THE IMPACT OF DEMOGRAPHIC AND PERCEPTUAL VARIABLES ON A
YOUNG ADULT'S DECISION TO PURCHASE PRIVATE HEALTH INSURANCE

by

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ABSTRACT

Each year the number of uninsured individuals in the United States continues to grow. This unfortunate occurrence creates negative consequences for those who are uninsured, but also for those who are covered by health insurance plans. Through cost-shifting practices, hospitals and other healthcare organizations are increasing the cost of other healthcare services to help subsidize the care they must provide for those who cannot pay for that care. There have been attempts to solve this problem, but a successful solution has not been implemented.

Rather than attempt to study the entire uninsured population, this study seeks to determine precisely why young adults between the ages of 18 and 24 are the largest segment of our population that does not purchase health insurance. Socioeconomic status, perceived health, cost, gender, race, and perceived need are all examined in order to determine what type of relationship each one has with a young adult's decision to purchase private health insurance.

Structural equation modeling is used to analyze data obtained from the 2005 Medical Expenditure Panel Survey. This study is unique because is includes latent variables and examines a variable that is not often included in health insurance studies that exist in the literature, perceived need.

The results of the study indicate that being uninsured is largely a matter of having a higher socioeconomic status and being a non-minority. Perceived health, cost, gender, and perceived need were not shown to have a significant relationship with the dependent variable, private health insurance coverage.

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CHAPTER ONE: INTRODUCTION

Introduction and Scope of the Problem

The rising cost of medical services is making healthcare unaffordable and inaccessible for many Americans. Consequently, increases in insurance premiums are making it so many are not able afford health insurance. In August 2006, the U.S. Census Bureau released its most recent figures regarding health insurance, the Bureau's figures indicated that were 46.6 million uninsured Americans living in the United States in 2005 was 46.6 million (U.S. Census Bureau, 2006). The consequences of such a large uninsured population are great, and not only affect those individuals who do not purchase health insurance, but also the rest of society. The literature shows that the uninsured are a segment of population consisting of people of different ages, from different ethnic backgrounds, and of different socioeconomic and health status. The work of researchers on the topic of the uninsured population is plentiful. Many researchers have outlined the reasons behind the growing rate uninsured individuals in our country, and how this trend is affecting our country. Yet, research is still needed to determine the underlying reasons behind the problem.

The United States is usually admired worldwide for its advanced science, technology, and medical advances, and as a result many Americans benefit from being citizens of our country (American College of Physicians, 2000). Nonetheless, because of the way that our healthcare system is currently designed, the benefits of American medicine are only available to those who can pay for healthcare services. Unfortunately, there are many people in the United States that are not able to receive healthcare for various reasons. The fact is that the benefit of our

healthcare system can only be realized if members of our society are able to pay for that

healthcare system (American College of Physicians).

To get to the root of this problem, it is essential to understand how many uninsured

Americans there are, and just who these uninsured Americans are. However, this is no easy task.

The number of people who are uninsured in the United States continually changes, making it a

segment of our populations that difficult to keep track of. The Congressional Budget Office

(2003) studied various different surveys that collected data on the uninsured population. It was

found that the uninsured population is made up of individuals from many different backgrounds.

The Congressional Budget office found that somewhere between 21 to 31 million Americans did

not have health insurance for entire year of their study, and approximately 59 million individuals

did not have health insurance during some point in the year (Joint Economic Committee, 2004).

The uninsured population is made up of people who do not have health insurance for a relatively

short amount of time, a smaller amount of people who are consistently uninsured, and an even

smaller number of people who do not have any type of health insurance plan for the long term

(Joint Economic Committee). This makes the health insurance crisis one that is difficult to

study.

The literature shows that some demographic groups have a higher likelihood of not being

covered by health insurance plans than other demographic groups do. Young adults who are

between the ages of 18 and 24 are more likely to be uninsured than the rest of the population, at

rate of about 30 percent (Joint Economic Committee, 2004). The chances of being insured

increase as a person grows older. About 25 percent of people between the ages of 25 and 34 are

not covered, 18 percent between the ages of 35 and 44 do not have coverage, and 13 percent

between the ages of 45 and 65 do not have health insurance. People with fewer years of

education also have a higher likelihood of not purchasing health insurance (Joint Economic

Committee).

The uninsured population is one that is rising steadily every year. Freidman (2005)

explains that the amount of people living in the United States who do not have health insurance

has increased every year since a federal study in 1978 that indicated that there were 26 million

uninsured Americans. The only exception, according to the researcher, was the period between

1999 and 2001, during this period an improving economy and expansion of Medicaid and the

State Children's Health Insurance Program enrollment created a temporary decline in the number

of uninsured. The rate of individuals deciding to remain uninsured is steadily rising. More

Americans are uninsured now than ever before (Chollet, 2002). The number of Americans not

covered by a health insurance plan increased by approximately 1.4 million people between the

years 2002 and 2003, and by over 5 million between the years 2000 and 2003 (Holahan and

Ghosh, 2004). Holahan and Ghosh attribute this behavior to the decline in employer sponsored

health insurance. The authors point out that for the most part this happened among people with

low incomes. It cannot be denied that middle class Americans are not affected though. Many

middle class people actually became part of the lower class segment of society during this period

(Holahan and Ghosh). Furthermore, increases in the number of uninsured Americans among

those in the middle and higher income brackets was detected by performing the study. It was

discovered that much of the increase in the number of uninsured took place among young white

adults (Holahan and Ghosh). These statistics demonstrate that the uninsured population is one

that is varied.

There are benefits to all of society if citizens are covered by a health insurance plan and are healthy. Falen (2005) explains that keeping the population healthy makes good business sense because people that are healthy can uaully work, contribute to society in many different ways, and help build a strong economy and government. The Kaiser Commission on Medicaid and the Uninsured (2004) found that a having a workforce made up of unhealthy people leads to lower participation rates in the workforce, a decreased work effort, and lower earnings. For a child, an overall poor health status usually means the child will attend school less, and lower scores on achievement tests (The Kaiser Commission on Medicaid and the Uninsured).

Falen (2005) also explains that through hospital and provider cost shifting, Americans are paying for the healthcare services that people who are not insured receive. In other words, because uninsured patients are being treated, hospitals and physicians are forced to charge more for other services that they offer in order to cover the costs of treating those who are uninsured. Falen specifies that the average American does not always recognize this because the amount of money that is used toward cost shifting is hidden. He explains that is takes the form of higher health insurance premiums, higher deductibles, and higher co payments. There is a widespread belief that hospitals serve as the safety net for the uninsured. It is a fact that the Emergency Medical Treatment and Active Labor Act (EMTALA) requires that anyone who walks into an emergency department be evaluated and treated if the condition is considered to serious (Friedman, 2005). However, this does not mean that there are not consequences to the rest of society.

The United States healthcare system primarily consists of a system where employer sponsored coverage provides a point of access to health insurance for most of the people living in

our country. However, young adults are often not eligible for coverage provided by their

employers because they are constantly changing jobs (Chordas, 2004). In a society where most

people obtain health insurance from their place of employment, those who do not have steady

employment are faced with the option of going out on their own and purchasing private health

insurance or not purchasing any type of health insurance plan.

In fact, more than 60 percent of Americans normally obtain health insurance through

their place of employment (Joint Economic Committee, 2004). However, the increasing cost of

healthcare and health insurance is making it more difficult for business to provide health

insurance in their benefits packages. The high cost of insurance is being passed onto employees

of companies from their employers. Owners of small companies are even less likely to offer

insurance than owners are large companies are, because some of these companies do not earn to

pay for health benefit packages and for salaries (Holahan and Ghosh, 2004).

As a result of high insurance costs, some employers are even removing health insurance

coverage from their benefit packages completely. According to Glied and Stabile (2001), over

the past two decades the rate of employer sponsored health insurance coverage has dropped

significantly, and has significantly affected young adults. These researchers point to prior studies

that have concluded that most of the change in the rate that employers offer health insurance in

their benefit packages appears to be a result of the increases in the cost of coverage (Glied and

Stabile). It is explained by Werner (1999) that "because of high insurance costs, employers are

passing on the costs to their employees, who have had to pay higher contribution rates in order to

maintain coverage" (p. 1). It does seem that there is a new trend that newer companies are not

always offering health insurance benefits. Additionally, smaller companies continue are finding it harder to offer health benefits to their employees because costs are so high (Glied and Stabile).

While it is clear is that researchers and policymakers are aware of and know much about the health insurance crisis the United States, the problem still exists and continues to worsen each year. There is much more that can be learned regarding why individuals choose not to purchase health insurance. This study seeks to determine why it is that so many individuals simply do not purchase health insurance plans. The crisis that our country is facing is a massive challenge, and a single solution to the problem probably does not exist. It may be necessary to dissect the problem into smaller pieces and learn more about why certain individuals in different demographic categories are not insured. Looking at the data, it is obvious that young adults are the largest segment of the population that does not purchase health insurance. Almost 30 percent of young adults between the ages of 18 and 24 are not insured (Joint Economic Committee, 2004). This study will closely examine the demographic and perceptual variables that affect a young adult's decision to purchase or not purchase health insurance.

Research Questions and Hypotheses

The following research questions and corresponding hypotheses will be examined in this

research study:

1. What individual factors most influence a young adult's decision to purchase health
   private insurance?

   H1: An individual's socioeconomic status is positively related to the likelihood of

   having health insurance.

   HO: An individual's socioeconomic status is not positively related to the likelihood

   of having health insurance.

   H2: There is a positive significant relationship between perceived health status and

   the likelihood of an individual having health insurance.

   HO: There is not a positive significant relationship between perceived health status

   and the likelihood of an individual having health insurance.

   H3: There is a positive significant relationship between perceived need and the

   likelihood of an individual having health insurance

   HO: There is not a positive significant relationship between perceived need and the

   likelihood of an individual having health insurance

2. What is the relationship between the cost of private health insurance and a young adult's decision to purchase private health insurance?

   H4: An individual who rates health insurance as not worth the cost will be less likely to purchase health insurance.

   HO: An individual who rates health insurance not as worth the cost will not be less likely to purchase health insurance.

Significance and Implications

People who have health insurance experience many benefits. Health insurance allows individuals to access the health care system, and protect to protect their financial well-being if major illnesses or injuries are encountered by that individual (Joint Economic Committee, 2004). Furthermore, the rising number of uninsured individuals has well documented negative consequences for the public's health (Institute of Medicine, 2004). This will be discussed further throughout this section.

It is reasonable to believe that health insurance helps contribute to a person's overall health status. Many studies, which will be discussed in the literature review section of this paper, document the fact that the uninsured have worse health outcomes when compared to the insured. Consequently, we are left with the conclusion that health insurance help to improve an individuals overall health (Levy and Meltzer, 2004). This conclusion is made by recognizing two very important relationships that should be noted: 1) that being insured is essential to

receiving necessary medical care, and 2) that receiving this necessary care does have an impact on a person's status of health (Levy and Meltzer).

Some of the statistics that illustrate the consequences of not having health insurance may astound many. According to Davis (2003), The Institute of Medicine reports that the lack of health insurance among Americans leads approximately 18,000 deaths every year in our country. That makes not having health insurance "the sixth leading cause of death among people ages 25 to 64 after cancer, heart disease, injuries, suicide, and cerebrovascular disease, but before HIV/AIDS or diabetes" (Davis, p.89). Individuals who are uninsured are exposed to greater risks when it comes to maintaining a healthy lifestyle. These risks include not having easy access to preventative care and not having the benefit of catching diseases when they are in their early stages of development. Moreover, people who do not have health insurance are more likely to face expensive bills for the healthcare services that they receive, which places them at a higher financial risk than those who do have health insurance (Davis).

Evidence from the literature shows that people who are uninsured are less likely than others to regularly see a doctor or other healthcare provider, usually more likely to postpone getting medical attention when it is needed, and less likely to seek preventative healthcare services (American College of Physicians, 2000). It has been determined that the people without health insurance are probably close to three times more likely than people who have health insurance to have poor health outcomes, and up to four times as likely to be treated by a hospital emergency department (American College of Physicians). Falen (2005) explains that not having health insurance can have an effect on an individuals ability to access the healthcare system, which has a direct effect on an individuals overall health. The growing number of uninsured

citizens in the United States should be a concern to everyone living in the United States. This is because when people without health insurance do not seek care, those people with contagious diseases endanger the health of the entire population (Davis, 2003).

The literature shows that the high number of people without health insurance in our country also has important financial consequences for Americans, and the country as a whole. Literally millions of people living in the United Stats are not able to obtain the healthcare services that they need, and ultimately productivity for our entire country is reduced (American College of Physicians, 2000). Again, an important point to emphasize is that medical services for the uninsured are usually more costly than preventive and standard care, because people who do not have health insurance are more likely to go to the emergency department for care, rather than a physician's office. Through the cost shifting practices of hospitals and providers, higher health insurance premiums for health plan enrollees, and higher taxes for American citizens, the uninsured are allowed to receive expensive medical treatments at no cost to them (American College of Physicians).

The consequences and implications of the growing number of uninsured Americans are well documented. An abundance of research has been conducted on the issue, and there is no shortage of proposed policy interventions. However, no substantial efforts to address the health insurance crisis have been successfully implemented on a national level. Developing a policy that would target a specific population may be a realistic approach to the rising number of uninsured Americans. Improving healthcare access for young adults, one of the largest segments of the uninsured population could help to impede the rising cost of healthcare services for everyone.

Research is needed to determine precisely why this large segment of the population does not purchase health insurance. The term "young invincibles" has been coined to describe this segment of the population. There seems to be a common assumption that young adults do not purchase health insurance because they believe they are healthy and do not need health insurance. We contend that this is a myth or stereotype, and that given the choice young adults would purchase health insurance if more affordable plans were offered. I propose that the high cost of health insurance plans socioeconomic status is what prevents most young adults from purchasing health insurance. Young adults between the ages of 18 and 24 are often in a period of transition, and do not have the disposable income to spend on expensive health plans. Appropriate government policies and/or health insurance company policies could be aimed at this segment of the population if the reasons explaining their behavior are properly identified.

Chapter Summary

This chapter introduces the overall problem of the rising number of uninsured Americans. This introduction illustrates the significance and scope of the health insurance crisis. This is not a phenomenon that affects only a segment of our population; it is a problem that has implications for everyone in our society. The problem is massive, and this study does not seek to solve the insurance crisis. Rather, this study seeks to focus in on one of the segments of the population that experiences low health insurance coverage and examine the reasons for such low rates of health insurance coverage. Research questions and hypothesis that help drive the study are presented in this chapter. These questions and hypotheses were derived from the literature

related to this topic. The next section outlines the literature concerning young adults and health insurance coverage, as well as major empirical studies that report on the relationships that exist between different demographic and perceptual determinants of health insurance coverage and being covered by private health insurance.

CHAPTER TWO: LITERATURE REVIEW

<u>Young Adults without Health Insurance</u>

The literature reveals that the uninsured rate clearly varies by age. Young adults represent the age group comprising the largest percentage Americans who are not covered by a health insurance plan (Short, 2004). Individuals who are between the ages of 19 and 29 comprise one of the largest growing groups of people without health insurance in our country (Collins et al., 2006). The literature is consistent in describing the vulnerabilities of the young adult age group when it comes to obtaining health insurance. Almost one third of young adults between the ages 19 to 29 are uninsured, and individuals in this age group are almost two times more likely not to have health insurance than children and all other adults (Quinn et al., 2000). According to a study by Families USA (2004), 30 percent of the total U.S. population under the age of 65, which equates to approximately 82 million people, was uninsured for all or part of 2002 and 2003. The study also illustrates that 78.2 percent of the uninsured were employed full or part-time throughout the year the study was conducted, and that only 21.2 percent were unemployed.

While various statistics reported in this chapter illustrate that young adults in general experience a higher rate of uninsurance, most studies in the literature focus on those who are between the ages of 18 and 24. Consequently, this research study will only focus on those between the ages of 18 and 24. The data analyzed in this study only contains information for young adults between the ages of 18 and 24 since most of the literature specifically states that this is the segment of our population with the highest rate of uninsurance. Once a young adult turns 18 years old, they are often not included under their parent's health insurance plan

anymore. This age period has been deemed by many to be the period between "parents" and "permanence".

The statistics that illustrate this problem can be overwhelming. Young adults who are between the ages of 18 and 24 are most likely not to have health insurance, at a rate of approximately 30 percent, and the chances of being insured decreases as a person grows older (Joint Economic Committee, 2004). While one in six Americans does not have health insurance, one in three young adults who are between the ages of 18 and 24 years old are not covered by a health insurance plan (Institute of Medicine, 2004). In fact, 19 to 24 year olds are among the most at risk of being uninsured and these rates are increasingly yearly according to the Institute of Medicine. Another astonishing statistic was discovered during a 17-year long study. The authors of the study report that adults who were not covered by health insurance had a 25 percent greater chance of dying than adults in the study who were covered by private health insurance (Institute of Medicine, 2004).

Young adults have long been a segment of the population that is most likely to be uninsured, but the number of young adults that do not purchase health plans has increased significantly recently (Quinn et al., 2000). Between the years 2000 and 2002, the quantity of young adults considered to be part of the lower income segment of society increased by approximately two million, and close to half of the 3.9 million people who said that they did not have health insurance were young adults between the ages of 18 and 24 (Holohan and Wang, 2004). Many Americans receive health insurance from their employers; however, as Quinn et al. point out, these young adults have a hard time purchasing health insurance because they often have low paying jobs.

It is crucial to point out that the lack of health insurance coverage often limits access to preventative medical care. This lack of access may prevent young adults from recognizing serious illnesses in their beginning stages. Consequently, they may be forced to seek care when it is too late. This creates a significant problem for a person without health insurance coverage, since they will likely face costly medical bills for the treatment of a severe illness.

It is evident that young adults are vulnerable in many ways. This segment of our population simply does not have the job stability or monetary security that would allow them to easily access private health insurance. They are usually in a period in their lives where they are changing jobs or working multiple part time jobs. Many young adults flatly refuse health insurance by declining employer-sponsored insurance or by choosing employers that do not offer health benefit packages to their employees (Center for Studying Health Research Change, 2005).

College aged students usually have two options for health insurance coverage. They can remain on their parent's health insurance plan or they can sign up for their college health plans, or they can choose not to be covered by any health insurance plan at all. Different researchers put the number of college students who do not have health insurance somewhere between 1.6 million and 4 million students. Close to 10 percent of the uninsured Americans are college students (Aetna Advisory Board, 2004). Quinn et al. (2000) report that there are approximately 3.5 million college students who do not have health insurance living in the United States, and that about 1.6 million of them are between the ages of 18 and 24. Nearly 17 percent of college students in the United States are not covered by any type of health insurance plan, while 25 percent of part time students are not covered by health insurance plans (Aetna Advisory Board). Usually, a full time college student can remain on their parent's health insurance plan until they

reach the age of 23, and for this reason, many college students have health insurance through their parent's healthcare plan (Quinn et al.).

As previously noted, some college students rely on affordable health insurance that is provided by their college. Approximately 1.2 million college students, or 18 percent of all college students between the ages 19 and 23 are covered by college health insurance plans (Quinn et al., 2000). Another 12 percent of full time college students are covered under their own employer's health plan, or covered under public health insurance. The remaining 1.3 million students, approximately 19 percent, do not purchase health insurance at all (Quinn et al.). However, Quinn et al. also point out that only approximately one third of young adults between the ages of 19 and 23 attend college full time. There is indeed a whole other population of young adults in the United States that does not attend college.

When young adults turn 19, they are usually no longer covered by their parent's health insurance e plan, unless they attend school full time (Quinn et al., 2000). According to Holahan and Brennan (2000) younger adults are usually more likely to be uninsured than older adults are. Forty-seven percent of males between the ages of 18 and 34 are uninsured; however, young women are uninsured at a rate of 38 percent (Holahan and Brennan). Adults with low incomes who are between the ages of 18 and 34 make up approximately 35 percent of the uninsured population (Holahan and Brennan). Changes in health insurance coverage rates in the United States from 1989 to 1997 show that the largest increase in the number of people without health insurance was among young adults (Carrasquillo et al., 1999). The major risk factors among those employed are: being young, earning low wages, working part-time, working for less than the entire year, and being employed by a small company (Carrasquillo et al.). Furthermore,

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workers in certain industries such as the agricultural, personal, and retail industries are more likely to be uninsured than those in other fields such as manufacturing, transportation, and financial services (Cantor et al., 1998).

Even though it assumed by many that young adults are healthy, they still need access to preventive care and care if they are diagnosed with an illness or have been injured. "Being uninsured impedes access to needed medical care and creates financial hardship, especially for low-income young adults" (Quinn et al., 2000, p. 8). It is reported that because of high costs, nearly half of low income Americans without health insurance went without seeing a doctor or other healthcare provider when they needed to see one, did not fill prescribed prescriptions, or did not receive follow up care in the past year (Quinn et. al). The same report showed that that half of young adults without health insurance indicated that it difficult for them to receive medical care when they need it (Quinn et al.). Collins et al. (2006) report that 40 percent of uninsured young adults between the ages of 19 and 29 did not receive preventive medicine at all in 2005. The concern surrounding so many uninsured young adults is not solely based on ensuring their health, but also ensuring the health of others. "Uninsured students are less likely to seek care for everything from a common cold to a sexually transmitted disease, and therefore putting other students at risk" (Gibson, 2005).

When young adults are in a period between the safety of their parents and full-time employment, they are very susceptible to high medical costs if they are faced with a serious injury or illness requiring substantial medical care (Quinn et al., 2000). Encountering a serious illness or injury often forces young adults to seek care in the emergency department, because they cannot be denied care. It is a fact that college students who do not have health insurance

contribute to the high rates of uncompensated care provided by hospitals, and it is reported that

that students who are between the ages of 18 and 24 made approximately 718,000 emergency

room visits in 2001 (Aetna Advisory Board Study, 2004).

The literature does reveal that most illnesses affect older adults more than younger adults.

For example, young adults who are between the ages of 18 and 24 are not as likely to suffer from

chronic conditions, and major life threatening disease are not common among this age group

(Wellner, 1999). In ordinary situations, young adults generally only need to be seen by a

physician for routine physicals, pap smears, and flu shots (Wellner). However, as indicated by

the same investigator, young adults are not likely to receive the kind of routine care that they

need. The literature shows that only 34 percent of young adults between the ages of 18 and 24

are regularly seen by a physician. Results from The Medical Expenditure Panel Survey show

that this was the smallest proportion out of all age groups studied (Wellner).   According to

Wellner, most young adults are not getting the preventative care that they particularly need at

their young age. Additionally, young adults are the most probably to become incapacitated from

acute illnesses such as injuries. The injury rate for young adults between the ages of 18 to 24

year olds is slightly more than 32% (Wellner).

Even though young adults are generally considered to be healthy, not having any type of

health insurance prevents them from accessing the healthcare system, creates a barrier to care to,

and leaves young adults risk if they are faced with an injury or severe illness that requires

emergency treatment (Collins et al., 2006). Young adults, especially young adult women, need

routine care. If a young adult loses their health insurance coverage when they turn 19 or when

they graduate from college, their contact with physicians is lost at exactly the time they need to be forming strong links with the healthcare system (Collins et al.).

It cannot be denied that coverage is still very important for young adults. According to Mokdad et al. (2003), 14 percent of adults between the ages of 18 to 29 are obese and 2 percent have diabetes, which is strongly associated with obesity. These researchers also report that obesity among young adults increased by 70 percent during the 1990's. Additionally, "there are 3.5 million pregnancies each year among the 21 million women ages 19 to 29, and one third of all HIV diagnoses are made among young adults" (Quinn et al. 2000, p.9). Trips to the emergency room are more common among young adults than any other age group according to Collins et al. (2006). Many parents are able to ensure that their children have medical care by working for a company that offers family health plans, by making use of the State Children's Health Insurance Program (SCHIP), or through Medicaid services. However, once a sick or chronically ill young adult is no longer 18 years old the period of parental or public health insurance coverage turns into a period where it is difficult to qualify for health insurance for disabled or ill young people (Fishman, 2001).

According to Rodriquez (2003), while there are many different reasons for young adults to not purchase health insurance, the costs to all of society and those individuals who are not insured are vividly clear. When young people who are not insured under a health plan become sick, prescription costs become a challenge to young adults wanting to get over their illness. Moreover, because many cannot afford expensive hospital care once they receive it, hospitals lose revenue. This lost revenue forces hospitals and providers to charge more for other medical services, and pass on the costs other patients. This is one factor that is making health insurance

more expensive for everyone else. If everyone were in the insurance market, costs would go down (Rodriquez). It makes sense that with more people in the risk pool, health insurance companies would not need to charge absorbent health insurance rates.

Demographic and Perceptual Determinants of Health Insurance Status

Three major reasons for Americans not being covered under a health insurance plan have been identified. These reasons are:

> 1) people are healthy and choose not to have insurance because they are unwilling to pay the price for insurance; 2) people want insurance but cannot get it because of insurance underwriting practices or labor market rigidities; and 3) people want an insurance product that is available but cannot afford the coverage (Blumberg and Nichols, 2002, p.xvi).

These researchers have compiled and analyzed multiple research studies that examine the reasons for and the effects of an increasing uninsured population. This dissertation will test these three main reasons using data while also examining the effect of demographics and perceived health status on health insurance.

This portion of the literature review divides the reasons that young adults do not purchase health insurance into five main groups that correspond with the model in the statistical methods section of this paper. The five main categories examined in this literature review are: socioeconomic status, demographics, cost of insurance, perceived health status, and perceived need. These five categories will be used in the study model to test the data and validate hypotheses. The following subheadings and corresponding literature summations directly relate to the variables included in the model presented in Figure 1 (p. 59).

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Socioeconomic Status

Socioeconomic status directly relates to reason number three as to why people are not insured, as proposed by Blumberg and Nichols (2002): "people want an insurance product that is available but cannot afford the coverage" (p. xvi). For adults who do not have health insurance, the income needed to purchase health insurance is being spent on other needs such as housing, food, and other daily costs of living. Blumberg and Nichols also argue that while many low-income young adults do have health insurance, there are also many more that simply do not. While many different issues may contribute to a young adult's lack of health insurance coverage, it is clear from the literature that having a low income and being part of a lower socioeconomic class is one reason why individuals are not willing to purchase health insurance plans (Long, 2003).

The Indiana Family and Social Services Administration (2000) conducted a survey of approximately 10,000 households. According to the study, uninsurance rates are higher among people with lower incomes, and African Americans. The study also showed that young adults, people that are married, and full time employees were more likely to be insured. In a 2002 survey study performed by the U.S. Census Bureau, similar results were found, indicating that males were had a higher likelihood of not having health insurance. The probability of being insured increased with age and a higher income, while people who were not as educated as others were more likely to be uninsured according to the results of the study. The National Center for Health Statistics (2003) reported that the chances or a person having health insurance increases as a person gets older and as a person has completed more years of education. The same study showed that women, as well as people who are married, are more likely to have

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health insurance and that Hispanic, non-Caucasians, and people who are unemployed are less likely to be insured.

A person's educational attainment is often considered part of their socioeconomic status. The literature shows a relationship exists between years of education and socioeconomic status with health insurance coverage. Those that have the least education are close to five times less likely to have health insurance than others are (Congressional Budget Office, 2003). Along with education, income is often considered a factor in measuring a person's socioeconomic status. Individuals with incomes that are below the poverty level are two times more likely to not have health insurance (Peterson, 2003). The Kaiser Commission on Medicaid and the Uninsured (2004) reports that low-income adults are at a substantial risk of not having health insurance and make up about 50 percent of the uninsured population.

Castellucci (2004) performed three regression equations using 1996 Medical Expenditure Panel Survey (MEPS). The researcher looked at variables such as age, race, income, employment, and income. Regression analysis showed that a rise in employment, education, and income would lead to a larger percent of people purchasing health insurance. The second and third regressions showed that Hispanics and non-Caucasians as groups are both far below the average when it comes to purchasing health insurance.

Rooney (1995) conducted a health insurance study to identify the variables that determine private health insurance coverage in the United Kingdom. The researcher used data from the 1995 General Household Survey (GHS). The SPSS software package was used to determine statistical significance by performing regression tests. Study results suggest that socioeconomic status is positively associated with health insurance coverage, while perceived health status is

not. The results also show that private health insurance is more common among well-educated and affluent people, and that age, income and earnings were found to be the major determinants of health insurance coverage, along with other socio-economic factors.

Long (2003) analyzed the 1997 and 1999 National Survey of America's Families (NSAF) to determine what financial difficulties adults without health insurance face. "It was found that over 40 percent of all adults in the sample reported food, housing, or health care hardship over the past year" (Long, p. 3). "Overall, 38 percent of moderate and higher-income uninsured adults and 70 percent of low-income uninsured adults were not likely to afford health insurance because they struggle with paying for food and housing or with potentially high health insurance costs" (Long, p. 5). This variation represents that socioeconomic status appears to play a role in whether or not a person purchases health insurance.

Murray (2004) performed a relevant study at Louisiana State University (LSU). Full time employees at the University are offered health insurance through the school, however, out of the 4,552 employees; nearly 24 percent chose not to buy any health insurance. According to the study, some found other ways to purchase health insurance, but many did not purchase health insurance at all. Murray hypothesized that no relationships exists between health history, health status, gender, race, marital status, and income and health beliefs and actual insurance status.

Murray (2004) used a cross sectional survey method to perform a comprehensive observational, descriptive, and exploratory study used to determine the types of relationships that exists between certain demographic variables, health beliefs, and health insurance coverage. The data for this study were collected using a phone survey of randomly selected LSU employees. The final number of LSU employees surveyed for this study ended up being 4552.

The author reports that Pearson correlation coefficients were estimated in order to test the study research questions and hypotheses. The results of the study showed that the strongest relationship with health insurance coverage was with income "($r(132)= .83, p < .001$)", then race "($r(138) = -.61, p < .001$)", then education "($r(138)= .58, p < .001$)". A finding that the researcher was not expecting was that no significant relationship existed between gender and health insurance coverage "($r(135) = .01, p > .05$)" (Murray).

Munkin and Trivedi (2003) focused on variables relating to the demand for healthcare, and found the following results. Positive correlations were seen between the purchase of private insurance and having more years of education and having a higher family income.

It is clear that socioeconomic status does have an impact on a young adult's decision to purchase health insurance. Various researchers have come to this conclusion. Therefore, it is important to include this factor in any study that measures the impact of different variables on health insurance decisions. In this study, socioeconomic status will be measured by accounting for variables that identify an individual's income level and education level. Structural equation modeling is unique in that it allows the researcher to create theoretical constructs by selecting measurement models, based on published literature, for the variables that are to be used in the study.

Demographics

While three out of the five categories discussed in this literature review fit appropriately with the main three reasons as to why people do not purchase health insurance, demographics does not. Nonetheless, this is an important category to include in the research. Multiple research studies indicate that demographics do play a part in health insurance coverage.   For the purposes

of this dissertation, demographics will be examined with gender and race variables (being black versus being white, and being Hispanic versus being white.

Any discussion of demographics and health insurance status should include an examination of minorities. The Kaiser Commission on Medicaid and the Uninsured (2004) explains that minorities make up approximately 34 percent of the population in the United States that is nonelderly, but make 52 percent of the uninsured population. Many studies indicate that minority status has an impact on health insurance coverage.

According to Wellner (1999), "young African American men are the least likely to have health insurance" (p.5). Even though a high number of white young adults (31 percent) do not are uninsured, it is confirmed that they are still more likely to be covered by some kind of health insurance plan than African Americans or Hispanics. Wellner also claims that young men have a greater likelihood of not having health insurance than young women do (Wellner). Overall, young men have the lowest rate of health insurance coverage. Historically, rates of health insurance coverage for young men have been lower than the corresponding rates among older men, but the gaps in coverage have grown wider in recent years (Glied and Stabile, 2000).

The literature related to being Hispanic is consistent. "Hispanics are more likely to be uninsured than are other racial and ethnic groups, and in the year 2002", and about 32 percent of Hispanics were uninsured (Mills and Bhandari, 2003). Overall, members of minority groups have a higher likelihood of not being covered by health insurance, mainly if they have incomes that are at or below federal poverty level (Friedman, 2005).

The U.S. Department of Labor used the 1993 April Current Population Survey to examine differences in health insurance coverage for those who are unemployed. The specific

categories that were looked at include "age, gender, marital status, education, number of children, and length of time unemployed, and other characteristics such as income and disability of the spouse" (U.S. Department of Labor, 1996, para. 5). This study examined factors that pertain to the topic of this dissertation. It was also found that unemployed women are more likely to be covered by a private health insurance plan than unemployed men are (U.S. Department of Labor).

In the study conducted by Munkin and Trivedi (2003), negative correlations were found between the purchase of health insurance and having excellent or poor health, having an increasing number of chronic conditions, being African American, and being a male. Their results were somewhat different from the expected results of the study. They indicated that his may be due to their use of an expansive range of variables in the need for health insurance.

Wilcox-Gok and Rubin (1994) performed a study in order to determine a better understanding of the reasoning that takes place when deciding to enroll in a private health insurance among Medicare beneficiaries. While this age group is not of particular interest for this study, the methodologies of the research are important, and the results are intriguing. Data collected using the Survey of Income and Program Participation was used in the study, and the researchers examined precisely who purchases health insurance and how elderly people covered by Medicare use medical services.

In order to study health insurance coverage among elderly Medicare enrollees the researchers in the Wilcox-Gok and Rubin study used 5697 observations of individuals who were 65 years old or older. Data collected from the Survey of Income and Program (SIPP) was used in this study. The results of this survey contain data on individual characteristics, health

insurance coverage, and health care use. The dependent variable in this study was whether a person was covered by private health insurance or not. Age, sex, race, education, marital status, and income were used as independent variables. Simultaneous equation modeling was used in to study the relationships between the independent variables and dependent variable (Wilcox-Gok and Rubin, 1994). It was determined that "among personal characteristics, race, education, sex, and age were systematically related to the presence of private health insurance" (Wilcox-Gok and Rubin, p.6).

The researchers also discovered that people that are White have health insurance at rates higher than others, and that people who have graduate from highs cool have a higher likelihood of being insured (Wilcox-Gok and Rubin, 1994). Similarly, it was shown that college had a higher likelihood of having private health insurance. Finally, the study showed that women are more likely to have private health insurance than men are, and that higher income is significantly related with being covered by a private health insurance plan (Wilcox-Gok and Rubin).

The research indicates that demographics do play a part in who purchases health insurance and who does not. Since the demographic variable was such a strong indicator in determining which segment of the population is most likely to be uninsured, different demographic variables will be used to subdivide the sample population and allow for analysis. Age will not be a demographic variable in this study since the entire population age will range from the age of 18 to the age of 24. Gender and race, will be the demographic variables used in this study.

Cost

Cost directly relates to reason number three as to why people are not insured, as proposed by Blumberg and Nichols (2002): "people want an insurance product that is available but cannot afford the coverage" (p. xvi). It cannot be denied that the cost of healthcare is rising at an incredible rate. The many factors contributing to growing number of uninsured Americans are complex and related to each other in different ways. However, it is clear that the most important factor has been the rise in the cost of healthcare over the past ten years (Friedman, 2005). Annual health care costs are increasing every year, the number Americans without health insurance is at a level it has never been at before, and overall public satisfaction with the United States healthcare system is diminishing (Cogan, Hubbard, and Kessler, 2004).

National expenditures on health services rising at astounding rates. National health expenditures are estimated to approach approximately $3.1 trillion by the year 2012 (Nahata et al., 2005). According to Thorpe (2005), the cost of health insurance has risen 54 percent. When costs increase, then insurance premiums increase as well. As a result, employers, employees, and people that purchase insurance face increases in the cost of coverage. Kronick and Gilmer (1999) claim that the decrease in health insurance coverage rates among employees of companies between the years of 1979 and 1995 can be mostly credited to the fact that health care spending increased at high rates during this time period.

The rising cost of health insurance is a major reason why so many young adults do not purchase health insurance. According to Wellner (1999), price is number one on the list of explanations as to why young adults choose not to be covered by health insurance plans. According to AHRQ research, between the years 1987 and 1993, the cost of health insurance

prices increased by approximately 90 percent (Wellner, 1999). There are different reasons for the rising cost of health insurance in our country. Costs are increasing because of factors such as new medical technologies, an aging population that requires significant medical attention, government legislation and state mandates, and malpractice insurance for physicians (Rodriquez, 2003).

Even though managed care helped to slow the rise of the cost of health insurance in the recent past, annual healthcare expenditures still increased significantly and reached the one trillion dollar mark in 1996 (Wellner, 1999). The average health insurance premium for one year of coverage available to young adults who are between the ages of 20 and 24 in the year 2002 was $1,038 for singles and $2,283 for families (Chordas, 2004). This represents that health insurance premiums for individuals are comparatively very high. Chordas explains that approximately 50 percent of a Humana health insurance survey respondents said the primary reason for not buying health insurance is that they cannot afford it. These statistics coupled with the fact that cost is a major factor that prevents young adults from purchasing health insurance (Chordas), it is not hard to see why some variable relating to the cost of insurance should be included in any health insurance study.

Markowitz et al. (1991) performed a study similar to the one outlined in this dissertation. The Markowitz et al. study results showed that 40 percent of the uninsured population between the ages of 18 and 24 indicated that expense is the primary reason for not being covered by health insurance. This reason ranked as the highest percentage among socioeconomic status, demographics, and health status categories. While this study is somewhat outdated, it is the only study aimed at the population of young adults between the ages of 18 and 24. This study's

variables also closely resemble those examined in this dissertation. This study illustrates the importance of including a variable related to price or cost in any health insurance study.

The most common barrier to receiving health care services is not being able to pay for that care (AHRQ, 1997) and The Henry J. Kaiser Family Foundation (2006) reports that the number one reason that people of any age are uninsured is the high cost of health insurance in the United States. A study conducted by the Wisconsin Department of Health and Family Services (2001) found that the high cost of health insurance prevents young adults in Wisconsin from purchasing health insurance. Specifically, the survey results from the study found that 67 percent of the young adults who participated in the study said they could not purchase health insurance because they were simply not able to afford it.

The cost of health care services in the United States has been on a steady rise in recent years. For various reasons, healthcare providers are charging more for services. This, in turn, leads health insurance companies to increase their premiums. Naturally, a cost variable should be included in this study. One of the major questions being asked in this study is: Does the cost of health insurance or the other factors being explored in the study influence a young adult's decision to purchase health insurance? The variable, not worth cost, will be an observed construct and measure how many young adults indicated that health insurance is not worth the cost.

Health Status

While three out of the five categories discussed in this literature review fit appropriately with the main three reasons as to why people do not purchase health insurance, health status does not directly fit. However, this is an important category to include in this research study. Some

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of the literature shows that health status and health insurance coverage actually have a positive relationship. When health status improves, the chance of purchasing health insurance also increases. Simultaneously, as health status declines, the chance of purchasing health insurance decreases. Other research indicates that there is no association between health status and health insurance coverage. The underlying reason behind these phenomena is that health insurance premiums increase as health status declines or health insurance companies actually decline to offer health insurance to those who are in poor health.

According to Fishman (2001), young workers lack employer sponsored insurance at rate that is lowered than all other workers, and college insurance is not common with young adults in college. There is a popular belief that young adults do not purchase health insurance because they experience a very good overall health status. Although many young adults are indeed healthy, adults with disabilities and chronic illnesses need medical care. If these individuals do not have health insurance, the consequences can be deadly. Young Americans with disabilities and long term health problems usually have private or public health insurance coverage through their parents (Fishman).

Once young adults turn nineteen they are faced with enormous challenges when it comes to purchasing health insurance (Fishman, 2001). Many think that Medicaid acts a safety net for all people with disabilities; however, this is not the case. There is a growing number of young adults with long term health problems who cannot obtain private health insurance, and cannot be covered by Medicaid because they are not categorized as being functionally disabled (Fishman). This means that there are sick individuals in our country who cannot work and are left with limited or no options when it comes to purchasing health insurance.

Saver and Doescher (2000) conducted a study where they examined the effect of different variables on health insurance status. One of the variables included in the study was health status. The researchers did not find a strong association between health status and health insurance coverage. Several reasons are offered for this finding. The first is that income and wealth were controlled for in the study and there may be a strong association between health status and poverty. The second reason is that many may consider private non-group health insurance as insurance for catastrophic events, not ongoing medical needs. The third and final reason for the weak association is that serious health problems may have actually precluded individuals from purchasing health insurance.

Hadley and Reschovsky (2003) compared two timely national surveys and found that the chance of purchasing private health insurance coverage is approximately 50 percent lower for individuals who are in fair or poor health when compared to individuals who consider themselves to be in excellent health. The researchers also shockingly found that premiums are actually 13 to 16 percent higher for individuals who experience modest health difficulties and 43 to 50 percent higher for individuals that experience major health difficulties when compared to an individual who is in excellent health.

Holahan (2001) explains that Americans with private health insurance are very healthy, meaning that those in good health are generally able to afford coverage. This conclusion was reached after examining data collected from the Medical Expenditure Survey to determine variations in health care spending among people with different types of insurance. The results clearly show that being in good health means that there is a higher chance a person will purchase health insurance.

The U.S. Census Bureau (2006) used data from the Survey of Income and Program Participation and reports on health status and health insurance coverage for the year 2001. It was

found that those with excellent health were found to have health insurance at higher rates than the other participants that were studied. According to the same report, those who reported lower and poor health status had lower health insurance coverage rates. The report also shows that those in the lower health status categories are likely to obtain government-sponsored health care.

The Institute of Medicine (2004) found a significant relationship between health insurance coverage and health status among adults. The results showed coverage is linked with have a regular source of care. Routine care can help improve the chances of early detection of many diseases, the proper treatment for existing and long-term diseases, and the proper attention to acute disease (Institute of Medicine). Overall, it is argued that health insurance coverage translates into better health outcomes

Woodward and Kawachi (2002) chronicle a research study that examined the effect that type of insurance has on overall health status and access to health care. The health insurance experiment randomly assigned 3,958 people aged 14 to 61 to a set of insurance plans for three to five years One of the plans provided absolutely free health care; the other two plans required enrollees to pay a portion of their medical bills. The results of the study showed that patients that had to pay for a proportion of their insurance made approximately one third less visits to their doctors, and were hospitalized one third less often than those who were provided free care during the study (Woodward and Kawachi). Additionally, it was observed that those receiving free care had lower levels of major risk factors at the end of the study. This next statistic is one that cannot be ignored. Navarro (1992) estimated that between 47,000 and 106,000 lives would be saved annually if a form of universal health insurance were implemented in the United States.

The literature shows that health status is indeed a deciding factor when individuals choose whether to purchase health insurance. Some studies show a strong association between health status and health insurance coverage. It is imperative that this variable be included in the study in order to account for confounding variables. If health status were not included in the study, the results would be skewed. We would not be able to generalize the results to the general population since health status is a factor that the average American considers when they purchase health insurance.

Perceived Need

Perceived need relates to reason number one as to why people are not insured, as proposed by Blumberg and Nichols (2002): "people are healthy and choose not to have insurance because they are unwilling to pay the price for insurance" (p. xvi). The Joint Economic Committee (2004) reports that some young adults who have the opportunity to be covered through their employer health insurance plans decide not to enroll because they do not think they need health insurance or simply because they value spending their money on other personal expenses. "Others making a significant income may also choose to be uninsured simply because the insurance plan options available to them do not fit their preferences or are not worth their cost" (Joint Economic Committee, p.5).

One reason that some younger adults do not purchase health insurance may be that many of them feel immortal or invincible to serious illnesses or injuries, especially young adult males (Chordas, 2004). It is certainly not difficult to imagine that this feeling of invincibility may be a contributor to lack of health insurance coverage that exists among the young adults. A lot of young adults simply do not seek out regular care and do not fully appreciate health insurance,

and thus decide to spend what income they do have on rent, and transportation (Chordas).

Generally, young adults are healthier and in better shape than older adults are, and heal quicker

from injuries than older adults do. However, this does not necessarily mean that they do not

place a value on health insurance.

   According to Wellner (1999), some young adults may not recognize the importance of

being insured, and do not see it as a benefit. Many young adults have not yet had a serious

medical problem, and do not see themselves being seriously injured in the near future. While

some young adults may realize that there are severe risks involved with not being insured, they

are many others that are willing to take the risk of not being covered (Wellner). Another related

reason for young adults to not purchase insurance is that many of the private plans that are

available to young adults for low prices do not even offer coverage for pre-existing conditions

(Spors, 2004).

   There are varying opinions of this phenomenon. Collins et al. (2006) contends that

contrary to popular belief, many young adults do consider health insurance to be important.

   When the Biennial Health Insurance Survey questioned young workers about their desire

   for health insurance, seven of ten of those between 19 and 29 years of age said that health

   insurance was very important to them in deciding whether to take a job, a rate similar to

   that for older workers (p.5).

Moreover, the survey found that a 71 percent of young adults with jobs actually accept health

insurance (Collins et al.). Furthermore, it is reported that 70 percent of young adults believe that

the existence of a company health insurance plan is an important factor that plays a role in the

decision making process when deciding whether to take a job according to Quinn et al. (2000).

These statistics reveal that it may be necessary to question the conventional wisdom that young adults feel that they do not need or want health insurance.

Along with cost, and the age demographic, perceived need is one of the variables that acted as a major impetus for this study. To reiterate, many believe that young adults do not see a need for health insurance. While the literature is lacking on volume related to this particular variable, the literature does show that while this may very well be the case for some, it does not seem to be the case for all young adults. The literature reveals that there are differing opinions on this topic. Nonetheless, there is a lack of empirical literature relating to the perceived need variable.

This study seeks to determine whether the popular belief that young adults do not purchase health insurance because they feel they do not need is true when various other factors are accounted for. Again, the use of structural equation modeling allows us to examine different aspects of perceived need. The variable, perceived need, will be measured by whether or not an individual can overcome an illness or injury without medical help, and whether or not that individual believes that they need health insurance or not. Table 1 shows the major empirical findings related to the demographic and perceptual variables that are explained in the literature review.

Table 1. Major Empirical Findings from the Literature

Author(s) & Publication Year	Dependent Variable	Major Findings
Indiana Family and Social Services Administration (2000)	Health Insurance Status	The rate of being uninsured higher among those with lower incomes, African Americans, and young adults between the ages of 18 and 24
U.S. Census Bureau (2002)	Health Insurance Status	The probability of being insured increased with age and higher income, persons with less education were more likely to be uninsured
National Center for Health Statistics (2003)	Health Insurance Status	The likelihood of having health insurance increases as a person gets older and as a person has completed more years of education. Women, as well as people who are married, are more likely to have health insurance and that Hispanic, non-Caucasians, and people who are unemployed are less likely to be insured
Castellucci (2004)	Percent of Population Insured	A rise in employment, education, and income leads to a larger percent of people purchasing health insurance. Hispanics and non-Caucasians are both far below the social average in terms of purchasing health insurance.
Rooney (1995)	Private Health Insurance Status	Socioeconomic status is positively associated with health insurance coverage, perceived health status is not. Insurance is more common among well-educated and affluent people. Age, income and earnings were found to be the major determinants of health insurance coverage
Long (2003)	Health Insurance Status	"38 percent of moderate and higher income uninsured adults and 70 percent of low income uninsured adults were not likely to afford health insurance."

Author(s) & Publication Year	Dependent Variable	Major Findings
Murray (2004)	Health Insurance Status	The strongest relationship between determinants and health insurance coverage existed between income and education, and health insurance coverage.
Wellner (1999)	Health Insurance Status	"Young African American men are the least likely to have health insurance coverage. Young men are more likely to have health insurance than young women. Young men have the lowest rate of health insurance coverage".
U.S. Department of Labor (1993)	Health Insurance Status	Women have a higher likelihood of purchasing health insurance than men do.
Munkin and Trivedi (2003)	Private Health Insurance Status	Positive correlations exist between the purchase of private insurance education a higher family income. Negative correlations exist between buying health insurance and having excellent or poor health, having an increasing number of chronic conditions, living in the West, being black, being male, and being older.
Wilcox-Gok and Rubin (2004)	Private Health Insurance Status	Race, education, sex, and age were found to be related to private health insurance coverage. Being white increases the probability of being insured, and high school graduates were more likely to be insured. Women are more likely to have private health insurance than men, and higher income is significantly associated with having private health insurance.
Fishman (2001)	Employer Sponsored Health Insurance Status	Young workers lack employer-sponsored insurance at high rates, and college-based insurance is not common among young adults in college.

Author(s) & Publication Year	Dependent Variable	Major Findings
Markowitz et al. (1991)	Health Insurance Status	40 percent of the uninsured population between the ages of 18 and 24 said that cost is the primary reason for not being covered by health insurance.
Agency for Healthcare Research and Quality (1997)	Health Insurance Status	The primary reason that people of any age are uninsured is high costs of health insurance in the United States
Wisconsin Department of Health and Family Services and the Family Health Center of Marshfield, Inc. (2001)	Health Insurance Status	Cost of health insurance is a large barrier preventing young adults in Wisconsin from purchasing health insurance. 67 percent of the young said they cannot obtain health insurance because they are not able to afford it.
Saver and Doescher (2000)	Health Insurance Status	The researchers did not find a strong association between health status and health insurance coverage.
Hadley and Reschovsky (2003)	Non Group Health Insurance Status	The probability of buying non group insurance is about 50 percent lower for people in fair or poor health.
Holahan (2001)	Variations in Healthcare Spending	Americans with private health insurance are very healthy, meaning that those in good health are usually able to afford coverage
U.S. Census Bureau (2006)	Health Insurance Status	People with excellent health were found to have the highest rate of health insurance coverage. Those with a lower health status had lower health insurance coverage rates, and those that rated their health care as poor had the lowest of health insurance coverage rates.
Collins et al. (2006)	Health Insurance Status	Seven out of ten young adults said that health insurance was very important to them in deciding whether to take a job.
Collins et al. (2006)	Health Insurance Status	70 percent of young adults believe that the existence of a company health insurance plan is an important factor that plays a role in the decision making process when deciding whether to take a job

<u>Contributions to the Literature</u>

Many studies examine the extent that the three different reasons for lack of health insurance coverage affect individual decision making. However, these studies only seem to focus on one of the three major reasons at a time. A study is needed that allows for the comparison between the three major reasons that influence individual decision making concerning health insurance coverage. Structural equation modeling is a powerful technique and is appropriate in a situation where one wants to measure the influence of several different factors on one dependent variable.

Many studies also examine how greatly the different determinants of health insurance coverage affect coverage, as made clear by the literature detailed in the literature review. However, perceived need is a variable that is often left out of these studies. "Need" is something that is difficult to measure, and therefore assumptions about the need for health insurance are often made. Since this study will incorporate structural equation modeling, latent variables will be able to be studied. Perceived Need, in this, case will be studied as a latent variable. This is a major strength of this study. Perceived Need will be measured by two observed variables: 1) whether a person can overcome an illness or injury without medical help and 2) whether a person believes they need health insurance. It is the fact that perceived need is going to be studied, and the fact that structural equation modeling is going to be used, that sets this study apart from other health insurance studies.

The results of this study may very well show that young adults do not purchase health insurance because they do not see a need for it. Alternatively, the results of this study may show that young adults really do see value in purchasing health insurance, and that the long held

assumption that many young adults feel that they are invincible is a myth. Regardless, the results will prove to be useful to many who have a stake in the health insurance industry. If this long held assumption is validated, then the aim of policymakers should be to educate young adults on the importance of health insurance. If the assumption that young adults do not see value in health insurance is found to be a myth, then policymakers could create strategies that make it easier for young adults to purchase health insurance.

This assumption that young adults do not buy health insurance plans because they feel they simply do not need them is one that has permeated our society for many years, but is also one that is not based on thorough research. This comprehensive study using U.S. Census Bureau data and structural equation modeling will allow researchers and policymakers to generalize the study findings to the entire population of 18 to 24 year olds, making this study one of interest to anyone studying the health insurance status among young adults.

Conceptual Framework

The inclusion of a theoretical framework in a study such as this one helps guide the study by allowing the researcher to predict behaviors among the study participants. Kahneman and Taversky (1979) developed prospect theory to counteract several long held assumptions that existed in economics. Certain decision theories that have existed for decades claim that individuals are rational and will always make rational choices. For example, expected utility theory implies that the individual makes a choice between uncertain choices by comparing the expected utility value of each choice (Davis et al., 1997). This theory, of course, assumes that the individual knows how to correctly assign utility to each choice. Prospect theory questions

the hypotheses associated with expected utility theory, and claims that choice is all about gains or losses (Kahnemann and Tversky). This relatively newer theory takes a more realistic approach and assumes that decision makers assign value to gains and losses, not utility. The theory is based on the reasoning that people in an imperfect world do not always know what is in their best interest, and make uninformed decisions.

More specifically, prospect theory asserts that people evaluate gains or losses in any given situation from a neutral starting position (Hastie & Dawes, 2001). Tvede (1999) summarizes the theory by claiming that people "have an irrational tendency to be less willing to gamble with profits than with losses" (p. 169). Kahnemann and Tversky (1979) explain that in respect to losses, the decision maker in any given event is risk preferring.

Prospect theory allows one to examine the health insurance purchasing decision from an interesting context. When applied to the decision of whether or not to purchase health insurance, prospect theory allows us to maintain that the immediate financial loss associated with purchasing health insurance is a major factor when deciding to purchase or not.

While other decision theories may take into account the probable financial loss that may come with a serious illness or injury down the road, prospect theory does not consider this. In the context of the growing number of young adults without health insurance situation, prospect theory helps to create a conceptual framework that guides the development of hypotheses and the research study itself. Prospect theory allows one to consider that the certain loss associated with paying a monthly premium and upfront costs, and not the possibility of a major medical bill in the future, is the major deciding factor when it comes to purchasing health insurance.

The hypotheses and variables used in the study can be directly drawn from prospect theory and its considerations on gains and losses from a neutral starting point. In fact, Schwartz (2004) points out that Kahneman and Tversky's main argument when it comes to prospect theory is that when it comes to deciding among potential gains, people avoid risk, but when it comes to potential losses, people are risk seeking. This way of thinking fits well with the hypotheses presented in this paper. From the standpoint of prospect theory, as the amount of loss associated with a decision increases, it is less likely for an individual to choose the decision that leads to that loss.

The socioecological model developed by Stokols proposes "that behaviors are influenced by intrapersonal, socio-cultural, policy, and physical environmental factors. These variables are likely to interact, and multiple levels of environmental variables are described that are relevant for understanding and changing health behaviors" (Stokols, 1996, p.282). This model may be used to explain the existence of disparities in health insurance. In the context of this situation, the lack of certain environmental resources (money, health insurance, or education) can prevent individuals from seeking necessary health care services.

There are four levels of determinants of health behavior in the socioecological framework. These four levels are individual, organization, community, and population. The four levels of determinants of health behavior can be adapted to the model used in this study. At the individual level, a person's knowledge of risks associated with not having health insurance and individual income influence behavior (socioeconomic status, demographics). At the community level, social norms and beliefs influence behavior (perceived need). At the population level, cost is one variable that dictates who can and cannot purchase health insurance.

This dissertation will test Stokol's socioecological model, and determine whether this model is appropriate to use when studying the health insurance coverage.

The proposed structural equation model for this study (Figure 1) illustrates that socioeconomic status, demographics, the price of health insurance status, perceived health status, and perceived need of health insurance all theoretically have an affect on individual health insurance coverage. The main variables of interest in this study (Socioeconomic Status, Not Worth Cost, Perceived need) will be examined through the lens of prospect theory. The model used in this study is consistent with prospect theory, in that it is measuring whether socioeconomic status and price of insurance have more of an influence on the decision to purchase health insurance than perceived need.

Stokol's social ecological model explains that personal behaviors are influenced by a number of different factors that interact with each , and provides a framework that illustrates the different variables included in this study are going to interact with each other on different levels. The final model used in this study was created based on combination published literature and the two major theories discussed in this section. These two theories fit well together, and combined form a theoretical framework that will guide all further actions of the study. Two different theories used to build a framework since prospect theory outlines why individuals make certain choices and Stokol's socioecological model explains how different variables interact with each other and affect the individual.

Chapter Summary

While the first chapter outlined the health insurance crisis that our country faces. This second chapter focuses in on the study problem by outlining what is known about young adults who are between the ages of 18 and 24 and the rates that they purchase health insurance. Major empirical studies involving socioeconomic status, perceived health status, cost of health insurance, gender, race, status, and perceived need are closely examined. These important topics were identified to be major determinants of health insurance coverage and will act as the variables that are analyzed in this study. In addition to outlining major empirical studies, the theories that help drive this dissertation study are introduced. Kahneman and Taversky's prospect theory and Stokol's socioecological theory are discussed and it is explained how these two theories help to provide a framework for studying the relationship between demographic and perceptual variables that exist among young adults and private health insurance coverage.

CHAPTER THREE: METHODOLOGY

Research Design

Methodology

This dissertation will follow a correlational-predictive methodology, meaning that statistically significant correlation coefficients between and among variables are interpreted. This includes the determination of the extent to which variations in one or more factors correspond with variations in one or more other factors and the use of such findings in making predications (Mauch and Park, 2003). In this case, relationships between one dependent variable (Private Health Insurance Coverage), and several independent variables (private health insurance coverage determinants) will be examined.

The data used in this dissertation comes from the 2005 Medical Expenditure Panel Survey. The Medical Expenditure Panel Survey collects information on the health services that people use, how often they use these services, how much these services cost, and how these services are paid for. Important to this study, the survey collects data on the "the cost, scope, and breadth of health insurance held by and available to U.S. workers" (AHRQ, para. 1, 2005).

This public data was accessed through the Medical Expenditure Panel Survey Data section of the Agency for Healthcare Quality and Research website. This archival data was retrieved by downloading the entire data set for 2005 household component full year consolidated data file in the form of an SPSS software file, allowing for data analysis, manipulation, and imputation into the AMOS 7.0 software package.

There are several different health insurance databases that could have been used in this study. Each database has strengths and weaknesses. In addition to the Medical Expenditure Panel Survey database, there is also a large national database that have been developed by the U.S. Census Bureau. The Census Bureau crated this database by employing the Survey of Income and Program Participation. The survey of income and program participation is a longitudinal survey that collects information on topics such as income, participation in government transfer programs, employment, and health insurance coverage (U.S. Census Bureau, 2004). The Survey of Income and Program Participation was closely examined as a possible data sources for this study. However, while highly specific to health insurance variables, the variables did not fit with the intended study model. A major strength of this data set, however, was that it contained information on how many individuals in the study are in school, how many are in college, Medicaid history, marital status, employment status, and full time vs. part time employment status.

Another survey utilized by the Census Bureau, the Current Population Survey (CPS), was also considered. However, a comparison between the Current Population survey and the Survey of Income and Program Participation reveled that between the two surveys the Survey of Income and Program Participation examined health insurance variables more closely.

Data from the National Health Interview Survey contains information on health insurance coverage and was also considered for use in this study. However, further investigation showed that the Medical Expenditure Panel Survey Data was modeled from the National Health Interview Survey, and included more variables related to health insurance coverage. The Center for Studying Health System Change conducts the Community Tracking Survey (CTS). This

survey was considered for use in this study. However, the data collected by this study were not as recent as the data collected by other surveys considered for use in this study.

The National Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey has a health plan survey component, and was also. Considered for use in this study. However, data did not contain values that were related to the variables chose for this study. National data collected by The National Association of Health Underwriters (NAHU) was also given consideration, however, the data was not suited well for structural equation modeling though.

The Medical Expenditure Panel Survey was chosen for use in this study as opposed to other surveys such as the Survey of Income and Program Participation and others, because the health insurance questions used in the Medical Expenditure Panel survey are highly specific and are useful in determining why individuals do or do not purchase health insurance. Furthermore, the data fit the study model and the data is fairly recent. Other studies in the literature also used data from the Medical Expenditure Panel Survey to study the relationship between health insurance status and other variables. The other databases mentioned in this section may certainly prove to be useful for other researchers studying health insurance coverage and should be examined. However, in this case the Medical Expenditure Panel Survey proved to be the most useful. While this database does contain weaknesses, the strengths of the database outweigh the weaknesses.

Sampling

    For this study, data from the household component of the MEPS was used. This section of the survey is used to gather data from a sample of families and individuals in selected communities across the United States. This sample consists of a nationally representative sub sample of households that answered questions on the National Health Interview Survey, conducted by the National Center for Health Statistics the previous year. The sample is one of civilian non-institutionalized population of the United States (AHRQ, 2005). The sample provided by the National Health Interview Survey is comprised of an unbiased national and regional estimate of health parameters that are intended to meet targeted precision requirements for policy relevant subgroups of our populations (AHRQ, 2005). The four census geographical regions that this sample comes from include the Northeast, South, West, and Midwest. The data obtained from each region is representative of that region (AHRQ, 2005). Data were collected using a computerized personal interview (CAPI) method over utilizing household telephones.

    Interviewers collected information for each individual living in the household they surveyed. The information collected by surveyors included: demographics, health conditions and status, medical services utilized, source of payments for medical services, access to medical care, satisfaction with the medical care, that they received health insurance coverage, and income (AHRQ, 2005).

    The survey is a longitudinal one covering a period of two years. However, at the time of this study not all of this information was available. For that reason, this study will be a cross sectional one and data from the first round of interviewing for 2005 will be used. Overall, the number of individuals surveyed in 2005 was 32,320. This sample size was reduced further to

3,326 for this study because participants who were not between the ages of 18 and 24 were not of interest to the study. The sample size was further reduced to 1340 because listwise deletion was performed and all subject containing missing values were removed from the statistical analysis.

In the appendix section of this dissertation, statistical tests results are reported in order to illustrate the difference of means between the population size (3326) and the study samples size (1340). Overall, distribution of data was found to be similar. However, it was determined that subjects with some missing data were less educated, less likely to be covered by private insurance, and more likely to be members of minority ethnic groups. This smaller sample size will maximize the power of the study and help to reduce type I and type II errors. Furthermore, many other health insurance studies discussed in the literature review used similar sample sizes.

Description of Variables in Operational Table

The table of operational definitions, shown in Table 2, correlates with the independent and dependent variables of the structural equation model in Figure 1. Both dependent and independent variables can be found in archival data collected using the Medical Expenditure Panel Survey. Private Health insurance Coverage will be the only dependent variable in this study. This variable will measure whether or not an individual is covered by a private health insurance plan. The independent variables include Socioeconomic Status, demographics (Gender, Black, Hispanic), Not Worth Cost, Perceived Health Status, and Perceived Need.

The variables used in this study were chosen because they are identified as variables of importance in the literature. Other researchers who studied this topic included these variables or very similar variables in their studies on health insurance coverage. Comparisons between

observed relationships that exist in the literature and the results from this study will be made in the conclusions chapter of this dissertation. Specifically, the three major reasons identified behind the choice to not purchase health insurance. Again, these reasons are:

1) people are healthy and choose not to have insurance because they are unwilling to pay the price for insurance; 2) people want insurance but cannot get it because of insurance underwriting practices or labor market rigidities; and 3) people want an insurance product that is available but cannot afford the coverage" (Blumberg and Nichols, 2002, p.xvi).

Since there was extensive literature pertaining to demographics and health insurance coverage, the demographic variables Gender, Black, and Hispanic will be used as control variables.

Table 2. Operational Definitions of Variables

Variable	Description	Type	Values
Private Health Insurance Coverage	Whether or not individual is covered by a private health insurance plan	Dependent	1= Yes 0 = No
Hourly Wage	Hourly Wage	Independent	Hourly wage indicated by continuous dollar values
Education Level	Individual Education Level	Independent	1-8 = Elementary Grades1-8 9-11= High School Grades 9-11 12 = Grade 12 13= 1 Year College 14 = 2 Years College 15 = 3 Years College 16 = 4 Years College 17 = 5+ Years College
Not Worth Cost	Health Insurance Not Worth Cost	Independent	1 = Disagree Strongly 2 = Disagree Somewhat 3 = Uncertain 4 = Agree Somewhat 5 = Agree Strongly
Perceived Health Status	Health Status According to Individual	Independent	1 = Excellent 2 = Very Good 3 = Good 4 = Fair 5 = Poor
Can Overcome Illness	Can Overcome Illness without Medical Help	Independent	1 = Disagree Strongly 2 = Disagree Somewhat 3 = Uncertain 4 = Agree Somewhat 5 = Agree Strongly

Variable	Description	Type	Values
Do Not Need	Do not Need Health Insurance	Independent	1 = Disagree Strongly 2 = Disagree Somewhat 3 = Uncertain 4 = Agree Somewhat 5 = Agree Strongly
Gender	Gender of Individual	Control	0 = Male, 1 = Female
Black	African American	Control	0 = White, 1 = Black
Hispanic	Hispanic	Control	0 = White, 1 = Hispanic

Figure 1 shows the structural equation model we will test using the same dependent and independent variables that are introduced in the Table 2. The values for the variable Private Health Insurance Coverage are: 1 = yes and 0= no. This variable indicates whether the person responding to the Medical Expenditure Panel Survey is covered by private health insurance or not covered by private health insurance.

Socioeconomic Status will be a theoretical construct that is measured by 1) Hourly Wage and 2) Education Level. Hourly wage will be measured by hourly wages from$ 0-$38.49. The Education Level variable will have the following values: 1-8 = elementary grades 1-8, 9-11 = high school grades 9-11, 12 = grade 12, 13 = 1 year college, 14 = 2 years college, 15 = 3 years of college, 16 = 4 years of college, 17 =5+ years of college.

The next variable represented is the Gender variable, this variable is assigned the following values: 0= male, 1 = female. The next variable of interest relating to demographics is the variable indicating that a person is an African American. This variable is assigned the following values: 0 = White, 1 = African American. The final demographic variable will be the Hispanic variable. This will be measured by the following values: 0 = White, 1 = Hispanic. A review of other studies using structural equation modeling as a method of statistical analysis revealed that using one race as reference category, and using another race as a dummy variable is well suited for running an SEM model. Consequently, dummy code variables are used for examining the different demographic variables in this study. The dummy code for Black shows the unique effect of being Black versus being White, the dummy code for the Hispanic variable shows the unique effect of being Hispanic versus being White. The minimum and maximum statistics for African American and Hispanic are 0 and 1 respectively.

The Not Worth Cost variable will be an observed construct, and will not need to be measured by other variables. The values for this variable are: 1 = disagree strongly, 2 = disagree somewhat, 3 = uncertain, 4 = agree somewhat, 5 = agree strongly. Perceived health status will be another observed construct that does not need to be measured by other variables. The values for health status will be: 1 = excellent, 2 = very good, 3 = good, 4 = fair, 5 = poor.

The Perceived Need variable will be the final theoretical construct, and will be measured by the following two variables: 1) Can Overcome Illness and 2) Do Not Need Health Insurance. The values for the Can Overcome Illness variable are: 1 = disagree strongly, 2 = disagree somewhat, 3 = uncertain, 4 = agree somewhat, 5 = agree strongly. Similarly, the values for the Do Not Need Health Insurance variable are: 1 = disagree strongly 2 = disagree somewhat, 3 = uncertain, 4 = agree somewhat, 5 = agree strongly.

At the design stage of this study, the socioeconomic status latent construct had three indicators. The variable for employment status was deleted because not enough data existed in that category in the dataset. This is because the Medical Expenditure Panel Survey studies U.S. Workers. The perceived need latent construct also had a third indicator. The variable for never being ill was removed from the study because there was not enough data in this category. While it is not ideal to only have three indicators measure each latent construct when performing a structural equation analysis, analyzing the data revealed that the remaining data did fit the model appropriately.

Statistical Methods

Structural equation modeling will be used in order to test causal relationships among variables. This type of statistical analysis also allows one to test the causal linear model. A model was constructed and revised based on model fit results using the AMOS 7.0 software package for structural equation modeling. Data collected from the Medical Expenditure Panel survey phone interviewers will be input into an SPSS database for descriptive analysis. The study model illustrates the hypothesized causal relationships (Figure 1). Data was transferred from the SPSS database to the AMOS 7.0 structural equation model to allow for SEM analysis.

Structural equation modeling is a regression analysis technique. Regression analysis helps to identify relationships in the structural equation models between the dependent and independent variables. After analysis, output obtained from the AMOS 7.0 software program was analyzed to help determine how well the indicators included in the data indicate health insurance coverage. The dependent (endogenous) variable in the model used in this study will be private health insurance coverage. This will be a dichotomous variable (yes/no). This type of dependent variable is appropriate for use in structural equation models. The independent (exogenous) variables in this study will be: Hourly Wage, Education Level, Gender, race (being Black versus being White and being Hispanic versus being White), Not Worth Cost, Perceived Health Status, and Perceived Need of health insurance. Latent and observed constructs will be measured. Figure 1 shows what the structural equation model used in this study looks like.

Variables surrounded by rectangles are observed variables, while variables surrounded by ellipses are latent variables. Error terms can be identified as smaller circles attaching to latent variables in the model. Path analysis is very similar to structural equation modeling, however,

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this method does not allow for the inclusion of latent variables. That nature of structural equation analysis demands that all latent variables be measured by observed variables. Lines with arrows indicate the direction of relationships between the different variables in the study.

While incorporating regression analysis, structural equation modeling also goes a step beyond normal regression. Structural equation modeling has the ability to specify latent variables models that provided separate estimates of relations among latent constructs and their indicators and among constructs (Tomarken and Waller, 2004). In this case, structural equation modeling will serve as a powerful tool that will help to identify relationships among the independent variables and dependent variable. Regular regression does not allow for the analysis of latent variables.

According to Munro (2001), structural equation modeling allows the researcher to ask old questions in "new and more powerful ways, and new questions that could not have been addressed without the technology and thinking that underlie SEM" (p. 380). To date, structural equation modeling with latent variables has never been used in any major research study in order to validate a model dealing with health insurance variables. The use of structural equation modeling will allow for the determination of which variables most affect a young adult's decision to purchase health insurance. Moreover, this method will allow us to determine how different variables interact with each other. Furthermore, since national data from a nationally representative sample will be used, the results will be generalized across many populations.

Structural equation modeling was used in order to determine the relationship between the dependent variable in the study (Private Health Insurance Coverage) and the independent variables in the study. Using this information, we are able to confirm or reject hypotheses.

Referring back to the introduction chapter of this dissertation, one can find the hypotheses associated with this study. The first hypothesis of this study involves the relationship between socioeconomic status and private health insurance coverage. In Figure 1, one can see that Socioeconomic Status is a latent variable that is measured by the Education variable and the Hourly Wage variable. After the structural equation analysis is performed using this model, output will indicate whether the relationship between the latent variable Socioeconomic Status and the Private Health Insurance Coverage variable is significant or not.

The next hypothesis examined in this study involves the Perceived Health Status variable. Again, conducting the analysis allows us to make a conclusion regarding the relationship between perceived health status and health insurance coverage. The analysis will let us determine if a significant relationship exists between the two observed variables.

The third hypotheses in this study concerns the relationship between perceived need and private health insurance coverage. The Perceived Need variable is a latent variable that is measured by the Can Overcome Illness variable and the Do Not Need variable. The analysis of Medical Expenditure Panel Survey data using the model in Figure 1 will allow us to determine if the relationship between the latent variable Perceived Need and the observed variable Private Health Insurance Coverage is significant.

Finally, cost is examined in the fourth hypotheses. In the structural equation model, the Not Worth Cost variable is an observed variable. How this observed variable interacts with the Private Health Insurance Coverage variable once the data are run through the model indicates whether a significant relationship exists between the two variables. Figure 1 illustrates the structural equation model that is used in this study.
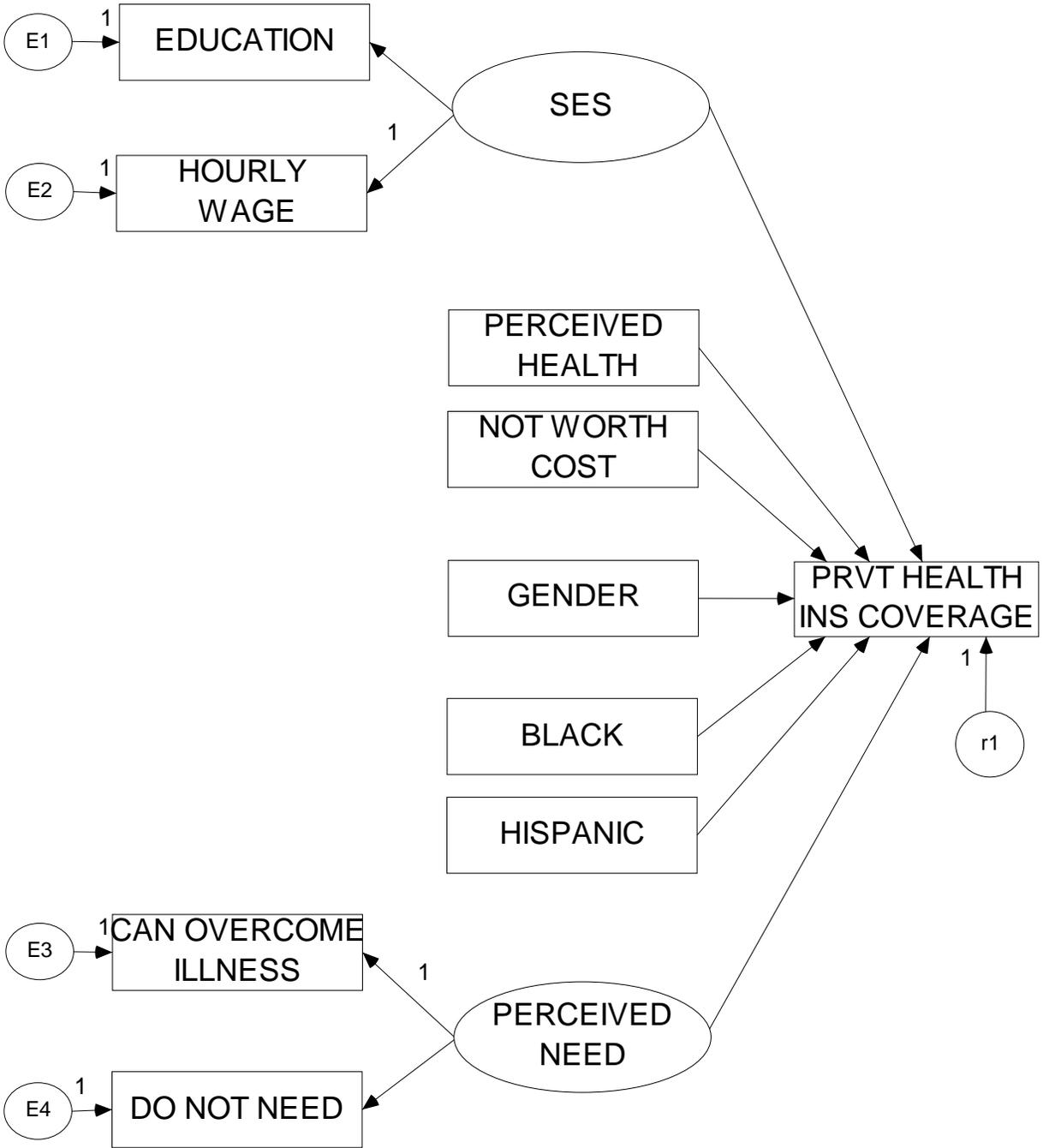
Figure 1. Demographic and Perceptual Determinants of Private Health Insurance

Coverage among Young Adults

Chapter Summary

This chapter contains an overview of the research methodologies that are followed in this study. The research design, description of the Medical Expenditure Panel Survey data, and sampling methods are all discussed in this chapter. Descriptions of the variables used in this study are outlined in detail in this chapter in Table 2. Differences between the study sample and the population obtained from the data are also noted. An explanation of structural equation modeling and the uniqueness of this methodology are also explored in this chapter. Finally, the structural equation model featuring the demographic and perceptual variables that are used in this study is introduced.

CHAPTER FOUR: FINDINGS

This chapter provides an in depth description of the statistical analyses that were performed in this study. This first section of this chapter details the descriptive statistics for each variable that was analyzed in the study. The next section presents the results of the structural equation analysis that was performed. Model fit statistics are also discussed in detail, and revisions to the original model are illustrated. Finally, the results of hypothesis testing are discussed in this chapter. Tables and diagrams are used to show the importance of relationships between variables, and to illustrate to readers the unique aspects of structural equation modeling.

<u>Descriptive Analysis</u>

A descriptive analysis of all variables used in a given study is an important first step in any structural equation modeling study. This analysis allows the researcher to examine the basic features of all variables in the study. In this case, an analysis between the study sample and original sample must be performed in order to determine if the distributions between the cases that are included in this study and the cases that were deleted because they contained incomplete data. If the two distributions are not comparable, the generalizability of the study results will be limited. Again, the results of statistical t-tests and chi-square tests are included in the appendix section of this report, and indicate that overall the participants who were not included in the study sample were less educated, less likely to have private insurance, and more likely to be members of minority ethnic groups

Table 3 shows the descriptive statistics for all variables used in this study, while Table 4 contains descriptive statistics for the original sample. Again, all of the variables are independent

except for the variable relating to private health insurance coverage. The Private health Insurance Coverage variable is the dependent variable in the study.

One of the advantages of structural equation modeling is that it can analyze continuous data. The Hourly Wage variable is first variable listed in the Table 3. This variable is the only continuous variable in the study. The minimum and maximum values are reported, in addition to the mean and standard deviation.

Frequencies are examined for each of the categorical variables included in this study. The frequency statistics for the Education variable show that the majority of young adults in the sample (36.1%) have at least completed the twelfth grade and have a high school diploma. While the frequency statistics for the Perceived Health Status variable show that 36.5% of the sample ranked their health status as "excellent", and only .5% ranked their health as "poor".

The frequency statistics for the Not Worth Cost variable interestingly show that 36.3% of the sample indicated that they strong disagreed that health insurance was not worth the cost, and 20.6% indicated that they disagree somewhat that health insurance is not worth the cost. These two choices represent the highest percentages. This table shows that that 56.9% of the sample either strongly or somewhat disagree that health insurance is not worth the cost.

The frequency statistics for the Gender variable reveal that half of the sample is male and the other half of the sample is female. This occurrence is coincidental. While the frequency statistics for being African American show that 15.1% of the sample is a member of the Black demographic. The frequencies for being Hispanic within the samples show that our sample is made up of 366 or 27.3% Hispanic people.

The frequency statistics for the Can Overcome Illness variable show us that 28.6% of the sample report that they strongly disagree with the statement they can overcome illness without medical help. All other choices were reported by less of a percentage of the sample.

The frequencies for the Do Not Need Health Insurance variable illustrate that the response with the highest percentage reporting is "definitely agree", at 44.9%. While the response with the next highest percentage reporting is "mostly agree" at 21.2%. Together, these percentages add up to 66% of the sample.

Finally, the frequency statistics for the Private Health Insurance Coverage variable reveal that 52.1% of the sample does have private health insurance, while 47.9% of the sample does not have private health insurance. This descriptive analysis tells us that altogether, that there is not a lot of variation. This is not unexpected, given that most of the variables are either categorical or dichotomous. Obviously, the variable for hourly wage has the most variation since this is the only continuous variable used in the study.

Table 3. Descriptive Statistics for Study Variables

Variable	Label	Minimum	Maximum	Mean	Standard Deviation
Continuous Variable					
Hourly Wage		0.07	38.49	9.0595	4.31682
Independent Variables					
			Frequency	Percent	Cumulative Percent
Years of Education	1		2	0.1	0.1
	2		1	0.1	0.2
	3		3	0.2	0.4
	6		14	1.0	1.5
	7		7	0.5	2.0
	8		13	1.0	3.0
	9		40	3.0	6.0
	10		103	7.7	13.7
	11		193	14.4	28.1
	12		484	36.1	64.2
	13		184	13.7	77.9
	14		139	10.4	88.3
	15		73	5.4	93.7
	16		66	4.9	98.7
	17		18	1.3	100.0
Not Worth Cost	1		487	36.3	36.3
	2		276	20.6	56.9
	3		262	19.6	76.5
	4		202	15.1	91.6
	5		113	8.4	100.0
Perceived Health Status	1		489	36.5	36.5
	2		441	32.9	69.4
	3		330	24.6	94.0
	4		73	5.4	99.5
	5		7	0.5	100.0

Variable	Label	Frequency	Percent	Cumulative Percent
Can Overcome Illness	1	383	28.6	28.6
	2	312	23.3	51.9
	3	232	17.3	69.2
	4	326	24.3	93.5
	5	87	6.5	100.0
Do Not Need	1	601	44.9	44.9
	2	284	21.2	66.0
	3	185	13.8	79.9
	4	206	15.4	95.2
	5	64	4.8	100.0
Control Variables				
Gender	1	670	50.0	50.0
	2	670	50.0	100.0
Black	0	1137	84.9	84.9
	1	203	15.1	100.0
Hispanic	0	366	27.3	72.7
	1	374	72.727.	100.0
Dependent Variable				
Prvt. Health Ins.	1	698	52.1	52.1
	2	642	47.9	100.0

Structural Equation Model Analysis

Analyzing the data from the Medical Expenditure Panel Survey data using structural equation modeling methods provides us with a model for inspection. Figure 2 is a graphical representation of the structural equation model with standardized regression coefficients showing the relationships between the different study variables after the original analysis of the study model. In this figure, standardized regression weights are shown. However, in all tables both the standardized and unstandardized regression coefficients are reported. These standardized regression coefficients allow us to examine the relationship between the independent observed and latent variables and the dependent observed variable. Along with these standardized regression coefficients, output obtained after running the data through the model provides us with the necessary information needed to accept or revise the study model. A close examination of indicator statistics and modification indices provided by the AMOS 7.0 software package allows the researcher to make necessary changes to the model if those changes are required by the goodness of fit statistics.
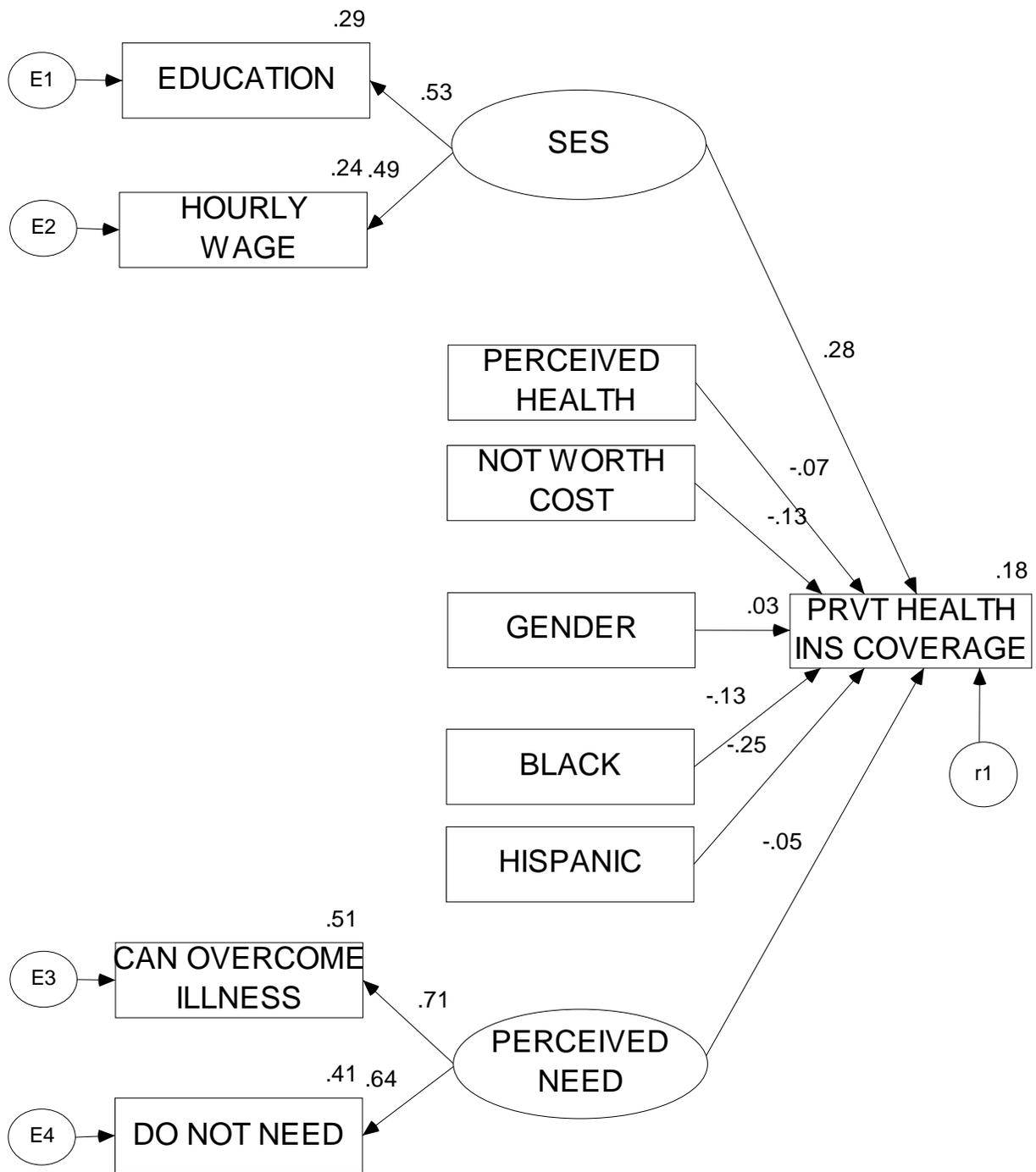
Figure 2. Regression Coefficients for Demographic and Perceptual Determinants of

Private Health Insurance status among Young Adults

Table 4. SEM Results for the Effects of Independent Variables on Private Health Insurance Coverage

			Unstandardized Estimate	S.E.	C.R.	P	Standardized Estimates
PRIVATE HEALTH INSURANCE COVERAGE	<---	GENDER	.031	.025	1.212	.225	.031
PRIVATE HEALTH INSURANCE COVERAGE	<---	NOT WORTH COST	-.049	.009	-5.201	***	-.132
PRIVATE HEALTH INSURANCE COVERAGE	<---	PERCEIVED NEED	-.027	.021	-1.287	.198	-.051
PRIVATE HEALTH INSURANCE COVERAGE	<---	SES	.065	.012	4.569	***	.280
PRIVATE HEALTH INSURANCE COVERAGE	<---	PERCEIVED HEALTH	-.039	.013	-2.877	.004	-.073
PRIVATE HEALTH INSURANCE COVERAGE	<---	HISPANIC	-.273	.028	-9.657	***	-.245
PRIVATE HEALTH INSURANCE COVERAGE	<---	BLACK	-.175	.035	-4.973	***	-.126

*** indicates statistical significance at p < .05 level

Table 4 contains information on the relationships between variables that is very important when analyzing structural equation models. Regression of the variables in this model (Figure 3) with the private health insurance coverage variable yielded the following regression coefficients: (GENDER = .031), (NOT WORTH COST = -.132), (PERCEIVED NEED = -.051), (SES = -.280), (PERCEIVED HEALTH = -.073), (HISPANIC = -.245), (AFRICAN AMERICAN = -.126). These results indicate that the variables NOT WORTH COST, SES, HISPANIC, and BLACK are significantly related to the variable PRVT HEALTH INS COVERAGE. This analysis indicates that these variables are statistically significant at the .05 level.

The nature of structural equation modeling requires that the data fit the model before continuing on with the analysis. Before any conclusions regarding the variables are made, the goodness of fit statistics must be examined.   The act of running the data through the model in Figure 2, using the AMOS 7.0 software package, provides us with "goodness of fit" statistics. These statistics can be found in Table 5. Interpretation of these statistics is discussed and appropriate changes to the model follow.

These numbers indicate to the researcher whether the data fits the model. Kline (2001) explains that goodness of fit tests help the researcher determine if the model should be accepted or rejected by the researcher, and that only if the model is accepted, then the researcher can interpret regression coefficients to determine which relationships in the model are significant.

 According to Wan (2002), the goodness of fit statistics of importance are: goodness of fit index (GFI), adjusted goodness of fit index (AGFI), root mean squared error of approximation (RMSEA), related significance statistics (P-close), and Hoelter's critical N (C.N). Marsh et al. (1996) and Mueller (1996) assert that experts generally agree that several incremental goodness

of fit indices should also be used to determine overall model fit so a weakness of a particular index may be offset by the strength of a different index (as cited in Munro, 2001, p.345).

For these reasons, all of the above goodness of fit statistics mentioned by Wan (2002) are examined in addition to chi-square (CMIN), degrees of freedom (DF), CMIN/DF, Tucker Lewis Coefficient (TLI), and Normed Fit Index (NFI) statistics. While Mueller (2001) argues that a chi-square test is only an informal measure of fit, she also points out that it is important to ensure that the ratio of chi-square to degrees of freedom does not reach very large levels. Furthermore, these goodness of fit statistics are commonly reported in structural equation model studies that exist in the literature. Table 5 shows the goodness of fit statistics for this study's model.

Table 5. Goodness of Fit Statistics for Generic Model

Statistic	Model Results
Chi-Square (CMIN)	788.2
Degrees of Freedom (DF)	34
Likelihood Ratio (CMIN/DF)	23.182
Goodness of Fit Index (GFI)	0.896
Adjusted Goodness of Fit Index (AGFI)	0.832
Root Mean Squared Error of Approximation (RMSEA)	0.129
Hoelter Critical N .05 (CN)	83
PCLOSE	0.000
Tucker Lewis Coefficient (TLI)	0.267
NFI (Normed Fit Index)	0.439

Wan (2002) explains that a goodness of fit index, ranging from 0 to 1, measures the amount of variance and covariances. Wan explains that it is better to have a larger number that is closer to 1 rather than a number that is closer to 0. The adjusted goodness of fit index is similar to the goodness of fit index, but takes degrees of freedom into consideration, according to Wan. The Root Mean Squared Error of Approximation measure model adequacy based on population discrepancy Wan explains. Values less then 0.05 are acceptable for RMSEA. While P-close, a p-value, should be equal or greater than 0.05 for a close model fit. Finally, it is explained that Hoelter's critical N should be greater than 200, indicating that the largest sample size needed.

With a GFI of 0.896 and AGFI of .832, the model is consistent with Wan's goodness of fit requirements for that measure. However, a RMSEA of 0.129 indicates that the model may need to be revised. A Hoelter's critical N of 83, in addition to a p-close of 0.000, further support the need to revise the model.

Taken together, these statistics reveal that the model can be revised so that a better fit to the data is achieved. In order to determine how to make model fit the data better, modification indices are examined. The modification indices show which variables in the original model should be correlated with each other, in order to achieve a better fit to the data. This output is obtained after analyzing the original model. Very large indices between two variables in the modification index output indicate that those two variables should be correlated with each other.

The modification indices reviewed after running the analysis show that the variables Black and Hispanic should be correlated with each other, with a modification index of 89.833. Next, the output reveals that the Perceived Need and Not Worth Cost variables should be

correlated with each other, because they have a correlation index of 315.214. With a

modification index of 55.296, the Perceived Need and Gender variables should be correlated

with each other. Finally, the output from the original model shows that the Hispanic variable and

the Socioeconomic Status variable should be correlated with each other since they have a

modification index of 30.165. All of these changes to the original model make theoretical sense,

and it would be considered prudent to make them. If the output insisted that two variables

should be correlated with each other, and their correlations did not make sense, then it would not

be to make those changes to the model.

Goodness of fit statistics for the revised model are illustrated in Table 6. Given the

goodness of fit statistics requirements presented by Wan (2002), it can be determined that the

revised model, with correlations, fits the data much better. The likelihood ratio decreased from

23.182 to 6.817 due to decreases in both chi-square and in degrees of freedom.

The GFI statistic did move closer to 1, increasing from 0896 to 0.970. The AGFI statistic

also moved closer to 1, moving from .832 to .946. Hoelter's critical N at the .05 level increased

from 83 to 297, reaching and exceeding the threshold for model approval of 200. While RMSEA

did not go below the 0.05 level, it did decrease from 0.129 to 0.066. While these goodness of fit

statistics do not represent an absolute perfect fit, the fit is reasonable and improved from the first

version of the model.

Figure 3 shows a graphical representation of regression weights obtained after the

analysis of the revised study model. As in the original output, the regression weights attached to

the arrows indicate relationships between variables are representations of the regression weights

between those variables.

Table 6. Goodness of Fit Statistics for Revised Model

Statistic	Model Results
Chi-Square (CMIN)	204.5
Degrees of Freedom (DF)	30
Likelihood Ratio (CMIN/DF)	6.817
Goodness of Fit Index (GFI)	0.970
Adjusted Goodness of Fit Index (AGFI)	0.946
Root Mean Squared Error of Approximation (RMSEA)	0.066
Hoelter Critical N .05 (CN)	287
PCLOSE	0.001
Tucker-Lewis Coefficient (TLI)	0.808
NFI (Normed Fit Index)	0.855
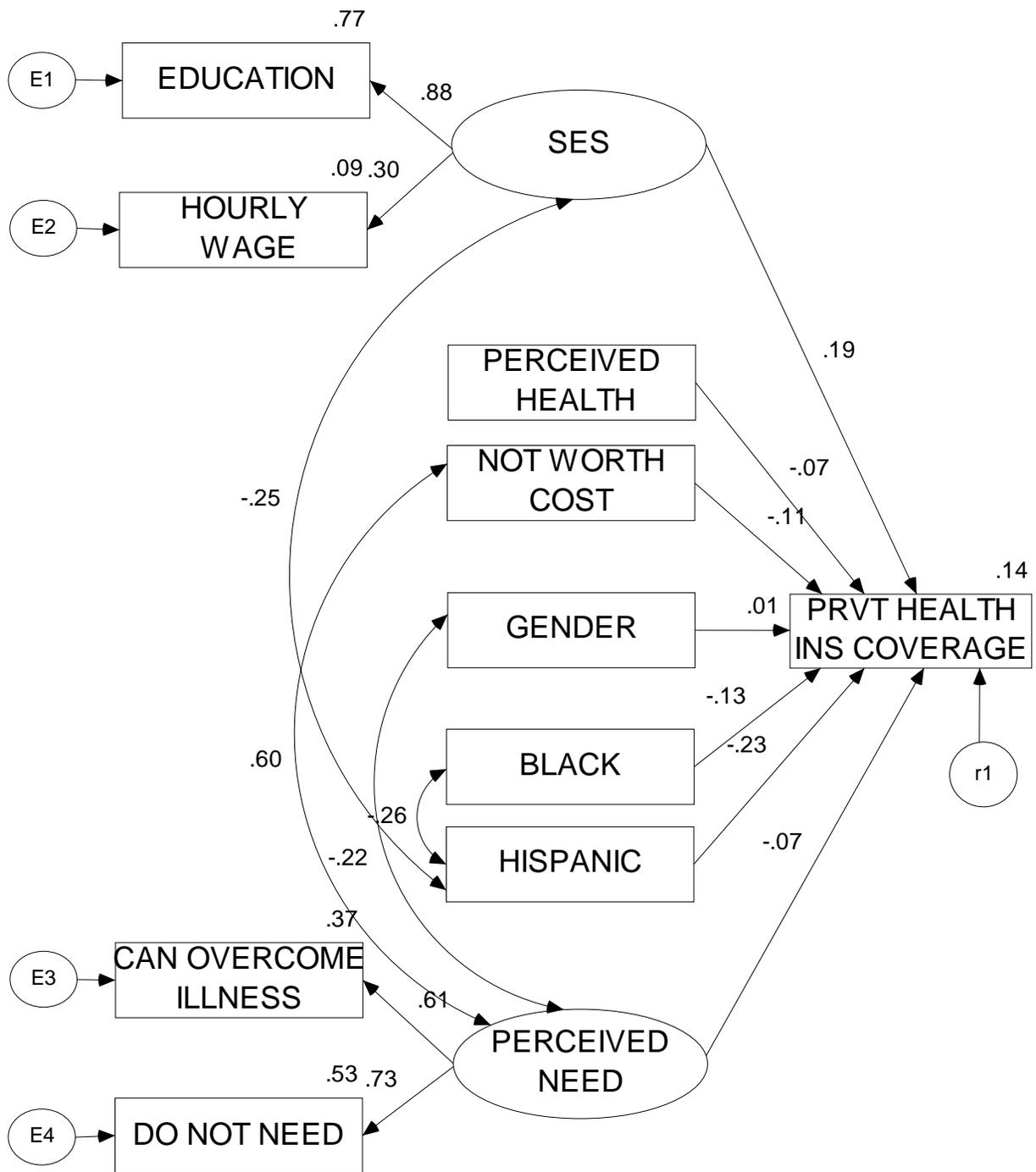
Figure 3. Regression Coefficients for Revised Model of Demographic and Perceptual

Determinants of Private Health Insurance Status among Young Adults

Table 7. Revised SEM Results for the Effects of Independent Variables

on Private Health Insurance Coverage

			Unstandardized Estimates	S.E.	C.R.	P	Standardized Estimates
PRIVATE HEALTH INSURANCE COVERAGE	<---	GENDER	.006	.027	.225	.822	.006
PRIVATE HEALTH INSURANCE COVERAGE	<---	NOT WORTH COST	-.041	.014	-2.875	.004	-.110
PRIVATE HEALTH INSURANCE COVERAGE	<---	PERCEIVED NEED	-.041	.029	-1.403	.161	-.066
PRIVATE HEALTH INSURANCE COVERAGE	<---	SES	.071	.014	5.230	***	.185
PRIVATE HEALTH INSURANCE COVERAGE	<---	PERCEIVED HEALTH	-.038	.014	2.825	.005	-.072
PRIVATE HEALTH INSURANCE COVERAGE	<---	HISPANIC	-.252	.034	-7.332	***	-.226
PRIVATE HEALTH INSURANCE COVERAGE	<---	BLACK	-.175	.037	-4.742	***	-.127

*** indicates statistical significance at p < .05 level

Table 7 is a crucial table to comprehend if one is to draw conclusions regarding the variables of the study. Regression of the variables in the revised model (Figure 3) with having private health insurance variable yielded the following regression coefficients: (GENDER = -.006), (NOT WORTH COST = -.110), (PERCEIVED NEED = -.066), (SES = .185), (PERCEIVED HEALTH = -.072), (HISPANIC = -.226), (AFRICAN AMERICAN = -.127). The variables SES, HISPANIC, and BLACK are significantly related to the variable PRVT HEALTH INS COVERAGE. This analysis indicates that these variables are statistically significant at the 0.05 level.

Table 8 shows the squared multiple correlations for the variables in the model with predictors. The higher R^2 estimate is, the more confidence we have in the equation being studied.   It is estimated that the predictors of the private health insurance coverage variable explain 13.8 percent of its variance, alternatively it could be stated that the error variance of Private Health Insurance Coverage is approximately 86.2 percent of the variance of Private Health Insurance Coverage itself. This table also shows that the predictors of the Education variable explain 77.3 percent of its variance. Concerning the Hourly Wage variable, we can see that the predictors of Hourly Wage explain 9 percent of its variance. When we examine the Do Not Need variable, we can see that the predictors of this variable explain 53.5 percent of its variance. Finally, the results of running the data through the final model in Figure 3 indicate that the predictors of the Can Overcome Illness variable explain 37.5 percent of its variance. Since none of the equations with predictor variables had very low R^2 estimates, we can be fairly confident about the equation in the final model.

Table 8. Squared Multiple Correlations for Revised Model

Variable	R^2 Estimate
PRVT. HEALTH INS. COVERAGE	.138
EDUCATION	.773
HOURLY WAGE	.090
DO NOT NEED	.535
CAN OVERCOME	.375

Hypothesis Testing

This section features an examination of each one of the hypotheses that guided the study. Each hypothesis is examined closely, and the null hypothesis is either accepted or rejected based on the statistical analysis results detailed in the previous section.

Hypothesis 1

H1: An individual's socioeconomic status is positively related to the likelihood of having private health insurance.

HO: An individual's socioeconomic status is not positively related to the likelihood of having private health insurance.

As noted in Table 7, there is a positive significant relationship between socioeconomic status and having private health insurance. Therefore, the null hypothesis for H1 can be rejected. This means that as a person's socioeconomic status increases, the likelihood that they will be covered by private health insurance increases. The decision to include this hypothesis inclusion was made by reviewing Kahneman and Tversky's prospect theory.

Hypothesis 2

H2: There is a positive significant relationship between perceived health status and the likelihood of an individual having health insurance.

HO: There is not a positive significant relationship between perceived health status and the likelihood of an individual having health insurance.

In Table 7, we can observe that there is not a significant positive relationship between perceived health and being covered by private health insurance. Therefore, we fail to reject the null hypothesis for H2 in this instance. It was important to include this factor in order to test both prospect theory and Stokol's socioecological theory.

Hypothesis 3

> **H3:** There is a positive significant relationship between perceived need and the likelihood of an individual having health insurance
>
> **HO:** There is not a positive significant relationship between perceived need and the likelihood of an individual having health insurance

The statistical results in Table 7 show us that there is not a positive significant relationship between perceived need and the likelihood of an individual having private health insurance. As a result of this, we cannot reject the null hypothesis for H3. Again, it was crucial to examine this hypothesis in order to determine if prospect theory and Stokol's socioecological model both play a role in a young adult's decision to purchase health insurance.

Hypothesis 4

> **H4**: An individual who rates health insurance as not worth the cost will be less likely to purchase health insurance.
>
> **HO**: An individual who rates health insurance not worth the cost will not be less likely to purchase health insurance.

Table 7 shows us that the structural equation analysis did not reveal a statistically significant relationship between the Not Worth Cost variable and the dependent variable Private Health Insurance Coverage. Consequently, the null hypothesis is not rejected. This hypotheses was driven by prospect theory and was necessary to include in the analysis to either confirm or deny that prospect theory plays a role in the decision to purchase health insurance.

Together, these hypotheses help us to answer the research questions that drove this research study. Hypothesis testing of hypotheses 1 - 3 allow us to conclude that socioeconomic status most influences a young adult's decision to purchase health insurance when compared to other factors studied by hypothesis testing. While hypothesis testing of hypothesis 4 allows us to conclude that a significant relationship does not exist between those young adults who rate health insurance as not worth the cost and health insurance coverage.

Summary of Findings

The results of this structural equation analysis show that socioeconomic status does indeed influence a young adult's decision to purchase private health insurance. As socioeconomic status increases, the likelihood of purchasing private health insurance increases. While not unexpected, this is an important finding of the study and is crucial to identify when drawing conclusions regarding the theoretical context of this study, in addition to drawing overall conclusions.

Perceived health was not shown to have a statistically significant relationship with the likelihood of purchasing private health insurance. This finding is a little more surprising that the

socioeconomic relationship that was discovered. The implications and possible explanations for this finding are discussed in the conclusions chapter.

This study also showed that individuals rating health insurance as not worth the cost or worth the cost did not have statistically significant relationship with the likelihood of having health insurance. Again, this finding is an unexpected revelation.

Gender was not shown to play an important role when an individual is deciding to purchase health insurance. While not related to one any of the hypothesis examined, this is an important finding nonetheless.

The inspection of being Black versus being White and being Hispanic versus being White revealed a statistically significant relationship. It was discovered that when compared to African Americans and Hispanic people, white people are more likely to have health insurance. While this is not a surprising finding, it is important to note that these variables, along with Socioeconomic Status variable, were the only variables found to have a statically significant relationship with the Private Health Insurance variable.

Interestingly, perceived need did not have a statistically significant relationship with the likelihood of being covered by private health insurance. This finding, perhaps, is one of the more interesting findings of the study. This finding, along with results for the other variables in the study allow for strong conclusions to be made. These conclusions are discussed at length in the conclusions chapter of this report.

Chapter Summary

This chapter begins with a descriptive analysis and explanation of all continuous and categorical variables used in this study. Subsequently the structural equation model analysis is explained in detail. Analysis of the data required that the original model be slightly altered to allow for correlations between certain variables. These correlations are made based on goodness of fit statistics and modification indices provided by the AMOS 7.0 software package. Finally, hypothesis testing is carried out and results explained. The next chapter deals with the major findings discovered after running the analysis, and the implications of those findings.

CHAPTER FIVE: CONCLUSIONS

__Major Findings__

This study has provided answers to the research questions posed, and has produced intriguing results. As conveyed in the findings chapter of this study, being covered by a private health insurance plan is largely a matter of having a higher socioeconomic status and being a non-minority. These conclusions certainly do not contradict any major findings presented in the literature.

Table 1 in the first chapter of this report illustrates that these are not uncommon findings. However, the majority of those findings were based on studies that involved all age groups. It is important to recognize that these relationships seem to exist among the entire population regardless of age. In this case, young adults between the ages of 18 and 24 do not represent a segment of the population that behaves entirely different from the rest of the population. This study has shown that young adults behave similarly to older adults when deciding to purchase health insurance with respect to socioeconomic status and minority status.

An unexpected finding was that gender did not play an important role in an individual's decision to purchase health insurance. Most of the empirical studies in the literature reported that gender did indeed have a statistically significant relationship with private health insurance coverage. A common finding among studies is that young adult females are more likely to purchase health insurance than young adult males.   However, as reported in Table 1, Murray (2004) found that gender played no significant role in the decision to purchase health insurance, reported that this was an unexpected finding.

Perceived health status was not found to have a significant relationship with being covered by private health insurance. Some of the previous research indicates that perceived health status play a role in a person's decision to purchase health insurance. However, some studies did not find a significant relationship between health status and health insurance coverage. A comparison between these two different types of studies is outlined in the next section.

Interestingly, the perceived need construct does not have a statistically significant effect on being privately insured or not. This finding is most worthy of noting. This finding seems to fill in a gap in the literature. As presented in the literature, some studies show that adults do not purchase health insurance because they believe they do not need it. Other studies claim that young adults do see the value in health insurance, but cannot afford it. Overall, though, there is a lack of major empirical studies examining perceived need and health insurance coverage among young adults. The findings of this study contribute to the literature, and show that there is not a statistically significant relationship between perceived need and health insurance coverage among young adults between the ages of 18 and 24.

With this finding related to perceived need in mind, it can be argued that need is not a major factor for young adults when it comes to deciding whether to purchase health insurance. This stance contradicts many anecdotal arguments to the contrary and the conventional wisdom that young adults do not purchase health insurance because they feel they do not need it.

Comparison of Study Results and Literature Findings

Socioeconomic Status

This study confirms the study results of the Indiana Family and Social Services Administration (2002) study, claiming that the highest rates of uninsurance were found among those with lower incomes and African Americans. It is important to point out this study, because the Indiana Family and Social Services Administration only examined insurance rates in Indiana. While the sample for this dissertation study was a national sample, our results do not conflict with a similar study at the state level. This is outlined in this section of the dissertation.

As reported in the literature review section of this report, the U.S. Census Bureau (2002) found that the probability of being insured does increase with a higher income and more education in 2002. Similarly, a study by Castellucci (2004) claims that income and education do have a positive affect on a person's decision to purchase health insurance. The Congressional Budget Office (2003) reported that people with the least education are five times more likely to not have health insurance. The Kaiser Commission on Medicaid and the Uninsured (2004) points to the fact that low-income adults are at a higher risk of being uninsured than the rest of the population. Again, our results are congruent with the results of these studies.

A study conducted in the United Kingdom illustrates that the relationship between a person's socioeconomic status and private health insurance coverage is not a relationship that is unique only to the United States. Rooney (1995) found that the final results of the study showed that private medical insurance is more prevalent among well-educated and affluent people. The researcher also reported that income and earnings were found to be the important determinants of

health insurance coverage. The findings from this dissertation support the findings of this study conducted in the United Kingdom.

A study completed by Long (2003) showed that socioeconomic status appears to play a role in whether or not a person purchases health insurance. In 2004, Murray also found that the strongest relationship between health insurance coverage determinants and health insurance overage existed between income and having health insurance. Once more, the findings of this dissertation study are consistent with the results of these studies.

The literature addressing the relationship between health insurance status and socioeconomic status clearly shows that socioeconomic status does affect a person's decision to purchase health insurance. The results of this dissertation study do not contradict this claim in any way. Importantly, this dissertation has shown that socioeconomic status is a significant factor for young adults between the ages of 18 and 24 when it comes to the decision to purchase health insurance.

An examination between the significance levels of the effect of socioeconomic status and being a non-Hispanic have on private health insurance coverage reveals that these two factors play the largest role in predicting whether a young adult is insured or not. Our results show that being a non-Hispanic plays more of a role in the decision to purchase health insurance than socioeconomic status does. While theoretically the ability to pay (socioeconomic status) should play more of a role, our model does indicate that being a non-Hispanic and socioeconomic status are highly correlated with each other. This is an important finding, and it is important to note that the use of structural equation modeling allowed for this relationship to be detected.

Demographics

The literature reveals that demographics do have an impact on a person's decision to purchase health insurance. The Kaiser Commission on Medicaid and the Uninsured (2004) showed that minorities make up the uninsured population. Friedman (2005) reports that members of minority groups are more likely to be uninsured than other members of society.

Wellner (1999) found that African American men are the least likely to have health insurance. Munkin and Trivedi (2003) also reported that being African American and being male does not have high correlation with being covered by health insurance.

Mills and Bhandari (2003) indicate that about 32 percent of Hispanics were uninsured in 2002. Wellner (1999) also reports that young men are more likely to lack health insurance coverage. The U.S. Department of Labor (1993) reported that women are more likely to purchase health insurance than men are. Similarly, Wilcox-Gok and Rubin (1994) found that females were more likely to have private health insurance.

While the results of this dissertation show that being African American and Hispanic does play a significant role in the decision to purchase health insurance, the results or our study did not show a significant relationship between gender and health insurance coverage. Consequently, this study cannot not confirm the results of other studies that claim gender plays an important role in a young adult's decision to purchase health insurance.

The literature on health insurance shows that race is clearly a determinant of health insurance coverage status. The literature also shows that gender is a determinant of coverage, with males being less likely to be insured. The results of this study are not consistent with the majority of findings related to gender and health insurance coverage in the literature; the results

of this study differ from many studies that indicate that gender plays a role in the decision to purchase health insurance.

Since consistent results pertaining to gender were not found between the literature and our study, it is appropriate to speculate on why this difference exists. One possible reason might be that since employers are dropping healthcare coverage from the benefits package at increased rates more females are being faced with the challenge of obtaining private health care insurance on their own. Since our study is more recent, it may be reflecting this change. Another possible reason for the difference between the literature and our study may be that the studies discussed in the literature utilized regression as a technique to study relationships between variables, while our study utilized structural equation modeling. Perhaps using structural equation modeling sorts the relationship between gender and health insurance status more effectively than regression analysis techniques do. Further research studies utilizing recent data and structural equation modeling is necessary in order to make a firm conclusion regarding the relationship between gender and health insurance status.

Cost

Wellner (1999) reported that price tops the list of explanations as to why young adults do not purchase health insurance. Likewise, Markowitz et al. (1991) claim that that the expense of health insurance is the primary reason for young adults not being covered by health insurance. The results of this dissertation study are consistent, but not confirmatory of these results. The results of this dissertation show that health insurance not being worth the cost is not a significant determinant of health insurance coverage.

Similarly, the AHRQ (1997) and the Henry J. Kaiser Family Foundation (2006) explain that the main reason people do not purchase health insurance is cost. The study conducted by the Wisconsin Department of Health and Family Services and the Family Health Center of Marshfield, Inc. (2001) illustrates that cost is a major factor that prevents young adults from purchasing health insurance. Again, the results of this dissertation do not conflict with these findings. The results indicated that young adults do not believe that health insurance is not worth the cost.

It cannot be denied that cost is a variable that plays an important role when a young adult or person of any age is deciding whether to purchase health insurance. The literature and conventional wisdom dictate if a person cannot afford health insurance, they cannot purchase it. The inclusion of the Not Worth Cost variable in this dissertation study, and the fact that this variable was not found to have a significant relationship with the presence of private health insurance, allows us to conclude that, with respect to cost, this dissertation study is consistent with the findings in the literature. However, more study on this issue using cost variables is suggested in order to further support or deny the findings of this study. The Medical Expenditure Panel Survey data set only contained one variable related to cost which was labeled "Not Worst Cost". Ideally, a variable that measures cost more effectively should be used.

Health Status

While there are multiple studies focusing on the relationship between health status and health insurance coverage, there is a lack of literature examining the relationship between perceived health status and health insurance coverage. Saver and Doescher (2000) did not find a strong association between health status and health insurance coverage. Hadley and Reschovsky

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(2003) reported that the likelihood of purchasing health insurance is approximately 50 percent lower for people who reported that they were in fair or poor health, when compared to individuals who reported that they were in excellent health. On the other hand, Holahan (2001) found that Americans with private health insurance are very healthy. These findings indicate that there is inconsistency in the literature when it comes to the relationship between health status and health insurance coverage.

As noted in the literature review section of this dissertation, the U.S. Census Bureau (2006) conducted a study and found that individuals with excellent health have higher rates of health insurance coverage, while people in poorer health have lower rates of health insurance coverage. The Institute of Medicine (2004) found a significant relationship between health insurance coverage and health status among adults.

The relationship between health status and health insurance coverage is an interesting one. The relationships discussed in the literature review section suggest that people who are health have health insurance. This is either a result of being insured or a predictor of being insured. The studies also show that people who are not healthy need health insurance, but cannot obtain health insurance due to the fact that they cannot afford it or that they are denied coverage by health insurance companies because of their poor health or pre-existing conditions. Other reports are similar to our study, and show that there is no relationship between health status and health insurance coverage.

It can be concluded that there are inconsistencies in the literature regarding health insurance coverage and health status. In this dissertation study, it was found that there is not a significant relationship between perceived health status and health insurance coverage. This

finding is consistent with the finding conveyed by Saver and Doescher (2000), but not consistent with the other findings that exist in the literature.

While it may be that there is simply no relationship between health status and health insurance coverage. It may also be that there is not enough variation in the Medical Expenditure Panel Survey data in order to detect a significant relationship between health status and health insurance coverage. Since our study did not show a significant relationship between perceived health status and health insurance status, firm conclusions cannot be made. More study is needed to precisely determine what the relationship between perceived health status and health insurance coverage is. Our study does, however, add to the literature related to perceived health status and health insurance coverage.

Perceived Need

Chordas (2004) explains how health insurance companies believe that young adults do not have a need for routine health care, and do not see the value in or appreciate health insurance. Conversely, Wellner (1999) explains that some young adults simply do not understand the value of health insurance because they have not yet had a need for it. The Joint Economic Committee (2004) reports that most young adults are usually healthy and believe that the cost of health insurance is more of a consideration than their expected risk.

Alternatively, Collins et al. (2006) contend that young adults do not easily dismiss the risks of not having health insurance.   These researchers of the Common Wealth Fund performed a study and found that 70 percent of young adults do indeed regard rate health insurance as an important factor when choosing employment.

Overall, it can be concluded that there is a lack of major empirical literature that focuses on the Perceived Need variable. That literature that does exist on the topic is divided. As noted, some studies claim that young adults simply do not want or need health insurance. While other studies to claim that young adults see value in health insurance. This dissertation sought to find out which claim can be confirmed in an empirical study.

As explained in the results section of this study, there was no significant relationship between perceived need and health insurance coverage. This result leads to important implications. It can be speculated why there is no significant relationship between perceived need and health insurance status among young adults. Conceivably, it can be concluded that the fact that only two observed variables were used to measure the Perceived Need variable led to the lack of a significant relationship between perceived health status and health insurance coverage. Other possibilities shouldt also be explored.

The results of our study suggest that perhaps socioeconomic status overwhelms any decisions that may be made regarding perceived need. Perhaps even though young adults believe that they can over come illness or injuries without medical help and that they do not believe in health insurance, these are not the deciding factors in the decision making process to purchase health insurance. Alternatively, perhaps the fact that a young adult does see a need for health insurance does not dictate health insurance coverage. More study is needed in order to make more precise conclusions regarding the relationship between perceived need and health insurance coverage. Our study does result in important findings that add to the literature relating to perceived need and health insurance status.

Implications

This study is a unique one, in that it only involves an examination of young adults between the ages of 18 and 24 and utilizes a technique that has the ability to measure latent variables. A study such as this one focusing on young adults between the ages of 18 and 24 and utilizes structural equation modeling does not exist in the literature. Therefore, the implications should be of interest to anyone concerned with finding answers to why young adults between the ages of 18 and 24 do not purchase health insurance at the same rates of the rest of the population. Implications for practice and for theory are discussed in this section.

Implications for Practice

In the past fifteen to twenty years a multitude of plans for solving the insurance crisis have been proposed by state and federal legislators, healthcare professionals, and financial experts. Still, there is no solution to the problem. Oregon and Massachusetts are the only two states to meet the challenges of the insurance crisis head on (Haislmaier and Owcharenka 2006, Floyd, 2003). While most proposed universal healthcare plans would cover every American citizen, there are some proposed plans that would leave out young adults. For various different reasons there are many detractors to such plans. A pragmatic approach would be one that is bipartisan. While many people do feel very strongly about this issue, the lack of real attention to this problem is helping make the problem worse each year.

The intention of this study was not to solve the entire healthcare crisis. Rather, the intention was to study more closely why one of the largest segments of our population does not purchase health insurance at the rates of the rest of the American population. Answers to this question were found in this study. According to the results, the reasons that young adults do not

purchase health insurance do not differ all that much from the reasons that rest of our population does not purchase health insurance. This is an important implication that should be taken seriously by policymakers focusing on health care reform. It was also determined that socioeconomic status and minority status are preventing young adults from purchasing private insurance. Perceived need is simply not a major factor when it comes to this decision. Indicating, that the young adult population is not one that should be deliberately ignored.

If any health care reform plans are to be passed at the state or federal level, young adults should be included in the plan. The obstacles preventing older adults from purchasing health insurance also prevent young adults from purchasing health insurance. While distinctions can be made between the types of services that young adults and older adults need to have covered, young adults should not be excluded from any type of comprehensive plan. Health insurance mandates have been discussed by various legislators and has become a reality in the state of Massachusetts. Including young adults in any type of mandated health care reform plan would be consistent with the results of this study.

A pragmatic approach to the health insurance crisis might be for states to examine the percentage of their population and decide which plan of action to take. While it may be too early to adequately measure how well the mandate for health insurance in Massachusetts is meeting the needs of that state's population, this may indeed be an option for other states. Other states might want to only mandate health insurance coverage for people in certain age groups. This would all depend on what segments of each state's population is uninsured and which segments of each state's population is most likely to be insured.

The finding that perceived need does not play a significant role in a young adult's decision to purchase health insurance means that young adults are not a segment of the population to be ignored by health insurance companies either. The study results suggest that young adults may indeed see value in health insurance and do not see it as waste of money.

Health insurance companies may want to investigate tailoring health plans that are specific to young adults. These health plans might offer coverage for conditions common to young adults, and could even be less expensive than more traditional plans offered to all other adults. Health insurance companies would be making a mistake if they considered this segment of the population a group of people that are not willing to purchase health insurance Ultimately, this age group should not be ignored. Not focusing on young adults as a significant share of the market seems like a missed opportunity for health insurance companies. These companies may be missing a chance to earn more revenue, or be missing the opportunity to lower health insurance premiums for their health plan enrollees. Conventional wisdom dictates that with more people in the insurance risk pool, the cost of insurance will go down.

Taking steps to ensure that young adults are covered by health insurance would mean that hospitals and providers would not need to provide free care to this segment of the population at the same rates that they do now. Consequently, this means that cost shifting will not occur at the same rates as it does now, and that the rest of the population that pays for medical care will not be paying for uncompensated care that the uninsured receive.

Implications for Theory

Since the cost construct in the study model did not have a significant affect on a young adult's decision to purchase health insurance, it cannot be concluded that prospect theory is a

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theory that solely drives a young adult's decision making process when cost is included in decision-making.

However, we did learn that socioeconomic status does indeed have a significant relationship with private health insurance coverage. Given that this indicator was measured by hourly wage and education, it can be concluded that hourly wage does in fact play some role in that decision to buy private health insurance. There is a positive relationship in this instance, meaning that prospect theory may indeed play a role in a young adults decision to purchase health insurance when it comes to available income. The ability to pay for health insurance appears to play a role here.

Overall, it can be confirmed that prospect theory does allow us to conclude that socioeconomic status, but not cost of insurance, affects a young adult's decision to purchase health insurance more than perceived need does. It is fascinating that socioeconomic status has an effect on the ultimate decision, but cost does not seem to. This indicates that there are other factors at play when it comes to the ultimate decision making progress regarding health insurance. There may be an intermediate factor involved that should be investigated in future studies. Perhaps cost may prove to be more of a factor if this variable is measure in terms of continuous values. It would be interesting to find out what the cost threshold is for young adults when it comes to purchasing health insurance.

Stokol's socioecological model can be accepted as a reason for young adult's not purchasing health insurance. The socioecological model developed by Stokols proposes that behaviors are influenced by intrapersonal, socio-cultural, policy, and physical environmental factors (Stokols, 1996). The fact that socioeconomic status, race, and ethnicity all play a strong

role in determining who purchases health insurance means that this is a decision that is made because of several different influences on the individual. The results show that there is no one single factor that is leading young adult's to make the decision to purchase health insurance; it is a combination of several factors. Moreover, the fact that the structural equation model required that certain study variables be correlated with each other further indicates that Stokol's socioecological model is a theoretical construct that does play a part in the decision to purchase health insurance.

Taken together, Stokol's socioecological model and Kahneman and Taversky's prospect theory help one to understand that the decision to purchase health insurance. They are accurate predictors of a young adult's decision in this matter. The decision is influenced by several different factors, and while socioeconomic status plays a factor in choosing to purchase health insurance, interestingly cost is not a statistically significant factor. Stokol's socioecological model helps to explain this behavior, but prospect theory only partially explains this behavior. Other theories may need to be investigated when studying the decision to purchase or not purchase health insurance.

Limitations

As in any study, limitations do exist in this one. Archival data was used, and the search for the best source of this data revealed that a recent data set was not available for this study. An ideal situation would include the opportunity to study the most recent information possible. A more recent sample would help researchers in making recommendations to health insurance companies and policymakers.

Furthermore, since archival data was used, we did not have the luxury of outright choosing which variables to study. As mentioned in the methodology chapter of this dissertation, each database considered for use in this study had strengths and weaknesses. The Medical Expenditure Panel Survey was chosen as the data base to use for the study, but there are limitations associated with that database. While the database does include information on what level of education each individual study has obtained it does not indicate whether a person is currently in school, whether they are currently in college, or whether they have a college health insurance plan. The database also does not contain information on whether a person is currently covered by Medicaid or had been covered by Medicaid in the past. Finally, since the survey focuses on the American work force, employment status is not closely examined. Because of employment status not be explored fully by this survey used, the difference between full time and part time employees is not something that was examined in this study. All of these variables are variables that should be of interest to anyone studying health insurance coverage.

Another limitation is that since this study is a cross sectional one, it only represents snapshot in time. As indicated in the literature review, the uninsured population is one that is constantly changing. Appropriate conclusions can be drawn from the study as currently designed; however, a longitudinal study is needed in order to compare the study results over time. Several studies found in the literature are longitudinal studies, and an appropriate design should be modeled after these.

A further limitation of this study is that the latent variables, SES and Perceived Need, were measured by only two observed variables. Wan (2002) recommends that at least three indicators be used when measuring a latent variable. Before the data was analyzed three

variables were chosen to measure each latent variable, however, for reasons discussed in the results chapter those variables were removed from the study. Fortunately, the data fit the study model with only two observed variables measuring each latent variable. Originally, three indicators were to be used for each latent variable in this study, however a descriptive analysis of those variables revealed that they should not be included in the study. A more stringent search of data sets including variables that measure latent variables could be conducted in order to ensure that at least three indicators are used to measure each latent variable. Alternatively, a survey instrument could be developed that includes questions regarding latent variables. Either of these methods would help to make sure that each latent variable in a future study was measured by at least three variables.

It is also important to note that differences exist between the study sample and the population obtained from the Medical Expenditure Panel Survey. As in many studies, missing cases were deleted in this one. Nonetheless, this limitation should be noted. Subjects with some missing data were less educated, less likely to have private insurance, and more likely to be members of minority ethnic groups. A more complete sample would have only helped in providing a more representative result. However, since the distribution of the study sample was comparable to the overall sample, the results of this particular study are still generalizable to the entire population.

One final limitation of this study is that the unemployed population was not examined to a full extent. The Medical Expenditure Panel Survey focuses on U.S. workers; therefore individuals who were not employed were not studied. While many health insurance studies do

focus on workers who are employed, it would be fascinating to include the unemployed in a study that involved young adults between the ages of 18 and 24.

Recommendations for Future Research

While this study provides answers to important questions, it also creates more questions that need to be answered. Since this study was conducted using a national sample, it would it would be interesting to study similar research questions using state level data for individual states. As mentioned previously, Oregon and Massachusetts are the only two states to provide a comprehensive health plans for their citizens that deal with health insurance coverage in some way. Interestingly enough, each state took a different approach. Perhaps there are differences in behaviors among young adults in different states or regions across our country. The ultimate answer to the insurance crisis may very well indeed be to let each state implement a plan of action that is most appropriate for that state. Conducting studies such as this one using state data and then comparing that data would either provide a rationale for taking a state by state approach or justification for legislators to focus on a national approach to solving the problem.

Since this study yielded results that seem to contradict conventional wisdom, it would be interesting to study data using similar types of questionnaires from the past. The ability to compare data on similar questions from ten or twenty years ago would help researchers to be able to identify if a paradigm shift has taken place among young adults in our country. Perhaps this generation of young adults is more concerned with their health than other generations. Alternatively, perhaps there is a pendulum effect where this type of behavior changes back and forth from generation to generation. Social science is a field where attitudes, behaviors, and

perspectives change with time. Unlike biological processes, social behaviors are not set in stone.

A multitude of variables could lead to a change of behavior among a certain group of citizens.

Being able to pinpoint when and if a major paradigm shift among young adults took place, would

prove very beneficial to researchers studying this topic.

An interesting issue that may be worthy of further study is the effects of age on having

health insurance within the 18 to 24 year old age group. Perhaps there are differences between

young adults at the lower end of the age spectrum and those at the higher end of the age

spectrum. It is a possibility that the youngest individuals in this age group are the ones that do

not purchase health insurance at high rates. It is also a possibility that this entire age group is

uniform in their decision making regarding this issue. Structural equation modeling could be

employed to study this issue.

Overall, this study has shown that the young adult population is not a population to be

ignored when it comes to health insurance coverage studies. Many of the studies in the available

literature report that young adults are the largest segment of the population that does not

purchase health insurance, however for the most part; this is where the research ends. It is often

concluded that this age group does not utilize health care service or that they do not see the need

to purchase health insurance. The literature presented in this dissertation shows that the young

adult segments of the population does indeed utilize health care services, and the results of this

study show that perceived need is not one of the reasons that young adult's do not purchase

health insurance. Further study of the members of this age group should not be discouraged.

Learning more about the largest segment of our population that does not purchase health

insurance is only going to bring us closer to solving the health insurance crisis that our country faces.

Concluding Remarks

The conventional wisdom that young adults see themselves as invincible without a need for health insurance was not detected in this study. This study illustrates the importance of scientific study to study behaviors, and not to rely on anecdotal or outdated evidence. Perhaps this feeling of invincibility was felt by more young adults in past years. While some may argue that our country has become less healthy overall, it can also be argued that the younger generation is one that does not completely ignore healthy behavior. For instance, the CDC (2007) reports that 56.8 percent of people between the ages of 18 and 24 do meet the CDC physical activity recommendations. Perhaps a paradigm shift took place within this age group. Further study on this topic would be able to answer that question.

Once a behavior is studied and observed, it is important not to assume that behavior will forever be observed. This will help to reduce false assumptions. Excluding young adults from any type of major comprehensive healthcare reform initiative based on the conventional wisdom that this segment of the population does not want or need health insurance would be a mistake. Similarly, health insurance companies would be making a detrimental mistake if they viewed this segment of the population as a group of people that are not willing to purchase health insurance.

As the insurance crisis continues to worsen each year, it is important for researchers in this field to continue to examine old and new fractions of the health insurance crisis using new techniques such as structural equation modeling. While one can hope that the political climate

will one day soon be conducive to a bipartisan solution to this problem, the reality is there are significant barriers to healthcare reform. Recent history tells us that there is no easy answer. Different stakeholders have different opinions on how the problem should be resolved. Nonetheless, research can still be conducted and questions can be answered.

The health insurance crisis is one that affects every person in the United States in some way or another. A focus on the young adult population and close examination of why they do not purchase health insurance at the rates of other members of society is essential to solving the health insurance crisis. Whether health insurance companies start actively targeting young adults, whether a national health plan including coverage for young adults is implemented, or whether states begin implementing health plans that include coverage for young adults, it cannot be denied that attention to this segment of the populations will allow the rest of society to benefit.

For one, targeting young adults and increasing health insurance coverage among them will mean that this segment of the population will be healthier. A healthier segment of our population will help to slow the spread of major and minor diseases and illnesses and contribute to society in a variety of ways. Secondly, if health insurance coverage among young adults in the United States increases, then young adults will not receive uncompensated care at the same rates as they do now. This will allow hospitals to halt cost-shifting practices. In other words, since health care services would be paid by insurance companies, hospitals will no longer need to absorb the high costs of treating young adult patients that come to the emergency room and cannot afford treatment. Hospitals will no longer have a rationale for increasing the costs of other services in order to offset the absorption of costs associated with treating young adult

patients who cannot pay for their treatment. Finally, including more people in the health

insurance risk pool will help to lower health insurance premiums for everyone that pays for

health insurance.

Policymakers need to come together and dedicate their expertise and knowledge to

solving the problems discussed in this dissertation. Regardless of when and how a health

reformation plan is implemented, it is important to understand that the problem will not go away

overnight. Evaluation any plan addressing the issue is imperative, and it could take years in

order to determine if the plan is being efficient and effective. The health insurance field is one

that is rich with data and opportunities for researchers looking to provide answers to questions

and to provide strategies for solving problems. Continual study, utilizing the newest and most

powerful techniques, in addition to frank communication with scientific and political

communities is one way to effectively combat the worsening health insurance crisis.

APPENDIX

As explained in chapter 3, listwise deletion was used in order to remove variables from

the study that included missing data. Table 9 illustrates the descriptive statistics comparing the

mean scores of cases with and without complete data. In other words, this table shows the

difference between the variables that were used in the study and the data that were not used in

the study because they had missing data.

Table 9. Descriptive Statistics for Subjects Included in Study and Subjects Not Included in Study

	sample Included in Sample	N	Mean	Std. Deviation	Std. Error Mean
HOURLY WAGE	1.00 Yes	1340	9.0595	4.31682	.11793
	2.00 No	290	8.9469	4.41597	.25931
EDUCATION	1.00 Yes	1340	12.21	1.986	.054
	2.00 No				
		1959	11.44	2.025	.046
HEALTH	1.00 Yes	1340	2.39	1.331	.036
INSURANCE NOT WORTH COST	2.00 No	1181	2.48	1.312	.038
PERCEIVED	1.00 Yes	1340	2.01	.936	.026
HEALTH STATUS	2.00 No	1799	2.06	.993	.023
CAN OVERCOME	1.00 Yes	1340	2.57	1.302	.036
ILLS WITHOUT MED HELP	2.00 No	1192	2.47	1.315	.038
DO NOT NEED	1.00 Yes	1340	2.14	1.270	.035
HEALTH INSURANCE	2.00 No	1193	2.17	1.289	.037
PRIV HLTH INS	1.00 Yes	1340	1.48	.500	.014
	2.00 No	1804	1.63	.482	.011

In order to ensure that the study is overall a representative one, comparison should be made between the subjects that were included in the study and study subjects that were not included in the study because of missing data. These comparisons show how using complete data affected the composition of the sample. Table 10 shows t-test results that illustrates the equality of means between data that is used in this study, and the sample obtained from the Medical Expenditure Panel Survey Data. Notably, there is a difference in means among the two groups when education levels are scrutinized. Examining the means in the Table 10 shows that the group with complete data has higher levels of education.

Table 10. Independent Samples t-test for Continuous and Categorical Variables

	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
	Lower	Upper	Lower	Upper	Lower	Upper	Lower
HOURLY WAGE	.401	1628	.688	.11264	.28073	-.43799	.66327
EDUCATION	10.902	3297	.000	.776	.071	.637	.916
HEALTH INSURANCE NOT WORTH COST	-1.836	2519	.06	-.097	.053	-.200	.007
PERCEIVED HEALTH STATUS	-1.546	3137	.122	-.054	.035	-.123	.015
CAN OVERCOME ILLNESS	1.850	2530	.064	.096	.052	-.006	.198
DO NOT NEED HEALTH INSURANCE	-.504	2531	.614	-.026	.051	-.125	.074

While a t-test is appropriate for comparing the means of two groups of variables that are continuous or categorical, a chi-square test is more appropriate for comparing the means nominal dichotomous variables. Table 11 shows the result of a chi-square test comparing the proportion of males and females between the population and the study sample. Test results reveal that there is no significance difference between the proportions of males and females.

Table 11. Chi-Square Test for the Gender Variable

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.507(b)	1	.476		
Continuity Correction(a)	.458	1	.498		
Likelihood Ratio	.507	1	.476		
Fisher's Exact Test				.480	.249
Linear-by-Linear Association	.507	1	.476		
N of Valid Cases	3326				

a Computed only for a 2x2 table
b 0 cells (.0%) have expected count less than 5. The minimum expected count is 659.93.

Table 12 shows the result of a chi-square test comparing the proportions of Blacks and non-Blacks between the population and the study sample. Test results reveal that there is a difference between the sample with complete data and the population with incomplete data. Referring back to Table 10 shows us that the study sample with complete data is less likely to contain as many African Americans as the population obtained from the Medical Expenditure Panel Survey.

Table 12. Chi-Square Test for the Black Variable

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.718(b)	1	.017		
Continuity Correction(a)	5.496	1	.019		
Likelihood Ratio	5.781	1	.016		
Fisher's Exact Test				.019	.009
Linear-by-Linear Association	5.717	1	.017		
N of Valid Cases	3326				

a Computed only for a 2x2 table
b 0 cells (.0%) have expected count less than 5. The minimum expected count is 228.44.

Table 13 shows the result of a chi-square test comparing the proportions of Hispanics and non-Hispanics between the population and the study sample. Test results reveal that there is a difference between the sample with complete data and the population the sample was obtained from. Examining Table 10 reveals that the study sample is less likely to have Hispanics than the population.

Table 13. Chi Square Test for the Hispanic Variable

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	27.534(b)	1	.000		
Continuity Correction(a)	27.139	1	.000		
Likelihood Ratio	27.853	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	27.525	1	.000		
N of Valid Cases	3326				

a Computed only for a 2x2 table
b 0 cells (.0%) have expected count less than 5. The minimum expected count is 435.52.

Table 14 shows the result of a chi-square test comparing the proportion of individuals who are covered by private health insurance and individuals who are not covered by private health insurance. The chi-square test results reveal that there is a difference between the proportion of people who are insured and who are not insured.

Table 14. Chi-Square Test for Prvt. Health Ins. Variable

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	75.325(b)	1	.000		
Continuity Correction(a)	74.695	1	.000		
Likelihood Ratio	75.353	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	75.301	1	.000		
N of Valid Cases	3144				

a Computed only for a 2x2 table
b 0 cells (.0%) have expected count less than 5. The minimum expected count is 578.79.

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