Abstract

Having your Cake and Eating it Too: Disparities in Access to Health Care within the United States

By Ashley A. Chase

Imagine a child who could not receive her childhood immunization shots because her parents had no means of transportation to the doctor’s office. Imagine a single parent household that cannot afford health insurance. Imagine living in the Land of Opportunity and lacking access to health care.

The United States health care system needs improvement. It takes the last place in quality, access, and efficiency when compared to other prominent countries. Although the United States spends the most on health care, it consistently underperforms in comparison to other influential nation states. The United States definitely has room for improvement. Within the area of access to health care there are relatively simple steps to progress.

There are disparities in access to health care for many reasons: socioeconomic class, lack of transportation, education level, community involvement, etc. Although it is a multi-faceted problem, the lack of transportation for the disadvantaged subpopulations can slowly be eradicated. The lack of public transportation in the United States has exacerbated the disparity in access to health care for the urban poor, persons with disabilities, and the older American population. Without access to mass public transit these subpopulations lack personal mobility within this car-centric society. The lack of public transit has led to fewer physician consultations for these disadvantaged subpopulations.

However, there are relatively easy ways to increase access for the disadvantaged populations. The state of Iowa has created an educational brochure on the topic and has transformed the process of making doctor appointments. Within many states, the department of public transit and the department of public health work in conjunction to lessen the cost of transporting Medicaid and Medicare patients. There are economic as well as consumer benefits in increasing the use of public transit by people seeking health care.
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Preface

The United States health care system is lackluster. Changes must be completed in order to raise the ranking of our health care system in comparison to other influential nation states. One change that must be done is increasing the personal mobility of the American population. Not every American is able to walk and certainly not every American has a car. In order to increase mobility so that people can access health care, the mass public transit systems within the United States need to be updated and publicized. Increase in access to health care can come from increase usage of the mass public transit systems. Although fixing the disparities within access to health care is a multi-faceted process, small changes can be made to help lessen the disparity. I wrote this thesis to shed light on an easy fix – the increase in the use of mass public transit.

I became interested in health care after I studied in India during the summer of 2006. I researched the Tibetan recovery program for Post Traumatic Stress Disorder. That research was the spring board for my continued passion in regards to equal access to quality health care. Throughout my final years of my college career I focused more of my studies on health care. This thesis is a culmination of my senior year studies. In order to complete my thesis I did extensive library research, interviews, and I created maps using Geographic Information Systems.

This thesis is broken down into short chapters which include different viewpoints concerning the reasons for the disparity in access to health care and what can be done to lessen the disparity. At the end are GIS maps which take a local perspective on the issue. It is my hope that my thesis can provide helpful suggestions on some relatively easy, cost effective ways to lessen the disparity in access to health care. There should not be a sliding scale for access to health care within the United States.
Chapter One:

The Land of Opportunity: Myth or Reality?
The United States is known as the Land of Opportunity; people from around the world travel to the United States to find a better way of life. However, their access to these mythological opportunities can be stunted since Americans themselves have access to these prospects on a sliding scale! For example, the United States spends the most on its health care system in comparison to other influential nation states; however it consistently ranks low in access, equity, and health outcomes in comparison (Davis et al 2007: overview). Americans living in poverty, or near poverty, were more likely than their foils in other countries (United Kingdom, Australia, Germany, New Zealand, and Canada) to report not visiting a doctor when in need, not getting a recommended test, treatment or follow-up care, not filling a prescription, or not seeing a dentist when needed due to costs (Davis et al 2007: summary). Unfortunately, more than two-fifths of the lower-income households surveyed within the United States stated that they decided to not receive needed treatment due to costs within the past year (Davis et al 2007: summary). In addition, the Commonwealth Fund, a private foundation which is working towards a greater performance in health care, found that Americans and those residing within the United Kingdom had much higher death rates in 1998 from conditions which medical care could have stamped out. The United States’ rate concerning these preventable deaths was 25 to 50 percent higher than Canada and Australia (Davis et al 2007: key findings). The United States does have a decent medical system; yet this fact has no significance if all Americans cannot access the health care system.

The Commonwealth Fund created a chart book concerning the United States health care system through the compiling of over 150 resources. The researchers found
that nearly 39 million Americans (one in seven) lacked health insurance coverage in 2000 (Leatherman and McCarthy 2002: 74). However, specific groups were more likely to be uninsured: younger adults (age 18–24), those with little education, Hispanics, and those who work part-time (Leatherman and McCarthy 2002: 74). Without health insurance it is hard to access the American health care system. These disparities within access to health care have not gone unnoticed.

Congress required that the Agency for Healthcare Research and Quality (AHRQ) prepare annual reports on health care quality and disparities. From its premier in 2003, the National Healthcare Quality Report (NHQR) and the National Healthcare Disparities Report (NHDR) tracked the United States’ annual progress or stagnation in improving quality and attenuating inequalities in health care. The NHQR key findings indicate that disparities in access to health care occur in the following subpopulations: ethnic minorities, low socioeconomic classes, some geographic areas, and women when compared to men (U.S. Department of Health and Human Services 2004: introduction).
Chapter Two:

Cover Ups: the Quick Fix to Disparities in
Access to Health Care
The United States has had several lackluster attempts to “fix” the health care “problem” (i.e., disparities in health care, poor quality, no equity, etc.). In this nation, health care is viewed as a problem – not a solution. In an ideal situation, health care could be viewed as an important resource to the well being and stability of a culture. However, within the United States, the health care system is viewed as a burden – a glitch in the attempt of running a well-oiled machine. Therefore, cracks within the system are dealt accordingly through logistics and economic models, rather than in a holistic approach which attempts to improve the system – and not just restore it to its normal appalling status within the nation.

One of the cracks within the United States health care system is the disparity in access to health care. The lack of public transportation in the United States has exacerbated these disparities in access to health care. For example, the urban poor, persons with disabilities, and the older American population, without mass public transit, do not have equal access to health care within the car-centric American society (Moulding 2005: 155). According to Moulding, transportation policy exposes social inequalities and public opinion concerning persons with disabilities, lower-income families, and older persons. It has been suggested that due to urban sprawl, issues of mass transit in cities have been neglected. As more households relocate to the satellite suburbs around major cities, more cars are used for transportation and mass transit upkeep has been ignored. Although in 2005 nearly 75 percent of Americans lived in metropolitan areas, the fastest growing areas where middle class to wealthy families desired to live were residential locations in the suburbs – thus leaving lower-income
families in the inner cities with several mediocre jobs and little neighborhood investment (Moulding 2005: 156).

The community effects of the post-World War II growth in automobile ownership and highway expansion were manifested through the many businesses and services which relocated from metro transit-centric cities to car-centric suburbia. The businesses and services swapped locations due to the migration of homes, employment, some health care, education, shopping, and social services, to the cookie cutter suburbs. It has been suggested that without a car, it is now difficult to fully engage in American society (The Federal Transit Administration 1999: Foreword). The 1990 census indicated that approximately 9.2 percent of American households do not have access to a car or decent public transportation. Children, the older population, minorities, and the poor are the majority of persons who make up this 9.2 percent. These subpopulations now experience a lack of “personal mobility,” which “has an economic, social, and human cost” that unfortunately has not been well documented (The Federal Transit Administration 1999: Foreword). Yet the known costs consist of increased unemployment, lower tax revenues, elevated welfare expenditures, greater medical costs, and restricted human development opportunities (The Federal Transit Administration 1999).

The post–World War Two era verified that transportation services simply could not handle the many miles from the suburbs to the central cities – therefore businesses moved or people purchased cars (Moulding 2005: 156). According to a 2001 National Household Travel Survey, 87 percent of trips were made by a personal vehicle for the 4 trillion miles accrued in 2001. Nine percent of trips were done through walking and only
two percent of trips utilized the public transit, including school bus trips (Moulding 2005: 156). The Federal Aid Highway Act of 1956 provided massive amounts of funding for the construction of new highway systems, leaving funding for public transit at a dismal level. Average Americans were encouraged to shift from metro transit to personal cars that could take them down the golden road to suburbia.

Moreover, in the 1930s, large companies such as General Motors committed illegal acts to dismantle some public transit lines so people would be more likely to purchase cars (Moulding 2005: 158). Due to the aforementioned reasons and other economic and governmental policies, in 2001, only 5 percent of adults regularly used mass public transportation to go to and from work (Moulding 2005: 160). However, not only has the car-centrism of American society led to disparities within access to health care, this high dependence on personal vehicles has led to increased air and noise pollution. Therefore, while traveling across America, one can view signs encouraging travelers to share a ride to work and other locations.

The negative impact of the American car-centric society is not distributed evenly across economic classes. “Poor people and people of color are subsidizing our addiction to the automobile” (Moulding 2005: 163). The urban poor are left with fewer options for personal mobility since car crazy suburbia has caused a workforce and facility diaspora. People and services have left the cities in order to relocate in the promised land of suburbia. Therefore, the urban poor and minorities are left within the cities without equal access to services and careers. Due to the redistribution of families from the cities to the suburbs and the fact that little public housing is within suburbia (where people with lower
incomes tend to live), those who are apt to use public transit are the poor. In 2005, 63 percent of public transit riders were from low-income households or minority communities (Moulding 2005: 164). With relatively less access to cars, poorer individuals and minorities have relatively less access to health care if the health care facilities are not within walking distance of public transportation services or if these facilities have moved to suburbia. Since many public transportation services are poorly funded or have had to dismantle, many of the American poor are hard-pressed to find access to health care. For example, in Los Angeles in 1994, the bus-riding population was 80 percent Latino, African-American, Asian, or Native American, and more than 60 percent of mass transit riders total household incomes were less than $15,000 (Moulding 2005: 168). Therefore, cutbacks and dismantlement of public transit systems disproportionately affect the urban poor and minorities. In addition, rural populations are disadvantaged due to the decline in quality of the American mass transit systems.

Compared to urban centers, rural counties have higher levels of poverty and have bigger portions of residents with disabilities and those who are older (Brown, U.S. Department of Agriculture). In 1999, approximately 7.9 million people in rural counties dwelled in poverty (about 14.6 percent of the total rural population). Within the metropolitan areas, the poverty rate was 11.8 percent. However, there are 26 million people living in poverty within these metropolitan areas (Brown, U.S. Department of Agriculture). Also, rural counties had a higher percentage of persons who are disabled and who are elderly – but the urban centers had greater numbers of persons within the aforementioned subpopulations. Therefore, both urban centers and rural counties would
benefit from mass public transit utilization. In addition, augmented access to health care could be insured with an escalation in funding and expansion of the current transit systems. Nearly 40 percent of all rural counties do not have transit services, while an additional 28 percent have restricted access (defined as having less than 25 trips taken each year per carless household) (Brown, U.S. Department of Agriculture). The expansion of transit services can improve the wellbeing of rural counties since it provides increased personal mobility.
Chapter Three:

The Dismantlement of Public Transit Equals the

Extraction of Access to Health Care
The lack of public transit has led to fewer physician consultations for the poor, minorities, and persons with disabilities (especially older persons with disabilities). Within any economic group, a relatively small physician population density can lead to fewer consultation and preventive appointments (Chaix et al 2005). However, within the subpopulations where transportation difficulties arise, individuals have relatively more restricted access to health care than those who can afford to travel farther distances. For example, within France, four researchers conducted a study (n = 12,405) which highlighted the French population within the age range of 18-75 in 1999. Multilevel Poisson models were utilized to appraise the influence of the area-level density of general practitioners (GPs) on the number of GP consultations reported during 2004 (Chaix et al 2005: abstract). Multivariate analyses illustrated that residing in areas which lacked general practitioners resulted in older people receiving/seeking fewer consultations concerning primary care and preventive measures; especially for older people with disabilities, in comparison to the younger age groups. The older persons with disabilities had 244 percent more general practitioner consultations (95 percent CI:+79 percent, +562 percent) when they resided in areas with high rather than low GP density (defined with the 10th and 90th percentiles as cut-offs) (Chaix et al 2005: abstract). Their concluding thoughts suggested that guaranteeing older persons, especially those with disabilities, who live within the low GP density areas, adequate access to primary and preventive care could help thwart expensive hospitalizations, emergency care, use of home care services, and institutionalization (Chaix et al 2005). If an older individual did not live within a
high GP density area, but had access to the area through public transportation, it seems probable that that particular individual would only have slightly fewer or equal GP consultations as an older person living within a high GP density area.
Chapter Four:

Locality is not Enough: how Culture and Language Affect Access to Health Care
It is widely acknowledged that health care is more accessible if it is located within the local area (Wang 2006: 1). However, besides geographical locality, ethnicity and culture are also essential factors when appraising access to health care (Wang 2006: 1). For example, if a Chinese immigrant seeks health care and finds a physician near her house, but this physician does not speak Chinese and does not understand Chinese medical practices, the immigrant may not feel that health care is accessible to her.

Accessibility generally refers to the:

“relative ease with which individuals from one location can reach other specified zones or point locations. Accessibility measures range from simple cumulative opportunity measures, which count the number of potential destinations reached within a given travel time or distance to more complex gravity-based and space–time accessibility measures,”

which derives from Huff’s explanation of the usefulness in studying consumer spatial behavior (Wang 2006: 2). These gravity-based and space-time accessibility measures view accessibility as a give-and-take between “opportunity attractiveness” and “spatial separation,” (Wang 2006: 2). The space-time measures calculate accessibility by examining an individual’s ability to arrive at particular locations given the person’s daily activities and spatio-temporal constraints (Wang 2006: 2).

Among the various types of accessibility measures, the gravity-based measures are the most widely used when concerning access to health care. Access to physicians is based on physician distribution and where people reside: that is, the “spatial structures of healthcare provision and healthcare demand, neither of which is distributed uniformly in space” (Wang 2006: 2). Unfortunately, although gravity-based accessibility has been
utilized in health geography research, only a cursory glance has been focused on how culture and ethnicity affect access to physicians and health care.

Cultural dissimilarity between physicians and patients can cause misinterpretations and delays in health care due to traditional medicinal techniques and language (Wang 2006: 2). Lu Wang from the department of geography at Ryerson University in Toronto, Canada, examined the experience of Chinese immigrants in the Toronto Census Metropolitan Area (CMA) in quest and use of the services of family physicians. The Chinese in Canada are the largest ethnic minority population (Wang 2006: 1). Specifically, Wang focused upon immigrants from mainland China and Hong Kong since they are the past and current top spots in Chinese immigration to Canada. In fact, these locales compile the two largest immigrant subgroups within Canada (Wang 2006: 2). Advantageous to the Chinese immigrants, there is also a relatively large number of ethnic Chinese physicians in Toronto.

Wang aimed her research at exploring how Chinese immigrants chose between ethnic Chinese family physicians and non-Chinese family physicians within Toronto’s CMA. Moreover, Wang computed accessibility indices for Chinese immigrants when they access culturally diverse family physicians (2006: 2-3). The end result was the examination of whether Chinese immigrants are under – serviced compared to the general population of Toronto by using spatial equity resources (Wang 2006).

In order to assess if Chinese immigrants are well serviced within the CMA of Toronto, accessibility among Chinese sub-groups to dialectally similar family physicians had to be examined (Wang 2006: 3). Wang administered a survey to a random sample of
mainland Chinese (MLC) and Hong Kong Chinese (HKC) immigrants residing in two neighborhoods in the inner suburbs of Toronto. Both study areas had a high concentration of Chinese immigrants, but they differ in physician opportunities (Wang 2006: 3). The North York study area had few ethnic Chinese physicians unlike the profusion of Chinese physicians in the Scarborough study area. Due to the differing family physician densities, a comparison in physician-seeking behavior among Chinese who hunt for ethnic Chinese physicians can be evaluated within the two study areas (Wang 2006: 3). The survey explored immigrants’ utilization of family physicians and their choices between ethnic Chinese physicians and non-Chinese physicians (see Wang, 2003, for a description of recruitment and findings). Wang’s survey engendered 317 questionnaires including information concerning socio-economic status and health care experiences. The sample was evenly distributed between the two study areas, each having about the same number of HKC and MLC immigrants. To note, Wang focused upon access to family physicians since, in general, people see their family physicians more often than specialists. Moreover, within the Chinese Canadian community, family physicians are the ones who refer their patients to the needed specialists (Wang 2006).

According to a survey of the College of Physicians and Surgeons of Ontario (CPSO), about 6.3 percent of the physicians in the Toronto CMA self-reported as being able to speak ‘‘Chinese’’ or one of these Chinese dialects: Cantonese, Fukien, Hakka, Mandarin, Swatow, or Taiwanese (Wang 2006: 3). Wang found that the population density of Chinese physicians did not always complement the population density of Chinese immigrants.
Scarborough has the largest concentration of both Chinese immigrants (28 percent) and ethnic Chinese physicians (25 percent). However, downtown Toronto contains more than half of the CMA’s physicians, a higher physician population density than even that of the general population due to the concentration of major research hospitals in the area (Wang 2006: 4). Moreover, North York, with a fairly high concentration of Chinese immigrants (17 percent), had only 6 percent of the physicians who are Chinese. Outer suburbs like Richmond Hill and Markham, where relatively wealthier Chinese immigrants reside, have similar percentages of Chinese physicians and Chinese immigrants (Wang 2006: 4). Mississauga, a rising Chinese immigrant settlement that has roughly 7 percent of the Chinese immigrant population, has an excess amount of Chinese physicians (14 percent) (Wang 2006: 4).

Eighty percent of participants in the survey preferred to have an ethnic Chinese physician, and ninety six percent of those surveyed went to a Chinese family physician. Moreover, ninety three percent of those who participated spoke Chinese with their family physicians (Wang 2006: 5). Therefore, it is clear that immigrants seek physicians who are ethnically Chinese since they can understand them and their medicinal practices. Access to health care is a multi-faceted situation – geography is not the only component. In order to feel that health care is accessible, an individual needs to feel that her doctor will understand her and her methods.

The algorithm in ArcInfo developed by Wang (2006) was used to compute the shortest distance from an immigrant’s home to the physician’s office along the Toronto streets in order to examine spatial physician-seeking behavior. The street network file
from the DMTI Spatial has information on line length, speed limit, and travel time.

Wang found that on average, the North York respondents traveled 6.99 min by car (the average distance was 7.72 km) from home to the physicians’ locations, compared to 4.15 min (the average distance was 4.12 km) for the Scarborough respondents (2006: 5). Although there is no shortage of non-Chinese physicians in either study area, North York has selectively fewer Chinese physicians than does Scarborough. Therefore, it is important to note that Chinese immigrants deal with the increased travel time to find a physician who understands their culture and language hence those attributes are important when assessing access to health care (Wang 2006: 5). Wang utilized the gravity type accessibility measures, specifically the coined floating catchment area (FCA) method, in order to assess the three types of geographical accessibilities in the GIS system: (1) the general accessibility of Toronto residents to family physicians; (2) the accessibility of Chinese immigrants to ethnic Chinese physicians; and (3) the accessibility of MLC immigrants to Mandarin-speaking Chinese physicians and the accessibility of HKC immigrants to Cantonese-speaking Chinese physicians (Wang 2006: 5). While general accessibility decreased from the city center to the outer suburbs, due to the concentration of physicians at the major hospitals in Toronto, ethnic Chinese physician accessibility increased when moving toward the suburbs. Wang interpreted that the competition among co-ethnic residents in Toronto lessened the likelihood of accessing Chinese physicians – even though Chinese physicians do concentrate within Toronto’s urban center (Wang 2006: 5). Within the Chinese immigrant community, HKC immigrants experience the highest accessibility to Cantonese-speaking physicians
and MLC immigrants have relatively low accessibility to Mandarin-speaking physicians. This is due to the relative abundance of Cantonese speaking Chinese physicians in Toronto (Wang 2006: 14). In short, to assess access to health care one must not only analyze geo-spatial measures, but in addition, culture and language. Also, if the physician density is less than the specific population density, competition will decrease access to health care.
Chapter Five:

Poor Health in Deprived Areas: Migration, is it a Key Factor?
Not only is spatial placement and utilization of public transit important when assessing access to health care, it has been suggested that poor health and lack of access to health care is due to the human composition of a neighborhood (van Lenthe et al 2007: 124). However, the reasons for poor health are complex and have not been definitively identified. Although lack of social cohesion, community resources, and education could lead to deprived access to health care, other processes could be involved. For example, in accordance to the direct selection effect, health determines migration since those who are healthy tend to migrate to less deprived neighborhoods, and those with health problems migrate to more deprived neighborhoods (van Lenthe et al 2007: 124). Those with chronic diseases or hefty hospital bills may need to move to a neighborhood where rent/mortgage payments are less. Also, studies have shown that those who are chronically ill tend to leave employment more than healthy persons (van Lenthe et al. 2007: 124). However, support for selective migration as a key to the disparities in health conditions within neighborhoods is not ardent (van Lenthe et al 2007). Yet, using the results of the Dutch GLOBE study, which aimed at studying the socioeconomic disparities in health, a group of researchers from the department of public health at Erasmus Medical Center in Rotterdam, Netherlands, found some evidence of downward migration to deprived neighborhoods due to having two or more chronic conditions, perceiving health as ‘‘moderate’’ or as ‘‘sometimes good, sometimes bad’’, and by only taking modest leisure time and physical activity (van Lenthe et al 2007: 133).

In spite of that, selective migration into or out of deprived neighborhoods due to health issues and status has not made much of an effect within the Netherlands. The
Dutch researchers felt that disability benefits given to citizens could decrease the number of chronically ill persons experiencing downward migration. Moreover, the researchers’ study participants were asked to self-report their chronic illnesses, therefore, perhaps the magnitude of the effects of chronic illnesses within the Dutch study have been downgraded (van Lenthe et al 2007: 135). Poor health and access to health care are complex issues due to their multi-causal natures. Many causes can lead to poor health or lack of access to health care; therefore to pin-point a cause is nearly hopeless. Research is considered necessary to expand the public’s knowledge of what leads to lack of access to health care. It is imperative to view the whole laundry list of causes to discover which reasons can be lessened.
Chapter Six:

Urban vs. Rural: is it Always Sunny on the Farm?
At the University of Western Australia, three researchers within the School of Population Health conducted a study which analyzed the effect of location of residence on hospital utilization. They employed the outcomes obtained through geocoded hospital morbidity and mortality data for the Western Australian population from 1994 to 1999. Their inferences supported the idea that remoteness affects service use and outcomes due to the lack of availability of health services and the amplified time and cost incurred in traveling to the service area (Brameld et al 2006: 490). Western Australia (WA) is an almost unblemished study area since it has people who live in high population density areas (approximately 70 percent of the population lives around or within the capital city of Perth) and people who live in very remote areas (Brameld et al 2006: 490-491). For instance, within the rather remote Kimberley region there are six hospitals, which have between four and fifty four beds and are separated by 105 to 1047 km and inconsistent transversal roads. Moreover, many of the general practitioners and community health services are generally based out of the major hospitals which are located in the urban areas. Therefore, several of the hospital services are provided by visiting specialists who are not in the area on a daily basis. Traveling times from remote rural communities to the nearest urban hospitals via roads range from fifteen minutes to twelve hours, during favorable conditions. Also, roads and airports can close during the wet season (Brameld et al 2006: 491). However, the health services available in Perth and the more cosmopolitan areas are similar to those found in the United States’ urban sectors. The increased travel time and at times closed roads, can lead to discouragement for the rural population when attempting to access health care. Yet, the rural population may feel the
need to attempt to access the urban centers since there are benefits to going to a major research hospital.

The large hospitals tend to have more equipment and higher case loads, which has been a suggested reason for an increased expertise (Kravdal 2006: 3). “For example, more lymph nodes may be removed in a breast cancer operation, or more modern techniques may be used when removing a rectal tumour” (Kravdal 2006:3). Kravdal, from the Department of Economics within Oslo, Norway, suggests that a centralization of certain health services, such as cancer treatment, could help the survival rate. Kravdal, along with other researchers, suspects that urban research hospitals and those hospitals within urban centers can more appropriately handle cancer treatments or specialized operations than small local hospitals since these larger facilities tend to have more up-to-date equipment, more personnel, and more monetary funds. However, it is important to note that socio-economic resources must be taken into consideration. Even if a cancer patient, or rather, any patient, lives near a research hospital, access to health care can be still denied without adequate health insurance or income. Moreover, competition over access to physicians within urban centers can lead to decreased availability as well.

In Norway, an analysis based upon register data concerning the entire population has demonstrated that the patients’ own education and income level are positively linked with survival (Kravdal 2006: 4). Yet, the researchers do not know how the net socio-economic resources of the community are linked with survival (Kravdal 2006). Kravdal, using the register data for Norway (i.e., recording information for anyone who has a Norway identification number), created a discrete-time hazard regression model for
cancer mortality in the selected group of cancer patients, the so-called corrected-survival approach (2006: 6-7). In summation of the findings, there was some evidence that the cancer patients got poorer treatment as the size of the local hospital decreased, but there was no definitive pattern (2006:7). There may be a definitive disadvantage to receiving treatment within smaller, local hospitals; however, the possible benefits of such a situation seem to mask the disadvantages. Kravdal suggests that the urbanization effect detracts from the disadvantages of a small local hospital. It has been suggested that as urbanization increases so do drug usage, pollution, less social control, and other undesirable situations (Kravdal 2006: 9). Also, Kravdal did not find that those who had longer distances to travel to obtain health care had a poorer survival rate than those who had less distance. In fact, those who even had two or more hours of travel distance did not have a poorer survival rate (Kravdal 2006: 9). If there is a disadvantage to living near a small local hospital it is outweighed by the lifestyle benefits of living in absence of an urban center (Kravdal 2006: 9). Yet, average educational levels were higher within the urban centers of Norway, leading to early diagnosis through community resources (Kravdal 2006: 9). Also, as previously stated, those patients who require specialized care are more likely to find a way to an urban center than a patient who is seeking preventive care. However, preventive care can lessen emergency care and specialist utilization.

Place may affect health, but there is no definitive evidence to suggest that place is the only cause for lack of access to health care.
Chapter Seven:

Columbus, Ohio: a Glimpse into a Local Situation
Columbus, the capital of Ohio, is also located roughly in the center of the state. It is home to The Ohio State University, which contains one of the premier research hospitals in the country. Moreover, Columbus also offers hospital services through city hospitals and satellite offices of national hospitals, such as the National Children’s Hospital. Also, Columbus has Medicare/Medicaid Certification Information hospitals such as Columbus Community Hospital and the Doctors Hospital. However, within Franklin County, where Columbus is located, there are Health Professional Shortage Areas (HPSA). The Primary Care Office (PCO) accumulates and scrutinizes demographic and provider data to determine areas that are underserved (according to the federal HPSA criteria). Being designated as a HPSA allows particular communities to apply for recruitment and retention assistance through an assortment of state and federal programs. In addition, public and private funding organizations prefer to give funds to HPSAs (Ohio Department of Health 2008: HPSA).

There are three HPSA designations: primary medical care, dental health, and mental health. A joint venture between the PCO and local communities helps to designate the primary care HPSAs. Moreover, the PCO, local communities, the Ohio Department of Health, Bureau of Oral Health Services, the Ohio Department of Mental Health, and Office of Clinical Best Practices help to designate the dental and mental health HPSAs (Ohio Department of Health 2008: HPSA).

For an area to be designated as a HPSA, three requirements are needed: 1) the area has to be defined as a “rational service area.” This means that the area must be structured in a sensible manner by examining demographics, socio-economics, and
physical barriers. Usually, rural HPSAs are defined by county or a group of townships. Urban HPSAs are described by neighborhoods, which must be depicted as census tracts; 2) for each type of HPSA (Primary Care, Mental Health, and Dental Health) the Division of Shortage Designation has developed a physician-to-population ratio that must be met. Minimum ratios fluctuate between the three HPSAs and geographic locales so only one required physician-to-population ratio cannot be recognized; 3) the submission must prove that there are no services available in the neighboring areas for the disadvantaged population (The Ohio Department of Health 2008: HPSA). There are two categories of HPSAs: geographic and special population. When an area is designated as a geographic HPSA, there is a shortage of providers for all people in that HPSA. The physician-to-population ratio is based on the total number of full time equivalent (FTE) physician providers and the total resident civilian population (The Ohio Department of Health 2008: HPSA). The only advantage to being a geographic HPSA within a primary care HPSA is that providers can bill Medicare for extra reimbursement (The Ohio Department of Health 2008: HPSA). If an area does not qualify as a geographic HPSA, it may be a special population HPSA. A “Low-Income” Special Population HPSA, for example, concentrates on the number of people below the poverty level and compares it to the number of provider FTEs that serve low-income households (using the percentage of persons that providers see on the Medicaid and sliding fee scales)(The Ohio Department of Health 2008: HPSA). There are other special population HPSAs, such as homeless or migrant population; but these are rarely discussed since they are hard to calculate due to
the populations’ transitional lifestyles. The HPSAs are reviewed every four years (The Ohio Department of Health 2008: HPSA).

Within Franklin County, there are four primary care HPSA areas: Lower Linden in Northeast Columbus (3931) was designated as a HPSA area in 1997 where the population to physician ratio is 6295:1. Franklinton Low Income area (3971) designated in 2000 has a population to physician ratio of 3523:1. The Near North/University area (3963) designated in 1998 has a ratio of 4316:1. Low income population of Near Southside (3990) was designated as a HPSA area in 1999 with a population to physician ration of 3218:1 (The Ohio Department of Health 2008: HPSA). To note, there are no Mental Health HPSAs in Franklin County. However, there is a Dental HPSA in Franklin County at the Near Eastside service area. Designated in 2000, the population to DDS ratio is 20,564:1. However, there are free clinics peppered throughout the city that are free and on a walk-in basis. Nonetheless, these facilities do not support ongoing care, but rather, they are designed for preventive measures and biannual check ups. Also, Franklin County had more insured at 91.6 percent than all of Ohio at 89.6 percent in 2005 (Community Health Data Reports 2005: Franklin County Community Health Indicators).

Yet, even with physical access to a health care facility, individuals do not have full access to health care unless they can afford it. Although Franklin County has a high insured population, not everyone is insured. The Ohio Family Health Survey conducted in 2004 in regards to health insurance concerning race and ethnicity found that Hispanics are more likely to be uninsured than any other ethnic group (The Ohio Department of Health 2005: Chart Book #1, Health Insurance by Race and Ethnicity, Ohio, 2004). The
2004 survey was a continuation of the 1998 Ohio Family Health Survey. The purpose of the 1998 survey was to acquire baseline statewide data on health insurance coverage, health status, health risk behaviors, access to health care and utilization, health care costs, satisfaction with care, and unmet health needs (The Ohio Department of Health 2005: Ohio Family Health Survey). Between January and August of 1998 the Gallup Organization performed telephone call polls of roughly 16,000 Ohio households. One adult per polled household was interviewed. In addition, information was obtained for almost 6,000 children from the interviews with adults. The 2004 Ohio Family Health Survey was a considerable extension of the original 1998 survey. Created from October 2003 through August 2004, it utilizes responses from virtually 40,000 adults and more than 15,000 children (The Ohio Department of Health 2005: Ohio Family Health Survey).

More than 20 percent of Ohio Hispanics were without health insurance in 2004. Black, non-Hispanics had a 15.5 percent uninsured rate, compared to 9.9 percent for white, non-Hispanics and 10.7 percent for Asian, non-Hispanics. In particular, nearly 28 percent of Hispanics in the 18-64 age set were uninsured, compared to 22 percent of non-Hispanic blacks, 13.9 percent of white, non-Hispanics and 11.7 percent of Asian, non-Hispanics. Firstly, Hispanics are now the largest ethnic minority group within the United States; therefore, the large percentage of the subpopulation could have biased the results. Secondly, it is possible that although Mexicans and other nationalities have been in this country since its conception, a recent wave of Latino immigration during the 1990s has led to first and second generation immigrants still in the process of gaining employment, obtaining citizenship, and receiving medical benefits from employers. However,
employer-based health care coverage dropped from 1998 to 2004 for both white and black, non-Hispanics Ohioans ages 18-64; health care coverage through an employer decreased by 16.2 percent for black, non-Hispanics and 11.7 percent for white, non-Hispanics (The Ohio Department of Health 2005: Chart Book #1, Health Insurance by Race and Ethnicity, Ohio, 2004). Therefore, it may be comparatively more challenging for a Hispanic to obtain employer-based health coverage since the more likely to be insured subpopulations are having difficulties.

Among all of Ohio’s racial/ethnic minorities, Hispanic children were most likely to be uninsured. Nearly one out of ten Hispanic children (9.2 percent) lack health insurance, in comparison to approximately one out of fifteen black, non-Hispanic (6.4 percent) and one out of twenty white, non-Hispanic (5.1 percent) children (The Ohio Department of Health 2005: Chart Book #1, Health Insurance by Race and Ethnicity, Ohio, 2004). However, the number of Hispanics between the ages of 18-64 who are uninsured is double the number of the Hispanic children who are uninsured. This actuality is not startling since there are several programs within the United States that offer free or nearly free health care for children (such as Medicaid’s Children’s Health Insurance Program). Also, comparable programs have been fashioned for the older population as well (i.e. Medicare) (The Ohio Department of Health 2005: Chart Book #1, Health Insurance by Race and Ethnicity, Ohio, 2004). It is seems that children and the older population are more likely to be insured due to governmental programs. Older persons are able to obtain Medicare and most are eligible for prescription drug assistance. It is the working population, however, that tends to go without health care access since
there are few programs to help them afford health care resources. Moreover, young adults may see themselves as youthful and healthy and therefore they think that they do not need health insurance.

However, many would like health insurance but cannot afford it on their own and/or their employer does not offer health coverage. In Ohio, Hispanics aged 18-64, were most likely to be without health insurance for more than a year compared to other ethnic groups. Hispanics (77.7 percent) had the highest percent of long-term uninsured periods (more than one year) followed by black, non-Hispanics (68 percent), white non-Hispanics (62.8 percent) and Asian, non-Hispanics (49.6 percent). Black, non-Hispanic and Hispanic families in Ohio had the highest percent of children with Medicaid as their primary health care coverage (The Ohio Department of Health 2005: Chart Book #1, Health Insurance by Race and Ethnicity, Ohio, 2004). More than one of two (52.1 percent) of black, non-Hispanic and more than three (36.4 percent) Hispanic children had Medicaid as their primary health insurance. This is in contrast to one out of five (18.9 percent) white, non-Hispanic and one out of ten (9.7 percent) Asian, non-Hispanic children. In addition, black non-Hispanic, and Hispanic children were less likely than white, non-Hispanic and Asian, non-Hispanic children to have employer-based health care coverage. Almost four out of ten black, non-Hispanic and five out of ten Hispanic children in Ohio were covered by employer-based health insurance contrasted to approximately seven out of ten white, non-Hispanic and Asian, non-Hispanic children (The Ohio Department of Health 2005: Chart Book #1, Health Insurance by Race and
Ethnicity, Ohio, 2004. Another subpopulation which can show the true underbelly of the American health care system is women.
Chapter Eight:

The Utilization of Health Care by women: When Midol is not Enough
The Department of Health in Ohio within Chart Book #3 concerning women and their access and utilization of health care in 2004 found that Hispanic women in Ohio were more likely to be uninsured than any other ethnic group (The Ohio Department of Health 2006: Chart Book #3, Women’s Access to Health Care and Health Care Utilization, by Race and Ethnicity, Ohio, 2004). Twenty-five percent of Hispanic female Ohioans were uninsured compared to 8.3 percent of Asian women. In addition, research demonstrated that usage of emergency room care was greater concerning Native American, black, and Hispanic women (the Ohio Department of Health 2006: Chart Book #3, Women’s Access to Health Care and Health Care Utilization, by Race and Ethnicity, Ohio, 2004). This could suggest lack of health insurance for these ethnic groups. Preventive care could have been neglected due to lack of monetary resources or lack of transportation, thus leading to the last ditch attempt at wellness – a trip to the emergency room when matters became worse. In support of the aforementioned hypothesis, Native American and black women were more likely to delay health care than white women. More than 28 percent of Native American and 24.2 percent of black women reported delaying seeking medical care in the past 12 months compared to 19.1 percent of white women. Also, more than 19 percent of black women had at least one hospitalization in the past 12 months, compared to 14.6 percent of white; 14 percent of Hispanic; and 8.9 percent of Asian women (the Ohio Department of Health 2006: Chart Book #3, Women’s Access to Health Care and Health Care Utilization, by Race and Ethnicity, Ohio, 2004).
Hospitalization visits could suggest a neglect of preventive measures. However, preventive measures can be costly without health coverage or access to cheap transportation to the health care facility. Demographic statistics showed that half of all black women and nearly half of all Native American and Hispanic women lived at or near poverty level. Also, more than three out of five white and Asian women had middle to high family incomes, but fewer than two out of five black, Native American and Hispanic women had such incomes (The Ohio Department of Health 2006: Chart Book #3, Women’s Access to Health Care and Health Care Utilization, by Race and Ethnicity, Ohio, 2004). This could suggest that ethnic minority women have relatively less access to health insurance compared to white women due to their socio-economic status. Yet, employer willingness to provide health coverage needs to be scrutinized since this system could help low-income families afford health care.

White (61.9 percent) and Asian (68.4 percent) women were more likely to have employer-based health coverage than black (45.7 percent), Hispanic (48.3 percent) and Native American (43.4 percent) women. Black women (26.9 percent) were more likely to have Medicaid health coverage than white (10.4 percent), Asian (4.5 percent) or Hispanic (17.2 percent) women. White and Asian women had significantly reduced rates of Medicaid health coverage utilization when compared to any other ethnic group (The Ohio Department of Health 2006: Chart Book #3, Women’s Access to Health Care and Health Care Utilization, by Race and Ethnicity, Ohio, 2004). Socio-economic status could be the explanation of these findings. Moreover, Hispanic women were more likely to be uninsured (24.7 percent) than white (10.2 percent), black (16.8 percent) or Asian
(8.2 percent) women. Also, Hispanic women were more likely than white or black women to have never had health insurance (The Ohio Department of Health 2006: Chart Book #3, Women’s Access to Health Care and Health Care Utilization, by Race and Ethnicity, Ohio, 2004).
Chapter Nine:

Access to Health Care According to Ethnicity: Does One’s Ethnicity Affect the Outcome?
According to the Family Health Survey in 2004, Asian and Hispanic women were more likely than black and white women to lack a usual source of health care. More than 10 percent of Asian women and more than 8 percent of Hispanic women lacked a usual source of health care, compared to a little over 4 percent for black and white women. Black (27.6 percent), Asian (23.2 percent) and Hispanic (29 percent) women were all more likely than Native American (13.6 percent) and white women (12.1 percent) to utilize a clinic or health center as their primary source of health care. White women were more likely (81.2 percent) than any other racial/ethnic group to consider a doctor’s office or HMO as their usual source of health care. Black (8 percent) and Hispanic (6.9 percent) women were more likely than white women to identify a hospital emergency room or hospital as their usual source of health care. Black, Asian, and Hispanic women were all more likely than white women to lack a regular doctor for their health care needs (The Ohio Department of Health 2006: Chart Book #3, Women’s Access to Health Care and Health Care Utilization, by Race and Ethnicity, Ohio, 2004).

More than 15 percent of Asian, 14 percent of Hispanic and 12 percent of black women did not have a usual doctor, compared to just over 7 percent of white women. However, women in each racial/ethnic group were most likely to cite financial reasons or lack of insurance coverage as their barrier to seeing a health care specialist rather than geographic reasons. Hispanic (11 percent) women were more likely than black (5.4 percent) and white (6.9 percent) women to have waited two to five years to see a doctor for a checkup (The Ohio Department of Health 2006: Chart Book #3, Women’s Access to
expresses a clear neglect of preventive care, which can lead to emergency rooms visits or
chronic illnesses. Hispanic (6.6 percent) and white (6.2 percent) women were more
likely than black (2.2 percent) and Asian (4.5 percent) women to delay a checkup from a
doctor for more than five years (The Ohio Department of Health 2006: Chart Book #3,
Women’s Access to Health Care and Health Care Utilization, by Race and Ethnicity,
Ohio, 2004). This delay in health services shows a presumed inadequate access to health
services due to geography, economics, and/or community restraints. However, most of
the women within each ethnic category had a check-up within the past year (Ohio
Department of Health 2006: Chart Book #3, Women’s Access to Health Care and Health
Care Utilization, by Race and Ethnicity, Ohio, 2004).

Interestingly enough, black women were more likely (11.5 percent) than white
women (6.9 percent) to rate their overall health care as average. Asian women were
more likely (58.6 percent) than any other racial/ethnic group to rate their overall health
care as good. White women were more likely (56.1 percent) to rate their overall health
care as very good to excellent compared to black women (48 percent) and Asian women
(30.6 percent)(the Ohio Department of Health 2006: Chart Book #3, Women’s Access to
Health Care and Health Care Utilization, by Race and Ethnicity, Ohio, 2004). It is not
improbable to conclude that better access to health care can lead to a more congenial
impression of one’s health care experience.

Improving the health status of minority women will necessitate the expulsion of
unequal access to health care by lessening poverty, increasing education levels, and
improving the success of obtaining health insurance. Yet, additional areas such as transportation, health risk behaviors, language, cultural medicinal beliefs, and living conditions all need to be examined in the continuing effort to improve access to quality health care for minority women (the Ohio Department of Health 2006: Chart Book #3, Women’s Access to Health Care and Health Care Utilization, by Race and Ethnicity, Ohio, 2004).
Chapter Ten:

A Benchmark Location: Iowa
In 2005 a brochure was created by the Iowa Department of Public Health, Bureau of Health Care Access, the Iowa Department of Transportation, and the Office of Public Transit in an effort to endorse collaboration between health care facilities and mass public transit services to enrich health care access for all citizens through the use of public transit (Health Care and Public Transit: Your Ticket to Health Care Access 2005: 1). The Iowa Office of Rural Health Grant through the Health Resources and Services Administration and the Office of Rural Health Policy helped to fund this educational brochure (Health Care and Public Transit: Your Ticket to Health Care Access 2005: 1).

The majority of the population in Iowa use cars to access health care and other community services since Iowa, like many other states, is car-centric. However, there is a subpopulation in Iowa, both rural and urban, that cannot afford to be car-centric. Their access to health care is severely reduced as well as their access to nutrition, community services, and involvement in social activities (Health Care and Public Transit: Your Ticket to Health Care Access 2005: 1-2).

For those who are unable or incapable to drive reliance is placed upon family, friends, volunteers, social programs, and public transit. Many of these individuals choose public transit because it gives them some degree of personal mobility and dignity (Health Care and Public Transit: Your Ticket to Health Care Access 2005). Public transit can be used to supplement other methods of travel; however, for many it is the only option. A disadvantaged person may not have someone who can take off work in order to take them to a check-up or doctor’s appointment (Health Care and Public Transit: Your Ticket to Health Care Access 2005). This is critical both in urban settings and more importantly in
rural settings where trips to urban centers may be necessary to receive specialized care. In many rural areas, depending on resources and demand, transit services may only be available on specified days and particular connections (to other communities) may only be offered a couple times per month (Health Care and Public Transit: Your Ticket to Health Care Access 2005). It is essential that health care professionals understand and recommend the public transit system since it is probable that many of their patients utilize mass public transit to get to their appointments.

For health care professionals to familiarize themselves with public transit they need to become acquainted with the current routes and stops, push for continued and more funding, participate in the planning of new transit services, and help to combine transit systems/services to provide a cohesive and collaborative system (Health Care and Public Transit: Your Ticket to Health Care Access 2005). To help their patients keep their appointments, health professionals can schedule appointment times in juxtaposition with mass transit schedules. This is essential for those individuals who are traveling long distances to reach urban research hospitals for specialized care. Moreover, paratransit services can be employed by those with special needs who cannot physically ride or navigate the transit system (Health Care and Public Transit: Your Ticket to Health Care Access 2005).

Federal funding for public transit essentially comes from the federal motor fuel tax and partly from common revenues. The amount of funding varies in conjunction with the size of the community (Health Care and Public Transit: Your Ticket to Health Care Access 2005). Transit systems in small communities (under 50,000 people) and regional
systems acquire federal transit assistance based on the amount of services they provide
(rides and miles) relative to their benchmarks (Health Care and Public Transit: Your
Ticket to Health Care Access 2005). Urban systems in mid-sized communities (50,000 to
200,000 people) receive funds based solely upon population factors. In addition, within
large urban systems, over 200,000 in population, funding is based on the population and

Principally the bulk of federal funding is used to support the day-to-day operating
costs for public transit services. To clarify, on average, federal assistance makes up
roughly 22 percent of the operating budget for Iowa’s urban transit systems and 12
percent in regional transit systems (Health Care and Public Transit: Your Ticket to Health
Care Access 2005). Yet, a supplementary federal assistance program is easily reached to
fund major capital needs – but, to note, these funds are dependent on Congress (Health
Care and Public Transit: Your Ticket to Health Care Access 2005). However, Iowa has
been triumphant in obtaining funds under this juxtaposed program, yet not enough to
replace the old mass transit vehicles.

Most transit systems collect a portion of their capital from local taxes. Moreover,
cities can use general funds, as well as special levies, to pay for employee benefits, etc.,
of mass transit workers (Health Care and Public Transit: Your Ticket to Health Care
Access 2005). The state of Iowa encourages increased funding by promoting transit
coordination, which refers to the idea that all parties concerned, and the community in
general, by and large profit when patient transportation needs are synchronized with
The impending benefits of transit coordination were significant enough that Chapter 324A of the Iowa Code mandated that any agency or organization using public funds to procure passenger transportation must coordinate with one of the public transit systems (Health Care and Public Transit: Your Ticket to Health Care Access 2005).

“The overall need for transportation services, by persons trying to access health care, is likely to continue to increase as our population ages” (Health Care and Public Transit: Your Ticket to Health Care Access 2005). As the baby boomers reach the age of retirement, the need to access mass transit may increase. Therefore, it is vital that health care professionals familiarize themselves with the mass public transit system since many of their current and/or future patients may utilize its services in order to make an appointment (Health Care and Public Transit: Your Ticket to Health Care Access 2005). Scheduling an appointment in conjunction with the transit schedule can lead to fewer missed appointments and more preventive measures being utilized.
Chapter Eleven:

Critical Analysis of Columbus, Ohio: the Utilization of GIS in order to Assess the Future
Through the utilization of the software program called ESRI ArcMap 9.2, Jared Grondin, a geography major at Miami University, and myself, assessed how Columbus, Ohio, measured up when it came to access to health care through the creation of four GIS maps (see Appendix). Firstly, I added the roads data to a map project. Then based on the road maps and the geographic coordinates of the hospitals and other health care facilities, I placed points on the map. These points represent health care facilities and are symbolized by the blue box with a white H on the maps (as shown in the legend). After placing the points on the map, I used a software extension of ESRI ArcMap 9.2 called Spatial Analyst. Using this program, I measured the straight line distance away from the health care facilities on the maps. After these measurements were performed, I reclassified the distance away from health care facilities into two separate classes: 0-2500 feet away = accessible areas to health care and 2500 feet or greater = inaccessible areas to health care.

I chose half a mile as the cut off point because I wanted to be inclusive of all populations. For example, for older persons, it would perhaps be rather difficult to walk half a mile. However, even if I extended the accessible area to one mile or even two miles there would still be inaccessible areas to health care within Columbus, Ohio. The inaccessible areas are highlighted in red. The white circles are the given areas around each health care facility within which health care is accessible (i.e. half a mile). As one can notice, the center-left of Columbus, Ohio, is very accessible since The Ohio State University research hospitals are all located within this area (see Appendix A).
In order for access to be improved, I felt that an observation of the public transit system schedule and routes was required. It is probable that if there are bus stops within the accessible areas (the white circles) more people could be able to receive proper care. Obviously, if someone had cancer it is probable that they would do anything to get to the hospital. However, that said, preventive measures and check-ups are often ignored by those who do not have easy access to health care. If there were bus stops close to the hospitals perhaps people would utilize the facilities for preventive measures as well. Appendix B shows the bus stops located within walking distance of the hospitals (half a mile). Essentially, I utilized the previous distance information from the first map to determine where the bus stops would need to be located to generate an increase in accessibility. The bus stops were found through the use of existing COTA bus maps. An existing map was georeferenced to the already existing roads data for the area. Georeferencing is simply taking a jpeg file of a map that does not have spatial data and choosing reference points that match with existing data to place the map in the correct space in a geographic information system. As shown in Appendix B, there are bus stops located within accessible areas.

Appendix C utilizes the known health professional shortage areas in conjunction with the inadequate accessibility areas from the first map to determine if there is a relationship between these areas. Much of the HPSAs are within the red portions of the maps. However, Near North/University is essentially in the white accessible area; however it is considered an HPSA because the high demand for doctors. The physician population density is too small compared with the population density. Essentially we
digitized the four HPSA neighborhoods and overlaid them on top of the red areas. In order to find the coordinates for the HPSAs we utilized census tracts and street boundaries. For Appendix D we digitized the bus stops that were within these health professional shortage areas. An increased accessibility resulted since these bus stops in the HPSAs increased one’s personal mobility to health care. However, as shown in Appendix D there are fewer bus stops within the HPSAs than within the accessible areas.

Columbus, Ohio, should follow within Iowa’s footsteps. It is possible that more people would miss fewer of their appointments if their appointments were scheduled around the bus schedule. Also, maintenance of the COTA bus system is utterly important. To note, COTA’s brochure shows where most of the hospitals are located. Perhaps it would be useful if COTA put more of the health care facilities on the map – therefore those seeking check-ups know where they can go; as aforementioned, preventive measures tend to be ignored when access to health care is decreased. Also, as seen on the maps, there are fewer bus stops within the HPSAs than in the accessible areas. It is probable that the health care facilities are mainly in high traffic areas of Columbus; therefore there are more bus stops located within these areas. If achievable, it would be advantageous to have more bus stops within the HPSAs so that there could be more opportunities for access to health care. Increasing one’s personal mobility will strengthen access to health care.
Chapter Twelve:

No Child Left Behind: the Pervasive Barriers to Health Care
Lack of access to reliable transportation is one of the most pervasive barriers to health care for children in the United States. “The result is missed opportunities for immunizations and routine well-child care, increased incidence of untreated chronic illnesses, increased use of emergency rooms for non-emergency care, and an increase in preventable hospitalizations” (The Children’s Health Fund 2007: Getting There and Getting Care: A Child Health Transportation Initiative). These missed opportunities are moreover amplified in HPSAs identified by the U.S. Department of Health and Human Services. The problem may be heightened within rural areas, where families tend to have to travel lengthy distances in order to reach a primary care providers in the urban sectors (The Children’s Health Fund 2007: Getting There and Getting Care: A Child Health Transportation Initiative). A 2006 Child Health Transportation Survey, accomplished in partnership with The Marist College Institute for Public Opinion, discovered that:

- 39% of US residents do not have access to public transportation in their community.
- 75% of residents in rural communities do not have access to public transportation.
- Every year, nearly 3 million children miss at least one health care appointment due to transportation limitations.
- Most of the children who neglect appointments, miss two or more health appointments.
- One-third of these children later need emergency room care (The Children’s Health Fund 2007: Getting There and Getting Care: A Child Health Transportation Initiative).
Chapter Thirteen:

Lack of Public Transit Severs the Access to Health Care for many Americans
Limited access to health care is a major dilemma among low-income, minority, and older peoples’ households. Four million children in families with incomes under $50,000 a year miss essential doctor appointments because of inadequate transportation (American Public Transportation Association). The role of mass public transit in relation to access to health care must be examined since it is increasing becoming in vogue. For example, in Cincinnati, Ohio, 60 percent of the patients utilizing Good Samaritan Hospital’s clinics make use of public transportation. Within Portland, Oregon, the mass public transit system, Tri-Met, transports 65 percent of those seeking non-emergency Medicaid health appointments. Also, the Metropolitan Tulsa Transit Authority (MTTA) synchronizes Medicaid transportation statewide (American Public Transportation Association). The Rhode Island Public Transit Authority (RIPTA) also harmonizes Medicaid transportation statewide by using existing bus routes for 98 percent of the Medicaid trips (American Public Transportation Association).

Therefore public transit needs to be encouraged in order for all Americans to have an equal access to health care. The utilization is not only economically and environmentally encouraging; it can also lead to an improved sense of balance and personhood for many Americans since they could then possess personal mobility. The transportation costs to and from medical treatments and doctor’s visits are confounding (American Public Transportation Association). For example, Medicaid and Medicare facilities pay nearly $3.5 billion a year to provide transportation to non-emergency medical treatment for their clients. Also, more than 100 million Medicaid trips were
subsidized at a typical cost of $16 per trip in 2001 (American Public Transportation Association).

“Increased reliance on public transportation for travel to medical treatment is saving the nation’s healthcare system millions of dollars and can save millions more- if transit services are enhanced and expanded” (American Public Transportation Association). For example:

- The Oklahoma Healthcare Authority pays Tulsa’s MTTA $2.19 per client per month to manage all nonemergency Medicaid transportation.

- In Rhode Island, RIPTA’s bus and paratransit services give non-emergency transportation to all Medicaid recipients with an average cost of 45 cents per trip (the lowest in the country).

- In Florida, the Metro-Dade Transit Agency offers Medicaid recipients an unlimited monthly pass. The Medicaid program saves over $600,000 and the Metro-Dade Transit has increased revenues (American Public Transportation Association).

“As concern over the availability and cost of healthcare mounts, the benefits of enhanced and expanded public transportation must be considered” (American Public Transportation Association). Also, the increased utilization of public transit for medical needs can lead to an increased consultation mean for disadvantaged subpopulations. Moreover, the well-being of patients can be enhanced through a sense of personal mobility. Although some academics view place as a weak disadvantage for those seeking health care, it is the opinion of those on the ground, of those who have created and executed pilot programs
concerning public transit and have seen results, that place does matter when seeking health care. Increased personal mobility can lead to increased access to health care. Although the United States is a car-centric society, it cannot overlook those without a personal means of transportation. Marginalizing populations, which has been done within the United States countless times, results in decreased levels of access to services and feelings of inclusiveness. It is time that we stop ignoring the poor, minorities, and the older population and help them to obtain personal mobility. Through funding and maintenance of mass public transit we can improve the odds that no one will be left behind.

The extent of change depends upon public support and economics. The United States health care system cannot be improved within a short, set selection of time. Small steps are needed to improve the health care system. Although change is the only constant in life, it is difficult for an entire nation to make a radical shift. Therefore, states should seek statewide health care changes, so that pilots of suggested improvements can be exercised. All politics are local. If particular cities/states complete a successful pilot program then governmental bodies and policy makers can have something concrete to view and discuss.

The reasons for lack of access to health care are multiple. Geographic, economic, and social constraints create a feeling of lack of personal mobility and involvement within society. In order to improve access to health care a holistic approach is mandated. Also, the United States must first examine and implement the simple solutions while researching how to improve economic and social constraints. Promoting mass public
transit is a simple solution. If the disadvantaged subpopulations utilized public transit to access health care services they would have an improved sense of personal mobility. Not to mention that this rather progressive step would lessen the costs of transportation and be beneficial for the environment. Iowa is rather progressive when it comes to the utilization of public transit. Other states should review Iowa’s suggestions and see if any of them would be compatible within their state’s constraints. Simple solutions can be found; such as having a bus schedule at health care facilities so that people can reference it as they create an appointment. Although access to health care is a huge conundrum, by taking small steps in the right direction, the United States can unravel the reasons that affect access to health services. If we do not know the reasons we cannot find the solutions. If we do not take a holistic approach in unraveling the conundrum the solution will be inadequate. Through support and promotion of the mass public transit systems we can make the Land of Opportunity a reality.
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Appendix A

Access to Health Care
Columbus, Ohio

Legend
- Columbus Health Care Facilities
- Inadequate Access to Health Care
Appendix B

Bus Stops In Health Care Accessible Areas
Columbus, Ohio

Legend
- Bus Stops
- Inadequate Access to Health Care

0 3 6 9 12 Miles
Appendix C

Known Health Professional Shortage Areas
Columbus, Ohio

Legend
- Green: Health Professional Shortage Areas
- Pink: Inadequate Access to Health Care
Appendix D

Bus Stops Located in HPSAs
Columbus, Ohio

Legend
- Bus Stops
- HPSA
- Inadequate Access to Health Care