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Breast cancer - preventive care and screening patterns among Hispanic women in the Rio Grande Valley

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**BREAST CANCER – PREVENTIVE CARE AND SCREENING PATTERNS
AMONG HISPANIC WOMEN IN THE RIO GRANDE VALLEY**

A Thesis

By

SREELATHA GOBBURU

Submitted to the Graduate School of the
University of Texas – Pan American
In partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

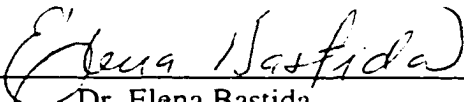
July 2003

Major Subject: Sociology


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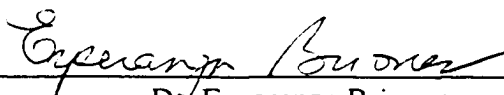
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July 2003

ABSTRACT

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Although breast cancer rates are lower among Hispanic women than among white women, Hispanics are more likely to die from this disease. This may be related to the fact that Hispanic women are less likely to practice preventive care methods such as Breast Self Exam (BSE) and Mammography. Cultural beliefs and attitudes about diseases play a significant role in Hispanic health behavior. Access to and availability of medical services, affective reactions towards cancer screening and treatment methods, and socioeconomic and demographic factors are stronger determinants of health care practices of Hispanic women. This study examines screening patterns of Hispanic women in the Rio Grande Valley as it relates to structural factors that may determine breast cancer preventive practices. A questionnaire was used to solicit information on age, income, education, health insurance, breast cancer awareness, preventive measures, and cultural beliefs towards breast cancer. Subjects were 600 randomly selected Hispanic women of aged 35 years and older living in the Rio Grande Valley, Texas. Standard statistical methods were used to analyze the obtained data and to interpret the results.

DEDICATION

**To my
Family and Friends**

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CHAPTER 1

INTRODUCTION

Breast cancer is the most common type of cancer afflicting women. At present, it is becoming an important disease throughout the world. It has been estimated that the number of new cases worldwide may exceed one million during the first decade of the 21st century, and that one of every eleven females born today will develop the disease.

Despite technological advances in diagnosis and treatment, breast cancer continues to be a leading cause of morbidity and mortality among women. Disparity in breast cancer survival rates among women from minority and low-income populations has become a major concern for health professionals. Even though breast cancer rates are lower among Hispanic women than among white women, Hispanics are more likely to die from this disease once they get it. The major factors accounting for this inconsistency are the under-utilization of screening techniques and cultural attitudes about preventive care. According to a National Health Interview survey, Hispanics consistently reported lower participation in screening and early detection than did non-Hispanic women. About 39% of white women aged 40 and over reported ever having a mammogram compared to 26% of Hispanics (Salazar, 1996).

Cancer affects Americans of all racial and ethnic groups and kills more people annually than AIDS, accidents and homicides combined (American Cancer Society,

1997). Breast cancer incidence is increasing in the USA. An estimated one of eight women will be diagnosed with this disease at some time during her life.

1.1 Breast Cancer – Sociological Perspective

For the last two decades, several health organizations around the world have spent a large sum of money in breast cancer research. While medical professionals and other scientists attempt to determine various causes and effective treatments for breast cancer, social scientists focus their research on variables that play an important role in breast cancer development and screening. The most important variables being evaluated are ethnicity and poverty. Earlier studies concluded that cultural issues might also play an important role in women being aware of breast cancer and seeking necessary treatment of this disease.

The American Cancer Society, The National Cancer Institute, and the U.S. President's Cancer Panel issued reports concluding that poverty is a greater predictor of cancer mortality than is race. People of different ethnic groups show differences in vulnerability to various kinds of cancer. Those differences, whether heredity or cultural, are usually outweighed by the greater influence of poverty which affects cancer incidents and mortality rates by reducing access to health education, screening, and treatment, and by determining where people live (Texas Cancer Council, 1996).

The Hispanic population in the USA is growing at a significant rate. The US census defines Hispanics as persons of Mexican, Puerto Rican, Cuban, and Central or South American, or other Spanish culture or origin, regardless of race. The 1990 census

reported that about 9% (22.4 million) of the U.S. population was Hispanic. Due to high birth and immigration rates, the Hispanic population is growing rapidly. According to the US census projections, by the year 2010, Hispanics will surpass non-Hispanic African Americans, as the largest US racial or ethnic group, and by the year 2050, 22.7% of the US population is expected to be Hispanics.

Hispanics differ from the general population in patterns of health care practices mainly because Hispanics tend to have larger families, lower incomes than whites and less likely to have health insurance. Many studies suggest that Hispanics have lower use of mammography screening than blacks and whites. Lower socioeconomic status, lack of health insurance coverage, less knowledge of cancer symptoms, and cultural aspects such as language, food habits, medical practices, etc., lead to lower rates of early detection of breast cancer. Moreover, communication about breast cancer screening between women and their health care provider occurs less frequently with Hispanics than other ethnic groups.

Prior studies show, although controversial, that folk medicine is a common practice in Hispanic American culture. Use of curanderos and santeros (folk healers) instead of modern doctors or health care providers may be attributed to the higher risk of breast cancer among the Hispanic community. An analysis of the five largest ethnic groups in Miami, Florida, concluded that members of these groups are not changing or moving away from traditional health beliefs and practices. Rather, these groups firmly hold to their own health beliefs and practices, combining orthodox and traditional systems in different ways and to different extents (Hopper, 1993).

Suarez (1994) studied the effects of acculturation in pap smear and mammogram screening in Mexican-American women. This study reported that, of the three major US Hispanic subgroups (Cuban, Puerto Rican, Mexican-American), Mexican-Americans are the least likely to use preventive health services in general. Most studies among the Mexican-American population show that the lower rates of cancer screening are primarily associated with lower education levels, lack of health insurance coverage, and lower income levels. Apart from these socioeconomic factors, others suggest that acculturation and assimilation levels of Mexican-American women are barriers to more frequent use of cancer screening tests (mammograms and pap smears).

O'Malley, et al, (1997), examined how continuity of care affects the use of breast and cervical cancer screening on a multiethnic population. The study included 1420 Black and Hispanic women. It summarized that for all ethnic groups in the multiethnic population, availability of a usual source of care and/or a regular health care provider at that usual source increased the likelihood of receiving breast and cervical cancer screening compared to those without a usual source of care. The study concluded that efforts by health care systems and their insurers to decrease the morbidity and mortality from breast and cervical cancer among minority women may be more effective if such women are enabled to establish a usual source of care.

Solis, et al., (1987), studied the role of cultural assimilation in health behavior of elderly Hispanic women. The study suggested that cultural factors might have little impact on the health behavior of Hispanics. Rather, access to and availability of services,

affective reactions toward screening, and sociodemographic factors are stronger determinants of Hispanic health practices.

Tollestrup et al., (1996), conducted a study of breast cancer survival among New Mexico Hispanic and non-Hispanic white women and New Mexico and Arizona American Indian women diagnosed between 1973 and 1992. The study concluded that despite earlier stages at diagnosis, Hispanic females showed less improvement in overall or stage-specific survival than non-Hispanic whites.

Rakowski, et al. (1995), performed a random sample survey of Rhode Island women ages 40 and older residing in minority low-income census tracts. The survey focused on identifying the determinants of breast cancer screening among inner-city Hispanic women in comparison to other inner-city women. The study found that Hispanic women have about half the breast cancer-screening rate than that of other women. In addition, Hispanic women were younger, less educated, and had lower family incomes than other women residing in minority low-income census tracts. Moreover, they were less likely to receive medical care, to perceive themselves as susceptible to breast cancer, and to perceive breast cancer as curable.

Salazar. (1996), studied the Hispanic Women's beliefs and attitudes about breast cancer and mammography screening. Twenty-nine women from the Hispanic community in the Yakima Valley in Washington State were interviewed for the study. The study resulted in the emergence of three general categories: Knowledge and Attitudes, Issues Related to Participation, and Social Concerns.

a) Knowledge and Attitudes:

1. Level of personal risk: Some women viewed the health care system as disease-oriented system; thus, there was no reason to access services unless one was ill. Some women believed breast cancer was a “female disease” and that female diseases are associated with sexual activity.
2. Other ways of knowing: Several women mentioned that symptoms of some sort will occur if breast cancer is present and these symptoms will be an incentive to seek health care.
3. Fear of Cancer and/or treatment: Some women fear that they will be disfigured if they get breast cancer and view the operational procedures as high risk and “something fatal.”
4. Cultural issues: Several women identified specific cultural barriers that they felt interfered with participation. Some mentioned a breast exam is more embarrassing to a Mexican woman than to a white person, and some women felt disloyal to their husbands if they went to a doctor for the purpose of breast examination.

b) Issues Related to Participation:

1. Accessibility to see a doctor: Many women in the Yakima community do not drive and, therefore, depend on others for transportation. They are confined to their houses unless their husbands choose to take them somewhere.

2. **Language and Communication:** Some Hispanic women spoke only Spanish; therefore, language emerged as an important barrier to making necessary arrangements for screening or even visiting a doctor.
3. **Cost:** Many women identified cost as an important barrier. The expenses involved in screening and treatment prevent them from going to a health care provider.

c) **Social Concerns:**

1. **Influence of family and friends:** The influence of family, particularly husbands, is one of the reasons why Hispanic women do not want to see doctors. Some husbands have negative opinions about their wives going to a doctor as they feel that the doctor would “enjoy” giving the screening to her.
2. **Influence by doctor:** Some women mentioned that they were not aware of breast cancer and mammograms as their doctor “never mentioned” these procedures to them. Some women felt that since the doctor did not mention anything about breast cancer, they did not need the mammogram.

Pearlman, et al, (1996), studied the racial and ethnic variations in use of screening mammography among Black, Hispanic, and white Women. The study focused on the interaction of race/ethnicity and region of the country with the breast cancer screening practices. It was concluded that Blacks and Hispanics were at higher risk of being in the under screened or unscreened stages. Hispanics living in the southern regions of the

United States reported lower rates of screening. The interaction between race/ethnicity and practice of Breast Self Examination (BSE), the effects of not knowing or not practicing BSE was significantly stronger among Hispanics than among Blacks and significantly stronger among Whites than among Blacks.

In a New Mexico study, it was found that rising breast cancer death rate is higher among Hispanic women than any other group. The incidence of breast cancer among Hispanic women rose 50 percent between 1969 and 1987, while the incidence for Anglo women rose 15 percent (Henderson, 1992). Also, the breast cancer death rate for Hispanic women rose 100 percent between 1958 and 1987, while it went up 30 percent for Anglos.

Ramos, 1998, identified some reasons older Hispanic women do not obtain a mammogram. In an ethnographic study of 71 older and mostly Medicare-eligible Mexican Americans residing in predominantly Hispanic areas of San Antonio, TX, Ramos concluded that due to environmental barriers and personal barriers, older Hispanic women do not seek early cancer screening and also do not take advantage of the Medicare-covered preventive services. The identified environmental barriers to early prevention include babysitting grandchildren, lack of transportation, money, spouse, and weather. Personal barriers include age, fear of being hurt during screening, having other serious illnesses, illiteracy, and shyness.

In a report released by Texas Cancer Data Center (TCDC), it was reported that in 1995, there were 34 breast cancer related deaths of Hispanic women in Hidalgo County, 24 in Cameron County, and 2 in Starr County. (TCDC On-line Database, 1997).

Between 1976 and 1989, there were 257 breast cancer related deaths of Hispanic women in the Lower Rio Grande Valley.

Although research on breast cancer rates among Hispanic women in general is widely available, the research on breast cancer incidences and risks among the Hispanic population of the Lower Rio Grande Valley (LRGV) is somewhat limited. Prior studies included Hispanic participants (samples) from other parts of the country but not South Texas. The Lower Rio Grande Valley, because of its proximity to Mexico, has a predominantly higher Hispanic population. The Hispanic community in LRGV displays a wide variety of factors such as poverty, environmental conditions, socioeconomic conditions, unemployment, illiteracy, and culture currently associated with the study of health disparities. Breast cancer related studies specific to the Hispanic community in the LRGV would result in evaluating the risks associated with this deadly disease and would offer solution for minimizing the risks among the women of the world in general and Hispanic women of LRGV in particular. The study would also help in evaluating the health care needs for the present and future population of the LRGV.

1.2 Breast Cancer – Clinical/Medical Perspective

Breast cancer is a group of related diseases, in which cells within the breast become abnormal and divide without control or order, invading and damaging nearby tissues and organs. When cancer cells break away from the original tumor and enter the blood stream or lymphatic system, breast cancer may spread and form secondary tumors

(metastases) in other parts of the body. The most common types of breast cancer arise in the lining of the ducts or in the lobules of the breasts.

Methods of treatment of breast cancer

- a) Surgery - Surgery is still the most commonly used treatment for localized breast cancer. The most common surgical procedures are: Lumpectomy with auxiliary node dissection. This surgery involves removal of the tumor, with a bit of adjacent normal breast plus the Lymph glands of the armpit. Modified radical mastectomy is the removal of the entire breast and tissue of the armpit.
- b) Radiation Therapy - The use of radiation therapy in the management of breast cancer has been increasing in recent years. For many early cancers, radiation of the breast is used in combination with lumpectomy and surgical examination of the lymph glands in the armpit. The goal of radiation treatment is to destroy cancer cells, but it may also damage normal cells within the irradiated area. This injury to normal tissues can lead to a variety of side effects depending on the area of the body treated. These side effects are usually temporary and resolve following the completion of radiotherapy.
- c) Chemotherapy - Surgery and radiotherapy are very effective in removing or destroying cancerous tissue if it is known exactly where the cancer is and if adjacent essential normal organs and tissues can be preserved without injury. Chemotherapy, on the other hand, once administered, is distributed through the entire body (the brain being the one exception under certain circumstances), and is capable of destroying cancer cells wherever they exist.

d) **Hormonal Therapy** - Breast cancer, in a great many cases, has been shown to be dependent for growth on the hormonal environment provided by the individual's body. More recently, it has become possible to predict with greater accuracy which breast cancers are likely to be hormone dependent. This provides yet another approach to suppressing the growth of these hormone-sensitive tumors. Sometimes suppression of tumor growth is achieved by reducing the level of appropriate hormones in the body through surgical removal, or x-ray destruction of the organ that normally produces those hormones (such as the ovary or adrenal gland). On the other hand, tumor suppression is sometimes achieved by elevating the level of certain hormones by providing them in the form of drugs. Determining the effective combination to achieve hormone suppression is a complex matter and is dependent on many factors.

Preventive care of breast cancer

a) **Mammography** - All women above 50 years old should have a mammogram every two years in combination with physical examination of the breasts by a trained health professional. A mammogram is a special x-ray of the breast using very small amounts of radiation. Visiting a local breast cancer screening program or consulting the family physician to arrange for a mammogram. These two procedures together (mammography and clinical breast examination (CBE)) lead to earlier diagnosis of breast cancer and a significant improvement in survival.

- b) Breast Self- Examination - By 40 years of age, all women should practice breast self-examination (BSE) regularly, at the same time each month and they should continue this practice even after menopause. When practicing BSE it is necessary to examine all of the breast tissue, and the arm tissues as well. It is recommended that women visually examine their breasts, looking particularly for differences between the breasts.

Although there are preventive care methods and a wide range of treatment methods, breast cancer incidences are increasing in the USA.

Breast Cancer - Risk Factors

Breast cancer is rare in women under 30 years old and becomes more common after age 50. (Mediconsult, 1997).

Breast cancer is the leading cause of cancer deaths among women ages 40-59. It is the leading cancer among American women and is second only to lung cancer in cancer deaths. During the year 2000, 182,800 women were diagnosed with breast cancer, and 40,800 women died of breast cancer. (breastcancerinfo, 2000).

In 1999, the American Cancer Society estimated that in the United States, over 175,000 women would be diagnosed with breast cancer and approximately 43,300 would die from this disease. (Liu, 1999). Many of the deaths could be prevented through increased cancer prevention and screening and improved access to medical care.

The most proven and significant risk factors are being female and getting older. Cancer of the breast occurs almost exclusively in women - it is one hundred times more common in women than men. National Cancer Institute (NCI), in a study, provided a co-

relation between aging and chances of developing breast cancer. (National Cancer Institute, 1997). Table 1.1 shows the co-relation:

TABLE 1.1 – Aging and Chances of Developing Breast Cancer

By age 30...	1 out of 2,525
By age 40...	1 out of 217
By age 50...	1 out of 50
By age 60...	1 out of 24
By age 70...	1 out of 14
By age 80...	1 out of 10
Source: National Cancer Institute	

In some families, where breast cancer occurs in an inherited pattern, the risk is higher. About 5 to 10 percent of women with breast cancer have a hereditary form of the disease. These women usually have a higher risk of developing breast cancer at a younger age (before menopause), and they often have multiple family members with the disease.

Research also suggests that race/ethnicity plays a significant risk in developing breast cancer. White Non-Hispanic women have the highest incidence rate for breast cancer among the different racial/ethnic groups in the USA, and Korean women have the lowest. African American women have the highest mortality rate for breast cancer among these same groups (31 per 100,000), while Chinese women have the lowest at 11 per 100,000. (American Cancer Society, 1997).

**TABLE 1.2 – Incidence and Mortality Rates of Breast Cancer
Among Different Ethnic Groups**

Race/Ethnic Group	Incidence (Rate per 100,000)	Mortality (Rate per 100,000)
White	111.8	27.0
African American	95.4	31.4
Hawaiian	105.6	25.0
Japanese	82.3	12.5
Filipino	73.1	11.9
Chinese	55.0	11.2
Vietnamese	37.5	Not Available
Korean	28.5	Not Available
Alaska Native	78.9	Not Available
American Indian	31.6	Not Available
Hispanic	69.8	15.0
Source: American Cancer Society, 1997.		

Although cancer is common in Americans of all racial and ethnic groups, the rate of cancer occurrence varied considerably from group to group. When compared to African Americans and Hispanics, cancer rates are highest among whites but cancer deaths are higher among African Americans and Hispanics than whites. Other significant risk factors of developing breast cancer are:

- a) Family history of breast cancer in mother, sister, daughter, or two or more close relatives such as cousins
- b) Personal history of prior breast cancer
- c) Early menarche

- d) Late menopause
- e) First pregnancy after 30 years
- f) Childless

Alcohol consumption and use of hormonal medications have been associated with increased risk. Scientists are also studying whether diet, exercise, pesticides, electromagnetic fields, engine exhausts, contaminants in food and water, abortion, and miscarriage are related to breast cancer risk. Tall women have a slightly higher risk for pre-menopausal breast cancer, and obese women have a higher risk for breast cancer over age 50. These factors may all be related to a woman's natural hormones.

CHAPTER 2

RESEARCH DESIGN - METHODOLOGY

A survey research design was used to test and evaluate the problem area. This research design is used in epidemiological studies where emphasis is given to large community based samples. The designated site for this study was the US-Mexico border, where the majority of population is of Hispanic origin. The Lower Rio Grande Valley includes counties of Hidalgo, Cameron, Willacy, and Starr. This study was conducted in an area of South Texas where breast cancer mortality rates for Hispanics have increased. The geographic and socioeconomic conditions of the study area are of considerable epidemiological interest since, for the last few years, there have been concerns regarding increased rates for cancer and birth defects that have been partially attributed to the environmental hazards along the US-Mexico border.

The National Institute of Health (NIH) funded the research study. This research paper focuses mainly on the patterns of mammogram screening utilization patterns of Hispanic women. The total sample (N) was 1299 of which 68% were female and 32% were male. The participants were randomly selected from over 6000 households in Hidalgo and Starr counties. The minimum age of participants was 31 and the maximum was above 81 years. The original questionnaire was designed primarily for gathering epidemiological data on aging ; therefore, both men and women were interviewed. Since

this research focuses on the utilization patterns of mammogram screenings by Hispanic women, only the questions on women's health, cancer screening and mammograms were selected and analyzed for this study. This thesis examines the demographic and socioeconomic factors and barriers to cancer screening among the population of Mexican American women in the study area.

All participants were of Hispanic origin. Among the female participants, 3.9% were in the age group of 31-40, 23.9% were in 41-50, 27.8% were in 51-60, 22.8% were in 61-70, 16.7% were in 71-80, 4.3% were 81 and above. The average age of the female sample was 59.17 years. Age distribution of the sample as shown in Table 2.1

TABLE 2.1 – Age Distribution of the Sample

		Age_Range			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	31-40	35	3.9	4.0	4.0
	41-50	213	23.9	24.1	28.1
	51-60	247	27.8	27.9	56.0
	61-70	203	22.8	23.0	79.0
	71-80	148	16.6	16.7	95.7
	81 and above	38	4.3	4.3	100.0
	Total	884	99.3	100.0	
Missing	System Missing	6	.7		
	Total	6	.7		
Total		890	100.0		

Sample Recruitment:

Randomly drawn numbers were used to identify streets and houses for canvassing purposes. Over 6000 households were identified. Households were screened for respondent eligibility based on age and ethnicity. Prior signed informed consent was

obtained from each participant, and confidentiality of individual records was maintained at all times.

The survey instrument consisted of several parts and included questions on demographic characteristics, overall health status, physical and mental health characteristics, family and social support, access to medical care, income and education levels, among others.

Community workers and students were hired by the principal investigator to conduct interviews. The total time for an interview was approximately 2 hours. The interviewers were bilingual, and equivalent translations of survey questionnaire were available.

Data were analyzed using SPSS, statistical package for social sciences. Several variables such as age, income, marital status, education, and occupation were used as predictors for mammogram screening.

At first, participants were contacted by phone and by mail in order to schedule an interview. Each interviewee was paid \$25.00 after participation.

The following section presents four sets of hypothesis derived from the review of literature as discussed in Chapter 1. Accordingly, these hypotheses build on gaps that have been identified for other Hispanic populations as well as for other minority women, mainly African Americans.

Group I - Socio Economic Impact on Mammography Utilization

- 1) The lower the income, the less the utilization of mammogram screening by Mexican origin women.

The participant's income per month was obtained from the survey and multiplied by 12 to calculate the annual income. If a person is married or lives with a partner, then the estimated total household income from all sources (including spouse's) was obtained.

Questions A20 and A20a in Appendix A pertains to income levels of the participants.

- 2) The lower the educational attainment, the less the utilization of mammogram screening.

The participants were asked about the highest grade of the regular school completed. Seven different codes were presented from zero to 19+ years of education.

Question A11 in Appendix A pertains to educational levels of the participants.

- 3) The lower the occupational level reported by the women, the less the utilization of mammogram screening. Question A16 in Appendix relates to occupation of the participants.
- 4) The older the women in the sample, the less the utilization of mammogram screening. Age distribution was obtained by Question A2 in Appendix A.
- 5) Marital status affects the utilization of mammogram screening. Question A5 is used to obtain the marital status information of the participant.

Group II - Acculturation Variables

- 6) Spanish speaking only women will report less utilization of mammogram screening
- 7) Greater knowledge of English will increase utilization of mammogram screening. Questions A13a through A13d are used to obtain language proficiency of the participants.
- 8) The U.S. born will have greater utilization of mammogram screening.

Group III - Variables affecting utilization of health services

- 9) Difficulties with transportation will decrease the utilization of mammogram screening. Transportation related items are included in question I1.
- 10) The uninsured will have less utilization of mammogram screening
- 11) Those insured will have greater utilization of mammogram screening.
Question C14 is used to obtain information on the medical insurance and medical care.

Group IV – Mental Health – Psychological Factors

- 12) Those reporting difficulties with mental health such as feeling dissatisfied with their lives, feeling lonely, etc., will have less utilization of mammogram screening

The study relies on basic descriptive statistics in providing an epidemiological profile of mammogram utilization among Hispanic women aged

35 and older in this region of South Texas. In addition to basic statistics such as frequencies and descriptive statistics, cross tabulations and test of significance (T-Tests) are employed in analyzing the data. Utilization of mammogram screening was cross-tabulated against various key variables and the data was analyzed and presented in this study. The findings are tabulated and discussed in the next chapter.

CHAPTER 3

FINDINGS

Twenty seven percent of the women surveyed reported that they have not had mammogram screening in their lifetime. Table 3.1 shows the sample size (N) and the percentage of women who have utilized mammogram screening.

**TABLE 3.1 – Utilization of Mammogram Screening
Among the Sample Studied**

Percentage of women utilized mammogram screening

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	239	26.9	32.9	32.9
	yes	486	54.6	66.9	99.9
	no answer	1	.1	.1	100.0
	Total	726	81.6	100.0	
Missing	System	164	18.4		
	Missing				
	Total	164	18.4		
Total		890	100.0		

Of the different age groups studied, 44.7% of women 81 and older did not have a mammogram screening. As the following table shows, the percentage of women who did not have a mammogram screening varied for different age groups with 26.8% in the age group 51-60 and 44.7% in the age group 81 and above.

TABLE 3.2 – Age Distribution and Mammogram Screening

Age_Range * (C11)Mammogram Crosstabulation

			(C11)Mammogram			Total
			no	yes	no answer	
Age_Range	31-40	Count		1		1
		% within Age_Range		100.0%		100.0%
		% within (C11)Mammogram		.2%		.1%
		% of Total		.1%		.1%
	41-50	Count	40	79		119
		% within Age_Range	33.6%	66.4%		100.0%
		% within (C11)Mammogram	16.7%	16.3%		16.4%
		% of Total	5.5%	10.9%		16.4%
	51-60	Count	61	167		228
		% within Age_Range	26.8%	73.2%		100.0%
		% within (C11)Mammogram	25.5%	34.4%		31.4%
		% of Total	8.4%	23.0%		31.4%
	61-70	Count	72	121		193
		% within Age_Range	37.3%	62.7%		100.0%
		% within (C11)Mammogram	30.1%	24.9%		26.6%
		% of Total	9.9%	16.7%		26.6%
	71-80	Count	49	98		147
		% within Age_Range	33.3%	66.7%		100.0%
		% within (C11)Mammogram	20.5%	20.2%		20.2%
		% of Total	6.7%	13.5%		20.2%
	81 and above	Count	17	20	1	38
		% within Age_Range	44.7%	52.6%	2.6%	100.0%
		% within (C11)Mammogram	7.1%	4.1%	100.0%	5.2%
		% of Total	2.3%	2.8%	.1%	5.2%
Total		Count	239	486	1	726
		% within Age_Range	32.9%	66.9%	.1%	100.0%
		% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%
		% of Total	32.9%	66.9%	.1%	100.0%

Each of the hypotheses presented in Chapter 2 was tested against the results obtained from the detailed study.

Group I - Socio Economic Impact on Mammography Utilization

1) The lower the income, the less the utilization of mammogram screening by Mexican origin women.

The influence of income levels on mammography screenings was investigated. About 73% of the participants reported annual income of \$7,999 or less. About 17% of the participants indicated income between \$8,000 to \$14,999 and the remaining 10% of the participants had reported income more than \$14,999. Frequency distribution of the income levels reported by participants is shown in Table 3.3.

TABLE 3.3 – Income Distribution of the Participants

		Income Levels of Participants			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	\$7,999 or less	453	50.9	72.7	72.7
	\$8,000 to \$14,999	106	11.9	17.0	89.7
	\$15,000 to \$24,999	28	3.1	4.5	94.2
	\$25,000 to \$49,999	27	3.0	4.3	98.6
	\$50,000 to \$99,999	8	.9	1.3	99.8
	\$100,000 or more	1	.1	.2	100.0
	Total	623	70.0	100.0	
Missing	System Missing	267	30.0		
	Total	267	30.0		
Total		890	100.0		

Table 3.4 shows the tabulation of the income distribution against the utilization of mammogram screening. It was found that the lower the income levels the higher the percentage of participants who did not utilize mammogram screening.

TABLE 3.4 – Income Distribution and Mammogram Screening

			Income Levels and Mammogram Screening			Total
			(C11)Mammogram			
INCOM_RG			no	yes	no answer	
\$7,999 or less	Count		160	289	1	450
	% within INCOM_RG		35.6%	64.2%	.2%	100.0%
	% within (C11)Mammogram		78.0%	70.5%	100.0%	73.1%
	% of Total		26.0%	46.9%	.2%	73.1%
\$8,000 to \$14,999	Count		36	67		103
	% within INCOM_RG		35.0%	65.0%		100.0%
	% within (C11)Mammogram		17.6%	16.3%		16.7%
	% of Total		5.8%	10.9%		16.7%
\$15,000 to \$24,999	Count		5	22		27
	% within INCOM_RG		18.5%	81.5%		100.0%
	% within (C11)Mammogram		2.4%	5.4%		4.4%
	% of Total		.8%	3.6%		4.4%
\$25,000 to \$49,999	Count		2	25		27
	% within INCOM_RG		7.4%	92.6%		100.0%
	% within (C11)Mammogram		1.0%	6.1%		4.4%
	% of Total		.3%	4.1%		4.4%
\$50,000 to \$99,999	Count		2	6		8
	% within INCOM_RG		25.0%	75.0%		100.0%
	% within (C11)Mammogram		1.0%	1.5%		1.3%
	% of Total		.3%	1.0%		1.3%
\$100,000 or more	Count			1		1
	% within INCOM_RG			100.0%		100.0%
	% within (C11)Mammogram			2%		2%
	% of Total			.2%		2%
Total	Count		205	410	1	616
	% within INCOM_RG		33.3%	66.6%	.2%	100.0%
	% within (C11)Mammogram		100.0%	100.0%	100.0%	100.0%
	% of Total		33.3%	66.6%	.2%	100.0%

Also, statistical tests of significance, T-Tests, were run to compare the income levels of Mexican born to the income levels of U.S. born and to determine if there was any significant difference in the mammography utilization patterns. Tables 3.5 and 3.6 show the results of the group statistics and independent samples test.

TABLE 3.5 – Income Distribution and Mammogram Screening by Country of Birth

Group Statistics					
(C11)Mammogram		N	Mean	Std. Deviation	Std. Error Mean
Income - Mexican Born	no	113	5319.469	3496.709	328.9427
	yes	182	5398.066	4573.679	339.0236
Income - US Born	no	96	7537.115	9753.153	995.4270
	yes	242	11933.48	15994.69	1028.178
Income - Both US and Mexican Born	no	210	6665.062	8570.973	591.4533
	yes	424	9128.182	12852.88	624.1909

TABLE 3.6 – T-Test for Income Distribution and Mammogram Screening by Country of Birth

		Independent Samples Test						
		t-test for Equality of Means					95% Confidence Interval of the Mean	
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Income - Mexican Born	Equal variances assumed	-.156	293	.876	-78.5969	502.3948	-1067.36	910.1629
	Equal variances not assumed	-.166	280.482	.868	-78.5969	472.3773	-1008.45	851.2579
Income - US Born	Equal variances assumed	-2.513	336	.012	-4396.361	1749.5652	-7837.84	-954.8795
	Equal variances not assumed	-3.072	280.145	.002	-4396.361	1431.0921	-7213.42	-1579.30
Income - Both US and Mexican Born	Equal variances assumed	-2.514	632	.012	-2463.120	979.9271	-4387.43	-538.8127
	Equal variances not assumed	-2.864	578.963	.004	-2463.120	859.9019	-4152.03	-774.2122

As shown in the above tables, irrespective of birthplace, comparing the average income of those who have mammogram and who do not have, there is a significant difference in the household income at 95% level of significance. Those who have had a mammogram have higher income at 95% level of significance (average income 9,128 vs. 6,665).

Comparing the income of those who have and do not have mammogram screening by country of birth there is a significant difference at 95% level significance in the US born (average income 11,933 vs. 7,537), whereas there is no significant difference in the Mexican born (5,398 vs. 5,319).

- 2) The lower the educational attainment, the less the utilization of mammogram screening.

Overall, education level for the sample was very low. The average education level of the sample was middle school. Among the study group, only 9.6% reported having had some college level education. About 38% of the participants had elementary education with 7.8% reporting no education at all, as shown in Table 3.7. Education levels were also evaluated against the mammogram screening. The results showed that education levels played a significant role in the mammogram screenings. As shown in the following tables, women with less education were less likely to report having had a mammogram screening.

TABLE 3.7 – Education Distribution of the Participants

		education			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Education	69	7.8	7.9	7.9
	Elementary	338	38.0	38.6	46.5
	Middle	204	22.9	23.3	69.8
	High	179	20.1	20.5	90.3
	College	85	9.6	9.7	100.0
	Total	875	98.3	100.0	
Missing	System Missing	15	1.7		
	Total	15	1.7		
Total		890	100.0		

TABLE 3.8 – Education Distribution and Mammogram Screening

			Education level vs. Mammogram Screening			
			(C11)Mammogram			Total
			no	yes	no answer	
education	No Education	Count	22	42	1	65
		% within education	33.8%	64.6%	1.5%	100.0%
		% within (C11)Mammogram	9.3%	8.7%	100.0%	9.1%
		% of Total	3.1%	5.8%	.1%	9.1%
	Elementary	Count	102	206		308
		% within education	33.1%	66.9%		100.0%
		% within (C11)Mammogram	43.2%	42.8%		42.9%
		% of Total	14.2%	28.7%		42.9%
	Middle	Count	62	106		168
		% within education	36.9%	63.1%		100.0%
		% within (C11)Mammogram	26.3%	22.0%		23.4%
		% of Total	8.6%	14.8%		23.4%
	High	Count	47	75		122
		% within education	38.5%	61.5%		100.0%
		% within (C11)Mammogram	19.9%	15.6%		17.0%
		% of Total	6.5%	10.4%		17.0%
	College	Count	3	52		55
		% within education	5.5%	94.5%		100.0%
		% within (C11)Mammogram	1.3%	10.8%		7.7%
		% of Total	.4%	7.2%		7.7%
Total	Count	236	481	1	718	
	% within education	32.9%	67.0%	.1%	100.0%	
	% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%	
	% of Total	32.9%	67.0%	.1%	100.0%	

TABLE 3.9 – Education Distribution and Mammogram Screening by Birth Country

Group Statistics

(C11)Mammogram		N	Mean	Std. Deviation	Std. Error Mean
Education - Mexican Born	no	127	4.1575	2.7528	.2443
	yes	223	4.4081	3.4770	.2328
Education - US Born	no	108	6.8333	4.1072	.3952
	yes	257	7.7938	5.1098	.3187
Education - US and Mexican Born	no	236	5.44	3.78	.25
	yes	481	6.23	4.74	.22

TABLE 3.10 – T-Tests for Education Distribution and Mammogram Screening by Birth Country

Independent Samples Test

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Mean	
							Lower	Upper
Education - Mexican Born	Equal variances assumed	-.697	348	.486	-.2506	.3595	-.9576	.4564
	Equal variances not assumed	-.743	312.536	.458	-.2506	.3375	-.9146	.4134
Education - US Born	Equal variances assumed	-1.732	363	.084	-.9604	.5546	-2.0510	.1301
	Equal variances not assumed	-1.892	247.665	.060	-.9604	.5077	-1.9605	3.96E-02
Education - US and Mexican Born	Equal variances assumed	-2.230	715	.026	-.79	.35	-1.48	-9.42E-02
	Equal variances not assumed	-2.406	570.425	.016	-.79	.33	-1.43	-.14

The above comparison (Tables 3.9 and 3.10) indicates that there is significant difference in education between those who have mammogram screenings and those who do not have mammogram screenings irrespective of their birthplace. Those who have had a mammogram have higher education statistically significant at 95% level of significance (education levels 6.23 vs. 5.24).

Comparing the education of those who have and do not have had a mammogram screening by country of birth, there is a significant difference at 95% level significance in the U.S. born (education levels 7.79 vs. 6.83), whereas there is no significant difference in the Mexican born (4.4 vs. 4.15).

- 3) The lower the occupational level reported by the women, the less the utilization of mammogram screening.

Occupation was another criterion employed in examining its possible influence on mammogram screening. As the following table shows, housewives and laborers (farm and non-farm) constituted more than 50% of the women surveyed. About 7.9% are professional/technical with 1.3% holding managerial or administrative positions. When the occupation was cross-tabulated with mammogram screening, it was found that a significant number of housewives and laborers did not get mammogram screenings. Table 3.11 shows the occupation levels versus mammogram screening.

TABLE 3.11 – Occupation and Mammogram Screening

		Occupation vs. Mammogram Screening		Total
		10/11 Mammogram		
(A16)worktype		79	188	54
Professional/Technical	Count	9	45	54
	% within (A16)worktype	16.7%	83.3%	100.0%
	% within (C11)Mammogram	4.1%	9.7%	7.9%
	% of Total	1.7%	5.6%	7.9%
Managers and Administrators	Count	2	9	11
	% within (A16)worktype	18.2%	81.8%	100.0%
	% within (C11)Mammogram	9%	1.9%	1.6%
	% of Total	2%	1.3%	1.4%
Sales Workers	Count	7	15	22
	% within (A16)worktype	31.8%	68.2%	100.0%
	% within (C11)Mammogram	3.2%	3.2%	3.2%
	% of Total	1.2%	2.2%	1.2%
Clerical and Related Workers	Count	17	39	56
	% within (A16)worktype	30.4%	69.6%	100.0%
	% within (C11)Mammogram	7.7%	8.4%	8.2%
	% of Total	2.5%	5.2%	8.2%
Craftsmen and Related Workers	Count	3	10	13
	% within (A16)worktype	23.1%	78.9%	100.0%
	% within (C11)Mammogram	1.4%	2.1%	1.9%
	% of Total	4%	1.4%	1.9%
Operative-Non Transport	Count	3	1	4
	% within (A16)worktype	75.0%	25.0%	100.0%
	% within (C11)Mammogram	1.4%	2%	6%
	% of Total	4%	1%	4%
Operative-Transport	Count	1		1
	% within (A16)worktype	100.0%		100.0%
	% within (C11)Mammogram	5%		1%
	% of Total	1%		1%
Laborers, except farm	Count	34	80	114
	% within (A16)worktype	29.8%	70.2%	100.0%
	% within (C11)Mammogram	15.4%	17.2%	16.6%
	% of Total	4.9%	11.6%	16.6%
Farmers and Farm Managers	Count	1	1	2
	% within (A16)worktype	50.0%	50.0%	100.0%
	% within (C11)Mammogram	5%	2%	3%
	% of Total	1%	1%	2%
Farm Laborers and Farm Foremen	Count	43	93	136
	% within (A16)worktype	31.6%	68.4%	100.0%
	% within (C11)Mammogram	19.5%	20.0%	19.8%
	% of Total	6.2%	13.5%	19.8%
Service Workers, except private household	Count	19	35	54
	% within (A16)worktype	35.2%	64.8%	100.0%
	% within (C11)Mammogram	8.6%	7.5%	7.9%
	% of Total	2.8%	5.1%	7.9%
Private Household	Count	15	34	52
	% within (A16)worktype	34.6%	65.4%	100.0%
	% within (C11)Mammogram	8.1%	7.3%	7.6%
	% of Total	2.6%	4.9%	7.6%
Housewife	Count	54	80	134
	% within (A16)worktype	40.3%	59.7%	100.0%
	% within (C11)Mammogram	24.4%	17.2%	19.5%
	% of Total	7.9%	11.6%	19.5%
Self Employed	Count	3	4	7
	% within (A16)worktype	42.9%	57.1%	100.0%
	% within (C11)Mammogram	1.4%	9%	1.0%
	% of Total	4%	2%	1.0%
Retired	Count		1	1
	% within (A16)worktype		100.0%	100.0%
	% within (C11)Mammogram		2%	1%
	% of Total		1%	1%
Unemployed	Count	1		1
	% within (A16)worktype	100.0%		100.0%
	% within (C11)Mammogram	5%		1%
	% of Total	1%		1%
Other	Count	8	19	25
	% within (A16)worktype	24.0%	76.0%	100.0%
	% within (C11)Mammogram	2.7%	4.1%	1.6%
	% of Total	2%	2.8%	1.6%
Total	Count	221	468	687
	% within (A16)worktype	32.2%	67.8%	100.0%
	% within (C11)Mammogram	100.0%	100.0%	100.0%
	% of Total	32.2%	67.8%	100.0%

- 4) The older the women in the sample, the less the utilization of mammogram screening.

Of the different age groups studied, 44.7% of women 81 and above did not report ever having a mammogram screening. As the following table 3.2 shows, the percentage of women who did not have a mammogram screening varied for different age groups with 26.8% in the age group 51-60 and 44.7% in the age group 81 and above.

- 5) Marital status affects the utilization of Mammogram Screening.

When evaluated against marital status, it was found that women who were separated exhibited the highest percentage for not having a mammogram screening. Thirty percent of married women, 41% of single and never married women, 21.5% of divorced women, 46.3% of the separated women, and 39.79% of the widowed women did not have mammogram screening. (See Table 3.12).

**TABLE 3.12 – Marital Status and Mammogram
Screening**

			(C11)Mammogram			Total
			no	yes	no answer	
(A5)Marital Status	Married	Count	105	253		358
		% within (A5)Marital Status	29.3%	70.7%		100.0%
		% within (C11)Mammogram	44.7%	53.0%		50.2%
		% of Total	14.7%	35.5%		50.2%
	Single, never married	Count	16	23		39
		% within (A5)Marital Status	41.0%	59.0%		100.0%
		% within (C11)Mammogram	6.8%	4.8%		5.5%
		% of Total	2.2%	3.2%		5.5%
	Divorced	Count	17	62		79
		% within (A5)Marital Status	21.5%	78.5%		100.0%
		% within (C11)Mammogram	7.2%	13.0%		11.1%
		% of Total	2.4%	8.7%		11.1%
Separated	Count	19	22		41	
	% within (A5)Marital Status	46.3%	53.7%		100.0%	
	% within (C11)Mammogram	8.1%	4.6%		5.8%	
	% of Total	2.7%	3.1%		5.8%	
Widowed	Count	78	117	1	196	
	% within (A5)Marital Status	39.8%	59.7%	.5%	100.0%	
	% within (C11)Mammogram	33.2%	24.5%	100.0%	27.5%	
	% of Total	10.9%	16.4%	.1%	27.5%	
Total	Count	235	477	1	713	
	% within (A5)Marital Status	33.0%	66.9%	.1%	100.0%	
	% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%	
	% of Total	33.0%	66.9%	.1%	100.0%	

Group II - Acculturation Variables

This study also explored the relationship between acculturation, as defined by language spoken, where they were born, and use of screening mammography.

- 6) Spanish speaking only women will report less utilization of mammogram screening.
- 7) Greater knowledge of English will increase utilization of mammogram screening.

Among the participants, 98.5% indicated speaking Spanish, of these 59.4% spoke both English and Spanish. A significant percentage or 38.7% did not speak English. Among the women who spoke Spanish, 32.7% did not have mammogram screening whereas only 18.2% of the women who spoke English did not have mammogram screenings. Table 3.13 and 3.14 show the frequency distribution.

TABLE 3.13 – Frequency Distribution of Spanish Speaking Participants

		Spanish Speaking Participants			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	2	.2	.2	.2
	Yes	877	98.5	99.8	100.0
	Total	879	98.8	100.0	
Missing	System Missing	11	1.2		
	Total	11	1.2		
	Total	890	100.0		

TABLE 3.14 – Frequency Distribution of English Speaking Participants

		English Speaking Participants			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	344	38.7	39.2	39.2
	Yes	529	59.4	60.3	99.5
	No Answer	4	.4	.5	100.0
	Total	877	98.5	100.0	
Missing	System Missing	13	1.5		
	Total	13	1.5		
	Total	890	100.0		

- 8) The U.S. born will have greater utilization of mammogram screening.

Thirty six percent of women whose country of birth was Mexico did not utilize mammogram screening, whereas 29.6% of U.S. born women did not have

mammogram screening. Language barrier and disparity in education levels may be attributed to this significant difference in the mammogram screening rates between Mexican born women and U.S. born women.

TABLE 3.15 – Birth Place and Mammogram Screening

(A4)Country respondent was born in * (C11)Mammogram Crosstabulation

			(C11)Mammogram			Total
			no	yes	no answer	
(A4)Country respondent was born in	Mexico	Count	128	224	1	353
		% within (A4)Country respondent was born in	36.3%	63.5%	3%	100.0%
		% within (C11)Mammogram	53.6%	46.1%	100.0%	48.6%
		% of Total	17.6%	30.9%	1%	48.6%
U.S.	Count	110	261		371	
	% within (A4)Country respondent was born in	29.6%	70.4%		100.0%	
	% within (C11)Mammogram	46.0%	53.7%		51.1%	
	% of Total	15.2%	36.0%		51.1%	
Puerto Rico	Count		1		1	
	% within (A4)Country respondent was born in		100.0%		100.0%	
	% within (C11)Mammogram		2%		1%	
	% of Total		1%		1%	
Other	Count	1			1	
	% within (A4)Country respondent was born in	100.0%			100.0%	
	% within (C11)Mammogram	4%			1%	
	% of Total	1%			1%	
Total	Count	239	486	1	726	
	% within (A4)Country respondent was born in	32.9%	66.9%	1%	100.0%	
	% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%	
	% of Total	32.9%	66.9%	1%	100.0%	

Group III - Variables affecting utilization of health services

- 9) Difficulties with transportation will decrease the utilization of mammogram screening.

Transportation was another factor considered for this research and an attempt was made to determine if the ability to drive has any relation to receiving a mammogram screening. Among the women surveyed, 33.1% reported they do not drive. As the following table shows, a higher percentage of women who drive have had mammogram screenings than the women who could not drive a car.

Due to lower income levels of the participants studied, it may be possible that the participants depend on others for their transportation needs, as they may not own vehicles/transportation. The lower screening levels related to transportation difficulties may be attributed to this dependency on others for their transportation needs.

TABLE 3.16 – Transportation (Self Mobility) and Mammogram Screening

			(C11)Mammogram			Total
			no	yes	no answer	
(G17.3)Drive a car	no	Count	140	243	1	384
		% within (G17.3)Drive a car	36.5%	63.3%	.3%	100.0%
		% within (C11)Mammogram	58.6%	50.3%	100.0%	53.1%
		% of Total	19.4%	33.6%	.1%	53.1%
	yes	Count	94	227		321
		% within (G17.3)Drive a car	29.3%	70.7%		100.0%
		% within (C11)Mammogram	39.3%	47.0%		44.4%
		% of Total	13.0%	31.4%		44.4%
	sometimes	Count	5	11		16
		% within (G17.3)Drive a car	31.3%	68.8%		100.0%
		% within (C11)Mammogram	2.1%	2.3%		2.2%
		% of Total	.7%	1.5%		2.2%
no answer	Count		2		2	
	% within (G17.3)Drive a car		100.0%		100.0%	
	% within (C11)Mammogram		.4%		3%	
	% of Total		.3%		3%	
Total	Count	239	483	1	723	
	% within (G17.3)Drive a car	33.1%	66.8%	1%	100.0%	
	% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%	
	% of Total	33.1%	66.8%	.1%	100.0%	

10) The uninsured will have less utilization of mammogram screening

11) Those insured will have greater utilization of mammogram screening.

The questionnaire included questions related to medical care and insurance coverage of the participants. A majority of the participants reported that they had some kind of insurance coverage such as Medicare Plan A, Medicare Plan B, Medicaid, Veterans, etc. These insurance coverages will pay for mammogram screenings. Tables 3.17 through 3.20 present different coverages that are availed by women and the utilization of mammogram screening. Thirty three percent of women reported having Medicare plan A, 35.3% having Medicare plan B, 30.6% Medicaid, and 25.1% reported having other insurance coverage. Despite the fact that these coverages pay for the screening, the percentage of women who do not avail of these services for mammogram screening is significantly high.

TABLE 3.17 – Medicare Plan A and Mammogram Screening

(C17a)Medicare plan A * (C11)Mammogram Crosstabulation

			(C11)Mammogram			Total
			no	yes	no answer	
(C17a)Medicare plan A	no	Count	141	289		430
		% within (C17a)Medicare plan A	32.8%	67.2%		100.0%
		% within (C11)Mammogram	59.2%	59.6%		59.4%
		% of Total	19.5%	39.9%		59.4%
	yes	Count	97	193	1	291
		% within (C17a)Medicare plan A	33.3%	66.3%	.3%	100.0%
		% within (C11)Mammogram	40.8%	39.8%	100.0%	40.2%
		% of Total	13.4%	26.7%	.1%	40.2%
	don't know	Count		1		1
		% within (C17a)Medicare plan A		100.0%		100.0%
		% within (C11)Mammogram		.2%		1%
		% of Total		.1%		1%
no answer	Count		2		2	
	% within (C17a)Medicare plan A		100.0%		100.0%	
	% within (C11)Mammogram		.4%		3%	
	% of Total		.3%		3%	
Total	Count	238	485	1	724	
	% within (C17a)Medicare plan A	32.9%	67.0%	.1%	100.0%	
	% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%	
	% of Total	32.9%	67.0%	1%	100.0%	

TABLE 3.18 – Medicare Plan B and Mammogram Screening

(C17b)Medicare plan B * (C11)Mammogram Crosstabulation

			(C11)Mammogram			Total
			no	yes	no answer	
(C17b)Medicare plan B	no	Count	138	297	1	436
		% within (C17b)Medicare plan B	31.7%	68.1%	2%	100.0%
		% within (C11)Mammogram	58.0%	61.5%	100.0%	60.4%
		% of Total	19.1%	41.1%	1%	60.4%
	yes	Count	100	183		283
		% within (C17b)Medicare plan B	35.3%	64.7%		100.0%
		% within (C11)Mammogram	42.0%	37.9%		39.2%
		% of Total	13.9%	25.3%		39.2%
	don't know	Count		1		1
		% within (C17b)Medicare plan B		100.0%		100.0%
		% within (C11)Mammogram		2%		.1%
		% of Total		1%		1%
no answer	Count		2		2	
	% within (C17b)Medicare plan B		100.0%		100.0%	
	% within (C11)Mammogram		.4%		.3%	
	% of Total		.3%		.3%	
Total	Count	238	483	1	722	
	% within (C17b)Medicare plan B	33.0%	66.9%	.1%	100.0%	
	% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%	
	% of Total	33.0%	66.9%	.1%	100.0%	

TABLE 3.19 – Medicaid and Mammogram Screening**(C17c)Medicaid * (C11)Mammogram Crosstabulation**

		(C11)Mammogram			Total	
		no	yes	no answer		
(C17c)Medicaid no	Count	161	306		467	
	% within (C17c)Medicaid	34.5%	65.5%		100.0%	
	% within (C11)Mammogram	67.6%	63.6%		64.9%	
	% of Total	22.4%	42.5%		64.9%	
	yes	Count	77	174	1	252
	% within (C17c)Medicaid	30.6%	69.0%	.4%	100.0%	
	% within (C11)Mammogram	32.4%	36.2%	100.0%	35.0%	
	% of Total	10.7%	24.2%	.1%	35.0%	
	no answer	Count		1		1
% within (C17c)Medicaid		100.0%		100.0%		
% within (C11)Mammogram		.2%		.1%		
% of Total		.1%		.1%		
Total	Count	238	481	1	720	
	% within (C17c)Medicaid	33.1%	66.8%	.1%	100.0%	
	% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%	
	% of Total	33.1%	66.8%	.1%	100.0%	

TABLE 3.20 – Other Insurance and Mammogram Screening**(C17d)Other health insurance * (C11)Mammogram Crosstabulation**

			(C11)Mammogram			Total
			no	yes	no answer	
(C17d)Other health insurance	no	Count	193	356	1	550
		% within (C17d)Other health insurance	35.1%	64.7%	.2%	100.0%
		% within (C11)Mammogram	82.1%	73.7%	100.0%	76.5%
		% of Total	26.8%	49.5%	.1%	76.5%
	yes	Count	42	125		167
		% within (C17d)Other health insurance	25.1%	74.9%		100.0%
		% within (C11)Mammogram	17.9%	25.9%		23.2%
		% of Total	5.8%	17.4%		23.2%
	no answer	Count		2		2
% within (C17d)Other health insurance			100.0%		100.0%	
% within (C11)Mammogram			.4%		.3%	
% of Total			.3%		.3%	
Total	Count	235	483	1	719	
	% within (C17d)Other health insurance	32.7%	67.2%	.1%	100.0%	
	% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%	
	% of Total	32.7%	67.2%	.1%	100.0%	

Group IV – Mental Health – Psychological Factors

- 12) Those reporting difficulties with mental health such as feeling dissatisfied with their lives, feeling lonely, and so on, will have less utilization of mammogram screening.

Several mental health related variables were analyzed to determine if they had any impact on mammogram utilization. When asked, "Do you feel lonely most of the time." 12.5% responded "yes" and 86.3% responded "no." Thirty-three percent of those who responded that they felt lonely did not utilize mammogram screening and a similar percentage of those reporting that they did not feel lonely did not utilize mammogram screening.

There was no significant difference in the utilization of mammogram screening for those indicating either the presence or absence of sadness in their lives. These findings are tabulated in Tables 3.21 and 3.22. As the tables show, 30.3% of the women who responded that they felt sad did not have mammogram screenings whereas 34% who indicated no sadness did not utilize mammogram screenings.

Of the 700 women who answered the question related to the level of satisfaction with life. 45.3% responded they were very satisfied, 33% somewhat satisfied, 18.7% unsatisfied and 2.1% responded very unsatisfied. Thirty-one percent of the women who reported they were very satisfied and 31% who responded somewhat satisfied did not utilize mammogram screening.

When asked, "Have you ever thought of committing suicide?" two women responded "all the time." Interestingly, both women responded that they did not have mammogram screenings. Twenty-nine percent who responded "sometimes" and 33% who responded "never" did not utilize mammogram screening.

As the findings showed, mental health played an important role in the utilization of mammogram screenings. Although the results showed no significant difference in

screening utilization for those indicating satisfaction or not with their lives, findings nonetheless indicate that a relatively high percentage of women (30%) in both categories did not utilize mammogram screening.

Mental health related questions and the analyzed results are tabulated in tables 3.23 and 3.24.

TABLE 3.21 – Mental Health Variable – Feeling Lonely and Mammogram

(G2o)Do you feel lonely most of the time * (C11)Mammogram Crosstabulation

			(C11)Mammogram			Total
			no	yes	no answer	
(G2o)Do you feel lonely most of the time	no	Count	203	417	1	621
		% within (G2o)Do you feel lonely most of the time	32.7%	67.1%	.2%	100.0%
		% within (C11)Mammogram	85.7%	86.5%	100.0%	86.3%
		% of Total	28.2%	57.9%	.1%	86.3%
	yes	Count	30	60		90
		% within (G2o)Do you feel lonely most of the time	33.3%	66.7%		100.0%
		% within (C11)Mammogram	12.7%	12.4%		12.5%
		% of Total	4.2%	8.3%		12.5%
	sometimes	Count	2	2		4
		% within (G2o)Do you feel lonely most of the time	50.0%	50.0%		100.0%
		% within (C11)Mammogram	.8%	.4%		6%
		% of Total	.3%	.3%		6%
no answer	Count	2	3		5	
	% within (G2o)Do you feel lonely most of the time	40.0%	60.0%		100.0%	
	% within (C11)Mammogram	.8%	.6%		7%	
	% of Total	.3%	.4%		7%	
Total	Count	237	482	1	720	
	% within (G2o)Do you feel lonely most of the time	32.9%	66.9%	1%	100.0%	
	% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%	
	% of Total	32.9%	66.9%	.1%	100.0%	

TABLE 3.22 – Mental Health Variable – Feeling Sad and Mammogram**(G3a)Do you feel sad most of the time * (C11)Mammogram Crosstabulation**

			(C11)Mammogram			Total
			no	yes	no answer	
(G3a)Do you feel sad most of the time	no	Count	187	363		550
		% within (G3a)Do you feel sad most of the time	34.0%	66.0%		100.0%
		% within (C11)Mammogram	78.6%	75.2%		76.2%
		% of Total	25.9%	50.3%		76.2%
	yes	Count	50	114	1	165
		% within (G3a)Do you feel sad most of the time	30.3%	69.1%	6%	100.0%
		% within (C11)Mammogram	21.0%	23.6%	100.0%	22.9%
	no answer	Count	1	6		7
		% within (G3a)Do you feel sad most of the time	14.3%	85.7%		100.0%
% within (C11)Mammogram		.4%	1.2%		1.0%	
Total	Count	238	483	1	722	
	% within (G3a)Do you feel sad most of the time	33.0%	66.9%	.1%	100.0%	
	% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%	
	% of Total	33.0%	66.9%	.1%	100.0%	

TABLE 3.23 – Level of Satisfaction with Life and Mammogram Screening

(G13)Describe level of satisfaction with life * (C11)Mammogram Crosstabulation

			(C11)Mammogram			Total
			no	yes	no answer	
(G13)Describe level of satisfaction with life	very satisfied	Count	100	217		317
		% within (G13)Describe level of satisfaction with life	31.5%	68.5%		100.0%
		% within (C11)Mammogram	43.1%	46.5%		45.3%
		% of Total	14.3%	31.0%		45.3%
	somewhat satisfied	Count	73	157	1	231
		% within (G13)Describe level of satisfaction with life	31.6%	68.0%	.4%	100.0%
		% within (C11)Mammogram	31.5%	33.6%	100.0%	33.0%
		% of Total	10.4%	22.4%	.1%	33.0%
	satisfied	Count	51	80		131
		% within (G13)Describe level of satisfaction with life	38.9%	61.1%		100.0%
		% within (C11)Mammogram	22.0%	17.1%		18.7%
		% of Total	7.3%	11.4%		18.7%
	very unsatisfied	Count	3	12		15
		% within (G13)Describe level of satisfaction with life	20.0%	80.0%		100.0%
		% within (C11)Mammogram	1.3%	2.6%		2.1%
% of Total		.4%	1.7%		2.1%	
no answer	Count	5	1		6	
	% within (G13)Describe level of satisfaction with life	83.3%	16.7%		100.0%	
	% within (C11)Mammogram	2.2%	.2%		.9%	
	% of Total	.7%	.1%		.9%	
Total	Count	232	467	1	700	
	% within (G13)Describe level of satisfaction with life	33.1%	66.7%	.1%	100.0%	
	% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%	
	% of Total	33.1%	66.7%	.1%	100.0%	

TABLE 3.24 – Tendency to Commit Suicide and Mammogram Screening

(G12)Ever thought about committing suicide * (C11)Mammogram Crosstabulation

			(C11)Mammogram			Total
			no	yes	no answer	
(G12)Ever thought about committing suicide	all the time	Count	2			2
		% within (G12)Ever thought about committing suicide	100.0%			100.0%
		% within (C11)Mammogram	.9%			3%
		% of Total	.3%			.3%
	sometimes	Count	15	36		51
		% within (G12)Ever thought about committing suicide	29.4%	70.6%		100.0%
		% within (C11)Mammogram	6.9%	8.1%		7.7%
		% of Total	2.3%	5.4%		7.7%
	never	Count	201	405	1	607
		% within (G12)Ever thought about committing suicide	33.1%	66.7%	.2%	100.0%
		% within (C11)Mammogram	92.2%	91.2%	100.0%	91.6%
		% of Total	30.3%	61.1%	.2%	91.6%
no answer	Count		3		3	
	% within (G12)Ever thought about committing suicide		100.0%		100.0%	
	% within (C11)Mammogram		.7%		.5%	
	% of Total		.5%		.5%	
Total	Count	218	444	1	663	
	% within (G12)Ever thought about committing suicide	32.9%	67.0%	.2%	100.0%	
	% within (C11)Mammogram	100.0%	100.0%	100.0%	100.0%	
	% of Total	32.9%	67.0%	.2%	100.0%	

CHAPTER 4

RESULTS - CONCLUSIONS

Based on the data analysis, 27% percent of the women surveyed indicated not having had a mammogram screening in their lifetime. Among the participants who had had a mammogram screening, 57% reported that they had it done within the last year, 26.5% within the last 5 years, and 14.9% longer than 5 years. Table 4.1 shows the number of people that utilized mammogram screening in different time frames.

TABLE 4.1 – Mammogram Screening Time Frame

		Mammogram Screening Time Frame			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	within last year	280	31.5	57.0	57.0
	within last 5 years	130	14.6	26.5	83.5
	more than 5 years	73	8.2	14.9	98.4
	no answer	8	.9	1.6	100.0
Total		491	55.2	100.0	
Missing	System Missing	399	44.8		
	Total	399	44.8		
Total		890	100.0		

Some of the common reasons cited by the participants for not having had a mammogram were – “the doctor did not prescribe,” “never suspected of any problem,”

“doesn’t need it,” and “afraid to ask.” The survey showed that a majority of the women did not have mammogram screening because their doctor did not prescribe it. Although 86% of the participants have a regular doctor, the fact that 27% did not utilize mammogram screening is significantly high. This result suggests that physicians/doctors recommendation plays an important role in receiving a mammogram screening.

The results of the survey indicate that basic demographic and socioeconomic factors such as age, income, education, and occupation as well as cultural factors such as spoken language and nativity played a significant role in the use of mammogram screening among the Hispanic women in the two counties studied in the Rio Grande Valley region of South Texas.

A significant percentage of older women, age 81 and above, did not have a mammography screening. This may be attributed to lack of knowledge about screening procedures, lower education and income levels, and lack of accessibility to medical care. Moreover, older women may have transportation problems and therefore experience lower screening rates.

The study showed that, women who were separated and widowed were less likely to have mammogram screening. This may be due to lack of support especially from the family members. Widowed and separated women may not have immediate family who can take care of their medical needs and therefore a significant percentage of women in this category may not have received a mammogram screening.

The results on education levels and utilization of mammogram screening showed that the higher the education level of the studied women, the more likely their utilization

of mammogram screening. It may be satisfactorily concluded that a woman with higher education is more likely to keep herself informed about breast cancer related health risks. Moreover, educated women are more likely to read and understand the importance of mammogram screenings and regular doctor visitations. Being educated not only helps in keeping themselves informed but also in asking the right questions during doctors visits and demanding the annual mammogram screenings.

Similar to education levels, occupation also played a significant role in the utilization of mammography screening. Women holding technical and professional positions most likely have college level education and therefore are better informed about the importance of mammogram screenings. As results show, this category of women reports a higher utilization of mammogram screenings whereas a higher percentage of women, who are housewives, laborers, farm workers, etc., have underutilized the screenings. Again, it is possible that women who have low education levels hold these positions and therefore may not have knowledge and information about breast cancer in general and mammogram screening in particular.

A higher percentage of Spanish-speaking women did not utilize mammogram screening as compared to the English-speaking women. The reasons for this may be due to lack of access to language relevant information. Moreover, the literature and other information materials may not be written to be easily read and understood by women who have not had more than an elementary level education. It is also plausible that most of the information that these women may have received is presented in a medically oriented

style rather than simple language. This, in turn, may hinder in reading and understanding the importance of mammogram screening.

Lastly, the study shows that women who are able to drive are more likely to have mammography screening. Women who do not drive depend on others for transportation to medical facilities and doctor visits. Due to this dependency, it is speculated here that a significant percentage of women who do not drive do not utilize mammogram screening.

Finally, the results of the study indicate that the utilization of mammogram screenings among Hispanic women in Hidalgo, Cameron, Willacy, and Starr Counties is associated with various demographic and socioeconomic factors. The results follow the patterns observed by the earlier studies as discussed in prior sections of this report. This study represents a small component of a larger epidemiological study of middle age and aging in the Rio Grande region of South Texas. As such, only a limited number of questions on mammography screenings and breast cancer awareness were included in the survey instrument. In reviewing the findings presented above, it is recommended that an in-depth, detailed study of breast cancer and mammography would be required to be able to fully investigate factors that may influence or hinder women from conducting self-breast examination and clinical breast examination. Moreover, it is also suggested that information on family background, cultural attitudes and beliefs and overall factual knowledge about breast cancer will provide for a better understanding and more accurate trends of screening practices among Hispanic women in the Rio Grande Valley region of South Texas.

REFERENCES

- American Cancer Society. *Breast Cancer Facts and Figures 1997-1998*. Publication No. 97-20M-No. 8610.97-R. 1997.
- Henderson C. *Hispanics have Higher Breast Cancer Death Rates*. Cancer Weekly.. Mar 2. 1992. PP 7(1)\
- Hopper SV. *The Influence of Ethnicity on the Health of Older Women*. Clinics in Geriatric Medicine. Vol. 9, No. 1. 1993. PP 231-259.
- Liu L. *Breast Cancer Overview*. University of Pennsylvania Cancer Center, Dec. 1999
- Mickley J and Soeken K. *Religiousness and Hope in Hispanic and Anglo American Women with Breast Cancer*. Oncology Nursing Forum. Vol. 20, No. 8, 1993. PP 1171 - 1177.
- National Cancer Institute. *Understanding Breast Changes – A health Guide for All Women*. NIH Publication No. 97-3536. Sep. 1997.
- O'Malley AS, Mandelbalt J, Gold K, Cagney KA, Kerner J. *Continuity of Care and the Use of Breast and Cervical Cancer Screening Services in a Multiethnic Community*. Arch Intern Med. Vol. 157, Jul 1997. 1462-70.
- Pearlman DN, Rakowski W, Ehrich B, Clark MA. *Breast Cancer Screening Practices Among Black, Hispanic, and White Women: Reassessing Differences*. American Journal of Preventive Medicine 1996; 12(5): 327-337.
- Rakowski W, Fulton JP, and Jones AC. *Determinants of Breast Cancer Screening among Inner-City Hispanic Women in Comparison with Other Inner-City Women. (Abstract)* Public Health Reports. 110 (4). 1995. PP 476-482
- Ramos R.. *An Ethnographic Study of Older Hispanic Women at Risk to Breast Cancer*. 1998.
- Salzar MK. *Hispanic Women's Beliefs About Breast Cancer & Mammography*. Cancer Nursing. 19(6); 1996. PP 437 - 446.
- Segal M. *Progress Against Breast Cancer*. FDA Consumer Report. Oct. 1992. Department of Health and Human Services.
- Solis J, Marks G, Richardson JL, Collins LM, Birba L, and Hisserich JC. *Health Behavior of Elderly Hispanic Women: Does Cultural Assimilation Make a Difference (Abstract)*. American Journal of Public Health. 77(10), 1987. PP 1315-9

Suarez L. *Pap Smear and Mammogram Screening in Mexican American Women: The Effects of Acculturation*. American Journal of Public Health. Vol. 84, No. 5, 1994. PP 742-746.

Texas Cancer Council. *Texas Breast and Cervical Cancer Plan: A Guide to Action*. 1996.

Texas Cancer Council. *Texas Breast and Cervical Cancer Plan: A Guide to Resources and Data*. 1996.

Texas Cancer Data Center. *Cancer Profile, 1995*. Tcdc.mdacc.tmc.edu.

Texas Department of Health. *Someone You May Know; Breast Cancer in Texas*. Information Brochure, 1996.

Tollestrup K, Frost F, Hunt WC, Gilliland F, Key CR, and Urbina CE. *Breast Cancer Survival among New Mexico Hispanic, American Indian, and Non-Hispanic White Women (Abstract)*. Cancer Epidemiology, Biomarkers, and Prevention. 5 (11). Nov. 1996. PP 861-866.

www.breastcancerinfo.com/bhealth/html/facts_and_figures.asp

www.mediconsult.com

APPENDIX

APPENDIX A

Survey Questionnaire

I would like to begin by asking you some questions about yourself:

(**Interviewer: Circle the Gender of the Participant)

A1. 1. Male 2. Female

(**Note: it may be easier to ask A3 first)

A2. How old are you? _____

A3. When were you born? (mm/dd/yy) _____

A4. Where were you born?

01. Mexico	06. Nicaragua
02. Estados Unidos de America.	07. El Salvador
03. Puerto Rico	08. Guatemala
04. Cuba	99. No Contesto.
05. Panama	09. Other (specify) _____

A5. What is your Marital Status?

01. Married	04. Separated
02. Single, never married	05. Widowed
03. Divorced	99. No Answer

(**Questions A6 to A10 Only for those not born in the U.S.)

(**Note: it may be easier to ask A7 first)

A6. How long ago did you come to the U.S.? _____

A6a. From what city and state did you immigrate? _____

A7. When did you come to the U.S.? (year) _____

A8. How old were you when you first came? _____

A9. Who was the first one to come? _____

A10. Where did you stay when you first came? _____

(**Based on these answers and your observations, use the term that most applies: Spouse, Partner, etc.)

A11. What is the highest grade (year) of regular school you completed?

(**Circle the actual number and then, circle the code.)

01. 0, 1, 2, 3, 4, 5, 6, 7, 8	05. 16
02. 9, 10, 11.	06. 17, 18
03. 12	07. 19+
04. 13, 14, 15	

A11a. Have you attended any trade, vocational, or technical schools?

01. Yes 00. No 99. No Answer 09. Other _____

A12. What is the highest grade (year) of regular school your partner completed?

(**Circle the actual number and then, circle the code)

01. 0, 1, 2, 3, 4, 5, 6, 7, 8	05. 16
02. 9, 10, 11.	06. 17, 18
03. 12	07. 19+
04. 13, 14, 15	

A12a. Has your partner attended any trade, vocational, or technical schools?

01. Yes 00. No 99. No Answer 09. Other _____

[PLATE 1]

(**Circle each response)

	A13a.		A13b. If yes, How much?			
	Yes	No	A lot	Some	A little	N/A
A. Do you speak Spanish?	01	00	02	03	04	99
B. Do you speak English?	01	00	02	03	04	99

	A13c.		A13d. If yes, how much?			
	Yes	No	A lot	Some	A little	N/A
A. Do you read Spanish?	01	00	02	03	04	99
B. Do you write Spanish?	01	00	02	03	04	99
C. Do you read English?	01	00	02	03	04	99
D. Do you write English?	01	00	02	03	04	99

A14. Are you at present...?

	Yes	No	NA
A. Employed full time	01	00	99
B. Employed part time	01	00	99
C. Retired	01	00	99
D. Retired with disability	01	00	99
E. Disabled, but not receiving disability	01	00	99
F. Unemployed and looking for work	01	00	99
G. Never have worked	01	00	99
H. Other (specify) _____	01	00	99

(**If response was Yes to A)

14a. On the average, how many hours per week do you work at your main job? _____

(**If response was Yes to "D" or "E"...)

A15. Since when have you been disabled? (mm/dd/yy) _____

A15a. How old were you when this happened? _____

(**If response was Yes to "D" only...)

A15b. When did you start receiving disability benefits? (mm/dd/yy) _____

A15c. How old were you when you started receiving disability benefits? _____

A16. What type of work have you done most of your life? _____

A16a. How long did you do this work? _____

A16b. Where did you work? (i.e. fields, company, dealership)

(**Actual description of workplace, name of company, location, etc.)

A16c. Did you have a second job? _____ A16d. Where? _____ A16d1. What type _____

A16e. Did you have a third job? _____ A16f. Where? _____ A16f1. What type _____

(**If the subject is single and does not have a partner living with him/her, skip to A20)

A17. Is your partner at present...

	Yes	No	NA
A. Employed full time	01	00	99
B. Employed part time	01	00	99
C. Retired	01	00	99
D. Retired with disability	01	00	99
E. Disabled, but not receiving disability	01	00	99
F. Unemployed and looking for work	01	00	99
G. Never have worked	01	00	99
H. Other (specify) _____	01	00	99

(**If response was Yes to "A")

A17a. On the average, how many hours per week did he/she work on the main job? _____

(**If response was Yes to "D" or "E"...

- A18. Since when has he/she been disabled? (mm/dd/yy) _____
 A18a. How old was he/she when this happened? _____

(**If response was Yes to "D" only...)

- A18b. When did he/she start receiving disability? (mm/dd/yy) _____
 A18c. How old was he/she when you started receiving disability? _____

- A19. What type of work has he/she done most of his/her life? _____

- A19a. How long did he/she do this work? _____
 A19b. Where did he/she work? (i.e. fields, company, dealership)
 (**Actual description of workplace, name of company, location, etc.)

- A19c. Did he/she have a second job? _____ A19d. Where? _____ What type _____
 A19e. Did he/she have a third job? _____ A19f. Where? _____ What type _____

- A20. What estimate does your total household income per month from all sources (include only your own)?

\$ _____ x 12 = \$ _____
 (Month) (Year)

(**If person is married or lives with a partner, then:)

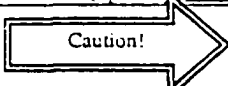
- A20a. What do you estimate is your total household income, including your partner, per month from all sources?
 \$ _____ x 12 = \$ _____
 (Month) (Year)

- A20b. Do you receive food stamps?
 01. Yes 00. No 99. No Answer

- A20c. If you do receive them, how much do you receive each month?
 \$ _____ x 12 = \$ _____
 (Month) (Year)

- A21. Do you get money from any of the following sources? (circle "yes" or "no" for each option)

	You			Partner		
	Si	No	NA	Yes	No	NA
A. Social Security	01	00	99	01	00	99
B. SSI (supplemental Security Income)	01	00	99	01	00	99
C. Retirement pension (RR Retirement)	01	00	99	01	00	99
D. Veteran's Pension	01	00	99	01	00	99
E. Wages or salary	01	00	99	01	00	99
F. Money from relatives (children, brother/sister)	01	00	99	01	00	99
G. Rental properties or other investments	01	00	99	01	00	99
H. Household works, selling food, animals, etc.	01	00	99	01	00	99
I. For doing childcare, (grandchildren, neighbors, etc)	01	00	99	01	00	99
J. Aid to families with dependent children	01	00	99	01	00	99
K. Other (specify) _____	01	00	99	01	00	99



(**A22 to A29 Only for those between 50-60 years old.)

- A22. Economically speaking, what financial arrangements have you made to prepare yourself for your retirement? (**circle yes or no for each of the following options)

	Yes	No	NA
A. IRA	01	00	99
B. Contribution to your pension	01	00	99
C. Savings	01	00	99
D. Properties	01	00	99
E. Investments	01	00	99
G. Other _____			

A23. At what age do you expect to retire, or at what age did you expect to retire (if already retired)? _____

A24. At the time you retire/d do you (or did you) expect to collect:

	Yes	No	NA
A. Social Security	01	00	99
B. Social Security (SSI)	01	00	99
C. Disability	01	00	99
D. Pensions and annuities	01	00	99
E. Other (specify) _____			

A25. Taking into consideration all of the financial arrangements you have (or had) made to prepare yourself for retirement, do you believe (or did you believe) that upon retirement, you will (or would) be able to maintain the same lifestyle you now have (or did have before retiring)?

01. Yes 00. No 99. No Answer

A26. Have (or had) you seriously thought about different activities you would like to engage in once you retire (or retired)?

01. Yes 00. No 99. No Answer

A27. Once you retire, would you like to... (or before you retired, did you plan on...)

A27a. Move to a different state?	01. Yes	00. No	99. No Answer
A27b. Move to a different home?	01. Yes	00. No	99. No Answer
A27c. Move in with your children?	01. Yes	00. No	99. No Answer
A27d. Start a new career?	01. Yes	00. No	99. No Answer
A27e. Start or retake a hobby?	01. Yes	00. No	99. No Answer
A27f. Return to school?	01. Yes	00. No	99. No Answer
A27g. Other _____			99. No Answer

A28. When you consider the above, do you (or did you) consider them major changes in your life?

01. Yes 00. No 99. No Answer

A29. When you think of the above, do you (or did you) consider them minor change sin your life?

01. Yes 00. No 99. No Answer

Housing

I would like to ask you a few questions about your living arrangements:

B1. Are you the head of the household?

01. Yes 00. No 99. No Answer

[PLATE 2]

B1a. If so, do you live...

01. Alone
02. With my spouse/partner only
03. With my spouse/partner & other relatives (children, grandchildren, brother/sister)
04. With my spouse/partner & non-related people (friends)
05. Only with other relatives
06. Only with other non-related persons (friends)
07. With relatives & other non-related persons (friends)
09. Other, please specify _____
99. No answer.

B1b. If no, where do you live...

01. With my children or grandchildren
02. With relatives who are not children or grandchildren.
03. With friends.
09. Other (specify _____)
99. No response.

B15. Do you fear your social security check will not arrive?

5. Always	4. Most of the time	3. Sometimes	2. Rarely	1. Never
-----------	---------------------	--------------	-----------	----------

B16. Do you fear you will lose some of your benefits?

5. Always	4. Most of the time	3. Sometimes	2. Rarely	1. Never
-----------	---------------------	--------------	-----------	----------

Health

I would like to ask you some questions about your health.

C1. How much do you weigh? _____ lbs.

C2. How tall are you? _____ ft _____ inches

[PLATE 4]

C3. Would you say that your health in general is:

01. Excellent	02. Good	03. Fair	04. Poor	99. No answer
---------------	----------	----------	----------	---------------

C4. Do you wear eyeglasses or contact lenses?

01. Yes 00. No 09. Don't know 99. No Answer

*(**If answered yes...)*

C4a. Do you need them to read or sew?

01. Yes 00. No 09. Don't know 99. No Answer

C4b. Do you need them to see far, or television, at the theater?

01. Yes 00. No 09. Don't know 99. No Answer

C5. Do you have any of the following conditions or illnesses at the present time?
 (Circle Yes, No, or DK for each of the following questions and please specify for each condition)

	Suffer From				Take Medicine			Special Diet			Go to therapy			Any Other (folk)		
	Yes	No	DK	NA	Yes	No	NA	Yes	No	NA	Yes	No	NA	Yes	No	NA
A. Hardening of the arteries ¹	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
B. High blood pressure	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
C. Heart trouble (angina, heart attacks, arrhythmia's)	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
D. Effects of stroke	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
E. Cancer, leukemia or a tumor	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
F. Nerve or muscle problems (neuralgia, Parkinson's disease or seizures)	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99	99
G. Forget things often	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
H. Gastric ulcers, problems with colitis, hemorrhoids	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
I. Problems with joints or bones	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
J. Gallbladder	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
K. Kidney or urinary problems (hemodialysis)	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
L. Liver	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
M. Respiratory problems (emphysema, asthma, bronchitis)	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
N. Skin problems (rashes, bed sores, eczema, sores, ulcers)	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
O. Speech impairment	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
P. Hearing impairment (deafness)	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
Q. Visual impairment (need glasses, etc.)	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
R. Glaucoma	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
S. Cataracts	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
S1a. Retinitis																
T. Paralysis or weakness	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
U. Thyroid problems	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99

V. Diabetes	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
W. Neurosis/Anxiety/Depression	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
X. Prostate or uterus _____	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
Y. infection or parasites (venereal included)	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
Z. Other illness _____	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
AA. Cholesterol?	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
BB. Oral health problems?	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
CC. Tooth ache?	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
DD. Bleeding gums?	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
EE. Do you use dental plates?	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
FF. Problems chewing?	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
GG. Swallowing?	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
HH. Do you use dental floss?	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
II. Has your ability to taste changed?	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99
JJ. Has your ability to smell changed?	01	00	09	99	01	00	99	01	00	99	01	00	99	01	00	99

KK. How many times a day do you brush your teeth? _____

LL. When was the last time you visited the dentist? _____

C6. May I see all the medications you have taken in the last two weeks? (Please fill in as many of the blank spaces as possible. If medication was bought in Mexico, please indicate so under VI.)**

I. Generic Name	II. Take it for...	III. Refill Number	IV. Patient's Name (Yes/No)	V. Doctor's Name	VI. **Name of Drugstore (city)	VII. Childproof (Yes/No)
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

(**Write down all other medicines with no apparent relation to any illness. Be certain to double check before recording them.)

1. _____
2. _____
3. _____
4. _____
5. _____

C7. In the last 5 years, have you had surgery or any testing that required you to stay in a hospital (overnight)?

01. Yes 00. No 09. Don't know 99. No Answer

C7a. If the answer was Yes, then please specify. (For example: "Bypass, Hemodialysis, Cardiac catheterization, Gallbladder," Etc.) _____

[PLATE 5]

C8. Does your physical condition require you to stay home?

01. All the time	02. Most of the time	03. Sometimes	04. Never	99. NA
------------------	----------------------	---------------	-----------	--------

(**If the answer was never, skip to C9)

C8a. Since when? _____

C8b. How do you get what you need (groceries, medical care, medical care, medicines, etc.) _____

C9. Does your physical condition require you to stay in bed?

01. All the time	02. Most of the time	03. Sometimes	04. Never	99. NA
------------------	----------------------	---------------	-----------	--------

(**If the answer was never, skip to C10)

C9a. Since when? _____

C9b. Do you have someone to take care of you ?

01. Yes 00. No 09. Don't know 99. No Answer

C9c. Who? _____

C10. Do you have a regular doctor that you go to when you get sick?

01. Yes 00. No 09. Don't know 99. No Answer

C10a. If the answer is yes, is the doctor in:

01. Mexico 02. United States 99. No Answer

C10b. Have you received any other type of medical attention in Mexico?

01. Yes 00. No 99. No answer

[PLATE 6]

C10c. If the answer was yes, was it from: (all that apply)

01. Pharmacist

02. Hospital

03. Dentist

04. Other _____

99. No answer

(**C11 and C12 are just for Females.)

C11. Have you had a mammogram?

01. Yes 00. No 99. No Answer

[PLATE 7]

C11a. If yes, how long ago?

01. Within the last year

02. Within the last 5 years

03. More than 5 years

99. No answer

C11b. If the answer was No, why not? _____

C12. Have you had a Pap Smear?

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01. Yes 00. No 99. No Answer

C12a. **If yes, how long ago?**

- 01. Within the last year
- 02. Within the last 5 years
- 03. More than 5 years
- 99. No Answer

C12b. **If the answer was No, why not?** _____

[PLATE 8]

C13. **When was the last time you saw a doctor?**

- 01. Sometime this week
- 02. 1 to 2 weeks ago
- 03. 3 to 4 weeks ago
- 04. No more than 1 to 3 months ago
- 05. 4 to 6 months ago
- 06. 7 to 12 months ago
- 07. More than a year ago
- 08. Don't know or don't remember
- 99. No Answer

[PLATE 9]

C14. **How do you pay for your medical care?** (circle as many as apply)

- 01. Cash (money or check)
- 02. Medicare (wallet-sized card)
- 03. Medicaid (Blue page delivered monthly)
- 04. Private insurance
- 05. Veterans
- 08. Other _____
- 99. No Answer

C15. **Do you have any unpaid medical bills that are not covered by insurance or other programs?**

- 01. Yes 00. No 09. Don't know 99. No Answer

[PLATE 10]

C16. **Compared to 5 years ago, do you think that your physical health is...**

- 01. Better 02. About the same 03. Worse 99. No Answer

C16a. **Compared to 1 year ago, do you think that your physical health is...**

- 01. Better 02. About the same 03. Worse 04. No Answer

C17. **Do you have...? (**circle yes, no or DK for each of the following)**

	Yes	No	DK	NA
A. Medicare-Plan A (Hospital)	01	00	09	99
B. Medicare-Plan B (Doctor)	01	00	09	99
C. Medicaid	01	00	09	99
D. Other health insurance	01	00	09	99
E. Veterans	01	00	09	99

[PLATE 11]

C18. **In general, who do you think takes better care of a sick elderly person?**

- 01. Partner/spouse
- 02. Daughter
- 03. Sons
- 04. Daughters-in-law
- 05. Sons-in-law
- 06. Grandchildren
- 07. Relatives
- 08. Friends
- 09. Neighbors
- 10. A trained professional
- 11. Other _____
- 99. No Answer

C19. **Have you been in the hospital (for medical reasons) at least over night during the past 12 months?**

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01. Yes 00. No 99. No Answer
- C19a. If yes, do you remember how many times you have been in the hospital during this time period (last 12 months)? _____
- C19b. Could you tell me the reason you were in the hospital? _____

C20. What is the name of the hospital you were in most recently? (If respondent can't remember the name, write down the city where it is located). _____

C21. Have you been in the hospital (for medical reasons) at least over night in the past 5 years (**not including the last 12 months)?

01. Yes 00. No 99. No Answer

[PLATE 12]

C21a. If yes, do you remember how many times you have been in the hospital during these past 5 years?

01. 1 to 5 times	05. More than 20
02. 6 to 10 times	09. Don't Know
03. 11 to 15 times	99. No Answer
04. 16 to 20 times	

C21b. Could you tell me the reason you were in the hospital? _____

C22. What is the name of the hospital(s) you were in the last 5 years? (** If respondent cannot remember the name, write down the city where it is located.) _____

C23. Have you been a patient in a nursing home?

01. Yes 00. No 99. No Answer

C23a. If yes, how many times? _____

C24. If you have been in a nursing home, was it in the last 12 months?

01. Yes 00. No 99. No Answer

C24a. If yes, how many times? _____

C24b. Can you tell me why you were in a nursing home? _____

C25. What is the name of the nursing home? _____

Diabetes

D1. Do you have Diabetes and (or high blood sugar)?

01. Yes	09. Don't Know
00. No (** If not, skip to D4)	99. No Answer

D1a. If yes, was it diagnosed by a doctor?

01. Yes 00. No 99. No Answer

D2. Do you take insulin for diabetes?

01. Yes 00. No 09. Don't know 99. No Answer

D2a. If yes, since when? _____

D3. Are you taking any medications (besides insulin) for diabetes (or high blood sugar)?

(** Include folk remedies)

01. Yes 00. No 09. Don't know 99. No Answer

D3a. If yes, since when? _____

[PLATE 13]

D4. How many in your immediate family have or have had diabetes, sugar diabetes or high blood sugar? (**may mark more than one)

01. Brother	06. Father
02. Sister	07. Spouse
03. Son	08. Grandchildren
04. Daughter	10. Grandparents
05. Mother	99. No Answer

D5. **Has there been a death in the family related to diabetes?**
 01. Yes 00. No (**Go to E1) 09. Don't Know 99. No Answer

D5a. **If yes, who died?**

01. Father	04. Sister
02. Mother	09. Other _____
03. Brother	99. No Answer

Activities of Daily Living

Now I would like to ask about daily activities, things we all do as a part of our daily lives.
 (** Be sure to read all responses, if applicable)

E1. **Can you use the telephone...**

- 01. Without help, including looking up numbers and dialing.
- 02. With some help (can answer phone or dial operator in an emergency)
- 03. Or are you completely unable to use the telephone?
- 04. Does not have a telephone.
- 99. No Answer

(**If the answer was 02 or 03:)

E1a. **Since when?** _____

E1b. **How do you compensate for this problem?** _____

E1c. **Have you thought of a way to better cope with this situation?** _____

[PLATE 14]

E2. **What kind of transportation do you use? (** all that apply)**

01. Drive yourself	06. Social Service Agency
02. Relatives	07. Walking
03. Friends/Neighbors	09. Other _____
04. Taxi	99. No Answer
05. Bus	

[PLATE 15]

E2a. **If answered yes to 01, then Do you have trouble driving at night?**

01. All of the time	04. Never
02. Most of the time	09. Don't Know
03. Sometimes	99. No Answer

E3. **Can you get to places that are too far to reach by just walking...**

- 01. Without help (can travel alone on buses, taxis or drive your own car)
- 02. With some help (need some one to help you or go with you when traveling)
- 03. Are you unable to travel unless emergency arrangements are made for a specialized vehicle like an ambulance?
- 99. No Answer

(**If the answer was 02 or 03:)

E3a. **Since when?** _____

E3b. **How do you compensate for this problem?** _____

E3c. **Have you thought of a way to better cope with this situation?** _____

E4. **Can you shop for groceries or clothes (**assuming subject has transportation)...**

- 01. Without help (taking care of all shopping needs yourself, assuming you had transportation)
- 02. With some help (need someone to go with you on all shopping trips)

03. Are you completely unable to do any shopping?
99. No Answer

(**If the answer was 02 or 03:)

- E4a. Since when? _____
E4b. How do you compensate for this problem? _____
E4c. Have you thought of a way to better cope with this situation? _____

E5. Can you prepare your own meals...

01. Without help (plan and cook a full meal)
02. With some help (can prepare some things, but unable to cook full meals yourself)
03. Are you completely unable to prepare any meals?
99. No Answer

(**If the answer was 02 or 03:)

- E5a. Since when? _____
E5b. How do you compensate for this problem? _____
E5c. Have you thought of a way to better cope with this situation? _____

E6. Can you do housework...

01. Without help (can clean floors or work in the yard, etc.)
02. With some help (can do light housework in the yard, etc.)
03. Are you completely unable to do any housework?
99. No Answer

(**If the answer was 02 or 03:)

- E6a. Since when? _____
E6b. How do you compensate for this problem? _____
E6c. Have you thought of a way to better cope with this situation? _____

E7. Can you take your own medicines...

01. Without any help (in the right doses at the right times)
02. With some help (able to take medicine if some one prepares it for you and/or someone reminds you to take it)
03. Are you completely unable to take your medicines?
99. No Answer

(**If the answer was 02 or 03:)

- E7a. Since when? _____
E7b. How do you compensate for this problem? _____
E7c. Have you thought of a way to better cope with this situation? _____

E8. Can you handle your own money...

01. Without help (write checks, pay bills on time, etc.)
02. With some help (manage day-to-day buying but need help managing your checkbook and paying your bills)
03. Are you completely unable to handle your own money?
99. No Answer

(**If the answer was 02 or 03:)

- E8a. Since when? _____
E8b. How do you compensate for this problem? _____
E8c. Have you thought of a way to better cope with this situation? _____

Physical ADL

F1. **Can you eat...**

- 01. Without help (able to feed yourself completely)
- 02. With some help (need help cutting food, etc.)
- 03. Are you completely unable to feed yourself?
- 99. No Answer

(**If the answer was 02 or 03:)

F1a. **Since when?** _____

F1b. **How do you compensate for this problem?** _____

F1c. **Have you thought of a way to better cope with this situation?** _____

F2. **Can you dress and undress yourself...**

- 01. Without help (able to pick out clothes, dress and undress yourself)
- 02. With some help
- 03. Are you completely unable to dress yourself?
- 99. No Answer

(**If the answer was 02 or 03:)

F2a. **Since when?** _____

F2b. **How do you compensate for this problem?** _____

F2c. **Have you thought of a way to better cope with this situation?** _____

F3. **Can you take care of your own appearance, for example combing your hair and shaving?**

- 01. Without help
- 02. With some help
- 03. Are you completely unable to maintain your appearance by yourself?
- 99. No Answer

(**If the answer was 02 or 03:)

F3a. **Since when?** _____

F3b. **How do you compensate for this problem?** _____

F3c. **Have you thought of a way to better cope with this situation?** _____

F4. **Can you walk...**

- 01. Without help (except from a cane)
- 02. With some help from a person or with the use of a walker, or crutches, etc.
- 03. Are you completely unable to walk?
- 99. No Answer

(**If the answer was 02 or 03:)

F4a. **Since when?** _____

F4b. **How do you compensate for this problem?** _____

F4c. **Have you thought of a way to better cope with this situation?** _____

F5. **Can you get in and out of bed...**

- 01. Without any help or aids of any kind
- 02. With some help (either from a person or with the aid of some device)
- 03. Are you totally dependent on someone else to lift you?
- 99. No Answer

(**If the answer was 02 or 03:)

F5a. **Since when?** _____

F5b. **How do you compensate for this problem?** _____

F5c. Have you thought of a way to better cope with this situation? _____

F6. Can you take a bath or a shower...

- 01. Without help
- 02. With some help (need help getting in and out of the tub, or need special attachments on the tub)
- 03. Are you completely unable to bathe yourself
- 99. No Answer

(**If the answer was 02 or 03:)

F6a. Since when? _____

F6b. How do you compensate for this problem? _____

F6c. Have you thought of a way to better cope with this situation? _____

F7. Do you ever have trouble getting to the bathroom on time?

- 01. No
- 02. Yes
- 03. Sometimes
- 04. Have a catheter or a colostomy
- 99. No Answer

(**If the answer was 02 or 03:)

F7a. Since when? _____

F7b. How do you compensate for this problem? _____

F7c. Have you thought of a way to better cope with this situation? _____

F8. Can you see...

- 01. Without any aids
- 02. With aids (glasses, contact lenses, magnifying glass, or someone helping you)
- 03. Are you completely blind?
- 99. No Answer

(**If the answer was 02 or 03:)

F8a. Since when? _____

F8b. How do you compensate for this problem? _____

F8c. Have you thought of a way to better cope with this situation? _____

F9. Can you hear...

- 01. Without aids
- 02. With aid (hearing aid, telephone amplifier)
- 03. Are you completely deaf?
- 99. No Answer

(**If the answer was 02 or 03:)

F9a. Since when? _____

F9b. How do you compensate for this problem? _____

F9c. Have you thought of a way to better cope with this situation? _____

Mental Health

[PLATE 17]

Next, I would like to ask you about how you feel about life:

G1. How would you describe your level of satisfaction with life in general at the present time?

01. Very satisfied	04. Very unsatisfied
02. Somewhat satisfied	99. No Answer
03. Not very satisfied	

G2. Please answer the following questions "Yes" or "No" as they apply to you now. There are no right or wrong answers, only what best applies to you. Occasionally a question may not seem to apply to you, but please answer "Yes" or "No," whichever is more nearly appropriate for you.

	Yes	No	Sometimes	NA
A. Do you wake up refreshed and rested most mornings?	01	00	09	99
B. Is your daily life full of things that interest?	01	00	09	99
C. Have you, at times, wanted to leave home?	01	00	09	99
D. Does it seem like no one understands you?	01	00	09	99
E. Have you had periods of days, weeks, or months when you could not take care of things because you could not "get going"?	01	00	09	99
F. Is your sleep fitful and disturbed?	01	00	09	99
G. Are you happy most of the time?	01	00	09	99
H. Do you think some people are out to get you?	01	00	09	99
I. Do you truly feel useless at times?	01	00	09	99
J. During the past few years, have you been well most of the time?	01	00	09	99
K. Do you feel weak all over, much of the time?	01	00	09	99
L. Are you troubled by headaches?	01	00	09	99
M. Are you having difficulty walking or keeping your balance?	01	00	09	99
N. Are you troubled by you heart pounding and by shortness of breath?	01	00	09	99
O. Even when you are with people, do you feel lonely most of the time?	01	00	09	99

G3. Do you...

	Yes	No	NA
A. Feel sad most of the time.	01	00	99
B. Cry without motive.	01	00	99
C. Want to go out by yourself.	01	00	99
D. Like to talk to your neighbors.	01	00	99
E. Like to meet new people.	01	00	99
F. Like to work or pass time in your garden, play bingo, do carpentry, do ceramics, paint, etc.	01	00	99

[PLATE 18]

G4. Would you say that you are...

01. Always Alert	04. Not alert
02. Alert most of the time	99. No Answer
03. Alert sometimes	

[PLATE 19]

G5. Compared to 5 years ago, do you consider yourself...

01. More Alert	04. Not Alert
02. Less Alert	99. No Answer
03. More or Less Equal	

G6. Do you nap during the day?

01. Yes	09. Don't Know
00. No	99. No Answer
03. Sometimes	

[PLATE 20]

G7. Compared to 5 years ago, do you feel content or tranquil?

01. More	03. Less
02. More or less the same	99. No Answer

G8. When you go out with friends or family and someone orders a drink, do you drink also?

01. Yes 00. No (**Skip to G9) 99. No Answer

[PLATE 21]

If you drink...

G8a. What do you drink?

01. Beer
02. Wine
03. Whiskey
09. Other _____
99. No Answer

G8b. How much do you drink per day? _____. If hesitant, ask the following:

01. 1 drink	04. 1 six-pack of beer
02. 2 drinks	05. 2 six-packs of beer
03. More than 3 drinks	06. _____
07. No answer	

G8b1. How much do you drink on a weekly basis? _____ (if hesitant ask the following:

01. 1-2 drinks	03. 5-6 drinks	05. 9-10 drinks
01a. 1-2 bottles of beer	03a. 1 six-pack	05. 3 six-packs or more
02. 3-4 drinks	04. 7-8 drinks	06. No answer
02a. 3-4 bottles of beer	04a. 2 six-packs	

G9. Do you keep Wine, Beer, Whiskey, or any thing else in your home for company?

01. Yes	09. Don't know
00. No (** skip to G10)	99. No Answer

G9a. What do you keep in your home?

01. Beer
02. Wine
03. Whiskey
09. Other _____
99. No Answer

G10. When you are at home alone, or with your spouse, do you drink: Beer, Wine, Whiskey, or other drinks daily?

01. Yes	09. Don't know
00. No (** skip to G13)	99. No Answer

G10a. What do you Drink when you are alone?

01. Beer
02. Wine
03. Whiskey
09. Other _____
99. No Answer

[PLATE 22]

G11. Do you drink more when:

01. Alone
02. With spouse or others
03. At parties or reunions
09. Don't Know
99. No Answer

(** G12 and G13 are sensitive questions!!)

(** G12 will be asked during section "O" later, but will be recorded here.)

[PLATE 23]

G12. Have you ever thought about committing suicide?

01. All of the time	03. Never
02. Sometimes	99. No Answer

[PLATE 24]

G13. Overall, how would you describe your level of satisfaction with your life?

01. Very satisfied	04. Very Dissatisfied
02. Somewhat Satisfied	99. No Answer
03. Dissatisfied	

G14. What is your favorite food? _____

[PLATE 25]

G15. When was the last time you ate your favorite food?

01. Today/Yesterday	05. More than 1 month
02. This week	06. More than 2 months
03. Last week	07. Too long ago to remember
04. One month ago	99. No Answer

G16. From the food you are allowed to eat, which is your favorite? _____

G16a. How many glasses of water do you drink per day? _____

G17. Of the following list of activities or pastimes, please tell me which ones you can do.

	Yes	No	Sometimes	DK	NA
01. Sew or Knit? Other _____	01	00	02	09	99
02. Play bingo	01	00	02	09	99
03. Drive a car	01	00	02	09	99
04. Make Tamales	01	00	02	09	99
05. Make tortillas	01	00	02	09	99
06. Do carpentry work	01	00	02	09	99
07. Fix things around the house	01	00	02	09	99
08. Work in the garden (planting, trimming, etc.)	01	00	02	09	99
09. Sing or play an instrument	01	00	02	09	99
10. Visit neighbors or friends	01	00	02	09	99
11. Ride in a car	01	00	02	09	99
12. Ride in a bus	01	00	02	09	99
13. Go walking with someone	01	00	02	09	99
14. Play board games or bingo	01	00	02	09	99
15. Do voluntary work with church/festivities	01	00	02	09	99

Social Support

[PLATE 26]

H1. Who is more likely to help you or take care of you (primary caregiver)?

(** Insist on only one response, choosing the person who would provide the most care. If this is not possible, then mark no more than 2 responses)

- 01. Spouse
- 02. Son
- 03. Daughter
- 04. Grandson
- 05. Granddaughter
- 06. Son-in-law
- 07. Daughter-in-law
- 08. Relative other than children or grandchildren
- 10. Friend
- 11. Hired non-professional caregiver (maid, etc.)
- 12. Home healthcare agency (nurse, aid, doctor)
- 13. No one (**go to H4)
- 09. Don't Know
- 99. No Answer

[PLATE 27]

H2. How often do you see this person?

- 01. Everyday
- 02. 3 or 4 times a week
- 03. Once a week
- 04. 3 or more times a month
- 05. Once a month
- 06. 3 or 4 times a year
- 07. 1 or 2 times a year
- 09. Don't know
- 99. No Answer

H3. What type of care or help does this person provide? _____

H4. There are a number of services provided to people in the community by agencies and programs. I am going to list some of these services and I would like for you to tell me (1) if you are familiar with the agency or program and (2) whether you have received services from them in the last year.

Agency or Program	Familiar With Provider				Received Service In Last Year			
	Yes	No	DK	NA	Yes	No	DK	NA
01. Amigos del Valle Nutrition Site	01	00	09	99	01	00	09	99
02. Visiting Nurse	01	00	09	99	01	00	09	99
03. Homemakers Program	01	00	09	99	01	00	09	99
04. Adult Day Care	01	00	09	99	01	00	09	99
05. Transportation	01	00	09	99	01	00	09	99
06. Elder Connection	01	00	09	99	01	00	09	99
07. Housing Authority	01	00	09	99	01	00	09	99
08. Meals on Wheels	01	00	09	99	01	00	09	99
09. Legal Aid	01	00	09	99	01	00	09	99
10. Senior Center	01	00	09	99	01	00	09	99
11. Health Fair	01	00	09	99	01	00	09	99
12. Free Health Screening	01	00	09	99	01	00	09	99
13. Older Workers Program	01	00	09	99	01	00	09	99
	Familiar With Provider				Received Service In Last Year			
	Yes	No	DK	NA	Yes	No	DK	NA
14. Eldercare	01	00	09	99	01	00	09	99
15. Association of the Valley for Independent Living	01	00	09	99	01	00	09	99
16. Texas Commission of Rehabilitation	01	00	09	99	01	00	09	99
17. Information Referrals	01	00	09	99	01	00	09	99
18. Church	01	00	09	99	01	00	09	99
19. Other	01	00	09	99	01	00	09	99

General Problems

[PLATE 28]

11. Now I am going to read you some problems that other people have mentioned. For each, would you tell me if this is a problem and how serious it is for you?

	Very serious problem	Somewhat serious problem	Not sure	Hardly a problem	Not a problem at all	NA
01. Day Transportation	05	04	03	02	01	99
02. Difficulty getting medical care	05	04	03	02	01	99
03. Difficulty paying for medical care	05	04	03	02	01	99
04. Loneliness	05	04	03	02	01	99
05. Poor housing	05	04	03	02	01	99
06. Not enough money to live on	05	04	03	02	01	99
07. Not enough food	05	04	03	02	01	99
08. Fear of crime	05	04	03	02	01	99
09. Not enough to do to keep busy	05	04	03	02	01	99
10. Not enough education	05	04	03	02	01	99
11. Not enough job opportunities	05	04	03	02	01	99
12. Not enough friends	05	04	03	02	01	99
13. Don't see relatives often enough	05	04	03	02	01	99
14. Don't see children often enough	05	04	03	02	01	99
15. Accident/Injuries	05	04	03	02	01	99
16. Handicaps	05	04	03	02	01	99
17. Transportation at night	05	04	03	02	01	99

J1. What do you consider the most memorable occasion in your life (** good, bad or both)?

J1a. How old were you when this occurred?

J2. What do you consider the first major tragedy in your life?

J2a. How old were you when this occurred?

J3. How many grandchildren do you have?

(** If none, go to K1)

[PLATE 29]

J4. How often do you see your grandchildren? (** if more than one set of grandchildren, consider those that are seen most often)

- 01. Everyday (live with them)
- 02. Everyday
- 03. 3 or 4 time a week
- 04. Once a week
- 05. Several times during the year
- 06. Rarely
- 07. Never
- 99. No Answer

Now I would like to ask you some questions about things you do with your grandchildren:

[PLATE 30]

J5. Do you... (** Mark all that apply)

- 01. Baby-sit
- 02. Cook for them
- 03. Recreation (movies, park)
- 04. Take them to school
- 05. Take them to church
- 06. Take them to doctor
- 07. Advise them
- 08. Tell them stories
- 11. Play with them
- 12. Teach them about religion
- 13. Watch TV
- 09. Other _____
- 99. No Answer

[PLATE 31]

J6. Now I would like to ask you if you grandchildren take you out to... (** Mark all that apply)

- 01. Recreation
- 02. To the doctor
- 03. To church
- 04. Shopping
- 05. Funerals
- 06. Visit friends
- 09. Other _____
- 99. No Answer

J7. Do you give gifts to your grandchildren?

- 01. Yes
- 00. No
- 99. No Answer

[PLATE 32]

J8. If yes, what? (**choose only one)

01. Money	04. Toys
02. Clothes	05. Love
03. Jewelry	09. Other _____
	99. No Answer

J9. Do your grandchildren give you gifts?

- 01. Yes
- 00. No
- 99. No Answer

[PLATE 33]

J10. **If yes, what?**

01. Money	03. Jewelry
02. Clothes	09. Other _____
	99. No Answer

K4. **Now I will read 5 events that are more than likely to occur in a person's life (not yours, but in general). They are not in any particular order. In what order do you feel they should occur?**

	Find a job
	Get married
	Buy a house
	Have a baby
	Finish school

K4a. **In what order do you feel they should occur?**

	Find a job
	Get married
	Buy a house
	Have a baby
	Finish school

[PLATE 37]

K5. **I would like you to think of your life. Do you feel that you have lived...**

- 01. Too short a time
- 02. A short time
- 03. A long time
- 04. Too long
- 09. Don't know
- 99. No Answer

K7. **When you think about your age, do you think of yourself as (**looking at cognitive perception)**

01. Very young	05. Old
02. Young	06. Very old
03. Middle age	07. Of age
04. Older	99. No Answer

[PLATE 40]

K8. **What time is the most important in your life?**

- 01. The distant past (at least 10 years ago)
- 02. The near past (at least 5 years ago)
- 03. The immediate past (last year)
- 04. Now, today, this year
- 05. The immediate future (1 or 2 years from now)
- 06. The near future (5 to 10 years from now)
- 07. The distant future (10 or 15 years from now)
- 99. No Answer

[PLATE 41]

K9. **Tell me how old you feel. Do you feel... (** emotional perceptions)**

01. Very young	05. Old
02. Young	06. Very old
03. Middle age	09. Don't know
04. Older than middle age, but not old	99. No answer

K10. **When you talk to others about your age, what words are you likely to use? (** social perceptions)**

01. Very young	05. Old
02. Young	06. Very old
03. Middle age	09. Don't know
04. Older than middle age, but not old	99. No answer

[PLATE 42]

K11. **At this stage of your life, do you prefer to see yourself as...**

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01. Husband/wife	04. Grandparents
02. Mother/Father	99. No Answer
03. Son/Daughter	

[PLATE 43]

K12. I will read 5 events that might have occurred in your life. If these events have occurred during your life course, please tell me in what order they occurred by placing a number 1 on the event that occurred 1st and a number 2 on the event that occurred 2nd and so on.

	Found a job
	Got married
	Bought a house
	Have a baby
	Finished school

Performance Test

L1. Have the subject walk in a straight line approximately 50 feet.

L1a. Did the subject walk a straight line?

01. Yes 00. No 99. Could not walk

L2. Ask the subject to don a sweater/shirt... Have the subject button and unbutton the sweater/shirt.

L2a. Did the subject have difficulty with the task?

- 01. No difficulty
- 02. Minimal difficulty
- 03. Great difficulty
- 04. Could not walk

L3. Ask the subject to raise both hands over his/her head.

L3a. Did the subject have difficulty with the task?

- 01. No difficulty
- 02. Minimal difficulty
- 03. Great difficulty
- 04. Could not walk

L4. Ask the subject to sit, then have him/her touch...

	Can he/she complete the task?	
L4a. Touch their knees	01. Yes	02. No
L4b. Touch their calves	01. Yes	02. No
L4c. Touch their ankles	01. Yes	02. No
L4d. Touch the floor	01. Yes	02. No

L5. Ask the subject to sit down in a chair with out any help.

L5a. Can the subject do this task without the help of his/her hands?

01. Yes 00. No

(** if answered No)

- 01. With the help of one arm.
- 02. With the help of both arms.
- 03. Could not accomplish the task without the help

L5b. Show me how you... (** Indicate what hand was used)

- 1. Throw a ball _____
- 2. Hammer a nail _____
- 3. Cut with a knife _____
- 4. Turn a door knob _____
- 5. Use a pair of scissors _____
- 6. Use an eraser _____
- 7. Write your name _____

Dynamometer

(**Begin with the preferred hand, then continue on with the non-preferred hand)

L6. (**Instructions for the participant) I now would like to measure your grip strength. We will use this instrument to do that. Before continuing, I want to make certain that the instrument is

adjusted to your hand. (**Adjust the dynamometer between 3 for a small hand and 5 for a large hand. Find a comfortable setting for the subject. Make certain to reset the dynamometer before each measurement.)

(**Instructions for the subject) Place your feet about shoulder with apart. Please keep your arms straight, point the instrument towards the floor and squeeze as hard as your can.

(**Alternate between hands for each trial beginning with the dominant hand. The participant can rest between trial if he/she believes it will help. If a difference of more than 5 Kg. Is observed between the 2nd and 3rd trials, the subject should rest several seconds and then administer a 4th trial.)

L6a. Preferred hand

First trial	
Second trial	
Third trial	
Average for trial 2 and 3	
Fourth trial (optional)	

L6b. Non-preferred hand

First trial	
Second trial	
Third trial	
Average for trial 2 and 3	
Fourth trial (optional)	

L7. Now please take a seat so that I may measure your finger strength. (**Place the dynamometer upon a table, or hold the dynamometer for the subject. Alternate between hands starting with the preferred hand.)

L7a. Preferred hand

First trial	
Second trial	
Third trial	
Average for trial 2 and 3	
Fourth trial (optional)	

L7b. Non-preferred hand

First trial	
Second trial	
Third trial	
Average for trial 2 and 3	
Fourth trial (optional)	

Now I would like to ask you about some of your religious practices

N1. What is your religion? _____

[PLATE 44]

N2. How often do you attend religious services? _____ (if hesitant, ask the following)

01. Never	04. 2 or 3 times a month
02. Less than once a month	05. Once a week
03. About once a month	06. More than once a week

N3. How often do your read religious literature?

01. Never	04. 2 or 3 times a month
02. Less than once a month	05. Once a week
03. About once a month	06. More than once a week

N4. How often do you see or listen to religious programs on the TV. or radio?

01. Never	04. 2 or 3 times a month
02. Less than once a month	05. Once a week
03. About once a month	06. More than once a week

[PLATE 45]

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N5. In general, how important would you say that religious or spiritual beliefs are in your everyday life?

01. Not important	03. Important
02. Not very important	04. Very important

[PLATE 46]

N6. When you have problems at work, in your family or in your personal life do you seek spiritual help?

01. Never	04. Frequently
02. Almost never	05. Almost always
03. Sometimes	

N7. How often do you attend meetings or programs of religious clubs, organizations or groups?

01. Never	04. Frequently
02. Almost never	05. Almost always
03. Sometimes	

Addendum to Survey

[PLATE 47]

O. (**Please read the question and have subject respond in the way that best describes how he/she felt in the past 2 weeks?).

- (4). Almost every day _____
 - (3). Often _____
 - (2). Sometimes _____
 - (1). Hardly ever or never _____
-

In the past 2 weeks...

	(1)	(2)	(3)	(4)
a. Have you been very sad?	(1)	(2)	(3)	(4)
b. Have you been grouchy or irritable, or in a bad mood, so that even little things would make you mad?	(1)	(2)	(3)	(4)
c. Was there times when when nothing was fun for you, even the things you used to like?	(1)	(2)	(3)	(4)
d. Were there times when you just were not interested in anything and felt bored or just sat around most of the time?	(1)	(2)	(3)	(4)
e. Have you felt like not eating?	(1)	(2)	(3)	(4)
f. Have you wanted to eat more than usual?	(1)	(2)	(3)	(4)
g. Have you had more trouble sleeping than usual (falling asleep, staying asleep or waking up too early)	(1)	(2)	(3)	(4)
h. Have you slept a lot more than usual?	(1)	(2)	(3)	(4)
i. Have you talked or moved around a lot less than usual?	(1)	(2)	(3)	(4)
j. Have you been very restless, when you just had to keep walking around?	(1)	(2)	(3)	(4)
k. Have you been so down that it was hard for you to do your schoolwork or work?	(1)	(2)	(3)	(4)
l. Have you had trouble looking after yourself or your things, like keeping yourself clean or picking up after yourself	(1)	(2)	(3)	(4)
m. Have you felt more tired than usual, so that you sat around and did not do much of anything?	(1)	(2)	(3)	(4)
n. Have you felt like like you had much less energy than usual, so that it was a big effort just to do anything?	(1)	(2)	(3)	(4)
o. Have you felt less good about yourself than usual and blamed yourself for a lot of things that happened in the past?	(1)	(2)	(3)	(4)
p. Have you been down on yourself more than usual, when you felt that you couldn't do anything right?	(1)	(2)	(3)	(4)
q. Have you felt bad about the way you look?	(1)	(2)	(3)	(4)
r. Have you felt like you were about to cry or were in tears?	(1)	(2)	(3)	(4)
s. Have you had more trouble than usual paying attention to your schoolwork or work, or keeping in mind on other things you were doing?	(1)	(2)	(3)	(4)
t. Have you been unable to concentrate or think as clearly or as quickly than as usual?	(1)	(2)	(3)	(4)
u. Have you felt that things never seem to work out alright for you?	(1)	(2)	(3)	(4)
v. Were there times it was harder for you to make up your mind about things	(1)	(2)	(3)	(4)

w. Have you felt that life was hopeless and that there was nothing good for you in the future?	(1)	(2)	(3)	(4)
x. Have you thought more than usual about death or dying?	(1)	(2)	(3)	(4)
y. Did you wish you were dead?	(1)	(2)	(3)	(4)
z. Have you thought about suicide or killing yourself?	(1)	(2)	(3)	(4)

[PLATE 48]

(** Now ask and record G12.)

G12.. Have you ever thought about committing suicide?

- 01. All of the time
- 02. Sometimes
- 03. Never
- 99. No Answer

	Yes	No
aa. Have you ever made a plan to kill yourself?	01	00
bb. Have you made a plan to kill yourself within the past 2 weeks?	01	00
cc. Have you ever tried to kill yourself?	01	00
dd. Have you tried to kill yourself in the past 2 weeks?	01	00

The following questions ask about your sleep behavior during the past month.

P1. In the past month, about how many hours of sleep per night did you get?

- 01. 4 or less
- 02. 5
- 03. 6
- 04. 7
- 05. 8
- 06. 9
- 07. 10 or more

[PLATE 49]

P2. During the past month, how often would you say you have had any of these problems related to your sleep?

- (4) Almost every day _____
- (3) Often _____
- (2) Sometimes _____
- (1) Rarely _____

	(1)	(2)	(3)	(4)
a. Difficulty falling asleep	(1)	(2)	(3)	(4)
b. Waking up in the middle of the night and finding it hard to get back to sleep	(1)	(2)	(3)	(4)
c. Waking up very early and can't get back to sleep	(1)	(2)	(3)	(4)
d. Waking up frequently, but usually fall back asleep	(1)	(2)	(3)	(4)
e. Feeling physically tired during the daytime	(1)	(2)	(3)	(4)
f. Falling asleep very easily almost anytime during the day	(1)	(2)	(3)	(4)
g. Having daytime sleep attacks (sudden periods of sleepiness you can't resist)	(1)	(2)	(3)	(4)
h. Requiring much more time than other people to become fully awake in the morning	(1)	(2)	(3)	(4)

[PLATE 50]

P3. During the past month, how would you rate the quality of your sleep overall?

- ___ Very good
- ___ Fairly good
- ___ Fairly bad
- ___ Very bad

P4. On most nights during the past month, about how long has it taken you to fall asleep after you go to bed?

_____ Note number of minutes here.

[PLATE 51]

Q1. Please select the answer that best described you. (**Please fill in only one for each item)

- (5) Never _____
- (4) Seldom true _____
- (3) Sometimes true _____
- (2) Frequently true _____
- (1) Almost always true _____

a. I feel that I am a person of worth, at least equal with others	(1)	(2)	(3)	(4)	(5)
b. I feel I do not have much to be proud of	(1)	(2)	(3)	(4)	(5)
c. I feel that I have a number of good qualities	(1)	(2)	(3)	(4)	(5)
d. Sometimes I think I am no good at all	(1)	(2)	(3)	(4)	(5)
e. I am able to do things as well as most other people	(1)	(2)	(3)	(4)	(5)
f. I feel that I can not do anything right	(1)	(2)	(3)	(4)	(5)
g. I take a positive attitude towards myself	(1)	(2)	(3)	(4)	(5)
h. I feel that my life is not very useful	(1)	(2)	(3)	(4)	(5)

[PLATE 52]

R. Respond the way that best applies to you.

- (5) Almost always/Very often _____
- (4) Much/Very often _____
- (3) Moderately _____
- (2) Very little/Not very much _____
- (1) Not at all _____

a. I speak spanish	(1)	(2)	(3)	(4)	(5)
b. I speak english	(1)	(2)	(3)	(4)	(5)
c. I enjoy speaking spanish	(1)	(2)	(3)	(4)	(5)
d. I associate with anglos	(1)	(2)	(3)	(4)	(5)
e. I enjoy listening to English language music	(1)	(2)	(3)	(4)	(5)
f. I enjoy spanish language TV	(1)	(2)	(3)	(4)	(5)
g. I enjoy spanish language movies	(1)	(2)	(3)	(4)	(5)
h. I enjoy reading books in spanish	(1)	(2)	(3)	(4)	(5)
i. I write letters in english	(1)	(2)	(3)	(4)	(5)
j. My thinking is done in the english language	(1)	(2)	(3)	(4)	(5)
k. My thinking is done in the spanish language	(1)	(2)	(3)	(4)	(5)
l. My friends are of anglo origin	(1)	(2)	(3)	(4)	(5)

Next, allow me ask you questions about smoking.

	Yes	No	NC
S1. Do you smoke?	01	00	99

(if they answer yes to S1:)

S2. How many cigarettes per day do you smoke? ____

S3. What year did you start smoking? ____

S4. How old were you when you started smoking? ____

S5. What year did you stop smoking? ____

Exercise

	Yes	No	NC
T1. Do you dance?	01	00	99

(if they answer yes to T1)

T2. How often do you go to dances?

T3. How long do you dance when you go to dances? _____

	Yes	No	NC
T3a. Do you dance as exercise?	01	00	99

T4. Do you do strenuous activities, such as:

	Yes	No	NC	Daily	Weekly	Monthly
T4a. Jog	01	00	99	02	03	04
T4b. Lift weights	01	00	99	02	03	04
T4c. Walk up and down stairs	01	00	99	02	03	04

T5. Do you moderate activities, such as:

	Yes	No	NC	Daily	Weekly	Monthly
T5a. Move a table	01	00	99	02	03	04
T5b. Use a vacuum cleaner	01	00	99	02	03	04
T5c. Carry groceries	01	00	99	02	03	04
T5d. Walk the length of a street	01	00	99	02	03	04

	Yes	No	NC
T5e. Do you walk as exercise	01	00	99
T5f. Do you know that exercising regularly is beneficial for you?	01	00	99
T5g. In the last year have you done any lifestyle changes to control weight?			
T5h. In the last year have you done any lifestyle changes to control cardiovascular disease?			

Interviewer's name: _____

Time interview ended: _____

M1. During the interview, did the respondent's behavior strike you as...
(Circle "yes", "no", or "cannot determine" on each of the following)

	Yes	No	Cannot Determine
A. Mentally alert & stimulating	01	00	09
B. Pleasant & cooperative	01	00	09
C. Depressed an/or tearful	01	00	09
D. Fearful, anxious or tense	01	00	09
E. Full of unrealistic complaints	01	00	09
F. Suspicious, more than reasonable	01	00	09
G. Bizarre or inappropriate	01	00	09
H. Withdrawn or lethargic	01	00	09
I. Agitated, quick, loud, or emotionally over responsive	01	00	09

M2. Thinking about the respondent's understanding of questions, mental functioning and ability to communicate, would you say the responses to the questions asked of him or her were:

- 01. Completely reliable
- 02. Reliable most of the time
- 03. Reliable on some items
- 04. Completely unreliable
- 99. No Answer

M3. Note: in evaluating the degree of disability of the participant, it is important to evaluate every aspect of his behavior. For example:

- A. Can the person walk? If he/she can, is assistance required to do so (walking cane, walker, etc.) _____
- B. When the participant speaks, do you understand him/her easily? _____
- C. Is the participant's breathing difficult, heavy or did he/she have to pause several times in order to catch his/her breath? _____
- D. Can the participant see you or read without glasses or magnifying glass? _____
- E. Does the participant use a hearing aid? If one is used, is it effective? _____
- F. Does the participant answer your questions appropriately? If yes, does he/she show difficulty in recalling certain events, places or names? Is subject obfuscated or confused? Does person have problems or difficulty concentrating? _____

In your opinion, what is the level of disability of the subject based on the observed levels of difficulty in completing the following tasks?:

	No Problems	Minimal	Moderate	Severe
A. Walking	00	01	02	03
B. Talking	00	01	02	03
C. Breathing	00	01	02	03
D. Vision	00	01	02	03
E. Hearing	00	01	02	03
F. Mental Capacity	00	01	02	03

*(**Please use the space provided below to supply additional commentary that may help determine the level of disability of the subject. Please attach an additional sheet of paper if it is necessary.*

M4. If the participant were a relative of yours, how would you feel about his/her life conditions and present living arrangements? _____

Additional Comments

VITA

Sreelatha Gobburu was born on November 28, 1968 in Hyderabad, India. The first of four children of Mr. N. Venkat Rama Rao and Shantha Kumari, she graduated from Osmania University with a bachelor's degree in Law in 1993. She entered the Graduate school of the University of Texas, Pan American in Edinburg, Texas in Fall 1995 to pursue her master's degree in Sociology. While pursuing her master's degree, she worked as a research assistant in the department of Sociology. She was selected in Who's Who Among Students in American Universities and Colleges, 1998.