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Mental Health in a Colonia

Guadalupe Marquez-Velarde

University of Texas at El Paso, gmarquez6@miners.utep.edu

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MENTAL HEALTH IN A COLONIA

GUADALUPE MARQUEZ-VELARDE

Department of Sociology and Anthropology

APPROVED:

Sara E. Grineski, Ph.D., Chair

Maria Cristina Morales, Ph.D.

Kathleen Staudt, Ph.D.

Benjamin C. Flores, Ph.D.
Dean of the Graduate School

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2013

Dedication

I dedicate this thesis to my mother, Cecilia Velarde Marquez. Her courage, love and support have sustained me throughout my life. I love you Mom.

I dedicate this thesis to my sister Cecilia Ivette Marquez Velarde. Thank you for being a constant source of strength, love and laughter.

I would also like to dedicate this thesis to my godson Andres Rene Acosta Marquez. Andres, from the day you were born, my life is happier and brighter, thank you.

To my friends, thank you for enriching my life with your presence.

Finally, I dedicate this thesis to the people of Westway. Thank you.

MENTAL HEALTH IN A COLONIA

by

GUADALUPE MARQUEZ-VELARDE, B.A.

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Abstract

Mental health outcomes in *colonias* are the main focus of this thesis. They were examined in the *colonia* of Westway, which is an unplanned settlement in El Paso County with high poverty rates and adjacent to the Interstate highway, a steel plant and other polluting industries with a 97.3% Hispanic population (U.S. Census Bureau, 2010 Census). Data were collected through a door-to-door social survey in order to achieve three research objectives. In the first objective, I compared the prevalence of mental health outcomes in Westway and El Paso and found that the colonia residents do have significantly higher rates of negative mental health outcomes for 50% of the conditions tested. For the second objective, I drew from the environmental justice literature to examine the connection between environmental concerns and mental health outcomes in this low-income population and discovered that industrial concerns (e.g. accidental release of industrial chemicals, odors, smoke and fumes, noise and hazardous waste sites) were significantly related to increased stress and worry and psychological symptoms of distress in the last four weeks. Lastly, I assessed the relationship between features of Hispanic ethnic status (i.e., English language proficiency and nativity) and mental health outcomes and determined that higher acculturation does increase stress and worry, but does not have a significant effect on other mental health variables and that being born in the U.S. (as opposed to in another country) decreases the likelihood of developing mental illnesses within this low-income group. The findings of this study contribute to the understanding of the understudied topic of mental health outcomes among poor residents living in colonias.

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Chapter 1: Introduction and Literature Review

Colonias, which are unplanned settlements located along the US-Mexico border, face unique health challenges due to poverty, lack of access to health care, inadequate infrastructure, and environmental threats. The US-Mexico border is the area between San Isidro, California and Brownsville, Texas; it is 2,000 miles long and with a population of 12 million people, 80% of them are of Mexican origin and primarily Spanish speakers (Ramos et al., 2008). Along with its particular ethnic features, the border is “characterized by poverty and a lack of environmental controls” (Ramos et al., 2008, p. 345).

Westway is a *colonia* in El Paso County with a total area of 1.3 square miles and a population of 4,188 individuals. According to the American Community Survey estimates for 2011, the population is 97.3% Hispanic and has a median income of \$19,526 per year. Only 56.1% of Westway residents are in the formal labor force, mainly in service occupations, sales, construction, maintenance and transportation. 49.7% of the population lives below the poverty line and 29.2% has received public assistance. Westway is adjacent to the ArcelorMittal Vinton steel plant (better known by its previous name, Border Steel), and other polluting industries as well as to the Interstate highway.

The physical health of colonia residents, like those living in Westway, has been previously examined (e.g., Davidhizar and Bechtel, 1999; Ramos et al., 2008; Anders et al., 2010) and researchers have found significant public health challenges. However, the mental health of colonia residents remains largely understudied (see only Anders et al., 2010). In Westway, as in other colonia environments, there is a mix of conditions layered upon one another that contribute to a poor quality of life for residents and, as a consequence, potential higher rates of mental health issues. This study assessed (through the first research objective) the presence of a disparity in mental health outcomes in the environmentally threatened colonia of Westway when contrasted with El Paso city residents. By examining a potential disparity, we can assess “how different a specific group is from the overall population” (Villalobos and

Islas, 2012, p. 145), in this case the residents of Westway compared to the rest of the El Paso County residents.

Given the previously mentioned demographic and socioeconomic features and environmental hazards, Westway represents a classic case of environmental injustice. Environmental injustice occurs when a particular social group is disproportionately impacted by environmental hazards or risks (Brulle and Pellow, 2006). This study aimed to contribute to the environmental justice literature (through its second research outcome) by examining the relationship between environmental concerns and mental health outcomes in this Latino colonia population. This is relevant because Downey and Van Willigen (2005) argue that living near industrial activity impacts mental health because it creates a sense of disorder and powerlessness within the community, independently of the physical consequences that pollution might bring.

Additionally, the study (through its third objective) aimed to determine how features of Hispanic ethnicity might affect the prevalence of mental health issues in this population living in a contaminated community. For the purposes of this study, the prevalence rates of mental health issues and their symptomatology was examined within subgroups of Latinos. As a whole, Latinos, especially Mexican Americans, tend to have lower rates of psychiatric disorders (Alegria et al., 2008; Harris et al., 2005) than other racial/ethnic groups, but little is known about these illnesses in colonias.

1.1 SPECIFIC RESEARCH OBJECTIVES

This study of mental health in colonias has three research objectives centered in the case study of Westway, Texas.

Research Objective 1 (RO 1):

To examine if there is a mental health disparity between Westway and El Paso residents by comparing Westway's mental health outcomes with those of El Paso as recorded in the locally

representative survey titled “A Household Survey to Explore Health Disparity Domains on the US-Mexico Border”, a major pilot for the Hispanic Health Disparities Research Center (HHDRS) (Lapeyrouse et al, 2012).

Research Objective 2 (RO 2):

To assess a potential link between environmental concerns and mental health outcomes in Westway.

Research Objective 3 (RO 3):

To determine how features of Hispanic status, including nativity and language acculturation influence mental health outcomes in Westway.

1.2 COLONIAS AND HEALTH

Colonias are unincorporated and unregulated settlements along the United States-Mexico border, mostly located in Texas, although there are colonias in New Mexico and Arizona as well (Parcher and Humberson, 2009). They are located in the edges of urban centers, possess rural or urban characteristics, and vary in size, population density and community development trajectory (Nuñez, 2012). Colonias emerged in the 1960s due to accelerated industrial growth in the US-Mexico border region. Manufacturing jobs attracted individuals to the border, which created a lack of affordable housing. Laborers could afford inexpensive pieces of land in rural desert settings which lacked public infrastructure. In colonias, real estate developers target low-income individuals and promise services that they never deliver and in doing so, advance exploitation in the working class (Parcher and Humberson, 2009). The public health challenges in the colonias are many and some researchers call the living conditions closer to those of a Third World country and not proper for the richest nation on the planet (Davidhizar and Bechtel, 1999).

Colonias tend to lack basic community infrastructure such as paved roads, sewer system, electricity, gas, clean water and health care services (Ramos et al., 2008; Parcher and Humberson, 2009; Staudt, 1998). Environmental control, or the ability to have agency over the surrounding environment, is something most Americans take for granted. However, people in the colonias are aware of how little power they have over their environment and how government officials do not pay enough attention to their issues (Davidhizar and Bechtel, 1999).

The poor environmental conditions in colonias may be associated with the high rates of health conditions for residents. Underdevelopment and the presence of empty lots lead to the disposal of household and industrial waste (Nuñez, 2012), increasing the odds of health issues. Ramos and colleagues (2008) found that colonia residents in Cameron Park living close (less than ¼ mile) from a junk yard or dry cleaner had a significant higher risk of developing a respiratory illness than those living farther away. Proximity to a dry cleaning business doubled the risk of developing a respiratory illness; living close to a junkyard triplicated the risk. Their results support the notion that diseases associated with environmental conditions such as asthma, allergies, lung disease, diabetes, heart disease, and to a lesser extent skin's rashes in children, are prevalent in the colonia of Cameron Park (Ramos et al., 2008) and they are a widespread concern in all colonias. The lack of infrastructure and the poverty commonly observed in the colonias fosters the spread of diseases such as hepatitis, dysentery and tuberculosis (Parcher and Humberson, 2009).

Poverty also leads to food insecurity and poor nutritional health which causes obesity and diabetes; as such, the US-Mexico border region has some of the highest rates of obesity and diabetes (Sharkey et al., 2011) when compared to the rest of the United States. Chronic illnesses are highly prevalent in colonias as well. A health survey in the colonias near San Elizario, in El Paso County, found a prevalence rate of diabetes of 15.3%, which is twice the rate of that observed in El Paso County (6.9%). Additionally, 24% of respondents had hypertension, and 20.4% had elevated cholesterol

(Anders et al., 2010). Ramos and colleagues (2008) found that 21.9% of survey respondents in the Cameron Park colonia, located in East Texas, had at least one disease. In terms of mental health, Anders and colleagues (2010) found in San Elizario colonias that 20.4% of individuals older than 17 years old had been diagnosed with depression by a health care professional and 16.7% had been diagnosed with anxiety.

1.3 MENTAL HEALTH OF HISPANICS/LATINOS

According to the World Health Organization, mental health is defined as,

A state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community. In this positive sense, mental health is the foundation for individual well-being and the effective functioning of a community (as cited by Villalobos and Islas, 2012, p. 145).

Given that the majority of colonia residents are Hispanic/Latino, I will begin with a review of the literature on the mental health of Hispanics/Latinos. Most researchers have found that Latino immigrants have lower rates of mental disorders when compared to their U.S.-born counterparts (Abe-Kim et al., 2007) providing support for a Hispanic Health Paradox (also known as the epidemiological paradox). The Hispanic Health Paradox states that most Latino groups have lower socioeconomic status and lower access to health care, but better than expected health and mortality outcomes (Franzini et al., 2001). Results from the 2001-2003 National Surveys on Drug Use and Health (NSDUH) also demonstrate that Mexicans along with Central and South Americans, Blacks, and Asians show lower rates of psychiatric symptomatology than whites and American-Indian/Alaskan Natives (Harris et al., 2005).

Using two national-level surveys, Alegria and colleagues (2008) found that 43.2% of non-Latino whites reported any lifetime psychiatric disorder compared to 29.7% among Latinos. Specifically, U.S.-born whites have overall greater prevalence of all psychiatric disorders including major depression, dysthymia, panic, general anxiety, agoraphobia, social phobia, intermittent explosive disorder, posttraumatic stress disorder, and substance use disorders (abuse and/or dependence), except for

agoraphobia without panic, when compared to Latinos, both U.S.-born and immigrants (see Table 1.1). Likewise, most psychiatric disorders are more frequent in the U.S. than anywhere else in the world (Alegria et al., 2008), where one of every four adults, approximately 58 million Americans, experience mental illness in any given year according to the National Institute of Mental Health (Angelich, 2012).

Even though Hispanics have generally lower rates of mental health illness, the U.S. Department of Health and Human Services has identified four mental health disparities in minorities that apply to Hispanics, which include reduced access to mental health services, decreased likelihood to receive needed services, poor quality treatment and underrepresentation in mental health research (Villalobos and Islas, 2012). For instance, Hispanics main source of mental health care are primary care physicians rather than specialists such as psychiatrists, psychologists or other mental health professionals. According to the Surgeon General's Supplement, language, lack of Spanish-speaking mental health professionals and lack of insurance coverage are some of the barriers Hispanics encounter when in need of mental health services (Villalobos and Islas, 2012).

1.4 HISPANIC ETHNIC STATUS AND ITS IMPACT ON MENTAL HEALTH OUTCOMES

Several features of Hispanic Ethnic Status (HES) affect the development of psychiatric disorders. As identified in the literature, important features include nativity, acculturation, and comorbidities, which I address in this thesis. Country of origin, indigenous background and social isolation are additional features mentioned in the literature that I was not able to incorporate into my research, but which I will still briefly discuss in what follows.

1.4.1 Nativity and Country of Origin

Nativity and country of origin are important HES features which shape mental health outcomes. Most US-born Latinos have higher risk for all mental disorders than their foreign-born, immigrant Latino counterparts as observed in Table 1.1. This immigrant paradox is more salient among Mexican

immigrants than other origin groups. Mexican immigrants report lower levels of major depressive disorder, alcohol dependence and abuse, drug dependence and abuse, and any lifetime mental disorder than U.S.-born Mexicans. U.S.-born Mexicans have a 29.5% prevalence rate of any lifetime disorder (Alegria et al., 2008). As compared to other Latino groups, Puerto Ricans show the highest prevalence rates in several disorders and the lifetime prevalence is closer to non-Latino whites (37.4%) than to other Latino groups.

Table 1.1: Prevalence Rates of Psychiatric Disorders among U.S.-born Latinos and Latino Immigrants

<i>Disorder</i>	<i>U.S.-born Latinos</i>	<i>Latino Immigrants</i>
Major Depressive Disorder	18.6%	13.4%
Any Depressive Disorder	19.8%	14.8%
Social Phobia	8.5%	6.0%
Post-Traumatic Stress Disorder	5.9%	4.0%,
Any Anxiety Disorder	18.9%	15.2%
Alcohol Dependence	6.9%	2.8%
Alcohol Abuse	9.3%	3.5%
Drug Dependence	5.1%	1.7%
Drug Abuse	6.1%	2.2%
Any Disorder	37.1%	24.9%

Source: Alegria et al. (2008)

1.4.2 Acculturation

Acculturation is another element of HES that impacts mental health. Even though Latinos have lower rates of mental health disorders than non-Latino whites, acculturation to white middle-class norms makes them more prone to develop mental health disorders. There is a greater prevalence of mental disorders amongst long-term immigrants and English-speaking Latinos (English proficiency being a sign of acculturation) (Vega et al., 1998). While English-speaking is associated with higher rates of mental

illness, limited English proficiency (LEP) contributes to access to care disparities, and possibly under diagnosis, among minorities. A study using the 2001 California Health Interview Survey found that Latino and Asian individuals who did not speak English received needed mental health services at lower rates than proficient English speakers (Sentell et al., 2007), which reduced the likelihood of being diagnosed when showing mental illness symptoms.

1.4.3 Comorbidity

Comorbidity is also identified as a cause of depressive and anxiety disorders; suffering a chronic illness (e.g. diabetes) increases the likelihood of developing a mental health condition. I am classifying this issue under HES because Latinos show an early onset of comorbid conditions such as diabetes, kidney disease and hypertension, which are highly prevalent in the Latino population (Le Cook et al., 2011) and can often co-occur with depression (Jurkowski et al., 2010). Major depression has been linked to chronic illness, especially arthritis and heart disease (Dunlop, et al., 2004). Myocardial infarction also increases psychological distress and the odds of suffering depression (Boersma, et al., 2005). Overall, disability and illness have been associated with greater odds of anxiety (Vega et al., 1998). Unfortunately, Latinos tend to delay care for physical illnesses more than other ethnic groups due to low incomes and a lack of insurance coverage, which also might cause a deferment of mental issues diagnosis and treatment, adding to the burden of all conditions. But, if the person does seek care for physical health problems, he/she is more likely to receive physician recognition of depression and antidepressant treatment (if needed) than those who do not need (or seek) medical attention (Le Cook et al., 2011). For Latinos, greater exposure to the health care system because of comorbidities is an opportunity for diagnosis and treatment of psychiatric disorders and an opportunity to reduce the mental health disparities (Le Cook et al., 2011).

1.4.4 Indigenous Background

Indigenous background is also an HES feature that increases the likelihood of suffering from a mental health condition. A study in Fresno County, California found that among new immigrants, lifetime psychiatric disorders rates were higher among Mexican immigrants of indigenous background than among non-indigenous Mexicans. Mood disorders, substance abuse and drug dependence were twice as likely among indigenous people and dysthymia, an affective disorder, was five times more prevalent as well (Alderete et al., 2000). Researchers argue that those with indigenous background go through a double acculturation process. They first acculturate to non-indigenous Mexicans with whom they interact in a constant basis as roommates, neighbors and coworkers to later start another acculturation process to American society creating a double layer of chronic stress which can lead to the aforementioned disorders.

1.4.5 Social Isolation

Stress derived from social isolation could increase the likelihood of mental health problems among Latinos. Among immigrant Latinos, stress from family separation and feelings of social isolation were related to higher depression and anxiety symptoms in females while in males, anxiety and depression increased along with number of hours worked and feelings of marginalization (Hiott et al., 2006). In a study among rural and urban Mexican Americans in California, disrupted marital status was also found to double the odds ratio of mood disorders and drug abuse and dependence (Vega et al., 1998).

1.5 ENVIRONMENTAL JUSTICE

Colonias are inhabited by people of low socio-economic status and racial/ethnic minorities; they also tend to have hazardous physical environments (Ramos et al., 2008). Therefore, the concept of environmental injustice is important. To begin, environmental justice occurs when all people and

communities enjoy equal protection of their environment and public health and an environmental injustice takes place when a social group disproportionately bears the burden of environmental dangers (Brulle et al., 2006). Research shows that people of color, the poor and working-class individuals tend to live closer to sources of environmental hazards (Brulle et al., 2006; Downey et al., 2005).

Since the 1970s, a body of literature has been growing on the matter of environmental justice. One of the first well-known studies was conducted by the U.S. General Accounting Office (GAO) in 1983 where it was reported that African Americans in the U.S. South were living in proximity to waste sites in uneven numbers compared to Whites. That study was followed by the United Church of Christ Commission on Racial Justice study which also reported irregular placement of waste facilities according to racial demographics (Brulle et al., 2006). The evidence has continued to grow and has found that minorities and poor people are more likely to live closer to all sorts of environmental hazards including hazardous waste sites, air and water pollution, ambient noise, crowding and inadequate housing and public facilities (e.g. schools) (Brulle et al., 2006). Downey and Hawkins (2008), using a national, census tract-level data set, found African Americans and Hispanics lived in more environmentally hazardous census tracts than Whites. Some authors claim that communities with large numbers of minorities such as African Americans and Hispanics are consistently and consciously chosen for the location of polluting facilities (Brulle et al., 2006). For instance in 1990, minorities made up only twenty-five percent of the U.S. population but more than forty percent of minorities were living within a mile of a hazardous waste site (Mohai et al., 2007). Mohai and Saha (2007) found that nationally, the poor and minorities still live near to waste facilities in excessive numbers compared to more affluent, White communities, which adds a burden to their health outcomes. For instance, African Americans suffer disproportionately from asthma and respiratory diseases, cancer, lead poisoning, infant mortality and a lower life expectancy than the general population. Latinos also report higher numbers of asthma,

lead poisoning, and exposure to polluted water, pesticides, and mercury. Stomach, cervical and uterine cancers are also higher among Latinos than other groups (Brulle et al., 2006).

Along the US-Mexico Border, environmental injustices are highly prevalent due to social (i.e. poverty) and physical (i.e. semiarid climate) factors. Some high-profile examples of local environmental injustice include the ASARCO copper smelter and the Sunland Park landfill (Grineski and Juárez-Carrillo, 2012). In El Paso County, neighborhoods inhabited by low income residents and Spanish-speakers were at higher risk for exposure to cancer causing air toxics compared to neighborhoods with more affluent, English-speaking residents (Collins et al., 2012).

1.6 ENVIRONMENTAL CONCERNS AND MENTAL HEALTH

According to research on the stress process, the broader social context, such as living in a colonia, provides chronic stressors that can permeate the physical and psychological well-being of individuals. These chronic stressors “may impact health through psychological stress pathways, and the experience of psychological distress may be influenced by individuals’ perceptions” (Quinn et al., 2010, p. 285). Downey and Van Willigen (2005) argue that environmental stressors belong in the category of chronic stress sources and can have a long-lasting effect in the psychological well-being of industrial areas’ residents.

Researchers have found that environmental concerns negatively impact mental health outcomes. “Industrial activity is weakly but consistently correlated with disorder, depressive symptoms and powerlessness” (Downey and Van Willigen, 2005, pp. 298). Those living in areas near industrial activity reported higher depressive symptomatology, a sense of disorder and feelings of powerlessness in greater levels than those not living close to industrial facilities. The same has been observed among those living in areas with higher levels of waste (Downey and Van Willigen, 2005). Bullers (2005) studied residents living near industrial hog farms and found that living near these farms increased psychological distress and decreased perceptions of control. This is partly attributed to physical symptoms related to living

near the farms, including respiratory illness, sinus trouble and nausea. Rocha and colleagues (2012), in a national-level study in Spain using multivariate logistic regression models, found that individuals that perceive environmental issues (including noise, bad smells, poor water quality, dirty streets, pollution from nearby industries and lack of green areas) in their neighborhoods have higher prevalence of common mental disorders than those who do not experience those concerns. Portuguese researchers had similar findings. People living in industrial areas scored higher in depression and anxiety tests (Weir, 2012). The mental health outcomes of children exposed to pollution are also negative. While not related to environmental concerns, Perera and colleagues at Columbia University conducted a longitudinal study of children from 0 to 7 years old in New York and found that those who had been exposed to urban air pollutants while in utero were more likely to develop attention problems and depression and anxiety symptoms (as cited in Weir, 2012).

Recently, researchers have found evidence of cognitive damage in individuals exposed to both fine and coarse particle matter which are the result of both industrial and traffic sources. Conventionally, coarse particle matter is thought to be safer than fine particle matter but Weuve (cited in Weir, 2012) in a study with a sample of 19,000 women, found that older women who have been exposed to coarse particles have greater cognitive decline than women who have not been exposed in the same age category. Black carbon exposure (fine particulates), which is mostly caused by traffic, has also been found to reduce “cognitive performance, equivalent to aging by about two years” (as cited in Weir, 2012, p. 34) according to a study by Power and colleagues in Boston (as cited in Weir, 2012). Children are also vulnerable to the cognitive dangers of pollution in the form of brain inflammation and damaged prefrontal cortex and lower scores on memory, cognition and intelligence tests (Weir, 2012).

Given that EJ researchers have demonstrated that racial/ethnic minority groups disproportionately reside in hazardous neighborhoods, it is important to note that members of these groups are concerned about the environment and the effects it might have on their physical and mental

health. Jones and Rainey (2006) compared environmental concerns between Blacks and Whites in Clarksville, Tennessee. The authors argued that environment and concerns about environmental issues were believed to be a White issue, however they found that African Americans were far more concerned than Whites on a number of issues including empty lots, waste, pollution, and air and water quality. Black residents also believed they have suffered more health problems than Whites derived from pollution and that institutions have failed them in protecting their surroundings (Jones et al., 2006). In Detroit, Mohai and Bryant (1998) found that even though whites are more likely to be concerned about global environmental issues, African Americans are more likely to be concerned about environmental issues in their own neighborhoods.

In one of the only studies to examine environmental concerns of Mexican Americans, Williams and Florez (2002) studied perceptions related to water quality of Mexican Americans and non-Hispanic Whites in Tucson, Arizona. Mexican Americans, overall, had higher perceptions of risk than Whites (Williams and Florez, 2010). To my knowledge, no other study has been conducted on the environmental concerns of Mexican Americans.

1.7 STUDY CONTEXT: WESTWAY, TEXAS

The study will be conducted in the Westway colonia. Westway is one of the 321 colonias in El Paso County (Grineski and Juárez-Carrillo, 2012). In the colonia classification scheme developed by the Texas state legislature (see Table 1.2), Westway is at medium health risk as not all roads are paved (see Figure 1.1), some roads are not accessible in all weather and some areas flood during precipitation. First, 49.7% of Westway residents live below poverty levels. The median household income is \$19,526 and 19.1% of the households have an income of less than \$10,000 per year. 29.2% of the people received public assistance during the last twelve months. 56.1% of Westway residents are in the labor force mainly in service occupations, sales, construction, maintenance and transportation (ACS 5-year Estimates, Census Bureau, 2006-2010). They are likely to earn low wages and lack health insurance

coverage. 97.3% of people are Hispanic. 7% of Westway residents report speaking only English and 92% speak Spanish and English. Over 62% of Spanish-speakers speak English less than very well (ACS 5-year Estimates, Census Bureau, 2006-2010).

Table 1.2: Colonia Classification

<i>Degree of Health Risk</i>	<i>Classification Level</i>	<i>Criteria</i>
High Health Risk	Red	At least one of the following applies: 1. Either all or some lots have inadequate wastewater disposal (cesspools) 2. All lots do not have a potable water supply 3. Not platted.
Medium Health Risk	Yellow	Platted colonias with a potable water supply and adequate wastewater disposal, and at least one of the following: 1. Either all or some lots lack solid waste disposal (trash collection) 2. Not all roads are paved 3. Not all roads are passable in all weather conditions 4. It floods during a precipitation event.
Low Health Risk	Green	All of the following apply to all lots: 1. Platted 2. Have a potable water supply 3. Have adequate wastewater disposal 4. Have solid waste disposal 5. All roads are paved 6. All roads are passable in all weather conditions 7. Does not flood during precipitation.

Source: Parcher and Humberson, 2009.

Added to the social and ethnic challenges, Westway residents face environmental hazards. Just across interstate 10, there is Border Steel (now ArcelorMittal Vinton), a steel plant built in 1962 and acquired by ArcelorMittal in 2007 (see Figure 1.2). ArcelorMittal is the largest steel producer in the world according to Fortune 500 and was ranked #70 on a list of the world's largest corporations in 2012

(Global 500, 2012). In a USA Today special report entitled “The Smokestack Effect: Toxic Air and America’s Schools”, the only school located in Westway, Deanna Davenport Elementary School, which belongs to the Canutillo Independent School District, was ranked in the second percentile nationally in terms of bad air quality. Out of 127,809 schools examined across the U.S., only 1,153 schools have worse air quality than Deanna Davenport Elementary (USA Today, 2009). According to the report, the chemicals responsible for the pollution in the area are manganese, lead, cadmium, zinc and their compounds along with sulfuric acid. Zinc, lead and manganese can be traced back to Border Steel, according to the U.S. EPA’s Toxic Release Inventory database (RTKnet.org, 2010). Furthermore, the natural environment also poses challenges. Strong winds in the area provoke dust storms that not only spread dust from unpaved roads and lots, but also air pollutants (see Figure 1.3). Given the community’s socio-environmental conditions, it is not only appropriate but urgent to examine the mental health outcomes of residents.



Figure 1.1 Unpaved road in Westway, Texas



Figure 1.2 Arcelor Mittal Vinton – more commonly known by its former name of Border Steel



Figure 1.3 Empty lots and a dust storm in Westway, Texas

In this chapter I presented the three research objectives of the study as well as provided relevant literature on the topic. In the following chapter, I will present information on the data, variables and methodology of the three research objectives of the study.

Chapter 2: Methodology

2.1 SURVEY

Data for this study were collected through a door-to-door social survey. The survey instrument, called “Community-based Participatory Research: Health Outcomes in Westway Colonia”, was designed as part of a concurrent HHDRC-funded project led by Dr. Kathleen Staudt, and was administered, in English or Spanish, to one respondent over age 18 in each household.

The survey consisted of the four domains: 1) household members, education and languages, 2) house, neighborhood and social community, 3) work and income, and 4) health and health outcomes (see Appendix 1). In the first domain, respondents were asked about members of the household nativity, education, age, language used at home, level of English proficiency and ethnic identification. In the second domain, using a Likert scale, residents were queried about their level of concern with the accidental release of chemicals, odors, dust, smoke, waste sites and noise. This domain also contained questions about the level of satisfaction with the community, civic participation and voting patterns. The third domain asked about income, health insurance coverage of the household members and public assistance. The last domain was a health inventory of the household members. It covered respiratory illnesses (i.e. asthma, allergies, bronchitis, chronic sinus trouble, shortness of breath, etc.) as well as cancer, chronic ailments and mental health issues.

The questions on mental health were based on the Hispanic Health Disparities Research Center (HHDRC) Household Survey to Explore Health Disparity Domains on the US-Mexico Border (Lapeyrouse, et al, 2012) as well as questions from existing literature on mental health and neighborhood environment (Kasl and Harburg, 1975; Hill, Ross and Angel, 2005).

Physiological distress questions were obtained from Hill, Ross and Angel’s (2005) study on neighborhood disorder, psychophysiological stress and health. I added a physical symptomatology scale because certain cultural groups might tend to report physical symptoms in lieu of depression, anxiety

and/or stress (Harris, 2005). This means that I do not use the Center for Epidemiological Studies-Depression measure (CES-D) (Radlock and Locke, 1986) which is one of the most widely used instruments to measure depressive disorders. Its popularity resides in the fact that it eliminates physical symptoms that mimic depression. Some authors argue that removing physical symptoms could increase potential cultural bias because actual illness and somatization, the articulation of psychological distress through the body in the form of bodily sensations and amplified pain, might actually hide a real psychiatric condition (Vega, et al. 1991). This study uses a physical symptomatology scale to eliminate potential cultural bias.

2.2 DATA COLLECTION

Oscar Morales, a fellow research assistant and graduate student and I went door-to-door surveying residents between March and August 2012. Using county maps, we determined that there are 1120 lot units in Westway and so the households located in every ninth lot were asked to participate. If the residents were absent during the visit, we proceeded to ask the neighbors on the left side to participate. We contacted people at 127 households and 23 households declined to participate (rejection rate = 18.1%); one respondent withdrew before concluding the interview and the one non-Hispanic respondent was excluded. The final N is 102 Hispanic households. The participants of this study were relatively poor and had a mean per capita income of \$7,781 and a per capita median of \$5,833 which is significantly below the county per capita income of \$18,100 (ACS, 1-year estimate, 2011). The county per capita is already low compared to the state and national per capita income according to the 2007-2011 American Community Survey 5-year estimates (Texas per capita income = \$25,548 and United States per capita income = \$27,915).

2.3 VARIABLES OF INTEREST

2.3.1 Analysis Variables for Research Objective #1 (RO 1)

For research objective #1, I used the ten mental health items taken from the Household Survey to Explore Health Disparity Domains on the US-Mexico Border in both Westway and El Paso County (see Table 2.1). The first four items (have you ever experienced any of the following? 1) feeling stressed, 2) excess worry, 3) attempted suicide and 4) other mental health problems) are dichotomous variables coded 0=no and 1= yes. The remaining six items (5) Have you been nervous? 6) Have you felt depressed? 7) Have you felt calm and peaceful? 8) Did you have a lot of energy? 9) Did you feel tired? 10) Have you been happy?) are ordinal variables on a 5 item Likert scale.

Table 2.1 Variables used in RO 1

<i>Pooled Descriptive Statistics for Westway and El Paso County</i>						
Variable	Survey Question	Coding	Min.	Max.	Mean	St. Dev.
Stress	<i>Have you experienced stress?</i>	1=Yes; 0=No	0	1	.59	.492
Worry	<i>Have you experienced excess worry?</i>	1=Yes; 0=No	0	1	.40	.490
Suicide	<i>Have you attempted suicide?</i>	1=Yes; 0=No	0	1	.02	.149
Other Condition	<i>Have you experienced any other mental health problems?</i>	1=Yes; 0=No	0	1	.02	.137
Nervous	<i>In the last 4 weeks, have you been nervous?</i>	1=None of the time 2=A little of the time 3=Some of the time 4=Most of the time 5=All of the time	1	5	1.88	1.044
Depressed	<i>In the last 4 weeks, have you felt depressed?</i>	1=None of the time 2=A little of the time 3=Some of the time 4=Most of the time 5=All of the time	1	5	1.69	1.007
Calm	<i>In the last 4 weeks, have you felt calm and peaceful?</i>	1=None of the time 2=A little of the time 3=Some of the time	1	5	3.77	1.023

		4=Most of the time 5=All of the time				
Energy	<i>In the last 4 weeks, did you have a lot of energy?</i>	1=None of the time 2=A little of the time 3=Some of the time 4=Most of the time 5=All of the time	1	5	3.59	1.118
Tired	<i>In the last 4 weeks, did you feel tired?</i>	1=None of the time 2=A little of the time 3=Some of the time 4=Most of the time 5=All of the time	1	5	2.54	1.094
Happy	<i>In the last 4 weeks, have you been happy?</i>	1=None of the time 2=A little of the time 3=Some of the time 4=Most of the time 5=All of the time	1	5	4.03	.915

2.3.2 Mental Health Outcomes (Dependent Variables for RO 2 and RO 3)

I utilize 4 dependent variables in RO 2 and RO 3 (see Table 2.2). First, I created a “Stress and Excess Worry” variable, which is coded 1 if the respondent has experienced stress and/or excess worry and 0 if not. Second, I created a variable called “Mental Health Diagnosis,” which was constructed by combining four variables: diagnosis of depression, diagnosis of anxiety, attempted suicide and other mental health conditions. This variable is coded 0 if the person had none of the diagnoses and 1 if he/she had one or more diagnoses.

Third, I reduced the six symptoms at 4 weeks variables used in RO 1 (see Table 2.1) into one factor using PAF with Varimax rotation and all with an eigenvalue above 1.0. Three items (calm, energy and happy) were reverse coded to fix issues of directionality prior to reduction. The Kaiser-Meyer Olkin (KMO) for this scale is .810. All items loaded into one single factor: 5) have you been nervous? (.766); 6) have you felt depressed? (.849); 7) have you not felt calm and peaceful? (.740); 8) did you not have a lot of energy? (.566); 9) did you feel tired? (.611) and 10) have you not been happy? (.638). The factor is strong having more than three commonalities between .4 and .7. I call this factor “Mental 4 Weeks”. The variance explained by this factor is 57.209%.

Last, the seven items from the physical symptomatology scale were reduced using PAF with a Varimax rotation and each item had an eigenvalue greater than 1.0. The KMO for this scale is .836. All items loaded into one factor: faintness or dizziness (.513), nervousness or shakiness inside (.746), heart or chest pain (.706), nausea or upset stomach (.562), trouble catching your breath (.752), weakness (.655) and numbness or tingling in parts of your body (.649). The factor is called “Physical Symptoms 1 Week” in my tables and analyses. The variance explained by this factor is 53.569%.

Table 2.2 Dependent Variables for RO2 and RO3 (Mental Health Outcomes)

Variable	Survey Questions	Coding	Min.	Max.	Mean	St. Dev.
Stress and Excess Worry	<ul style="list-style-type: none"> ▪ <i>Have you experienced stress?</i> ▪ <i>Have you experienced excess worry?</i> 	0=No 1=Yes, stress, worry, or both	0	1	.59	.495
Mental Health Diagnoses	<ul style="list-style-type: none"> ▪ <i>Have you ever attempted suicide</i> ▪ <i>Have you experienced any other mental health problems?</i> ▪ <i>Have you ever been diagnosed by a doctor with depression?</i> ▪ <i>Have you ever been diagnosed by a doctor with anxiety?</i> 	0=No 1=Yes, 1 or more	0	1	.37	.484
Mental 4 Weeks	<i>In the past 4 weeks,</i> <ul style="list-style-type: none"> ▪ <i>Have you been nervous?</i> ▪ <i>Have you felt depressed?</i> ▪ <i>Have you not felt calm and peaceful?</i> ▪ <i>Did you not have a lot of energy?</i> ▪ <i>Did you feel tired?</i> ▪ <i>Have you not been happy?</i> 	Continuous	-1.402	2.187	.000	.934

Physical Symptoms 1 Week	<i>In the past week, how much have you been distressed or bothered by:</i> <ul style="list-style-type: none"> ▪ <i>Faintness or dizziness</i> ▪ <i>Nervousness or shakiness inside</i> ▪ <i>Heart or chest pain</i> ▪ <i>Nausea or upset stomach</i> ▪ <i>Trouble catching your breath</i> ▪ <i>Weakness</i> ▪ <i>Numbness or tingling in parts of your body</i> 	Continuous	-.712	3.09	.000	.924
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2.3.3 Environmental Concerns (Independent Variable for RO 2)

The eight environmental concerns items, originally measured using a Likert scale (Grineski, 2006) were reduced using principal axis factor (PAF) with a Varimax (orthogonal) rotation and each had an eigenvalue greater than 1.0. An examination of the KMO measure of sampling adequacy suggested that the sample for these items was factorable (KMO=.781). Two factors were extracted and only the first factor was used in the analysis because the second factor loaded fewer than three items which is considered a weak factor (Costello & Osborne, 2005). The items loaded in the first factor are concerns about: industrial chemicals (.787), odors (.639), smoke from Border Steel (.825), hazardous waste sites (.583), noise after 10 pm (.415) and fumes (.596). The item commonalities range from .4 to .8 which are good commonalities for social science data (Costello and Osborne, 2005). I call this factor “Industrial Concerns” (see Table 2.3) and the variance explained by this factor is 41.074%.

Table 2.3 Industrial Concerns Variables for RO 2

<i>Variable</i>	<i>Survey Questions</i>	<i>Coding</i>	<i>Min.</i>	<i>Max.</i>	<i>Mean</i>	<i>St. Dev.</i>
Industrial Concerns	<i>How concerned are you about:</i>	Continuous	-1.794	1.064	.000	.918

	<ul style="list-style-type: none"> ▪ <i>Accidental releases of industrial chemicals?</i> ▪ <i>Odors (smells) in your neighborhood?</i> ▪ <i>Smoke from Border Steel?</i> ▪ <i>Hazardous waste sites?</i> ▪ <i>Noise after 10 pm?</i> ▪ <i>Fumes from traffic?</i> 					
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2.3.4 Hispanic Ethnic Status (Independent Variables for RO 3)

For research objective #3, three Hispanic Ethnic Status variables were created (see Table 2.4). First, a reduction using PAF with Varimax rotation was made on the questions on language use in order to create a Language Acculturation scale (KMO=.661). The questions used were 1) What language(s) are spoken at home? (coded 1=Spanish only, 2=More Spanish than English, 3=More English than Spanish and 4=English only); 2) What language(s) do adults speak at home? (Coded 1=Spanish only, 2=More Spanish than English, 3=More English than Spanish and 4=English only); and the third question used in this reduction was 3) How well do adults in this household speak English? (Coded 1=Not at all, 2=Less than very well and 3=Very well). All items had an eigenvalue above 1.0 and all items loaded into one factor (language spoken at home (.925), language spoken by adults (.959), how well do adults in the household speak English (.623)). The factor name is “Language Acculturation” and the variance explained is 79.512%. Second, the place of birth of the respondent was recoded as US-born (0=no and 1=yes). Third, the variable Comorbidity was created in a similar fashion. If the respondent has a chronic ailment (i.e., diabetes mellitus, hypertension, kidney disease, myocardial infarction, heart disease or arthritis), it was assigned a value of 1=yes for one or more chronic conditions, and 0=no for those with no chronic conditions. This question about chronic illness was open-ended on the survey and the respondent was asked to provide the information without a list of pre-selected illnesses.

Table 2.4 Hispanic Ethnic Status Variables for RO 3

Variable	Survey Questions	Coding	Min.	Max.	Mean	St. Dev.
Language Acculturation	<ul style="list-style-type: none"> • <i>What language(s) are spoken at home?</i> • <i>What language(s) do adults speak at home?</i> • <i>How well do adults in this household speak English?</i> 	Continuous	-1.004	2.494	.000	.973
US-Born	<ul style="list-style-type: none"> • <i>Were you born in the US or born in Mexico /elsewhere? (Where?)</i> 	0=Foreign Born 1=United States	0	1	.38	.487
Comorbidity	<ul style="list-style-type: none"> • <i>Other Conditions for Respondent 1 (List)</i> 	0=No 1=Yes	0	1	.35	.480

2.3.5 Control Variables (Additional Independent Variables for RO 2 and RO 3)

The control variables for objectives #2 and #3 are Female, Insured and Life Events (see Table 2.5). “Female” is coded 0=no and 1=yes. In the survey, respondents were asked about health insurance and type of insurance. For the analysis, “Insured” was recoded as a dichotomous variable (0=no and 1=yes). A response of 1 can mean one of the following types of insurance: insurance through workplace, Medicare, Medicaid, Children’s Health Insurance Program (CHIP) and other foreign-country insurance. The last control variable is “Life Events” which accounts for respondents’ stressful experiences within the past year and includes divorce, loss of a loved one, loss of job and moving to another city or neighborhood. The variable is coded 0=no and 1=yes for one or more life events in the past year. Since only 4 of the 102 respondents’ households are over the county average for per capita income (El Paso County per capita income = \$18,100 [ACS, 1-year estimate, 2011]), socioeconomic status was accounted for by choosing to study only Westway (sample per capita income mean=\$7,781; median=\$5,833).

Table 2.5 Control Variables for RO 2 and RO 3

Variable	Survey Questions	Coding	Min.	Max.	Mean	St. Dev.
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Female	• <i>Respondents' gender</i>	0=Male 1=Female	0	1	.57	.498
Insured	• <i>Health insurance currently?</i>	0=No 1=Yes	0	1	.53	.501
Life Events	<i>Have you experienced any of the following events in the past year?</i> • <i>Divorce</i> • <i>Loss of a loved one</i> • <i>Loss of job</i> • <i>Move to another city/neighborhood</i>	0=No 1=Yes, one or more	0	1	.58	.496

2.4 METHODS

2.4.1 Methods for Research Objective 1

Research Objective #1: Examine the potential existence of a mental health disparity between Westway and El Paso.

Using the ten items taken from the Household Survey to Explore Health Disparity Domains on the US-Mexico Border (see Lapeyrouse, et al, 2012 for a discussion of the survey design and data collection), I tested for the existence of disparities between El Paso and Westway in the 10 mental health issues (see Table 2.1) using independent-sample t-tests to compare the means (which is the proportion of residents with the condition) in both Westway and El Paso County as a whole. Data from both the household and Westway surveys were merged in order to conduct the analysis and a variable was created in order to identify respondents from both sources (1=El Paso, 2=Westway). Seven individuals were excluded from the El Paso Household Survey data because they were located in Westway (El Paso= 994, Westway= 102, final N=1096). The hypothesis of this objective was that the social and environmental stressors in Westway would cause a greater prevalence of mental health issues than those observed in El Paso residents.

2.4.2 Methods for Research Objective 2

Research Objective 2: Assess a potential link between environmental concerns and mental health in Westway.

Analysis was conducted to estimate the magnitude of the relation between environmental concerns and mental health among this low-income group. Descriptive statistics were run in the statistical package for the social sciences (SPSS) to characterize results from the Industrial Concerns scale, the Mental Health diagnosis and Stress and Worry variables as well as the scales on Mental Health 4 Weeks and Physical Symptoms 1 Week (see Tables 2.2, 2.3 and 2.5). Then, I used cross tabulations and correlation to generate information about relationships between variables and the degree of these relationships. In the case of cross tabulations, I checked for the presence of five cases per cell; correlations were used to assess significant relations between variables and their level of significance in both objectives 2 and 3. There are four regression models in this objective that were used to assess the strength of the relationship between environmental concerns and mental health outcomes while accounting for the control variables. The first two are logistic regression models with the dependent variables 1) Mental Health Diagnosis and 2) Stress and Excess Worry. The other two models were OLS with the continuous dependent variables 3) Mental Health 4 Weeks and 4) Physical Symptoms 1 Week. I ran collinearity diagnostics (Variance Information Factors [VIF] and tolerance) in all models for research objectives 2 and 3. The control variables were Female, Insured and Life Events. The hypothesis for this objective was that individuals showing greater level of concern towards environmental threats will be more likely to have negative mental health outcomes.

2.4.3 Methods for Research Objective 3

Research Objective 3: Determine the relation between features of Hispanic status and mental health outcomes in Westway

The magnitude of the relation between Hispanic ethnic status (HES) and mental health outcomes in Westway was also assessed through four regression models, two logistic and two OLS with the same dependent variables mentioned above. The three HES variables used in the models were Language Acculturation, US-born and Comorbidities. The variable “Industrial Concerns” from RO2 was also added to these models as an additional control variable, the other control variables are the same as in objective #2. Descriptive statistics were run in SPSS (see Tables 2.2, 2.4 and 2.5); cross tabulations and correlations were also performed prior to regression analysis as described above.

Based on existing literature, it was hypothesized that being US-born, being highly language acculturated and having comorbidities will be associated with greater prevalence of mental health issues than being foreign born, Spanish speaking, and without a comorbid condition. I will not be considering other important HES features reviewed in the literature section (i.e., country of origin, indigenous status, and social isolation) because that information was not obtained in the survey process.

While the literature suggests other important control variables in a study of mental health, regression models for objectives 2 and 3 will include only the most important variables (already introduced) due to the limitation of having a small sample.

In this chapter I provided details about the survey instrument and the variables relevant to the study. I explained the statistical methods used to conduct analysis. In the following chapter, I will provide results of the three research objectives.

Chapter 3: Results and Analysis

The results are organized by specific research objective, each of which will be discussed in turn. I used independent samples differences of means *t*-test, bivariate correlations, logistic and OLS regression to analyze data.

3.1 RESULTS FOR RESEARCH OBJECTIVE 1

Research Objective 1: Examine the potential existence of a mental health disparity between Westway and El Paso

In general, Westway residents had significantly higher levels of mental health problems than did residents in El Paso County (who do not live in Westway). Westway shows significantly greater means for five variables out of ten variables measured. There was a significant difference in the occurrence of residents having ‘any other mental health condition’ between El Paso and Westway. Specifically, 2% of El Paso residents had a mental health condition while 5% of Westway residents had one and this difference was significant at the $p=.021$ level. There were similar results for four variables measured on a 5-point scale. The variable ‘have you been nervous in the past four weeks’ (mean 2.12) was significantly higher ($p=0.25$) higher than the El Paso mean (mean=1.86) which means that Westway residents reported higher levels of nervousness. In the variable ‘have you been depressed in the past four weeks’, Westway also had greater levels of depression (El Paso: mean=1.64, Westway: mean=2.15, $p<.001$). Likewise, the variables ‘did you have a lot of energy in the past four weeks’ (El Paso: mean=3.63; Westway: mean=3.24; $p=.001$), and ‘have you been tired in the past four weeks’ (El Paso: mean=2.52; Westway: mean=2.71; $p=.098$) show that Westway residents are less energetic and more tired than El Paso residents. The differences in means between the variables ‘respondent has experienced stress’, ‘respondent has experienced excess worry’, ‘respondent has attempted suicide’, ‘have you been calm in the past four weeks’ and ‘have you been happy in the past four weeks’ were not statistically significant (see Table 3.1).

Table 3.1 Independent Sample T-test Results for Research Objective #1

<i>Variable at the Individual Level</i>	<i>Location</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Std. Error Mean</i>	<i>Sig. (2-tailed)</i>
Respondent has experienced stress	El Paso CO.	994	.59	.491	.016	.504
	Westway	102	.56	.499	.049	
Respondent has experienced excess worry	El Paso CO.	994	.40	.490	.016	.945
	Westway	102	.40	.493	.049	
Respondent has attempted suicide	El Paso CO.	994	.02	.144	.005	.244
	Westway	102	.04	.195	.019	
Respondent has experienced any other mental condition	El Paso CO.	994	.02	.126	.004	.021
	Westway	102	.05	.217	.021	
Have you been nervous in the past four weeks	El Paso CO.	988	1.86	1.035	.033	.025
	Westway	102	2.12	1.102	.109	
Have you been depressed in the past four weeks	El Paso CO.	988	1.64	.976	.031	>.001
	Westway	102	2.15	1.181	.117	
Have you been calm in the past four weeks	El Paso CO.	988	3.77	1.027	.033	.932
	Westway	101	3.76	.991	.099	
Did you have a lot of energy in the past four weeks	El Paso CO.	985	3.63	1.115	.036	.001
	Westway	100	3.24	1.093	.109	
Have you been tired in the past four weeks	El Paso CO.	991	2.52	1.094	.035	.098
	Westway	102	2.71	1.077	.107	
Have you been happy in the past four weeks	El Paso CO.	983	4.05	.903	.029	.159
	Westway	102	3.91	1.016	.101	

3.2 RESULTS FOR RESEARCH OBJECTIVE 2

Research Objective 2: Assess a potential link between environmental concerns and mental health in Westway

In terms of research objective 2, the following statistically significant correlations were found.

Industrial concern scores ($p < 0.01$) and being a female ($p < 0.05$) were positively correlated and significant to stress and excess worry. Being a female and having experienced one or more life events within the past year were positively and significantly correlated ($p < 0.01$) with a diagnosis of mental health issues. Having symptoms of mental distress in the past four weeks was also significantly correlated with industrial concerns scores ($p < 0.05$) and being a female ($p < 0.01$) in a positive direction. Finally, females ($p < 0.01$) and individuals who experienced life events ($p < 0.05$) were positively and significantly correlated to experiencing physical symptoms of distress in the last week. See Table 3.2.

Table 3.2 Correlations for RO 2

Variables		Stress and Excess Worry	Diagnosis of Mental Health Issues	Mental 4 Weeks	Physical Symptoms 1 Week
Industrial Concerns	corr.	.284**	.169	.213*	.181
	Sig.	.005	.098	.038	.080
	N	98	97	95	95
Female	corr.	.237*	.378**	.276**	.278**
	Sig.	.017	.000	.006	.005
	N	102	101	99	99
Insured	corr.	-.165	-.025	-.073	-.087
	Sig.	.099	.803	.476	.394
	N	101	100	98	98
Life Events	corr.	.133	.364**	.408**	.253*
	Sig.	.183	.000	.000	.012
	N	102	101	99	99

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

In the logistic regression model predicting if the respondent has experienced Stress or Excess Worry (see Table 3.3), the Nagelkerke R Square (R^2) was .224. Industrial Concerns and Female were significant ($p < 0.05$) and positive in direction. A one unit increase in the Industrial Concerns scale (which is 1 standard deviation) leads to a 2.073 times increase in the odds of a respondent experiencing

stress and worry. Females are 3.219 more likely to experience stress and excess worry than are males. The Insured and Life Event variables did not approach statistical significance.

The R^2 was .418 for the model predicting if the respondent has been diagnosed with a mental health condition (see Table 3.3). Female and Life Events were significant and positive in direction. The odds of females being diagnosed with a mental health condition were 8.607 times greater than males. Individuals who have recently experienced one or more life events are 8.092 times more likely to be diagnosed too. Industrial concerns and insurance are near significance at the $p < 0.1$ level.

The adjusted R^2 for the OLS regression model predicting if the respondent had psychological symptoms of distress in the last four weeks is .267. Three variables, Industrial Concerns, Female and Life Events were significant at $p < .05$. For every unit increase in the Industrial Concerns scale, there is a .226 increase in the psychological symptoms scale. For females, there is an increase of .561 in the psychological symptoms scale when compared to males and a .715 increase in the symptoms scale for those who experienced one or more life events in the last year. The Insured variable did not approach significance. See Table 3.3.

For the model predicting if the respondent had physical symptoms of distress in the last week, the adjusted R^2 is .131. Two variables contributed significantly to the model at the $p < .05$, and these are Female and Life Events. Industrial Concerns is significant at the $p < 0.1$ level. Females and individuals who experienced one or more life events in the past year show an increase of .544 and .400 respectively, in the physical symptoms scale. A unit increase in the Industrial Concerns scale represents a .174 increase in the physical symptoms scale in the last week (see Table 3.3).

Table 3.3 Regression Models for RO 2

Results from a Logistic Regression Model Predicting if the Respondent has Experienced Stress or Excess Worry (n=102)				
<i>Variables</i> (<i>Industrial Concerns Model</i>)	<i>B</i>	<i>S.E.</i>	<i>Sig.</i>	<i>Exp (B)</i>

Industrial Concerns	.729	.260	.005	2.073
Female	1.169	.467	.012	3.219
Insured	-.391	.469	.405	.677
Life Events	.292	.468	.532	1.340

Nagelkerke R Square .224

Results from a Logistic Regression Model Predicting if the Respondent has been Diagnosed with a Mental Health Condition (n=101)

<i>Variables</i> (<i>Industrial Concerns Model</i>)	<i>B</i>	<i>S.E.</i>	<i>Sig.</i>	<i>Exp (B)</i>
Industrial Concerns	.472	.295	.110	1.604
Female	2.153	.571	.000	8.607
Insured	.745	.546	.172	2.107
Life Events	2.091	.591	.000	8.092

Nagelkerke R Square .418

Results from a OLS Model Predicting if the Respondent had Psychological Symptoms of Distress in the Last Four Weeks (n=99)

<i>Variables</i> (<i>Industrial Concerns Model</i>)	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>
Industrial Concerns	.226	.091	.221	2.476	.015
Female	.561	.165	.304	3.393	.001
Insured	.071	.167	.038	.424	.673
Life Events	.715	.169	.380	4.232	.000

Adjusted R Square .267

Results from a OLS Model Predicting if the Respondent had Physical Symptoms of Distress in the Last Week (n=99)

<i>Variables</i> (<i>Industrial Concerns Model</i>)	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>
Industrial Concerns	.174	.101	.169	1.726	.088
Female	.544	.184	.290	2.963	.004
Insured	.009	.187	.005	.048	.962
Life Events	.400	.186	.211	2.146	.035

Adjusted R Square .131

3.3 RESULTS FOR RESEARCH OBJECTIVE 3

Research Objective 3: Determine the relation between features of Hispanic ethnic status and mental health outcomes in Westway

The following statistically significant correlations were found in research objective #3. Stress and excess worry had significant and positive correlations with the variables language acculturation ($p < 0.05$), female ($p < 0.05$) and industrial concern scores ($p < 0.01$). Female and life events were positively and significantly correlated to a diagnosis of mental health condition at the $p < 0.01$. Symptoms of mental distress in the past four weeks were significantly correlated to comorbidity ($p < 0.05$), female ($p < 0.01$), life events ($p < 0.01$) and industrial concerns scores ($p < 0.05$) all in a positive direction. Lastly, females ($p < 0.01$) and individuals who experienced life events ($p < 0.05$) were positively and significantly correlated to experiencing physical symptoms of distress in the last week (see table 3.4).

Table 3.4 Correlations for RO 3

Variables		Respondent has experienced stress and excess worry	Diagnosis of Mental Health Issues	Mental 4 Weeks	Physical Symptoms 1 Week
Language Acculturation	corr.	.235*	.143	.116	-.039
	Sig.	.019	.158	.257	.701
	N	100	99	97	97
US-Born	corr.	-.149	-.131	-.119	-.087
	Sig.	.138	.195	.244	.394
	N	101	100	98	98
Comorbidity	corr.	.076	.180	.222*	.160
	Sig.	.448	.071	.027	.113
	N	102	101	99	99
Female	corr.	.237*	.378**	.276**	.278**
	Sig.	.017	.000	.006	.005
	N	102	101	99	99
Insured	corr.	-.165	-.025	-.073	-.087
	Sig.	.099	.803	.476	.394
	N	101	100	98	98
Life Events	corr.	.133	.364**	.408**	.253*

	Sig.	.183	.000	.000	.012
	N	102	101	99	99
Industrial	corr.	.284**	.169	.213*	.181
Concerns	Sig.	.005	.098	.038	.080
	N	98	97	95	95

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

In the logistic regression model predicting if the respondent has experienced stress or excess worry (see Table 3.5), the Nagelkerke R Square (R^2) was .375. Language Acculturation, US-born and Industrial Concerns are significant ($p < 0.05$) as well as Female ($p < 0.1$). A one unit increase in the Language Acculturation scale (with is 1 standard deviation) leads to a 2.309 times increase in the odds of a respondent experiencing stress and excess worry. Likewise, females are 2.601 times more likely to feel stressed and worried than males. A one unit increase in the Industrial Concerns scale results in a 2.540 times increase in the odds of a respondent experiencing stress and worry. US-born individuals are .76 times less likely to experience stress and excess worry than foreign born individuals. The Comorbidity and Insured variables are near significance at the $p=0.1$ level, Comorbidity in a positive direction and Insured in a negative one. The life event variable did not approach significance.

The R^2 is .470 for the model predicting a diagnosis of a mental health condition (see Table 3.5). Female and Life Events are significant ($p < 0.05$) as well as US-born and industrial concerns ($p < 0.1$). In the sample, females and those who experienced one or more life events in the past year are 6.959 and 8.044 times more likely to be diagnosed. A one unit increase in the Industrial Concerns scale leads to a 1.811 times increase in the odds of being diagnosed with a mental illness. US-born was negative in direction and these individuals were .66 times less likely to be diagnosed than foreign-born individuals. While Language Acculturation and Comorbidity were near significance and in the expected direction ($p < 0.1$), insurance did not approach significance.

The adjusted R^2 is .331 for the OLS regression model predicting if the respondent had psychological symptoms of distress in the last four weeks. Four variables, Comorbidity, Female, Life Events and Industrial Concerns were significant in the model at the $p < .05$ level. For individuals with a comorbid condition, there is a .439 increase in the psychological symptoms scale. For females, there is an increase of .508 in the scale when compared to males and there is an increase of .652 for those who experienced one or more life events in the last year. A one unit increase in the Industrial Concerns scale results in a .240 increase in the odds of being diagnosed with a mental illness. The Language Acculturation, US-born and Insured variables did not approach significance. See Table 3.5.

The adjusted R^2 is .130 for the model predicting if the respondent had physical symptoms of distress in the last week. Female, Life Events and Industrial Concerns were significant predictors in this model, $p < .05$. Females had a score on the physical symptoms scale that was .486 higher than males and those who experienced a life event also had an increase of .389 in the scale. A one unit increase in the Industrial Concerns scale resulted in a .203 increase in the physical symptoms scale. Language Acculturation, US-born, Comorbidity and Insured did not approach significance (see Table 3.5).

Table 3.5 Regression Models for Research Objective #3

Results from a Logistic Regression Model Predicting if the Respondent has Experienced Stress or Excess Worry (n=102)				
<i>Variable (Hispanic Ethnic Status Model)</i>	<i>B</i>	<i>S.E.</i>	<i>Sig.</i>	<i>Exp (B)</i>
Language Acculturation	.837	.313	.007	2.309
US Born	-1.429	.591	.016	.240
Comorbidity	.880	.588	.134	2.411
Female	.956	.517	.064	2.601
Insured	-.865	.554	.118	.421
Life Events	-.124	.532	.816	.883
Industrial Concerns	.932	.303	.002	2.540
Nagelkerke R Square .375				
Results from a Logistic Regression Model Predicting if the Respondent has been Diagnosed with a Mental Health Condition (n=101)				
<i>Variable (Hispanic Ethnic Status Model)</i>	<i>B</i>	<i>S.E.</i>	<i>Sig.</i>	<i>Exp (B)</i>

Language Acculturation	.412	.309	.182	1.510	
US Born	-1.052	.637	.099	.349	
Comorbidity	.952	.606	.116	2.591	
Female	1.940	.603	.001	6.959	
Insured	.619	.608	.309	1.857	
Life Events	2.085	.624	.001	8.044	
Industrial Concerns	.594	.321	.064	1.811	
Nagelkerke R Square .470					
Results from a OLS Model Predicting if the Respondent had Psychological Symptoms of Distress in the Last Four Weeks (n=99)					
<i>Variable</i>	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>
<i>(Hispanic Ethnic Status Model)</i>					
Language Acculturation	.084	.091	.087	.928	.356
US Born	-.230	.178	-.123	-1.288	.201
Comorbidity	.439	.179	.229	2.450	.016
Female	.508	.164	.275	3.100	.003
Insured	-.128	.170	-.070	-.755	.452
Life Events	.652	.167	.348	3.911	.000
Industrial Concerns	.240	.088	.235	2.711	.008
Adjusted R Square .331					
Results from a OLS Model Predicting if the Respondent had Physical Symptoms of Distress in the Last Week (n=99)					
<i>Variable</i>	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>
<i>(Hispanic Ethnic Status Model)</i>					
Language Acculturation	-.048	.103	-.050	-.470	.640
US Born	-.045	.203	-.024	-.223	.824
Comorbidity	.219	.209	.112	1.047	.298
Female	.486	.190	.261	2.557	.012
Insured	-.113	.198	-.061	-.572	.569
Life Events	.389	.192	.208	2.026	.046
Industrial Concerns	.203	.101	.200	2.005	.048
Adjusted R Square .130					

In this chapter I have utilized descriptive statistics, independent samples differences of means *t*-test, bivariate correlations, OLS and logistic regression to analyze and present findings from the data I collected through a social survey. I was able to identify several statistically significant results related to the research objectives of this study. Findings will be discussed in the next chapter.

Chapter 4: Discussion

My research project allowed me to gather and analyze data in Westway. In the following subsections, I will highlight important findings related to each research objective and discuss their relevance in light of previous literature.

4.1 RESEARCH OBJECTIVE 1

Research Objective #1: Examine the potential existence of a mental health disparity between Westway and El Paso

The most important finding for this objective is a clear presence of a mental health disparity in Westway. Its residents reported higher rates of self-reported mental health conditions, nervousness, depression, lack of energy and tiredness than did El Paso residents. Additionally, 27.5% of Westway residents have been diagnosed with depression and 24.8% have been diagnosed with an anxiety disorder contrasted with the 17.5% of individuals over 18 with any mental illness in Texas and the 19.8% of people with any mental illness in the United States, according to a Substance Abuse and Mental Health Services Administration (SAMHSA) 2012 report (n.p.). Westway residents also showed greater rates of diagnosed mental health conditions than the residents of the San Elizario colonias as reported by Anders, et al. (2010). Added to the already difficult living conditions they face, these symptoms left untreated can create unnecessary disability and further their economic burden (Angelich, 2012), exacerbating inequality.

Echoing the mental health literature on Hispanics, the residents of Westway face a lack of access to adequate mental health care services. While not discussed in Chapter 3, only 75% of individuals with a diagnosed condition receive mental health care. Of those receiving care, 70% receive care from their primary care physician and 56% take a medication. Only 7% has seen a specialist and 17% are undertaking some type of psychotherapy. This reliance on primary care for mental illnesses is consistent with the finding that Hispanics are less likely to receive specialty mental health care (Villalobos and Islas, 2012).

Coping with the high rates of mental health challenges in Westway is made more difficult by the fact that many residents lack access to transportation. Being in a community with high poverty levels and a significantly smaller per capita income than the County, many residents do not have reliable sources of transportation. The underdeveloped nature of the community means that the residents do not have the option of public transportation. The closest bus stop according to many residents I spoke with during the surveys is located at a Wal-Mart some seven miles away from Westway. Therefore, for many people, it is very difficult to access resources outside of the colonia even as the Emergence Health Network of El Paso Center for Mental Health and Intellectual Disabilities has worked to expand mental health care services in the county.

Westway residents' most proximate source of health care services is La Fe Clinic. The clinic is part of the Centro de Salud Familiar La Fe Inc. a non-profit organization dedicated to provided health care to underserved individuals in El Paso County. The services provided at La Fe are many and residents receive these services at affordable prices, which are determined according to socioeconomic status. However, they do not have a mental health specialist and psychiatry is not included in their list of specialty referrals according to their website; this likely contributes to the low rates of specialist care accessed by Westway resident with mental health concerns.

The lack of access to specialty mental health care is not exclusive to Westway. A report commissioned by Texas State Senator Eliot Shapleigh stated that in most Border counties, less than half of the population in need of mental health services is served. For instance El Paso County has 823 mental health professionals (only 27 psychiatrists), 107 for every 100,000 people (Villalobos and Islas, 2012). The lack of professionals, let alone Spanish-speaking ones, combined with a lack of insurance coverage as well as language and other cultural barriers makes it very difficult for individuals to obtain needed care.

Furthermore, at the state level, the National Association for Mental Illness (NAMI) (2009) reports that Texas' mental health care system faces multiple challenges. According to NAMI, Texas is "ranked at the very bottom of all 50 states in treatment dollars per capita" (Angelich, 2012) even though more than 800,000 individuals suffer a mental illness in the state. In 2006, NAMI gave Texas system a

C grade. Three years later, the grade dropped to a D. The reason for the system's decline is a lack of funding comparable to the state's population, which is the second highest in the nation. Additionally, there is a shortage of staff, inferior training and inadequate data recording which makes it difficult to track progress of programs (NAMI, 2009). Even though Texas is home to a large foreign born population, it has been deemed by NAMI (2009) as "extremely deficient in cultural competence" (n.p.).

Texas administers mental health services through contracts with local mental health authorities and NorthSTAR, which is part of the Medicaid services unit (NAMI, 2009). The current governor of Texas, Rick Perry, is strongly opposing the Medicaid expansion mandate of the Affordable Care Act which passed in Congress in 2010 (Staudt, et al., 2013) and was upheld by the Supreme Court in 2012. Failure to expand Medicaid can have a negative effect in thousands of uninsured individuals including mental health patients in great need of services.

Currently, Dr. Susan Stone is leading the effort to propose updates to the Texas Mental Health Code, which contains general provisions to provide mentally ill individuals with access to care and treatment, and which has not changed since 1985. In order to elaborate a legislative proposal that fits the needs of Texas' communities, Stone has hosted more than 40 community forums to listen to the general public's input. The movement, possible thanks to a Hogg Foundation for Mental Health 2-year grant, could affect legislation on how mental health is defined and treated in the state (Angelich, 2012). Failing to address the state's subpar mental health care system and its decline could have consequences in many levels. First, it reduces the quality of life of hundreds of thousands of individuals who live with a treatable condition as if it were a permanent disability. Second, untreated mental health illness represents an important economic issue. It costs the United States one hundred billion dollars a year. Third, it is an additional burden for the criminal justice system. 20% of individuals in Texas' prisons have a form of mental illness and there are more mentally ill individuals imprisoned, mostly for nonviolent crimes, than in hospitals in the state (Angelich, 2012). This not only adds pressure to the system but contributes to criminalization of illness and greater stigma for individuals with a mental condition.

4.2 RESEARCH OBJECTIVE 2

RO2: Assess a potential link between environmental concerns and mental health in Westway

It is important to highlight in this objective that higher scores on the industrial concerns scale are significant predictors of experiencing stress and excess worry as well as showing symptoms of psychological distress in the past four weeks for low-income Westway residents. This is consistent with previous findings in the study of the relationship between environmental concerns and mental health (Downey and Van Willigen, 2005; Rocha, et al, 2012). The presence of environmental concerns increased the likelihood of stress, anxiety, and psychological distress in Westway. Given the socioeconomic conditions of the community, the increased stress and worry could be attributed to a lack of resources to deal with the potential health repercussions of pollution (Bullers, 2005) and it may relate to residents not having the choice to move to a less threatened environment. However, heightened industrial concerns did not predict an actual diagnosis, which could signify that, to date, the stress and anxiety has not translated into increased diagnosis of mental health disorders.

Unfortunately, Texas is a state open for business with lax industrial and environmental regulation (Staudt, et al. 2013), which could cause continued environmental concerns for residents. One recent example of the consequences of lack of regulation could be observed on April 17, 2013 when a fertilizer plant exploded in West, Texas killing fourteen people and injuring over two hundred. The event has raised the issue of the lack of regulations in the state calling it time “for this pathological avoidance of oversight to end in Texas” (Minutaglio, 2013, n.p.). However, positive change and increased regulation might be unlikely to happen as the state leaders often side with businesses and prioritize their needs over the “health and lives of ordinary citizens” (Staudt, et al. 2013, n.p.).

Westway residents have joined efforts with community organizations to address environmental issues in their community. They have participated with the Texas Industrial Areas Foundation (IAF) in El Paso to affect policy in a number of issues including environmental health. The newer IAF group in the region, Border Interfaith (BI) has worked with leaders in the colonias in the northwestern region of the county to make the Texas Commission on Environmental Quality (TCEQ) aware of their environmental concerns. After several years of pressure, TCEQ has increased their oversight, albeit in a small scale (e.g., additional hours per year), of ArcelorMittal Vinton, one of the industries surrounding

Westway. Even though the oversight increased, TCEQ also allowed ArcelorMittal to increase their emissions by 400% in 2010 (Staudt, et al. 2013). In a state that values profit over people's well-being including their mental health and the environment, it is valuable to know that, unfortunately, the environmental concerns of Westway residents do play a role in their mental health outcomes.

In this objective (as well as in objective 3), being a female was also correlated and a significant predictor of all dependent variables: stress and excess worry, mental health diagnosis, and psychological and physical symptoms of distress. This means that poor women in this colonia, like other women, are more likely to experience mental health challenges. In the US, women have higher rates than men of major depressive disorder, anxiety disorders, posttraumatic stress disorder, and eating disorders (Office of the Surgeon General, 2006). Females account for 81% of the individuals with mental health issues in Westway. Even though biological factors (i.e. brain structure and hormones) might influence the differences in rates, social and environmental factors also play an important role especially in a community with the characteristics and the low access to resources predominant in Westway. Females in Westway face significant challenges in providing for their families and worrying over the well-being of their families could also intensify their concerns about their surroundings. The environmental concerns added to the socioeconomic issues could significantly raise their odds of sustaining a mental illness (Ayon, et al., 2010; Jurkowsky, et al., 2010).

Life events were also relevant. They are significant predictors of, and correlated with, diagnosed mental illness and physical symptoms of distress. Life events "lead to stress by adversely altering the meaning of persistent life strains" (Pearlin, et al., 1981, p. 339). The conditions of social marginality in Westway added to isolated events such as family losses could make residents more vulnerable to mental illness.

4.3 RESEARCH OBJECTIVE 3

RO3: Determine the relation between features of Hispanic ethnic status and mental health outcomes in Westway

The relationships between the Hispanic Ethnic Status variables and mental health were generally mixed. I found that higher scores in the language acculturation scale predicted experiencing increased stress and excess worry in the Westway sample. Even though this finding seems consistent with the literature that establishes that greater acculturation produces higher rates of mental illness (Vega et al., 1998), there is no evidence in this study that language acculturation significantly predicts an actual diagnosed mental illness. Comorbidity was a significant predictor of psychological symptoms of distress in the past four weeks, but it did not predict a diagnosed mental illness as established in the literature; thus providing only partial support for previous findings that establish a strong relationship between chronic illness and mental health disorders (Lesperance and Frasure-Smith 2000; Afari et al. 2001; Anderson et al. 2001; de Groot et al. 2001; Thomas et al. 2003 as cited in Le Cook, 2011).

Being born in the United States is associated with less stress and excess worry and a reduced likelihood of a diagnosis of a mental health issue (the latter was less significant at the $p > .1$ level) which is unexpected and runs counter the literature which states that individuals born in the United States are more likely to develop mental illnesses (Abe-Kim et al., 2007; Harris, et al., 2008; Alegria, et al., 2008) when compared to their foreign-born counterparts. However, these studies did not examine excess stress and worry specifically. The association between being foreign-born and higher levels of stress and worry could be attributed to the fact that Westway is located near the US-Mexico border and that there is the constant presence of law enforcement and border protection officials in the whole county especially in the areas closer to the border. This could cause stress and concern for foreign-born residents, especially those that are unauthorized, but not for US-born individuals. US-born individuals might have a greater sense of agency due to legal status and access to resources that cannot be accessed by the undocumented. This hypothesis could be investigated in future research.

An important finding in this objective is that the industrial concerns variable was significant in all regression models and accounting for Hispanic Ethnic Status (HES) allowed for the industrial concerns findings to emerge more significantly than when considered alone in research objective 3. The statistical significance of industrial concerns alongside HES indicators, provides support to the notion that the concerns of residents in minority communities such as Westway have over neighborhood-scale environmental issues have measureable effects on their mental health independent of their ethnic status (as has been found elsewhere: Jones and Rainey, 2006; Mohai and Bryant, 1998).

Being female was again a significant predictor of all dependent variables, as in research objective #2; females were much more likely to experience mental health problems. Individuals who went through a negative event within the last year also had an increase in the likelihood of having mental health symptoms and an actual diagnosis.

In this chapter I have discussed the study findings as well as some of their implications in a greater context. In the next chapter, I will conclude discussing the limitations of the study as well as providing recommendations for future research in the area of mental health, ethnicity and environment as well as shed some light on how communities like Westway have fought hard to improve their quality of life and could apply similar strategies to the aforementioned issues.

Chapter 5: Conclusion

5.1 SUMMARY

There are several key findings in this study. First, individuals in the colonia of Westway did have a greater prevalence of negative mental health outcomes when compared to the individuals of the city of El Paso. Their rate of diagnosed mental illness was also greater than those found at the state and national level. Secondly, industrial concerns do have a relationship with poor mental health as observed in the second research objective and in the models run for the third objective, which also account for Hispanic Ethnic Status. Third, females' likelihood of developing stress and excess worry, having psychological and physical symptoms of distress and being diagnosed with a mental health condition is much greater than males. This is a relevant finding when targeting the delivery of mental health services. Finally, language acculturation predict greater stress and excess worry while US-born individuals in our sample had a decrease likelihood of stress and excess worry, contradicting previous findings for US-born Latinos and mental health.

5.2 DIRECTIONS FOR FUTURE RESEARCH AND LIMITATIONS

The physical health impacts to life in the colonias has been largely studied (e.g., Davidhizar and Bechtel, 1999; Ramos et al., 2008; Anders et al., 2010). Scholars know individuals in these communities have issues of water access, food insecurity, chronic illness and lack of adequate health care services. It is also known that colonias, populated mostly by minority groups, are targets of environmental injustice due to lack of infrastructure and industrial regulation in their vicinities (Downey et al., 2005; Brulle, et al., 2006; Mohai, et al., 2007). Despite their numerous challenges, their mental health has remained understudied. Mental illnesses can be debilitating and create a disability. It also furthers risk for physical illness complications and facilitates a greater economic decline (Angelich, 2012). More mental health research is needed in these communities to analyze the impact of their living conditions and advocate the delivery of needed services that can significantly improve their quality of life. It is also important to stress that research conducted in colonias like Westway might also be applicable to communities with

similar socio-environmental characteristics such as rural, relatively isolated, low socioeconomic status settings and research findings could prove useful to understanding the mental health outcomes of these communities.

Research is needed to learn more about the stress and excess worry outcome related to both environmental concerns and Hispanic Ethnic Status. Even though their rate of diagnosed mental illness is greater than the state and national rate, environmental concerns and HES variables did not significantly predict diagnoses of mental illnesses; therefore it would be interesting to explore other sources of psychological distress in communities like Westway.

This study has some limitations. The main limitation is the small sample size. A larger sample could allow for more sophisticated statistical analysis. That could bring forth more information on mental health of residents in colonias. Secondly, the information used in this study derives from a larger study focused on a number of issues. A more detailed and specialized instrument, such as a combination of widely used measures in the mental health field, could also be beneficial to learn more on the topic. Third, even though self-reported health studies are very common, large scale studies to measure cognitive performance, like the studies carried out by Calderon-Garciaadueñas in Mexico City (as cited in Weir, 2012) could provide more definitive evidence of the effects of pollution on the human brain. Similarly, I think studies combining self-reported health measures and air or water quality monitoring could provide more definitive data on environmental health outcomes. Last, studies with Hispanics of diverse backgrounds (e.g., including those from various countries of origin and those with indigenous backgrounds) could also provide more information on how ethnicity impacts mental health outcomes.

5.3 PRACTICAL IMPLICATIONS

Even though Westway and other colonias' prospects of obtaining better mental health care services and higher regulation of their neighborhoods' environment are unlikely, colonia residents have had a precedent of organizing for positive change. Neighbors in colonias have gotten together and organize successful collaborations to acquire needed services and make their voices heard in the ever-

complicated political scene (Nuñez, 2012). Water, sewer and access to health have been obtained in numerous colonias through grassroots organizing creating social cohesion and investment in the collective well-being in the process. In El Paso, the Texas Industrial Areas Foundation (IAF) and its affiliated groups like El Paso Interreligious Sponsoring Organization (EPISO) and Border Interfaith (BI) have worked tirelessly with colonia residents to build leaders and advocates for their causes (Staudt, et al. 2013). Political participation in marginalized communities tends to be low. In Westway, 21% of the residents participate in an organization (including attending church), 8% know the name of their county commissioner and 12% have contacted or met with a representative (of any level). Increased community participation gives residents in these communities increased political efficacy and the sense that they can generate positive change (Staudt, et al. 2013).

Even though participation in Westway might be currently low, they have accomplished impressive things in the past like bringing services to their colonia (water, sewer, better monitoring of the steel plant, some streets are currently being paved, etc.) and I believe they can catalyze more positive change for their communities, their families and themselves.

References

- Abe-Kim, J., Takeuchi, D.T., Hong, S., Zane, N., Sue, S., Spencer, M., Appel, H., Nicdao, E. and Alegria, M. (2007). Use of Mental Health-Related Services among Immigrants and US Born Asian Americans: Results from the National Latino and Asian American Study. *American Journal of Public Health*, Vol. 97, No. 1, pp. 91-98.
- Alderete, E., Vega, W.A., Kolody, B. and Aguilar-Gaxiola, S. (2000). Effects of Time in the United States and Indian Ethnicity on DSM-III-R Psychiatric Disorders among Mexican Americans in California. *The Journey of Nervous and Mental Disease*, Vol. 188, No. 2, pp. 90-100.
- Alegria, M., Canino, G., Shrout, P.E., Woo, M., Duan, N., Vila, D., Torres, M., Chen, C. and Meng, X. (2008). Prevalence of Mental Illnesses in Immigrant and Non-Immigrant U.S. Latino Groups. *American Journal of Psychiatry*, Vol. 165, No. 3, pp. 359-369.
- Alegria, M., Mulvaney-Day, N., Woo, M., Torres, M., Gao, S. and Oddo, V. (2007). Correlates of Past-Year Mental Health Service among Latinos: Results from the National Latino and Asian American Study. *American Journal of Public Health*, Vol. 97, No. 1, pp. 76-83.
- American Psychiatric Association. (2000). Diagnostic and Statistical Manual of Mental Disorders (Revised 4th ed.). Washington, DC.
- American Psychological Association. (2012). Understanding Chronic Stress. Retrieved from <http://www.apa.org/helpcenter/understanding-chronic-stress.aspx>
- Anders, R.L., Olson, T., Robinson, K., Wiebe, J., DiGregorio, R., Guillermina, M., Albrechtsen, J., Bean, N.H., Ortiz, M. (2010). A Health Survey of a Colonia Located on the West Texas, US/Mexico Border. *Journal of Immigrant Minority Health*, Vol. 12, pp. 361-369.
- Angelich, Z. (2012, January 15). The Toll of Mental Illness. *Austin American-Statesman*. Pp. D1, D8.
- Ayon, C., Marsiglia, F.F. and Bermudez-Parsai, M. (2010) Latino Family Mental Health: Exploring the Role of Discrimination and Familismo. *Journal of Community Psychology*, Vol. 38, No. 6, pp. 742-756.
- Boersma, S.N., Maes, S. and Joekes, K. (2005). Goal Disturbance in Relation to Anxiety, Depression and Health-Related Quality of Life after Myocardial Infarction. *Quality of Life Research*, Vol. 14, No. 10, pp. 2265-2275.
- Brulle, R. J. and Pellow, D.N. (2006). Environmental justice: Human Health and Environmental Inequalities. *Annual Review of Public Health*, Vol. 27, pp. 103-124.
- Bullers, S. (2005). Environmental Stressors, Perceived Control, and Health: The Case of Residents Near Large-Scale Hog Farms in Eastern North Carolina. *Human Ecology*, Vol. 33, No. 1, pp. 1-16.
- Collins, T., S. Grineski, J. Chakraborty, and *Y. McDonald. (2011). Understanding

Environmental Health Inequalities through Comparative Intracategorical Analysis: Racial/Ethnic Disparities in Cancer Risks from Air Toxics in El Paso County, Texas. *Health & Place*, Vol. 17, No. 1, pp. 335-344.

Costello, A.B. and Osborne, J.W. (2005). Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most from your Analysis. *Practical Assessment, Research and Evaluation*, Vol. 10, No. 7, pp. 1-9.

Davidhizar, R. and Bechtel, D.A. (1999). Health and Quality of Life within Colonias Settlements along the United States and Mexico Border. *Public Health Nursing*, Vol. 16, No. 4, pp. 301-306.

Downey, L. (2006). Environmental Racial Inequality in Detroit. *Social Forces*, Vol. 85, No. 2, pp. 771-796.

Downey, L. and Hawkins, B. (2008). Race, Income and Environmental Inequality in the United States. *Sociological Perspectives*, Vol. 51, No. 4, pp. 759-781.

Downey, L. and Van Willigen, M. (2005). Environmental Stressors: The Mental Health Impacts of Living near Industry Activity. *Journal of Health and Social Behavior*, Vol. 46, No. 3, pp. 289-305.

Dunlop, D.D., Lyons, J.S., Manheim, L.M., Song, J. and Chang, R.W. (2004). Arthritis and Heart Disease as Risk Factors for Major Depression: The Role of Functional Limitation. *Medical Care*, Vol. 42, No. 6, pp. 502-511.

Franzini, L., Ribble, J.C., Keddie, A.M. (2001). Understanding the Hispanic Paradox. *Ethnicity & Disease*, Vol. 11, No. 3, pp. 496-518.

Gee, G.C., Ryan, A., Laflamme, D.J. and Holt, J. (2006). Self-Reported Discrimination and Mental Health Status among African Descendants, Mexican Americans and Other Latinos in the New Hampshire REACH 2010 Initiative: The Added Dimension of Immigration. *American Journal of Public Health*, Vol. 96, No. 10, pp. 1821-1828.

Global 500. (2012). Our Annual Ranking of the World's Largest Corporations. Fortune Magazine Online Edition. Retrieved on 11/14/2012 from <http://money.cnn.com/magazines/fortune/global500/2012/snapshots/11208.html>

Grineski, S.E. (2006). Local Struggles for Environmental Justice: Activating Knowledge for Change. *Journal of Poverty*. Vol. 10, No. 3, pp 25-49.

Grineski, S.E. and Juárez-Carrillo, P.M. (2012). Environmental Injustice in the US-Mexico Border Region. In Lusk, M., Staudt, K. and Moya, E. (Eds.) *Social Justice in the US-Mexico Border Region*. Pp. 179-198. London, UK: Springer.

Harris, K.M., Edlund, M.J. and Larson, S. (2005). Racial and Ethnic Differences in the Mental Health Problems and Use of Mental Health Care. *Medical Care*, Vol. 43, No. 8, pp. 775-784.

Hill, T.D., Ross, C.E., Angel, R.J. (2005). Neighborhood Disorder, Psychophysiological

- Distress, and Health. *Journal of Health and Social Behavior*, Vol. 46, No. 2, pp. 170-186.
- Hiott, A., Grzywacz, J.G., Arcury, T.A. and Quandt, S.A. (2006). Gender Differences in Anxiety and Depression among Immigrant Latinos. *Families, Systems and Health*, Vol 24, No. 2 pp. 137-146.
- Jones, R.E. and Rainey, S.A. (2006). Examining Linkages between Race, Environmental Concerns, Health and Justice in a Highly Polluted Community of Color. *Journal of Black Studies*, Vol. 36, No. 4, pp. 473-496.
- Jurkowski, J.M., Leckwan Westin, E. and Rossy-Millan, J. (2010). Latina Self-Reported Mental Health and Delay in Health Care in a New Latino Destination. *Women and Health*, Vol. 50, No. 3, pp. 213-228.
- Kasl, S.V., and Harburg, E. (1975). Mental Health and the Urban Environment: Some Doubts and Second Thoughts. *Journal of Health and Social Behavior*, Vol. 16, No. 3, pp. 268-282.
- Krieg, E.J. (1998). The Two Faces of Toxic Waste: Trends in the Spread of Environmental Hazards. *Sociological Forum*, Vol. 13, No. 1, pp. 3-20.
- Lapeyrouse, L.M., Morera, O., Heyman, J.M.C., Amaya, M.A., Pingitore, N.E. and Balcazar, H. (2012). A Profile of US-Mexico Border Mobility Among a Stratified Random Sample of Hispanics Living in the El Paso-Juarez Area. *Journal of Immigrant Minority Health*, Vol. 14, pp. 264–271.
- Le Cook, B., McGuire, T.G., Alegria, M. and Normand, S. (2011). *Health Services Research*, Vol. 46, No. 4, pp. 1259-1280.
- Le Cook, B., McGuire, T.G., Lock, K. and Zaslavsky, A.M. (2010). *Health Services Research*, Vol. 45, No. 3, pp. 825-847.
- Minutaglio, B. (2013, April 19). Texas on Fire, Again and Again. *The New York Times*. Retrieved from http://www.nytimes.com/2013/04/20/opinion/in-the-texas-plant-explosion-history-repeats-itself.html?_r=0 on April 20, 2013.
- Mohai, P. and Saha, R. (2007). Racial Inequality in the Distribution of Hazardous Waste: A National-Level Reassessment. *Social Problems*, Vol. 54, No. 3, pp. 343-370.
- Mohai, P. and Bryant, B. (1998). Is There a Race Effect on Concern for Environmental Quality? *Public Opinion Quarterly*, Vol. 62, pp. 475-505.
- NAMI (National Association for Mental Illness) (2009). Grading the States 2009: Texas. Retrieved from http://www.nami.org/Content/ContentGroups/Grading_the_States_20091/Texas_Grades09/NAMI_GTS09_TXnarrative.pdf in April 22, 2013
- Nuñez-Mchiri, G.G. (2012). Housing, Colonias and Social Justice in the US Mexico Border Region. In Lusk, M., Staudt, K. and Moya, E. (Eds.) *Social Justice in the US-Mexico Border Region*. Pp. 109-125. London, UK: Springer.

- Office of the Surgeon General (US). Surgeon General's Workshop on Women's Mental Health: November 30-December 1, 2005, Denver, Colorado. Rockville (MD): Office of the Surgeon General (US); 2006. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK44650/>
- Parcher, J.W. and Humberson, D.G. (2009). Using GIS to Assess Priorities of Infrastructure and Health Needsof Colonias along the United States-Mexico Border. *Journal of Latin American Geography*, Vol. 8, No. 1, pp. 129-148.
- Pearlin, L.I., Menaghan, E.G., Lieberman, M.A., Mullan, J.T. (1981). The Stress Process. *Journal of Health and Social Behavior*, Vol. 22, No. 4, pp. 337-356.
- Quinn, K., Kaufman, J.S., Siddiqi, A. and Yeatts, K.B. (2010). Parent Perceptions of Neighborhood Stressors Are Associated with General Health and Child Respiratory Health Among Low-Income, Urban Families. *Journal of Asthma*, Vol. 47, pp. 281–289.
- Ramos, I.N., Baker Davis, L., He, Q., May, M., and Ramos K.S., (2008). Environmental Risk Factors of Disease in the Cameron Park Colonia, a Hispanic Community along the Texas-Mexico Border. *Journal of Immigrant Minority Health*, Vol. 10, pp. 345-351.
- Rocha, K., Perez, K., Rodriguez-Sanz, M., Obiols, J.E. and Borrell, C. (2012). Perception of Environmental Problems and Common Mental Disorders (CMD). *Social Psychiatry and Psychiatric Epidemiology*, Vol. 47, pp. 1675–1684.
- Sentell, T., Shumway, M. and Snowden, L. (2007). Access to Mental Health Treatment by English Language Proficiency and Race/Ethnicity. *Journal of General Internal Medicine*, Vol. 22, pp. 288-293.
- Sharkey, J.R., Dean, W.R., and Johnson, C.M. (2011). Association of Household and Community Characteristics with Adult and Child Food Insecurity among Mexican-Origin Households in Colonias along the Texas-Mexico Border. *International Journal for Equity in Health*, Vol. 10, No. 19, pp. 1-14.
- Staudt, K. (1998). *Free Trade? Informal Economies at the US-Mexico Border*. Philadelphia: Temple University Press.
- Staudt, K., Marquez-Velarde, G., Morales, O. and Dane’el, M. 2013. *Stories, Science, and Power in Policy Change: Environmental Health, Community-based Research and Community Organizing*. Unpublished manuscript.
- Substance Abuse and Mental Health Services Administration. 2012. Center for Behavioral Health Statistics and Quality, *National Survey on Drug Use and Health*. Retrieved on 4/28/13 from <http://www.samhsa.gov/data/NSDUH/2k11State/NSDUHsae2011/Index.aspx>
- The Right-to-Know Network. (2010). Toxic Release Inventory. Retrieved on 11/6/12 from http://www.rtknet.org/db/tri/tri.php?database=tri&reptype=f&reporting_year=2010&first_year_range=&last_year_range=&facility_name=&parent=&combined_name=&parent_duns=&facility_id=&city=&county=el+paso&state=TX&zip=79835&naics=&primall=&corechem=n&casno=&casno2=&chemname=&detail=-1&datatype=T&rsei=y&sortp=D

- USA Today. (2009). The Smokestack Effect: Toxic Air and America's Schools. Retrieved on 6/10/2012 from <http://content.usatoday.com/news/nation/environment/smokestack/search/TX/~::~/deanna+davenport/name/~::/1/>
- U.S. Census Bureau. 2010 Census. 2010 Demographic Profile Data for Westway CDP. Retrieved on 10/6/2012 http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1&prodType=table
- U.S. Census Bureau. (2010). American Community Survey 5-year Estimates: Selected Economic Characteristics. Retrieved on 10/6/2012 from http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_5YR_DP03&prodType=table
- U.S. Census Bureau. (2010). American Community Survey 5-year Estimates: Demographic and Housing Characteristics. Retrieved on 10/6/2012 from http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_5YR_DP05&prodType=table
- Vega, W.A., Kolody, B., Aguilar-Gaxiola, S., Alderete, E., Catalano, R. and Caraveo-Anduaga, J. (1998). Lifetime Prevalence of DSM III-R Psychiatric Disorders among Urban and Rural Mexican Americans in California. *Archives of General Psychiatry*, Vol. 55, pp. 771-778.
- Vega, W.A. and Lopez, S.R. (2001). Priority Issues in Latino Mental Health Services Research. *Mental Health Services Research*, Vol. 3 No. 4, pp. 189-200.
- Vega, W.A. and Rumbaut, R. (1991). Ethnic Minorities and Mental Health. *Annual Review of Sociology*, Vol. 17, pp. 351-383.
- Villalobos, G. and Islas, A.A. (2012). Mental Health Disparities and Social Justice in the US Mexico Border Region. In Lusk, M., Staudt, K. and Moya, E. (Eds.) *Social Justice in the US-Mexico Border Region*. Pp. 145-159. London, UK: Springer.
- Weir, K. (July/August 2012). Smog in our Brain: How Air Pollution Affects our Cognition and Mental Health. *Monitor on Psychology*, Vol. 43, No. 7, pp. 32-37.
- Williams, B.L. and Florez, Y. (2010). Do Mexican Americans Perceive Environmental Issues Differently than Caucasians: A Study of Cross-Ethnic Variation in Perceptions Related to Water in Tucson. *Environmental Health Perspectives*, Vol. 110, No. 2, pp. 303-310.

Appendix 1

SURVEY INSTRUMENT: HEALTH OUTCOMES IN WESTWAY

To be completed by interviewer:

Interview #: _____

Interviewer: _____

Date: _____

Address: _____

Location Quadrant in Westway (closeness to I-10): I.____ II.____ III.____ IV.____
(Consult MAP)

Paved road in front of house? Yes__ No__

Landscaping (ground/sand cover) around house? Yes__ No__

Type of home: __ Single family
 __ Mobile Home (Trailer)
 __ Other (what? _____)

To be asked of person answering the door:

Interviewer greetings: Good morning/afternoon! My name is _____, and I am a graduate student at UTEP. I would like to conduct an interview with an adult at this household about the quality of life in Westway, including the specific health conditions of individuals in Westway households.

How long have you lived in Westway? _____ years

How long have you lived at this address? _____ years

Where did you previously live? (ask for U.S. zip code or country) _____

Explain consent form attached (2 copies) and the need to talk with someone 18 or older.

I. Household Members, Education and Languages

Now I would like to ask you some questions about household members, their ages, birthplaces, and education levels. Remember, this information will remain confidential.

How many people live in this household? _____

How many are adults? _____

How many are children? _____

What language(s) are spoken at home? Spanish only _____
English only _____
A mix: More Spanish than English _____
More English than Spanish _____

What language(s) do ADULTS speak at home? Spanish only _____
English only _____
A mix: More Spanish than English _____
More English than Spanish _____

What language(s) do CHILDREN speak at home? Spanish only _____
English only _____
A mix: More Spanish than English _____
More English than Spanish _____

How well do adults in this household speak English? Very well _____
Less than very well _____
Not at all _____

How would householders identify themselves? Hispanic/Mexican American _____
Non-Hispanic White _____
Mexican _____
African American _____
Other: (what?) _____

Please answer questions about each household member, using FIRST NAMES only:

ADULTS: (First name)	Age	Education	Born in U.S.	Born in Mexico/elsewhere (where?)	Health Insurance? (type?)

If more, use back if necessary [Interviewer: circle the name of the Respondent]

CHILDREN: (First name)	Age	Education	Born in U.S.	Born in Mexico/elsewhere (where?)	Health Insurance? (type?)

If more, use back if necessary

II. House, Neighborhood, and Social Community

At this point, I would like to ask questions about your home, relationships with others (neighbors and groups), and the quality of life.

Do you own or rent this home? Own ____ Rent ____

What year was it constructed? _____

What was the assessed property value in 2010? _____

(IF respondent does not know, ask for approximate resale value)

How satisfied are you with Westway?

Very satisfied ____ Satisfied ____ Not satisfied ____ Very unsatisfied ____ Don't know ____

Do you like living in Westway? Yes ____ No ____ Don't know ____

What do you like MOST about living in Westway? _____

What do you like LEAST about living in Westway? _____

How well do you know your neighbors on both sides of your house and across the street?

Very well ____ Somewhat well ____ Not well at all ____

In the following list, I list potential problems in Westway. Please tell me your level of concern with the problems, with 1=not at all concerned to 4=very concerned (and 5=don't know).

How concerned are you about...	1: Not at all Concerned	2: A little Concerned	3: Somewhat Concerned	4: Very Concerned	5: Don't know
Accidental releases of industrial chemicals?					
Odors (smells) in your neighborhood?					
Dust					
Smoke from Border Steel					
Hazardous waste sites					
Noise after 10 pm					
Noise from traffic					
Truck stop noise and idling					
Fumes from traffic					
Flooding					
Other? (list)					

Have there been any industrial accidents, such as fires or spills, near Westway in the last five years? Yes___ No___
Don't know___

Do you remember the flooding of 2006? I would like to ask some questions about that.

Were you living in Westway during the 2006 flooding? Yes___ No___

Was your home affected by the 2006 flooding? Yes___ No___

IF YES...

How? Water damage inside the home: Yes___ No___

Mold growth: Yes___ No___

Other_____

Did you get the damage repaired? Yes___ No___

What was the approximate cost? \$ _____

Did your home insurance cover most of the cost? Yes___ No___ No insurance___

Did you notice any health problems after the flooding? Yes___ No___

IF YES...

What type of health problem?_____

Which household member(s) (first names only)_____

What are the names of nearby health clinics?_____

Now I would like to ask some questions about public affairs and civic participation in public affairs.

Do adults in this household belong to community organizations or groups?

Yes___ No___ (If no, why not?_____)

IF YES...

Which organization(s)?_____

Are adults in this household registered to vote?

Yes___ No___ (If no, why not? _____)

[Interviewer: code for not eligible: Legal Permanent Resident ___not a citizen___ or other___)

IF YES....

Do adults vote in **primary** elections, such as 2012? Yes ___ No___

Do adults vote in **regular county** elections? Yes ___ No___

Do adults vote in **regular state** (Texas) elections? Yes___ No___

Do adults vote in **regular presidential** elections? Yes___ No___

What is the name of Westway's County Commissioner?_____

Have one or more adults contacted or met with their representatives at the county, state, and/or national levels?

Yes___ No___

IF Yes

County: No___ Yes___ (Contacted? Yes___ No___; Met with? Yes___ No___)

State (House and Senate): No___ Yes___ (Contacted? Yes___ No___; Met with?

Yes___ No___

National (Congressional representative or staff member): No__ Yes__
(Contact? Yes__ No__; Met with? Yes__ No__)

Please tell me if you Strongly Agree (1), Agree (2), Disagree (3), Strongly Disagree (4) with, or Don't Know about, the following statements.

[Political Efficacy questions]	1	2	3	4	5
"The way people vote has a major impact on how things are run in this country."					
"People who get together in action groups and organizations to influence government policies can have a real effect."					
"Good people try to change the government policies they disagree with."					

III. Work/Income

Now I would like to ask some questions about the work that adults do in this household and the approximate income earned.

What is the occupation of the following household members? Please note only those occupations that contribute to TOTAL HOUSEHOLD INCOME. Also indicate whether the job provides health insurance.

First Name	Occupation	Health Insurance Coverage (Yes or No)	Not Employed (check)

Please look at this card and tell me the letter that is closest to the ANNUAL income of this household. [**Show card with incomes that go up from <\$10,000 in increments of 10,000.**]

Write down letter that corresponds to household income: _____

Do you receive Lone Star, Temporary Aid to Needy Families, or other public assistance? Yes__ No__ Not eligible__

IV. Health and Health Outcomes

Now, I would like to ask questions about the health and health problems of the adults and children in this household. Remember, these answers are confidential.

Who in this household has had any of the following health problems?

CONDITION	Who? (First Names) How often (chronic? last 4 weeks?)	Told by Doctor or Health Provider? (Yes or No) Chronic? Last 4 weeks?)	Treatments (Yes or No)	Mortality? (Yes or No)
Asthma				
Allergies				
Bronchitis				
Chronic Sinus				

Trouble				
Congestion				
Shortness of breath				
Tightness in chest, waking up coughing				
Cancer*: *What Type? *At what stage (I-IV) was it diagnosed?			*	
Birth Defects				
Irritated or burning eyes or nose?				
Other conditions? (List)				

IF answered NO on treatment...., why?

No insurance____
 Diagnosed too late____
 Expense of treatment____
 The condition is manageable without treatment____
 Other (list)_____

IF answered YES on cancer, what type of treatment was received? Check all that apply and the length of treatment:

Chemotherapy via Intravenous/IV:____ (how long?)____
 Chemotherapy via prescription pills____ (how long?)____
 Radiation ____ (how long?)____
 Surgery ____
 Other (list)_____
 Time since treatment: 1 year or less____ 1-3 years____ 3-5 years____ 5+ years____
 Have medical providers declared that the cancer is in remission OR no longer present? Yes____ No____
 How worried is the cancer survivor about the return of cancer? Very worried____
 Not so worried____ No worry at all____
 No treatment_____

Are members of your household covered by health insurance? Yes ____ No____

IF Yes, which type?

Insurance through workplace____
 Medicare____
 Medicaid____
 CHIP (Children's Health Insurance Program)____

Seguro Popular (Mexico)____
Other foreign-country insurance/health care____

Have any members of your household sought health care outside the United States? No__ Yes__ (when was the last time?_____[year])

Would a medical cost of \$25 be difficult for you to pay? (You might pay it if necessary but you would be worried/concerned.) Yes__ No__ Maybe__

Would a medical cost of \$100 be difficult for you to pay? (You might pay it if necessary but you would be worried/concerned.) Yes__ No__ Maybe__

Would a medical cost of \$1,000 be difficult for you to pay? (You might pay it if necessary but you would be worried/concerned.) Yes__ No__ Maybe__

During the past 12 months, how many times did members of your household see a doctor, nurse, or other health care professional for URGENT treatment of asthma, cough, wheezing, shortness of breath, or chest tightness?
Adults # of times_____ Children # of times_____

During the past month, how often did members of your household take asthma medication that was prescribed by a doctor or health-care professional? (by medication, we include inhalers).
Adults # of times_____ Children # of times_____

Do you have any pets that live IN your home? No__ Yes____ (what types?_____)

Has your home ever been tested for lead? Yes__ No__

Have any household members been tested for lead poisoning? No__ Yes__ (was lead present? Yes__ No__)?

Have any adult women in this household ever had a Pap Smear? No__ Yes__ How many years ago?____
Not sure_____

Do any adult women in this household examine their breasts for lumps or growths? No __ Yes__ (How many times in the last year, from 1 to 12 times? ____) Not sure__

IF there are adult women over 50 in this household:

Have any adult women in this household had a mammogram? No__ Yes__
(when was the last mammogram?____) Not sure__

IF there are adult men in this household over 50 in this household:

Have any adult men in this household been tested for prostate cancer? No__
Yes__(when was the last test?____) Not sure__

Does anyone in this household currently smoke INSIDE the house? No__ Yes__ (# who smoke__)

Has anyone in this household currently smoked INSIDE the house in the past? No__ Yes__ (# who smoke__)

How do you cool your home?
Evaporative ("swamp") cooler__ Air conditioning__ Neither__

Finally, I would like to ask YOU some questions about stress and mental health. These questions are only about the respondent (head of household). All answers will remain confidential.

Have you ever experienced any of the following? (*Read list; check items that apply*)

Feeling stressed _____

Excess worry _____

Attempted suicide _____

Other mental health problems (please specify): _____

The following questions are about how you have felt during the past 4 weeks and during the past year.

For each question, please give the one answer that comes closest to the way you have been feeling for each situation.

	Past 4 Weeks					Past Year				
	All of the time	Most of the time	Some of the time	A little of the time	None of the time	All of the time	Most of the time	Some of the time	A little of the time	None of the time
2. Have you been nervous?										
3. Have you felt depressed?										
4. Have you felt calm and peaceful?										
5. Did you have a lot of energy?										
6. Did you feel tired?										
7. Have you been happy?										

About how often do you have any trouble in getting to sleep or staying asleep?

Very Often _____

Frequently _____

Occasionally _____

Rarely _____

Never _____

These questions are about how you have felt during the past 7 days and during the past year.

For each question, please give the one answer that comes closest to the way you have been feeling for each situation.

	Past 7 Days					Past Year				
	Extremely	Very	Moderately	Slightly	Not at all	Extremely	Very	Moderately	Slightly	Not at all
How much have you been distressed or bothered by:										
Faintness or dizziness										
Nervousness or shakiness inside										

Heart or chest pain										
Nausea or upset stomach										
Trouble catching your breath										
Weakness										
Numbness or tingling in parts of your body										

Have you ever been diagnosed by a doctor with depression?

Yes _____

No _____

Have you ever been diagnosed by a doctor with anxiety?

Yes _____

No _____

IF answered **YES** to questions to any of the previous two questions, have you sought medical care for these diagnoses?

Yes _____

No _____

If **YES**, what kind of medical care? (*Read list; check items that apply*)

Have seen a family doctor/primary care physician _____

Have seen a specialist (psychiatrist) _____

Have taken medication _____

Have undergone therapy (counselor, psychologist) _____

Have you experienced any of the following events in the past year? (*Read list; check items that apply*)

Divorce _____

Loss of a loved one _____

Loss of job _____

Move to another city/neighborhood _____

Other (please specify) _____

V. Closing Questions and comment

Finally, in closing this interview, I would like to ask the following.

Are you likely to work with others, in organizations or groups, to try to change health PRACTICES in this community? Yes__ No__

Are you like to work with others, in organizations or groups, to try to change GOVERNMENT POLICIES related to health in this community? Yes__ No__

READ TO RESPONDENT

Thank you for participating in this assessment of the quality of life, health, and civic participation in Westway. We value your time and your responses. This information will be kept confidential. In fall, we plan to have community meetings in which we report on the community-wide findings. We want to serve the community with information that people have provided.

Would you be interested in a follow-up interview at a later date? Or if we have further questions, may we follow up? If yes, please provide us with contact information on the following sheet.

(SEPARATE SHEET TO BE TORN OFF FROM THE ABOVE INTERVIEW)

Interview number: _____

Interview contact information (including phone and/or email to set up an interview):

Thank you again!

Appendix 2

ENCUESTA: RESULTADOS DE SALUD EN WESTWAY

Para ser completados por el encuestador:

Encuesta #: _____

Encuestador: _____

Fecha: _____

Dirección: _____

Ubicación del Cuadrante en Westway (en relación a su cercanía a la Interestatal 10):

I. _____ II. _____ III. _____ IV. _____

(Consulte el MAPA)

¿Calle pavimentada frente a la casa? Sí__ No__

Terracería (tierra/arena) alrededor de la casa: Si__ No__

Tipo de Casa: __ Única Familia
 __ Casa Móvil (Tráiler)
 __ Otro (que? _____)

Para ser contestadas por las personas respondiendo a la puerta:

Saludos del encuestador: Buenos días/tardes! Mi nombre es _____ y soy un estudiante de maestría en UTEP. Me gustaría entrevistar a un adulto de esta casa acerca de la calidad de vida en Westway, incluyendo las condiciones de salud de los habitantes de Westway.

¿Por cuánto tiempo ha vivido en Westway? _____ años

¿Por cuánto tiempo ha vivido en esta dirección? _____ años

¿Dónde vivió anteriormente? (preguntar por un código postal o país) _____

Explicar la forma de consentimiento adjunta (2 copias) y la necesidad de hablar con un adulto mayor de 18 años.

I. Habitantes, Educación y Lenguaje

Ahora me gustaría preguntarle acerca de los habitantes de esta casa, sus edades, lugar de nacimiento y nivel de educación. Recuerde, esta información es confidencial.

¿Cuánta gente vive en esta casa? _____

¿Cuántas de estas personas son adultos? _____

¿Cuántas de estas personas son niños? _____

¿Qué lenguaje(s) se habla en casa? Solo Español _____
Solo Inglés _____
Mezcla: Mas Español que Inglés _____
Más Inglés que Español _____

¿Qué lenguaje(s) hablan los ADULTOS en casa? Solo Español _____
Solo Inglés _____
Mezcla: Mas Español que Inglés _____
Más Inglés que Español _____

¿Qué lenguaje(s) hablan los NIÑOS en casa? Solo Español _____
Solo Inglés _____
Mezcla: Mas Español que Inglés _____
Más Inglés que Español _____

¿Qué tan bien hablan Inglés los adultos de esta casa? Muy Bien _____
Regular _____
Nada _____

¿Cómo se identifican los habitantes de esta casa? Hispanos/México Americanos _____
Anglosajones No Hispanos _____
Mexicanos _____
Afroamericanos _____
Otro: (¿qué?) _____

Por favor responda las siguientes preguntas acerca de cada habitante de la vivienda usando solo su PRIMER NOMBRE:

ADULTOS: (Primer Nombre)	Edad	Educación	Nacidos en Estados Unidos	Nacidos en México / otro lugar (¿dónde?)	¿Seguro Médico? (¿qué tipo?)

Si necesita más espacio continúe en la parte posterior de la página [Encuestador: circule en nombre de la persona respondiendo las preguntas]

NIÑOS:	Edad	Educación	Nacidos en	Nacidos en	¿Seguro
---------------	-------------	------------------	-------------------	-------------------	----------------

(Primer Nombre)			Estados Unidos	México / otro lugar (¿dónde?)	Médico? (¿qué tipo?)

Continúe en la parte posterior si es necesario.

II. Vivienda, Vecindario y Comunidad

En este punto, me gustaría preguntarle acerca de su vivienda, su relación con otras personas (vecinos y grupos), y la calidad de vida.

¿Es usted el propietario o renta su vivienda? Propia ____ Renta ____

¿En qué año fue construida? _____

¿Cuál era el valor estimado de la propiedad en el 2010?

(Si el encuestado no sabe la respuesta, pregunte por un valor aproximado de reventa.

¿Qué tan satisfecho está en Westway?

Muy satisfecho ____ Satisfecho ____ Insatisfecho ____ Muy Insatisfecho ____ No se ____

¿Le gusta vivir en Westway? Sí ____ No ____ No se ____

¿Qué es lo que MAS le gusta de vivir en Westway? _____

¿Qué es lo que MENOS le gusta de vivir en Westway? _____

¿Qué tan bien conoce a sus vecinos en ambos lados de su casa y enfrente?

Muy Bien ____ Bien ____ No Los Conoce ____

En la siguiente lista están enumerados varios problemas en Westway. Por favor mencione que tan preocupado está acerca de ellos usando números del 1=No está preocupado al 4=Esta muy preocupado (y 5=No sabe).

Que tan preocupado está acerca de...	1: No está preocupado	2: Un poco preocupado	3: Preocupado	4: Muy preocupado	5: No se
Fuga accidental de químicos industriales					
Olores en su vecindario					
Polvo					
Humo proveniente de Border Steel					
Sitios de desechos peligrosos					
Ruidos después de las 10 pm					
Ruido del tráfico					
Ruido de la parada de					

camiones					
Vapores provenientes del trafico					
Inundaciones					
Alguna otra cosa (enliste)					

¿Ha habido algún accidente industrial, como incendio o derrame, cerca de Westway en los últimos cinco años?
 Sí__ No__ No se__

¿Recuerda la inundación del 2006? Me gustaría preguntarle acerca de eso.

¿Estaba viviendo en Westway durante la inundación del 2006? Sí__ No__

¿Fue su casa afectada por la inundación del 2006? Sí__ No__

Si respondió SI...

¿Cómo? Agua daño el interior de la vivienda: Si__ No__

Crecimiento de moho: Si__ No__

Otro_____

¿Reparo los daños? Sí__ No__

¿Cuál fue el costo aproximado? \$ _____

¿Pudo el seguro de vivienda cubrir la mayor parte del costo? Sí__ No__ No tenía seguro__

¿Noto algún problema de salud después de la inundación? Sí__ No__

Si respondió SI...

¿Qué tipo de problema de salud?_____

¿A quiénes afectó? (Solo primer nombre)_____

¿Cuáles son los nombres de las clínicas cercanas? _____

Ahora me gustaría preguntarle acerca de asuntos públicos y participación cívica en asuntos públicos.

¿Algún miembro de la vivienda pertenece a alguna organización comunitaria o grupo? Si__ No__ (Si no, ¿porque no?_____)

Si respondió SI...

¿A qué organización(es)?_____

¿Están registrados para votar los adultos de esta casa?

Si__ No__ (Si no, ¿porque no?_____)

[Encuestador: códigos para no elegible: Residente Legal Permanente__ No Ciudadano__ u Otro__]

Si respondió SI....

¿Votan los adultos en elecciones primarias, como en el 2012? Sí__ No__

¿Votan los adultos en elecciones regulares del condado? Sí__ No__

¿Votan los adultos en elecciones regulares del estado? Sí__ No__

¿Votan los adultos en elecciones presidenciales? Sí__ No__

¿Cuál es el nombre del Comisionado del Condado de Westway? _____

¿Alguno de los adultos ha contactado o se ha reunido con los representantes del condado, estado y/o a nivel nacional? Sí___ No___

Si respondió SI:

Condado: No___ Si___ (¿Contactado? Si___ No___; ¿Reunido con? Si___ No___)

Estatat (Cámara y Senado): No___ Si___ (¿Contactado? Si___ No___; ¿Reunido con? Si___ No___)

Nacional (Representante del Congreso o alguno de sus empleados): No___ Si___ (¿Contactado? Si___ No___; ¿Reunido con? Yes___ No___)

Por favor mencione si usted está Firmemente de Acuerdo (1), de Acuerdo (2), en Desacuerdo (3), Firmemente en Desacuerdo (4) o No Sabe (5) acerca de las siguientes afirmaciones.

[Preguntas sobre Eficacia Política]	1	2	3	4	5
“La manera en que las personas votan tiene un impacto importante en como las cosas se manejan en este país”					
“Las personas que se reúnen en organizaciones o grupos para influenciar las política gubernamentales pueden tener efectos reales.”					
“Las personas tratan de cambiar las políticas gubernamentales con las que están en desacuerdo”					

III. Empleo/Ingresos

Ahora me gustaría preguntarle acerca del trabajo de los adultos de esta casa y sus ingresos aproximados.

¿Cuál es la ocupación de los siguientes habitantes de la vivienda? Solo mencione las ocupaciones que contribuyen a los INGRESOS TOTALES DE LA VIVIENDA. También indique si estos empleos proveen seguro médico.

Primer Nombre	Ocupación	¿Cubierto por Seguro Médico? (Si o No)	Sin Empleo (Marque)

Por favor vea esta tarjeta y diga la letra que más se aproxima al ingreso ANNUAL de esta vivienda. [Muestre la tarjeta de ingresos que ascienden desde <\$10,000 en incrementos de 10,000.]

Escriba la letra que corresponda a los ingresos de esta vivienda: _____

¿Recibe usted Lone Star, Ayuda Temporal para Familias Necesitadas (TANF) u otro tipo de asistencia pública? Sí___ No___ No es Elegible___

IV. Salud y Resultados de Salud

Finalmente me gustaría hacerle algunas preguntas sobre la salud y los problemas de salud de los adultos y los niños que residen en esta vivienda. Recuerde que sus respuestas son confidenciales.

¿Quién(es) en esta casa han tenido alguno(s) de los siguientes problemas de salud?

CONDICION	¿Quién(es)? (Primer Nombre) ¿Con que frecuencia? (¿crónica?)	¿Diagnosticado por un médico o proveedor de salud? (Si o No) ¿Crónico?	Tratamiento (Si o No)	Mortalidad (Si o No)

	¿Últimas 4 semanas?)	¿Últimas cuatro semanas?)		
Asma				
Alergias				
Bronquitis				
Problema Crónico en senos paranasales (sinusitis)				
Congestión				
¿Respiración difícil o falta de aliento?				
Tensión en el pecho o despertar tosiendo				
Cáncer*: *¿Qué tipo? *¿En qué etapa (I-IV) fue diagnosticado?			*	
Defectos congénitos				
¿Ojos o nariz irritada?				
¿Otras condiciones? (enliste)				

SI respondió NO en tratamiento.... ¿porque?

Falta de seguro medico ____
 Diagnóstico tardío ____
 Costo del tratamiento ____
 La condición es manejable sin tratamiento ____
 Otro (enliste) _____

SI respondió SI en cáncer, ¿qué tipo de tratamiento fue recibido? Marque todas las respuestas que correspondan y la duración del tratamiento

Quimioterapia Intravenosa (IV): ____ (¿por cuánto tiempo?) ____
 Quimioterapia por medio de pastillas ____ (¿por cuánto tiempo?) ____
 Radiación: ____ (¿por cuánto tiempo?) ____
 Cirugía ____
 Otro (enliste) _____

Cuanto tiempo ha pasado desde el tratamiento:

1 año o menos ____ 1-3 años ____ 3-5 años ____ 5+ años

¿Algún medico ha declarado que su cáncer esta en remisión O que ha desaparecido? Sí ____ No ____

¿Qué tan preocupado está el sobreviviente de cáncer acerca de que el cáncer regrese? Muy preocupado ____
Un poco preocupado ____ No está preocupado ____
Sin tratamiento ____

¿Están los habitantes de esta vivienda cubiertos por algún seguro médico? Sí ____ No ____

Si respondió SI, ¿qué tipo?

Seguro por medio del empleador ____
Medicare ____
Medicaid ____
CHIP (Children's Health Insurance Program) ____
Seguro Popular (México) ____
Otro seguro/programa extranjero ____

¿Alguno de los habitantes de la vivienda ha buscado cuidado médico fuera de los Estados Unidos? No __ Si __
(¿cuándo fue la última vez? _____ [año])

¿Sería para usted difícil pagar un recibo medico de \$25? (Podría pagarlo si es necesario pero estaría preocupado.)
Si ____ No ____ Tal vez ____

¿Sería para usted difícil pagar un recibo medico de \$100? (Podría pagarlo si es necesario pero estaría preocupado.) Si ____ No ____ Tal vez ____

¿Sería para usted difícil pagar un recibo medico de \$1,000? (Podría pagarlo si es necesario pero estaría preocupado.) Si ____ No ____ Tal vez ____

Durante los últimos 12 meses, ¿cuantas veces un miembro de la familia ha visto a un médico, enfermera u otro profesional de la salud por tratamiento URGENTE de asma, tos, silbido al respirar, respiración difícil o falta de aliento y tensión en el pecho?

Adultos # de veces _____ Niños # de veces _____

¿Durante el último mes, que tan frecuentemente alguien ha tomado medicamentos para el asma recetados por un médico o profesional de la salud? (incluyendo inhaladores).

Adultos # de veces _____ Niños # de veces _____

¿Tiene alguna mascota viviendo DENTRO de la vivienda? No ____ Si ____ (¿qué tipo? _____)

¿Ha sido su casa alguna vez analizada para detectar plomo? Sí ____ No ____

¿Ha sido alguien en su casa analizado para detectar envenenamiento por plomo? No ____ Si ____ (¿había presencia de plomo? Si ____ No ____)?

¿Han tenido las mujeres adultas de esta casa un examen ginecológico (pélvico/Papanicolaou)?

No ____ Si ____ ¿Hace cuantos años? ____ No está seguro(a) ____

¿Han tenido las mujeres adultas de esta casa un examen de señor para detectar protuberancias o tumores (mamografía)? No ____ Si ____ (¿Cuantas veces en el último año, de 1 a 12 veces? ____) No está seguro(a) ____

SI hay mujeres mayores de 50 en esta casa:

¿Han tenido las mujeres adultas una mamografía? No ____ Si ____

(¿Cuándo fue la última mamografía? _____) No está seguro(a) ____

SI hay hombres mayores de 50 en esta casa:

¿Han tenido los hombres adultos en esta casa un examen de próstata?

No___ Si___ (¿cuándo fue el último examen?_____) No está seguro(a)___

¿Algún miembro de la casa fuma DENTRO de la vivienda? No___ Si___ (# de personas que fuman___)

¿Algún habitante ha fumado alguna vez DENTRO de la vivienda? No___ Si___ (# de personas que han fumado___)

¿Cómo enfría su casa?

Enfriador evaporativo___ Aire acondicionado___ Ninguno___

V. Preguntas finales y comentarios

Finalmente, para cerrar esta entrevista, me gustaría preguntarle lo siguiente.

¿Es probable que usted pueda trabajar con otras personas, con organizaciones o grupos, para tratar de cambiar las PRÁCTICAS de salud en esta comunidad? Sí___ No___

¿Es probable que usted pueda trabajar con otras personas, con organizaciones o grupos, para tratar de cambiar las POLITICAS GUBERNAMENTALES relacionadas con la salud de esta comunidad? Sí___ No___

LEER A LA PERSONA QUE CONTESTO LA ENCUESTA:

Gracias por participar en esta valoración de la calidad de vida, salud y participación cívica en Westway. Valoramos su tiempo y sus respuestas. Esta información será mantenida confidencialmente. En el otoño, planeamos tener reuniones con la comunidad en las cuales reportaremos los descubrimientos sobre la comunidad. Queremos servir a la comunidad con la información que sus habitantes nos han proporcionado.

¿Estaría interesado en una entrevista en una fecha posterior? ¿Si tenemos más preguntas, podemos continuar la entrevista? Si si, por favor proporcione su información para contactarlo en la siguiente página.

(HOJA INDIVIDUAL PARA SER SEPARADA DE LA ENCUESTA PREVIA)

Número de Encuesta: _____

Información de contacto del encuestado (teléfono o correo electrónico para organizar entrevista):

Gracias de nuevo!

Appendix 3

Protocol Title: Community-Based Participatory Research: Health Outcomes in Westway Colonia

Principal Investigator: Dr. Kathleen (Kathy) Staudt

UTEP: Political Science

1. Introduction

You are being asked to take part voluntarily in the research project described below. Please take your time making a decision and feel free to discuss it with your friends and family. Before agreeing to take part in this research study, it is important that you read the consent form that describes the study. Please ask the study researcher or the study staff to explain any words or information that you do not clearly understand.

2. Why is this study being done?

You have been asked to take part in a research study of the quality of life in Westway and the health of adults and children in Westway households. .Approximately, 125 households will be contacted for interviews in Westway.

You are being asked to be in the study because you are an adult in one of the households and residential blocks selected randomly, (that is by chance), so that representative conclusions may be drawn about the findings from this large group of households.

If you decide to participate in this study, your involvement will last about 40 minutes for one interview.

3. What is involved in the study?

If you agree to take part in this study, the research team will ask you questions about your household members, about the quality of life in Westway and civic participation, about the occupation and income for the household, and about health, insurance, and treatment for health problems. The research has a special focus on cancer and on asthma and other problems related to breathing.

4. What are the risks and discomforts of the study?

There are no known risks associated with this research. Your results will be confidential, and only first names will be asked to identify household members. A Certificate of Confidentiality has been obtained to assure that no

information will be used about your household by other government agencies. [NOTE to IRB reviewers: The Certificate will be sought once an IRB # is obtained.]

5. What will happen if I am injured in this study?

You are not likely to be injured in this study. The University of Texas at El Paso and its affiliates do not offer to pay for or cover the cost of medical treatment for research related illness or injury. No funds have been set aside to pay or reimburse you in the event of such injury or illness. You will not give up any of your legal rights by signing this consent form. You should report any such injury to Dr. Kathleen Staudt at (915-747-7975) or kstaudt@utep.edu and to the UTEP Institutional Review Board (IRB) at (915-747-8841) or irb.orsp@utep.edu.

6. Are there benefits to taking part in this study?

There will be no direct benefits to you for taking part in this study. The research team values your time, and in those households that complete the survey, a voucher for a \$20 WalMart gift certificate will be provided IF the funding for this research is awarded. [NOTE to IRB Reviewers: The IF statement will be removed if NIH/HHDRF funding comes in February as promised.]

The overall findings from this study will provide educational and informational benefits about the Westway community as a whole. This information will be reported at community meetings and in a brochure when the findings are analyzed. This research may also help to improve people's access to health services or better public policies on the health and environment in El Paso County.

7. What other options are there?

You have the option not to take part in this study. There will be no penalties involved if you choose not to take part in this study.

8. Who is paying for this study?

The Hispanic Health Disparities Research Center, with funding from the National Institutes of Health, is providing funding to conduct this study.

9. What are my costs?

There are no direct costs.

10. Will I be paid to participate in this study?

A \$20 gift will be provided to this household for the completion of this interview IF the promised funding for this research project is provided. You may elect to withdraw from the study and not answer one or more questions, all without penalty.

11. What if I want to withdraw, or am asked to withdraw from this study?

Taking part in this study is voluntary. You have the right to choose not to take part in this study. If you do not take part in the study, there will be no penalty. If you elect to withdraw from the study and not answer one or more questions, there will be no penalty.

If you choose to take part, you have the right to stop at any time. However, we encourage you to talk to a member of the research group so that they know why you are leaving the study. If there are any new findings during the study that may affect whether you want to continue to take part, you will be told about them.

The researcher may decide to stop your participation without your permission, if he or she thinks that being in the study may cause you harm.

12. Who do I call if I have questions or problems?

You may ask any questions you have now. If you have questions later, you may call Dr. Kathleen (Kathy) Staudt, (915) 747 7975 or kstaudt@utep.edu.

If you have questions or concerns about your participation as a research subject, please contact the UTEP Institutional Review Board (IRB) at (915-747-8841) or irb.orsp@utep.edu.

13. What about confidentiality?

1. Your part in this study is confidential. None of the information will identify you by name, so you and your household will be anonymous. Your address on the cover sheet will be removed from the information collected on the survey. All records will be safeguarded and locked in Dr. Staudt's office. Every effort will be made to keep your information confidential, with one exception, as follows in #14.

14. Mandatory reporting

If information is revealed about child abuse or neglect, or potentially dangerous future behavior to others, the law requires that this information be reported to the proper authorities.

15. Authorization Statement

I have read each page of this paper about the study (or it was read to me). I know that being in this study is voluntary and I choose to be in this study. I know I can stop being in this study without penalty. I will get a copy of this consent form now and can get information on results of the study later if I wish.

Participant Name: _____ Date: _____

Participant Signature: _____ Time: _____

Consent form explained/witnessed by: (signed)

Printed name: _____

Date _____ Time: _____

Appendix 4

Título del Protocolo: Investigación y Participación Comunitaria: Resultados de Salud en la Colonia Westway.

Investigador Principal: Dra. Kathleen (Kathy) Staudt

UTEP: Ciencias Políticas

NOTA a los evaluadores del IRB: Esta forma ha sido traducida al español.

1. Introducción

Se le pide participar voluntariamente en el proyecto de investigación que se describe a continuación. Por favor, tómese su tiempo para tomar la decisión de participar y siéntase libre para hablar de ello con sus amigos y familiares. Antes de aceptar participar en esta investigación, es importante que usted lea el formulario de consentimiento que describe el estudio. Por favor, pregunte al investigador o al personal del estudio que le explique cualquier palabra o información que no entienda claramente.

2. ¿Por qué se realiza este estudio?

Se le ha pedido a participar en un estudio de investigación de la calidad de vida en Westway y la salud de los adultos y los niños en los hogares de Westway. Aproximadamente, 125 familias serán contactadas para entrevistas en Westway.

Se le pide que participe en el estudio porque usted es un adulto en una de las casas y bloques de viviendas seleccionadas al azar, (por casualidad), con el propósito de que se puedan obtener conclusiones representativas de los resultados de las entrevistas a este grupo de hogares.

Si usted decide participar en este estudio, su participación tendrá una duración de 40 minutos para una entrevista.

3. ¿En qué consiste el estudio?

Si usted acepta participar en este estudio, el equipo de investigación le hará preguntas acerca de los miembros de su hogar, sobre la calidad de vida en Westway y participación cívica, sobre la ocupación e ingresos de los miembros de la vivienda, y sobre la salud, los seguros médicos, y el tratamiento de problemas de salud. La investigación tiene un enfoque especial en cáncer, asma y otros problemas relacionados con la respiración.

4. ¿Cuáles son los riesgos y molestias del estudio?

No existen riesgos conocidos asociados con esta investigación. Los resultados serán confidenciales y sólo los nombres serán requeridos para identificar a los miembros de la vivienda. Se ha obtenido un

certificado de confidencialidad para asegurar que la información acerca de su hogar no sea utilizada por otras agencias gubernamentales. [NOTA a los evaluadores del IRB. El certificado se solicitará una vez que se obtenga el IRB #].

5. ¿Qué pasa si me lastimo durante el estudio?

No es probable que se lesione durante el estudio. La Universidad de Texas en El Paso y sus afiliados no ofrecen pagar o cubrir el costo del tratamiento médico por enfermedad o lesión relacionada con la investigación. No existen fondos destinados para pagar o reembolsar costos en caso de lesión o enfermedad. Usted no va a renunciar a ninguno de sus derechos legales al firmar este formulario de consentimiento. Usted debe reportar cualquier lesión a la Dra. Kathleen Staudt, al (915-747-7975) o kstaudt@utep.edu y a la Junta de Revisión Institucional de UTEP (IRB) al (915-747-8841) o irb.orsp@UTEP.edu.

6. ¿Hay beneficios por participar en este estudio?

No habrá beneficios directos para usted por participar en este estudio. El equipo de investigación valora su tiempo, y los hogares que completen la encuesta recibirán un certificado de 20 dólares para Walmart, si los fondos para esta investigación se otorgan. [NOTA a los evaluadores del IRB. El SI se eliminará si los fondos del NIH / HHDRC llegan en febrero como se había prometido]

Las conclusiones generales de este estudio ofrecen beneficios educativos e informativos acerca de la comunidad de Westway en su conjunto. Esta información será reportada en reuniones comunitarias y en un folleto cuando los resultados se analicen. Esta investigación también podría ayudar a mejorar el acceso de a los servicios de salud o lograr mejoras en las políticas públicas de salud y medio ambiente en el Condado de El Paso.

7. ¿Qué otras opciones hay?

Usted tiene la opción de no tomar parte en este estudio. No abra penalizaciones aplicadas, si usted elije no tomar parte en este estudio.

8. ¿Quien está pagando este estudio?

Fondos para este estudio son proporcionados por el Centro de Investigación de Disparidades de Salud de los Hispanos (Hispanic Health Disparities Research Center) con fondos del Instituto Nacional de Salud (National Institutes of Health).

9. ¿Cuáles son mis costos?

No hay costos directos.

10. ¿Seré pagado por participar en este estudio?

20 dólares serán proporcionado a este hogar por la realización de esta entrevista. Usted puede optar por retirarse del estudio y no responder a una o más preguntas sin penalización alguna.

11. ¿Qué pasa si me quiero retirar, o me piden que me retire del estudio?

La participación en este estudio es voluntaria. Usted tiene el derecho de optar por no participar en este estudio. Si usted no toma parte en este estudio, no habrá penalización alguna. Si decide retirarse del estudio y no responder a una o más preguntas, no habrá penalización alguna.

Si usted decide participar, usted tiene el derecho de detener la entrevista en cualquier momento. Sin embargo, le invitamos a hablar con un miembro del grupo de investigación para que sepan por qué se está retirando del estudio. Si hay nuevos resultados durante el estudio que pueden afectar su deseo seguir participando, se le informara acerca de ello.

El investigador puede decidir terminar su participación sin su permiso, si él o ella piensan que el estar en el estudio puede causarle daño.

12. ¿A quién puedo contactar si tengo preguntas o problemas?

Puede hacer cualquier pregunta que usted tenga ahora. Si tiene alguna pregunta más adelante, usted puede llamar a la Dra. Kathleen (Kathy) Staudt, (915)747-7975 o kstaudt@utep.edu.

Si usted tiene preguntas o inquietudes acerca de su participación como sujeto de investigación, por favor póngase en contacto con la oficina de la Junta de Revisión Institucional (IRB) en UTEP al (915-747-8841) o irb.orsp@utep.edu.

13. ¿Qué pasa con la confidencialidad?

1. Su participación en este estudio es confidencial. La información no lo identifica por nombre, por lo que usted y su casa será anónima. Su dirección en la fachada será removido de la información recopilada en la encuesta. Todos los registros se protegerán y serán resguardados en la oficina de la Dra. Staudt. Se harán todos los esfuerzos posibles para mantener su información confidencial, con una excepción, de la siguiente manera en el # 14.

14. La notificación obligatoria

Si se recibe información que revele abuso infantil o negligencia, o el comportamiento potencialmente peligroso para los demás en un futuro, la ley exige que esta información sea reportada a las autoridades correspondientes.

15. Cláusula de Autorización

He leído cada página de este documento sobre el estudio (o fue leída para mí). Yo sé que la participación en este estudio es voluntaria y he decidido optar por participar en este estudio. Sé que puedo abandonar

este estudio sin penalización alguna. Voy a obtener una copia de este formulario de consentimiento ahora y puedo obtener información sobre los resultados del estudio más adelante si lo deseo.

Nombre del Participante _____ Fecha: _____

Firma del Participante: _____ Hora: _____

Forma de consentimiento explicada/presenciada por: (firma)

Nombre impreso: _____

Fecha: _____ Hora: _____

Vita

Guadalupe Marquez-Velarde was born in Cd. Juárez, Chihuahua, Mexico. She received a B.A. in Sociology with a minor in Communication Studies from the University of Texas at El Paso in 2010. For the past year, she has been a research assistant at the University of Texas at El Paso. Her research interests include social determinants of health, health disparities, mental health and environmental justice. Guadalupe Marquez-Velarde will be joining the sociology department at Texas A&M University in Fall 2013 as a doctoral student.

This thesis was typed by Guadalupe Marquez-Velarde

Permanent address: 8841 John Kennedy Way 63

El Paso, TX 79907