditure among the high-income countries (Center for Medicare and Medicaid Services, 2020). While having such an expensive healthcare expenditure, the United States continues to have one of the lowest health outcomes (Woolf & Aron, 2013). To this end, immigrants’ health outcome was not seen separately from the natives and contributed to the declining of the nation’s overall health status. Data collected through
assessing individuals and the community's health status from each corner, including immigrants, could help direct the current healthcare system through advisory and advocacy.

The absence of comprehensive data on Ethiopian immigrants' health status and religious and community leaders' role in influencing their congregants or members' health-seeking behaviors were partially addressed in this research study. A thorough examination of Ethiopian immigrants' influences of health-seeking behaviors was performed in this mixed-method study that combined qualitative and quantitative designs. The author believed that this study bridges the gap between insufficient data and suggested potential future interventions to engage the community.

The study's central research questions that focused on examining associations between Ethiopian immigrants' health-seeking behaviors and healthcare access and utilization of health services enabled the investigator to investigate relationships between the outcome and predictor variables. The study also related the current COVID-19 pandemic and its consequence and influence on the HSB and HSU of Ethiopian immigrants.

I.8. Organization of the Remainder of the Study

In chapter two, I critically analyzed and detailed relevant literature on health-seeking behavior and faith and community leaders' role in thoroughly influencing the congregants' health behavior. The methodology and procedures used to gather data for the study were presented in Chapter 3. The results of analyses and findings that emerged from the study were also contained in Chapter 4. Summary of findings, discussions, interpretations, conclusion, and implications for future research with the study's limitation was detailed in chapter 5.
II. Literature Review:

Chapter 2 provides an extensive review of the literature and research that were conducted in two parts. The first literature review focuses on immigrant's health-seeking behavior, health access, health service utilization, and the role of religious leaders to influence the health-seeking behavior of their congregants. This section explores the Health Seeking Behaviors (HSB) of all immigrants in a host country but mainly pivots on African and Ethiopian immigrants, in particular. The second part of the literature review was focused on community and faith leaders' role in influencing the health-seeking behavior of their congregants and investigates research conducted in the United States and other parts of the world.

According to the United States census bureau and the Migration Policy Institute, approximately 44.7 million foreign-born immigrants reside in the United States as of 2018 (U.S. census bureau, 2010; MPI, 2020). The Current Population Survey (CPS) in 2018 also indicates that immigrants and their U.S.-born children together make up 89.4 million or 28% of the overall population in the United States (MPI, 2019). The projected immigrant population in 2035 will be 35% of the United States' total population (MPI, 2019).

II.1. Ethnohistory of Ethiopians

Ethiopia is located in the end East of Africa with an estimated population of over 112 million, making the country the second-most populous after Nigeria and the 10th largest country in Africa (World Bank, 2019). More than three-fourths of the population lives in rural areas where infrastructure, such as running water, electricity, and roads, were not well established. While Ethiopia has been
showing a constant up trending trajectory in economic growth and social reforms, such as engaging in modern lifestyles in the urban areas, it still struggles to be self-sufficient and bring peace amongst more than 80 ethnic groups and 72 different dialects.

There are multiple religious groups in Ethiopia, with the major religious groups being Orthodox Christians accounting 44%, Muslims 34%, protestants, 19%, and Catholics 1% (CIA, 2017). There are still multiple other small cultural and religious sects that are a small number.

![Map of Ethiopia and Neighboring Countries](https://www.maps.com)

*Figure 1: Map of Ethiopia and Neighboring Countries (World Atlas & Map Library)*
Historians describe Ethiopians’ migration to the United States in three waves (Ayele, 2003; Getahun, 2007). The pre-1974, when the country’s long-ruling Emperor Haile Selassie was in power, the rich and the political elite used to be sent to the United States and other Western nations for educational missions. These migrants come with a clear goal of learning new things, achieving their higher degrees, and returning home to become government leaders. After the Emperor was deposed in 1974 by a military junta called "Derg," who created an alliance with the Eastern political ideology of socialism following the then Soviet Union, life has changed for many, and the students in the United States now became political asylees and immigrants. The young and the educated started leaving the country in fear of being killed and tortured by the military government. Many high-profile individuals or their families who were part of the Emperor's government were jailed, killed, and tortured. Killings of young University students who opposed the militaristic administration were killed at their doorsteps and everywhere in the center of the city in daylights. The Derg was trying to create terror and destruction of the demand for civilian government with an operation called "Red Terror" that brought bloodshed to its bright and progressive youth population.

The second wave of migration started right after the military took power in 1975 and continued until 1991. After 17 years of guerrilla fighting, the Ethiopian youngsters' coalition force took control and became the new government without an election. The 1984/1985 severe famine in Ethiopia further complicated the second wave of migration to the Western countries. Millions suffered from lack of enough food caused by both government negligence and the absence of rain for more than three consecutive years in most of the country. The government was not ready to support such massive starvation, and many died or left the country.
The third wave of migration to the United States was secondary to the recent Diversity Visa (DV) Lottery, an opportunity extended by the American Government to the underdeveloped countries to legally enter the United States and live and work with permanent resident permits. This was a huge advantage to many people worldwide, and Ethiopians used the advantage and flocked to the U.S. to live and get economic benefits.

According to the Migration Policy Institute, there are currently more than 278,000 Ethiopians Living in the United States (MPI, 2018). Ethiopian immigrants in the United States were the second populous African immigrants after Nigerians. When immigrants first arrive in the United States, most have selected residences based on factors such as where their family members or similar ethnic immigrants settled. It was easier for them to find a job or if the weather is not too harsh to adapt. To this effect, the first wave of immigrants was mostly located in the East and West parts of the United States. The subsequent migrants follow the same trend, making the District of Columbia and the surrounding areas, Atlanta, and California to be the preferred destinations for Ethiopians (Ayele, 2003).

Ethiopia's healthcare system. According to the Ministry of the health of Ethiopia (MOHE) annual report, the healthcare system has been demonstrating consistent growth in increasing access and healthcare services for its citizens through implementing preventative healthcare measures, health extensions, and expanding healthcare facilities to the rural areas ((MOHE), 2016; Tiruneh, McLelland, & Plummer, 2020). While Ethiopians one of the poorest countries in the world, with a per capita income of $850, the healthcare expenditure of Ethiopia in 2017 was $9.5 Billion, which accounted for 11.7% of the total GDP (Bank, 2020). A country that's working to reach lower-middle-income status by 20025, Ethiopia built one of the strongest
public health system structure but supply and services both in healthcare professionals and health facilities had been the severe, longstanding challenges (MOHE, 2016).

A report by United Nations Development Program (UNDP) and the Ethiopian Planning and Development Commission in 2018 indicated that when comparing access to healthcare services in Ethiopia, richer households were more likely to consult a healthcare provider than worse off households (Program-UNDP, 2018). The vast majority of Ethiopians in the rural area (86% of the 112 Million population) practice cultural and traditional healing as a self-care and primary intervention prior to consulting for healthcare professionals for serious illnesses (Tiruneh, McLelland, & Plummer, 2020; MOHE, 2016). The government-sponsored healthcare services provide healthcare services for those who were unable to pay free of charge. However, as discussed, while the structure exists, the healthcare system does not have much to offer in terms of healthcare professionals' specialties or drugs, and therefore, within this government-sponsored healthcare system, there is not much for the poor to use. Untimely, those who have wealth to spend would be the ones who have access to private health services (UND, 2018). Therefore, those who immigrate to the United States or other countries fall in either of these categories of the demography, the haves or the have nots, and subsequently, affect how they adapt to the healthcare challenges of the host county.

The immunization program designed by the MOHE, called Extended Immunization Program (EPI), follows the WHO recommendation to vaccinate women and children and has been successful in tuberculosis and polio vaccination campaigns (Girmay & Dadi, 2019). While Ethiopia provides targeted vaccinations against tuberculosis, Polio-Diphtheria-Pertussis (DPT), tetanus, hepatitis B, influenza, pneumococcus, and measles infections starting at birth, in 2016,
the immunization rate was 39%, which was significantly below the 90% target rate set by WHO (Girmay & Dadi, 2019). Several factors affected, including lack of awareness of diseases and knowledge on immunization, access to health services, and religious affiliation, and cultural and health beliefs were among several of the reasons why the immunization rate had been lower than the target (Lakew, Bekele, & Biadgilign, 2015).

**Ethiopian immigrant’s pre-immigration health behavior (a priori health behavior).** The incidence and prevalence of the tropical diseases and the health-seeking behavior highly determines Ethiopians’ health behavior back home. Ethiopia is a tropical country, and tropical diseases such as malaria, dengue fever, and trachoma were common. Communicable diseases such as diarrheal diseases, HIV/AIDS, and tropical infections, such as typhoid fever, once were the country's highest incidences. However, with the expansion of the public health service, they are now relatively under control. According to recent epidemiological data from the MOHE, the noncommunicable adult diseases such as diabetes, cardiovascular diseases, and stroke appear to be on the rise to an epidemic level (WHO, 2011).

According to the Ministry of Health of Ethiopia, the Ethiopian health system could be categorized as a semi-universal healthcare system and attempts to provide free government-sponsored healthcare services for the poor (Ministry of Health of Ethiopia, n.d.). While this was a great idea, the system always struggles because there are almost no resources within this universal government-sponsored healthcare system to support the services. Due to the lack of health literacy, most Ethiopians have a mindset of "you only need to go to the doctor when you are seriously sick," which was deeply ingrained in their thinking. Even with this way of thinking,
people try most cultural and religious approaches to get relief first before they head to clinics or hospitals to seek professional help (Hodes, 1997).

As a nation, Ethiopia has one of the most robust public health programs focused on preventing communicable diseases and eradicating vector-borne diseases such as malaria. However, with the current estimated Ethiopian population of 108 million, the available acute care hospitals with a full capacity to diagnose and treat acute events, such as heart attack, were very limited (World Bank, 2018). There was no government or private health insurance system, and private health facilities give services with the fee paid at front. Individuals who can afford to pay for medical services mostly travel to Thailand, South Africa, India, or the United States for further treatments, such as kidney or heart surgeries.

II.2. Literature Review - Part One

The literature review for this study was conducted in two parts. The first part was a detailed literature review focusing on factors influencing Health Seeking Behavior (HSB) in immigrants, focusing on African immigrants, including Ethiopian immigrants. This literature review encompasses exploring factors that influence immigrants' extent, predominantly African/Ethiopian immigrants, habits of healthcare access, and utilization. In this literature review, several themes were extracted and discussed in depth.

Several seminal works by prominent psychologists and social researchers such as Andersen, Aday, and Newman, were included as a prelude in this review to support the phenomena of interest (Andersen, 1968, 1995; Aday & Andersen, 1974; Andersen & Newman, 2005). The majority of the studies reviewed in this literature review used Andersen Behavioral Health and Andersen and Newman's behavioral health models for a vulnerable population.
(Fenta, Hyman, & Noh, 2006; Haile Fenta et al., 2007; Fenta, Hyman, Rourke, Moon, & Noh, 2010; Hyman, Fenta, & Noh, 2008; Nandi et al., 2008). Some studies also utilized the theoretical model by Rosenstock et al. called Health Belief Model (HBM) (Ahmad, Ramadas, Kia Fatt, & Zain, 2014; Lim, Gonzalez, Wang-Letzkus, & Ashing-Giwa, 2009; Oberoi, Chaudhary, Patnaik, & Singh, 2016).

**Search strategies.** A comprehensive literature review was conducted in major databases including PubMed, CINAHL plus, and PsycINFO using the following combination of keywords "access," "health services utilization," "barriers," "health-seeking behavior," and "immigrants" for all studies published from 2009 to 2020 in the English language. The first search yielded 94 peer-reviewed articles. Using modifier keywords "United States" and "African immigrants," it was possible to narrow down the search and retrieve specific studies conducted in the United States on barriers of health-seeking behavior of African immigrants in accessing and utilizing healthcare services. The combined search yielded 105 articles. A brief screening of the titles of the articles led to eliminating 57 of the unmatching articles. Further screening through reading the abstracts led to eliminating additional 30 articles. The remaining 18 articles were selected to be part of this full literature review analysis. The following themes were retried from these literature searches.

**Unfamiliarity with the health system as barriers to access and HSU.** Several studies addressed the lack of knowledge of the host country's health system as being the major influencing factor for access to health service utilization in immigrants. Maneze et al. (2016) and Boateng (2012) examined factors that were enablers and barriers to newly immigrated individuals, and knowledge of the healthcare system, awareness of diseases, and family and
community supports were the strongest indicator of the degree of utilization of health services and help-seeking behavior of immigrants. Choi (2013a) compared immigrants from the Philippines, Korea, and the Marshall Islands and found a strong correlation between length of adaptation and health-seeking behavior of immigrants from these countries. Hence, the unfamiliarity of the health system was negatively associated with the utilization of healthcare services. Studies by Choi (2013a, 2013b) indicate that individuals who immigrated from countries with a single national health plan, such as Korean immigrants, have shown unfamiliarity to the multi-insurance payer system. Valintine Tata (2018) examined barriers to accessing healthcare services by immigrants from Cameroon in the U.S. with six FGDs using community members. Her study revealed that one of the most substantial reasons why Cameroonians do not access health care services was the unfamiliarity of the United States' healthcare system (Tata, 2018). These studies showed that unfamiliarity with the health system had an adverse effect in navigating through finding providers, even when possessing insurance coverage.

**Slow acculturation.** Research studies by Amri and Bemak (2013), Maneze et al. (2016), and Nandi et al. (2008) investigated the relationships among the constructs of acculturative stress, depression, and health literacy, and the influence of these factors on health-seeking behaviors. The studies indicate that a strong correlation exists between the level of acculturation and HSB, demonstrating individuals with limited acculturation have less utilization of healthcare services than those who were acculturated for reasons including limited English language and lack or limited knowledge about the healthcare system and lack (Amri & Bemak, 2013; Maneze et al., 2016; Nandi et al., 2008). While immigrants with limited acculturation exhibited less use
of the healthcare system due to unfamiliarity, another study by Allen et al. (2014) demonstrated less acculturated individuals usually keep healthy dietary preferences and refrain from harmful practices such as smoking (Allen et al., 2014).

Ebrahim, Davis and Tomaka (2016) studied 155 Ethiopian immigrants, in a study that also included 55 Somalis and examined the mediating role of attitude in the relationship between acculturation and the intention to use male condoms in steady heterosexual relationships among Somali and Ethiopian immigrants in Minnesota. The study found that there was positive correlation between acculturation and the intention to use condoms (r = .21, p < .01), (Ebrahim, Davis, & Tomaka, 2016).

Analysis of the New Immigrant Survey of 669 adults by Orjiako and So (2018) shows that proficiency in the host country's language (a proxy for measurement of acculturation) serves as a protective factor against depressive symptoms. Contrary to this, English proficiency and higher educational attainment predict greater use of support systems in African immigrants, which aligns with less occurrence of acculturative stress (Orjiako & So, 2014).

**Social support.** The presence or lack of social support was one of the literature reviews themes (Boateng, 2012; Maneze et al., 2016; Nandi, 2008). A higher level of social support was the primary enabler to facilitate the utilization of health services. Amri and Bemak (2016) also state that Muslim immigrants with support from their community have a better health service utilization indicating a positive correlation between social support and health service utilization. With the same theme, Joseph, Fernandes, Derstine, and McSpadden (2018) state that Indian immigrants closely associated with their faith-based community have improved health status by sharing information. Beyond all these, one of the most important social support comes from a
spouse. To this effect, Akerman, Essen, Westerling, and Larsson (2017) demonstrated that Thai immigrant women in Sweden with partner support were much more likely to access healthcare services for important visits such as perinatal care (Akerman, Essen, Westerling, & Larsson, 2017; Rachel Joseph et al., 2018).

**Social stigma.** Unlike in social support, social stigma negatively correlates with enhanced health-seeking behavior and health services utilization, particularly for mental health needs (Amri & Bemak, 2013; Maneze et al., 2016; Nandi et al., 2008). The study indicates stigmatization on mental health care need or utilization was projected towards the individual not just only from the community but also close family members and friends. Therefore, many immigrants stay away from seeking help (Amri & Bemak, 2016). Studies show that Muslim immigrants believe mental illness was caused by a weakness in faith and evil possession. Therefore, individuals fight not only with their understanding of the disease but also with family and community attitudes.

**Conditions and diseases new to immigrants.** Epidemiologically, some prevalent diseases in the host country could be new challenges to immigrants in many ways. Immigrant health-seeking behaviors were built around the epidemiologically dominant diseases, guided by the individuals' culture and health beliefs and health institutions' availabilities. However, now in the new country, new disease types become added influences the need factors. For example, for an African immigrant who actively works in the fields and walks on foot for most of his commutes, and eats organic food, obesity was not a challenge.

In a systematic review to investigate the epidemiology of noncommunicable diseases in Ethiopia, Misgana, Mariam, Ali, and Araya (2014) analyzed 32 studies conducted in the capital
city of Ethiopia, Addis Ababa, and in half of these studies, more than 30% of the admissions in the city hospitals were related to cardiovascular diseases, primarily rheumatic heart disease, secondary to longstanding, untreated streptococcal infections (Misganaw, Mariam, Ali, & Araya, 2014). The systematic review also shows that the prevalence of cardiovascular disease was 7.2%, and in a country with limited cardiovascular care practitioners was a staggering statistic.

Bekele (2019) conducted a systematic review of articles written on diabetes among Ethiopians from 1990-2017. The author analyzed 17 articles relevant to the review purpose during the time frame. The analysis shows that diabetes was increasingly becoming evident among Ethiopians, particularly with the changing lifestyle and diet. Bekele demonstrated that the prevalence of macro and microvascular complications such as retinopathy, nephropathy, and metabolic syndromes were commonly found and, on the rise, (Bekele, 2019).

**Health Seeking Behavior of Ethiopian Immigrants.** The Health Seeking Behaviors of Ethiopians living in Ethiopia differ widely between the city and rural inhabitants, educated and non-educated and among the various tribal sects (Adane, Mengistie, Mulat, Kloos, & Medhin, 2017; Birhanu et al., 2012; Hodes, 1997; Paulos, Fenta, Bisrat, & Asres, 2016). These behaviors range from altogether avoiding modern healthcare services to preferring traditional medicines and religious practices.

Traditional health care practices are commonly practiced in Ethiopia. For example, suppose an infant was suffering from an upper respiratory tract infection that causes the tonsils or uvula to swell. In that case, the first traditional practice was to take the infant to traditional healers who practically cut off the uvula to treat the swelling. This practice was much more prominent in the rural areas than the city and is a tradition that had been practiced for
generations, despite being classified as a dangerous practice. Using plant and herbal preparations at home was a well-known practice to prevent or alleviate pain (Hodes, 1997).

Ethiopians see health as "a state of equilibrium within the body and between the body and the outside" (Hodes, 1997, p.30). It is a balance between the internal and the external forces, and someone is considered healthy when this force is optimized. The Health Seeking Behavior of Ethiopians is based on this basic knowledge and effort to balance the equilibrium. This very knowledge of internal and external forces equilibrium is thought to fix itself through time, allowing the body to overcome the disequilibrium. In utilizing modern medicine and treatments, even the educated and the elite part of the community procrastinate to seek medical advice until the disease prevents them from daily activities. While there might be individual variation, procrastination to seek medical, traditional care always comes after allowing some time to pass for the body to heal itself. Most individuals prefer to "wait it out" and see how the disease progresses before seeing healthcare providers. Siegel, Horan, and Tefera (2001) studied 525 African immigrants, of which 350 of them were Ethiopians to examine the health behavior, health access, and health care utilization. The study pointed out that Ethiopian immigrants, along with the rest of the other Africans in this study procrastinate to utilize preventive and primary health care services (Siegel, Horan, & Teferra, 2001).

**Use of Self-Medication and Faith-Healing.** Self-Medication had been a common practice among the Ethiopians back in Ethiopia. Many times, it is common to try herbal medicines such as "Damakesse," which is a plant leave that commonly grows in the backyard of most Ethiopians and commonly used to treat headache or sinus congestion or a common cold, and "Fetto," a sesame-like seed that's used to treat allergic reactions of the skin. Historically and
culturally, these and many others are the first line health maintenance measures that Ethiopians take back home. Many of these practices have moved with them when immigrating to the United States. It is also common to see Many Ethiopians still practice such traditional health practices before seeking professional medical help (Adane, Mengistie, Mulat, Kloos, & Medhin, 2017).

The better question to understand the Health Seeking Behaviors of immigrants, particularly to the scope of this proposed study of Ethiopian immigrants living in the Midwest, was examining whether their pre-immigration Health Seeking Behaviors influenced post immigration HSB or not. The response to this question was not readily available for Ethiopian immigrants due to the lack of significant Ethiopian diaspora health behavior studies. However, one ethnographic research of Ethiopian immigrants who live in the Pacific Northwest of the United States by Chiatti (2014) indicated that Ethiopian immigrants commonly use cultural or herbal remedies and may self-medicate before looking for healthcare professional help (Chiatti, 2014).

Other research studies on HSB on other immigrants in the United States, Sweden, Spain, and the Netherlands show that immigrants tend to continue practicing their culture and health belief practices, even long after immigrating into the new host country (Al Abed, Davidson, & Hickman, 2014; Amiri et al., 2019; Hodes, 1997; Johnsdotter, Ingvarsdotter, Ostman, & Carlbom, 2011). Therefore, while immigrants can integrate well with the host country's culture and change their HSB, the study indicated that most likely, they also continue to retain the behaviors they have been practicing in their homeland (a priori practice) up until the point they immigrated.
Health Service Utilization (HSU) in Ethiopian immigrants. Andersen and Newman (1973) state that immigrants' health service utilization can be viewed as a type of individual behavior that is directly related to the individual's Health Seeking Behaviors and the interrelation of the barriers and facilitators to use health services (Andersen & Newman, 1973).

This was a necessary construct to explore in this paper because Health Seeking Behavior and Health Service Utilization crossover each as, and sometimes even described as the latter being the practical application of the earlier. Ronald Andersen, in his subsequent Behavioral Models (1968, 1974, 1995, 2000), described the extent of HSU being the outcome of the interrelation of the predisposing, enabling and need factors, and sometimes describe the results of the interaction among the environmental, organizational, provider and patients’ factors that influence access to healthcare services.

In her ethnonursing study, Beth Chiatti (2014) conducted a qualitative in-depth interview and observations of 15 Ethiopian immigrants in the United States to explore their healthcare beliefs and practices and assess whether they retained or abandoned their cultural care beliefs and practices. She stated that the interview's overwhelming result was Ethiopians continue to practice their culture care beliefs, even after having immigrated for several years (Chiatti, 2014). The interview results also revealed that many Ethiopians did not seek preventative health services while living back home and stated they did not have regular access to a primary care provider because that is not the norm (Chiatti, 2014). While Ethiopia has a semi-universal, some free healthcare system, affording services at private clinics and hospitals is also a significant challenge, as payment is due at the front before service provision. The findings support the
argument that pre-immigration health practices influence post immigration practices for most immigrants.

**Acculturation and Ethiopian Immigrants.** As discussed earlier, the process and level of acculturation is an important construct that impacts Health Seeking Behaviors in immigrants. Acculturation is also how the attitudes, values, beliefs, and behaviors of one culture are adopted by an individual from another (Allen et al., 2014; Clark & Hofsess, 1998). The adaptation process of attitudes, values, beliefs, and behaviors are quite different and vary based on many factors. Pre-immigration knowledge of the host country, age at immigration, education level, and openness to change are some of the most important factors influencing the speed of acculturation to the new host country. Moreover, the interaction between those pre-immigration factors and the social determinants of health that follows immigrants to the host country affects many health outcomes (Gushulak & MacPherson, 2011).

Acculturation or levels of acculturation among Ethiopian immigrants in the United States is not well-documented in the literature due to the lack of primary studies around this population. This knowledge gap was identified from the literature review on Ethiopian immigrants' access and HSU literature review. Acculturation is measured using proxy variables, such as the length of residence (LOR) in the host country, the extent of language proficiency of the host country and attachment, frequency, and extent of engaging with the immigrant community immigrated. Some studies show that the immigrant frequency of food and music choices also indicates the extent of acculturation.

**Access & HSU Challenges of Ethiopian Immigrants in the United States.** Based on the few research studies that involved the Ethiopian diaspora in the United States, Ethiopian
immigrants face similar challenges as many immigrants from other countries (Chiatti, 2014, 2019; Hjelm, Bard, & Apelqvist, 2018; Hodes, 1997; Ijoma, 2013). Other studies outside of the United States in Canada also demonstrate cultural beliefs and practices and acculturation to be two of the biggest challenges faced by Ethiopian immigrants ((Haile Fenta et al., 2007; Fenta et al., 2010; Hyman et al., 2008). However, due to the paucity of studies involving particularly Ethiopian immigrants living in the United States, it was challenging to state if additional unknown barriers exist or if the challenges of immigrants from other African countries or Latin America and Europe were similar. This was also a gap identified in the literature.

**Other themes – education, age, and health status at immigration.** Immigrants' age, education, and health status at immigration were linked to immigrants' health outcomes. In a mixed-method study, Ejike (2017) surveyed 110 immigrants and four in-depth interviews from 6 different countries living in South Central Kentucky to assess and explore the healthcare-seeking behavioral patterns. Results from this study show that immigrants who had some college education before arrival to the U.S. were younger when they migrated and lived longer in the U.S., had utilized health care services at least once within the past year (Ejike, 2017).

**II.3. Literature Review – Part Two**

The second part of the literature research was conducted to explores immigrant religious and community leaders' role in influencing their congregants or members' health-seeking behavior. The following keywords were used to conduct the literature search: "religious leaders," "community leaders," "health-seeking behavior," "congregants," and "members," and "immigrants" for pieces of literature in the last 15 years, and 27 articles were retrieved. After removing unrelated and duplicate articles, six articles were thoroughly examined, and the
following themes were extracted. This literature review demonstrates a significant gap in understanding the positive role religious and community leaders play in shaping their congregants/members' health behaviors.

**Religious leaders were viewed as authorities.** Community and religious leaders' support had been studied in different populations (Addo-Anum, 2019; Boateng et al., 2012; Onyigbou, Alexis-Garsee, & van den Akker, 2016; Padela, Killawi, Heisler, Demonner, & Fetters, 2011; Rivera-Hernandez, 2015). Several of these studies found that religious and community leaders play influential roles in the congregants' health behavior as facilitators to seeking timely health services and staying healthy. Rivera-Hernandez (2015) explored the role of religious leaders in promoting the health of older Mexicans with diabetes and states that open communication between church leaders and their parishioners is a critical aspect of their role. The research also states that religious institutions and their leaders were uniquely positioned to link the physical and spiritual aspects of health. Church leaders had a more significant influence in keeping their congregants healthy (Rivera-Hernandez, 2015).

In a qualitative semi-structured interview in Michigan, Padela, Killawi, Heisler, Demonner, and Fetters (2011) interviewed 12 Muslim leaders to explore their perception of the roles. Imams play in community health. The result shows respondents identified four central roles for imams in healthcare: (1) encouraging healthy behaviors through scripture-based messages in sermons; (2) performing religious rituals around life events and illnesses; (3) advocating for Muslim patients and delivering cultural sensitivity training in hospitals; and (4) assisting in healthcare decisions for Muslims (Padela et al., 2011). The study indicated that some of the challenges of Imams in participating in their members' healthcare needs lie in their
knowledge of medical uncertainty and ethical conflicts, but still can frame the discussion with the perspective of religion and healthcare needs.

The mechanism of influence of religious leaders on their congregants' health behavior was essential to the construct that Heward-Mills et al. (2018) studied. In a qualitative study conducted in Leeds, United Kingdom, Heward-Mills et al. (2018) explored Black African Christians' views on the role of their faith leaders in influencing their health behavior. The result demonstrated that religious leaders could influence their congregant's health behavior through scriptural influence, social influence, and by serving as role models to improve their health-seeking behavior.

**Congregants trust religious leaders over the health system.** Another critical theme the literature review yielded was the trust and mistrust of congregants over their religious leaders and the health system, respectively. Research studies support that congregants find religious leaders to have trustworthy advice on healthcare matters and healthcare services utilization. In a semi-structured interview of the leaders of 23 neighborhood congregations and five community health centers to assess the relationship religious leaders and their congregants have in advancing health, it was noted that congregants trust the information provided about health needs by their leaders. This was because the congregations were described as being specially equipped to address the community's core spiritual, social, and psychological ills (Gee, Smucker, Chin, & Curlin, 2005).

A cross-sectional study among congregation members aged 50-89 years, constituted from six churches, was conducted by Boggavarapu et al. (2014) to examine the influence of churches and faith institutions on abiding with influenza vaccination recommendations. The result
showed that members who did not encounter any negative influenza immunization attitudes within the church were more likely to trust and act on their healthcare professional's recommendation.

**Gap in the literature.** The literature reviewed in exploring factors influencing immigrants' health-seeking behavior, particularly in African and Ethiopian immigrants, highlighted the most critical challenges of immigrants in different situations in attempts to establish access and utilization of healthcare services. The lack of sufficient scientific studies and literature on Ethiopian immigrants' health behavior made the understanding of current health practices of the population in the United States extremely challenging. While there were so many similarities between pre-immigration health practices and the post-immigration health behaviors among most immigrants, a thorough exploration of Ethiopian immigrants was warranted in this study due to the unique health beliefs, cultural and social factors of the community. This study was googling these gaps in literature and knowledge through examining the predisposing and enabling factors, in tandem with the perceived and evaluated needs of Ethiopian immigrants and the extent of their health service use.

The second part of the literature review demonstrated themes associated with faith leaders' role in congregants' health behaviors. Studies examined included African American churches of different congregations here in the United States and other parts of the world, such as the United Kingdom. While there was much information about faith leaders' role among their congregants in other communities, no single published study found that explored the influences of Ethiopian religious and community leaders on the health behaviors of the congregants in the United States. This study was the first to explore the phenomenon among this population and
researched the understanding of faith leaders towards complete health that encompasses physical, mental, psychological, and social health aspects besides their usual mission of keeping much of their congregants' spiritual health. It was possible to pull important themes and mechanisms in which the leaders could influence their flocks' health-seeking behaviors and bridge the knowledge gap.

II.3. Significance/Goal of The Study

Immigrants' health-seeking behavior is the product of multiple interacting factors, including a priori health behaviors, cultural beliefs and experiences preceding immigration, and acculturation with the host country's health system. It is also important to note that each of these influencing factors shaping HSB is unique to the individual immigrant population. To this end, it is evident from literature reviews that there were insufficient health behavior studies directed towards the Ethiopian diaspora community living in the United States that examined the unique nature of these influencing factors. Research studies conducted on other African immigrants, such as Nigerian, Somali, Ghanaian, or Kenyan immigrants, could only inform us part of the reasons why African immigrants face challenges in the United States healthcare system with access and health service utilization. Hence, they were not entirely generalizable (Azubuike, 2013; Boateng et al., 2012; Chaumba, 2011; N. B. Ebrahim, S. Davis, & J. Tomaka, 2016; Ijoma, 2013). However, as a priori health behavior and cultural beliefs significantly differ and influence health-seeking behavior, it is unlikely that the knowledge gained from the study of health-seeking behavior in these African immigrants can fully extrapolate to Ethiopian immigrants. Therefore, studies such as this primarily help explain the HSB and Extent of HSU of Ethiopian immigrants.
The second significance of this study was that this study also explores the HSB of Ethiopian immigrants related to religious and community leaders' role in influencing the HSB of their congregants. While there were some studies as reviewed above, that examined the role of religious leaders in the African American or Hispanic communities (Ajrouch, 2008; Gee et al., 2005; Rivera-Hernandez, 2015), to date, there has not been any study that explored the role of religious and community leaders among Ethiopian immigrants. Therefore, the study elucidated essential themes from the FGDs with religious and community leaders.

II.4. Theoretical Framework

This study used a modified combination conceptual framework of the Andersen Behavioral Model and Rosenstock et al.'s Health Belief Model (HBM). Andersen Behavioral Model had been used in numerous studies to explore health access and utilization barriers and facilitators. These studies were conducted mainly from the population characteristics, health system perspectives with minimal focus on the individual level health perception (R. M. Andersen, 1995). The conceptual model explains that individuals' use of health services is a function of their tendency to use the services, factors that enable or impede the use, and their perceived or evaluated need for care (Andersen, 1995). Therefore, the Andersen behavioral health model was used to explore the associations between predisposing, enabling, and need factors as it relates to the health system, structural, and environmental perspectives.
The Health Belief Model (HBM) was used to explore individual factors associated with HSB of Ethiopian immigrants prioritizing and deciding to take action. Health Belief Model explains specifically individual's perceived susceptibility to a disease, perception of the severity and threat the disease poses, perception of the benefit the individual gets by seeking help, and the barriers that prevent the individual from receiving the support needed (Janz & Becker, 1984; Rosenstock, 1966; Rosenstock, DerryBerry, & Caarriger, 1959). This model particularly
emphasizes the health-seeking behaviors after such a threat was faced by the individual and is essential to understand immigrants' health-seeking behavior.

The study employed both a qualitative and a quantitative design approach as mixed methods. Studies such as Chiatti (2014, 2019), Lin et al. (2015), and Martin et al. (2010) used in-depth, ethnographic, and qualitative designs, whereas researchers such as Ijoma (2013) and Ramirez (2015) used quantitative cross-sectional correlational studies to study the health behaviors of Ethiopian and Mexican immigrants respectively. Others, such as Ejke (2017) and Phillimore (2015) used a mixed-methods study to evaluate, explore and examine the relationship of health-seeking behavior, culture, and health care access and utilization (Chiatti, 2014, 2019; Ejike, 2017; Ijoma, 2013; Lin et al., 2015; Martin et al., 2010; Phillimore et al., 2015; Ramirez, 2015). Both Andersen's Behavioral and the Health Belief Models were modified to fit Ethiopian immigrants' socioeconomic, cultural, and ethnographic background without changing the theme and primary intention of these research models.

II.5. Chapter summary

Health Seeking Behavior (SBH) was a broad concept that has been studied in several disciplines, including psychology, sociology, medicine, nursing, anthropology, education other disciplines that deal with acquiring behavioral changes. This review has included many of the relevant studies from most of these disciplines comprehensively and synthesized the themes central to this study. While the Ethiopian immigrant population was the second-largest immigrant population in the United States, preceded by Nigerian immigrants, only a few literature studies were available about this population's health behavior. Themes from similar research conducted on African immigrants in the United States and other Ethiopian immigrant
studies conducted in Canada and other Western countries were used to provide the intensity of the problem and attempted to relate these themes with the known Ethiopian immigrants’ health behaviors.

The studies conducted to assess and examine the role of faith and community leaders in influencing their congregants’ health behavior were also well explored in the African American and native-born population. However, this phenomenon was not well studied among the Ethiopian immigrants in the United States. Religion plays a significant role in each Ethiopian diaspora life, and faith leaders have substantial influence in guiding their members. To this effect, theoretically, it is possible that faith leaders could play an essential role in shaping their followers’ health behavior, and this study aimed to explore this role. The methodology used in this study was addressed in chapter three in greater detail.
III. Methods:

This study explored factors that influence the Health Seeking Behavior (HSB) and extent of Health Service Utilization (HSU) of Ethiopian immigrants living in one of the largest cities in the Midwest region of the United States, using a mixed-methods study design. The study utilized two conceptual framework models, Andersen Behavioral Health and Health Belief Models, to explore health-seeking behavior influences from individuals' cultural, health beliefs, financial resources, and the health system's perspectives (Andersen, 1995; Rosenstock, 1966). The study also examined the role of religious and community leaders in influencing the HSB of their members, in addition to their primary role as spiritual and community leaders.

As described in chapter 2, a comprehensive literature review was conducted in databases including PubMed, CINAHL plus, and PsycINFO using keywords "access," "health services utilization," "barriers," "health-seeking behavior," and "immigrants" for all studies published from 2009 to 2020 in the English language. Once the relevant studies were retrieved, specific studies that met the publication timeline, which were focused on immigrants’ health behavior, patterns of healthcare service utilization, factors affecting their health behavior and utilization of health services were chosen based on the seven leading research questions to narrow down the search results.

The purpose of this study was to explore, describe, and investigate factors influencing health-seeking behavior and their association with demographic characteristics of Ethiopian immigrants living in a large Midwestern city of the United States. The study also examined the role of religious and community leaders in influencing the HSB of their members. This chapter delineates the specific approaches and steps taken towards conducting this study such as review
of literature the research design population, sample, and recruitment strategy. It also detailed the process of data collection and analysis methods used to synthesize the outcome variables.

III.1. Research Design

For this study, a cross-sectional convergent parallel mixed-method study design was used to conduct quantitative and qualitative research portions. A mixed-method study was chosen because of the value of obtaining much richer data from qualitative and quantitative methods to further understand the HSB of Ethiopian immigrants. A parallel convergent mixed method research design is a type of mixed methods research design where research is conducted and analyzed using both quantitative and qualitative methods independently during the same research period and merging the results to bring a better understanding of the research questions (Creswell, 2007, 2011, 2018; Demir & Pismek, 2018).

A parallel convergent mixed method was chosen because of the power of this method enabling researchers to collect data simultaneously during the same period and analyze each dataset separately and later merge the results to see any crossover of ideas and concepts referenced in the research question, with the intent of obtaining a complete understanding of the problem (Creswell & Clark, 2018). The mixed method was also used because previous studies focused on collecting and analyzing quantitative ethnohistoric data, which was heavily focused on the qualitative process. This research study was conducted by combing these two methods. Based on the chosen parallel convergent mixed methods research approach, both the qualitative and quantitative data were collected and analyzed independently, and results were merged in the interpretation phase. Details of these processes were exhaustively detailed step by step in phases quantitative portions in this chapter.
III.2. Quantitative

III.2.1. Design. The quantitative study design employed a cross-sectional survey with a community-based sample. The study included survey questionnaires prepared in two languages, English, and Amharic – a widely spoken language among most Ethiopians, also the national language. The survey was developed in Qualtrics survey software with specific aims to collect data on the defined domains, AHS, HSB and HSU, using 74 survey questions. The survey link was shared with the community and faith leaders, who in turn distributed to their members listserv. The community and faith-based organization leaders were the primary informants in the study and the study population's primary gateways. Survey questionnaires designed to elicit responses on health access, habits, and frequencies of health service utilization were used.

The study had an anticipated opportunity due to the COVID-19 pandemic crisis to assess the target community's health behavior change. By using specific survey questions, these pandemic related new behavior changes were examined. Acculturation and language influences on health behavior, participants' action to seek or utilize health services, knowledge deficits
about the healthcare system, or common disease processes were also assessed. Data collected from the survey was analyzed using SPSS version 27.

III.2.2. Sampling and Sample Size

Population. The overall study population was Ethiopian immigrants living in Chicago land areas. While there was no definite recent census data available to rely on, according to some literature, an estimated 4,500 Ethiopian immigrants live in Chicago (Weldeyesus, 2009). However, the Ethiopian Community association estimates this number had more than tripled, from 4,500 in 2000 to approximately 15,000 in 2018. This study's sampling frame was focused on those who attend one of the faith institutions (one Ethiopian Orthodox church, three Ethiopian Evangelical Churches, and one Muslim community center) and those who were members/participants of the Ethiopian Community Association. A total estimated 500 Ethiopian immigrants (approximately 100 from Berhane Wongel Evangelical Church, 75 from Yemisrach Evangelical Church, 125 from Ethiopian community, 100 from Ethiopian Orthodox Church, 25 from Bereka Muslim Community, 25 from Schaumburg Mekaneyesus church, and 50 from Tinsae Evangelical church) were eligible to participate in the study. From those eligible, 210 (42%) members of the community participated in the study by accessing the survey link. A total of n=153 (30.6%) completed the survey. The remaining 57 participants completed survey questions ranging from 0 to 97% and were added to the analysis.

III.2.3. Inclusion criteria and recruitment strategy. The inclusion criteria for the quantitative survey were: 1) age - 18 years or older, 2) Language - conversant in English or Amharic (Ethiopian dialect), and 3) Willing to participate in the study and have no obvious cognitive difficulties to participate in the study.
As discussed above, the study's participant recruitment strategies had evolved in their approach due to the current novel coronavirus pandemic (COVID-19). While the initial plan was to combine both in-person and online recruitment strategies to reach congregants and community members, with COVID-19 pandemic and the subsequent preventative measures in place, the recruitment focused on the electronic format strategy religious and community partners webpage. The investigator partnered with Ethiopian Community Association, Ethiopian Evangelical Churches, Ethiopian Orthodox Churches, and the Ethiopian Muslim community. With permission from the faith organizations and community leaders, recruitment fliers with the survey link were posted on 3 of the participating organizations’ website and for all of the participating organizations’ members, the recruitment flier was sent via email by their respective leaders.

III.2.4. Procedures for data collection. Following the participants' recruitment, quantitative data were collected using a survey questionnaire compiled from valid survey instruments. This study's initial data collection plan involved using a survey prepared both in paper format and online format using the University of Wisconsin Qualtrics survey database. However, with the current COVID-19 pandemic and the recommended social distancing requirements to contain the virus, data collection techniques were readjusted with online and electronic options. The survey link was sent to participants via email or phone number by the primary informants from each faith and community organization. Announcements and links to the survey were also posted on the organizations' webpage.

The survey questions were compiled from National Health Interview Survey (NHIS), American Community Survey (ACS), and Scale to Measure Acculturation of African Americans
(AfAAS), which were reliable instruments as explained below in the instruments section. Both the qualitative and quantitative data collection was conducted during the same study period as prescribed by design. Some participants took part in both the survey and the FGDs.

III.2.5. Instrument. The quantitative part of the study used survey questions modified from previously developed access and utilization studies in African immigrants (Boundaoni, 2015; Ijoma, 2013) and relevant questions from NHIS to fit the population in context. An instrument developed by Snowden & Hines (1999) to measure acculturation in African origin people or African American Acculturation Scale (AfAAS) was utilized to assess Ethiopian immigrants' acculturation. This instrument is referenced in appendix F of this document. AfAAS measures the dimension of African American culture, including the extent to which one engages in behaviors and attitudes concerning media preferences, social interactions, and race relations (Snowden & Hines, 1999).

The sociodemographic questionnaire was appropriate to this study, and the categorical nature of the items in the questionnaire allowed significant validity and reliability of the analysis. The specific section of the NHIS survey question was used in the survey's health care access and utilization section. The validity and reliability of the NHIS instrument to measure access and utilization had been proven over several years of population surveys since 1957 (CDC, 2019). It was designed to identify persons who had a usual source of care and determine the nature of that source of care and the frequency and trend of utilizing the health care source.

The questions co-opted from the previous study by Ijoma (2013) on barriers to health care access and utilization in African immigrants were similar to the NHIS but reworded to fit
the population. The survey questions were tested for reliability. In the Ijoma study, the result demonstrated acceptable validity and reliability with Cronbach's alpha of 0.63 (Ijoma, 2013).

The ten-item acculturation instrument used in this study was an instrument developed by Snowden & Hines (1999) called the African American Acculturation Scale (AfAAS). This instrument has shown excellent reliability as measured by internal consistency (Cronbach’s alpha 0.75) and validity of medium to high with each demographic predictor (Snowden & Hines, 1999). The instrument was preferred from other acculturation instruments because it had a small number of items, measuring acculturation in the proportion of exposure to music, television, or radio that was black or white associated. The instrument also had questions on the proportion of black in social events, in the neighborhood or among friends, and attitudes towards black and whites. One of the challenges in finding the right acculturation instrument for Ethiopian immigrants was that research indicates many Ethiopians do not consider themselves being black or do not associate themselves with African Americans (Chianti 2018, 2019). Therefore, in the acculturation question, the word "Habesha" to mean "person of Ethiopian origin" was used together with black to give more contextual meaning to the question. For example, in one of the questions that asks about the proportion of friends, "Thinking of your current church congregation, what proportions are Black?", if "Black" was not replaced by "Habesha," knowing potential bias of "blackness" within the Ethiopian community, respondents could understand and answer the choice that indicates "few or none of them" as an appropriate answer. This was because most Ethiopians understanding of "black" relates to being "African Americans" or "native born blacks" individuals, and they tend to exclude themselves from this category (Chiatti, 2014). However, if replaced by Habesha, it associates them with people of Ethiopian origin, and
therefore, responses were expected to vary depending on their understanding. The term "Ethiopian" was not used to replace "blacks" because the word Habesha was thought to be more inclusive of most Ethiopian origins, despite ethnic differences within Ethiopians themselves.

III.2.6. Dependent Variables

The responses that defined the variables in this study were self-reported. Hence, they were directed towards assessing Health Seeking Behavior of participants and measure the extent of healthcare access and health service utilizations. Therefore, three Dependent Variables (AHS, HSB and HSU) in this study were evaluated for their association with access, health-seeking behavior and extent of health service utilization of Ethiopian immigrants. These constructs were developed from the different elements within the Andersen's Behavioral Health Model and the Health Belief Model conceptual models and operationalized.

Access to Healthcare Services (AHS). Penchansky & Thomas (1984) defined access as "the degree of fit between client and the system" which means that the extent to which suitability of the patient's need with the available service provided by the health system determines the extent and quality of healthcare access the patient has (Penchansky & Thomas, 1981, p.554). Penchansky and Thomas further describe using the availability, accessibility, affordability, acceptability, and accommodation metrics that once can determine the quality of access. In this study, these metrics were incorporated into the survey question to extract participants' responses and measure their quality of access to healthcare services. These concepts are:

1. Availability of services to the individual without barriers (provider appointment)
2. Accessibility of the health care service to the individual (distance)
3. Affordability of the service for the individual (insurance coverage, co-pay, etc.)
4. Acceptability of the service provided by the provider to the individual (satisfaction)
5. Accommodation provided by the service provider to the individual access could be measured using these.

**The extent of Health Service Utilization (HSU).** Donabedian (1973) defines healthcare utilization in a simple term as "the outcome of the interaction between health professionals and patients (Da Silva et al., 2011)". Health service utilization depends on individuals' ability to create this interaction between themselves and the accessible healthcare system or provider and use the service. Suppose an appropriate accessible service was available, and this service meets the needs of the population or an individual patient. In that case, the extent of this accessible healthcare service's consumption can determine healthcare service utilization. The National Health Interview Survey (NHIS) uses questions in the annual survey that extracts the utilization of health services using the frequency of scheduled provider visits in the past 12 months. In this study, a similar question was posed to retrieve participants' responses to assess their Health Service Utilization (HSU).

1. Frequency of scheduled healthcare provider visit in the previous 12 months
2. Frequency of unscheduled E.R., Urgent Care or Walk-in clinic visits in the previous 12 months
3. Acculturation - limited English proficiency and Length of Residence in the U.S.

**Health Seeking Behavior (HSB).** To understand the Health Seeking Behaviors of Ethiopian immigrants, previously utilized survey questions were used. Measuring the construct of health behavior could be accomplished through proxy variables, such as frequency of health service use and time it takes to respond to specific health needs (first action when sick) or
procrastination habits. Constructs extracted from the Health Belief Model that focused on self-health assessment and rating and the different perceptions of diseases and responses to illness were utilized. Survey questions related to the following main items under this variable were used.

1. Frequency of scheduled healthcare provider visits in the previous 12 months
2. Frequency of unscheduled E.R., Urgent Care or Walk-in visit in the previous 12 months
3. Perception of own health status
4. First & subsequent actions taken when becoming ill
5. Acculturation, limited English proficiency, and length of residence in the U.S.

III.2.7. Independent Variables

The independent variables were grouped in three categories as structural, financial and personal/cultural predictors and were derived from the three main concepts, enabling, predisposing, and needed factors, from the two theoretical models used in this study, the Andersen Behavioral and the Health Belief Models. Certain relevant demographic predictor variables such as current age and age at immigration, education status, and immigration statuses, were also used. These independent variables were used to predict the potential health care access that’s structurally available for participants, how their health behavior aligned or misaligned with the available health access and the extent of their health service utilizations.
Figure 4: Analytical model Showing the Relationship of DV and IV

**Structural Predictors:** In this category, the variables availability of and accessibility of the potential health care access, the accommodation participants expected and provided, immigration status and insurance coverages available for participants were used to predicts access to health care, health seeking behaviors and health service utilizations.

**Financial Predictors:** In this category, variables that were specifically thought to facilitate and predict access, health seeking behavior and health service utilization were used. These predictors were the affordability of the care, the presence or lack of insurance coverage, employment status and household income.

**Personal/Cultural Predictors:** These predictor variables that were thought to be related with personal and cultural background of the individual participant were used to predict access, health seeking behavior and frequency of use of health care services.
III.2.8. Plans for Data Analysis

Once data was collected from the quantitative survey questionnaires, data were analyzed using the current version of SPSS. The study sample characteristics were analyzed using descriptive analysis. Further data examination was performed using Chi-square and bivariate correlational analyses where applicable, to determine the association between the dependent variables access and health Service Utilization, and the predictors interrelated with predisposing, enabling, and need variables. Further statistical modeling was not feasible due to the nature of the data. While the quantitative and qualitative data were separately analyzed and reported, the results were organized to jointly address the research questions and provide context to the findings.

III.3. Qualitative

III.3.1. Research Design

Qualitative study design enables investigators to explore and extract rich cultural and belief aspects of the study population, particularly in health behavior studies. Qualitative study also enriches research studies by bringing different rigor and authenticity lenses to the study (Polit, 2018). For this study, a set of semi-structured questions were used to elicit information about their perception and understanding of spiritual, physical, mental, and social health. The Focus Group Discussions (FGDs) explored the community's role and faith readers in keeping their members healthy by facilitating health access and health service utilization of the community they lead. It also explored their influence on the HSB of the community and the congregation they lead. Finally, using both individual surveys and FGDs, the study examined
religious beliefs, acculturation, and health behaviors as references from individuals' and communities' perspectives.

III.3.2. Setting and Sample

A total of 43 community and religious leaders, recruited from three evangelical and one Orthodox church, one Muslim community center, and the Ethiopian Community Association to participate in the FGDs, were organized in 7 FGDs, 5-7 members in each FGD. A convenient time was chosen by the primary religious and community informants from each faith organization and the community association. All meetings were held virtually via virtual zoom meeting due to the pandemic, and a secure link was generated and sent to each main contact. Each primary informant distributed the link to their respective congregation members. The survey was advertised on some of the faith organizations' websites to encourage participants. Congregants were permitted to forward the survey link to those who live in the defined vicinity if they wish to recruit others from their congregations or family. The collected rich qualitative and quantitative data were analyzed independently, and the result was triangulated to give a better meaning to the outcome variables in chapter 4 and 5. The research was significantly informative about the population and add to the body of knowledge on Ethiopian immigrant's health-seeking behavior and health service utilization.

III.3.3. Inclusion Criteria

The inclusion criteria for the qualitative FGDs are: 1) Religious leaders (Priests, pastors, Imams, deacons, or elders) 2) Community leaders (formal and informal community leaders, Ethiopian Community Association members). The inclusion criteria were all met for all participants who took part in the FGDs.
III.3.4. Recruitment Strategy

The FGD participants were recruited from religious and community leaders who actively participate in leading the church or community and those who serve at different levels within the church. These groups include Priest, Pastor, or Imams to elders and deacons, and recruitment was similar to the survey participants, contacting the lead pastors, priest, Imams and the community association leaders via phone and emails and arranging a zoom meeting with the group. This virtual group discussion option was also removed the place restriction to meet and potentially enhance participants' ability to express themselves.

III.3.5. Procedures for Data Collection

The qualitative data was collected from faith leaders (pastors, priests, Imams, elders, formal and informal community leaders) who were grouped in FGDs based on which faith organization they belong to. The FGDs were formed keeping in mind the specific faith organization they came from, ensuring leaders of the same faith organization or community association are in similar groups.

III.3.6. Data Collection Instrument

This mixed-method study used a semi-structured questionnaire to conduct the qualitative part of the study using FGDs. The questions were generally semi-structured and open-ended to allow participants to elaborate on their responses further. Follow-up questions may be asked based on participants' responses. The survey questions were customized from the annually administered National Health Interview Survey (NHIS) and from the American Community Survey (ACS) questionnaires, co-opted to fit the target population (see appendix L).
The open-ended qualitative questions were also translated similarly to the quantitative survey questions by the two linguistic professionals. The questions were checked for ambiguity and meaning and ease of understanding. The FGDs were conducted in both Amharic and English.

III.3.7. Data Analysis

All FGDs were held on zoom meeting with a secured link. The voice archive was transferred from the laptop to the UWM OneDrive database to store the data securely. The discussion was then transcribed verbatim and was later translated to English by two translators. The instigator speaks both English and Amharic languages fluently and rereads the transcription and translation several times, comparing the transcription's accuracy with the voice recording. The translated 7 group discussion document was uploaded to the latest version of a qualitative research analysis software called MAXQDA2020. Using this software, initial and subsequent categorizing, coding, and pulling themes was conducted. Several vignettes and direct quotations were abstracted and used to support the themes.

III.4. Translation and Transcription Plan

Most Ethiopians speak English without any problem. However, the older generation and those who did not go to formal schooling might understand the survey questions or the discussion themes. Therefore, a plan for formal translation of the surveys and the FGDs as follows.

The quantitative survey was initially prepared in English and was first translated into Amharic by a professional translator. Amharic is one of the Ethiopian dialects serving as the national language and spoken by almost all Ethiopians. The survey was back translated from
Amharic to English by the second individual who is fluent in both languages and served as a translator. The two surveys were compared for ease of interpretation and response burden.

III.5. Protection of Participants' Right

Before the study commences, appropriate IRB approvals were received from the University of Wisconsin Milwaukee. For the quantitative survey, formal consent was attached at the beginning of the survey with a description and study details. All participants had a chance to read and consent to the study.

For the qualitative FGDs, a scripted verbal introduction introduces the study's purpose and specific aims. The detail includes the amount of time for the discussion, the rules around the discussion, and assurance that data was anonymous and will be reported only as an aggregate result and not individually.

III.6. Basic Assumptions

- Ethiopian immigrants have unique cultural and health beliefs that influence their health-seeking behavior.
- Ethiopian immigrants assume they were ethnically and culturally different from their predecessor African Americans in the United States.
- Access to health care appears to be a systemic and political matter, rather than logistics and material issue in the United States. Healthcare access is a humanistic right and should not be politicized.

III.7. Design and Methods Limitations

One of the limitations expected in this study was finding the right sample size for the survey and the FGDs. While the number of Ethiopian immigrants living in this Midwestern city
of the United States and the number of church and mosque-goers potentially suggest the availability of sufficient participants, due to the COVID-19 pandemic and the social distancing rules, services and meetings were canceled or were held virtually. Therefore, a modified recruitment strategy such as reaching out to congregants directly via email, phone, or faith leaders during the weekly virtual service was instituted. However, the number of congregants who access these services weekly is unwarranted, and recruitment may take longer than expected.

The second anticipated challenge was to ensure that all FGDs participants were fully transparent in the FGDs. Immigrants see research as a way of exploitation and not useful for their day-to-day lives and avoid these interactions. This can also be due to a lack of trust in research activities and the health system. In addition to this, I can also say Ethiopians were not comfortable with private conversations about their health matters.

These two barriers could limit the number of completed surveys and the extent of information collected in this study. However, while these could be barriers, most studies were conducted by non-Ethiopians and the lack of transparency among participants as barriers could be related to this gap.

III.8. Chapter Summary

In the methods chapter, details were provided on the proposed design for this study, the target population's characteristics, the sample collection procedure, measurement instruments, statistical data analysis, and measures taken to prevent any data britches were all discussed. The data was collected in a second language called Amharic, a common Ethiopian dialect spoken by the majority of the people in Ethiopia, in addition to English, and translation procedures were
also described. The chapter also specifically identified steps that were taken to protect participants' rights. In the next chapter, the results chapter, the quantitative and qualitative data collected are critically analyzed and presented to readers. Interpretations of results, implications, recommendations and future research opportunities are also discussed in Chapter V.
IV. Results and Findings:

In this chapter, the following items are discussed: summary of the study, sample recruitment and data collection strategies, analyses, and results and findings are presented in detail. The analysis used chapter summarized the study results and analyses used. The primary purpose of this cross-sectional convergent parallel mixed-method study was to explore the association between factors influencing the Health Seeking Behavior (HSB) of Ethiopian immigrants living in a large Midwestern city and the extent of health service utilization (HSU) using the theoretical frameworks of Andersen Behavioral Health (Anderson BH model 1995) and the Health Belief Models (HBM). The qualitative discussions of the community and faith leaders focused on examining the role community and faith leaders play in influencing the health behavior of their congregants/members within the context of healthcare access, healthcare service utilization and health seeking behaviors and their primary role as faith and community leaders. The Focus Group Discussions (FGDs) also yielded important data on the leaders' health behavior and their perceptions of health and faith as individuals and leaders.

As described in the previous chapters, the independent variables (IVs) were related to three main predictor categories: structural, financial, and cultural or personal health beliefs. The structural predictors included availability and accessibility of healthcare services, insurance coverage and immigration statuses of Ethiopian immigrants. The financial predictors included the affordability of the care, with or without insurance coverage, employment status, and household income that were thought to facilitate or impede access to healthcare services for Ethiopian immigrants. The personal or cultural predictors included acceptability of the care...
available or provided, cultural or personal health beliefs, and the state of acculturation to the new culture in the United States.

There were also three dependent variables (DVs) that were investigated in this study: Access to Healthcare Services (AHS), Health Service Utilization (HSU) and Health Seeking Behavior (HSB). Based on several previous research studies conducted on access, health seeking behavior and utilization of healthcare services, the relationships between the dependent variables and one or more of the predictors were examined among the Ethiopian immigrants living in this Midwestern city (Aday & Andersen, 1974; Commodore-Mensah et al., 2018; Ejike, 2017; Ijoma, 2013).

A parallel convergent mixed method research design was used in this study. This design is a type of mixed methods research design where research is conducted and analyzed using both quantitative and qualitative methods independently during the same research period and merging the result to bring a better understanding of the research questions (Creswell, 2007, 2011, 2018; Demir & Pismek, 2018). This method was chosen because of the power of the method to enable investigators to collect data simultaneously during the same study and to analyze each dataset separately and later merge the results to see any crossover of constructs referenced in the research question, with the intent of obtaining a complete understanding of the problem (Creswell & Clark, 2018).

In the subsequent sections of this chapter, the quantitative and the qualitative research studies are presented separately according to the corresponding research questions. The results for the quantitative and qualitative research questions are detailed separately and summarized.
after each research question. The quantitative and qualitative results and findings are combined and presented in Chapter 5.

IV.1. Quantitative Analysis

IV.1. Study Sample

The study population consisted of Ethiopian immigrants living in a large metropolitan region in the Midwest. While there was no recent official count of Ethiopian immigrants in this city, according to the 2000 census, an estimated 4,500 Ethiopian immigrants live in the primary research site of this study (Weldeyesus, 2009). However, the Ethiopian community immigrant association estimates this number might have increased to 15,000 or more at the present time.

The quantitative sampling frame for this study covered an estimated 500 Ethiopian immigrants’ members of the Ethiopian community association or attending one of the Ethiopian Evangelical churches, Orthodox churches or Muslim congregations. The inclusion criteria for recruitment were Ethiopian immigrants born outside of the United States, who speak English or Amharic well, either attended one of the three faith-based organizations that were targeted for the study or who were part of the listserv of the Ethiopian Community Association. After approval to commence the research from UWM Institutional Review Board (see Appendix E), the recruitment of participants was conducted by inviting the leaders in each faith organization to introduce the study. A formal letter of invitation to participants was produced as part of the invitation to participate in the survey and was sent to the community and faith leaders to distribute to their congregation. Through personal network and relationships with the faith community, the leaders of the faith organizations and the community association were recruited to help engage and distribute the survey recruitment fliers and link to their respective members.
The faith leaders also allowed the investigator to explain the research activity to the congregants after their normal weekly zoom sermon were completed. Recruitment flyers were posted on the faith organizations' website as well as emails were sent to the members' listserv by the faith and community leaders from June 30th to July 8th, 2020.

**Data Collection Methods.** Data were collected from July 1st to August 7th, 2020, via a Qualtrics survey link that was sent by the community and faith leaders to their respective network. While the initial research plan was to include both electronic and paper survey data collection methods and in person focus group discussions (FGDs), due to the unprecedented circumstance caused by the COVID-19 pandemic, survey data collection took place using an electronic format only and alternative virtual FGDs.

**Instruments:** The survey questionnaire was prepared in 2 languages, English, and Amharic, and included 74 questions. Translation of the English to Amharic and back to English was completed with two fluent English and Amharic speaking individuals and was checked by the investigator, who was also a fluent speaker of both languages. The final version was produced with no additional suggestions from the translators. The survey had 12 sociodemographic questions, ten acculturation questions from the AfAAS acculturation instrument, 6 COVID-related health behavior questions, and 46 different AHS, HSB, and HSU survey questions co-opted from National Health Interview Survey (NHIS) and previously conducted similar studies. Reminders with the invitation to participate in the survey were sent twice during the study period. There was no incentive for participants in any form.

A total of 89 participants completed the Amharic version, and 121 participants completed the English version. Of the estimated 500 potential Ethiopian immigrants who fit the sampling
frame and were recruited through their respective community and faith leaders, 210 participants opened the survey link and fully or partially completed, which was a 42% response rate. Of these 153 individuals completed the survey in its entirety, which equated to 72.9% survey completion rates. Average response rates for online surveys range from 19.6% with a second reminder to 33% with excellent recruitment strategies for external respondents, and institutional response rate could go up to 70% (Fan & Yan, 2010; Nulty, 2008; Weigl et al., 2019). The average time taken by participants to complete the surveys was 30 and 67 minutes for the English and the Amharic versions, respectively.

The results from both the English and the Amharic version surveys were transformed appropriately into numerical values and merged into one dataset in Qualtrics. The combined dataset was then imported to SPSS ® version 27 for further analysis (Green & Salkind, 2017). Cleaning the database and addressing missing data took place prior to the analyses.

**Missing data.** A total of 500 community members were invited via their community and faith leaders with email and text survey link invitation. Of the 500 invited, 210 participants clicked the link to attempt the survey. Of the 210 participants who accessed the survey link, 57 participants did not complete the survey but opened the survey link with completion percentage from 0% to 67%.

Missing data from each survey versions, (English and Amharic) and from the combined dataset were thoroughly assessed during the analysis. Evaluation of the missing items showed that 19.2% of data points were missing from the combined Amharic and English survey. Pattern of the missing data was closely examined using frequency tables and multiple imputation.
functionality in SPSS and most of the missing data were observed from the demographic questionnaires, which were displayed at the end of the survey.

Analysis of the missing data for each group of questions, AHS, HSB, HSU, and COVID questionnaire group (33 questions), demographic questionnaires (12 questions) and acculturation questionnaires (10 questions), demonstrated the two groups with the most missing data were observed in the acculturation and demographic data groups. Review of the missing values did not signify a missing pattern, but rather random questions with missing values. However, one of the observations for the missing data in the demographic questionnaire part could be because of the length of the survey, that participants might have been exhausted answering several questions at that point. Another possibility could be because questions related to personal information such as gender, age, household income, religion affiliation, immigration status and marital statuses were thought to be too personal, particularly to the Ethiopian immigrant community because of the sensitivity nature of the questions. Similar to the demographic questionnaires, the missing data explanation in the acculturation instrument were also directed towards the nature of the questions. Two respondents reached out to the author personally and asked the questions regarding the Ethiopian/Black and White attitude or marriage between Ethiopian/Black and White questionnaires were hard to respond because of what was happening in the area of racism in country at the time. Survey questions that allowed multiple selections or questions with intentional display logic based on the previous question responses were not included in the missing data analysis, as it was expected that only those participants who fulfilled the logic would see these types of questions.
IV.2. Demographic Characteristics of the Sample

The demographic data (Table IV.2) shows that 97.4% (n=148) of the respondents were born outside the United States and 53.3% (n=80) of the respondents were females, 82% of them (n=123) were in the age range of 30-59, and most of the participants (66.22%, n=98) immigrated to the United States when they were 18-39 years. A sizable number of respondents (21.6%, n=32) immigrated before the age of 18, who most likely were part of family immigration through refugee and/or Diversity Visa (DV) programs or those who came for education and stayed due to political, economic, or other reasons. Of the 152 respondents to the immigration status question, (97.4% (n=148) were born outside of the US and 92.7% (n=140) were either permanent residents or naturalized citizens.

Level of education and employment were assessed, and 55.33% (n=83) completed a bachelor's or master's degree, and 6% (n=9) their terminal degrees, while 66.89% were employed either part-time or full time, 15.9% were unemployed, and 11.9% (n=18) were self-employed. The survey did not ask about the type of work as this was beyond the study's aim. When comparing the level of education of this sample (55.33%, n=83) with the native US and immigrant population education levels, 31.6% of the US-born, 30% of all immigrants, and 40% of sub-Saharan Africa immigrants had a bachelor's degree or higher (MPI, 2019). Of those 151 participants who answered the question regarding immigration status, 78.1% (n=118) were naturalized US citizens, and 3.3% were US-born. While there were no undocumented immigrants identified in this survey, 2.65% (n=4) of the participants had chosen not to answer the immigration status question.
Employment and household income of participants were examined and 66.9% (n= 101), were either part-time or full-time employed and 15.9% (n = 24) were unemployed. The remaining 11.9% (n=18) were self-employed. A total of 148 people responded to the household income question and 40.5% (n = 60) had a household annual income of <$50,000 and 29.7% (n = 44) individuals earn between $50,000 and $100,000 annually. One in every 5 respondents (20.9%, n= 31) stated their annual income was >$100,000, and 8.8% (n = 13) of the respondents stated they prefer not to respond to this income question.

Table 1: Demographic Description of Participants

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Amharic</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td><strong>Place of Birth (Q63)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>4 (2.60%)</td>
<td>1 (1.5)</td>
</tr>
<tr>
<td>Outside of US</td>
<td>148 (97.40%)</td>
<td>66 (98.5)</td>
</tr>
<tr>
<td><strong>Gender (Q64)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>70 (46.70%)</td>
<td>30 (45.5)</td>
</tr>
<tr>
<td>Female</td>
<td>80 (53.30%)</td>
<td>36 (54.5)</td>
</tr>
<tr>
<td><strong>Current Age Range (Q65)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29 years old</td>
<td>5 (3.30%)</td>
<td>2 (3)</td>
</tr>
<tr>
<td>30-39 years old</td>
<td>40 (26.70%)</td>
<td>17 (25.8)</td>
</tr>
<tr>
<td>40-49 years old</td>
<td>42 (28.00%)</td>
<td>19 (28.8)</td>
</tr>
<tr>
<td>50-59 years old</td>
<td>41 (27.30%)</td>
<td>19 (28.8)</td>
</tr>
<tr>
<td>&gt;60 years old</td>
<td>21 (14.00%)</td>
<td>8 (12.1)</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>1 (0.70%)</td>
<td>1 (1.5)</td>
</tr>
<tr>
<td><strong>Age at Immigration (Q66)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;18 years old</td>
<td>32 (21.60%)</td>
<td>19 (29.2)</td>
</tr>
<tr>
<td>18-29 years old</td>
<td>69 (46.60%)</td>
<td>25 (38.5)</td>
</tr>
<tr>
<td>30-39 years old</td>
<td>29 (19.60%)</td>
<td>12 (18.5)</td>
</tr>
<tr>
<td>40-49 years old</td>
<td>9 (6.10%)</td>
<td>3 (0)</td>
</tr>
<tr>
<td>50-59 years old</td>
<td>3 (2.00%)</td>
<td>0 (4.6)</td>
</tr>
</tbody>
</table>
Table 2: Demographic Description of Participants

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Count</th>
<th>% of Total</th>
<th>% of &lt;60</th>
<th>% of ≥60</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;60 years old</td>
<td>2</td>
<td>1.40%</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>I do not know</td>
<td>4</td>
<td>2.70%</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status (Q67)</th>
<th>Count</th>
<th>% of Total</th>
<th>% of &lt;60</th>
<th>% of ≥60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single - Never Married</td>
<td>24</td>
<td>15.90%</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Engaged</td>
<td>1</td>
<td>0.70%</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Married</td>
<td>108</td>
<td>71.50%</td>
<td>44</td>
<td>64</td>
</tr>
<tr>
<td>Divorced</td>
<td>9</td>
<td>6.00%</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Widowed</td>
<td>7</td>
<td>4.60%</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Live with another person but not married</td>
<td>2</td>
<td>1.30%</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of Education (Q68)</th>
<th>Count</th>
<th>% of Total</th>
<th>% of &lt;60</th>
<th>% of ≥60</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Schooling</td>
<td>1</td>
<td>0.70%</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Elementary School</td>
<td>6</td>
<td>4.00%</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Junior High School</td>
<td>30</td>
<td>20.00%</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>12</td>
<td>8.00%</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>52</td>
<td>34.70%</td>
<td>19</td>
<td>33</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>31</td>
<td>20.70%</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>Doctoral Degree</td>
<td>9</td>
<td>6.00%</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>6.00%</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length of Residence in the US (Q69)</th>
<th>Count</th>
<th>% of Total</th>
<th>% of &lt;60</th>
<th>% of ≥60</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5 Years</td>
<td>11</td>
<td>7.30%</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>6-10 Years</td>
<td>21</td>
<td>13.90%</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>11-15 years</td>
<td>34</td>
<td>22.50%</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>16-20 Years</td>
<td>30</td>
<td>19.90%</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>&gt;20 Years</td>
<td>55</td>
<td>36.40%</td>
<td>19</td>
<td>36</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment Status (Q70)</th>
<th>Count</th>
<th>% of Total</th>
<th>% of &lt;60</th>
<th>% of ≥60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployed</td>
<td>24</td>
<td>15.90%</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Employed Part Time</td>
<td>13</td>
<td>8.60%</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Employed Full Time</td>
<td>88</td>
<td>58.30%</td>
<td>36</td>
<td>52</td>
</tr>
<tr>
<td>Self Employed</td>
<td>18</td>
<td>11.90%</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Retired</td>
<td>4</td>
<td>2.60%</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Preferred not to answer</td>
<td>4</td>
<td>2.60%</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Religious Affiliation - If Any (Q71)</th>
<th>Count</th>
<th>% of Total</th>
<th>% of &lt;60</th>
<th>% of ≥60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthodox Christian</td>
<td>45</td>
<td>29.80%</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Evangelical Christian</td>
<td>94</td>
<td>62.30%</td>
<td>40</td>
<td>54</td>
</tr>
<tr>
<td>Catholic</td>
<td>4</td>
<td>2.60%</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Christian - Other</td>
<td>2</td>
<td>1.30%</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Muslim</td>
<td>3</td>
<td>2.00%</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Table 3: Demographic Description of Participants</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>3</td>
<td>2.00%</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Religious Service Attendance (Q72)** 153

- > Once a week 69 45.10% 31 46.3 38 44.2
- Once a week 49 32.00% 25 37.3 24 27.9
- 1-2 times a month 11 7.20% 8 11.9 3 3.5
- A few times a year 21 13.70% 3 4.5 18 20.9
- Never 3 2.00% 0 0 3 3.5

**Current Immigration Status (Q73)** 151

- US Born Citizen 5 3.30% 1 1.5 4 4.7
- Naturalized Citizen 118 78.10% 47 71.2 71 83.5
- Permanent Resident 22 14.60% 14 21.2 8 9.4
-Filed immigration Application 3 2.00% 3 4.5 0 0
-Undocumented 0 0.00% 0 0 0 0
-Prefer Not to answer 3 2.00% 1 1.5 2 2.4

**Income (Q74)** 148

- $0-$49,999 60 40.50% 36 56.3 24 28.6
- $50,000-$99,000 44 29.70% 17 26.6 27 32.1
- >$99,000 31 20.90% 11 17.2 20 23.8
-Prefer not to answer 13 8.80% 0 0 13 15.5

**IV.3. Descriptive Statistics of the Survey Data**

**IV.3.1. Access to Healthcare Services (AHS).** In this study, AHS was measured by one primary survey question that asked if individuals had a regular place to go or usual source of care as a proxy to AHS variable, and with a follow up question that asked whether this usual source of care was primary care provider, urgent care, or emergency department. Stemming from these responses, several predictors were used to crosschecking the availability of access.

As outlined in previous chapters, using Anderson's Behavioral Health Model, the variable, AHS, was primarily looked at from structural, financial, and personal and/or cultural belief practice factors. In addition to this, the variable was investigated for association with many of the demographic variables above, such as employment, household income, insurance coverage, immigration status, and length of residence in the United States.
IV.3.1.1. Structural predictors for AHS. The respondents indicated that 91.3% (n = 190) had a regular place (usual source of care) to go when they become ill. For the follow-up question that asked what place they go to get medical care, the majority, 70.5% (n= 146) of participants stated they go to their doctor's office, 15.5% (n= 32) stated they go to urgent care or walk-in retail clinics. There were a minority of participants, 7.7% (n = 16) who stated they use county hospitals for their care.

Delaying or Postponing Medical Care due to Lack of Appointment. The reason for delaying or postponing medical care was assessed among the participants, and most, 84.5% (n=158) of the participants, stated that they never delayed or postponed their care due to lack of appointments at their usual source of care. Time to appointment was assessed to examine if length of wait time caused delaying or postponing medical care and 74.4% (n=131) stated they could get urgent appointment within 1-2 days, and 96% (n=169) stated they could get appointment for urgent need in less than a week at their usual source of care. For a non-urgent appointment, 74.4% (n=131) stated they could get appointment in less than a week and for specialty appointment, 53.4% (n=94) stated they could get an appointment in less than a week.

Immigration Status. Participant’s composition analysis according to their immigration status shows 78.1% (n=118) were naturalized U.S. citizens, 3.3% (n=5) were U.S. born citizens, 14.6% (n=22) were permanent residents, 2% (n=3) were awaiting immigration decisions. There were 2% (n=3) participants who did not want to disclose their immigration status. Naturalized and permanent citizens make up 92.7% (n=140) of the participants. Delay or postponing needed medical care due to immigration status was examined as it relates to AHS. Of those who are naturalized citizens and permanent residents, 94.2% (n=131) stated they never experienced delay
or postponing of their care due to their immigration status while accessing hospitals, emergency rooms, or urgent care centers.

**Insurance coverage.** Related to insurance coverage, participants were asked if they have purchased insurance coverage in the previous 12 months and 48% (n=82) stated they have purchased insurance and 52% (n=89) stated they did not purchase insurance coverage in the past 12 months. Respondents were also asked to answer if they had delayed care or filling their prescriptions due to lack of insurance coverage. Most participants, 90.1% (n = 163), stated they never had to delay or postpone their appointments or filling their prescriptions due to lack of insurance coverage.

In summary the structural predictors demonstrated that most of the participants never delayed or postponed their care due to lack of appointments at their usual source of care, could get appointments within 1-2 for urgent medical needs and within a week for non-urgent and specialty appointments, over half did not purchase insurance in the past 12 months and never had to delay or postpone appointments or filling prescription due to lack of insurance coverage. This finding showed that the structural predictors for this pool of participants were not significantly challenging to establish access to healthcare services with their usual source of care.

**IV.3.1.2. Financial predictors and AHS.** Financial predictors of AHS such as employment status, annual household income, cost of medical care, and prescription drug cost were examined if they prevented individuals from establishing usual source of care (AHS) and were examined if they were enabling or predisposing factors related to access. In response to the question that asked if they had delayed medical care due to cost, 89.4% (n = 144) of the
participants indicated that they never delayed medical care due to cost. The financial predictors are listed in the below table (Table IV.2.).

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>RESPONSE</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delay of medical Care due to cost</td>
<td>1 Yes</td>
<td>15</td>
<td>9.3</td>
</tr>
<tr>
<td></td>
<td>2 No</td>
<td>144</td>
<td>89.4</td>
</tr>
<tr>
<td></td>
<td>3 Prefer not to answer</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Employment status</td>
<td>1 Unemployed</td>
<td>24</td>
<td>15.9</td>
</tr>
<tr>
<td></td>
<td>2 Employed Part-time</td>
<td>13</td>
<td>8.6</td>
</tr>
<tr>
<td></td>
<td>3 Employed Full-time</td>
<td>88</td>
<td>58.3</td>
</tr>
<tr>
<td></td>
<td>4 Self-Employed</td>
<td>18</td>
<td>11.9</td>
</tr>
<tr>
<td></td>
<td>5 Prefer not to answer</td>
<td>4</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>6 Retired</td>
<td>4</td>
<td>2.6</td>
</tr>
<tr>
<td>Household income</td>
<td>1 $0.000 —$49,999</td>
<td>60</td>
<td>23.4</td>
</tr>
<tr>
<td></td>
<td>4 $50,000 —$99,999</td>
<td>44</td>
<td>29.8</td>
</tr>
<tr>
<td></td>
<td>6 $100,000 or more</td>
<td>31</td>
<td>20.9</td>
</tr>
<tr>
<td></td>
<td>7 Prefer not to answer</td>
<td>13</td>
<td>8.8</td>
</tr>
</tbody>
</table>

IV.3.1.3. Personal, cultural, and health belief predictors and AHS. Participants were asked to identify if they had delayed treatment due to cultural or health belief differences, and 93.6% (n = 162) stated they had not delayed treatment due to cultural or health belief differences. Regarding recognizing emergent health condition and seeking medical help, 53.1% (n= 85) stated they would go to the emergency room when urgent situation such as chest pain occurred, 20.6% (n=33) stated they would call their primary care provider first, and 10.6% stated they would go to a retail /walk-in clinic. A minority number of participants (6.9%, n=11) stated that
they would call their significant others, such as their spouse, children, or family member, and wait to get advice from them before doing any of the actions above.

Participants were asked to rate their perceived English language proficiency on a four-point scale, *very well, well, not well, not at all*, and if they had any trouble reading health information printed in English. The majority, 58.9% (n = 93) participants rated themselves as speaking very well, and 29.7% (n = 47) rated their English proficiency. Participants who stated they had never had any trouble reading health-related topics printed in English were only 67.7% (n = 107).

Based on the responses, 62.3% (n = 94) were Evangelical Christian followers and 29.8% (n = 45) identified themselves as Ethiopian Orthodox Christian followers. Religiosity was assessed with a proxy variable of the frequency of faith-based institution attendance outside of special events, such as weddings or funerals and 77.1% (n = 118) stated they attend worship houses at least once a week.

**Acculturation and AHS.** To assess the acculturation level of Ethiopian immigrants, African American Acculturation Scale (AfAAS) was used. This instrument was particularly designed for people of African descent and had ten questions with four ordinal choices – *strongly agree, agree, disagree, strongly disagree*, that measures acculturation of African origin immigrants in the United States were used. If a participant responds to all the ten questions, the total possible minimum and maximum scores ranges were from 10 to 40. The higher the acculturation score, the higher the individual’s acculturation status. Data were collected on three domains: media and social preferences and attitudes towards racial preference
(Habesha/Ethiopia). The scale was used with minor modifications on the ethnic description to include Ethiopian/Habesha descriptions for a reason described in Chapter three.

In the media preference domain, participants indicated that 50.3% (n=75) listen most of the time to Ethiopian/Black music. Regarding TV and radio station tuning, 36.2% (n=54) watch Ethiopian/Black TV stations, and 42.9% (n=63) listen to Ethiopian/Black radio stations less than half of the time. Music was not as such defined specifically as spiritual or secular in the instrument.

In the social preference domain, participants were asked about the proportion of Ethiopian/Black friends at different levels of social gatherings, and close to half, 48%, n=72, stated most, or all their friends were Ethiopians/Blacks. However, the percentage appeared being higher in worship house/church, 82.7% (n = 124), and in parties they attend, 62.9% (n=90) than the friends 48% (n=72). Similarly, 58.7% of the participants stated less than half of their neighbors were Ethiopians/Blacks.

### Table 5: Descriptive Data of Acculturation of Ethiopian Immigrants using AfAAS

<table>
<thead>
<tr>
<th>Response →</th>
<th>N</th>
<th>Most or All/Strongly Agree (% Yes)</th>
<th>Agree (% Yes)</th>
<th>About Half Disagree (% Yes)</th>
<th>&lt; Half Strongly Disagree (% Yes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Prefer Black Media</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td>149</td>
<td>75</td>
<td>50.3</td>
<td>34</td>
<td>22.8</td>
</tr>
<tr>
<td>Television</td>
<td>149</td>
<td>22</td>
<td>14.8</td>
<td>32</td>
<td>21.5</td>
</tr>
<tr>
<td>Radio</td>
<td>147</td>
<td>24</td>
<td>16.3</td>
<td>24</td>
<td>16.3</td>
</tr>
<tr>
<td>Proportion of Blacks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends</td>
<td>150</td>
<td>72</td>
<td>48</td>
<td>51</td>
<td>34</td>
</tr>
<tr>
<td>Church</td>
<td>150</td>
<td>124</td>
<td>82.7</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Parities</td>
<td>143</td>
<td>90</td>
<td>62.9</td>
<td>32</td>
<td>22.4</td>
</tr>
<tr>
<td>Neighborhood</td>
<td>150</td>
<td>9</td>
<td>6</td>
<td>17</td>
<td>11.3</td>
</tr>
</tbody>
</table>
In the third domain of attitudes towards ethnicity, participants were asked if they agree with a statement that states Blacks/Ethiopians should only marry Blacks/Ethiopians, and 36.5% (n=54) agree about half of the time with this statement. Of those who responded to this question (n=148), 29.1% (43) agrees Blacks/Ethiopian should only marry Blacks/Ethiopians. This response was somewhat evenly distributed over the five responses, from most or all the time/strongly agree to less than half of the time or strongly disagree scale. Only 16.9% (n=25) strongly agree that Ethiopians/Blacks should only marry Ethiopians/Blacks.

<table>
<thead>
<tr>
<th>Table 6: Descriptive Data of Acculturation of Ethiopian Immigrants using AfAAS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attitudes towards</strong></td>
</tr>
<tr>
<td>Less at ease with Whites</td>
</tr>
<tr>
<td>Rely mainly on relatives</td>
</tr>
<tr>
<td>Blacks should only marry</td>
</tr>
</tbody>
</table>

Within the social domain, of the 147 participants who responded to a question that asks if they agree with feeling at ease with Whites, 42.9% (n=63) responded that they agree or strongly agree with this statement, while 57.1% (n=84) half or strongly disagree with the statement. Participants were also asked if they agree with the statement that asked if they rely mainly on

<table>
<thead>
<tr>
<th>Table 7: Acculturation AfAAS, (N=152)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acculturation Score Range 10 - 40</td>
</tr>
<tr>
<td>Less Acculturated &gt;10 ≤ 20</td>
</tr>
<tr>
<td>Acculturated &gt;20 ≤ 30</td>
</tr>
<tr>
<td>Highly Acculturated &gt; 40</td>
</tr>
</tbody>
</table>
relatives when they need help, and 66.4% (n=99) responded as they either agree or strongly agree with this statement, they rely on family members for help. In summary, close to 3/4th of the sample self-identified as acculturated or highly acculturated demonstrating that the sample pool was uncharacteristic of what the study was targeting to see.

In summary, the acculturation instrument, AfAAS, demonstrated that nearly three-fourth of the participants were acculturated or well acculturated, nearly half agree or strongly agree that Ethiopians/Black should only marry Ethiopians/Blacks, nearly half had Ethiopian/Black friends, and lived in neighborhoods where less than half were Ethiopians/Blacks.

**IV.3.2. Health service utilization (HSU).**

The HSU variable was an outcome variable used to measure the degree of health service utilization of Ethiopian immigrants. This outcome variable was an important measure to understand the health practices of Ethiopian immigrants and was further examined using the crosstab function to investigate if any association exists between HSU and the demographic, structural, financial, and personal predictors and attempted to understand the health behavior of the participants in the study.

To assess the related predictors and this outcome variable descriptively, participants were asked questions on the number of times they visited a health professional scheduled or unscheduled, urgent, or non-urgent, and whether it is for primary or specialty care needs in the past 12 months. The HSU variable was transformed into a variable with three choices - never, one time, and more than one time for simplicity of analysis. Of the 182 participants who responded to these questions, 27.5% (n=50) stated they never went to any health provider during
this period, 31.9% (n = 58) stated they visited one time, 40.7% (n = 74) stated they visited they used the health service more than one time in the past 12 months.

In a similar survey question to assess the frequency of urgent care clinic use, survey participants were asked how many times they had visited urgent care clinics in drug or grocery stores. Most of them, 57.8% (n=92) stated they never visited, 28.9% (n=46) stated they visited 1-3 times, and 6.2% (n=10) stated they visited greater than three times in the past 12-month period. In another question, participants were asked how many times they visited Emergency Room (ER) about their health in the past 12 months, and respondents stated 82.1% (n = 133) they never went to the ER, and 1.4% (n=22) stated they went 1-3 times in the past 12 months.

In examining cost as a potential barrier to HSU, participants were asked if there was a time that they needed medical care and never got it because of cost. Ninety three percent (n = 15) stated "Yes," but most of the participants (89.4%, n=144) stated that there was not any time that they needed help but did not get healthcare service because of cost.

Participants were asked to select three top reasons to postpone medical care before the COVID-19 pandemic. Of the 183 participants who responded to this question, 10.4% (n=19) stated "distance to the provider's office," 24.6% (n =45), stated "wait times at the provider's office," 10.9% (n = 20) stated lack of respect by the provider or staff at the clinic, 42.1% (n = 77) stated they're given an appointment at an inconvenient time, 23% (n =42) stated the provider does not take their insurance and 3.8% (n = 7) stated the provider does not speak my language, were all possible reasons why they would postpone they medical care at the providers office. Co-pay/co-insurance payment was reported as a reason by 15.8% (n = 29) of the participants, and
6.6% (n = 12) stated one of the top three reasons that prevent them from seeking medical care was that they did not want to find out what they called it ‘the unknown’ about their health.

IV.3.3. Health Seeking Behavior (HSB)

Participants were asked to rate their health status in the past 12 months and what they would do when sick when describing predictors in this section. Of the 208 participants who responded to these questions, 83% (n = 151) stated that they rate their health as excellent, 21.6% (n = 45) stated their health status as fair, and 1.9% (n = 4) rated their health as poor. When asked what their first action they would take when ill or develop potential lethal symptoms such as chest pain, 53.1% (n = 85) stated they would go to the nearest ER, 20.6% (n = 33) stated they would call and schedule an appointment at their PCP office, 10.6% (n = 17) stated they would go to walk-in clinics or urgent centers, and 6.9% (n = 11) stated they would first call their family members (spouse or children). The remaining 8.8% (n = 14) stated they would call their religious leader for prayer and in the meantime, self-medicate with over the counter or herbal medicines.

COVID-19 Related Health Behavior Changes. To explore and examine if Ethiopian immigrants modified their health behavior due to the COVID-19 pandemic, six survey questions were administered. The quantitative survey result demonstrated that 72.9% (n = 153) stated they practice social distancing and limit their social gathering, which was commonly practiced in faith-based communities, 70% (n = 153) stated they wash their hands more often than before, 65.7% (n = 138) stated they always wear a mask whenever out in public spaces, 63.3% (n = 133) stated they stopped handshaking and hugging friends when they greet, 56.2% (n = 118) stated when they go to grocery stores, the first clear grocery carts before touching, and 28.6% (n = 60) respondents stated they closely watch other people what they do with their hands. Few
respondents (5.7%, n=12) selected the response “other” and wrote down some important health
behavioral changes, such as washing down and disinfecting groceries before putting them away
and limit their outdoor activities.

**IV.4. Research Questions (RQ)**

Six empirical research questions guided this quantitative research study. The research
questions (RQ) are listed below as RQ1-5, together with the corresponding statistical analyses.
The survey questions 3, 4, 5, 7, 8, 9, 12, 14, 16, 17, 18, 21, 23, 28, 31, 33, 34, 36, 49, 50, 53-62,
72, were used to further analyzed the main predictor variables association with AHS. A cross-
tabulation of the AHS variable and the predictors was performed to look for any relationship.

Further analysis was performed using Chi Square to assess if significance variation exists
between variables. In scenarios where the analysis resulted in more than zero expected cells, and
a Fisher’s exact was resulted, the Fisher’s exact result was used to examine the relationship
between the variables. Unless otherwise specifically indicated in a specific variable analysis,
column percentages were used throughout the analyses with outcome variables positioned on the
columns and predictor variables positioned on rows. When the row percentage is used, it would
be specified as such in the analysis. The results for the 2x2 crosstab are also summarized in
Table 8 below and in Appendix L.

**IV.4.1. What are the factors that influence access to healthcare services (AHS) for
Ethiopian immigrants?**

**IV.4.1.1. Delaying or postponing medical care due to lack of insurance coverage.**

A cross tabulation was performed to assess relationship between delaying or postponing
medical care due to lack of insurance and the outcome variable access to healthcare services
(AHS). The Fisher’s exact test demonstrated that there is an association between delaying or postponing medical care due to lack of insurance coverage and AHS, \( p = 0.009 \). Specifically, the analysis indicated that 7.9\% (\( n=13 \)) of those who had access to a usual source of care stated they had delayed their medical care due to lack of insurance in the past 12 months, in comparison to 33.3\% (\( n=5 \)) of those who did not have access to a usual source of care.

**IV.4.1.2. Delaying or postponing medical care due to Appointment unavailability**

A cross-tabulation was performed between previous incidents of delaying or postponing medical care due to lack of appointment availability at the participant’s usual source of care to assess if availability of appointment affects participants access to healthcare services (AHS). Fisher’s Exact test indicated that there is no relationship between delaying or postponing medical care with appointment unavailability, \( p=.310 \). Overall, 17.2\% of participants (\( n = 29 \)) reported having to delay or postpone care due to appointment unavailability. This was not different for those with a usual source of care (14.8\%) or those without (23.5%).

**IV.4.1.3. Delaying or postponing medical care due to length of time to make appointments.** Fisher’s Exact test was conducted to examine the relationship between the time it took for non-urgent appointment and access. The result shows that length of time to schedule a non-urgent appointment was significant for having access, \( p=0.031 \). The most frequent length of time among those who had a regular place to go (AHS) was less than a week (74.9\%, \( n=125 \)). The remaining 25.1\% (\( n=42 \)) stated it took them two or more weeks to make a non-urgent appointment. Of those who stated they had no regular place to go when sick, 46.7\% (\( n=7 \)) stated it took them less than a week, while 53.3\% (\( n=8 \)) stated it took them more than two weeks to make a similar non-urgent appointment.
Similarly, Fisher’s Exact test was conducted to examine the relationship between the time it took for urgent appointment and AHS. The result shows that length of time to schedule urgent appointment was significant with having access, p=0.007. The most common length of time it took to schedule an appointment for urgent needs among those with access (n=165), was less than a week (97.6%, n=161). The most common length of time it took to schedule an appointment for urgent needs among those without access (n=12) the was less than a week (75%, n=9).

Chi-square was conducted to test association between length of time it took participants to make specialty appointment with having or not having usual source of care and result was significant, $\chi^2 (1, N=174) = 3.089$, p=0.079. The analysis also revealed that the most common length of time it took to make specialty appointments for 54.6% (89) of those who had usual source of care, and 27.3% (n=3) of those who did not have a usual source of care, was less than two weeks.

**IV.4.1.4. Delaying or postponing medical care due to Lack of Transportation.** Access to healthcare services and lack of transportations were examined to determine if lack of transportation had influence in accessing their usual source of care or was a reason to delay or postpone medical care. Fisher’s exact analysis indicated that lack of transportation was not related to participants’ delaying or postponing their medical care at their usual source of care, p=.327. Overall, 2.2% ($n = 4$) of participants delayed medical care because of lack of transportation. This was not different for those with a usual source of care (1.8%) or those without usual source of care (5.9%).
Examination of the mode of transportation used by participants showed that vast majority (87%, n=160) of participants drove to their appointments. Of those who have usual source of care (n=167), 88% (n=147) drove to their appointment while of those who did not have access to usual source of care (n=16), 75% (n=12) also stated they drove to their appointments. The remaining on both categories (those who did and did not have usual source of care) stated they used ride from their family members or different source of transportation such as Uber, taxi or walking to get to appointments.

**IV.4.1.5. Language and interpreter need.** English Language Proficiency (ELP) was a predictor used to assess if language was a barrier for individuals to access healthcare services. This ordinal variable had four levels (very well, well, not well, not at all) and was transformed into a binary variable by combining 'very well' and 'well' as one category, "no ELP barrier’ and the other two choices, ‘not well’ and ‘not at all’ categorized as ‘have ELP barrier’. Fisher’s exact test was conducted to assess ELP and Access (AHS) relationship, and the result showed there was association between ELP and access (p = 0.045), indicating language was influencing factor for establishing usual source of care. Further examination of the respondents showed that, of those who speak well or very well English (n=139), 93.5% (n=130) have usual source of care while 6.5% (n=9) did not have a usual source of care, indicating higher percentage of participants with no ELP barrier had established usual source of care.

**IV.4.1.6. Employment Status and Access to Healthcare Services.** When a 2x2 crosstab analysis was conducted to examine employment status and a regular place to go or usual source of care, Fisher’s Exact test did not demonstrate significance between employment status and AHS (p=.223). Further data analysis showed that, 67.6% (n=94) of those who have access to a
regular place to go were employed either part-time or full time, 14.4% (n=20) were unemployed, and 12.2% (n=17) were self-employed. Similarly, of those who did not have access to usual source of care, 60% (n=6) were employed part time or full time and remaining were unemployed.

IV.4.1.7. Education Level and AHS. Spearman’s rank-order correlation was conducted to determine the relationship between education level and access (AHS) and it demonstrated no correlation ($r_s (150) = .089, p = .139$) with AHS in this sample. Assessing the relationship of education level and health access, the analysis showed that 61.3% (n=92) had a bachelor's degree or higher, and they were employed/self-employed part-time or full time.

IV.4.1.8. Income & AHS. A Chi Square analysis was conducted to examine relationship between income and AHS variables and the result demonstrated that there was a significant association between household income and health access $\chi^2 (1, N=208) = 5.146, p =0.023$, Further examination of the result showed that while close to two-third (62.1%, n=118) had annual household income <$50,000, and the remaining one third (37.8%, n=72) had a household income of $50,000. The national median income level in 2019 was $68,703, in 2019.

Participants were also asked if they have delayed their needed medical care due to cost to evaluate if cost was a prohibitive factor in establishing usual source of care. Fisher’s exact did not demonstrate that there is an association between cost and establishing usual source of care, p=0.130.

IV.4.1.9. Immigration Status and AHS. A Fisher’s Exact was conducted to examine if there was an association between immigration status and health access variable (AHS). Fisher’s Exact demonstrated significance (p=.005) between these two variables, indicating the
participants’ immigration status did impact their access to healthcare services. Further examination of the data indicated that 97.8% (n=136) of those who had access to usual source of care were either US citizens (naturalized or first generations US born citizens) or permanent residents.

**IV.4.1.10. Delay in medical care due to cultural/health belief difference and AHS.** Access to healthcare services and cultural or health belief differences as a predictor was examined for the association between access to a regular place to go (AHS) and participants' health or cultural belief. Fisher’s exact test was conducted to examine if there was any association between those who delayed their healthcare need due to their cultural or health beliefs and their access to healthcare services (AHS). The result demonstrated that there was no significant relationship between culture/health belief and access to healthcare services, p=0.199. Of those who have a regular place to go (n=158), most, 82.5% (n=149), stated that they never delayed healthcare treatment at a regular doctor's office due to their cultural difference.

**IV.4.1.11. Acculturation and AHS.** Acculturation was measured using the AfAAS instrument and two additional proxy variables, Length of Residence in the United States (LOR) and English Language Proficiency (ELP). A Chi-square for independence test $\chi^2 (1, N=151) = 17.888, p<.000$, demonstrated that there was a significant association between acculturation scores from AfAAS instrument and having a regular place to go for healthcare access (AHS). A total of 151 participants answered the set of the 10 acculturation survey questions in the AfAAS instrument. Among the 110 participants classified as either moderately or well acculturated, 74.3% (n=104) indicated they had access. In contrast, among the 41 participants classified as not well acculturated, only 25.7% (n=36) reported having access.
Additionally, an examination of the relationship and effect of number of years leaving in the United States (LOR) and AHS was conducted to evaluate if participants length of residence in the United States had any influence on their access to healthcare services. Fisher’s Exact showed that LOR had significant association (p=.002) with access with AHS. Detailed analysis showed that of those 139 participants who have access to healthcare services, 82% (n=114) lived more than 20 years, as compared to those only 36.4% (n=4) of the 11 participants who did not have access, lived more than 20 years in the United States.

English Language Proficiency was also analyzed to demonstrate its association with having a usual place to go for participants. Fisher’s Exact test demonstrated that ELP also had significant (p=.025) association with having access to health care services (AHS). The analyses demonstrated that acculturation, as measured by AfAAS instrument and with the proxy variables, LOR and ELP, both showed relationship with establishing usual source of care in this study.

In summary, RQ1 examined several factors that were hypothesized to influence access to healthcare services (AHS) in Ethiopian immigrants. The analyses demonstrated that delaying care due to insurance coverage, length of time to schedule non-urgent and urgent appointments, English Language Proficiency and Length of Residence in the United States were factors influencing their access to healthcare services. The result also demonstrated that household income and acculturation were significant factors that influenced access to healthcare service among the Ethiopian immigrants in this study. The result of this research question also demonstrated that appointment unavailability lack of transportation access, length of time it took to schedule specialty care appointments, employment status, education level, immigration status, and cultural or health belief differences, were not associated factors with establishing usual
source of care (AHS). The second research question examined factors influencing health service utilization and result is presented below.

**Table 8: Access to Healthcare services & Predictors**

<table>
<thead>
<tr>
<th>(AHS) Do you usually have a regular place to go when you are sick?</th>
<th>Yes</th>
<th>No</th>
<th>Statistic</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Delayed or postponed medical care due to Lack of insurance Coverage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>13</td>
<td>7.9%</td>
<td>5</td>
<td>33.3%</td>
</tr>
<tr>
<td>No</td>
<td>152</td>
<td>92.1%</td>
<td>10</td>
<td>66.7%</td>
</tr>
<tr>
<td>Total</td>
<td>165</td>
<td>100%</td>
<td>15</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Have you delayed getting medical care due to no appointment available?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>1.8%</td>
<td>1</td>
<td>5.9%</td>
</tr>
<tr>
<td>No</td>
<td>162</td>
<td>98.2%</td>
<td>16</td>
<td>94.1%</td>
</tr>
<tr>
<td>Total</td>
<td>165</td>
<td>100%</td>
<td>17</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Time to make Urgent Appointment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 1 week</td>
<td>161</td>
<td>97.6%</td>
<td>9</td>
<td>75%</td>
</tr>
<tr>
<td>≥ 2 weeks</td>
<td>4</td>
<td>2.4%</td>
<td>3</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td>165</td>
<td>93.2%</td>
<td>12</td>
<td>6.8%</td>
</tr>
<tr>
<td><strong>Time to make Non-Urgent Appointment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 1 week</td>
<td>125</td>
<td>74.9%</td>
<td>7</td>
<td>46.7%</td>
</tr>
<tr>
<td>≥ 2 weeks</td>
<td>42</td>
<td>25.1%</td>
<td>8</td>
<td>53.3%</td>
</tr>
<tr>
<td>Total</td>
<td>167</td>
<td>91.8%</td>
<td>15</td>
<td>8.2%</td>
</tr>
<tr>
<td><strong>Time to make Specialty Appointment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 1 week</td>
<td>89</td>
<td>54.6%</td>
<td>3</td>
<td>27.3%</td>
</tr>
<tr>
<td>≥ 2 weeks</td>
<td>74</td>
<td>45.4%</td>
<td>8</td>
<td>72.7%</td>
</tr>
<tr>
<td>Total</td>
<td>163</td>
<td>93.7%</td>
<td>11</td>
<td>6.3%</td>
</tr>
<tr>
<td><strong>Have you delayed getting medical care due to no transportation?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>1.8%</td>
<td>1</td>
<td>5.9%</td>
</tr>
<tr>
<td>No</td>
<td>162</td>
<td>98.2%</td>
<td>16</td>
<td>94.1%</td>
</tr>
<tr>
<td>Total</td>
<td>165</td>
<td>100%</td>
<td>17</td>
<td>100%</td>
</tr>
</tbody>
</table>

IV.4.2. RQ2. What are the factors that influence the Health Service Utilization (HSU) of Ethiopian immigrants?

The primary question used to assess the frequency of HSU was NHIS utilization survey question which asked: "During the past 12 months, how many times did you see a doctor or
other healthcare professional about your health at a doctor's office, clinic, hospital emergency room, including visits that resulted in a hospital admission?" A simple frequency of the participants on this question was noted. Of the 182 participants who responded to this question, 27.5% (n=50) never visited a provider in the past 12 months, 31.9% (n=58) visited providers one time, 40.7% (n=74) visited more than two times in the past 12 months.

IV.4.2.1. Appointment availability and HSU. The structural predictor availability of appointments was examined to see if it affects the Ethiopian immigrants' HSU in the study. A Fisher’s exact test did not show any association between appointment availability and HSU, p=1.000. Of 181 participants who stated they used health services more than one time in the past 12 months, 85.6% (n=155) stated they never delayed their medical care because they could not get an appointment.

IV.4.2.2. HSU and length of time to schedule non-urgent, urgent, and specialist care visits. The frequency of time it took to schedule non-urgent, urgent, and specialty appointments were assessed using a Fisher’s Exact analysis to examine the association of HSU and the length of time it took to schedule a non-urgent, and urgent, and specialty appointment. There were no significant observed association between the time it took to schedule non-urgent appointment, (p=0.761), urgent appointment (p=1.000) and specialty appointment (p=0.432) and HSU.

IV.4.2.3. Lack of insurance coverage and HSU. To assess the lack of insurance coverage and HSU, a crosstab analysis was performed for the outcome variable HSU and the predictor variable, delay due to a lack of insurance coverage. A Chi-square test for independence was conducted and was not significant $\chi^2$ (1, N=181) = .687, p = 0.407 for an association between delay due to insurance and HSU. The data analysis further demonstrated that 27.6%
(n=50) never utilized health services in the past 12 months and only 12% (n=6) of these delayed their healthcare utilization due to lack of insurance coverage.

**IV.4.2.4. Lack of Transportation and HSU.** In the previous section, we have seen a lack of transportation and access to health services. However, in analyzing lack of transportation and HSU, Fisher’s exact did not demonstrate significance for any association between these two variables, \( p=1.000 \), indicating utilization of the healthcare service was not affected by the lack of transportation in the presence of access to health services.

**IV.4.2.5. English Language Proficiency (ELP) and HSU.** English language proficiency was also assessed to examine as a barrier to health service utilization. A Fisher’s exact test show significant association between ELP and HSU, \( p=0.034 \). Of the 138 participants who stated they did not have English language proficiency, 97.1% (n=134) stated they never utilized health services in the past 12 months. Conversely of those participants who stated they had limited English language proficiency, 83.3% (n=15) never utilized health services in the previous 12 months.

**IV.4.2.6. Acculturation and HSU.** Examination of the association between acculturation and HSU using Fisher’s exact test was conducted and result demonstrated that there was no association between acculturation and HSU, \( p=0.062 \). The acculturation scale demonstrated that 72.8% (n=110) participants were moderately or well acculturated and 74.3% (n=104) of these never used healthcare services in the previous 12 months.

**IV.4.2.7. Employment Status and HSU.** Employment status was another predictor variable that was examined against healthcare service utilization. For simplicity of analysis, the variable employment status was dichotomized grouping those who were employed (full time,
part time or self-employed) and those unemployed, retired or did not want to respond to this question were grouped together. A Fisher’s exact test demonstrated there was no association between employment status and HSU, p=1.000. Of 119 participants who were employed full time, part time or were self-employed, 86.6% (n=103) never utilized healthcare services in the previous 12 months, while of those who were unemployed, retired or didn’t want to respond for this particular question (n=32), 87.5% (n=28) also never used healthcare services in the previous 12 months.

**IV.4.2.8. Immigration Status and HSU.** The study also assessed health service utilization and immigration status to identify any associations between these two variables. A Fisher’s exact test demonstrate no association between immigration status and HSU, p=1.000.

**IV.4.2.9. Cultural/health belief difference, and HSU.** Health service utilization was examined with cultural and health beliefs predictor to assess if HSU was affected by individuals' health practices and previous experiences. A Fisher’s exact test was conducted to test for any association between culture or health belief and HSU, and there was no significant association, p=1.000. The analysis indicated that the majority (93.6%, n=162) did not delay their healthcare treatment due to their cultural or health beliefs.

Respondents were also asked about religious practices such as frequency of church, mosques, or any other worship house attendance aside from weddings, funerals, or special events. Fisher’s Exact test was conducted to assess for relationship between religious practice and health service utilization and the result did not demonstrate religiosity or religious practices was a factor, p= 0.250, in influencing health service utilization among this population.
IV.4.2.10. Length of Residence (LOR) in the United States and HSU. The LOR and HSU variables were dichotomized for analysis. LOR was divided into two categories as those who lived in the United States 0-10 years and >10 years. A crosstab analysis conducted between these two dichotomized variables and Fisher’s exact test demonstrated no association between LOR and HSU, \( p = .769 \). Of the majority of the respondents, (78.8%, \( n = 119 \)), who lived in the United States for more than 10 years, 87.4% (\( n = 104 \)) never utilized healthcare services in the previous 12 months.

IV.4.2.11. Acceptability of care measured by change in usual source of care.

Participants were asked to respond if they have changed their usual source of care in the past 12 months. If participants responded they changed their usual source of care in the previous 12 months, they were further asked to indicate the reason why they changed their usual source of care. While 9.7% (\( n = 20 \)) stated they changed their usual source of care, only 15 responded to the follow up question that asked reasons for changing their usual source of care. Of the 15 participants, the majority, 53.3% (\( n = 8 \)) stated they lost their insurance, or the provider was not in their insurance network and therefore, they changed their usual source of care. Other reasons such as, clinic was far (6.7%, \( n = 1 \)), provider moved from previous location (13.3%, \( n = 2 \)), participant moved from the area (13.3%, \( n = 2 \)), and other reasons (13.3%, \( n = 2 \)) were given by respondents. Fisher’s Exact test for association between recent changes in usual source of care and health utilization was conducted and result demonstrated that there was no association between participants changing their usual source of care and the frequency of their health service utilization, \( p = 1.000 \).
IV.4.2.12. First action when sick. First action when sick was examined with Health service Utilization frequency to demonstrate if participants first action when either themselves or one of their family members become sick, what they would have done. Chi square for independence test demonstrated that there is association, $\chi^2 (1, N=173) = 5.249, p=.022$, between the first action participants commit when they are sick and the frequency of health care service utilization. Of those who utilized healthcare services at least once in the previous 12 months (n=12), 83.3% (n=10) did not prefer seeking Emergency Department (ED) care when they had life threatening health issues, such as chest pain.

In summary, among factors affecting the HSU of Ethiopian immigrants, English Language Proficiency (ELP), time to schedule specialty appointment, acculturation to the American lifestyle and how long the participants lived in the United States (LOR) were influencing factors in utilizing healthcare services. Other factors examined in this study with HSU were mode and availability of transport, insurance coverage, appointment availability, time to schedule urgent and non-urgent appointments, employment and immigration statuses, and cultural beliefs. These factors were not significantly influencing factors in the HSU of the participants.

IV.4.3. RQ3. What are the factors that influence the Health-Seeking Behavior of Ethiopian Immigrants?

IV.4.3.1. First action when sick. As described in the previous section, the Chi square for independence test demonstrated significance $\chi^2 (1, N=181) = 5.249, p=.022$, that there was a relationship between what the participants’ first action would have been and their HSU frequency. This health seeking behavior patter further indicated also that almost half of the
participants (48.6%, n=84) would prefer to go to ED, regardless of their HUS habits, when they perceived emergent life-threatening health issues, such as chest pain. However, more than half (51.4%, n=89) stated they would do other things, such as take over the counter medications or speak to family members than going to ED.

**IV.4.3.2. Pre-immigration health beliefs and health behavior.** A Fisher’s exact test was conducted to test for any association between HSU and health belief, which was a proxy variable for determining pre-immigration health behavior or belief and health practice. The result demonstrated that there was no significant association, between health belief and HSU, p = 489, explaining that health beliefs, such as pre-immigration health practices, were not factors for the participants in this study in determining frequency of health behavior.

**IV.4.3.3. Frequency of unscheduled and scheduled visits.**

Participants were asked frequency of unscheduled visit to urgent care center or a clinic in a drug store or grocery store about their health. Chi square was conducted to examine the association of unscheduled visits and frequency of HSU and the analysis demonstrated there was no association between unscheduled appointments and HSU χ² (1, N=210) = 2.531, p=.112. and 43.8% (n=92) stated they never visited these healthcare retail stores, while 56.2% (n=118) stated they visited these healthcare retail stores at least once in the previous 12 months. Frequency of scheduled appointment was assessed in the previous section using HSU variable and 87.11% (n=183) never utilized healthcare services in the previous 12 months.

**IV.4.4. RQ4. What is the association between self-rated health status and HSU among Ethiopian immigrants?**
IV.4.4.1. Self-rated health status. To examine this construct, participants were asked a behavioral-based question focused on measuring health behavior attributes, such as first actions when sick, perception of their health, and frequency of health service utilization. Fisher’s Exact test for association between self-rated health and HSU was examined and the result demonstrated that there was no significant relationship between these two variables, p=0.761.

While this measure was not significant, most of the respondents, 72.3% (n=120), rated their health as excellent, while 20.5% (n=34) rated their health as fair, and 2.4% (n=4) rated their health as poor. There were 4.8% (n=8) individuals who stated they do not know about their health status.

IV.4.5. RQ5. What is the relationship between acculturation, HSB, and HSU among Ethiopian immigrants?

To examine association of acculturation, HSB and HSU, the scores from AfAAS were analyzed using Spearman’s rho correlational and Chi square analyses. A Spearman’s rho analysis between acculturation and HSU variables was conducted to examine the association between frequency and health service utilization trends and acculturation to the United States culture. The result found weak correlation between HSU and acculturation, $r_s (152) = .167, p < .040$), indicating HSU in this group was influenced by their acculturation status. Of those participants who used health services more than one time, 62.9% (n=39) had an acculturation score of 20-30, which indicated moderately acculturated status.

As described in the previous section, two predictors were used previously to assess health behavior: first action when sick and delay of treatment due to cultural or health belief differences. A crosstab analysis between the predictor first action when sick and acculturation
level was conducted and showed no significance, $\chi^2 (14, N=150) = 20.301, p<.121$. The Chi-square analysis between acculturation status and HSB also showed no significant relationship, $\chi^2 (4, N=151) = 4.206, p<.122$.

Beside the AFAAS instrument to measure acculturation, ELP and Length of Residence in the United States (LOR) were also used as proxy variables used to assess acculturation. The variables used to measure Health Seeking Behaviors were aggregates of trends in behaviors to seeking health, such as frequency of annual scheduled visits, first action when sick, and activities related to follow up, as discussed previously. Chi-square test for independence failed to demonstrate there was a statistically significant association between LOR and HSU, $\chi^2 (4, N=151) = 4.206, p<.122$.

English Language Proficiency (ELP) was also assessed on four ordinal level measurements as very well, well, not well, and not at all. Well and very well were coded as Proficiency in English language and not well and not at all were coded as limited ELP. Association using crosstab between ELP and HSU was examined. Spearman’s rho test indicated that a weak negative correlation existed between ELP and acculturation, ($r_s (152) = -.195, p = .016$).

While further analyzing the data, it was found that of 1580 participants who responded to the ELP question, 88.6% (n=140) stated they have perceived English language proficiency, and 11.4% (n=18) stated having limited English language proficiency. Of 140 participants who responded that they are proficient in the English language, 28.6% (n=40) were proficient in the English language but reported that they never used health service in the past 12 months, while
27.5% (n=5) reported they have limited English language proficiency and never used health care service in the past 12 months.

In summary, the analyses demonstrated that there was a correlation between the frequency of health service utilization and the ELP. However, the predictor LOR did not demonstrate any association with HSU, indicating the length of years Ethiopian immigrants lived in the United States was not a factor that influenced the Health Service Utilization among the study participants.

**IV.4.6. RQ6.** What is the influence of the current COVID-19 pandemic on the HSB and HSU of Ethiopian immigrants?

To explore and examine if Ethiopian immigrants modified their health behavior due to the COVID-19 pandemic, six survey questions were administered. The quantitative survey result demonstrated that 72.9% (n=153) stated they practice social distancing and limit their social gathering, which was commonly practiced in faith-based communities, 70% (n=153) stated they wash their hands more often than before, 65.7% (n=138) stated they always wear a mask whenever out in public spaces, 63.3% (n=133) stated they stopped handshaking and hugging friends when they greet, 56.2% (n=118) stated they clean grocery carts before touching, and 28.6% (n=60) respondents stated they closely watch other people what they do with their hands. Few respondents (5.7%, n=12) selected the response "other" and wrote down some important health behavioral changes, such as washing down and disinfecting groceries before putting them away and limit their outdoor activities.

According to the findings using this research question, COVID related HB adaptations during the pandemic's initial phase was noticeable. However, these adopted HBs appear to erode
slowly, returning to usual baseline behaviors. Continued reinforcement and health education are recommended to help maintain behavioral change. Further research is needed to explore if the observed pandemic related HBs continue to shape the community’s HSU behaviors.

**IV.5. Qualitative Analysis**

In the next several pages of this report, I described how the qualitative portion of this study was conducted and analyzed. Findings from this study were triangulated to provide an overall interpretation of the complete study in Chapter 5.

The purpose of the qualitative portion of the study was to explore the role faith and community leaders play in influencing the health behavior of their members. The qualitative study setting, sample, participant recruitment procedure, data collection and analysis were described in detail throughout this section.

**IV.5.1. Research Question (RQ7).** The 7th research question (RQ7) was the lead investigational query for this portion of the study: “*What is the role of community & religious leaders in influencing the HSB of their community members and/or congregants?*”

**IV.5.2. Setting and sample.** The FGDs sample recruitment was initiated after speaking with the main informants who were also faith and community leaders, and they recruited other leaders within their organization. A total of 43 leaders were recruited from 7 faith and community organizations and each group had 5-7 members. The FGDs were deliberately made to be homogeneous (from the same faith institution or community association) for convenience and ease of discussing freely some of the sensitive topics such as the relationship of health and their faith as it relates to influencing the health behavior of their congregants/members.
IV.5.3. Data collection. Each FGD started with the introduction, the research purpose, and introduction of participants around the virtual room. Verbal informed consent was obtained from each participant, and upon participants agreement, voice recording of the discussion was started. The FGDs were conducted mainly in. Using open ended questions on Access to Health Service (AHS), Health Service Utilization (HSU) and on the role faith and community leaders in informing the congregants’ HSB, participants were asked to respond as they understand the question. Responses were recorded using computer voice recording functionality and were saved in UWM one drive. Once the recordings were transcribed and translated, the English translation transcript was uploaded to MAXQDA2020, a qualitative data analysis software purchased for this purpose. Data was analyzed using multistep coding process, which is thoroughly described in the qualitative data analysis section below.

IV.5.4. Data Analysis. As described above, all FGDs were voice recorded using the audio recording functionality in a laptop, that is secured all the time with password. The voice recording was retrieved for transcription and translation. All the FGD voice recordings were transcribed from August 8th to August 30th, 2020. The recordings were transcribed verbatim and confirmed by two other fluent English and Amharic speaking individuals who assisted the investigator in the translation. The translation was reread more than three times to ensure the accuracy of the reflection of all what was discussed in the FGDs. Once the accuracy of the transcription and translation was confirmed, the data was uploaded into the latest version of MAXQDA2020 qualitative data analysis software. Using this software, initial and subsequent detail coding was completed, and several common themes were identified. Several vignettes were identified and mapped to the common themes to substantiate the themes. Findings were
analyzed and grouped in themes for reporting. The following illustration shows the process and steps of the qualitative data analysis.

**Figure 5: Qualitative data analysis process**

While the primary focus of the FGDs was examining the role of faith and community leaders in influencing the health behavior of their congregants, the discussion was also extremely important to capture some of the untold stories among the community. It helped to capture concepts that were not necessarily explained in the quantitative survey. The discussion questions were methodically aligned to fit the survey questions and were focused on access to healthcare, health-seeking behaviors, health service utilization, to explore the leaders’ personal
understanding of these concepts, but also to explore their role in influencing their congregant’s health behavior. Participants were finally asked what actions or measures they would take going forward to tackle the problems that were reported in the discussion.

Since the research was implemented during the COVID-19 pandemic crisis, questions related to the pandemic were also added to study the health HSB changes of participants. Several important pandemic related health behaviors were identified from participants. Leaders discussed the modifications they implemented in their congregation to continue fellowship with the members. Community leaders also discussed alternative ways that they instituted to continue to run the association’s business in the context of the pandemic.

As alluded in this section above, the research question for the qualitative study was “What is the role of community & religious leaders in influencing the HSB of their community members and/or congregants?” While the research question was mainly directed to assess the role community and faith leaders play in the health behavior of their congregants, participants were highly engaged and discussed several aspects of their own health practice and health behavior with added contrast to how they understand complete health.

The primary focus of the qualitative research was to add further clarification to, and the data collected from the quantitative survey and strengthen the findings, as prescribed by the design, convergent parallel mixed method. However, besides answering the main research question posed above, multiple open-ended questions were asked and discussed under each research domain, Access to Health Services (AHS), Health Seeking Behavior (HSB) and Health Service Utilization (HSU) and provided additional data. This data was triangulated with the
quantitative survey results and interpreted later in the discussion chapter. The following themes were identified during the focus group discussions (FGDs).

**IV.5.5. FGDs themes** - factors influencing AHS, HSB and HSU. As an introductory and engagement question, the FGD participants were asked to discuss how they relate the teachings of their faith with attaining "complete health," in spiritual, mental, physical, and social areas among their congregants. Subsequently, exploratory, prob, and follow-up questions were asked to get further clarifications of responses. The most common themes identified in this category of HSB, and HSU were lack of information about the US health system, lack of knowledge about common acute and chronic diseases and their sequelae, pre-immigration (a priori) health practices such as lack of preventative health practices, health beliefs, culture gap and level of acculturation, mistrust of professionals and the health system, and fear of receiving bad news. Each of these themes are discussed in detail below.

**IV.5.6. Lack of information about the US health system.** Two of the most frequent themes extracted from the FGDs were lack of information about the health system and lack of knowledge about diseases that were common in the United States. Several of the FGD participants overwhelmingly stated that lack of information on how the health system works and what they are eligible or not eligible for were a barrier for them to seek professional help. Examples provided were government-sponsored insurance coverage availabilities such as Affordable Care Act, or Medicare and Medicaid eligibilities, and how they could utilize health services for their children under the State or Federal rules. Participants emphasized that due to these issues, generally engaging with the healthcare system was hard for this community. Participants stated the lack of information was not only a challenge for them but also for their
congregants as well. Participants shared they highly believed if the information was available in their language in a way they can easily understand and accessible, they stated many of the community members could benefit. The following three comments made by members from different FGDs validate this theme, lack of knowledge of the health system, and are presented below for reference. These comments had consensus among all the other participants.

“...I think in our area the most common problem is accessing information such as health facilities and all the other resources mentioned earlier. Habeshas are typically weak on information and our organization for gathering information is weak. Even if we have Ethiopian community, we still are poor in this area.”

Participant in group C.

“...I think we do need these resources available not only in this church but in every church. I do not think most people know where to find these resources when it comes to insurance or where to find healthcare professionals, and even not knowing how to use the privileges they already have as permanent residents or naturalized citizens.”

Participant in group B.

“...The system is complicated... As a doctor who was educated in this country and who worked in a private healthcare company, I did not know the resources available until I started working in the community health center myself... I am not proud of it, but it shows how much people do not know ....... I think we need to work on a community health service strategy to reach our community.... “

Participant in group F

**IV.5.7. Lack of knowledge about diseases.** Similar to lack of information about the health system, lack of knowledge and understanding of the most common illnesses in the community such as diabetes, high blood pressure, stroke, and heart diseases, and their potential sequelae, were some of the most commonly discussed themes. Participants indicated lack of knowledge about common disease in the community was not only a barrier for themselves but
also for their members and they believe this led to delayed presentation to healthcare professionals and not seeking timely healthcare service. The leaders stated this had caused some of their members to be absent from worship houses, and some even died due to otherwise preventable diseases. Two participants who were in two different groups summed up the lack of information about the common diseases in the community as follows:

“...if we look at our community, things that prevent them from going to the doctors are usually lack of knowledge about the disease severity or the health system, lack of insurance, fear of diagnosis that may not be acceptable to the person and mistrust of the health system and the doctors...”

Participant in group B.

"...sometimes, the lack of information exacerbates the issue at hand because we do not have the resources to solve it."

Participant in group A

"...I think the community has no knowledge of 'this' as well. However, when things are detrimental, we definitely go.”

Participant in group C

The participants, who were also leaders in their respective faith institution and community association, stated that they have a strong position and willingness to facilitate information sharing and health education for their members. However, due to another layer of the barrier that the FGDs discussed and reported later in this chapter, lack of organized source center for the community was an additional difficulty in providing proper information to the members. Of the seven FGDs, six of the groups had at least one nurse or a physician as the member of the leadership of the faith organizations and provided information about how elders of the faith organizations attempted to use their own members to provide information on health issues. This was much more evident now due to the COVID-19 pandemic. All the groups stated that they have either organized themselves or asked individuals from other institutions to help them disseminate
information on COVID-19 since the pandemic started. To this end, leaders strongly expressed their immense interest to engage further with organizations to organize future health education and information sessions.

IV.5. 8. Pre-immigration health practice - Lack of preventative health. The second and most common theme that resulted from the FGDs was a concept related to participants’ pre-immigration health practices and health beliefs. Pre-immigration health practice is a known mediator of health behavior of immigrants after they immigrated to the host country and had been studied well among immigrants from different countries. Participants in all the focus groups stated that their concern that Ethiopian immigrants pretty much practice their health behavior back home exactly as it is here in the United States as well. To this point, two participants from different focus groups stated the following:

“I pay for insurance, but I never go to the doctor to check up every year. This again has to do with our culture and where we came from.”

A participant in group A

“...From my work field, preventive screening is not common in our culture since we only go to the doctor when the symptoms of the diseases show up... I do not think screenings like pap smear, mammograph, colonoscopy and even immunization’s importance are known in our community. I think both other Africans and Ethiopians do not have as much knowledge about the importance of these screenings.”

Participant in group F.

Participants stated that their health practice back home was very limited and only directed towards looking for help when they become seriously ill. They stated there was no such a thing called "preventative care" that they recall were engaged while they were in Ethiopia and they do not know people who proactively visit clinics for regular checkups, except only for some work-related clearances. Participants were vocal how most individuals, including themselves and people they know around their family never visited health centers or doctor's offices for most of
their life and this practice was engrained in their daily lives, even after immigrating to the United States. Several participants gave examples related to how they never visited a dentist in their life before immigrating to the United States and even then, it took them several years before they went to receive dental care. To mention few, the following were two of the comments made on this topic.

“...when I lived here in this country for 8 years while paying insurance, I never went to see a doctor—maybe I might have gone to see a dentist, but otherwise it’s not in our culture.

Participant in group A

“... I have a dental insurance through my work, but I have not been to the doctor for the past ten years. When I went back recently, there was a lot of damage done to my teeth because of my perception was that... ‘I grew up chewing roasted beans” and my teeth are strong, so I will be fine. By the time I went to the dentist, I lost four of my front teeth......if I had gone to the doctor frequently, I think it could have decreased the damage....”

Participant in group C

IV.5.9. Pre-immigration health practice - health belief. As part of the a priori health practice, participants identified cultural and health beliefs being barriers to utilizing modern medicine. Several of the participants in each group stated cultural medicines such as “cupping” practice, which was placing cups on the skin to create suction and relief pain, was something they practice still to these days here in the United States. One participant described the health belief and practice he and his family were practicing and continued to do so here in the United States as follows:

"...at one point both me and my wife were suffering from sciatic pains, and we went to a doctor.... I told the doctor that cupping, and acupuncture helped me a lot, and I asked him his opinion on that, and he said, hmmm... sometimes these things may work, but it is as you believe in it. I ordered you physical therapy and let us check on that; and if that does not work, the next step is possibly surgery. My wife and I did not pursue anymore, and we continued the cupping and acupuncture, and herbal and natural medicine, and now.... there is nothing........no surgery or anything like that." Participant in Group G.
Comments such as the above were common in the group discussion where individuals expressed that either themselves did not want to go to the doctors or one of their congregants told them he/she preferred to use herbal medicine first before seeking medical advice. Another individual expressed that his first action when his children were sick was to use a black cumin oil called “Habbatus Sauda,” which, according to the individual, was extremely medicinal oil. The group participants stated that the Muslim community, in particular, believes the oil was one important culturally and religiously recommended natural ingredient for many diseases.

**IV.5.10. Culture gap & Level of Acculturation.** As discussed in the quantitative analysis, acculturation was one of the elements examined using the African American Acculturation Scale (AfAAS) and two proxy variables, English language proficiency (ELP) and Length of Residence (LOR) in the United States. The participants in the group discussed also had a similar discussion on how their culture gap and level of acculturation influenced their health service utilization and their health behavior in general. One of the themes that identified during this portion of the discussion was while they appear to be acculturated in many of the parameters, such as speak fluent English or lived several years in the US, it’s evident the acculturation and the health behavior was far apart than one expects. Participants indicated this was due to unspoken rules to keep the cultural and health practices intact. Most participants acknowledged the cultural gap in healthcare practices and confirmed that their cultural background in how health was perceived as “a state of wellness managed by superior being – God” and considered to be part of the life process. Several leaders in the group strongly stated that ‘Health is God’s blessings and all health matters, including mental, physical, spiritual and
social health come to us through God’s will. Several participants share the following theme pulled from one of the participants who summed the discussion:

“... there is a culture gap in our society; people only go to the doctor when they are sick.”

Participant in group C

“...when we all lived in Ethiopia, I do not think none of us went to the doctor for checkup. ... we brought this behavior from back home so it’s hard to change this behavior when we come to this country”.

Participant in group D

IV.5.11. Mistrust of healthcare Professionals and Health System. This was another theme identified from the data collected across all the seven FGDs. Immigrants mistrusting the health system had been a reported phenomenon in many research studies in the past. Participants reported that they did not never fully trust healthcare providers and the service they offered, such as immunizations, periodic checkups, or free medicines. Some related the source of this mistrust from experiences they had in the past with the health system. Others stated they have heard that “African Americans were used for researching medicines” and they were always afraid of such things. Participants indicated, part of the reason some of them or their congregants procrastinate visiting health centers and hospitals was due to this very reason.

Health professional mistrust was also something participants in all groups discussed and believed that they had mistrust of providers. Several participants were concerned about health professionals who they had visited in the past who either overprescribed medicines or tests and had been asked several questions related to family or social interrelation that they believed were “unrelated” to their presentation. One participant stated that he went to emergency room for a simple abdominal pain and diarrhea and later was taken for several diagnostic tests, including CT
scans. He thought the tests were all unnecessary because they were all normal and thought the provider’s order were exaggerated and wasteful, which also indicated the lack of confidence in the provider’s decision. The participant believed this was a way of making money or avoiding litigations. Another participant stated that he had to sign out Against Medical Advice (AMA) form from a hospital’s emergency room because he did not believe they knew what was going on with him and kept ordering tests. A third participant stated that he believes and trusts a provider with similar background and religion with himself than someone who had no religious or cultural/ethnic connection with him to understand his issues.

IV.5.12. Fear of receiving bad news. Several participants in all of the group discussions stated that they have fears of receiving bad news about the unknown health problem they’ve been dealing with and prefer not to go-to providers. While this appeared to avoid facing reality, participants indicated in some instances when they visited hospitals or clinics for general checkups, and their biggest fear was being told that they have diseases they have never even heard of. Three participants in two groups indicated that, among the community, there was such a stigma called “have your illness named,” which was a saying that discourages people from going to healthcare providers as they would give names to their presenting pain as cancer or heart disease, a new which they stated will decline their health status for the worst. It was also indicated that some individuals downplay their illness and accept it as part of the life cycle to increase their tolerance to diseases or pain. Participants stated this was out of fear of knowing the source and cause of the unknown illness that they have learned to deal with for years. Two individuals stated the following two statements when discussing downplaying their illness and fear of the unknown.
“...from what I see from my friends and family, most people are secretive and are not willing to go to the doctor because they might think that they will be diagnosed with diseases that they are not expecting.”

Participant in Group F.

"...one of the problems is fear, but the other one is also not wanting to know further diagnosis."

Participant in group D.

Participants in the group discussion were extremely vocal about how the community had a deep-rooted reservation on visiting providers due to fear of receiving bad news, complicated by the deep unspoken mistrust against the health system and health care providers as discussed above. They indicated that fear escalates the anxiety of being told that they now have this disease or that disease by name. Participants stated there were many people who think healthcare providers simply give names to illnesses that may or may not be true and expressed the fear of receiving bad news in the community as “going to a doctor to get one’s illness named”.

IV.5.13. Access to Healthcare Services (AHS). Three important themes were drawn from the discussion on access to health services. Participants’ understanding of access to health services, as individuals and as leaders to their congregants was explored. The three themes were lack of knowledge or information about the healthcare system, lack of insurance coverage, and language barriers to access the healthcare system.

IV.5.14. Lack of knowledge/lack of Information about the health system. Lack of information or lack of knowledge about the health system was described in the previous section in this chapter as barriers to health service utilization. Similarly, to evaluate the influence of lack of knowledge about the healthcare system on access to health services, participants were specifically asked about their knowledge of available health services that they qualify for as naturalized citizens or permanent residents of the United States. Some of the government
sponsored programs and services discussed were such as Medicaid, Medicare, and Children's Health Insurance Programs (CHIP) within the State. One in three participants of each focus group did not think they had sufficient information on the government-sponsored programs or free clinic availabilities. The discussion participants also indicated that as leaders of faith and community organizations, they do not think all their members do have sufficient information on how to access the health system, what they were eligible for, how to enroll in the programs, and where to get these services. They suggested information sessions for the community on these items could benefit both the congregants and their children. The leaders indicated also that the lack of information on health access could worsen the already compromised health service utilization.

**IV.5.15. Lack of insurance - self-employed.** Another reason the discussion participants highlighted during the discussion as to why many of their congregants, including themselves, do not go periodic checkups was due to lack of insurance coverage. According to the participants, many of their congregants were self-employed as Taxi drivers or work in the service industry, such as small restaurant businesses or convenience stores. These individuals could not afford to buy private insurances and have limited knowledge of how they can get coverages with government-sponsored health insurance options. Therefore, they refrain from accessing the health system for their needs unless they desperately need it.

Some participants also indicated that even if they work for companies that provide health insurance, if they have the option to opt-out, they would do so because of the high monthly premium. Coupled with the overall cultural, health beliefs, and mistrust issues discussed thus far, the analysis indicated that participants preferred to stay uninsured and utilize other access options
such as visiting emergency room or urgent care centers in the event they were desperately sick. One important point discussed by participants was “fear of being stuck with bills” after visiting emergency rooms, and therefore, they further avoid these fallback choices.

**IV.5.16. English language proficiency.** The third important point raised during the discussion on access was the lack of English language proficiency to freely discuss their health problem to providers. Several participants indicated that as faith leaders, there were many occasions that they either accompanied members of the congregation to health care facilities to help interpret or they asked one for the person who needed interpretation assistance. Participants stated while this was a service they sometimes provide for their congregant; members did not always come to them asking for help as there was also a concern of disclosure and privacy about their health information. Participants stated that most of their members were private about their health, and there was an assumption that the translation need potentially exposes their personal matters and avoid if possible. The fear in this aspect was potential stigmatization about their illness by other members. Many of the participants indicated not many congregants were aware of interpreter services provided in hospitals.

**IV.5.17. Role of Faith and community Leaders.** The focus discussions' final but most important topic was examining the role of the faith and community leaders in influencing the health behavior of their members. Discussions were focused on their particular role in their congregants’ health-seeking behavior, health service utilization, and access to healthcare services, in relation to what they know, what they have done thus far, and what they should be doing in the future.
Participants stated faith leaders and their respective organizations (churches, mosques, synagogues, and worship houses) were trusted individuals and institutions by the community. Participants said this unique position gives the leaders a significant advantage to influence their congregant’s health behavior positively in multiples ways. Many of the leaders indicated that up to this point, the role of faith institutions and leaders might not have been focused on keeping their congregant’s complete health, including their physical, mental, and social health, besides being the main gatekeepers of spiritual health. The following themes were extracted from the discussion on the role of the leaders as mediators for complete health: Faith leaders must be examples by keeping their own health, faith leaders and organizations need to provide "all-rounded" services including mental, physical, social, and spiritual health cares by creating health ministry as separate ministry opportunity for congregants who were interested in serving in this service.

**IV.5.18. Faith leaders must be examples for their congregation.** The participants indicated that as faith leaders, they always try living their spiritual teachings in their daily lives. While all participants agree with this gold standard, some indicated that their own personal challenges, such as weight management, usually hinders them from being the best example. Few participants in each group commented that there was a real issue of pastors and priests being overweight.

Most of the participants believed that being healthy in their understanding refers to mostly being spiritually healthy. They believe God is the ultimate protector of their health and their health matter is in his hands. Others in the groups indicated that while God protects our physical health, spiritual health is the basis of all other health. They firmly believed that God wants human
beings to care for the body he gave them to be spiritually healthy. The following excerpts support these points.

“...One of the followers of Prophet Mohammed, Peace be upon His name, came to visit the Prophet and he came off his camel’s back and unleashed his camel. The Prophet told him to secure your camel with the leash, and the guy said, “Allah will keep my camel safe.” The Prophet told the guy that he needs to curb his camel first and then believe in Allah that he will keep his camel safe. I am saying this because our teaching tells us that we must do our part first before we put our trust in God because we are expected to do our parts. This is the same thing for our health. We must care for the body he gave us, and we can not just do unhealthy things and believe that God will protect us. For example, as Muslims, we should not do things that harm our body, such as smoking or drinking alcohol. But if we do this, it is not only haram (sin), but also it damages our physical body, and we cannot ask health from God causing the problem ourselves.”

Participant in Group F.

“... God redeemed both our soul and body, so it is important to note that taking care of our body is spiritual. If there is no health, I do not think we can worship [God]. I think the general understanding in the past was that taking care of one's body was not seen as spiritual. However, I think this understanding is shifting. I think we will know our body is a temple when we take care of it. I think everything has a spiritual aspect to it from the way we eat to seeking treatment when we are ill”.

Participant in group C.

IV.5.19. Faith leaders need to provide "all-rounded" services. During the focus group discussion, all seven FGDs discussed that the church should begin moving to a different level of caring for her congregants, not only just focusing on the spiritual life but also on all aspects of health. A couple of the leaders stated that that in the current setting, their organizations participate in compassion ministries, where the social aspect of the health of congregants was cared for. They stated this includes helping those who were financially challenged, working with the youth to provide youth-oriented programs, and mentoring kids. However, they also admitted that compassion ministries were not specifically geared towards providing information about healthcare needs or health-related activities, but mainly focused on social supports.
One of the main discussions on this aspect was the current health behavior related to the current COVID-19 pandemic. Participants indicated that the pandemic taught all faith leaders how to engage their members in so many ways and they highlighted that the pandemic made it clear that physical health was as important as spiritual health. They indicated that due to the physical illness caused by the pandemic, many of their members were sick and unable to come to church and some even died. To continue serving the congregation, the church devised electronic ways of reaching out to members. One of the leaders stated, “...if all there is one thing we learned during this time, it’s the need that our service needs to be all-inclusive and health ministry is something we need to focus on” (Participant in Group D).

Related to creating a more rounded ministry, participants stated they have multiple healthcare professionals, including physicians and nurses, in their congregations. However, participants stated they did not know how to start such discussion, and stated they welcome any support to initiate this dialogue. Four physicians and two nurses, almost one health professional present per discussion group, were part of the group discussion and as faith leaders and health professionals, they provided insights into the discussion on how faith organizations should be partnering with their congregation to utilize the human capital they have and to establish health programs. The faith leader health professionals stated that they were recently asked by their congregation to teach about the COVID-19 pandemic and precautions and measures to protect themselves from being infected, which was well received by the congregants.

Leaders from the community association also stated that they held two informational zoom sessions for the community in the past two months on COVID-19. More than 500 people participated in these sessions, and multiple questions were answered by the panelists, which
included three medical doctors. The community leader participants stated that this clarified for them there was a significant need in the community for this type of information.

The participants in all the FGDs had several suggestions for future modifications in their organizations as part of their plan to establish a health ministry. The group discussion participants all agreed that activities such as forming youth ministry, planning annual or biannual events focused on health promotion and disease preventions such as basic checkup of blood pressure, weight, Body Mass Index (BMI), and counseling on diseases such as diabetes, high blood pressure, heart disease, and cancer could all be accomplished through this health ministry. Participants stated that their role as leaders would be important to these projects.

IV.6. Limitations of The Study

The first limitation of the study was that participants who were invited to take the survey were only those who had electronic personal devices, such as computers, laptops, smart phones, or tablets because the study was modified to be solely online because of COVID-19 pandemic. However, participants who did not have these internet-enabled personal devices were not part of the study. The initial plan of the study was to conduct both online and paper-based surveys for the quantitative part of the study and meet in person for the FGDs, prior to the pandemic.

While the survey administration strategy worked well with the percentage of online survey response being above the average response for online survey formats, it was believed that some unique participants, such as those without personal electronic devices and technology savviness, might have been inadvertently left out. The question arises whether those who would have preferred in person interviews were excluded at this time and their perspectives may differ from those expressed by participants who were comfortable completing the survey online. The
only way to find out will be to conduct future survey that includes both categories, after the pandemic is over. A hybrid format to include both online and paper research administration is recommended for an inclusive sample.

The study's second limitation was that the survey was lengthy, which may have limited participation and added to missing values. Future studies should consider a shorter survey with smaller number of items in each category to minimize participant burden.

The third limitation was the quantitative data analysis limitation. The survey data highly reflected the sociodemographic characteristics of individuals who participated in the study. This type of statistical model was initially proposed to be used in the study was found later on not feasible due to the type of data. This limitation can be handled in post-COVID future studies by designing data collection formats in face-to-face or paper data collection formats to capture participants who were not part of this study.

IV.7. Summary of Results

In chapter 4, analyses of the quantitative and qualitative data collected to explore the relationships between the outcome variables, AHS, HSB and HSU and the predictors in each category – structural, financial, and personal predictors was completed. The study was limited to the self-reported data provided by Ethiopian immigrants living in midwestern city in the United States.

The data collected was from those who had access to internet either via computers, tables or their phone and capable of navigating through the pages without difficulties. The demography of the sample demonstrated that the participants in this research were highly educated (83% Bachelor’s degree or above as compared to US natives and all immigrants, 37.3% and 51.3%
respectively), had an average income above the median (55.6%) of all US born (35.8%) and all foreign born (32.4%).

For the quantitative data collected to answer Research Question 1-5, a Chi-Square analysis was used to identify any association between the dependent variables, Access to Health Services (AHS), Health Seeking Behavior (HSB) and Health Service Utilization (HSU) and the independent variables. The independent variables were categorized in three parts, structural, financial, and personal variables and under each of these predictor variables, sub-variables were investigated. For example, under the structural predictor – variables related to availability, accessibility, insurance, and immigration statuses were examined. Under the financial predictors – household income, employment status and affordability (cost), availability of transportation and insurances were investigated. In the third category, personal and cultural predictors, acceptability of care, culture and health belief, language, religious affiliation, and acculturation were examined.

Where the level of measurement allowed, Pearson’s Correlation was conducted between Length of Residence (LRO) in the United States and HSU, and time it took to schedule a specialty appointment and HSU. Further regression modeling was not feasible because of the level of measurement and type of data as mentioned above.

For the qualitative data collected via FGDs from 7 different group members totally 43 participants, a thematic approach manually and using the MAQDA2020 software demonstrated that the data was slightly different from what was collected via the quantitative research. Several important themes were extracted and association with each other were investigated. With the qualitative data analysis, mistrust of professional and the health system were important factors
for participants to seek for health care services. Lack of knowledge of the healthcare system and diseases that were preventable, were also important findings in this study.

The quantitative and qualitative results provided immense information on health behavior, health access, and health service utilization of Ethiopian immigrants from different perspectives. It also provided a first-time close-up discussion of faith and community leaders on not only on their role as leader to influence their member’s health behavior, but also as individuals what their personal health beliefs and practice were. This provided a unique understanding of the health behavior of Ethiopian immigrants in the United States. The results of the two methods demonstrated that several shared but slightly differing outcomes. Both results were interpreted and discussed further in Chapter 5, with triangulation of the data from each method using the convergent parallel design method.
V. Discussion and Recommendations

V.1. Introduction

The construct of Health Seeking Behavior (HSB) and Health Service Utilization (HSU) of immigrants within the context of the highly privatized healthcare system in the United States had been explored extensively for different immigrant groups (Commodore-Mensah et al., 2018; Corlin, Woodin, Thanikachalam, Lowe, & Brugge, 2014; Ejike, 2017; Ijoma, 2013; Sin, Fitzpatrick, & Lee, 2010). These studies and several more describe the challenges that immigrants, including immigrants from Africa, go through significant challenges to access and utilize health services. When looking at the impact of these perceived or real challenges in accessing and utilizing healthcare services, the most intriguing point is that immigrants have a significantly higher prevalence of chronic diseases, such as diabetes, hypertension, heart disease, and have worse health outcomes than native-born individuals in the United States. The disproportionate adverse outcomes have been associated with structural, systemic, and socioeconomic inequalities and individuals’ health behaviors and health Service utilization patterns.

V.2. Statement of the Problem

While numerous studies are available on Asian and Latinx immigrants' health behavior in the United States, this phenomenon has not been well investigated among Ethiopian immigrants. Some earlier studies such as Parenti, Lucas, Lee, and Hollenkamp (1987) and Hodes (1997), mainly focused on the physical appearance and conditions of Ethiopian refugees and described them as generally looking healthy upon arrival. The studies were conducted shortly after the refugees arrived, and the focus of the studies was not health behavior investigation. As recently
as 2014, pieces of literature by Eshete (2014) and Chiatti (2014) also attempted to analyze how culture, health beliefs, and various ethnographic and demographic variables relate to subsequent health behavior and healthcare utilization patterns. However, elements such as health practice before immigration (a priori health behavior) or cultural adaptation to the new country (acculturation) and most important factors such as religious and community leaders influence on immigrant congregations to commit to these behavior changes were not well studied with mixed methods approach.

V.3. Purpose of the Study

The purpose of this study was to explore, describe, and investigate factors influencing health-seeking behaviors and help understand if any association with demographic characteristics of Ethiopian immigrants living in a large Midwestern city of the United States. This study was also one of the first studies of its kind that used a mixed-method design to examine both individuals' health behavior and religious and community leaders' role in influencing their member's health behavior in the community and hoped to develop interventions to address concerns and foster community and faith leaders’ role.

In this cross-sectional convergent parallel mixed-method study, a community sample of Ethiopian immigrants living in one of the largest Midwestern cities of the United States was used. The sample was recruited through community and faith-based organization networks and primary informants from the study population. Using a demographic, health behavior and utilization, and acculturation questionnaires co-opted from National Health Interview Survey (NHIS, 2020), Ijoma (2013) and Ejike (2017), this study investigated factors influencing the Health Seeking Behavior (HSB) of Ethiopian immigrants, their Access to Healthcare Services
explored the association of the outcome variables (AHS, HSB, HSU) with selected predictors in three categories (a) structural predators - availability, accessibility, accommodation, immigration status, and insurance coverage (b) Financial predictors – affordability, employment status, household income, and insurance, and (c) personal, cultural and health belief predictors – acceptability, culture and health belief, language competency, religiosity, and acculturation.

To answer the research questions, key findings from the data were analyzed using Chi-square, Fisher's Exact, Pearson r, and Spearman's rho correlation as appropriate to the variables (p=.05) and compared with previous studies on factors influencing the health behaviors of Ethiopian immigrants. The below section also explored the relationships between the outcome variables, and the predictor variables under each category - structural, financial, and personal predictors. The analyses answered the six quantitative research questions (RQ1-RQ6) with descriptive and inferential statistical analyses and the qualitative research question (RQ6) with thematic and semantic analyses. The study was limited to the self-reported data provided by participants.

V.4. Discussion of Results

In this section, the results, and findings from both the quantitative survey and the qualitative focus group discussions are elaborated and further discussed, referencing existing studies. The results and findings are categorized and reported according to the outcome variables, AHS, HSU, and HSB for convenience to understand the concepts identified in this study.
V.4.1. Access to Health Services (AHS) Among Participants.

The first analysis examined AHS with selected predictor variables from the three domains predictors to investigate their significance on Access to Health Services (AHS). These domains were structural (availability of appointments and length of time to schedule appointment, transportation, insurance coverage and interpreter service), financial (Household income, employment status, and insurance coverage or recent insurance purchase), and personal/cultural (acculturation, health belief, language, religious practice/religiosity).

The descriptive statistics demonstrated that 91.3% (n=190) of the participants had a usual source of care (access), which was not anticipated in the study. However, given the demographic characteristics of the sample that had 61.3% (n=92) educated at a bachelor's degree or higher level, 68% (n=101) immigrated at a younger age before turning age 30, 78.8% (n=119) were employed or self-employed part-time or full time and 50.7% (n=75) of the participants have had a household income of >$50,000, majority of the participants, in this case, had one or more enabling factors that contributed to this result. Another important reason that contributed to the type of sample pool was because sample recruitment was during the peak of COVID-19 pandemic. Due to the pandemic, sample recruitment and survey administration was fully electronic and internet based. This might have affected the type of sample who self-elected to the take the survey, who appeared to be technology savvy and perhaps educated than the general Ethiopian immigrant population in the sampling frame.

In health access, health behavior, and health service utilization studies by Ijoma (2013), Eshete (2014), and Ejike (2017), the result demonstrated that immigrants, including Ethiopian
immigrants in the studies, who had higher education and employment status tend to establish a usual source of care, which align with the findings in this study.

V.4.1.1. Structural Predictors

Appointment Availability and Length of time to schedule an appointment. In the structural predictor domain, a Fisher’s Exact test did not find availability of appointment to be significant with having a usual source of care or access (p=0.310). To investigate if the length of time it took to schedule an appointment had any significance on AHS, a Fisher’s Exact test was performed, and the result demonstrated a significant association between access and the length of time it took to schedule urgent appointment (p= 0.007), and non-urgent appointment (p=0.031). However, access and time it took to make specialty appointment were not significant (p=0.079). Findings from a previous study by Kiss (2010) demonstrated similar results that refugees, or immigrants were more likely to have been triaged for urgent conditions in acute care or emergency room (Kiss, 2010).

Appointment availability and time to schedule appointments were explored in the focus group discussions, and participants did not state that neither availability of appointments nor the time it took to schedule an urgent, non-urgent, or specialty appointment were barriers for them for not establishing a usual source of care. Contrary to the result in this study, research by Khan and Manzoor (2014) looked at Pakistani immigrants health utilization in the Maryland area and, they found that time to schedule elective procedures (specialty procedures) were concerns in this community (Khan & Manzoor, 2014).

Insurance coverage. A plethora of studies in the past had indicated that lack of insurance coverage was associated with healthcare access (Ijoma, 2013, Eshete, 2014, Ejike, 2017). In this
study, the lack of insurance coverage was also associated with establishing access to healthcare services with the healthcare system. A chi-square test of independence was performed to examine if there is significant association between delaying or postponing medical care due to lack of insurance coverage and AHS. The relation between these variables was significant \( p = .009 \) indicating insurance coverage was associate with establishing usual source of care or access. Several prior studies (Crandall & Saint-Jean, 2005; Saint Arnault, 2009; Gilbert Saint-Jean, 2004; G. Saint-Jean & Crandall, 2005; Vargas Bustamante, Fang, Rizzo, & Ortega, 2009) studies that health insurance coverage serve as facilitator for establishing a usual source of care. However, the qualitative study participants indicated that if they are given the choice, most likely they would opt-out of employer-sponsored insurance plans due to the high premium and the additional co-pay, co-insurance, and out-of-pocket costs. In addition to these economic concerns, participants stated due to lack of trust on the health system or healthcare professionals, they did not want to utilize the healthcare system unless they had a life-threatening critical need that forces them to see one. Such explanation was not evident in the quantitative survey, and the additional data from the qualitative focus group discussion was valuable to explain the relationship of insurance coverage, usual source of care and participants’ mistrust.

**Immigration Status.** Immigration status was assessed to evaluate if it influences access or establishing usual source of care. A Fisher’s exact test was conducted to examine association between immigration status and health access (AHS) and the result demonstrated that there was relationship between immigration status and usual source of care, \( p = 0.005 \). Similar to this finding, studies by Hall and Cuellar (2016) demonstrated association between immigration and health care policies among all immigrant, indicating immigration status was a factor in accessing
the available health services (Hall & Cuellar, 2016). In another study of effect of immigration status on mental health care utilization by Chena and Vargas-Bustamante (2011), they found that immigrants were less likely to have physician visits compared to US-born citizens.

**English Language Proficiency (ELP) and Interpreter Use.** In this study the majority of participants, (90.3%, n=130), claimed they spoke English well or very well. Subsequently, Fisher’s exact test demonstrated that there was association between ELP and AHS, (p=.045). Previously, studies demonstrated similar results that language barriers were among the most frequent reasons for being a barrier for healthcare access and those who had no difficulty in ELP had less difficulties in access healthcare services than those who had limited EL (Jang, 2016; Nkulu, Hurtig, Ahlm, & Krantz, 2010; Otero-Garcia, Goicolea, Gea-Sánchez, & Sanz-Barbero, 2013).

Further exploration of ELP in the FGDs validated that inability to speaking adequate English language to communicate with healthcare professionals was one of the reasons why some members of the community delay or prefer not to see healthcare professionals. Stemming from the results of the two methods used in this study, the qualitative focus group discussion provided much richer data, and explanation of the challenges with ELP. Future studies most likely could benefit from conducting similar mixed method study with a larger sample size to investigate the effect of ELP on the general Ethiopian immigrant population. Prior studies by Cristancho, Garces, Peter, and Mueller (2008) in a rural community of immigrants and Ku & Flores (2005) also found that language difficulties impede access to health care, compromise quality of care, and increase the risk of adverse health outcomes among patients with limited English proficiency (Cristancho, Garces, Peters, & Mueller, 2008; Ku & Flores, 2005).
Lack of information about the U.S. health system. Two of the most frequent themes identified from the FGDs that were stated to affect access to healthcare services were lack of information about the health system and lack of knowledge about diseases that may need immediate attention, such as chest pain. Several of the FGD participants overwhelmingly stated that lack of information on how the United States health system works and what they are eligible or not eligible based on their immigration status, were barriers for them to seek professional help. Examples provided were government-sponsored insurance coverage availabilities such as the Affordable Care Act (ACA) or Medicare and Medicaid eligibilities and how they could utilize health services for their children under the State or Federal rules. Previous studies by Nunn (2012), and Akerman (2017) demonstrated similar results that lack of knowledge about the healthcare system or disease condition could lead to healthcare access problems (Akerman, Essen, Westerling, & Larsson, 2017; Nunn et al., 2012).

Participants emphasized that due to these issues, generally engaging with the healthcare system was hard for the Ethiopian immigrant community. The religious and community leaders stated lack of information was not only a challenge for themselves but also for their congregants. They highly believed if the information were available in their language in a way they can easily understand and access, many of the community members could benefit from it.

V.4.1.2. Financial Predictors

Household Income. The study sample had a median household income range of $50,000-$74,999 (n=148), and 20% of the total respondents had >$1000,000 annual income. The median household income of the U.S. in 2019 was approximately $69,000, and the median household income of immigrants in the U.S. in 2018 was $59,000. Spearman’s rho analysis between
household income and AHS indicated that there was a weak negative correlation between household income and health access ($r_s(208) = -.157$, $p=.023$). While this result within the survey participants showed a weak negative correlation, findings from the FGDs participants indicated that the cost of healthcare was a real concern for them, regardless of their income, and tend to avoid accessing healthcare services for "fear of being stuck with big bills." Previous studies by Markova, Dean, and Neale (2007) and Hyman (2009) demonstrated household income to be related to help-seeking behaviors, which aligns with the finding from this study.

**Employment Status.** A Fisher’s Exact test demonstrated that there was no significant association ($p=.223$) between employment status and participants having a regular place to go (AHS) in this study. This result corroborated with the demographic characteristics of the sample employment stratification (part-time or full-time, self-employed and unemployed). Previous studies by Chaumba (2011), Ijoma (2013), Obasi (2010) indicated that most of those who were unemployed had difficulties in accessing healthcare services due to financial constraints because they were unemployed. However, the percentage of participants in this study who are employed was two-third with additional 11.9% self-employed making the sample being different than the participants in those studies above.

**V.4.1.3. Personal/Cultural Predictors**

**Acculturation.** Acculturation in this study was measured by the African American Acculturation Scale (AfAAS). This sample had an average acculturation score range of 23.5 (score ranges between 10 and 40 with 40 indicating most acculturated individual), with more than 71% of the sample having an acculturation score of 20 or more. A score of 20-30 is moderately acculturated, and a score > 30 is highly acculturated. A Chi square test for independence was
performed between acculturation and AHS and result demonstrated a significant association, $\chi^2(2, N=151) = 17.888$, p<.000, with having a regular place to go for healthcare access (AHS).

In conjunction with the AfAAS instrument, which measured acculturation attributes such as food choices, entertainment, and social circles among participants, acculturation was also examined using the proxy variables, English Language Proficiency (ELP) and Length of Residence (LOR). A Fisher’s exact test was conducted to examine if ELP there was any association between ELP and AHS and the result demonstrated significant association (p=.045), between the two variables. As evident in the demographic data, participants in this study had a higher percentage of education level with bachelor’s degree or above and a higher self-rated English Language Proficiency with 88.5% (n =139) speaking English well or very well. This is similar with prior studies that investigated acculturation, using the proxy variables, ELP and LOR (Lahire, 2003; Orjiako & So, 2014;)

Further examination of LOR and AHS demonstrated alignment with the average acculturation score, 23.5. A Fisher’s Exact test to examine association between these two variables (LOR and AHS) was assessed and demonstrated that there was significant association (p=0.002) between LOR and AHS, for participants who lived >10 years in the United States. Prior studies also demonstrated similar result that LOR was one of the proxy variables which demonstrated significant association with access to healthcare services (Amri & Bemak, 2013; Maneze et al., 2016; Nandi et al., 2008; Obasi, 2005; Snowden & Hines, 1999).

In summary, access to healthcare services or otherwise having usual source of care was significantly influenced by structural, financial, and personal/cultural predictors as described
above. While access and utilization of healthcare services are two sides of a coin. Without available healthcare access, utilization of healthcare services will not be realized.

**V.4.2. Health Service Utilization (HSU)**

*Appointment Availability and Length of time to scheduling an appointment.* The length of time that participants experienced to schedule non-urgent, urgent, and specialty care services was assessed to identify if appointments' unavailability influenced their HSU. As discussed in Chapter 4, the Fisher’s Exact demonstrated there were no observed associations between length of time it took to schedule a non-urgent (p=0.761) and urgent (p=0.1000) appointment and HSU. The Chi square test also demonstrated that there was no significant relationship between specialty appointment and HSU, $\chi^2(1, N=173) = 0.618$, p=0.432. A study conducted by Khan and Manzoor (2014) on Pakistani immigrants living in Maryland demonstrated long waiting times were reasons for not utilizing healthcare service, which was different from the findings of this study.

**V.4.2.1. Structural Predictors**

*Lack of transportation.* As part of patient-dependent barriers, transportation to and from healthcare institutions was a concern for many immigrants and underserved communities (Cristancho et al., 2008). As alluded previously in Chapter 4, two important questions explored the type of mode of transportation participants used to get to their appointment place and if they ever delayed their care due to lack of transportation. In this sample analysis, a Chi-square analysis did not demonstrate any relationship between the lack of transport and HSU. Similar to the findings in this study, prior studies conducted among the immigrant community on lack of transport and HSU patterns, lack of transportation to health institutions was a significant barrier
in health service utilization (Cristancho, Garces, Peters, & Mueller, 2008; Ijoma, 2013). One assumption in this study why the result was different than these studies was due to sample characteristics that were discussed previous: education level, employment status and household income, all conditions that possibly facilitate affording to buy transportation means.

V.4.2.2. Financial Predictors

Cost of healthcare. The affordability of healthcare services was a concern for anyone due to the astronomical cost of healthcare in the United States. The issue of cost of healthcare services becomes much more concerning to immigrants due to the existing potential disparities in socioeconomic and wealth distribution. In examining cost as a potential barrier to HSU, survey participants were asked if there was a time that they needed medical care and never got it or if they ever postponed filling their prescription because of cost. Most of the survey participants (89.4%, n=144) stated that there was neither any time that they needed medical care but did not get the service nor they postponed or delayed filling a prescription due to cost. A fisher Exact test also demonstrated that there was no association between not getting or delaying needed medical care due to cost and HSU (p=1.000).

However, while this factor was not significant in the survey data, data collected from the focus group discussion participants demonstrated that "fear of being stuck with large bills" was one of the reasons individuals avoid going to the doctor every time they were ill. This further explained that the data obtained from the survey could be limited to structured answers, whereas the discussions elicited richer data, and future studies should focus on combining qualitative and quantitative data for comparison. Several studies have demonstrated in the past that healthcare cost, unpaid bills, and fear of being stuck with bills were important factors that prevented
immigrants from utilizing healthcare services (Minneman et al., 2012; Tata, 2018; Kang, McCormick, and Zallman, 2017).

**Lack of insurance coverage.** In this study, lack of insurance coverage was hypothesized to be the influencing factors for HSU. However, a Fisher’s Exact test did not demonstrate significance (p=0.407) that insurance coverage was influencing factor for frequency of utilization of health care service for the survey participants. Nevertheless, the FGD participants in all the 7 discussion groups verbalized that lack of insurance was a reason that they did not utilized healthcare service as frequently as they should. This understanding also aligns with the fear of being stuck with bills notion expressed by participants in the FGD as a reason for not utilizing services.

Lack of insurance had been linked with lack of utilization of healthcare services by immigrant community in prior studies for a long time, and some of these studies have enlightened the burden immigrants face to access life-saving healthcare services. Reynold and Childers (2019) examined barriers to care and lack of insurance and no place for care were consistent predictors of preventative care for immigrants. Similarly, Rojas-Guyler, King, and Montieth (2008) studies reported difficulties for Latina immigrants in obtaining health services, and lack of insurance was a predictor for such difficulties in HSU (Reynolds & Childers, 2019; Rojas-Guyler, King, & Montieth, 2008; Shipp, Francis, Fluegge, & Asfaw, 2014). The participants' demographic characteristics in the above two studies were much different from Ethiopian immigrants. As described earlier, in this study, the Ethiopian immigrant sample contained acculturated, highly educated with household incomes close to the median household

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income in the U.S. Therefore, the sample's analysis did not demonstrate association between insurance coverage and HSU in the survey.

A qualitative analysis of the FGDs on similar insurance questions provided a much different version of the story. Participants across the seven FGDs discussed that insurance purchase was expensive, even when provided through employers, and they tend to opt-out from taking the coverage. Participants also stated that due to the co-insurance, co-payments, and other costs in addition to the insurance premium, they prefer not to have coverages and use county care or free clinics when they need help.

V.4.2.3. Personal/Cultural Predictors

*Acculturation.* As described in the previous section, acculturation was examined in this study to see if there was any association with AHS among Ethiopian immigrants and was evident that there was a significant association with AHS. In this section, acculturation was examined to see if it had any association with HSU. In a Fisher’s exact test to examine acculturation level and HSU, there was no significant association between how individuals become familiar with the United States culture and how much they used healthcare services.

Similarly, using the proxy variables for acculturation, Length of residence (LOR) in the United States and HSU was examined using a Fisher’s exact test and it failed to demonstrate any statistically significant association between the two variables, \( p = .769 \).

The qualitative FGDs group demonstrated rich data on the acculturation of Ethiopian immigrants and health service utilization. Several of the FGDs participants in all the seven groups indicated that the longer they live in this country and learn the culture, the higher their chance of following their health providers' recommendations, such as recommending
immunization and regular checkup. This evidence again supported the qualitative data provided a much deeper understanding of the population regarding health behavior.

**Cultural and health belief difference.** This predictor was investigated with two questions in the survey that asked if the participant had ever delayed or postponed needed treatment or had been refused any care due to cultural differences. Most of the respondents, 93.8% (n=135), stated they never delay treatments due to their cultural or health beliefs or were refused care due to cultural differences. The qualitative study participants provided an immense understanding of the culture both as leaders and individuals. Participants stated that mistrust of healthcare professionals and the health system was a reality amongst the community members, which they admitted as a barrier. However, participants also indicated that other factors, such as finding a practitioner who speaks their language or know their culture, was a significant problem. Due to this, they admitted they procrastinate and sometimes delay very needed care.

Participants in the FGDs spoke about herbal medicine use and religious rituals they use to receiving healing, such as “using holy water called "tsebel" in the local language, ashes called emnet, and oils such as Habbatus Sauda, to make them feel better. The religious and community leaders acknowledged that they advise their congregants to seek healthcare professional help when needed but would do these herbal and religious rituals as needed first.

Participants were asked what would have been their first action when they become ill, and more than half of the participants (53%, n=85) stated they "will go to the nearest emergency department" while the most often response by the FGDs for a similar question in the discussion group was, "…will wait and see how the diseases progress and use herbal/religious measures in the meantime…” as described above and if severely sick, go to the emergency room.
Related to the cultural and belief predictor, mistrust of healthcare professionals and the health system was discussed in depth among the FGD participants. Fear of receiving bad news, lack of knowledge of the healthcare system and common diseases, were voiced as concerns by the participants. They stated that these are still current barriers within the community which have substantial influences in preventing them from seeing health professionals.

Mistrust of health professionals and the health system. Due to the historical background of how ethnic minorities, particularly the African American population, were treated in medical science research in the past, participants openly discussed that they do not necessarily trust everything healthcare professionals tell them to do. In three of the groups, a total of four individuals stated that they left a dental office and emergency departments when the providers were ordering additional tests and procedures, which they thought were not. They understood these actions by the healthcare professionals as an attempt to make more money. These and the outcomes mentioned in the results and fining in Chapter 4 demonstrate the existence of deep mistrust among participants against health professionals and the community's health system. Participants also verbalized very concerned about visiting healthcare professionals who do not speak their language or have no cultural and belief connection.

Several studies, including Boateng et al, (2012), Amri & Bemak (2013), O’Cpnnor, Adem and Starks (2018), Chung, Jin and Lee (2018) describe that the mistrust of healthcare professionals and the health system, were the two most personal and cultural barriers, in these studies conducted both in Europe and the United States in different communities, such as Korean, Muslim and Africans. This Ethiopian immigrants’ study demonstrated similar results as the prior studies.
**Self-rated health status.** Self-rated health status was used as a baseline assessment to know participants' health status in this study and was measured with one survey question that asked to rate their health as poor, fair, excellent, and I do not know. As discussed in the results section, HSU and self-rated health status were initially analyzed using crosstab analysis and assessed their self-rated health status in the past 12 months. Of those who self-rated their health as excellent, 70.8% (n=75) stated they used health service at least once in the past 12 months. A Chi-square test of independence was conducted, and there was no significant statistical association between HSU and self-rated health. Individuals were also asked to identify any known disease or diseases they were diagnosed with or suffer from. Of the 210 individuals who responded to this multi-select question, 73.8% (n=155) stated they do not have any known illness. The most frequent disease that was disclosed by participants were diabetes, 8.5% (n=18), chronic back pain, 3.8% (n=8), and hypertension 3.8% (2=8). Based on these numbers, the participant pool appeared to be a healthy group. A similar question was asked in the focus group discussion in the context of understanding complete health (physical, psychological, mental, social, and spiritual) with self-care, and all seven groups emphasized the prevalence of diabetes and hypertension in their community and congregation had been steadily increasing, which some in the group were openly willing to discuss their experiences. Participants alluded that disclosing their health status sometimes brought about discrimination, mainly related to mental health. Previous research on Ethiopian immigrants in Toronto demonstrated that having a mental disorder was associated with a lower rate of health service use, supporting this theme from the group discussion (Fenta, Hyman, & Noh, 2007).
Prior studies that explored the relationship between self-rated health with predictors such as health service utilization, access, and healthcare discrimination, which demonstrated that poor self-rated health was associated with perceived healthcare discrimination (Misra & Hunte, 2016). In another study that examined self-rated health, the study identified poor pre-migration health and having chronic disease were associated with participants’ self-rated health as good/fair/poor current self-rated health (Okafor, Carter-Pokras, Picot, & Zhan, 2013).

V.4.3. Health Seeking Behavior

Of the three dependent variables, HSB was one of the variables that was measured with proxy variables, such as first action when sick. Cooper, Heron, and Heward (2007) discussed three behavior measures for fundamental behavior properties using repeatability, temporal extent, and temporal locus (Cooper, 2007). These fundamental measures provide a basis for measuring health behavior by examining the frequency of time the health behavior occurred if the action was repeatable and how quickly the behavior occurred. This concept also aligned with one of the theoretical models used in this study, the Health Belief Model (Rosenstock, 1966). Elements of associated perceived susceptibility, perceived severity, perceived benefits, and perceived barriers were used in questions investigating constructs such as the first action when sick or frequency of scheduled, unscheduled, and urgent visits to healthcare professionals.

With the respective questions of rating their health status, the first action they did when they were sick and how frequently they visited healthcare facilities in the past 12 months were assessed when and how quickly and how frequently they practiced when such a threat to their health occurred. Of the participants who completed this question, 72.6% (n=151) rated their
health as excellent, 21.6% (n=45) ranked as fair, and only 1.9% (n=4) rated it as poor. One hundred and sixty participants responded to a question that asked what their first action would have been if they were to become sick, and 53.1% (n=85) stated they would go to the nearest E.R., while 20.6% (n=33) stated they would call and schedule an appointment at their Primary Care Provider's (PCP) office. Almost one fifth of the respondents (19.7%, n=31) stated that they either use a walk-in clinic or call their family members first. The remaining 8.8% (n=14) stated they would call their religious leader for prayer, self-medicate over the counter or herbal medicine, or do other non-specified things.

Unlike the finding of the quantitative study, the FGDs elaborated further on the HSB challenges. Themes such as lack of knowledge of the health system and lack of understanding of diseases, lack of pre-immigration preventative health practice, culture gap, and acceptability of care were the main attributes to individuals' health behavior manifestations and how they act upon any threat to their health. The qualitative study allowed a much deeper understanding of the health behavior of participants in this study. It demonstrated that the HSB of the participants was heavily mediated by factors that extend beyond those affecting health care access and HSU.

Similar health behavior studies by several researchers on immigrants from different countries in the United States, including Ethiopians, Chiatti (2014), Taiwanese, Liu (2019), Latinos, MacNaughton (2007), Haitian, Rahill (2009), and Somalis, Wieland (2012) found that factors such as self-rated health, knowledge of the health system, pre-immigration health practice and acculturation together shape the health-seeking behavior of participants. The finding in this study aligns with those studies above.
V.4.4. COVID-19 Related Health Behavior Changes

Both the quantitative survey and qualitative focus group discussions were intended to examine and capture COVID-related health behavior changes. The survey result demonstrated a remarkable behavioral change since the COVID-19 crisis, with 72.9% (n=153) stating they practiced social distancing and limited their social gathering. Given the social network of this immigrant community, the FGD participants described it as challenging. Subsequently, 70% (n=153) stated they wash their hands more often than before, 65.7% (n=138) said they always wear a mask whenever out in public spaces, 63.3% (n=133) stated they stopped handshaking and hugging friends when greeting, 56.2% (n=118) stated when going to grocery stores, they first clean grocery carts before touching, and 28.6% (n=60) stated they closely watch other people what they do with their hands. Few respondents (12 – 5.7%) responded other and wrote down some important health behavior changes, such as washing down and disinfecting groceries every time and limiting their outdoor activities that expose them with other people. Similar response was repeatedly stated in the qualitative FGDs.

While this study was a self-reported behavior change, the study demonstrated that Ethiopian immigrants have adapted and quickly learned how to deal with the pandemic and avoid consequences by changing their health behavior. The study findings also informed us how immigrants deal with the COVID-19 pandemic by modifying their usual behavior. Further research is needed to analyze if this pandemic-related health behavior change continues and how it shapes the community's future health behaviors.

The qualitative FGDs revealed that participants expressed similar things reflected in the survey result that individuals have so many unanswered questions about how the diseases
process. For this reason, they were afraid of going outdoors and interacting with others.

Participants stated that behavioral health changes such as avoiding giving a hug and close contact during greetings at religious events were difficult changes because they were a central part of the Ethiopian community culture. A significant part of the qualitative discussion participants also stated that some family dynamics changes had been observed, including disagreements among couples and children due to staying in a closed space. Faith leaders expressed concern for their congregants' physical, mental, psychological, and spiritual well-being during this period.

In contrast to how Ethiopians relatively were able to control the COVID-19 infection rates within the United States, the Daily COVID-19 infection reported by Ministry f Health of Ethiopia (MOHE) and John Hopkins indicated that as of December 2020, there were 119,494 cases in Ethiopia and 1,846 deaths due to COVID. During the same period, in the United States, there were more than 28 million cases and more than 500,000 COVID-related deaths to date. The number in Ethiopia appeared to be much lower than many of the infection rates across the globe but higher for some sub-Saharan countries (World Health Organization, 2020).

Like what was observed in this study of Ethiopian immigrants here in the United States, the behavioral changes initially observed from individuals did not continue to hold, such as people started their old routines of congregating and avoiding wearing masks. The implication of this study on health behavior was that behavioral changes take several continued attempts to become a long-term practice. The government, the community, and faith-based institutions will need to partner and work towards improving the understanding of their members.

V.4.5. The role of faith and Community leaders in influencing Health behaviors
The role of religious and community leaders in influencing the HSB of their members among Ethiopian immigrants in the United States was not investigated priorly. Studies such as Anshel (2014), Padela et al. (2011), and Rivera-Hernandez (2015) demonstrated that religious leaders could play a significant role in the health promotion and disease prevention from their pulpit, besides the key spiritual health role they play (Anshel & Smith, 2014; Padela, Killawi, Heisler, Demonner, & Fetters, 2011; Rivera-Hernandez, 2015).

In this study, the role of faith and community leaders was thoroughly examined. As described in Chapter 4, the FGDs result demonstrated that the Ethiopian community and faith leaders have an extraordinary role in keeping their members healthy. Participants in the FGD believed that faith leaders are trusted in whatever they communicate to the congregants, and this unique position could allow them to be the change agent in influencing the health behavior of their congregants. The participating leaders in the FGDs also believed that they had had this unique opportunity that they never paid attention to, which would have enabled them to care for the complete human being instead of only focusing on spiritual health. With the current COVID-19 pandemic, they stated this naturally available opportunity was something they plan to utilize going forward.

Several barriers were mentioned that could potentially prevent them from this role. The first one was leaders themselves would like to be informed about health practices and promotions before bringing the idea to the congregation. This idea was an excellent point that all group members discussed as the leaders first need to be examples to their congregants. With greater understanding and buy-in from the community members, any steps they take towards teaching the congregants on caring for the complete human has a higher chance of acceptance. A study by
Nunn (2012) and Heward-Mills (2018) demonstrated that lack of knowledge on how to engage in discussion with congregants on health behavior was a barrier for many faith leaders. However, if well informed, faith leaders could play important role in their congregants' health behavior modifications (Heward-Mills et al., 2018; Nunn et al., 2012).

The second barrier they mentioned was the lack of resources and supported to establish such programs. Leaders stated they have more than one medical doctor or other healthcare professionals in their congregations, but they did not know how to start such a conversation and bring the team together. Among the study participants, there were at least 1-2 health professionals within each FGD, and the participants stated this discussion was timely. Several suggestions were floated in the discussion. A critical aspect that faith leaders were convinced to start was "health ministry" in their organization that encompasses all health-related ministries, including organizing annual or biannual events in a parish health type of setting.

Another vital discussion raised during the FGD sessions was the importance of faith leaders' perception of their health and how they care for themselves. Members have raised a concern that some faith leaders themselves were not keeping their health very well. Many priests and deacons have diabetes or struggle with other health issues. This theme was fundamental because congregants follow not only what their faith leaders say but what they do and sometimes what they look like, in some sense, highlighting that self-care and self-image of faith leaders were highly important. Discussion throughout all the seven groups support this theme, and members of the group had a consensus.

Significant association of their role as spiritual leaders and gatekeepers to their congregation's spiritual health, participants identified that faith leaders are in a unique position to
help improve their community's health. One of the themes that emerged from this discussion was a ministry some churches already have, "all-rounded ministry," which incorporates spiritual, physical, mental, psychological, and social services for all members. This comprehensive Ministry existed already to minimal scope in two of the faith organizations that participated in these FGDs, and the leaders were highly energized and initiated further to take the Ministry to a different level after this discussion. The qualitative discussion was instrumental in shading light on details that were not captured with the survey.

V.5. Implication and Recommendation for Future Research

This study had several important implications for public health and public policies, the practice of nursing and medicine, and optimizing the role of faith organizations in influencing their congregants' health behavior. In public health and public policy areas, this study provides rare information about the Ethiopian immigrants that had not been produced for the geographic location that the study was conducted. The information on how to engage individuals and communities to enhance partnership with local public health agencies is essential and expected to be extremely useful. The information provided by this study from the FGDs on healthcare providers' mistrust provided a critical angle to consider improving the practice of nursing and medicine. A significant portion of participants believed that having someone who speaks their language and knows their culture as a primary care provider could improve their health care experience and utilization. Therefore, this study also encourages those providers who have these qualifications to engage in this role to help their fellow community members. This information also could be useful for healthcare professional educators such as medical and
nursing schools to consider widening opportunities to candidates from this specific community with those identified skills.

The implication for faith and community leaders arises from their interest expressed highly during the study. Churches, mosques, synagogues, and worship houses could team up with their respective congregants and form ministries to help their members. The study results also have implications for interfaith community partnership to mitigate the common challenge in health among all faith organizations. The information could be shared with the Ethiopian Orthodox North America Synod, the Ethiopian Evangelic Church Associations in North America, and the Muslim community organizations to start the conversation about how faith-based organizations can participate in the interfaith coalition to establish health programs in their respective organizations.

The implication of future research lies in the known and unmown health challenges among the Ethiopian immigrant community. More data collected from the individuals on their health behavior drives their decision-making process to seek or not to seek health care services need to be studied carefully. The information gained from this study and future study only help the community and governmental and non-governmental agencies to know and identify the issue to start a partnership.

V.6. Conclusion

This health behavior study conducted on Ethiopian immigrants examined several important constructs, such as access to healthcare services, health-seeking behavior, patterns and behaviors of health utilization, and the role of faith and community leaders in the health behaviors of their members, that were not well investigated in the past within the Ethiopian
community. The hybrid model used in this study from Andersen Behavior Health and Health Belief Models well served the study to look at these constructs from personal and structural perspectives and allowed the study to thoroughly investigate factors from each of these viewpoints. Consequently, the results from the study proved that the use of these models enhanced how the different influencing factors were seen and interpreted.

The design of the study was a well-suited and applicable element in this study. A mixed-methods study approach for such behavioral study was highly appropriate to elicit information in the study. Due to the COVID-19 pandemic, while unable to personally hand studies in hard copy format to collect the data, the electronic version of the survey data collection methodology was supplemented with focus group discussions that were also conducted via zoom. The findings from the FGDs augmented the data that was collected with the survey. Therefore, with limiting situations that were beyond the control of this study, the research design that combined electronic qualitative and quantitative survey was able to collect sufficient data from participants and provided quality data.

The findings from both the quantitative and qualitative methods were important developments in the Ethiopian immigrant health behavior study in the United States. Examining the findings and comparing the results with previous studies on other immigrants in the United States, Ethiopian immigrants in this study demonstrated very similar characteristics in health behavior. However, as observed from the examination, some characteristics were unique to the community because the culture, health beliefs, and pre-immigration health practices and experiences were quite different from other immigrants.
In this study, the data collected from the quantitative survey provided numerous new information. Nevertheless, without the qualitative FGDs, some of the survey results would have been difficult to explain in more detail. The FGDs provided a rich and deep understanding of participants' actual feelings and perceptions as individuals and as a group. In this case, the qualitative and the quantitative research designs to inform one another and the overall data collected and analyzed was the sum of these two designs as mixed methods. The FGD participants made valuable comments confirming such research study was a much-needed study to help bring new ideas to the community and create ties between governmental and nonprofit organizations.

Future interventions could focus on helping the faith-based organizations in setting up their health ministry or, as discussed above, "all-rounded Ministry that focuses and serve all aspect of the human being. Such projects could be easily coordinated with a nonprofit organization that consults and help these faith-based organizations and communities, connecting them with resources and providing them some technical advice to serve their congregants. Future interventions also should focus on addressing a gap in knowledge of the health system, diseases, and promoting self-care among the faith leaders and the community.


VII. Appendices

Appendix A:

VII.1. Appendix A: Consent and Survey Questions – English Version

Health Seeking Behavior of Ethiopian Immigrants

You are eligible to participate in this study if you are least 18 years old Ethiopian immigrant, and you can read and understand materials written either in Amharic or English. The entire survey takes you approximately 15 minutes to complete. You have a right to stop the survey at any point if you feel you don’t want to proceed. There is also no right or wrong answer and therefore please provide your responses by simply reading the question and choosing the response that you think best fits your situation.

I really appreciate you for taking some time from your busy day to take this survey.

Thank you,

Sincerely,
Sisay Mersha, DNP, MS, PhD(c), ACNP-BC

PLEASE CHECK ONE OF THE BOXES BELOW IN ORDER TO PROCEED

☐ I AM AT LEAST 18 YEARS OLD AND MEET ALL THE ELIGIBILITY AND CONSENT FOR THE SURVEY (4)

☐ I DO NOT WANT TO CONSENT FOR THE SURVEY (6)

Q1 During the past 12 months, how would you rate the quality of your health?

☐ Poor (1)

☐ Fair (2)

☐ Excellent (3)

☐ Do not know (4)

☐ Prefer not to answer (5)
Q2 Which of the following chronic health conditions do you have? Check all that applies:

☐ Diabetes Mellitus (1)
☐ Heart Disease (2)
☐ Stroke (3)
☐ Asthma (4)
☐ Chronic Back pain (5)
☐ Cancer (6)
☐ Other health conditions (7)

☐ None (8)
☐ Prefer not to answer (9)

Q3 Do you usually have a regular place to go when you are sick, such as a clinic, doctor's office, or other healthcare facilities?

☐ Yes (1)
☐ No (2)
Q4 Among the accessible healthcare facilities, what place do you go to most often?

- Walk-in clinics such as urgent care centers or retail clinics (1)
- Private Doctor’s Office (2)
- Emergency Room (3)
- County Hospital (4)
- Other (5)
- Prefer not to answer (7)

Q5 During the past 12 months, did you change the place of your usual source of healthcare?

- Yes (1)
- No (2)

Display This Question:
If Q5 = Yes
X+
Q6 If your response was "Yes", what was the reason for the change? Please check all that apply.

- I lost my insurance coverage (1)
- The provider is not in my insurance network (2)
- The clinic/health center is far (3)
- I didn't like the provider (4)
- I moved from the area (5)
- My provider moved (6)
- Prefer not to answer (7)
- Other- please write (8) ________________________________

Q7 In your experience, how long does it take to get a NON-URGENT or routine appointment at your regular primary care provider's office?

- A day (1)
- Tow days (2)
- Three days (3)
- Less than a week (4)
- Two weeks (5)
- More than two weeks (6)
- Other (7) ________________________________
Q8 In your experience, how long does it take you to get an **URGENT** appointment at your regular primary care provider’s office?

- A day (1)
- Two days (2)
- Three days (3)
- Less than a week (4)
- Two weeks (5)
- More than two weeks (6)

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Q9 In your experience, how long does it take you to get an urgent or non-urgent appointment at a **SPECIALIST** provider’s office?

- A day (1)
- Two days (2)
- Three days (3)
- Less than a week (4)
- Two weeks (5)
- More than two weeks (6)

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Q10 Will you still go if it takes more than 1 month (4 weeks) to see your provider?

- Yes (1)
- No (2)
Q11 What will you be doing in the meantime while waiting for your appointment or if you skip your appointment? Check all that apply.

☐ I will use herbal/cultural remedies (1)
☐ I will use over the counter medications (2)
☐ I will pray/ask to have a prayer (3)
☐ I will ask religious leaders or prayer group to pray for me (4)
☐ I will use other religious remedies – Holy water, “Emnet or Ash” (5)
☐ I will participate in Holy sacrament (6)
☐ I will do some other things - please write (7)

Q12 During the past 12 months, have you delayed getting medical care because you could not get an appointment to see a doctor?

☐ Yes (1)
☐ No (2)

Display This Question:
If Q12 = Yes
Q13 If your response was Yes, how long do you have to wait to see the provider?

- Less than 1 week (1)
- One week (2)
- Two weeks (3)
- Greater than two weeks (4)
- I do not know (7)
- Prefer not to answer (6)

Q14 How do you usually get to your healthcare provider's appointment?

- I drive (1)
- My family members drop me off (2)
- I ask a ride from others (3)
- I take public transportation (e.g., Bus, Train) (4)
- I take Uber (5)
- I take Taxi (6)
- I walk (7)
- I do not go anywhere - I get a home provider visit (8)
- I do not go anywhere - The provider calls me via telephone/video (Telemedicine) (9)

Display This Question:
If Q14 = I do not go anywhere - The provider calls me via telephone/video (Telemedicine)
Q15 On the previous question, you answered "I do not go anywhere - The provider calls me via telephone/video (Teledmedicine)". Was it before the COVID-19 pandemic or after the pandemic started?

- Before COVID-19 Pandemic (1)
- After COVID-19 Pandemic (2)

Q16 During the past 12 months, have you delayed getting medical care because you didn’t have transportation?

- Yes (1)
- No (2)

Q17 During the past 12 months, have you postponed/delayed filling your prescription?

- Yes (1)
- No (2)

Display This Question:
If Q17 = Yes
Q18 If your response was yes, what was the reason you postpone/delayed filling your prescription?

- I have no insurance/I’m self-pay (1)
- The total cost of the drug without insurance is too much for me (2)
- I have insurance but the medicine is not covered (3)
- I have insurance but the co-pay is too high (4)
- Pharmacy is far away and need transportation to get to the pharmacy (5)
- I don’t believe it works anyway (6)
- Use herbs/other products to treat it (7)
- Other (8) ________________________________

Q19 During the past 12 months, how many times did you see a doctor or other healthcare professional about your own health at a doctor’s office, clinic, hospital emergency room, including visits that resulted in a hospital admission?

- Never (1)
- One time (2)
- 2-5 times (3)
- 6-10 times (4)
- More than 10 times (5)
- Do not know (6)
- Prefer not to answer (7)
Q20 What are your TOP THREE reasons to select a health care provider as your primary care provider or specialist?

☐ If my provider speaks my language (1)
☐ If my provider belongs to the same ethnic group as I am (2)
☐ If my provider belongs to the same religion as I am (3)
☐ If my provider is the same gender as I am (4)
☐ If my provider is recommended by family/friends (5)
☐ If my provider is recommended by another provider I trust (6)
☐ If the provider allows for a discounted rate (7)
☐ Other (8) _________________________________

Q21 In the past 12 months, have you ever delayed or postponed medical care due to lack of insurance coverage?

☐ Yes (1)
☐ No (2)
Q22 Because of the lack of insurance, how long has it been since you last saw a healthcare provider?

- 6 months or less (1)
- More than 6 months, but not more than 1 year ago (2)
- More than 1 year, but not more than 2 years ago (3)
- More than 2 years, but not more than 5 years ago (4)
- More than 5 years ago (5)
- Don’t know (6)
- Prefer not to answer (7)

Q23 During the past 12 months, have you delayed your regular health professional’s visit because you were not satisfied or pleased with the care?

- Yes (1)
- No (2)
Q24 If yes, what was the source of your dissatisfaction with your healthcare provider? Please check all that applies.

☐ The Healthcare provider wasn’t speaking my language (1)

☐ The healthcare provider was too fast and didn’t give me time to express myself well (2)

☐ The healthcare provider did not understand my culture and health beliefs (3)

☐ The healthcare provider wasn’t compassionate, and friendly. (4)

☐ The healthcare provider didn’t prescribe me what I needed. (5)

☐ The healthcare provider wasn’t the same gender as I am. (6)

☐ The healthcare provider wasn’t the same religion as I am (7)

☐ The healthcare provider didn’t accept my insurance; (8)

☐ My insurance didn’t cover the visit (9)

☐ Other (10) ____________________________

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Q25 During the past 12 months, have you purchased health insurance coverage?

☐ Yes (1)

☐ No (2)

Display This Question:
If Q25 = Yes
Q26 If your answer was Yes, what type of coverage did you purchase?

- Private (1)
- Employer sponsored insurance (2)
- Government sponsored (Medicare/Medicaid) insurance (3)
- Other (4)

Display This Question:
If Q25 = No

Q27 If your answer was No, what was the reason that you didn't need to purchase health insurance coverage?

- I'm covered by my family member's insurance plan (1)
- I don't have a job that provides insurance coverage (2)
- My job provides health insurance but I can't afford the monthly premium payment and I opted out (3)
- I'm self-employed and I can't afford the monthly premium (4)

Q28 During the past 12 months, have you delayed healthcare treatment at your regular doctor's office or by another healthcare professional because of cultural or health belief differences?

- Yes (1)
- No (2)

Display This Question:
If Q28 = Yes
Q29 If your answer was Yes, how long was the delay?

- Less than 3 months (1)
- 3 month (2)
- Less than 6 months (3)
- 6 months or more (4)
- Don’t know (5)
- Prefer not to answer (6)

* Q30 Prior to COVID-19 pandemic, what are the TOP THREE possible reasons that you might delay health professional care? (Check the boxes to respond)

- Distance to the provider (1)
- Wait time at the providers’ office (2)
- Lack of respect by healthcare provider or the support staff (3)
- They don’t speak my language (4)
- Inconvenient time (5)
- They don’t take my insurance (6)
- The co-pay/co-insurance is high (7)
- I’m afraid to find out the unknown about my health (9)
- Other (8) ___________________________
Q31 Has your culture or health belief ever affected you in adapting to the U.S. culture quickly?

☐ Yes (1)
☐ No (2)

Q32 Which of the following statement describes your current practice here in the United States as it relates to your cultural origin? Check all that applies.

☐ I like to eat my own cultural food most days of the week (1)
☐ I like to listen my own cultural music most days of the week (2)
☐ I like to socialize and hang out with people from my country of origin most days of the week. (3)
☐ I like to speak my language, with people from my country most days of the week (4)
☐ I like to use cultural and herbal remedies before I look for any medical advice (7)
☐ Other (6) ______________________________________

Q33 During the past 12 months, have you had any difficulty getting healthcare treatment at your regular doctor’s office or an emergency room because of your immigration status?

☐ Yes (1)
☐ No (2)
Q34 During the past 12 months, was there any time you needed medical evaluation, but you didn’t seek medical help?

- Yes (1)
- No (2)

Display This Question:
If Q34 = Yes

Q35 If your answer is YES, what’s the reason for NOT seeking medical help timely?

- I like to try cultural and herbal medications first before I seek medical help (1)
- I am afraid to be told that I have some kind of disease (fear of the unknown) (2)
- I don’t have insurance coverage to seek medical help (3)
- My insurance coverage is not sufficient to cover medical help (4)
- I’m afraid of co payments (5)
- I’m afraid immigration officials to go and seek medical help (6)
- Prefer not to answer (7)
- Other (8) ____________________________
Q36 What will you do FIRST when you or one of your family members such as your child, parents, or spouse, etc., gets acutely sick with chest pain which could be a sign of serious heart problem?

- Call/talk to my spouse, children or family members for advice first (1)
- Call and schedule appointment right away to see my Primary Care Provider (2)
- Go to a walk-in clinic (urgent care) (3)
- Go to the nearest Emergency Department (ED) (4)
- Go to church/mosque/Synagogue to pray on it (5)
- Call my religious leader (Priest, Pastor, Imam, etc.) for prayer (6)
- I self-medicate myself with herbal/cultural medicine (7)
- I self-medicate myself with over the counter medicine (8)
- Prefer not to answer (9)
- Other (10) ________________________
Q37 About how long has it been since you last saw a doctor or other health care professional for a wellness visit, physical, or general-purpose check-up?

○ I never go for check up unless I’m sick (1)
○ Within the past year (anytime less than 12 months ago) (2)
○ Within the last 2 years (1 year but less than 2 years ago) (3)
○ Within the last 3 years (2 years but less than 3 years ago) (4)
○ Within the last 5 years (3 years but less than 5 years ago) (5)
○ Within the last 10 years (5 years but less than 10 years ago) (6)
○ 10 years ago, or more (7)
○ Prefer not to answer (8)
○ Don’t know (9)

Q38 During the past 12 months, how many times have you gone to an urgent care center or a clinic in a drug store or grocery store about your health?

○ Never (1)
○ 1-3 (2)
○ 4-8 (3)
○ 9-15 (4)
○ >15 (5)
○ Don’t know (7)
○ Prefer not to answer (6)
Q39 During the past 12 months, how many times have you gone to a hospital emergency room about your health?

- Never (1)
- 1-3 (2)
- 4-8 (3)
- 9-15 (4)
- >15 (5)
- Prefer not to answer (6)
- Don't know (7)

Q40 During the past 12 months, was there any time when you needed medical care, but DID NOT GET IT because of the cost?

- Yes (1)
- No (2)
- Prefer not to answer (3)

Direction: The following Questions are related to the current situations surrounding COVID-19 pandemic. Please answer each question as it relates to your health seeking behavior and the challenges you had getting health services during the stay home order.
Q41 Due to the current COVID-19 pandemic, how has your health behavior changed or what are you doing to stay safe? Please check all that applies.

☐ I wash my hands more often than before (1)

☐ I practice social distancing - I limit my social gathering or keep my distance 6 feet apart (2)

☐ When I go to grocery stores, I first clean the cart handle with disinfectants (3)

☐ I always wear mask whenever I am in public spaces (4)

☐ I closely watch what other people do with their hands (5)

☐ I stopped shaking hands and hugging friends to greet (6)

☐ Other - please list (7)

Q42 Due to COVID-19 pandemic and the Governor's "stay home" order, have you had any problem of accessing and getting any healthcare services that you or one of your family member desperately needed during this time?

☐ Yes (1)

☐ No (2)

Display This Question:
If Q42 = Yes

X
Q43 If your answer is YES for the above question, what was your desperate healthcare need that you weren't able to get services for?

☐ I had an urgent pain that I needed evaluation & treatment for but I was afraid to go to ER or urgent care center (1)

☐ I had scheduled appointments at my providers' office that were cancelled and postponed (2)

☐ I had a scheduled surgical procedure that was cancelled and postponed (3)

☐ I was not able to fill my prescription (4)

☐ Other (5) ____________________________

Display This Question:
If Q42 = Yes

X-1
Q44 Due to COVID-19 pandemic, what was the alternative action you took to address your healthcare need that you mentioned above? Check all that applies.

☐ I called my provider to get help (1)
☐ I used herbal remedies (2)
☐ I took over the counter medicines (3)
☐ I prayed on my health problem (4)
☐ I used religious rituals to get healing (5)
☐ I called my religious leader to pray for me (6)
☐ I did not do anything and I still have the health problem (7)
☐ Other - please write below (8)
Q45 If you have to choose the top 3 reasons for the healthcare access and service utilization problems you had during COVID-19 pandemic, what would those 3 reasons be? Please check only the three top reasons.

☐ The healthcare system was unable to handle the COVID-19 crisis (1)
☐ The closing of health services in the city for non-urgent visit (2)
☐ The unprecedented nature of the pandemic (3)
☐ My own personal fear not to catch the infection (4)
☐ The unexpected economic challenges I faced (5)
☐ The closing of worship places (6)
☐ There was no transportation available due to the stay home order (7)
☐ Other - please write your response (8)

Q46 How do you rate your understanding and knowledge of COVID-19 pandemic, including the seriousness of the disease, how it's transmitted and the precautions you have to take to avoid getting the infection.

☐ Poor (1)
☐ Fair (2)
☐ Good (3)
☐ Very good (4)
☐ excellent (5)
The following questions are related to your English Language Proficiency and interpreter need for healthcare services.

Q47 Do you speak a language other than English at home?

- Yes (1)
- No (2)

Q48 What's the language?

- Amharic (1)
- Afar (2)
- Oromifa (3)
- Tigrigna (4)
- Welaytagna (5)
- Guragigna (6)
- Somali (7)
- Sidama (8)
- Other- specify (10)  

__________________________________________
Q49 How well do you speak English?

- Very well (1)
- Well (2)
- Not well (3)
- Not at all (4)

Q50 Do you have trouble reading or writing materials printed in English on health-related topics?

- Always (1)
- Mostly (2)
- Sometimes (3)
- Occasionally (4)
- Never (5)

Q51 Do you bring someone who speaks English better than yourself with you when you visit any healthcare provider to help in interpretation?

- Never (1)
- Always (2)
- Sometimes (3)

Display This Question:
If Q51 = Never
Q52 Who do you bring along to your healthcare provider’s appointment to help you interpret English?

- Family member (1)
- A friend (2)
- Assigned interpreter from my insurance (3)
- One of the church or community leaders (4)

Directions: Below are some questions about what you do in your recreational time, the people you know and their ethnic backgrounds, and some statements people have made. Please identify one number that most closely completes the question for you. There are no right or wrong answers so please respond honestly.

Q53 When you listen to music, do you prefer to listen to Black/Ethiopian music rather than White music:

- Most or all the time (1)
- About half the time (2)
- Less than half the time (3)
- Rarely or never (4)
Q54 When you watch TV, do you prefer to watch a Black/Ethiopian rather than a White channel:

- Most or all the time (1)
- About half the time (2)
- Less than half the time (3)
- Rarely or never (4)

Q55 When you listen to the radio, do you prefer to listen to a Black/Ethiopian rather than a White station:

- Most or all the time (1)
- About half the time (2)
- Less than half the time (3)
- Rarely or never (4)

Q55 Thinking of your friends that you usually see these days, what proportion are Black/Ethiopian:

- All or nearly all of them (1)
- About half of them (2)
- Less than half of them (3)
- Few or none of them (4)
Q57 Thinking of your current church congregation, what proportion are Black/Ethiopian

- All or nearly all of them (1)
- About half of them (2)
- Less than half of them (3)
- Few or none of them (4)

Q58 Thinking of the parties you usually go to these days, would you say that the group of people who usually attend are:

- All or nearly all Black/Ethiopian (1)
- About half Black/Ethiopian (2)
- Less than half Black/Ethiopian (3)
- Few or none Black/Ethiopian (4)

Q59 Thinking of the people in the neighborhood where you live now, are they:

- All or nearly all of them Black/Ethiopian (1)
- About half of them Black/Ethiopian (2)
- Less than half of them Black/Ethiopian (3)
- Few or none of them Black/Ethiopian (4)
Q60 Socially, I feel less at ease with Whites than with Black/Ethiopian. Do you:

- Strongly agree (1)
- Agree (2)
- Disagree (4)
- Strongly disagree (5)

Q61 When I need help, I rely mainly on relatives. Do you:

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly disagree (4)

Q62 It is better that Black/Ethiopian only marry other Black/Ethiopian. Do you:

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly disagree (4)

End of Block: Adult Access to Healthcare, Health Seeking Behavior and Utilization Survey

Start of Block: Adult Sociodemographics Survey Questionnaire (ASDS-Q)

Instructions: Please provide your responses to the following questions by checking your response or if asked, writing in the space provided.
Q63 Where you born in the United States?
   ○ Yes (1)
   ○ No (2)

Q64 What is your gender?
   ○ Male (1)
   ○ Female (2)
   ○ Prefer not to answer (3)

Q65 How old are you (to the nearest age range)?
   ○ 18-29 years (1)
   ○ 30-39 years (2)
   ○ 40-49 years (3)
   ○ 50-59 years (4)
   ○ 60 or more (5)
   ○ I don't know (6)
   ○ Prefer not to answer (7)
Q66 How old were you when you first immigrated to the United States (to the nearest age range)?

- < 18 years old (1)
- 18-29 years (2)
- 30-39 years (3)
- 40-49 years (4)
- 50-59 years (5)
- 60 or more (6)
- I do not know (7)

Q67 What is your marital status?

- Single, never married (1)
- Engaged (2)
- Married (3)
- Divorced (4)
- Widowed (5)
- Live with another person but not married (6)
- Prefer not to answer (7)
Q68 What is the highest level of education you have completed?

○ No Schooling (1)
○ Elementary school (2)
○ Junior High School (3)
○ High School (4)
○ Associate Degree (5)
○ Bachelors Degree (6)
○ Masters Degree (7)
○ Doctoral Degree (8)
○ Other (9) ____________________________

Q69 How many years have you lived in the United States?

○ Less than 5 years (1)
○ 6-10 years (2)
○ 11-15 years (3)
○ 16-20 years (4)
○ Over 20 years (5)
Q70 What is your employment status?

- Unemployed (1)
- Employed Part-time (2)
- Employed Full-time (3)
- Self-Employed (4)
- Retired (6)
- Prefer not to answer (5)

Q71 What's your present religion, if any?

- Christian - Ethiopian Orthodox (1)
- Christian - Evangelical (2)
- Christian - Catholic (3)
- Christian - Other (4)
- Muslim (5)
- Atheist/I don't believe in supernatural being (6)
- Prefer not to answer (7)
Q72 Aside from weddings and funerals, how often do you attend religious services?

- More than once a week (1)
- Once a week (2)
- Once or twice a month (3)
- A few times a year (4)
- Sometimes (5)
- Never (6)

Q73 What's your immigration status?

- US Born Citizen (1)
- Naturalized U.S. Citizen (2)
- Permanent Resident/Green Card Holder (3)
- Filed immigration application, awaiting decision (4)
- Undocumented (5)
- Prefer not to answer (6)
Q74 Before taxes and other deductions, in the past 12 months, what was your total household or individual income from all sources?

- $0.000 —$19,999 (1)
- $20,000 —$34,999 (2)
- $35,000 —$49,999 (3)
- $50,000 —$74,999 (4)
- $75,000 —$99,999 (5)
- $100,000 or more (6)
- Prefer not to answer (7)

End of Block: Adult Sociodemographics Survey Questionnaire (ASDS-Q)
Appendix B:

VII.2. Appendix B: Consent and Survey Questions – English Version

Survey Question – HSB_ Ethiopian Immigrants - Amharic

Q1: ከስር የጠቼቹ ያሉት ከወንጀት እንወጆች ከምቻ ያልተወስኖ። ከጠች ከፋሽ።

☐ እርሆ የተጠቀ ውዥ ያለበት ከወንጀት እንወጆች ከጠች ከፋሽ። (4)
☐ ከቁሆ የተጠቀ ውዥ ያለበት ከወንጀት እንወጆች ከጠች ከፋሽ። (5)

Q2: ከስር ያስር የጠች ያስር ያስር የጠች ከወንጀት እንወጆች ከጠች ከፋሽ።

☐ እርሆ የተጠቀ ውዥ ያለበት ከወንጀት እንወጆች ከጠች ከፋሽ። (1)
☐ ከቁሆ የተጠቀ ውዥ ያለበት ከወንጀት እንወጆች ከጠች ከፋሽ። (2)
☐ እርሆ ያስር ያስር ያስር ያስር (3)
☐ ከቁሆ ያስር ያስር ያስር ያስር (4)
☐ ከቁሆ ያስር ያስር ያስር ያስር (5)
Q2 የአባት ከተከርተ ሇረ ከገ ከማት መካከል የምት ከምም ማስርﺗ ያስከል ይታል?

☐ የአባት ከገ (1)
☐ የአባት ከማት (2)
☐ የአባት ከማት ከማት (3)
☐ የአባት ከማት (4)
☐ የአባት ከማት ከማት ከማት (5)
☐ የአባት ከማት (6)
☐ የአባት ከማት ከማት ከማት (7)
☐ የአባት ከማት ከማት (8)
☐ የአባት ከማት ከማት ከማት (9)

Q3 የአባት ከተከርተ ሁኔታ ስማ የሚጠቀም ይታል። ያለባቸዎ ማስርት ምክንያት የሚጠቀም መካከል ከማት ይታል። በወ><!-- (1)-->
Q4 የአማካኝነት ምን እንዳለውን ስምምነት ከማለፍ ያልተቀር ያልግለጽና ያለው ከሉይ ከም በተመለከም ከታች ማን እንዳለውን?

○ ከላይ ከላይ (Walk-in clinic) (1)
○ የላ ከላ ከስር (Doctor’s office) (2)
○ ከላይ ከስር (3)
○ የግብሉት ለማድ (County hospital) (4)
○ ከላይ (5) ___________________________________________________________________
○ ከላይ ከስር ከመካከር (7)

Q5 ከላይ 12 ዓመት ዓላማ፣ ከላይ ከስር ከም ከላይ ከም ከስር ያልተቀር ያልግለጽ ማን እንዳለውን?

○ ከላይ ከስር ከመካከር (1)
○ ከላይ ከስር ከመካከር (2)
Q6 ረል እስራት ያለው ዕ вал "ስ ድርጅት" ከም ይስ ይችላል የትግራት ከማት ከም ይችላል ያለው ከማት }
Q8.  

Q9.  

Q10.
Q11 የወንበር ይችሉ የወንበር? በሚወንበር-ቹን የወንበር

☐ ይህ መወንበር ከወንበር 1

☐ ይህ መወንበር ከወንበር ከወንበር 2

☐ ከወንበር 3

☐ ይህ መወንበር ከወንበር ከወንበር ከወንበር 4

☐ ይህ መወንበር ከወንበር ከወንberries ከወንberries 5

☐ ይህ መወንberries ይህ ይህ ይህ ይህ ይህ ይህ ይህ ከወንberries 6

☐ ይህ መወንberries ይህ ይህ ይህ ይህ ከወንberries 7

Q12 ይህ መወንberries ይህ ይሁን ይህ ይሁን ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይሁን ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይሁን ይህ ይሁን ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይህ ይ Heather's 188
Q13 የአስታ黟 እንደ የአንወ እንወት የአለም እምነት ያለን ላይ ላይ ያለ ይበለጆች?  

○ ከአስታ黟 እንወት ያለ (1)  
○ ከአስታ黟 ያለ (2)  
○ ከአስታ黟 ያለ (3)  
○ ከአስታ黟 እንወት ያለ (4)  
○ ከአስታ黟 ያለ (5)  
○ ከአስታ黟 እንወት ያለ (6)  

Q14 የአስታ黟 እንወት ስን ይችላል?  

○ ከአስታ黟 እንወት ያለ (1)  
○ ከአስታ黟 ያለ (2)  
○ ከአስታ黟 እንወት ያለ (3)  
○ ከአስታ黟 እንወት ያለ (4)  
○ ከአስታ黟 ያለ (5)  
○ ከአስታ黟 ያለ (6)  
○ ከአስታ黟 ያለ (7)  
○ የአስታ黟 ያለ - ከአስታ黟 እንወት ያለ (8)  
○ የአስታ黟 ያለ - ከአስታ黟 እንወት ያለ (9)  

Display This Question:  
If Q14 = የአስታ黟 ያለ - ከአስታ黟 እንወት ያለ (8) ያለ ይችላል (9)
Q15 የ划定 ከሚ መጬ የ“የእን ከደረስ ከ- ክልኝ ከሚ ስለ ከአክ ያለበት የሚ ከ” የሚለው መጬ ያስር ያርስ ይቻ የሆን ከስ የተሆን የተከራ የተሆኝ ይህ ከ? ሰወ ከ- ከሚ ያኋ ያስር ከ- ሰወ ከሚ ያኋ ያስር ከ- ከሚ ያኋ ያስር ከ-

○ ከስ የተሆን ያስር ከ- ሰወ ከሚ ያኋ ያስር ከ-
○ ከስ የተሆን ያስር ከ- ሰወ ከሚ ያኋ ያስር ከ-

Q16 የ划定 ከሚ መጬ የ“የእን ከደረስ ከ- ክልኝ ከሚ ስለ ከአክ ያለበት የሚ ከ” ያስር ያርስ ይቻ የሆን ከstriction ከሚ ያኋ ያስር ከ- ሰወ ከሚ ያኋ ያስር ከ-

○ ሰወ ከሚ ያኋ ያስር ከ-
○ ከስ የተሆን ያስር ከ-

Q17 የ划定 ከሚ መጬ የ“የእን ከደረስ ከ- ክልኝ ከሚ ስለ ከአክ ያለበት የሚ ከ” ያስር ያርስ ይቻ የሆን ከstriction ከሚ ያኋ ያስር ከ-

○ ከስ የተሆን ያስር ከ-
○ ከስ የተሆን ያስር ከ-

Display This Question: If Q17 = ከስ የተሆን ያስር ከ-
Q18 მართვი და მამა ქალიშებრძოლებში მოხერხდება მამის გარეშე ადრე მოხერხდა ამოქმედება აქ შემდეგ როგორც ხოლო ქანში არ ჩამოაშტონოს მოხერხდება აქ? 

○ ქანში თავმჯდომარე ხელი მიარჩია (1)
○ თავშემოქმედ ჩამოშლილი და გამძლებრი (2)
○ ქანში პასუხი ხოლო განაცხადა თავისი აღმოსავლეთ მთლიანად (3)
○ ქანში პასუხი ხოლო გადამუშავდა თავისი აღმოსავლეთ მთლიანად (4)
○ თავშემოქმედ ხოლო განაცხადა თავისი აღმოსავლეთ მთლიანად (5)
○ თავშემოქმედ ხოლო განაცხადა თავისი აღმოსავლეთ მთლიანად (6)
○ თავშემოქმედ ხოლო განაცხადა თავისი აღმოსავლეთ მთლიანად (7)
○ აქ - ხელმომავალ (8)  Adamanta

Q19 ადამი 12 წლამდე მოხერხდებოდა თანამედროვე თვითმფრინავ აქ რა მსჯერლობა გამოიპიროს გამოქოთ თანამედროვე თვითმფრინავ აქ რა მსჯერლობა გამოიპიროს გამოქოთ თანამედროვე თვითმფრინავ აქ რა მსჯერლობა გამოიპიროს გამოქოთ თანამედროვე თვითმფრინავ აქ რა მსჯერლობა გამოიპიროს გამოქოთ თანამედროვე თვითმფრინავ აქ რა მსჯერლობა გამოიპიროს გამოქოთ თანამედროვე თვითმფრინავ აქ რა მსჯერლობა გამოიპიროს გამოქოთ თანამედროვე თვითმფრინავ აქ რა მსჯერლობა გამოიპიროს გამოქოთ თანამედროვე თვითმფრინა

○ ხელმომავალ (1)
○ თავშემოქმედ (2)
○ თავშემოქმედ (3)
○ თავშემოქმედ (4)
○ თავშემოქმედ (5)
○ თავშემოქმედ (6)
○ თავშემოქმედ (7)
Q20 እንወ ይሄ በወጣት ያስከወ ከጊዜ ከፋሰ ያሆ ኮንጋ ይታረም ይታል ከወን ይታል? 

☐ ከፋሰ ያለ ያስከወ ከጊዜ ከፋሰ ያሆ ከወን ይታል (1)
☐ ከፋሰ ያለ ያስከወ ከጊዜ ከፋሰ ያሆ ያስከወ ከወን ይታል (2)
☐ ከፋሰ ያለ ያስከወ ከጊዜ ከፋሰ ያሆ ያስከወ ከወን ይታል (3)
☐ ከፋሰ ያለ ያስከወ ከጊዜ ከፋሰ ያሆ ያስከወ ከወን ይታል (4)
☐ ከፋሰ ያለ ያስከወ ከጊዜ ከፋሰ ያሆ ያስከወ ከወን ይታል (5)
☐ ከፋሰ ያለ ያስከወ ከጊዜ ከፋሰ ያሆ ያስከወ ከወን ይታል (6)
☐ ከፋሰ ያለ ያስከወ ከጊዜ ከፋሰ ያሆ ያስከወ ከወን ይታል (7)
☐ ከፋሰ ያለ ያስከወ ከጊዜ ከፋሰ ያሆ ያስከወ ከወን ይታል (8)

Q21 በወን ያስከወ ከጊዜ ከፋሰ ያሆ ያስከወ ከጊዜ ከፋሰ ያሆ ያስከወ ከወን ይታል? 

☐ ከፋሰ ያለ ያስከወ ከጊዜ ከፋሰ ያሆ ያስከወ ከወን ይታል (1)
☐ ከፋሰ ያለ ያስከወ ከጊዜ ከፋሰ ያሆ ያስከወ ከወን ይታል (2)

Display This Question:
If Q21 = ከፋሰ ያለ ያስከወ ከጊዜ ከፋሰ ያሆ ያስከወ ከወን ይታል
Q22 ከአርሱስ እነሱ ያስጠበቅ እስከ ከስር ያነደ ያስታውል ከወላ?

○ ከስር እር ይወላ ከስር ያስታውል (1)
○ ከስር እር ይወላ ከስር ከስር እስከ ያስታውል (2)
○ ከስር እስከ ከስር ከስር እስከ ያስታውል (3)
○ ከስር እስከ ከስር ከስር ከስር እስከ ያስታውል (4)
○ ከስር ከስር እስከ ያስታውል (5)
○ ከስር እስከ ያስታውል (6)
○ ከስር እስከ ያስታውል (7)

Q23 ከላሇት 12 መሆን ወይም በስር ከስር እስከ ያስታውል ያስጠበቅ በሆይ ከወላ ከወላ?

○ ከስር እስከ ያስታውል (1)
○ ከስር እስከ ያስታውል (2)

Display This Question:
If Q23 = ከስር እስከ ያስታውል
Q24 የለው የታحضور እንሱ ከወሩ ይታገላታ ይታችን ዛምት ይታሪክ ይህን ከክር?

☐ ይህ ከውልድ እንጋገር ያቅርባቸው (1)
☐ ይህ ከውልድ እንጋገር ያቅርባቸው ይህ ከውልድ እንጋገር ከሳት ይለስጥ (2)
☐ ይህ ከውልድ እንጋገር ከሳት ይለስጥ ይለስጥ እንጋገር (3)
☐ ይህ ከውልድ እንጋገር ያቅርባቸው ይህ ከጋራ እንጋገር (4)
☐ ይህ ከውልድ እንጋገር ያቅርባቸው ይህ ከጋራ እንጋገር (5)
☐ ይህ ከውልድ እንጋገር ያቅርባቸው ይህ ከጋራ እንጋገር (6)
☐ ይህ ከውልድ እንጋገር ያቅርባቸው ይህ ከጋራ እንጋገር (7)
☐ ይህ ከውልድ እንጋገር ያቅርባቸው ይህ ከጋራ እንጋገር (8)
☐ ይህ ከውልድ እንጋገር ያቅርባቸው ይህ ከጋራ እንጋገር (9)
☐ በ Área - በክር (10)

Q25 ከወሩ 12 ይታገሁ መብት ይህ ከጋራ እንጋገር ይታችን ይህን ከክር?

☐ ከአራማ-አማር (1)
☐ ከል ከውልድ (2)

Display This Question:
If Q25 = ከአራማ-አማር
Q26 ScrollPane here? What type of insurance do you have? (please select one)

- None (1)
- Medicare only (2)
- Medicaid only (3)
- Both (4)

Display This Question:
If Q25 = None

Q27 Have you ever been hospitalized? If so, what type of insurance do you have? (please select one)

- Medicare and Medicaid (1)
- Medicare only (2)
- Medicaid only (3)
- None (4)

Q28 How often do you think your health is monitored? (please select one)

- Very often (1)
- Occasionally (2)

Display This Question:
If Q28 = Very often
Q29 ከወን ሲባን ገምở ይሸ_ALT የሆነ፣ ከምስት እውነት ሰኔ በኋላ ይህ ከር?  

○ ከ3 እር ፓር ሰሩ (1) 
○ ከ3 እር (2) 
○ ከ6 እር ፓር ሰሩ (3) 
○ ከ6 እር እር ፓር ሰሩ (4) 
○ ከ6-ሽም (5) 
○ ከ6 እር እር ፓር ሰሩ (6) 

Q30 ከነግጫ-19 መርሃን ገምቡ ገማት ከወን ሲባን መንገድ ያለበት ከምስት እውነት ውስጥ ያለባት መንገድ ከውሠ ገማት ገምቡ ይሸነ?

☐ ከነግጫ-19 መርሃን ገምቡ ገማት (1) 
☐ ከነግጫ-19 መርሃን ገማት (2) 
☐ ከነግጫ-19 መርሃን ገማት ከምስት እውነት ውስጥ ከውሠ (3) 
☐ ከ7-ሽም መርሃን ገምቡ ገማት (4) 
☐ ከ7-ሽም መርሃን ገምቡ ገማት (5) 
☐ ከ7-ሽም መርሃን ገምቡ ገማት (6) 
☐ ከ7-ሽም መርሃን ገምቡ ገማት (7) 
☐ ከ7-ሽም መርሃን ገምቡ ገማት (8) 
☐ ከ7-ሽም መርሃን ገምቡ ገማት (9) 
☐ ሲ-ሽም መርሃን (8)
Q31 ナガレソクハガウヒネマグサニシツクガガルヒノムシガツシダニシタケガウヒ

〇 ナガレソクハガウヒ (1)
〇 ナガレソクハガウヒ (2)

Q32 ナガレソクハガウヒヒトガヒヘタガウヒヒトガヒヘバニシツクガガルヒ

〇 ナガレソクハガウヒヒテナリバタガウヒヒテナリバタガガルヒ (1)
〇 ナガレソクハガウヒヒテナリバタガウヒヒテナリバタガガルヒ (2)
〇 ナガレソクハガウヒヒテナリバタガウヒヒテナリバタガガルヒ (3)
〇 ナガレソクハガウヒヒテナリバタガウヒヒテナリバタガガルヒ (4)
〇 ナガレソクハガウヒヒテナリバタガウヒヒテナリバタガガルヒ (5)
〇 ナガレソクハガウヒヒテナリバタガウヒヒテナリバタガガルヒ (6)

Q33 ナガレソク12タタテナリバタガウヒヒテナリバタガガルヒヒテナリバタガガルヒ

〇 ナガレソク (1)
〇 ナガレソク (2)
Q34: How many cases are involved in the specific type of healthcare facility discussed in Q34?

- 1 (1)
- 2 (2)

Display This Question:
If Q34 = 1:

Q35: How does a case of "7" happen in the specific type of healthcare facility discussed in Q34?

- A specific care pathway is followed (1)
- Another healthcare facility is involved (2)
- The healthcare facility cannot be determined (3)
- Medical errors occur (4)
- No medical errors occur (5)
- Other medical errors occur (6)
- Medical errors not reported (7)
Q36. CHEST PAIN (chest pain) 1234567890  

☐ Not present at all. (1)  

☐ Present only at rest. (2)  

☐ Present with mild physical activity. (3)  

☐ Present with moderate physical activity. (4)  

☐ Present with strenuous physical activity. (5)  

☐ Present with any physical activity. (6)  

☐ Present at rest and with any physical activity. (7)  

☐ Present at rest and with strenuous physical activity. (8)  

☐ Present at rest and with any physical activity. (9)  

☐ Other: ___________________________ (10)
Q37 How many days have you been feesible for 12 hours or more?

- 1 day or 12 hours or less: 1
- 2 days or 12 hours or less: 2
- 3 days or 12 hours or less: 3
- 4 days or 12 hours or less: 4
- 5 days or 12 hours or less: 5
- 6 days or 12 hours or less: 6
- 7 days or 12 hours or less: 7
- 8
- 9

Q38 How many days have you been in urgent care? How many hours per day have been in urgent care?

- 1
- 1 to 3 hours: 2
- 4 to 8 hours: 3
- 9 to 15 hours: 4
- 16 hours or more: 5
- 6
- 7
Q39 የአርት 12 ዓመት ወስኘት እሸታት ልክ እና መምታ እግ ከሆነ ለማወቅ ከሚ ይሆናለል።

○ እርም እና (1)
○ 1 - 3 ዋና (2)
○ 4 - 8 ዋና (3)
○ 9 - 15 ዋና (4)
○ ከ 1 ዋና ለሚ (5)
○ እስካ됐 እምታዎቹ (6)
○ እሰው እምታዎቹ (7)

Q40 የአርት 12 ዓመት ወስኘት ከኋ ከእና እስካት እርም እና መምታ ከሚ ይሆናለል። ከሚ ይሆናለል።

○ እርም እና (1)
○ እስካት እምታዎቹ (2)
○ እስካት እምታዎቹ (3)

መንፈስ፡ የአርት ጋር የተፋ የው መርም 15 ዋና ዋና የሆነ የእርም እና መምታ የሚ ከሚ ይሆናለል። እስካት እምታዎቹ የሆነ እርም እና መምታ የሚ ከሚ ይሆናለል።
Q41 የ2020-19 የወንድ የሚሉት እንድ እንዲentifier ከመስሬቱ ከቀን ከወንድ ያሇ የህክም የሚስታት ይቻል ላይ ይታል። እንወን ያስታወቃሉ ከመስሬቱ ይሽን ይታል። ከወንድ ይታል። ይህ በመሆኑ-7 ላይ ያስታወቃሉ ይታል።

☐ ከወንድ ያሇ ከመስሬቱ ከቀን ከወንድ (1)

☐ የሁሉም እንዲentifier ከመስሬቱ - ይህ በጉዳት ይቻል ከመስሬቱ ከቀን ከወንድ (2)

☐ ወወ ከወንድ ለማስታወቃል የሁሉም እንዲentifier ይቻል ከመስሬቱ (3)

☐ ወወ ከወንድ ለማስታወቃል የሁሉም እንዲentifier ከመስሬቱ (4)

☐ ወወ ከወንድ ለማስታወቃል የሁሉም እንዲentifier ይቻል ከመስሬቱ (5)

☐ ወወ ከወንድ ለማስታወቃል የ осуществля የሁሉም እንዲentifier ከመስሬቱ (6)

☐ ከወንድ ይታል። ላይ - ከመስሬቱ (7) ________________________________

Q42 የ2020-19 የወንድ የሚሉት እንዲentifier ከመስሬቱ ከቀን ከወንድ ያሇ የህክም የሚስታት ይቻል። እንወን ያስታወቃሉ ከመስሬቱ ይሽን ይታል። ከወንድ ይታል። ይህ በመሆኑ-1 ላይ ያስታወቃሉ ይታል። ከወንድ ይታል። ላይ ያስታወቃሉ ይታል። ይህ በመሆኑ-2 ላይ ያስታወቃሉ ይታል። ላይ ያስታወቃሉ ይታል። ይህ በመሆኑ-7 ላይ ያስታወቃሉ ይታል።

☐ ከወንድ ያሇ ከመስሬቱ (1)

☐ ከወንድ ያሇ ከመስሬቱ (2)
Q43. How many times do you feel "Coughing" when you have COVID-19 symptoms? (1) Never, (2) Occasionally, (3) Frequently, (4) Constantly, (5) N/A - Not Applicable.

Q44. If you have COVID-19 symptoms, what is your temperature (°C)?

☐ ከсмерт ከCOVID-19 ወይም ከCOVID-19 ወይማ (1)

☐ ከማስተካከል ከCOVID-19 ወይም ከCOVID-19 ወይማ (2)

☐ ከማስተካከል ከCOVID-19 ወይማ (3)

☐ ከማስተካከል ከCOVID-19 ወይማ (4)

☐ ከማስተካከል ከCOVID-19 ወይማ (5)

☐ ከማስተካከል ከCOVID-19 ወይማ (6)

☐ ከማስተካከል ከCOVID-19 ወይማ (7)

☐ ከማስተካከል ከCOVID-19 ወይማ (8)


☐ ከማስተካከል ከCOVID-19 ወይማ (1)

☐ ከማስተካከል ከCOVID-19 ወይማ (2)

☐ ከማስተካከል ከCOVID-19 ወይማ (3)

☐ ከማስተካከል ከCOVID-19 ወይማ (4)

☐ ከማስተካከል ከCOVID-19 ወይማ (5)
Q47 སྲུལ་བརོགས་པ་ཡིན་པའི་དོན་བཞི་དང་བོ་རོལ་བོད་ལ་བོད་པོ་སོགས་ལ་འདི་མེད་དོ་ནོ།

- སྨོན་ཞིག (1)
- སྙུག (2)

Display This Question:
If Q47 = སྨོན་ཞིག

X-

Q48 སྨོན་"མ་" རྒྱུན་པོ་གཉིས་པ་གཅིག་ལུས་ལ་འདི་མེད་དོ་ནོ།

- སྨོན་ (1)
- སྙུག (2)
- བློ་ (3)
- སྙིང་ (4)
- སྦྱོད་ (5)
- རྡོད་ (6)
- སྙིང་ (7)
- སྨོན་ (8)
- སྙིང་ (9)
- བློ་ (10)
Q49 მისამართი როდესაც გაქვით საბჭოთა?

○ გამომ რა (1)
○ რა (2)
○ რა თბოული/მახლა (3)
○ ჯერ სართული (4)

Q50 მისამართი როდესაც გაცნო სახალხო განსაზღვრავთ?

○ უაბ (1)
○ ჯვარა (2)
○ აგრეთვე (3)
○ ადახლოება (4)
○ ქალაქი (5)

Q51 მოქმედება როდესაც გაბრძოდ საქმე? როგორ განსაზღვრა მოქმედება როდესაც გაბრძოდ საქმე?

○ ქალაქი (1)
○ უახლოება (2)
○ რა (3)
Q52 የም በውን ይታስ ያለው ከወንድ ከንፈስት ከርስ ያለባ ከሚእንዳ ያሇ መው ያሇው ነው?

☐ የበለጆች ከገ (1)
☐ የርስ (2)
☐ ከትራንስሽ ከም ከገርስ (3)
☐ ከሆነም ከም ከቻለትና የማስች ይቻቸው (4)

Q53 ይህ ይታስ ያለው ከሆነ ከርስ እንደ ያስቀርባ ከቡን ይህ ከሆነው ከጋወጡ ያስች ይቻቸው ከርስ እንደ ያስቀርባ ነው?

☐ የበለጆች ከገ ያስቀርባ ከርስ (1)
☐ ያስቀርባ ከገ (2)
☐ ከትራንስሽ ከግ ያስቀርባ (3)
☐ ከሆነም ከግ ያስቀርባ (4)

☐ ከሆነም ከግ ያስቀርባ (4)
Q54. የአስገኝ ከአሁን ጎም እስከ ገደብ የተመጋገጥ ከውለ እና ከራሳ ያለው ይውር ይቋል؟

○ ገደብ ከአሁን ያለው እና (1)
○ በጉዳት እና (2)
○ ከተማ እና (3)
○ ከር ከር በማ ያላቸው (4)

Q55. የአስገነት ከአሁን ምስ ውስጥ የተጠቀል ይችል እና ገደብ ያስጾም ይችላል?

○ ገደብ ከአሁን ያለው እና (1)
○ በጉዳት እና (2)
○ ከተማ እና (3)
○ ከር ከር በማ ያላቸው (4)

Q56. ከአስገነት ከአሁን የሚሸጥ እና ከራሳ ያስጾም ከውለ እና ገደብ ይሱ ይግባኝ ይችላል?

○ ከታታ የሚያስጭር ይችላል (1)
○ ከተማ እና (2)
○ ከራሳ እና (3)
○ ከር ከር በማ ያላቸው (4)
Q57 ይህን የሚ雷斯ን ፈራ AssertionError በጎር ወይም የሚ雷斯ን የሚ雷斯ን በጎር ያልተካርካ የማይሠር ይሆን ይህን ከላይ ያለውን ያለውን ይህን ያለውን ያለውን ይህን ያለውን ያ łatውን ያለ.datetime:  209
Q60 ከምባር እና ያርም እስከ ያስስር ከምባር ለማይነት ከትራንስ_pressed ያር ከም ከም እና ከም እር ከም እና ከም እር እር ከም እ_cr_
Q63 እንዱት ከፋክትን ከር ከሔው?  

- እወ-(1)  
- እራትም-(2)  

Q64 እየታ ከፋድ ከሔው?  

- እና- (4)  
- ማት-(5)  
- ፈለስ ከወድለስ-(6)  

Q65 እንዱት ከተለ ከሔው? (ወን ከፋድ ከወስድሽ ወይም ለማን ከወድለስ)  

- 18-29 እመት-(1)  
- 30-39 እመት-(2)  
- 40-49 እመት-(3)  
- 50-59 እመት-(4)  
- 60 እና 60 ዝና (5)  
- እው-ታው-(6)  
- ፈለስ ከወድለስ-(7)
| Q66 ፋ ፋ ነፋ በሪ ፋ ነፋ ከል ከል የሰ ከል ሳ? (መጤ እንወሰን ይምታ ይምታ) |
|---|---|---|---|---|---|---|
| 18-29 እስከ (1) | 18-29 እስከ (2) | 40-49 እስከ (3) | 50-59 እስከ (4) | 60 እስከ ስ እስከ (5) | እስከ- እስከ (6) | እስከ እስከ (7) |

| Q67 የክርስትያን ማህትት ከተፈልገ ሳ? |
|---|---|---|---|---|---|---|
| እርት- እርት ወቅታው (1) | እርት ወቅታው (2) | እርት (3) | እርት (4) | እርት ወቅታው (5) | እርት ወቅታው (6) | እርት ቀድሞ ወቅታው (7) |

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Q68 የአስተካከል እስከ-
የቀር ያምረጋጥ ይኖረ ይችላል?

○ እስ-
የቀር (1)
○ ከስ-
የቀር (2)
○ በስ-
የቀር (3)
○ ከሆ-
የቀር (4)
○ በሆ-
የቀር (5)
○ ይጠ-
የቀር (6)
○ ይሆ-
የቀር (7)
○ ከሆ-
የቀር (8)
○ ከሆ-
የቀር (9)

Q69 እስከ-
የቀር ያህ ይህ ከ-
የቀር ያስ-
ጣጥ ይችላል?

○ ከ-
የቀር ያስ-
ጣጥ (1)
○ ከ-
የቀር ያስ-
ጣጥ (2)
○ ከ-
የቀር ያስ-
ጣጥ (3)
○ ከ-
የቀር ያስ-
ጣጥ (4)
○ ከ-
የቀር ያስ-
ጣጥ (5)
Q70 ያስፋ ይህ ዝርዝር ከው ይኋጎ ይህ።

☐ ከር.ሮ (1)

☐ በፋታ ይህ ዝርዝር ከፋ ከፋን (2)

☐ በፋን ይህ ዝርዝር ከፋን (3)

☐ ይክ ከር ከፋን (4)

☐ ከፋን ከር ከፋን (5)

Q71 የር ዝርም ይህ ዝርዝር ከው ይኋጎ ይህ።

☐ ከር ዝርም ከሆን ዝርም (1)

☐ ከር ዝርም ከሆን ዝርም (2)

☐ ከር ዝርም ከሆን ዝርም (3)

☐ ከር ዝርም ከሆን ዝርም (4)

☐ ከሆን ዝርም (5)

☐ ከሆን ዝርም (6)

☐ ከሆን ዝርም (7)
Q72 ከአርሶ ከነህ ማስረታ ይሠራሉ ይህንም ያነስ ይህ ይህንም ከማህъን ይታየ ከእን ይወሰን?

○ ከማህъን ከን ከስለ የአ ከነላለ (1)
○ ከማህъን ከስለ (2)
○ ከስለ ከስለ ከማህъን የአ (3)
○ ከማህъን ከስለ የአ (4)
○ ከስለ (5)
○ ከሳድስ የአ (6)

Q73 ከአርሶ ከነህ ማስረታ ይሠራሉ ይህንም ከማህъን ይታየ ከእን ይወሰን?

○ ከማህъን ከስለ የአ የአ (1)
○ ከስለ ከስለ ከማህъን የአ (2)
○ ከማህъን ከስለ የአ (3)
○ ከማህъን ከስለ ከማህъን ያንስበ የአ የአ (4)
○ ከሳድስ የአ (5)
○ ከሳድስ የአ (6)
Q74 How many 12 month months have you been unemployed? (Round the answer to two decimal places if necessary.)

- $0.00 — $19,999 (1)
- $20,000 — $34,999 (2)
- $35,000 — $49,999 (3)
- $50,000 — $74,999 (4)
- $75,000 — $99,999 (5)
- $100,000 — $124,999 (6)
- $125,000 or more (7)

End of Block: 12 month months unemployed

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Appendix C:

VII.3. Appendix C: Qualitative Focus Group Discussion – English version

Ethiopian Immigrant Community and Religious Leaders Focus Group Discussion
University of Wisconsin Milwaukee IRB Human subjects’ study approval # 20.365)

Purpose/Objective: To examine the role and impact of religious or community leaders in influencing and maintaining Health Seeking Behavior (HSB) of their congregants or members within the Ethiopian immigrants’ faith/religious institutions (churches, mosques, community associations) in Chicago land area.

Principal Investigator: Siaya B. Mensha, DNP, ACNP-BC

Focus Group Discussion Questions

1. Health Seeking Behavior (HSB)
   a. As a church or community leader, how do you relate the teachings of your faith with attaining “complete health” towards spiritual, mental, physical and social health?
   b. How did your own health behavior or the health behavior of your family and the congregants changed since the pandemic COVID-19 started?
   c. Regarding the current COVID-19 pandemic, what will you do differently in the coming weeks, months or years to overcome the problem?
   d. As a community & religious leader, what is your role and accountability in influencing the Health Seeking Behavior of your community members and/or congregants?
   e. As a religious or community leader, was there a time that you had to deal with individual’s health condition or health behavior, and how did you handle it? Expand the discussion to include substance abuse, mental illness, HIV, COVID-19, etc. (Note: No specific identifier of congregant or community member to be mentioned)
   f. Suppose on your regular home visit of sick congregants, if one of the congregant says, “I’ve been praying and asking God to heal me from this heart disease for a long time but I’m not getting any better”, what will be your advice?
   g. How do you relate the spiritual health needs of your congregation, with respect to their physical and mental health needs?

2. Healthcare Access
   a. In your understanding, do you think the congregants of the church (members of the community) are aware of the health care resources that are available for them around their neighborhood or city? Do you know the availability and location of these healthcare resources yourself? Please explain.
      1. For future use purpose, what are your thoughts in keeping a list of health facilities in your area for reference?
   b. Other than providing spiritual care/teachings to your congregants/community members who might be sick, are there any other health care sources you might connect the members with or advise them to go? (Primary Care provider, County health centers/clinics, Free clinics, herbal and cultural remedies, physical exercise, etc.)
c. What are the challenges that you see in your congregation/community related to healthcare access? (Availability of services, transportation to get to clinic appointments, physical disability, insurance coverage, etc.)

3. Health Service Utilization (HSU)
   a. What’s your understanding and advice to your congregation on diseases that need immediate medical attention, such as chest pain, stroke and cancer?
   b. Suppose you advised one of your members with health conditions to go to county care/or other facility for treatment he/she needs, do you follow up if he/she was able to get the service without difficulty?
   c. If the answer is yes to question “b” above, how do you follow up (over the phone, during home visit or when you meet them at the church,..)

4. Community/Religious Organizations’ Health Outreach
   a. Apart from religious services and care you provide as a religious leader/community leader, does your community/church has other health related services, such as elder home care, community center, community health fest, etc.?
   b.  
      i. If Yes, please state/explain if there needs to be more services?
      ii. If the answer is NO, do you think your church/community should be involved in facilitating or providing community health outreach?

        1. What type of other services do you have in mind that can be incorporated in these services?
Appendix D:

VII.4. Appendix D: Qualitative Focud Group Discussion – Amharic Version

1. የምንግራይ የመግለፋ ውጤም ይዘት ከNUCE (Health Seeking Behavior)

a. እነነ ከምንግራይ ውጤም ይዘት ከምርጫ ከምርጫ የመግለፋ ውጤም ይዘት ከNUCE ከምርጫ ቤት ያለችዎች ከምርጫ ያላቸው?

b. የክርት ከምርጫ ውጤም የክርት 19 ከምርጫ ከምርጫ የክርት ለምርጫ የስር የሚሰራ ከNUCE ከምርጫ ያላቸው ከምርጫ ያላቸው?

c. ከNUCE ከምርጫ ቤት የመሆን የሚሰራ ውጤም ይዘት ከምርጫ የስር ያላቸው?

d. እነነ ከምንግራይ ውጤም ይዘት ያለች የመግለፋ ውጤም ይዘት ከNUCE ከምርጫ ያላቸው ከምርጫ ያላቸው?

e. እነነ ከምንግራይ ውጤም ይዘት ያለች የመግለፋ ውጤም ይዘት ከNUCE ከምርጫ ያላቸው ከምርጫ ያላቸው?

f. የክርት ከምርጫ ውጤም የክርት ያለች የመግለፋ ውጤም ይዘት ከNUCE ከምርጫ ያላቸው ከምርጫ ያላቸው?

g. የክርት ከምርጫ ውጤም ያለች የመግለፋ ውጤም ይዘት ከNUCE ከምርጫ ያላቸው ከምርጫ ያላቸው?

2. ይህ ከማስገባት ያለች የምርጫ ከNUCE (Health Access)

a. ከርስ ውጤም ያለች የምርጫ ከNUCE (Health Access) የመገለፋ ውጤም ያለች የምርጫ ያላቸው ከNUCE ከምርጫ ያላቸው?

i. ከርስ ውጤም ያለች የምርጫ ከNUCE ከምርጫ ያላቸው ከNUCE ከምርጫ ያላቸው?
Appendix D

(University of Wisconsin Milwaukee IRB human subjects’ study # 20.365)

3. HEALTH SERVICE UTILIZATION (Health Service Utilization)

a. Do you receive health services from any source? List these sources and describe why they are important to you.

b. Do you receive health services from any source? List these sources and describe why they are important to you.

4. HEALTH OUTREACH (Health Outreach)

a. Have you participated in any community health outreach programs or events? If yes, describe the programs or events and how you were involved.

i. Have you attended any community health fairs or events? If yes, describe them.

ii. Have you attended any community health fairs or events? If yes, describe them.

1. Do you receive health services from any source? List these sources and describe why they are important to you.
Appendix E:

VII.5. Appendix E: IRB Approval

UNIVERSITY of WISCONSIN
UMILWAUKEE
Department of University Safety & Assurances

New Study - Notice of IRB Exempt Status

Date: June 30, 2020

To: AkkeNeel Talema
Dept: Nursing

CC: Sisay Mersha

IRB #: 20.365
Title: Factors Influencing Health Seeking Behavior and Degree of Health Service Utilization of Ethiopian Immigrants Living in Chicago Land area

After review of your research protocol by the University of Wisconsin - Milwaukee Institutional Review Board, your protocol has been granted Exempt Status under Category 2 as governed by 45 CFR 46.104(d).

This protocol has been approved as exempt for three years and IRB approval will expire on June 29, 2023. Before the expiration date, you will receive an email explaining how to either keep the study open or close it. If the study is completed before the expiration date, you may notify the IRB by sending an email to irbinfo@uwm.edu with the study number and the status.

Any proposed changes to the protocol must be reviewed by the IRB before implementation, unless the change is specifically necessary to eliminate apparent immediate hazards to the subjects. You are responsible for adhering to the policies and guidelines set forth by the UWM IRB, maintaining proper documentation of study records and promptly reporting to the IRB any adverse events which require reporting. You are also responsible for ensuring that all study staff receive appropriate training in the ethical guidelines of conducting human subjects research.

You must also adhere to UWM and UW System Policies, and any applicable state and federal laws governing activities which are independent of IRB review/approval (e.g., FERPA, Radiation Safety, UW Data Security, UW System policy on Prizes, Awards and Gifts, state gambling laws, etc.). When conducting research at institutions outside of UWM, be sure to obtain permission and/or approval as required by their policies.

Contact the IRB office if you have any further questions. Thank you for your cooperation, and best wishes for a successful project.

Respectfully,

Melody Harries
IRB Administrator

[Signature]
Appendix F:

VII.6. Appendix F: Acculturation Scale (AfAAS)

African American Acculturation Scale (AfAAS)

**Directions**: Below are some questions about what you do in your recreational time, the people you know and their ethnic backgrounds, and some statements people have made. Please identify one number that most closely completes the question for you. There are no right or wrong answers so please respond honestly.

1. When you listen to music, do you prefer to listen to Black rather than White music:
   1 = Most or all the time  
   2 = About half the time  
   3 = Less than half the time  
   4 = Rarely or never

2. When you watch TV, do you prefer to watch a Black rather than a White channel:
   1 = Most or all the time  
   2 = About half the time  
   3 = Less than half the time  
   4 = Rarely or never

3. When you listen to the radio, do you prefer to listen to a Black rather than a White station:
   1 = Most or all the time  
   2 = About half the time  
   3 = Less than half the time  
   4 = Rarely or never

4. Thinking of your friends that you usually see these days, what proportion are Black:
   1 = All or nearly all of them  
   2 = About half of them  
   3 = Less than half of them  
   4 = Few or none of them

5. Thinking of your current church congregation, what proportion are Black:
   1 = All or nearly all of them  
   2 = About half of them  
   3 = Less than half of them  
   4 = Few or none of them

6. Thinking of the parties you usually go to these days, would you say that the group of people who usually attend are:
   1 = All or nearly all Black  
   2 = About half Black  
   3 = Less than half Black  
   4 = Few or none are Black

7. Thinking of the people in the neighborhood where you live now, are they:
   1 = All or nearly all Black  
   2 = About half Black  
   3 = Less than half Black  
   4 = Few or none are Black

8. Socially, I feel less at ease with Whites than with Blacks. Do you:
   1 = Strongly agree  
   2 = Agree  
   3 = Disagree  
   4 = Strongly disagree

9. When I need help, I rely mainly on relatives. Do you:
   1 = Strongly agree  
   2 = Agree  
   3 = Disagree  
   4 = Strongly disagree

10. It is better that Blacks only marry other Blacks. Do you:
    1 = Strongly agree  
    2 = Agree  
    3 = Disagree  
    4 = Strongly disagree
Appendix G:

VII.7. Appendix G: Demographic Data Amharic, English and Combined

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Amharic</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N %</td>
<td>N %</td>
</tr>
<tr>
<td><strong>Place of Birth (Q63)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>4 2.60%</td>
<td>1 1.5%</td>
</tr>
<tr>
<td>Outside of US</td>
<td>148 97.40%</td>
<td>66 98.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender (Q64)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>70 46.70%</td>
<td>30 45.5%</td>
</tr>
<tr>
<td>Female</td>
<td>80 53.30%</td>
<td>36 54.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current Age Range (Q65)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29 years old</td>
<td>5 3.30%</td>
<td>2 3.0%</td>
</tr>
<tr>
<td>30-39 years old</td>
<td>40 26.70%</td>
<td>17 25.8%</td>
</tr>
<tr>
<td>40-49 years old</td>
<td>42 28.00%</td>
<td>19 28.8%</td>
</tr>
<tr>
<td>50-59 years old</td>
<td>41 27.30%</td>
<td>19 28.8%</td>
</tr>
<tr>
<td>&gt;60 years old</td>
<td>21 14.00%</td>
<td>8 12.1%</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>1 0.70%</td>
<td>1 1.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age at Immigration (Q66)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;18 years old</td>
<td>32 21.60%</td>
<td>19 29.2%</td>
</tr>
<tr>
<td>18-29 years old</td>
<td>69 46.60%</td>
<td>25 38.5%</td>
</tr>
<tr>
<td>30-39 years old</td>
<td>29 19.60%</td>
<td>12 18.5%</td>
</tr>
<tr>
<td>40-49 years old</td>
<td>9 6.10%</td>
<td>3 4.6%</td>
</tr>
<tr>
<td>50-59 years old</td>
<td>3 2.00%</td>
<td>0 0.0%</td>
</tr>
<tr>
<td>&gt;60 years old</td>
<td>2 1.40%</td>
<td>2 3.1%</td>
</tr>
<tr>
<td>I do not know</td>
<td>4 2.70%</td>
<td>4 6.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status (Q67)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single - Never Married</td>
<td>24 15.90%</td>
<td>8 12.3%</td>
</tr>
<tr>
<td>Engaged</td>
<td>1 0.70%</td>
<td>0 0.0%</td>
</tr>
<tr>
<td>Married</td>
<td>108 71.50%</td>
<td>44 67.8%</td>
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<tr>
<td>Divorced</td>
<td>9 6.00%</td>
<td>7 10.8%</td>
</tr>
<tr>
<td>Widowed</td>
<td>7 4.60%</td>
<td>4 6.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live with another person but not</td>
<td></td>
<td></td>
</tr>
<tr>
<td>married</td>
<td>2 1.30%</td>
<td>2 3.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level of Education (Q68)</strong></td>
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<td></td>
</tr>
<tr>
<td>No Schooling</td>
<td>1 0.70%</td>
<td>1 1.5%</td>
</tr>
<tr>
<td>Elementary School</td>
<td>6 4.00%</td>
<td>2 3.1%</td>
</tr>
<tr>
<td>Junior High School</td>
<td>30 20.00%</td>
<td>17 26.2%</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>12 8.00%</td>
<td>7 10.8%</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>52 34.70%</td>
<td>19 29.2%</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>31 20.70%</td>
<td>11 16.9%</td>
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<td>Doctoral Degree</td>
<td>9 6.00%</td>
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</tr>
<tr>
<td>Other</td>
<td>9 6.00%</td>
<td>6 9.2%</td>
</tr>
</tbody>
</table>

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### Appendix G

#### Appendix G: Demographic Data – Amharic, English and Combined Dataset

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Percentage</th>
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<tbody>
<tr>
<td><strong>Length of Residence in the US (Q69)</strong></td>
<td></td>
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<tr>
<td>Other</td>
<td>9</td>
<td>6.00%</td>
</tr>
<tr>
<td>&lt;5 Years</td>
<td>11</td>
<td>7.30%</td>
</tr>
<tr>
<td>6-10 Years</td>
<td>21</td>
<td>13.90%</td>
</tr>
<tr>
<td>11-15 years</td>
<td>34</td>
<td>22.50%</td>
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<tr>
<td>16-20 Years</td>
<td>30</td>
<td>19.90%</td>
</tr>
<tr>
<td>&gt;20 Years</td>
<td>55</td>
<td>36.40%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td>85</td>
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<tr>
<td><strong>Employment Status (Q70)</strong></td>
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<tr>
<td>Unemployed</td>
<td>24</td>
<td>15.90%</td>
</tr>
<tr>
<td>Employed Part Time</td>
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<tr>
<td>Employed Full Time</td>
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<td>58.30%</td>
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<tr>
<td>Self Employed</td>
<td>18</td>
<td>11.90%</td>
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<tr>
<td>Retired</td>
<td>4</td>
<td>2.60%</td>
</tr>
<tr>
<td>Preferred not to answer</td>
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<td>2.60%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td>85</td>
</tr>
<tr>
<td><strong>Religious Affiliation - If Any (Q71)</strong></td>
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<tr>
<td>Orthodox Christian</td>
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<td>Evangelical Christian</td>
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<td>Catholic</td>
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<tr>
<td>Christian - Other</td>
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<tr>
<td>Muslim</td>
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<td>2.00%</td>
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<tr>
<td>Prefer not to answer</td>
<td>3</td>
<td>2.00%</td>
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<td><strong>Total</strong></td>
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<tr>
<td><strong>Religious Service Attendance (Q72)</strong></td>
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<tr>
<td>&gt; Once a week</td>
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<tr>
<td>Once a week</td>
<td>49</td>
<td>32.00%</td>
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<tr>
<td>1-2 times a month</td>
<td>11</td>
<td>7.20%</td>
</tr>
<tr>
<td>A few times a year</td>
<td>21</td>
<td>13.70%</td>
</tr>
<tr>
<td>Never</td>
<td>3</td>
<td>2.00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td>86</td>
</tr>
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<td><strong>Current Immigration Status (Q73)</strong></td>
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<tr>
<td>US Born Citizen</td>
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<td>Naturalized Citizen</td>
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<td>Permanent Resident</td>
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<td>Filed immigration Application</td>
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<td>2.00%</td>
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<tr>
<td>Undocumented</td>
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<tr>
<td>Prefer Not to answer</td>
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<td>2.00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td>85</td>
</tr>
<tr>
<td><strong>Income (Q74)</strong></td>
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<tr>
<td>$0-$49,999</td>
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<td>40.50%</td>
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<tr>
<td>$50,000-$99,000</td>
<td>44</td>
<td>29.70%</td>
</tr>
<tr>
<td>&gt;$99,000</td>
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<td>8.80%</td>
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<tr>
<td><strong>Total</strong></td>
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<td>64</td>
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### Appendix H:

#### VII.8. Appendix H: Research Questions, DV and IVs

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Predictor Variables</th>
<th>Outcome Variables</th>
<th>Instrument used</th>
<th>Analysis Methods used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are the factors that influence access to healthcare for Ethiopian immigrants?</td>
<td><strong>Structural Predictors</strong>&lt;br&gt;Availability&lt;br&gt;Accessibility&lt;br&gt;Accommodation&lt;br&gt;Immigration status&lt;br&gt;Insurance coverage</td>
<td><strong>Access to Health Services (AHS)</strong>&lt;br&gt;Have a usual place to go when sick&lt;br&gt;Visited the usual place at least once in the past 12 months</td>
<td>Co-opted survey questionnaires from previous studies.</td>
<td>Crosstab&lt;br&gt;Chi Square&lt;br&gt;Fisher’s Exact&lt;br&gt;Pearson’s r</td>
</tr>
<tr>
<td></td>
<td><strong>Financial Predictors</strong>&lt;br&gt;Affordability&lt;br&gt;Insurance coverage&lt;br&gt;Employment status&lt;br&gt;Household income</td>
<td></td>
<td>National Health Interview Survey (NHIS)-Modified</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Personal and Cultural Predictors</strong>&lt;br&gt;Acceptability&lt;br&gt;Culture&lt;br&gt;Health belief&lt;br&gt;Language&lt;br&gt;Religious practice&lt;br&gt;Religiosity&lt;br&gt;Acculturation</td>
<td></td>
<td>Sociodemographic survey questionnaires</td>
<td></td>
</tr>
<tr>
<td>2. What are the factors that influence Health Service Utilization (HSU) of Ethiopian immigrants living in the Midwestern city of the United States?</td>
<td><strong>Structural Predictors</strong>&lt;br&gt;Availability&lt;br&gt;Accessibility&lt;br&gt;Accommodation&lt;br&gt;Immigration status&lt;br&gt;Insurance coverage</td>
<td><strong>Health Service Utilization (HSU)</strong>&lt;br&gt;Frequency of scheduled visits to PCP&lt;br&gt;Frequency of unscheduled visit to PCP, Doc office, urgent care (UC)</td>
<td>Sociodemographic survey&lt;br&gt;National Health Interview Survey (NHIS)-Modified</td>
<td>Crosstab&lt;br&gt;Chi Square&lt;br&gt;Fisher’s Exact&lt;br&gt;Pearson’s r</td>
</tr>
<tr>
<td></td>
<td><strong>Financial Predictors</strong>&lt;br&gt;Affordability&lt;br&gt;Insurance coverage&lt;br&gt;Employment status&lt;br&gt;Household income</td>
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<td></td>
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<tr>
<td></td>
<td><strong>Personal and Cultural Predictors</strong>&lt;br&gt;Acceptability&lt;br&gt;Culture &amp; health belief</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix – H

**Research Questions, Dependent & Independent Variables**

| 3. What is the association between self-rated health status and HSU among Ethiopian immigrants living in the Midwestern city of the United States? | **Health Service Utilization (HSU)** | Frequency of visit to ER | Self-rated Health Status | Co-opted survey questionnaires from previous studies. | Crosstab | Chi Square | Fisher’s Exact | Pearson’s r |
|---|---|---|---|---|---|---|---|---|---|
| English Language Proficiency | Frequency of scheduled visits to PCP | Self-rated Health Status | Co-opted survey questionnaires from previous studies. | | | | | |
| Religious practice | Frequency of unscheduled visit to PCP, Doc office, urgent care (UC) | Having one or more chronic diseases | Co-opted survey questionnaires from previous studies. | | | | | |
| Acculturation | Frequency of visit to ER | | Co-opted survey questionnaires from previous studies. | | | | | |

<table>
<thead>
<tr>
<th>4. What is the relationship between acculturation, HSB, and HSU?</th>
<th><strong>Health Service Utilization (HSU)</strong></th>
<th>Frequency of scheduled visits to PCP</th>
<th>AfAAS National Health Interview Survey (NHIS)-Modified</th>
<th></th>
<th>Crosstab</th>
<th>Chi Square</th>
<th>Fisher’s Exact</th>
<th>Pearson’s r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acculturation (proxy variables)</td>
<td>Frequency of scheduled visits to PCP</td>
<td>AfAAS National Health Interview Survey (NHIS)-Modified</td>
<td></td>
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<tr>
<td>Length of residence in the US (LOR)</td>
<td>Frequency of scheduled visits to PCP</td>
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<td></td>
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<tr>
<td>English Language Proficiency (ELP)</td>
<td>Frequency of unscheduled visit to PCP, Doc office, urgent care (UC)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frequency of visit to ER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Health Seeking Behavior (HSB)</td>
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<table>
<thead>
<tr>
<th>5. What are the factors that influence Health</th>
<th><strong>Health Service Utilization (HSU)</strong></th>
<th>Frequency of scheduled visits to PCP</th>
<th>AfAAS National Health Interview Survey (NHIS)-Modified</th>
<th></th>
<th>Crosstab</th>
<th>Chi Square</th>
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</thead>
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<tr>
<td>Structural Predictors</td>
<td>Frequency of scheduled visits to PCP</td>
<td>AfAAS National Health Interview Survey (NHIS)-Modified</td>
<td></td>
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<tr>
<td>Availability</td>
<td>Accessibility</td>
<td></td>
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<tr>
<td>Accommodation</td>
<td>Immigration status</td>
<td></td>
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</tr>
<tr>
<td><strong>6.</strong> What is the influence of the current COVID-19 pandemic on the HSB and HSU of Ethiopian immigrants?</td>
<td><strong>Personal and Cultural Predictors</strong></td>
<td>HSB – changes related to fear, misinformation, lack of information, or personal health belief and practices.</td>
<td>Survey Questions</td>
<td>Chi-square</td>
<td>Fisher’s exact</td>
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</tr>
<tr>
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<td>---</td>
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<td>---</td>
<td></td>
</tr>
<tr>
<td>Health Service Utilization (HSU)</td>
<td>Acceptability</td>
<td>Religious and Community leaders’ action or role in influencing HSB</td>
<td>Qualitative – Focus group</td>
<td>National Health Interview Survey (NHIS)-Modified Measurement of Adult</td>
<td>Semantic theme analysis</td>
<td>MAXQDA 2020</td>
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<tr>
<td>Health Seeking Behavior (HSB)</td>
<td>Culture &amp; health belief</td>
<td></td>
<td>Discussion</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>English Language Proficiency</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Religious practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acculturation</td>
<td></td>
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<table>
<thead>
<tr>
<th><strong>7.</strong> What is the role of community &amp; religious leaders in influencing the HSB of their community members and/or congregants?</th>
<th><strong>Personal and Cultural Predictors</strong></th>
<th>Religious and Community leaders’ action or role in influencing HSB</th>
<th>Qualitative – Focus group</th>
<th>National Health Interview Survey (NHIS)-Modified Measurement of Adult</th>
<th>Semantic theme analysis</th>
<th>MAXQDA 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Service Utilization (HSU)</td>
<td>Acceptability</td>
<td>Religious and Community leaders’ action or role in influencing HSB</td>
<td>Qualitative – Focus group</td>
<td>National Health Interview Survey (NHIS)-Modified Measurement of Adult</td>
<td>Semantic theme analysis</td>
<td>MAXQDA 2020</td>
</tr>
<tr>
<td>Health Seeking Behavior (HSB)</td>
<td>Culture &amp; health belief</td>
<td></td>
<td>Discussion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>English Language Proficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Religious practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acculturation</td>
<td></td>
<td></td>
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<td></td>
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</tr>
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</table>

**Appendix – H**

Research Questions, Dependent & Independent Variables

<table>
<thead>
<tr>
<th>Seeking Behavior (HSB) of Ethiopian immigrants living in the Midwestern city of the United States?</th>
<th>Insurance coverage Household income</th>
<th>visits to PCP</th>
<th>Survey (NHIS)-Modified</th>
<th>Fisher’s Exact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Predictors</td>
<td>Affordability Insurance coverage Employment status</td>
<td>Frequency of unscheduled visit to PCP, Doc office, urgent care (UC) Frequency of visit to ER</td>
<td>Pearson’s $r$</td>
<td></td>
</tr>
</tbody>
</table>

**Outcome and predictor variables with corresponding analysis plan**
Appendix I:

VII.9. Appendix I : Structural Predictors

<table>
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<th>DESCRIPTION</th>
<th>RESPONSE</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
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<tr>
<td>Do you usually have a regular place to go when you are sick?</td>
<td>Yes</td>
<td>190</td>
<td>91.3</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>18</td>
<td>8.7</td>
</tr>
<tr>
<td>Have you delayed getting medical care because you could not get an appointment?</td>
<td>Yes</td>
<td>29</td>
<td>15.5</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>158</td>
<td>84.5</td>
</tr>
<tr>
<td>What place do you go to most?</td>
<td>Walk-in clinics such as urgent care centers or retail clinics</td>
<td>32</td>
<td>15.5</td>
</tr>
<tr>
<td></td>
<td>Private Doctor’s Office</td>
<td>146</td>
<td>70.5</td>
</tr>
<tr>
<td></td>
<td>Emergency Room</td>
<td>6</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>County Hospital</td>
<td>16</td>
<td>7.7</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>6</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>Prefer not to answer</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Did you change the place of your usual source of healthcare?</td>
<td>Yes</td>
<td>13</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>159</td>
<td>92.4</td>
</tr>
<tr>
<td>How long does it take to get a NON-URGENT or routine appointment at your regular primary care provider’s office?</td>
<td>A day</td>
<td>28</td>
<td>16.3</td>
</tr>
<tr>
<td></td>
<td>Two days</td>
<td>23</td>
<td>13.4</td>
</tr>
<tr>
<td></td>
<td>Three days</td>
<td>13</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>Less than a week</td>
<td>63</td>
<td>36.6</td>
</tr>
<tr>
<td></td>
<td>Two weeks</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>More than two weeks</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>How long does it take you to get an urgent or non-urgent appointment at a SPECIALIST provider’s office?</td>
<td>A day</td>
<td>13</td>
<td>7.3</td>
</tr>
<tr>
<td></td>
<td>Two days</td>
<td>11</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
<td>Three days</td>
<td>12</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>Less than a week</td>
<td>58</td>
<td>32.8</td>
</tr>
<tr>
<td></td>
<td>Two weeks</td>
<td>49</td>
<td>27.7</td>
</tr>
<tr>
<td></td>
<td>More than two weeks</td>
<td>24</td>
<td>11.4</td>
</tr>
<tr>
<td>Transportation access - How do you usually get to your healthcare provider’s appointment?</td>
<td>I drive</td>
<td>160</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>My family members drop me off</td>
<td>6</td>
<td>3.3</td>
</tr>
<tr>
<td>Question</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-----</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>I ask a ride from others</td>
<td>3</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>I take public transportation (e.g., Bus, Train)</td>
<td>9</td>
<td>4.9</td>
<td></td>
</tr>
<tr>
<td>I take Uber</td>
<td>1</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>I take a Taxi</td>
<td>2</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>I walk</td>
<td>2</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>I do not go anywhere - The provider calls me via telephone/video (Telemedicine)</td>
<td>1</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Transportation - Delayed getting medical care because you didn’t have transportation?</td>
<td>4</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>179</td>
<td>97.8</td>
<td></td>
</tr>
<tr>
<td>Have you delayed your regular health professional’s visit because you were not satisfied or pleased with the care?</td>
<td>16</td>
<td>9.1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>159</td>
<td>90.9</td>
<td></td>
</tr>
<tr>
<td>Language Barrier - Who do you bring along to your healthcare provider's appointment to help you interpret English?</td>
<td>33</td>
<td>76.7</td>
<td></td>
</tr>
<tr>
<td>Family member</td>
<td>6</td>
<td>14.0</td>
<td></td>
</tr>
<tr>
<td>A friend</td>
<td>3</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td>Assigned interpreters from my insurance</td>
<td>1</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>One of the church or community leaders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barrier related to Immigration Status - Have you had any difficulty getting healthcare treatment at your regular doctor’s office or an emergency room because of your immigration status?</td>
<td>4</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>167</td>
<td>97.7</td>
<td></td>
</tr>
<tr>
<td>US Born Citizen</td>
<td>5</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>What’s your immigration status?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Naturalized US Citizen</td>
<td>118</td>
<td>78.1</td>
<td></td>
</tr>
<tr>
<td>Permanent Resident/Green Card Holder</td>
<td>22</td>
<td>14.6</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Yes</td>
<td>No</td>
<td>Other</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-------</td>
</tr>
<tr>
<td>Delayed or postponed filling your prescription?</td>
<td>20</td>
<td>163</td>
<td>2</td>
</tr>
<tr>
<td>I have no insurance/I'm self-pay</td>
<td>2</td>
<td>11.8</td>
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</tr>
<tr>
<td>The total cost of the drug without insurance is too much for me</td>
<td>2</td>
<td>11.8</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part of the previous Q - what was the reason you postpone/delayed filling your prescription?</td>
<td>4</td>
<td>11.8</td>
<td></td>
</tr>
<tr>
<td>I have insurance, but the medicine is not covered</td>
<td>2</td>
<td>11.8</td>
<td></td>
</tr>
<tr>
<td>I have insurance, but the co-pay is too high</td>
<td>2</td>
<td>11.8</td>
<td></td>
</tr>
<tr>
<td>Pharmacy is far away and needs transportation to get to the pharmacy</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>I don't believe it works anyway</td>
<td>2</td>
<td>11.8</td>
<td></td>
</tr>
<tr>
<td>Use herbs/other products to treat it</td>
<td>1</td>
<td>5.9</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>23.5</td>
<td></td>
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<tr>
<td>Insurance coverage - Have you ever delayed or postponed medical care due to a lack of insurance coverage?</td>
<td>18</td>
<td>9.9</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSU Pattern - How long has it been since you last saw a healthcare provider?</td>
<td>3</td>
<td>16.7</td>
<td></td>
</tr>
<tr>
<td>More than six months, but not more than one year ago</td>
<td>3</td>
<td>16.7</td>
<td></td>
</tr>
<tr>
<td>More than one year, but not more than two years ago</td>
<td>2</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td>More than two years, but not more than five years ago</td>
<td>2</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>2</td>
<td>11.1</td>
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## Appendix J:

### VII.10. Appendix J: Financial Predictors

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<tr>
<td>Delay of medical Care due to cost</td>
<td>1 Yes</td>
<td>15</td>
<td>9.3</td>
</tr>
<tr>
<td></td>
<td>2 No</td>
<td>144</td>
<td>89.4</td>
</tr>
<tr>
<td></td>
<td>3 Prefer not to answer</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Employment status</td>
<td>1 Unemployed</td>
<td>24</td>
<td>15.9</td>
</tr>
<tr>
<td></td>
<td>2 Employed Part-time</td>
<td>13</td>
<td>8.6</td>
</tr>
<tr>
<td></td>
<td>3 Employed Full-time</td>
<td>88</td>
<td>58.3</td>
</tr>
<tr>
<td></td>
<td>4 Self-Employed</td>
<td>18</td>
<td>11.9</td>
</tr>
<tr>
<td></td>
<td>5 Prefer not to answer</td>
<td>4</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>6 Retired</td>
<td>4</td>
<td>2.6</td>
</tr>
<tr>
<td>Household income</td>
<td>1 $0,000 —$49,999</td>
<td>60</td>
<td>23.4</td>
</tr>
<tr>
<td></td>
<td>4 $50,000 —$99,999</td>
<td>44</td>
<td>29.8</td>
</tr>
<tr>
<td></td>
<td>6 $100,000 or more</td>
<td>31</td>
<td>20.9</td>
</tr>
<tr>
<td></td>
<td>7 Prefer not to answer</td>
<td>13</td>
<td>8.8</td>
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### Appendix K:

**VII.11. Appendix K: Personal Cultural, Health Beliefs Predictors**

<table>
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<th>DESCRIPTION</th>
<th>RESPONSE</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delayed healthcare treatment because of cultural or health belief differences?</td>
<td>Yes</td>
<td>11</td>
<td>6.4</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>162</td>
<td>93.6</td>
</tr>
<tr>
<td>Delay to medical care due to procrastination - was there any time you needed medical evaluation, but you didn’t seek medical help?</td>
<td>Yes</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>147</td>
<td>86</td>
</tr>
<tr>
<td>“What will you do first…” - Delay in responses to an emergent medical condition.</td>
<td>Call/talk to my spouse, children, or family members for advice first</td>
<td>11</td>
<td>6.9</td>
</tr>
<tr>
<td></td>
<td>Call and schedule an appointment right away to see my Primary Care Provider</td>
<td>33</td>
<td>20.6</td>
</tr>
<tr>
<td></td>
<td>Go to a walk-in clinic (urgent care)</td>
<td>17</td>
<td>10.6</td>
</tr>
<tr>
<td></td>
<td>Go to the nearest Emergency Department</td>
<td>85</td>
<td>53.1</td>
</tr>
<tr>
<td></td>
<td>Call my religious leader for prayer</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>I self-medicate with herbal or cultural medicine</td>
<td>3</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>Prefer not to answer</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Perceived English Language Proficiency: How well do you speak English?</td>
<td>Very well</td>
<td>93</td>
<td>58.9</td>
</tr>
<tr>
<td></td>
<td>Well</td>
<td>47</td>
<td>29.7</td>
</tr>
<tr>
<td></td>
<td>Not well</td>
<td>17</td>
<td>10.8</td>
</tr>
<tr>
<td></td>
<td>Not at all</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>Health literacy barrier: Do you have trouble reading or writing</td>
<td>Always</td>
<td>10</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Mostly</td>
<td>3</td>
<td>1.9</td>
</tr>
<tr>
<td>materials printed in English on health-related topics?</td>
<td>Sometimes</td>
<td>Occasionally</td>
<td>Never</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>-----------</td>
<td>--------------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>24</td>
<td>107</td>
</tr>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Religion Affiliation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian - Ethiopian Orthodox</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian - Evangelical</td>
<td>94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian - Catholic</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian - Other</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muslim</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religiosity - Aside from weddings and funerals, how often do you attend religious services?</td>
<td>More than once a week</td>
<td>69</td>
<td>45.1</td>
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<tr>
<td></td>
<td>Once a week</td>
<td>49</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Once or twice a month</td>
<td>11</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>A few times a year</td>
<td>21</td>
<td>13.7</td>
</tr>
<tr>
<td></td>
<td>Never</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural and health beliefs Has your culture or health belief ever affected you in adapting to the US culture quickly?</td>
<td>Yes</td>
<td>41</td>
<td>24.3</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>128</td>
<td>75.7</td>
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## Appendix L

### VII.12. Appendix L: Statistical Analysis Results for AHS and HSU Variables

Statistical Analyses Results for AHS and HSU Outcome Variables.

<table>
<thead>
<tr>
<th>Structural Predictors</th>
<th>Access to Health Care Services (AHS)</th>
<th>Health Service Utilization (HSU)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>p-value</td>
</tr>
<tr>
<td>Availability - Appointment</td>
<td>Fisher’s Exact</td>
<td>0.310</td>
</tr>
<tr>
<td>Accessibility - Transport</td>
<td>Fisher’s Exact</td>
<td>0.327</td>
</tr>
<tr>
<td>Accommodation – Time to schedule</td>
<td>Fisher’s Exact</td>
<td>0.007</td>
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<tr>
<td>appointments</td>
<td>χ²</td>
<td>0.031</td>
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<tr>
<td>Immigration status</td>
<td>Spearman’s rho</td>
<td>0.028</td>
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<tr>
<td>Insurance coverage</td>
<td>Fisher’s Exact</td>
<td>0.009</td>
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<table>
<thead>
<tr>
<th>Financial Predictors</th>
<th>Access to Health Care Services (AHS)</th>
<th>Health Service Utilization (HSU)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>p-value</td>
</tr>
<tr>
<td>Affordability - Cost</td>
<td>Fisher’s Exact</td>
<td>0.310</td>
</tr>
<tr>
<td>Insurance coverage</td>
<td>Fisher’s Exact</td>
<td>0.009</td>
</tr>
<tr>
<td>Employment Status</td>
<td>Fisher’s Exact</td>
<td>0.223</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal/Cultural Predictors</th>
<th>Access to Health Care Services (AHS)</th>
<th>Health Service Utilization (HSU)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>p-value</td>
</tr>
<tr>
<td>Acceptability – Change in usual</td>
<td>Fisher’s Exact</td>
<td>1.000</td>
</tr>
<tr>
<td>source of care</td>
<td>χ²</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>Acculturation</td>
<td>χ²</td>
<td>0.489</td>
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<tr>
<td>Health Belief/Culture</td>
<td>Fisher’s Exact</td>
<td>0.032</td>
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<td>First Action when sick</td>
<td>χ²</td>
<td>0.658</td>
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<tr>
<td>Religious Practice/ Religiosity</td>
<td>χ²</td>
<td>0.058</td>
</tr>
</tbody>
</table>
VII.12. Appendix M: Curriculum Vitae

Education

- University, Addis Ababa, Ethiopia. (1996)
- Bachelor of Science in Nursing (RN-BSN) from University of Illinois at Chicago (2005)
- Master’s Degree (MS) in Acute Care Nurse Practitioner program at University of Illinois at Chicago (2010).
- Doctor of Nursing Practice (DNP): University of Wisconsin, Milwaukee (2012)
- Doctor of Philosophy Candidate – University of Wisconsin Milwaukee – Spring 2021

Work Experience

October 2016-Present - University of Illinois Hospital and Health Science Systems

- Director of Advanced Practice Providers: Oversees all APRNs and PAs practices across the UI Health system to integrate into the Hospital’s and the University’s strategic planning:

August 2014-October 2016 - St. Francis Hospital, Evanston, IL

- Director, Cardiovascular, Emergency & Trauma Services:

June 2016-September 2016 - Saint Francis Hospital, Evanston, IL

- Interim Director, Surgical Services

August 2011-June 2014 - Chamberlain School of Nursing, Chicago

- Adjunct Professor: Didactic foundational & clinical introductory courses in Adult Health to undergraduate & graduate students as needed.

August 2011-July 2014 - St. Francis Hospital, Evanston, IL

- Manager & Nurse Practitioner for Galvin Heart Center and Cardiology Services
August 2012-December 2017 - St. Mary and Elizabeth Medical Center, Chicago, IL

- Acute Care Nurse Practitioner

October 2004– July 30th, 2011 - Northwestern Memorial Hospital, Chicago, IL

- Staff Educator/Clinical Nurse Specialists - in a surgical intensive care unit

October 2008- July 31st, 2011 - St. Francis Hospital, Evanston, IL

- Registry House Manager/Nursing Supervisor at this Level I trauma center

Feb 2008- 2011 – PRN - Weiss memorial Hospital, Chicago, IL

- Nursing Administrative Coordinator (NAC).

May 2002 – December 2010 - Kindred Lakeshore hospital, Chicago, IL

- Intensive Care Unit – Staff Nurse

January 2003 – October 2004 - Mercy Hospital and medical Center, Chicago, IL

- Registered Nurse in a 39-bed telemetry floor

May 2001 – May 2002 - St. Francis Hospital, Evanston, IL

- Cardiac monitor tech


- Clinical Instructor


- Head of Wereda 12 (district 12) health bureau

- Registered Nurse, staff educator, HIV/TB clinic project coordinator and as health center administrator under Addis Ababa Health Bureau in Ethiopia.

Licensure and Certification

- Acute Care Nurse Practitioner Board Certified by ANCC
- RN licensure and registration in the state of Illinois.
- Certified Nurse Practitioner (CNP) in State of IL
- CPR and ACLS certified. Critical Care Nursing certification from EMS nursing education

**Organizational Membership**

- Honor Society of Sigma Theta Tau
- Member of The National Society of Collegiate Scholars (NSCS)
- National Black Nurses Association (NBNA)
- American Academy of Nurse Practitioners. (AANP)
- American College of Cardiology (ACC)
- Chicago Emergency Medical Corp

**Presentation**

- Role of APRN in reducing LOS and decreasing readmission rate in Heart Failure patients on the 24th Annual International Sigma Theta Tau Nursing Research Congress, Prague, Czech Republic

**Community Volunteerism**

- Founder and President of YESHE Initiative, a community based nonprofit organization that’s geared towards raising health awareness and community engagement to eliminate health disparities among the Ethiopian immigrants at the Northside of Chicago.