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## **“Al Volante de su Salud”, A Driver’s Health is at His Seat: Research Proposal of a Survey Instrument to Measure the Health Status of Hispanic Taxi Drivers**

Edda Cotto-Rivera

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## ABSTRACT

“Al Volante de su Salud”, A Driver’s Health is at His Seat: Research Proposal of a Survey Instrument to Measure the Health Status of Hispanic Taxi Drivers

By

Edda Z. Cotto-Rivera

May 2013, 2016

The United States Department of Labor identifies taxi driving as one of the fastest-growing occupations in the nation. When compared with other types of workers, taxi drivers are often describe as a high-risk, underserved and non-traditional workforce due to the work they do. Some of the job-related risk factors for increased levels of injuries, illness and even mortality rate have been related to their long hours of work, sedentary lifestyles, short recuperation time between shifts and stress.

Hispanic/Latino taxi drivers, who are members of the fastest-growing minority in the United States are under- represented on the limited research-based literature that provides knowledge about the health status of taxi drivers in the nation.

The framework of our proposal is to recommend a culturally sensitive survey instrument seeking to identify and understand how occupational characteristics intrinsic to the work of taxi drivers, might adversely affect the health practices and health status of Hispanic/Latino taxi drivers in the Atlanta metropolitan area. Moderating variables of the proposed instrument will include constructs related to work and stress; dietary intake; health and lifestyles; work productivity and distinctive measures for Hispanic/Latino audiences pertaining to family composition, access to healthcare and health information sources.

The research framework proposed in this Capstone can be used to design, implement, and evaluate a health education intervention targeting Hispanic/Latino taxi drivers serving the Atlanta metro community.

“Al Volante de su Salud”, A Driver’s Health is at His Seat: Research Proposal of a Survey  
Instrument to Measure the Health Status of Hispanic Taxi Drivers

by

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B.A Community Health Education, University of Puerto Rico

A Thesis Submitted to the Graduate Faculty  
of Georgia State University in Partial Fulfillment  
of the  
Requirements for the Degree

MASTER OF PUBLIC HEALTH

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APPROVAL PAGE

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## Author's Statement Page

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Edda Z. Cotto-Rivera

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## I. Background

According to the United States Department of Labor, there were 233,700 taxi drivers and chauffeurs working in transportation jobs in 2014. It is expected that the employment rate for taxi drivers will increase by about 13% within the next ten years, making taxi driving one of the fastest-growing jobs in the United States. When compared with other types of workers, taxi drivers are often described as a high-risk population due to the work they perform (Apantaku-Onayemi et al., 2012). Several studies have identified a number of risk factors that affect the health of taxi drivers, such as: long working hours, sedentary lifestyles, short recuperation time between shifts, and stress. These job-related factors are often mentioned as the culprits of a number of health problems affecting taxi drivers, including obesity, gastrointestinal issues, strokes, and other chronic conditions.

A review of existing public literature indicated that very few studies regarding the health of taxi drivers in the United States have been conducted. Moreover, none of the available studies has focused on how the risk factors associated with taxi driving particularly affect the health of Hispanic/Latino drivers. The main goal of this capstone is to propose a survey that I have designed that may identify the unique ways in which taxi driving can affect the health of Hispanic/Latino taxi drivers. The survey results could then be used for the design, implementation, and evaluation of an effective health promotion program for this group of employees.

Hispanics/Latinos are the fastest growing minority in the United States, and are actively involved in all occupational areas, including the taxi industry. In the Atlanta metropolitan area, Hispanic/Latino taxi drivers in the DeKalb County area provide transportation services to hundreds of people going to work, school, healthcare appointments, and generally moving



around their communities. Hispanic/Latino taxi drivers represent only a small portion of the overall workforce in the Atlanta metropolitan area, but they would most likely benefit from research using a culturally sensitive survey instrument seeking to identify the effects of risk factors associated with taxi driving. Public health professionals and other interested organizations could leverage the results of such a survey to identify and design effective health promotion interventions focused on Hispanic/Latino taxi drivers.

## II. Objective

The primary objective of this project is to understand how occupational characteristics intrinsic to the work of taxi drivers might adversely affect the health practices and health status of Hispanic/Latino taxi drivers. To support the primary objective, I propose a survey instrument that has been designed for use with Hispanic/Latino taxi drivers in the Atlanta metropolitan area. Variables in the suggested instrument aim to identify current health-related behaviors of Hispanic/Latino taxi drivers and their responses to stress levels, shift work, sleeping patterns, eating patterns, physical activity, and productivity. Ultimately, the results of the proposed instrument will assist the Extension Office in DeKalb County with the design, implementation, and evaluation of health education interventions targeting Hispanic/Latino taxi drivers serving the county.

## III. Literature Review

To design the proposed survey instrument, I took into consideration general statistics regarding taxi drivers and Hispanics/Latinos in the United States, in an effort to better understand the target population. I also reviewed relevant studies that have been conducted with

taxi drivers in the United States and in other countries. These studies were instrumental in the selection of themes and items for inclusion in the proposed survey.

#### A. Taxi Drivers in Metropolitan Areas: General Statistics

Large metropolitan urban areas rely on diverse modes of transportation, such as buses, trains, personally-owned vehicles, and taxis. According to the 2010 United States Census, New York, Los Angeles and Chicago were the three most populated urbanized areas in the United States. While significant numbers of people in these and other major cities across the country rely on mass public transportation, many use taxis to reach businesses, service providers, and other destinations, and especially those destinations that are not easily reachable via mass public transportation. The median income for taxi drivers and chauffeurs in the United States in 2014 was \$23,210 (US Department of Labor Statistics, 2014). These official federal government statistics did not include information about drivers who were self-employed or had independent contracts with taxi companies, which is a normal practice in the industry.

Table 1 shows the total number of taxi drivers in large cities, including 2,410 taxi drivers in Atlanta in 2014. However, these Department of Labor figures from 2014 may not provide a complete picture of the number of taxi drivers in each city because they did not list certain categories of drivers. For example, the Department of Labor statistics account for 11,300 taxi drivers in New York City in 2014. However, the “Taxicab Fact Book,” which was published by the New York City Taxi and Limousine Commission in 2014, reported that there were 50,000 yellow cab taxi drivers serving the five boroughs of the city for the same year. The discrepancy may be due to the inclusion of certain types of for-hire drivers and private contractors in the New York City report that were not included in the Department of Labor’s statistics. When conducting a search of additional available data describing taxi drivers in urban areas

nationwide, I found that San Francisco and Los Angeles, California published reports about their taxi drivers as well. These reports focused mainly on safety issues and code enforcement. County or state government agencies in Atlanta have not published figures regarding the number of taxi drivers operating in the city. The published information provided by these local authorities addressed general ordinances and regulations for the industry, and did not report on issues related to health or safety of taxi drivers directly.

Table. 1

**US Department of Labor Statistics for 2014**

(Does not include information about independent contractors or self-employed drivers)

| <b>State and Urban Metro Ranking</b> | <b>Total number of taxi drivers by state</b> | <b>Total number of taxi drivers in the metro area</b> |
|--------------------------------------|--|---|
| <b>1. New York – New York City</b>   | 14,290                                       | 11,300  |
| <b>2. California – Los Angeles</b>   | 14,450                                       | 5,520   |
| <b>3. Illinois – Chicago</b>         | 6,590  | 4,860   |
| <b>9. Georgia – Atlanta</b>          | 3,420  | 2,410   |

There are several reasons why individuals choose to become taxi drivers. According to Facey (2003), a large group of immigrants entered the industry because they were often encouraged by friends and relatives to do this “easy job.” Typically, the requirements for entering the industry are not overwhelming. The job promises opportunities to earn money quickly, and most people do not need special training to work as taxi drivers. Furthermore, many people become taxi drivers because they view it as an effective way to become entrepreneurs and have control over their lives. Unfortunately, that control is not always possible. Facey (2003) also reported that many, if not all, taxi drivers who were foreign-born experienced fatigue, discrimination, exploitation, violence, and threats to their health.

## B. Taxi Drivers in the Atlanta Metropolitan Area

In the Atlanta metropolitan area, the hospitality industry yields an estimated 11 billion dollars every year, while paying under minimum wages to their employees and contractors (The Atlanta Journal Constitution, 2012). Taxi cabs and their drivers are essential contributors to this industry. No locally-published data regarding the race and ethnicity makeup of the taxi driving force in the Atlanta metropolitan area are available, but it is common knowledge that the majority of taxi drivers in the area are foreign-born, which is consistent with the fact that 90% of taxi drivers in the United States are foreign-born males under the age of 50 (Gany, Gill, Ahmed, Acharya and Leng, 2013). Since there is limited information about the taxi drivers in Atlanta, I cannot infer about the percentage of Hispanic/Latino drivers working in this industry, but their services are highly visible in DeKalb County and other metropolitan areas in Atlanta.

In 2012, the local media reported that the City of Atlanta started negotiations with industry representatives to implement policies and rules aiming to improve the services and the working conditions of taxi drivers (Atlanta Journal Constitution, February 2015). Later in September of 2015, the City of Atlanta adopted ordinance 15-01361, to follow and complement the implementation of House Bill 225, signed by Nathan Deal, Governor of Georgia in mid-2015. These regulations had the intention to provide parameters to the transportation-for-hire services, such as Uber and Lyft, and included portions of the taxicab industry. Uber and Lyft are two of the new transportation competitors for taxi driving companies in the area. They base their services by facilitating the connection between private drivers with customers who request a ride using a smartphone application. The two main points of the new state bill include provisions to require for-hire services to obtain for-hire driving endorsements and certain for-hire insurance before providing services in the area, as taxi drivers do. The City of Atlanta's ordinance includes

several provisions. Inspections for taximeters and comfort inspections (when inspectors make sure that taxicabs are in good working conditions) are set to be random instead than on regular basis and the age limit for taxicabs was set to 10 years instead of eight. Local taxi drivers used to complain about the requirement of driving vehicles that were 8 years old or newer.

In DeKalb County, new taxi drivers who are seeking to have a permit in the county are required to pay a \$100.00 fee, have a valid Georgia drivers' license, a 7-year free-of-incident Motor Vehicle Record (MVR) that is no more than two weeks old, and a birth certificate or naturalization papers, green card, or employment authorization card as identification. DeKalb County police force conducts annual visual inspections of taxicabs.

In November of 2015, La Vision Newspaper, a well-known Spanish publication serving the Atlanta metropolitan area, featured an interesting article highlighting the services and work-related experiences of a group of ten Hispanic/Latino taxi drivers. The article emphasized their services and the unsafe conditions in which they work. There was no mention of any health-related issues in this article. I have had informal conversations with several local drivers that have contributed to identifying the need to investigate the health status and lifestyle hurdles these drivers face on a daily basis. One of those local taxi drivers expressed his frustration for gaining 15 pounds after working as a taxi driver for only four months.

One of the major complaints reported in the literature is that drivers often lack access to clean and accessible restrooms during their working hours (Wang & Delp, 2014). In 2001, a report published by the Georgia Regional Transportation Authority summarized regulations and requirements from 40 different jurisdictions in the Atlanta area. Eight of nine cities in DeKalb County did not require taxi companies to have or provide restrooms for their employees.

### C. Hispanic/Latinos in the Workforce

The Pew Center reports that in 2013, there were 54 million Hispanics/Latinos living in the United States, representing 17.1% of the total population. It is estimated that by 2050, Hispanics/Latinos will represent 25% of the U.S. population. Among eligible workers older than 16 years of age, the rate of employment for Hispanics/Latinos represented the second largest group with 58.9%, compared to 59.4% for Whites and 51.7% for Blacks. The U.S. Department of Labor reported in 2011 that the nation's workforce included 83.7 % Hispanic /Latino wage and salary workers, compared to 78.5 % for Whites and 76.9 % for Blacks.

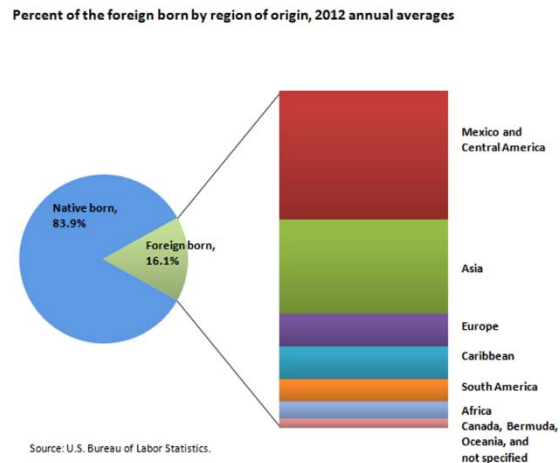
Hispanics/Latinos usually live in urban settings and in low socioeconomic neighborhoods; they have less education when compared with Whites and African Americans and are less proficient in English. Gany et al. (2013) report that in 2007 the U.S. Census of Occupational Injuries published that Hispanic/Latino workers experienced higher rates of work-related fatalities (4.6 per 100,000 employed workers) when compared with non-Hispanic Whites (3.8) and non-Hispanic Blacks (3.9). According to the same study, Hispanic/Latinos were a vulnerable population less likely to report work-related incidents while having limited access to healthcare services.

A 2011 report from the U.S. Department of Labor also reported that individuals of Hispanic/Latino ethnicity composed 15% of the labor force in the United States. Their estimate was that by 2020, Latinos were expected to comprise 19% of the United States labor force. The 2011 report notes that employed Latinos were less likely to have a college degree when compared to Whites or African Americans. Approximately 8 in 10 Latinos worked in wage and salary jobs. According to facts from the Census Bureau Survey of Business Owners in 2007, Latino-owned businesses were the fastest growing small business sector prior to the recession,

but this sector of the population had lower success rates with their new businesses and left self-employment at a higher rate than Whites (US Department of Labor 2011). It is important to note that in the taxi industry, many drivers are employed as private contractors and are considered self-employed.

In 2012, the U.S. Bureau of Labor Statistics reported that 16.1% of the labor force was foreign born (Chart 1). About 38% (9.5 million workers) were from Mexico or Central America.

Chart 1

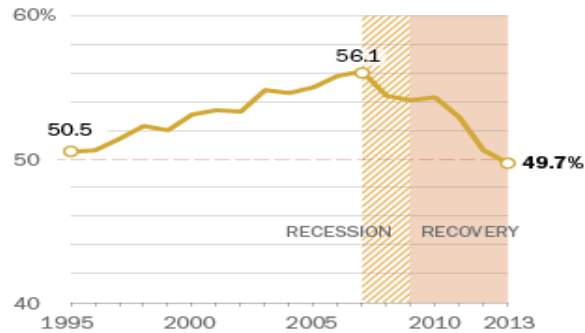


Kochhar (2013), reported a new reality related to the composition of the Hispanic/Latino workforce (Figure 1). Since the recession of 2007, the figures related to the origin of the Latino workers considered as immigrants are steadily diminishing. In 2007, 56.1 % of the Latino workers were immigrants compared to 49.7% in 2013. This trend is reflects that the majority of the Latino workers today are actually US-born.

FIGURE 1

### Immigrants No Longer the Majority of Latino Workers

*The share of immigrants in Hispanic employment has fallen since the start of the recession*



Note: Annual estimates among ages 16 and older.

Source: Pew Research Center tabulations of Current Population Survey annual outgoing rotation group (ORG) data.

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#### D. Impact of Taxi Driving on Health

In 1989, Ueda et al. (1989) conducted one of the first studies that established the relationship between taxi driving and risk of health-related conditions. The researchers interviewed 5,523 drivers from Osaka, placing a special interest on cardiovascular health among taxi drivers. The study found that the sampled group experienced higher morbidity rates and lower levels of fitness as a result of their job behaviors during the previous year when compared with the control group. Some taxi drivers also reported complaints such as gastrointestinal disorders and fatigue. A large percentage of the drivers were obese and the prevalence of heart-related symptoms was considerably increased among them. More than half of the taxi drivers wanted to quit their jobs and 62% of them gave health-related conditions as their reason for wanting to leave (Ueda et al., 1989).

More than 20 years later, Apantaku-Onayemi et al. (2012) conducted a study of taxi drivers in Chicago. The purpose of the study was to evaluate drivers' preventive health behaviors that might affect risks for cardiovascular disease and cancer. These researchers selected a



convenience sample of 751 drivers who participated in a survey that included questions adapted from nationally recognized instruments, including the Behavioral Risk Factor Surveillance System, the National Health Interview Survey, the National Health and Nutrition Examination Survey, and the Continuing Survey of Food Intakes by Individuals. The inclusion of questions from these instruments facilitated the process of comparing results with national data. The findings of these researchers revealed that 88% of the study's participants wanted to improve their well-being by adopting healthy behaviors and were planning to start eating more fruits and vegetables, and 33% considered their weight to be disproportionately high for their height.

Other significant studies over the years have included taxi drivers from South Asia (Gany et al. 2013), Canada (Facey, 2003), and Serbia (Djindjic et al., 2013) These studies conducted outside of the United States provided general insight about the health status and quality of life of taxi drivers of different ethnicities and contributed to the knowledge we have about occupational health and taxi driving.

One of the most descriptive titles for a research study conducted among taxi drivers was the one used by Gany et al. (2013): "Every disease man can get starts in this cab." The study was conducted in New York, where 84% of the taxi drivers were foreign-born. In this case, South Asian drivers drew the interest of the researchers because epidemiologically they have a potential "double risk" for cardiovascular disease: one because of their ethnicity and the other because of their occupation. The study was based on research conducted by Anand and Yusuf in 2000 identifying that South Asians had a higher prevalence and younger age onset for cardiovascular disease, diabetes, and metabolic syndrome when compared with Caucasians. South Asian taxi drivers participated in five focus groups and reported perceiving themselves to be at a higher risk for cardiovascular disease. During the five sessions, the drivers mentioned

stress, job dissatisfaction, lack of exercise, and unhealthy eating practices including not having regular meals and eating late at night, as common problems related to the normal duties and behaviors of their line of work. No data were collected from any other ethnicity or group, but the findings encouraged additional research intended to identify the potential risks for other ethnicities represented in the taxi driving industry.

In summary, these studies of taxi drivers suggested that certain themes are relevant to their health: job-related stress, the impact of shift-work, and lifestyle behaviors. While some of the available studies in the literature involved Hispanic/Latino subjects, none of the studies specifically focused on how the factors affecting health uniquely impact Hispanic/Latino drivers, which is an objective of the proposed survey instrument. The literature regarding the health status of taxi drivers has studied the unique effects of occupational strains of taxi driving. The sources of the occupational stress associated with taxi driving include long hours of sitting, minimal time to recuperate in between shifts, unhealthy diets, sedentary lifestyles, pressure exerted over drivers by the owners of taxi companies, and cumbersome tasks related to compliance with local regulations.

### 1. Job-Related Stress

Robert Karasek, PhD and colleagues developed the psychosocial job content questionnaire (JCQ) which has been used in studies of stress and heart disease, musculoskeletal disorders, and mental strain. The Karasek model, which has been widely used since it was first published in 1979, was based on three themes to capture the dimensions of occupational stress. The first dimension was job demands, or the potential stressors that employees regularly face in their work environment. The second dimension was job control, or the extent to which an employee has authority over how tasks and responsibilities are accomplished. The third

dimension was job strain, which results when high job demands are combined with low levels of job control.

In the Karasek model, workers who experienced high job demands but had low control over their jobs had the potential to report more exhaustion, trouble waking up in the morning, depression, nervousness, anxiety, and insomnia than workers who had more control. In 1981, Karasek used his model to measure job decision latitude, job demands, and cardiovascular disease (Karasek, Baker, Marxer, Ahbom, & Theorell, 1981). He studied the stressors of a worker's job situation and the decision-making freedom available to the worker exposed to the strains. In particular, Karasek suggested that a workers' relationships with supervisors and/or co-workers may also affect stress levels.

Facey (2003) interviewed ten drivers and five industry representatives from Canada. Their report listed discrimination, low socio-economic status, inadequate earnings, and poor working conditions as the main stressors affecting them as industry workers. These drivers also expressed concern about violence and unsafe environments at the workplace.

In 2006, the City of Los Angeles Taxi Commission reported that taxi drivers rated job stress as severe (23%) or extremely severe (29%) (Wang & Delp, 2014). These numbers were consistent with the results of other studies of taxi drivers conducted in other locations. The city presented an extensive comprehensive plan to increase the safety of taxi drivers (Wang & Delp, 2014). The Los Angeles Taxi Drivers Alliance (LATWA) was then established as a response from taxi drivers who were interested in taking action after reviewing the results of the study "Health status, job stress and work-related injury among Los Angeles taxi drivers" (Wang & Delp, 2014). The drivers of the Alliance were considered independent contractors for purposes of the local government. Their average workday lasted about 18 hours per day, for no more than 72

hours per week, as mandated by the local government regulations. The long work hours were contributing to the work-related injuries found in the cited study.

The 2014 Wang and Delp study included Hispanic/Latino participants, but they only represented 11.7 % of the participants. They reported that 54% of the total participants suffered from job stress-related issues, a figure that increased to 60% when the stress was associated with work-related injuries.

The incidence of occupational stress was assessed among 439 professional drivers in Serbia (Djindjic et al., 2013). A relationship between dyslipidemia, hypertension, heart disease, and the aspects of occupational stress index (OSI) was highest among professional bus drivers. The risk for taxi drivers was lower but still present. The authors recommended regular and periodic health examinations such as serum lipids, blood pressure, and coronary heart disease factors and workplace interventions to decrease the drivers' occupational stress and cardiovascular risk.

## 2. Impact of Shift Work

Taxi transportation services are needed on a continuous basis. Drivers are expected to work long hours, including nights and weekends, in order to maximize their income. Sakai and Takahashi (1975) conducted a study among drivers working in Kawasaki, Japan concerning their driving and alternate-day shifts. The results of the study reported that taxi drivers were working 16-hour shifts. When the shift hours were expanded into the evening and night hours, drivers observed an increase in their fares and the ability to drive faster, because of fewer vehicles on the road. These two conditions made the evening and night period the most important and productive part of the day for many of these drivers. One of the main conclusions of the study was that the long work-shift influenced the driver's performance, but also degraded their performance

capacity. Almost half of the study's participants reported having to go to their next shift without sufficient time to recover, experiencing subjective fatigue symptoms and sleep deprivation. The authors of the study also reported that during previous research, taxi drivers acknowledged being conscious of the harmful effects of long hours of work.

Proper et al. (2015) reviewed longitudinal studies establishing the relationship of metabolic risk factors with shift schedules. The best evidence found shows a possible association between shift work and body weight, overweight, and impaired glucose tolerance. This study concluded that more robust evidence could be gathered if variables like frequency and duration in years of the shift work schedules are included in future research efforts.

### 3. Lifestyle Behaviors

In a 2012 study conducted with 751 taxi drivers in the city of Chicago (Apantaku-Onayemi et al., 2012), only 3% of the participants in the convenience sample were Hispanic/Latino drivers. This particular study compared the taxi drivers with the rest of the city's population. Among other conclusions, the results of the study demonstrated that the taxi drivers' fruit and vegetable consumption and physical activity levels were lower when compared with the rest of the population.

San Francisco taxi drivers reported that they suffered from several issues related to their jobs: stress, body aches, vulnerable employment status, and unhealthy working conditions (Burgel, Gillen, & White, 2012). Thirty six focus group participants provided a summary of the self-care strategies they utilized to manage stress and maintain a healthy and positive attitude at work. Drivers reported working an average of 49.8 hours and 4.3 work shifts per week. Proactive self-care strategies included having newer cars with adjustable seats and steering wheels. To improve their agility they reported trying to get out of the driver's seat to open the door for

clients as much as possible. This gave the drivers a chance to stretch their backs and promote good customer service simultaneously. Other health practices mentioned during the discussions included sleeping well before driving, washing hands, finding restroom-friendly hospitals and hotels, and promoting the availability of healthy snacks and foods at airport venues.

The National Alliance for Hispanic Health published the 2014 Healthy Americas Survey providing descriptive information about the health status of Hispanic/Latino residents in the United States. The findings of the survey provides baseline information that could be valuable to compare with the data regarding Hispanic/Latino taxi drivers that I anticipate collecting with the proposed survey. According to this national survey, Hispanics/Latinos (7%) and non-Hispanic Blacks (8%) are significantly less likely than non-Hispanic Whites (18%) to report eating 5 or more servings of fruits and vegetables on average each day. They also reported that 30 days before the survey, half (53%) of Hispanics and non-Hispanic Blacks (51%) reported drinking sugary soda daily or weekly compared to 37% of non-Hispanic Whites.

#### E. Taxi Driving as a High-Risk Occupation

A large portion of the available literature on taxi drivers focuses on the high-risk nature of taxi driving in terms of safety and violence. The proposed survey instrument, however, will focus on traditional indicators of health status, and not on issues related to safety and violence. Nevertheless, it will be important to be mindful of issues related to safety and violence because participating drivers may mention them as factors that affect their physical and mental health.

The U.S. Bureau of Labor Statistics uses about 500 job codes to categorize workers throughout the country. Sixteen percent of the private sector workforce is employed in high-risk occupations. There are frequent reports in the media related to cases of violence against taxi drivers at work (Atlanta Journal Constitution Feb. 5, 2016). A high-risk occupation is determined

by the amount of fatalities, non-fatal injuries, and other measures like missed days of work reported among the workers.

Taxi drivers are often compared with law enforcement workers due to the similarities related to sitting during long hours of work and also because of their exposure to on the job violence. In 2014, the United States Census of Fatal Occupational injuries report that there were 4,679 work-related deaths in the United States (US Department of Labor, 2014). Law enforcement workers and taxi drivers did not represent the highest numbers among the total fatalities, but the report showed that there were 104 deaths among law enforcement and 66 deaths among transit and ground passenger transportation workers. In 2010, the Occupational Safety and Health Administration (OSHA) published a safety report indicating that between 1998 and 2007, taxi drivers were 20 times more likely to be murdered on the job than other workers (“Preventing Violence against taxi and for-hire drivers, n.d., para.1 retrieved from [www.osha.gov/Publications/taxi-driver-violence-factsheet.pdf](http://www.osha.gov/Publications/taxi-driver-violence-factsheet.pdf)).

Two national private organizations dedicated to issues of relevance for law enforcement personnel and taxi drivers keep data available related to occupational issues for their members. The National Law Enforcement Officers Memorial Fund reported that a total of 1,439 law enforcement officers died in the line of duty during the past 10 years, an average of one death every 61 hours or 144 per year. There were 123 law enforcement officers killed in the line of duty in 2015. There have been 15,725 assaults against law enforcement officers in 2014, resulting in 13,824 injuries. (Law Enforcement Facts retrieved from <http://www.nleomf.org/facts/enforcement/?referrer=https://www.google.com/> ). The Taxi-library, a private source of information regarding taxi drivers, reported that 678 taxi drivers were

killed on the job between 1994 and 2013 in the United States (Homicide Prevention retrieved from <http://www.taxi-library.org/safety.htm>).

Another relevant finding indicated that in 1997, the U.S. Bureau of Labor Statistics reported that between 1992-95, almost 3,000 truck drivers, and more than 400 taxicab drivers lost their lives while working. During the same period, truck driving had the most fatalities of all occupations, accounting for 12 percent of all worker deaths. Eighty percent of the deaths were related to transportation incidents. 431 fatalities were reported among taxi drivers in the U.S. between 1992 and 1995 (Knestaut, 1997). Assaults and violent acts accounted for 79% of the cases and 13% of the total fatality cases involved Hispanic/Latino taxi drivers. The rate of deadly violence was four times more than that of police officers.

#### F. Hispanics/Latinos and Healthcare Access

Access to healthcare has significant implications for the health status of taxi drivers because it can affect the way in which illness is both prevented and treated. A number of studies provide useful insight regarding the level of healthcare access that is available to minorities, Hispanics/Latinos, and workers in private industries, all of which are helpful in understanding the level of healthcare access available to our target population.

According to Siqueira et al. (2014), workers employed in private industries like taxi drivers often experienced the consequences of occupational health disparities. Regardless of new health and safety developments, many of these workers, including immigrant workers, are often not protected by current laws and policies. This lack of protection is caused by the practice of misclassification of employees. Taxi drivers, truck drivers, and day laborers are considered independent contractors. When compared with workers classified as employees, their wages were lower, their work environment was often unsafe, and they were less likely to receive



benefits such as worker's compensation, health insurance, and paid annual and sick leave.

Exclusion of immigrants from unions increased the likelihood of receiving less than minimum wages, unpaid overtime, and unsafe and unhealthy work environments (The National Immigrant Center, 2009).

National data available for 2003 analyzed by Siqueira et al. (2014), showed that only 56% of workers reported having the benefits of sick leave to visit their doctors. When comparing low compensation jobs against high compensation jobs, 36% of those with low wages had time paid off for sick leave compared to 73% of those on the higher end of the earning salary scale. When workers were unable to take time off of work to access health care services, the likelihood and severity of their illness and injuries had the possibility to increase.

Hispanics/Latinos in the United States had lower rates of access to healthcare services when compared with non-Latinos (Dembe, Biehl, Smith & de Gutierrez, 2013). In 2007, only 40.3% Hispanics/Latinos had employer-sponsored health insurance, compared with 65.6% of non-Hispanic Whites and 49% of non-Hispanic blacks.

According to the Healthy Americas Survey conducted in 2014, 27% of Hispanic/Latinos reported not having a usual place to go to when they were sick or needed advice about health, compared to 17% of non-Hispanic Blacks and 7% of non-Hispanic Whites. 40% of Hispanics reported that they would be very worried about affording care if they got sick or had an accident, compared to 22% of non-Hispanic Blacks and 11% of non-Hispanic Whites.

The Chicago taxi drivers studied by Apantaku-Onayemi et al. (2012) also had lower rates of health insurance coverage than 73% of males in the Chicago area and 81% of males younger than 65 years of age nationally. Although they had lower rates of health insurance coverage, 86% of the drivers had an annual physical during the prior year, which is required in Chicago to

be able to drive a taxi. A second study completed in New York in 2013 by Gany et al. (2015) with a sample of 466 drivers concluded that 55% of the drivers were uninsured and 49% did not have a primary doctor. 44% knew nothing or very little about the Affordable Care Act and almost 77% wanted to learn more about it. Those with more years of experience as taxi drivers, with a higher English proficiency, and knowledge of having a pre-existing condition knew more about their healthcare options. To facilitate enrollment in health promotion programs, the study recommended implementing interventions focusing on places of employment, and having health navigators who speak diverse languages educating drivers during different shifts and schedules.

#### IV. Methods

The proposed survey instrument is based on a literature review of studies related to taxi drivers who work in the United States and abroad. Additional information will be collected to describe socio-demographic and health characteristics of Hispanic/Latino taxi drivers. Many of the survey questions have been used in validated instruments and are reliable for measuring health status, job stressors, and behavioral risk factors. I will develop the survey in both English (Appendix A) and Spanish (Appendix B) to accommodate participant's preferences. The design and administration of the survey instrument also takes into account available science and evidence related to successful survey administration working with Hispanic/Latino audiences.

##### A. Instrument Design

###### 1. Adaptation of Measures to the Proposed Study

The Pew Center report on the "Unique Challenges of Surveying U.S. Latinos" provided important information regarding key elements that had to be considered in the design of the proposed survey (Brown, 2015). First, the report recommended the need to increase awareness of

how Hispanics/Latinos interpret the word “family,” (or “familia” in Spanish). In Spanish, this term refers to extended family and includes distant relations such as the ones held with third and fourth cousins. The second key element related to the use of the term “household.” Hispanics were more likely than whites to live in multi-generational households and questions that require the description of the participant’s households can provoke different interpretations. Thus, it will be important to accurately explain the intended definition of the terms “family” and “household” when results are analyzed and presented. Third, the survey’s analysis must take into account the fact that Hispanics/Latinos, compared to other ethnic groups, interpret the term “health” as a more holistic concept that includes spiritual and social welfare, as well as medical and physical well-being.

The Pew Center suggested that the choice of which language will be used to conduct the research is important (Brown, 2015). It may be optimal to use fully bilingual approaches (the interview is conducted in either English or Spanish or a mixture of both) or a modified bilingual (where the interviewers speak only English and will arrange a Spanish speaking interviewer when necessary). Interestingly, fully bilingual interviews conducted by the Pew Center resulted in more Spanish-dominant responses than the modified bilingual method. The Center reported that when interviews were conducted by fully bilingual staff they completed more interviews with Spanish-dominant Hispanics.

## 2. Primary Measures

### a. Work and Stress

The proposed instrument will include questions based on the worksite stress measures used in studies by Karasek and colleagues (Karasek et al. 1981). Karasek’s scales have been used in a wide range of occupations and job settings, and in different languages including Spanish

because they have good validity and reliability (Boada-Grau, 2013). The specific measures suggested by Karasek that I included in the proposed survey are four questions focused on the psychological, as opposed to physical, manifestations of stress. Participants of the survey will be asked to categorize their jobs as hectic and or psychologically demanding. They will also answer two questions about the way they receive information from their supervisors and support from their co-workers.

Other specific items to measure work-related stress that I included in the proposed instrument were scales from the Centers for Disease Control Health Related Quality of Life instrument (CDC, 2000). There are two questions asking participants to identify the number of days when their mental health was not good, or when they felt worried, tense, or anxious.

#### b. Dietary Intake

There are limited studies in the literature that focus on validated instruments that can provide insight about the health status and health education needs of Spanish-speaking members of the U.S. national population. In designing the proposed survey instrument, I relied and built on the framework and learning of the University of California, Davis and its nutrition specialists, who have developed instruments designed to identify behaviors related to food intake in order to promote healthy eating lifestyles.

Banna and Townsend (2010) and Banna and Townsend (2011) described a number of qualitative methods used to improve questionnaires for Spanish speakers regarding food behaviors, as well as the process of assessing the validity and reliability of these tools. Although Banna and Townsend (2010) have validated their work with female-only audiences, they agreed that there is value in proposing its use among males.

Townsend recommended considering the fact that women in the Hispanic/Latino community are typically the homemakers and that men may not be sufficiently conscientious about their food intake. With this evidence in mind, the proposed survey will seek to explore the potential influence of Hispanic/Latina women on the food decisions of taxi drivers away from home when working their usually long shifts.

According to the 2003 National Assessment of Adult Literacy, Hispanic adults had lower average health literacy than adults in any of the other racial and ethnic groups (National Center for Education and Statistics, 2006). To assess daily fruit and vegetable (F/V) intake, I selected the Food Stamp Program's Fruit and Vegetable Checklist, which was developed and validated by Banna and Townsend (2009). This visually-enhanced checklist includes six questions and is designed to be used with low-literacy audiences, making the process of selecting responses easier for the participants (Banna and Townsend, 2009).

### c. Health and Lifestyle

The proposed survey instrument will include measures from nationally-recognized and validated instruments that have been administered in Spanish, such as the Centers for Disease Control Behavioral Risk Factor Surveillance System (BRFSS) and Health Related Quality of Life measures (Pierannunzi, Sean Hu and Balluz, 2013). From the BRFSS, I selected the following items and scales for use in the proposed survey instrument: general status of health, health impairments, exercise participation, sleep duration, and access to healthcare. Primary demographic data such as age, ethnicity, and race will be assessed using the questions from the aforementioned CDC instruments.

Another cited source for the health and lifestyles variable questions is the Sleep Scales from the Medical Outcomes Study (Hay sand and Stewart, 1992). I included three items from

these scales in the proposed instrument. While the Sleep Scales instrument is not available in Spanish, researchers provide specific guidelines that should be followed by those intending to translate the instrument. I took those recommendations into consideration in the translation of this section of the survey that explores average hours of sleep each night, getting the amount of sleep needed, and the difficulty of staying awake during the day.

#### d. Work Productivity

When identifying occupational health-related issues, there were two main concepts that needed to be considered: absenteeism (missed work time) and presenteeism (reduced on-the-job effectiveness or going to work while being sick). According to Gawlicki, Reilly, Popielnicki and K. Reilly (2006), after their review of the literature there was no report on the linguistic validation of an instrument used to measure the work productivity among Spanish-speaking workers. The objective of their study was to evaluate the validity of the Spanish version of the Work Productivity and Activity Impairment Questionnaire, General Health version (Reilly, Zbrozek and Dukes, 1993). Their study sample included both Spanish and English speakers in the United States. The comprehensive validation process of the questionnaire included creating synchronized forward and back translations, cognitive debriefing of participants, and a psychometric evaluation of the translation to determine validity, reliability, and responsiveness from the intended audience. Other important factors considered were low literacy rates for the Hispanic/Latino audience, lack of familiarity with questionnaires, and the need to reflect idiomatic translations. A key concept resulting from this study points to the fact that Spanish-speaking subjects were more likely to report health problems interfering with activities in the past 7 days when compared with the English speakers. From the Work Productivity and Activity Impairment Questionnaire, I selected three measures to be included in the proposed instrument:

the relationship between health problems and hours of missed work, the relationship between health problems and productivity, and the relationship between health problems and the ability to perform daily activities different from the ones related to work.

e. Distinctive Measures for Hispanic/Latino Audiences

According to Peak, Gast, & Ahlstrom (2010), the needs of Hispanic/Latino men demonstrated that it is essential to take into consideration the importance of “familismo” and “machismo” and the impact they had on health and healthcare issues. Familism, according to Peak et al. (2010), was a significant concept in Hispanic/Latino culture and refers to the importance given to family members as acceptable sources of health information. If additional information is needed, they then turn to trusted individuals like their pharmacist or a spiritual leader. Hispanic/Latino men relied on their family, friends, and spouses to make health-related decisions. (Peak et al., 2010). The proposed survey includes three open-ended questions suggested by Peak et al. (2010) to identify (1) sources for health information gathering, (2) participation in health education programs or interventions, and (3) involvement in making health-related decisions in the household.

The concept of machismo, according to Peak et al. (2010) referred to the perception that a Hispanic/Latino man is expected to act masculine or “manly.” If health-related decisions needed to be made, the concept of machismo suggested that men may feel like they are unable to express their real needs because they were expected to be in good health and able to be excellent providers for their families. This concept will be discussed during the focus group before the implementation of the survey.

The Peak et al. (2010) study about the needs assessment of Latino men’s health concerns identified that the Hispanic/Latino population preferred Spanish-language television

programming as a good source of health-related information. These results added value to the findings of Kreps and Sparks (2008), which indicated that positive interventions targeting immigrant populations should be culturally sensitive and should include knowledge about group-specific preferences regarding providers and health communication channels. If deemed necessary, a possible way to promote the implementation of the survey and create a positive reception among Hispanic/Latino taxi drivers would be to present information about the study via the local mass media outlets they trust.

#### B. Instrument Pre-testing

The literature review summarized by Gany et al.(2012) concerning Mexican and Latino/Latina urban occupational health provided several recommendations on how to implement surveys for this audience. Lessons learned from the Gany study suggested taking into consideration the value of distinguishing the participants' countries of origin in the gathering and the reporting of the research data and the distinctive features that made the study participants or countries of origin unique. Using randomization methods instead of convenience samples, and refraining from using secondary data added relevance to the research outcomes focusing on Hispanic/Latino audiences. There was a valid concern that secondary data could provide statistics that misrepresent Hispanics/Latinos since they are frequently underrepresented or misclassified in research samples.

The draft survey will be pretested with a group of 5 to 10 Hispanic/Latino employees from DeKalb taxi companies, and will gather information about their birth origin and make appropriate recommendations for future interventions in terms of being foreign-born or not. Before the implementation of the proposed survey, public health practitioners of the Extension office in DeKalb County will recruit at least five taxi industry representatives to discuss and



evaluate the instrument during a focus group meeting. Prior to discussion, written informed consent will be obtained (Appendix C). They will discuss several open-ended questions that would be influential in increasing the validity of the proposed survey. Appendix D includes open-ended questions intended to be used during focus group meetings organized with taxi drivers and company owners from the target audience. Research activities in connection with the survey can increase the levels of understanding of the health status of Hispanic/Latino taxi drivers and help to validate the proposed instrument.

### C. Administration of the Proposed Survey

The value of randomized sampling should be considered for any study that aims to find generalizable conclusions. I am recommending the use of snowball sampling. “Any use of key informants in need assessments must involve a careful selection of the persons or groups whose perceptions are going to be taken into account. A useful way to identify such informants is the ‘snowball’ approach.”(Rossi, Lipsey & Freeman, 2004, p.129). The representatives from various companies who participate in the proposed focus groups could assist in connecting researchers with company owners prior to initiating the interview process, in order to facilitate reaching out to drivers associated with their companies. There are about 42 taxi driving companies registered in DeKalb County, Georgia and as an interviewer I will identify those that specialize in serving the Hispanic/Latino community and will promote the survey among their employees and sub-contractors. Many owners are drivers themselves and their perspectives are deemed valuable for the data gathering. Having some type of verbal agreement with company owners could help increase driver participation and reduce skepticism about the purpose of the interviews. Participants for the study will be recruited utilizing an invitational flier posted at the companies’ headquarters and by snowball sampling (Appendix E and F). Those interested will contact

researchers via phone. Interviews should be conducted in public areas such as local restaurants, public libraries, or other locations where taxi drivers usually wait for customers, and after the driver has consented to being interviewed. The process should not interfere with their work performance and/or potential for revenue. I should be prepared to conduct the interviews in Spanish, English, or both languages, depending on the driver's preference. I will recruit up to 15 taxi drivers to answer the proposed instrument in addition to the five initial participants who will participate in the focus groups. All 20 drivers will receive a \$25.00 gift card.

#### D. Consideration of Potential Issues Related to Survey Response Rates

In 2015, the Hispanic/Latino population in the United States grew to nearly 57 million, representing 18% of the country's population, according to the Pew Research Organization. Given these numbers, it is important to include Hispanics/Latinos in surveys and research studies to understand their opinions and behaviors. However, some researchers have reported that Hispanic/Latino immigrants are more likely to refuse participating in studies and tend to decline answering certain questions because of fear of deportation or other types of retaliation. The Pew Center report emphasizes the importance of assuring potential participants that they were selected to participate randomly and promising confidentiality in order to reduce the chances of no-participation. For the proposed project, it will be key to train those conducting the survey to assure participants that participation in the survey is confidential and has no impact on immigration issues, and that researchers are taking all possible provisions to maximize confidentiality.

The proposed survey instrument analysis should also take into account potential issues regarding self-identification by Hispanics/Latinos. For many Hispanics/Latinos in the United States, identity is a multidimensional and often complicated or confusing issue. The United

States Office of Management and Budget currently defines “Hispanic or Latino” as “a person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race.” When looking at different statistics and facts, information related to Hispanics/Latinos can sometimes be difficult to isolate from available data. Some Hispanic/Latino individuals will choose to identify themselves in various population categories, including “White,” “Black,” and “other,” in addition to Hispanic/Latino. In addition, many people consider the terms “Hispanic” and “Latino” to be distinct and not interchangeable – the former denoting descent from Spanish-speaking countries, including Spain and excluding Brazil, and the latter denoting descent from Latin American countries, including Brazil and excluding Spain.

These challenges could contribute to underestimation or over-reporting issues in data-driven studies and reports. The Pew Research Center recently published that the U.S. Census is considering making changes to the questions related to race and ethnicity for the upcoming 2020 Census. Some preliminary results of testing Hispanic/Latino mock responses shows that 81% of Hispanic/Latinos will prefer marking Hispanic as their race and no other category when asked about their race. The proposed survey instrument will take these challenges into account, by asking participants if they consider themselves to be Hispanic or Latino and also asking them to identify their race. They will be able to choose from the categories used by the U.S. Census and choose “other” if they prefer.

## V. Future Implications

Continued use of the proposed instrument has the potential to contribute to establishing a working relationship between local public health practitioners and the Hispanic/Latino workforce of the taxi driving industry in the Atlanta metropolitan area. The results of the interaction could

help produce a culturally appropriate health education and health promotion intervention aiming to reduce the risk of occupational illnesses and injuries among these taxi drivers. Since special attention will be given to questions related to general well-being, health management, and health care access issues, the data that is gathered could potentially be used for purposes of policy and government systematic changes.

Apantaku et al. (2014) suggested that the taxi drivers who participated in their study were good candidates for health promotion interventions because they were highly motivated. The drivers were already following local ordinances to control smoking during working hours, placing them in a good starting place for further progress towards improving their health. The authors also highlighted the fact that the majority of the immigrant drivers came from strong patriarchal cultures, and as heads of households they had the potential to influence the rest of their families with the knowledge and information acquired by participating in sound health education interventions. These findings were encouraging and support the goal of planning, implementing, and evaluating a health education intervention with the target population.

Establishing open channels of communication with taxi company owners can provide an opportunity for them to learn about significant worksite health promotion strategies, such as health screenings and educational programs about navigating the health system to benefit their drivers (Dembe, 2012). Conducting the surveys among their workforce could be a catalyst in creating interest for healthier, more productive lifestyles and more satisfied workers.

Many of the recommendations discussed above remain valid for approximately 49% of the foreign-born Hispanic/Latino immigrant workforce. The most recent Pew Research Center statistics about the birth origin of Hispanic/Latinos, affirming that the majority of the

Hispanic/Latino workforce is no longer immigrant based, presents new challenges for public health practitioners.

It is necessary for future interventions to accommodate the needs of both immigrant and U.S.-born groups in terms of preferred language, access to healthcare, commitment to healthy behaviors, acculturation, and generational differences.

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**Appendices**

A.

**Al volante de su salud”  
An Exploratory Study of the Health of Hispanic Taxi Drivers  
Structured Interview**

My name is \_\_\_\_\_. I represent \_\_\_\_\_. I am conducting a study of the health of Hispanic/Latino taxi drivers in the Atlanta area. The information we obtain will help us identify the health status of drivers and design a community health education program. All information that you give will be kept anonymous and confidential. No one will know what information you provide or your identity.

Are you available to answer our questionnaire? You may refuse to answer any question; and, you may end the interview at any time.

\_\_\_ Consents to proceed with interview. Today’s date: \_\_\_\_\_

**A. TAXI EXPERIENCE**

In this first set of questions, I will ask you some questions about your current experience as a taxi driver.

- 1. In what year did you first work as a taxi driver in the Atlanta area? \_\_\_\_\_
- 2. In the past seven days, about how many hours a week have you worked as a taxi driver? \_\_\_\_\_
- 3. In the past 7 days (1 week), did you work a second job in addition to work as a taxi driver?

- \_\_\_ Yes
- \_\_\_ No

If yes, how many hours, on average, did you work at this other job? \_\_\_\_\_

- 4. In the past seven days, was your shift:
  - \_\_\_ Mostly day shift (8 am through 4-5 pm)
  - \_\_\_ Mostly evening shift (4-5 pm through midnight)
  - \_\_\_ Mostly swing shift (midnight through 8 am)

5. Tell me 3 things that you enjoy about your work as a taxi driver.

- 5.1 \_\_\_\_\_
- 5.2 \_\_\_\_\_
- 5.3 \_\_\_\_\_

6. Now tell me about the things that you do not enjoy about your work as a taxi driver.

- 6.1 \_\_\_\_\_
- 6.2 \_\_\_\_\_
- 6.3 \_\_\_\_\_

**B. HEALTH AND LIFESTYLE**

I will now ask you a few questions about your health, lifestyle, and how your work as a taxi driver relates to your health.

1. Would you say that in general your health is:
  - a. Excellent \_\_\_\_\_
  - b. Very good \_\_\_\_\_
  - c. Good \_\_\_\_\_
  - d. Fair \_\_\_\_\_
  - e. Poor \_\_\_\_\_
  - f. Don't Know/Not sure \_\_\_\_\_
  - g. Refused to answer \_\_\_\_\_
2. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?
  - a. Number of Days \_\_\_\_\_
  - b. None \_\_\_\_\_
  - c. Don't Know /Refused \_\_\_\_\_
3. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?
  - a. Number of Days \_\_\_\_\_
  - b. None \_\_\_\_\_
  - c. Don't Know/Refuse \_\_\_\_\_
  - d. Refused \_\_\_\_\_

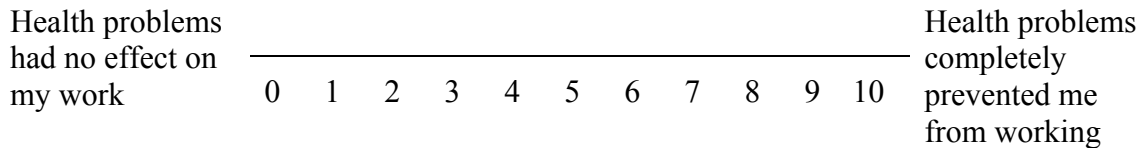
**These next questions are about physical, mental, or emotional problems or limitations you may have in your daily life.**

4. Are you LIMITED in any way in any activities because of any impairment or health problem?
  - a. Yes \_\_\_\_\_
  - b. No \_\_\_\_\_
  - c. Don't Know \_\_\_\_\_
  - d. Refused \_\_\_\_\_
5. What is the MAJOR impairment or health problem that limits your activities? Choose only one after mentioned by participant
  - a. Arthritis/rheumatism
  - b. Back or neck problem
  - c. Fractures, bone/joint injury
  - d. Walking problem
  - e. Lung/breathing problem
  - f. Hearing problem
  - g. Eye/vision problem
  - h. Heart problem
  - i. Stroke problem
  - j. Hypertension/high blood pressure
  - k. Diabetes
  - l. Cancer
  - m. Depression/anxiety/emotional problem
  - n. Other impairment/problem

- o. Don't Know/Not sure
- p. Refused

6. During the past seven days, how many hours did you miss from work because of your health problems? *Include hours you missed on sick days, times you went in late, left early, etc., because of your health problems. Do not include time you missed to participate in this study.* \_\_\_\_\_ HOURS

7. During the past seven days, how much did your health problems affect your **productivity while you were working**?  
*Think about days you were limited in the amount or kind of work you could do, days you accomplished less than you would like, or days you could not do your work as carefully as usual. If health problems affected your work only a little, choose a low number. Choose a high number if health problems affected your work a great deal.*

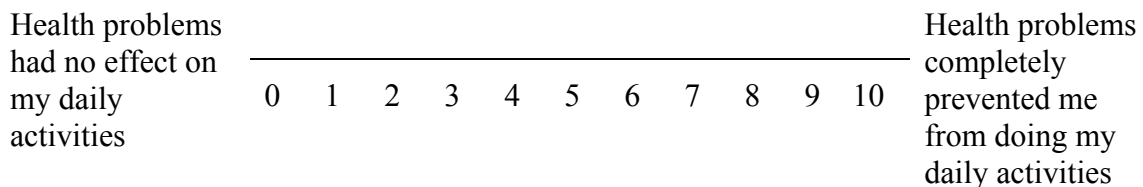


CIRCLE A NUMBER

8. During the past seven days, how much did your health problems affect **your ability** to do your regular daily activities, other than work at a job?

*By regular activities, we mean the usual activities you do, such as work around the house, shopping, childcare, exercising, studying, etc. Think about times you were limited in the amount or kind of activities you could do and times you accomplished less than you would like. If health problems affected your activities only a little, choose a low number. Choose a high number if health problems affected your activities a great deal.*

Consider only how much health problems affected your ability to do your regular daily activities, other than work at a job.



CIRCLE A NUMBER

9. During the past 30 days, for about how many days have you felt WORRIED, TENSE, or ANXIOUS?

a. Number of Days \_\_\_\_\_

- b. None \_\_\_\_
- c. Don't Know /Not Sure \_\_\_\_
- d. Refused \_\_\_\_

10. On the average, how many hours did you sleep each night during the past 4 weeks?

Write in number of hours per night: \_\_\_\_\_

**How often during the past 4 weeks did you...**

(Circle One Number on Each Line)

|  | All of the Time<br>1 | Most of the Time<br>2 | A Good Bit of the Time<br>3 | Some of the Time<br>4 | A Little of the Time<br>5 | None of the Time<br>6 |
|--|----------------------|-----------------------|-----------------------------|-----------------------|---------------------------|-----------------------|
| 11. have trouble staying awake during the day? |                      |                       |                             |                       |                           |                       |
| 12. get the amount of sleep you needed?        |                      |                       |                             |                       |                           |                       |

13. During the past 30 days, for about how many days have you felt you did NOT get ENOUGH REST or SLEEP?

- a. Number of Days \_\_\_\_
- b. None \_\_\_\_
- c. Don't Know/ Not sure \_\_\_\_
- d. Refused \_\_\_\_

14. During the past 30 days, for about how many days have you felt VERY HEALTHY AND FULL OF ENERGY?

- a. Number of Days \_\_\_\_
- b. None \_\_\_\_
- c. Don't Know/ Not sure \_\_\_\_
- d. Refused \_\_\_\_

15. Do you think that your work as a taxi driver influences your health in any way?

\_\_\_ Yes Go to 15.1

\_\_\_ No Go to 16

If Yes:

15.1 How do you think it has influenced your health in general over the past year?

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15.2 Can you name several things about your health that have been influenced positively or negatively in the past 30 days (4 weeks) because of your work as a taxi driver?

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16. Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, government plans such as Medicare, or Indian Health Service?

Yes \_\_\_\_\_

No \_\_\_\_\_

Don't Know \_\_\_\_\_

Not Sure \_\_\_\_\_

Refused \_\_\_\_\_

17. During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?

Yes \_\_\_\_\_

No \_\_\_\_\_

Don't Know/Not sure \_\_\_\_\_

Refused \_\_\_\_\_

### **C. Eating Behaviors**

**Please referred to the Food Stamps Fruit and Vegetable Checklist instrument**

a. Beside yourself, does anybody else decides what you eat when you are at work?

a. Yes \_\_\_ No \_\_\_\_\_ Who \_\_\_\_\_

### **D. BACKGROUND**

I would now like to ask you a few questions about your background. Your answers to these questions will be used only for purposes of classifying respondents to this interview.

1. What is your age?

a. Code age in years \_\_\_\_\_

b. Don't Know/Not sure \_\_\_\_\_

c. Refused \_\_\_\_\_

2. Are you Hispanic, Latino (a) or Spanish origin?

If yes, Are you?

a. Mexican, Mexican American Chicano (a)



- b. Puerto Rican
  - c. Cuban
  - d. Another Hispanic/Latino or Spanish Origin
    - i. Specify \_\_\_\_\_
  - e. Don't Know/Not sure \_\_\_\_
  - f. Refused \_\_\_\_\_
3. Which one or more of the following would you say is your race?
- a. White
  - b. Black or African American
  - c. Indian
  - d. Alaska Native
  - e. Asian
    - i. Asian Indian
    - ii. Chinese
    - iii. Filipino
    - iv. Japanese
    - v. Korean
    - vi. Vietnamese
    - vii. Other Asian
  - f. Pacific Islander
    - i. Native Hawaiian
    - ii. Guamanian or Chamorro
    - iii. Samoan
    - iv. Other Pacific Islander
  - g. Other
  - h. No additional choices
  - i. Don't Know/Not sure
  - j. Refused
4. How long have you lived in the United States: \_\_\_\_\_

In the Atlanta area: \_\_\_\_\_

I was born here \_\_\_\_\_ (Only mark if mentioned)

If you were born outside of the US please mention your country of origin

5. \_\_\_\_\_  
 What is the highest grade or year of school you completed? \_\_\_\_\_

**Read only if necessary:**

- 1 Never attended school or only attended kindergarten
- 2 Grades 1 through 8 (Elementary)
- 3 Grades 9 through 11 (Some high school)
- 4 Grade 12 or GED (High school graduate)
- 5 College 1 year to 3 years (Some college or technical school)
- 6 College 4 years or more (College graduate)

**Do not read:**

9 Refused

6. Are you.....?
- a. Married
  - b. Divorced
  - c. Separated
  - d. Never Married
  - e. A member of an unmarried couple
  - f. Refused

7. Do you have any children 18 years of age or under for whom you are financially responsible?

Yes

No

If Yes: How many? \_\_\_\_\_

9. What members of your family live with you in the same house?

---

**Optional questions**

Tell me three things about your work as a taxi driver that contributes to good health:

\_\_\_\_\_  
Tell me three things about your work as a taxi driver that contributes to bad health

\_\_\_\_\_  
Where do you receive health information?

\_\_\_\_\_  
Who makes health decisions in your household?

\_\_\_\_\_  
What health education programs and services have you used in the past or are you currently using?

Karasek questions:

Is your job hectic? Yes \_\_\_\_\_ No \_\_\_\_\_

Is your job psychologically demanding? Yes \_\_\_\_\_ No \_\_\_\_\_

How often do you get information you need from supervisors or superiors?

All the time \_\_\_\_\_ Most of the time \_\_\_\_\_ Sometimes \_\_\_\_\_ Rarely \_\_\_\_\_ Never \_\_\_\_\_

How often do you get help and support from your co-workers?

All the time \_\_\_\_\_ Most of the time \_\_\_\_\_ Sometimes \_\_\_\_\_ Rarely \_\_\_\_\_ Never \_\_\_\_\_

B.

**“Al volante de su salud”**  
**Un estudio exploratorio de la salud de conductores de taxi hispanos**  
**Entrevista estructurada**

Mi nombre es \_\_\_\_\_. Represento a \_\_\_\_\_ Estoy llevando a cabo un estudio sobre la salud de los taxistas Hispanos del área de Atlanta. La información que obtengamos nos ayudará a identificar el estado de salud de los taxistas y a diseñar un programa de educación en salud para la comunidad. Toda la información que se obtenga, se mantendrá anónima y confidencial. Nadie, aparte de los investigadores de este estudio, sabrá la información que usted provea o su identidad.

¿Me podría permitir unos minutos de su tiempo para contestar unas cuantas preguntas? Usted se puede negar a contestar cualquier pregunta, o puede decidir discontinuar la entrevista en cualquier momento.

\_\_\_\_\_ Consiente con proseguir con la entrevista    Fecha de hoy \_\_\_\_\_

**A. Experiencia como taxista**

En esta primera parte, le haré unas preguntas relacionadas a su experiencia actual como taxista.

1. ¿En qué año comenzó usted a trabajar como taxista en el área de Atlanta? \_\_\_\_\_
2. Durante los pasados siete días, ¿cuántas horas realmente trabajó? \_\_\_\_\_
3. En los pasados 7 días (1 semana), ¿trabajó en un segundo trabajo además de trabajar como taxista?

\_\_\_ Si

\_\_\_ No

Si contesta que sí, ¿Cuántas horas en promedio trabajo en ese trabajo? \_\_\_\_\_

4. Durante los pasados siete (7) días, ¿cuál fue su turno de trabajo?

\_\_\_ Mayormente de día (de 8:00 a.m. hasta las 4-5 pm)

\_\_\_ Mayormente de tarde (4-5 p.m. hasta la medianoche)

\_\_\_ Mayormente el turno de la noche (de a medianoche hasta las 8 a.m.)

5. Mencione 3 cosas que usted disfruta de su trabajo como taxista.

5.1 \_\_\_\_\_

5.2 \_\_\_\_\_

5.3 \_\_\_\_\_

6. Ahora mencione aquello que usted no disfruta de su trabajo como taxista.

6.1 \_\_\_\_\_

6.2 \_\_\_\_\_

6.3 \_\_\_\_\_

**B. Salud y estilo de vida**

Ahora le haré algunas preguntas sobre su salud, estilo de vida, y como su trabajo como taxista se relaciona con su salud.

1. Usted diría que, en general, su salud es:

- a. Excelente
  - b. Muy buena
  - c. Buena
  - d. Regular
  - e. Mala
  - f. No se/No estoy seguro
  - g. Se negó
2. Ahora piense acerca de su salud física, la cual incluye enfermedades físicas y accidentes:  
¿Durante cuántos de los pasados treinta días no gozó de buena salud física?  
Número de días \_\_\_\_  
Ninguno \_\_\_\_  
No se/No estoy seguro \_\_\_\_  
Se negó \_\_\_\_
3. Ahora piense acerca de su salud mental, la cual incluye tensión, depresión y problemas emocionales: ¿Durante cuántos de los pasados treinta días no gozó de buena salud mental?  
Número de días \_\_\_\_  
Ninguno \_\_\_\_  
No se/No estoy seguro \_\_\_\_  
Se negó \_\_\_\_

**Las próximas preguntas son acerca de las limitaciones que usted puede tener en su vida diaria.**

4. ¿Está usted limitado en alguna manera en algunas actividades como resultado de algún impedimento o problema de salud?  
Si \_\_\_\_  
No \_\_\_\_  
No se/No estoy seguro \_\_\_\_  
Se negó \_\_\_\_
5. ¿Cuál es el impedimento o problema de salud significativo que limita sus actividades?
- a. Artritis/reumatoide
  - b. Problemas en la espalda o cuello
  - c. Fracturas, huesos/lesión en las articulaciones
  - d. Problemas al caminar
  - e. Problemas respiratorios o de los pulmones
  - f. Problemas de audición

- g. Problemas de visión
- h. Problemas con el corazón
- i. Problema de ataque cardiaco
- j. Hipertension/ alta presión
- k. Diabetes
- l. Cancer
- m. Depresión/ansiedad/problema emocional
- n. Otro problema
  - No sabe/No está seguro
  - Se negó

6-Durante los últimos siete días, ¿cuántas horas de trabajo perdió debido a sus problemas de la salud? *Incluya las horas que perdió por días de enfermedad, las veces que llegó tarde o se fue temprano, etc., por causa de sus problemas de la salud. No incluya el tiempo que perdió por participar en este estudio.* \_\_\_\_\_HORAS

7. Durante los últimos siete días, ¿cuánto afectaron sus problemas de la salud a su **productividad** mientras estaba trabajando? *Piense en los días en que estuvo limitado en cuanto a la cantidad o el tipo de trabajo que pudo realizar, los días que hizo menos de lo que hubiera querido o los días en los que no pudo realizar su trabajo con la dedicación habitual. Si sus problemas de la salud afectaron poco a su trabajo, escoja un número bajo. Escoja un número alto si sus problemas de la salud afectaron mucho a su trabajo.*

|   |  |  |
|---|--|--|
| Los problemas de la salud no afectaron a mi trabajo | 0   1   2   3   4   5   6   7   8   9   10 | Los problemas de la salud me impidieron completamente trabajar |
|---|--|--|

ENCIERRE EL NÚMERO EN UN CÍRCULO

8-Durante los últimos siete días, ¿hasta qué punto sus problemas de salud afectaron su capacidad para realizar las actividades diarias regulares, aparte de trabajar en un empleo? *Por actividades regulares nos referimos a las actividades usuales que realiza, tales como tareas hogareñas, compras, cuidado de los niños, ejercicios, estudios, etc. Piense en las veces en que estuvo limitado/a en la cantidad o la clase de actividad que pudo realizar y en las veces en las que logró hacer menos de lo que hubiera querido. Si sus problemas de salud afectaron poco sus actividades, escoja un número bajo. Escoja un número alto si los problemas de salud afectaron mucho sus actividades.*

|   |  |   |
|---|--|---|
| Los problemas de salud no afectaron mis actividades regulares | 0   1   2   3   4   5   6   7   8   9   10 | Los problemas de salud me impidieron completamente desempeñar mis actividades regulares |
|---|--|---|

ENCIERRE EL NÚMERO CON UN CÍRCULO

9. Durante los pasados 30 días, ¿por cuantos días se ha sentido preocupado, tenso o ansioso?

Número de días \_\_\_\_\_

Ninguno \_\_\_\_\_

No se/No estoy seguro \_\_\_\_

Se negó \_\_\_\_\_

10. En promedio, ¿Cuántas horas durmió usted cada noche durante las pasadas 4 semanas? ;  
Escriba el número de horas por noche \_\_\_\_\_

**¿Con cuanta frecuencia usted durante las pasadas 4 semanas .....**

(Haga un círculo en cada línea)

|   | Todo el tiempo<br>1 | Casi todo el tiempo<br>2 | Una Buena parte del tiempo<br>3 | Algunas veces<br>4 | Muy pocas veces<br>5 | Nunca<br>6 |
|---|---------------------|--------------------------|---------------------------------|--------------------|----------------------|------------|
| 11. ¿tuvo problemas para mantenerse despierto durante el día? |                     |                          |                                 |                    |                      |            |
| 12. ¿durmió las horas de sueño que necesitaba?                |                     |                          |                                 |                    |                      |            |

13. Durante los últimos 30 días, ¿aproximadamente cuántos días ha sentido usted que no descansó o durmió lo suficiente?

Número de días \_\_\_\_\_

Ninguno \_\_\_\_\_

No se/No estoy seguro \_\_\_\_

Se negó \_\_\_\_\_

14. Durante los últimos 30 días, ¿aproximadamente cuántos días se ha sentido usted muy sano y lleno de energía?

Número de días \_\_\_\_\_

Ninguno \_\_\_\_\_

No se/No estoy seguro \_\_\_\_

Se negó \_\_\_\_

15. ¿Piensa usted que su trabajo como taxista influencia su salud de alguna manera?

\_\_\_\_ Si pase a la pregunta 15.1

\_\_\_\_ No pase a la pregunta 16

15.1 ¿Cómo cree usted que ha influenciado su salud en general en el pasado año?

\_\_\_\_\_

\_\_\_\_\_

15.2 ¿Podría mencionar algunas cosas sobre su salud que han sido influenciadas positiva o negativamente en los pasados 30 días (4 semanas) por su trabajo como taxista?

\_\_\_\_\_

\_\_\_\_\_

16 ¿Tiene usted alguna cobertura de salud como seguro médico, planes pre-pagados como el HMO u otros planes de gobierno como el Medicare, o servicios de salud para los Indios Americanos?

Si \_\_\_\_

No \_\_\_\_

No sé \_\_\_\_

No estoy seguro \_\_\_\_\_

Se negó \_\_\_\_\_

17. Durante el pasado mes, aparte de su trabajo regular, ¿participó usted de alguna actividad física o algún ejercicio como correr, calistenia, golf, jardinería o caminar?

Si \_\_\_\_

No \_\_\_\_

No sé \_\_\_\_

No estoy seguro \_\_\_\_\_

Se niega a contestar \_\_\_\_\_

**C. Conductas de alimentación –Refiérase a la Lista de Frutas Y Vegetales**

a. Aparte de usted ¿Alguna otra persona decide lo que usted va a comer cuando está en el trabajo?

Sí \_\_\_\_ No \_\_\_\_ ¿Quién? \_\_\_\_\_

**D.** Ahora le haré algunas preguntas sobre su historial. Sus contestaciones se usarán con el solo propósito de clasificar a los participantes de estas entrevistas.

1. ¿Cuál es su edad?

Codifique los años \_\_\_\_\_

No se/No estoy seguro \_\_\_\_\_

Se negó \_\_\_\_\_

2. ¿Se considera usted hispano o latino?

\_\_\_ Si

\_\_\_ No

\_\_\_ Rehúsa contestar

Si contesta que si: ¿Es usted?

\_\_\_ Mexicano, mexicanoamericano, chicano

\_\_\_ Puertorriqueño

\_\_\_ Cubano

\_\_\_ De otro origen latino o hispano o español

Especifique \_\_\_\_\_

3. ¿Cuál de las siguientes dice usted que es su raza?:

\_\_\_\_\_ Blanco

\_\_\_\_\_ Negro o Afroamericano

\_\_\_\_\_ Indoamericano o nativo de Alaska

\_\_\_\_\_ Asiático

Indo asiático

Chino

Filipino

Japonés

Coreano

Vietnamita

Otro origen asiático

Isleño del Pacífico

51 Nativo de Hawái

Guameño o chamorro

Samoano

Otro isleño del Pacífico

Otro 88

No indica otras opciones

No sabe/No está seguro

Se niega a contestar

4 ¿Cuánto tiempo hace que vive en los Estados Unidos?

Los Estados Unidos: \_\_\_\_\_

En el área de Atlanta: \_\_\_\_\_

Nací aquí \_\_\_\_\_ (Marque solo si lo mencionan)

Si nació fuera de los Estados Unidos por favor indique su país de origen \_\_\_\_\_



5. ¿Cuál es el grado más alto que completó?:

- Nunca fui a la escuela o solo el kindergarten
- Grados del 1 al 8( Elemental)
- Grados del 9 al 11 (Algo de escuela superior)
- Grado 12 o su equivalente
- Colegio 1 a 3 años
- Colegio 4 años o más
- No lea
- Se negó

Menos de escuela superior

- Diploma de Escuela Superior o su equivalente (GED)
- Algunos cursos de colegio o un grado asociado (o su equivalente)
- Graduado de bachillerato
- Algunos cursos de post grado o un grado de maestría

6. ¿Cuál es su estado marital?:

- Casado
- Divorciado
- Separado
- Nunca me he casado
- Miembro de una pareja no casada \_\_\_\_\_
- Se negó

7. ¿Tiene usted niños menores de 18 años por los cuales es usted responsable financieramente?

- Sí
- No
- Sí contesta que sí: ¿Cuántos? \_\_\_\_

8. ¿Cuántos miembros de su familia viven con usted en la misma casa? \_\_\_\_\_

**Preguntas opcionales:**

Mencione tres cosas de su trabajo como taxista que contribuyen a tener una buena salud:

\_\_\_\_\_

Mencione tres cosas de su trabajo como taxista que contribuyen a tener problemas de salud:

\_\_\_\_\_

¿De dónde recibe usted información de salud?

\_\_\_\_\_

¿Quién toma las decisiones de salud en su casa?

\_\_\_\_\_

¿Qué programas de educación en salud o de servicios de salud ha utilizado en el pasado o está utilizando en el presente?

\_\_\_\_\_

¿Es su trabajo muy agitado? Sí \_\_\_\_ No \_\_\_\_

¿Es su trabajo psicológicamente demandante? Sí \_\_\_\_ No \_\_\_\_

¿Con cuánta frecuencia recibe usted información de parte de su supervisor o de sus superiores?

Todo el tiempo \_\_\_\_ La mayoría del tiempo \_\_\_\_ Algunas veces \_\_\_\_ Rara vez \_\_\_\_  
Nunca \_\_\_\_\_

¿Con cuánta frecuencia recibe usted ayuda y apoyo de sus compañeros de trabajo?

Todo el tiempo \_\_\_ La mayoría del tiempo \_\_\_\_ Algunas veces \_\_\_\_ Rara vez \_\_\_\_\_  
Nunca \_\_\_\_\_

C.

### Simple Consent Form

Before beginning the survey you will need to

1. Make sure you have the following tools
  - a. The survey form with 2 consent forms
  - b. A pen or two
  - c. A hard surface to write on or for the participant to write on
  - d. The confidential envelope where you will put the completed survey
  - e. A request form
2. Get consent form from the participant (signed form to be placed in the confidential envelope, it will be destroyed once the data collection is complete).
3. If they want a copy of the consent form they are signing, have them sign two consents, we will take one and they keep the other
4. Answer any questions the participant has about the consent or survey process

### Consent

As the surveyor, you will read through this consent and will witness their signature. If for any reason they are unable to write their name in any form they have two options:

- 1- Verbal consent: You ask them if they understand what you just read and you will write “verbal consent” on the signature line followed by your signature below on the witness line
- 2- They may mark it with an “X” you will also witness it

I know that my personal health information collected in this survey completed on this day:

- Is confidential and will not be shared on an individual basis
- Will be collected from many participants and presented in a report available to any interested person or group

It also know that the interviewer is not responsible for my health or for giving any recommendations regarding my healthcare. I am solely responsible for taking care of those needs.

Signed \_\_\_\_\_ day of \_\_\_\_ Month \_\_\_\_ Year

Witnessed by: \_\_\_\_\_ day of \_\_\_\_ Month \_\_\_\_\_

### Forma simple para obtener consentimiento

Durante la entrevista

Antes de comenzar la encuesta usted necesitara:

1. Asegurarse de que tiene los siguientes materiales
  - a. La encuesta con dos hojas de consentimiento
  - b. Uno o dos lapiceros

- c. Una superficie dura para poder escribir o para que el participante pueda escribir
  - d. Un sobre confidencial para guardar la encuesta terminada
  - e. La hoja de consentimiento
2. Obtenga la hoja de consentimiento del participante (la hoja firmada se guardara en el sobre confidencial, y será destruida una vez se obtengan los datos)
  3. Si el participante desea un acopia pídale que firmen dos hojas de consentimiento, una para el entrevistador y otra para el participante
  4. Conteste cualquier pregunta relacionada al consentimiento o al proceso de encuesta

#### Consentimiento

Como entrevistador, usted leerá el consentimiento en su totalidad y será testigo de la firma del participante. Si por alguna razón no pueden escribir sus nombres de alguna manera tienen dos opciones:

- 1- Consentimiento Verbal: Usted les preguntara si entendieron lo que les acaba de leer y usted escribirá “consentimiento verbal” en la línea de la firma y usted firmara en la línea subsiguiente en la línea para el testigo.
- 2- Ellos pueden marcar con una “X” y usted sera el testigo

Entiendo que mi información de salud personal obtenida en esta encuesta en este día:

- Es confidencial y no se compartirá de manera individual
- Se obtendrá de muchos participantes y se presentara en un reporte a todas las personas o grupos interesados

También se reconoce que el entrevistador no es responsable de mi salud o de proveerme ninguna recomendación relacionada a mi cuidado de salud. Yo soy el único responsable de esas necesidades.

Firmado \_\_\_\_\_ día del \_\_\_\_ Mes \_\_\_\_ Año  
Testigo: \_\_\_\_\_ día del \_\_\_\_ Mes \_\_\_\_ Año

D.

### **Focus Group Protocol**

- I. Introduction: Greetings; explain purpose of the session; fill out name cards; introduce observers; ground rules, and how the focus group works.
- II. Participant introductions: first names only, time working in the taxi driving industry;
- III. Brief discussion about how participants describe their jobs and working conditions
- IV. Group reviews the survey
- V. Participants provide feedback for the survey
- VI. Debrief wrap up: moderator summary, clarifications, and additional comments or questions.

### **Protocolo para un grupo de enfoque**

- I. Introducción: Saludos, explicar el propósito de la sesión, llenar tarjetas con nombres, presentar a los observadores, reglas de la reunión, explicación de como funciona el grupo de enfoque.
- II. Presentación de los participantes: solo se usara el primer nombre, tiempo trabajando como taxistas
- III. Breve discusión en donde los participantes describen su trabajo y las condiciones de su empleo
- IV. Revisión de la encuesta por parte del grupo
- V. Los participantes proveen recomendaciones acerca de la encuesta
- VI. Resumen de la experiencia, clarificar ideas, y contestar preguntas y/o comentarios.

E and F.

**Invitation**

Are you interested in your health ?  
We are looking to interview Hispanic taxi drivers about their work experiences in DeKalb County. The interview will last between 60 to 90 minutes.

For more information please call  
Edda Cotto-Rivera al 678-464-9897.  
Sponsored by Georgia State University

**Invitación**

¿Esta interesado en su salud?  
Estamos buscando entrevistar a taxistas hispanos acerca de sus experiencias trabajando en el Condado de DeKalb.  
(La entrevista durará entre 60 a 90 minutos).  
Para más información por favor comuníquese con Edda Cotto-Rivera al 678-464-9897.  
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