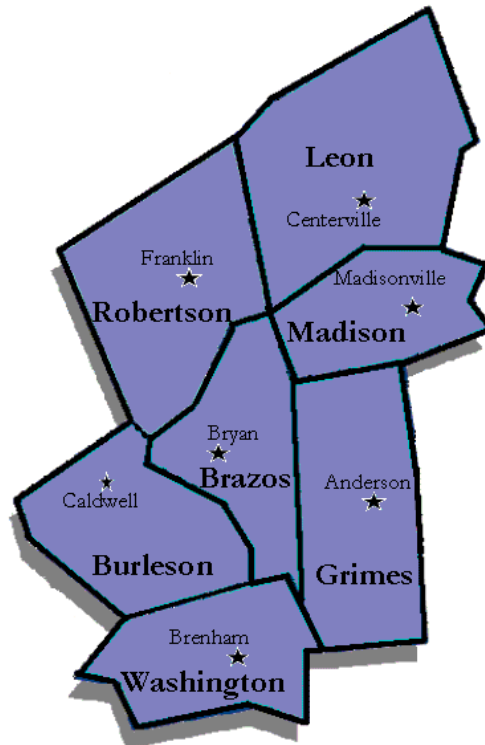


Brazos Valley Health Status Assessment



EXECUTIVE SUMMARY

August 20, 2002

**Community Health Development Program
School of Rural Public Health**

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INTRODUCTION

The Brazos Valley Health Status Assessment was conducted in the seven-county region of East-Central Texas consisting of Brazos, Burleson, Grimes, Leon, Madison, Robertson, and Washington counties. A partnership involving a number of local organizations interested in bridging the gap in service delivery and improving health status in the region combined their resources and efforts, contributing significantly to the success of the assessment. The Partnership included The Texas A&M University System Health Science Center School of Rural Public Health, the Brazos Valley Council of Governments, St. Joseph Regional Health Center, The College Station Medical Center, The Brazos County Health Department, and other regional health care and service providers. The objective of conducting the regional assessment was to identify factors influencing health status, to recognize issues and needs of the local community, to locate resources within the region, and to produce a source of reliable information that may be utilized in developing effective solutions. Through the process, the assessment also brought together a variety of institutions and increased their ability to work collaboratively to catalyze constructive changes in the Brazos Valley.

METHODS

This assessment consisted of three components: community discussion groups (CDGs), mailed household surveys, and secondary data analysis (SDA). First, more than 200 individuals participated in 8 different community discussion groups held across the seven-county region. From these meetings, concerns of community members were heard and discussed. In addition, the resources available to address problems and advice about how to go about solving problems were identified. Second, 1751 households from the seven counties were randomly surveyed on various topics directly or indirectly related to health status. Finally, all this information was analyzed in light of existing data obtained from federal, state and local sources (SDA) to provide a context for interpretation. Examples of background statistics include the 2000 Census data, and morbidity, mortality and utilization rates from the Texas Department of Health.

COMMUNITY DISCUSSION GROUPS

Most CDG participants described the Brazos Valley (BV) as a warm and friendly place, full of small towns with big town features. They see their community leaders as problem solvers and the faith community as a substantial resource. Community discussion groups related that a fiscally conservative ideology shapes approaches to problem solving in the community and limits the resources available. The region does not have a “tax and spend” orientation. Participants also noted a perceived division between “Bryan/College Station” and “the rest of us.”

Health-Related Concerns

The major issues concerning health centered on access to primary and specialty medical care, especially for low income and rural populations. Mental health, dental and emergency care were also mentioned. Many complained that “the safety net is frayed.” An underlying awareness on the part of the public for the need to develop the local health professional workforce was observed. Participants reported that limited points of access to the health care system for individuals and

families without health insurance force people to seek all their care, not just emergency care, in emergency rooms. Specific mental health services, such as child psychiatric beds and drug and alcohol treatment facilities were reported as lacking. People also mentioned that counties are not adequately supporting medical services financially.

CDG participants reported an increasing number of uninsured persons and stated that many people are not aware of their eligibility for programs such as Medicaid and Medicare. Some providers do not know about all the programs available either. Both consumers and providers expressed concern and frustration with the amount of paperwork necessary to file simple claims and mentioned that low reimbursement rates limit the number of patients providers are able to assist. The community showed awareness of the aging population and their foreseen future struggles for health care due to lack of insurance at ages when screening and prevention may be most critical. Texas' reduction of public health services concern the community, and the perceived reduction in access to care that has resulted, such as lack of prenatal care, was given as a specific example.

CDG participants also disclosed that some persons are forced to choose between basic necessities—food and shelter—and medical care. These individuals often delay care or filling a prescription due to high costs.

Community Issues

Some of the other issues raised were worries concerning children and youth. The lack of immunizations for children, teen pregnancy, and youth drug abuse were specifically mentioned. Concerns exist also about the elderly living on fixed incomes and/or in rural areas with little public transportation. Participants had an awareness of the linkage between literacy and unhealthy behavior choices, unemployment, and inappropriate use of medical services, such as the emergency room, for primary care.

Advice for Improving Community Health Status

In addition to naming several concerns, CDG participants were also readily able to detail an extensive list of resources, programs, and services in their community. They advised that solutions may be found in encouraging collaboration and coordination between medical, health and human service providers. Specific examples of forming county partnerships that would contribute to a regional health plan and coordination system were described. The need for a centralized information clearinghouse was also emphasized.

HOUSEHOLD SURVEY

The Public Policy Research Institute (PPRI) at Texas A&M University was contracted to randomly survey the population of the region. They did so by “random digit dialing” residents of the seven counties in the Brazos Valley and asking if an adult (over 18 years of age) in the household would be willing to participate in a community survey about health. Approximately 3,000 persons agreed to complete the survey. Those individuals were mailed a 28 page survey booklet, a cover letter thanking them for their cooperation, a \$2 money order as an incentive, and a postage paid return envelope. A total of 1,751 persons actually returned completed survey booklets. The response rate to the mailed surveys was 58 percent.

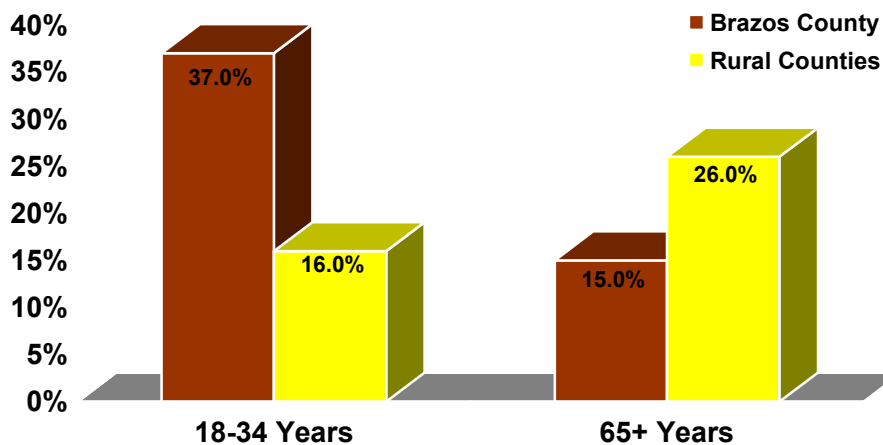
Survey Demographics

Of the seven counties, Brazos County is urban compared to the other six counties, which are rural. Fifty-eight percent (58.4%) of those who completed the surveys were from Brazos County, and approximately forty-two percent (41.6%) indicated that they reside in one of the six rural counties. This demographic approximates the population distribution found by the 2000 Census. The survey analysis focuses on two types of comparisons: (1) Brazos County versus the six rural counties, and (2) the Brazos Valley region versus state and/or national data.

Age & Gender

The mean age of survey respondents was 47 years: 43 years in Brazos County and 52 years in the rural counties. These are statistically significant differences.

Demographics: Age



The graph above illustrates the differences in the greater number of younger persons in Brazos County and the greater number of older people in the rural counties. For example, almost twice as many survey respondents living in the rural counties are 65 and older (26.6%) compared to Brazos County (14.8%).

Most of the survey respondents were female. This trend is an artifact of survey research in that women are generally more likely to respond to surveys than men. Therefore, even when an even number of men and women are sampled, more women are found in the final data pool. For the Brazos Valley, a higher proportion of men responded in Brazos County (35.3%) than the rural counties (30.3%).

Education

Education is another important determinant of health. The mean number of years of school completed for the entire sample was 14.9, the equivalent of a high school education plus almost three years of college. Across the region, little difference was found in the aggregate. Mean educational attainment for Brazos County was 15.2 years while the surrounding counties value was 14.0 years.

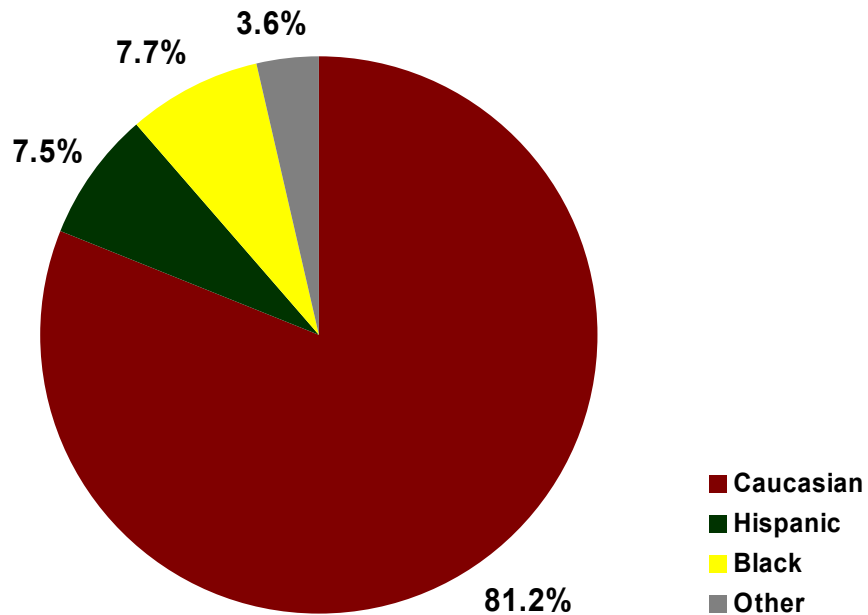
Two-thirds of the respondents (66.6%) report some higher education. Brazos and the outlying six counties also show a significant difference in this variable. Only slightly more than a half of the

rural respondents (53.6%) indicated some college as opposed to three-fourths of Brazos respondents (75.9%). Almost a quarter of the total respondents (23.2%) said that their highest level of education was high school. About ten percent (10.0%) reported obtaining less than a high school education. The proportion of these individuals was higher in rural counties (14.3%) than in Brazos (7.3%).

Race & Ethnicity

Respondents were asked to indicate the racial or ethnic group which best described them. Eighty-one percent (81.2%) of all survey respondents indicated “white,” and a total 15 percent noted Black (7.7%) and Hispanic (7.5%). Comparing these figures to 2000 Census data reveals that minority groups are considerably underrepresented in the respondents to this survey. An additional four percent (3.6%) of respondents identified groups we will describe as “other” in this report. The graph below illustrates the ethnic distribution of survey respondents.

Demographics: Race and Ethnicity



The variation within the region is significantly different in that a higher proportion of rural participants were Black (9.5%) compared with the Brazos sample (6.3%). Hispanic respondents were found in a greater proportion in Brazos County (9.7%) compared to the rural counties (4.5%).

Marital Status

Most respondents (59.9%) reported that they were married; 17.6 percent reported being single, never married; 9.3 percent reported being widowed; 11.4 percent reported being divorced or separated; and 1.9 percent reported living as an unmarried couple. Differences within the region were found for single, never married respondents (23.3% of Brazos County respondents vs. 9.6% of rural county respondents) and widowed respondents (12.5% in the rural counties vs. 6.9% in Brazos County).

Household Composition

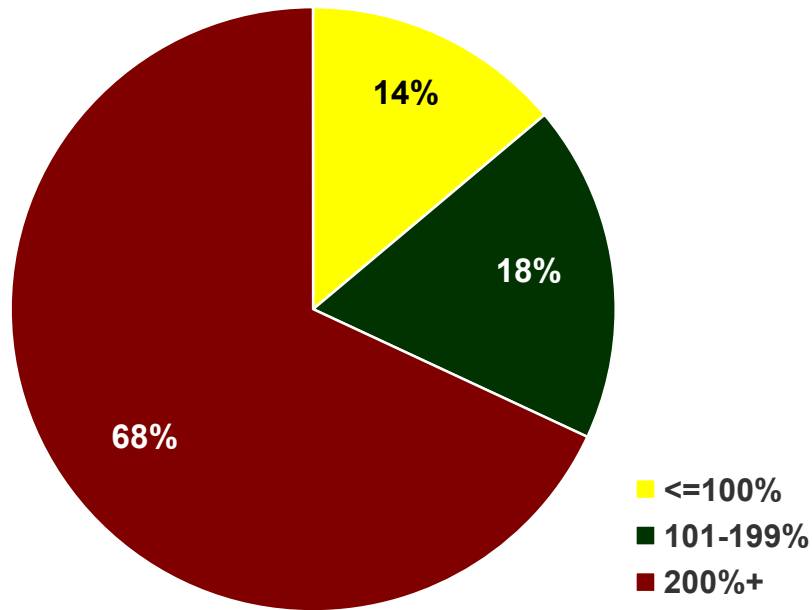
The mean number of persons living in a household was 3.7 for the entire sample. The mean for Brazos County was 3.0, and the mean for the rural counties was 4.0.

Forty percent (39.8%) of BV respondents said that they had children 17 or younger in their households. 25.1% had children ages 6-17 and 14.7% had children of 5 years or younger.

Household Income

Respondents were asked to select from a list of ranges their total household income before taxes for 2001. The median household income of survey respondents was \$41,000 which is higher than the census estimate of about \$30,000 for the region.

Household Income as Percent of Federal Poverty Level (2001 HHS Federal Poverty Guidelines)

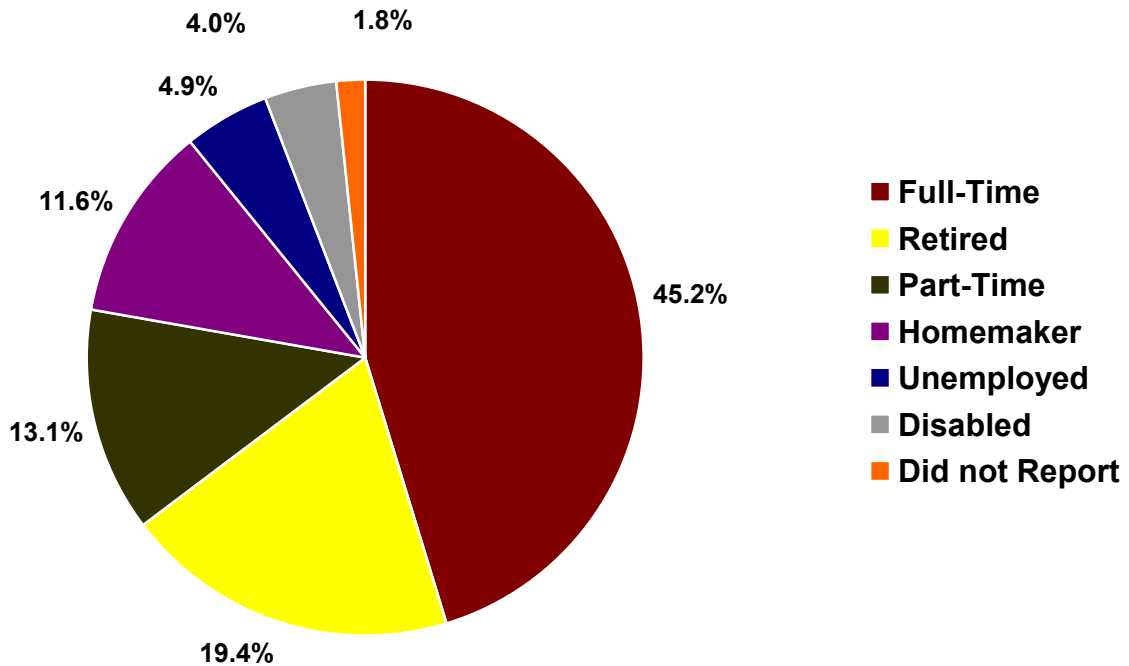


This pie chart shows that about fourteen percent (13.9%) of respondents have total household incomes at or below the federal poverty level (FPL). Census data estimates that this number is 18.7 percent for the region. Another 18 percent (18.0%) are between 101 and 199 percent of the federal poverty level. This is significant when considering how individuals pay for care. Typically, the people in the 101-199 percent FPL category are the people who make too much to qualify for Medicaid but cannot afford private insurance.

Employment

The following pie chart shows the distribution of full-time, retired, part-time, homemaker, unemployed, disabled, and “did not report.” Unemployment among survey respondents mirrors local estimates.

Demographics: Employment



Statistically significant differences across the region were found in every category except those working full time. The table below shows those differences.

Employment Status	Brazos County	Rural Counties
Part-Time	15.9%	9.2%
Disabled, not working	2.2%	6.4%
Laid off or Unemployed	6.4%	2.7%
Retired	15.4%	24.9%
Full-Time Homemakers	10.1%	13.6%

Fifteen percent (15.5%) of all respondents reported that they were college students: 13.3 percent full-time, and 2.2 percent part-time. A fifth (22.3%) of the survey population from Brazos County was students as compared to six percent (5.9%) from the rural counties.

Because type of employment can influence apparent income, respondents were asked if they were full-time ranchers or farmers. Four percent (3.6%) reported they were: 6.0 percent in the rural counties and 1.8 percent in Brazos County.

Demographic Comparisons

The table below compares BV survey demographics to those reported by the 2000 Census.

Brazos Valley	Survey	Census
Median Age	47.0	30.0
Median Income	\$41,000	\$30,454
Ethnicity: White	81.2%	66.7%
Black	7.7%	14.1%
Hispanic	7.5%	15.6%
Other	3.6%	3.6%
Gender: M	33.2 %	50.6 %
F	66.8 %	49.4 %

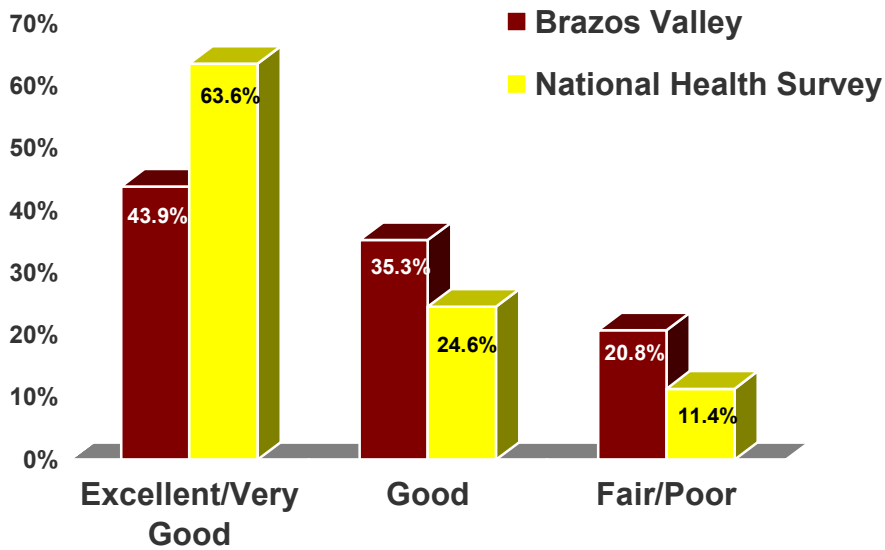
As can be seen from the table above, survey respondents were older and had higher incomes than the population estimates based on the latest Census. Fewer minorities and more females were present in the pool than the “true” population estimated by the Census. Weighting the data clarified that the impact of these elements was one percent or less on any given item. As a result, all data reported is on raw, unweighted survey results. In other words, the image of health status portrayed by this survey is likely better than what actually might be the case for many Brazos Valley residents.

Health Status

The purpose of this assessment was to identify factors influencing the health status of the population of the Brazos Valley. To be able to compare relative health of populations, researchers have developed a survey instrument called the SF-12 (which stands for “short form 12”). The SF-12 includes twelve questions which can be used to calculate two measures—physical health status and mental health status (called the PCS12 and MCS12, respectively)—standardized against the U.S. population. Each score ranges from 0 to 100 with the U.S. population average equal to 50 and a standard deviation of 10. For example, if a population’s physical health status score is 40, the area is significantly less physically healthy than the overall population of this country. If the mental health score is 60, then the community shows significantly better mental health than the whole country.

The present survey began with a widely used question asking, “Overall, how would you describe your health?” The possible responses were *excellent*, *very good*, *good*, *fair*, or *poor*. This one question is often used as an overall indicator of health status in a population because it looks at functional health status, not disease status. The responses are displayed on the following graph.

Reported Overall Health Status



Based upon this one item, Brazos Valley survey respondents were less likely to say that their overall health status was *excellent* or *very good* when compared with a national sample. More people said that their health was *good* or *fair/poor* relative to the national sample.

The SF-12 scores offer an additional insight. The PCS12 (physical health status score) for the sample is 48.7—very close to the national mean. The MCS12 (mental health status score) for the sample is 56.2—higher than the national mean. Given that the population of this region is slightly older than that of the overall U.S. population, that physical health status scores decline with age, and mental health status scores increase with age, the population of the Brazos Valley, as measured by the SF-12, is about as healthy as the U.S. population as a whole.

This contrast between perceived overall health status and functional health status suggests that survey respondents believe they are less healthy, but functionally are “average” when compared to national norms.

Chronic Diseases & Conditions

In addition to understanding relative functional health status, it is also important to understand the specific rates of particular diseases. Survey respondents were asked to report if they had ever been told by their physician or health care provider if they had ever been diagnosed with a list of 19 common chronic diseases/conditions. Hypertension, high cholesterol, asthma, emphysema/chronic bronchitis, depression, arthritis/rheumatism, diabetes, and osteoporosis were the most frequently reported conditions in the Brazos Valley region. The following table provides the rates of these conditions as found in the region as a whole, Brazos County, other six counties, and the nation.

DISEASE	BV	Brazos	Rural	Nation	HP 2010*
Hypertension	30.9%	24.5%	39.7%	19.1%	16.0%
High Cholesterol	31.9%	29.2%	35.6%	21.0%	17.0%
Asthma	12.2%	12.3%	12.0%	9.1%	**
Emphysema/Chronic Bronchitis	7.5%	5.6%	10.2%	6.7%	**
Depression	21.5%	20.1%	23.5%	**	**
Arthritis or Rheumatism	27.5%	22.4%	34.5%	20.1%	**
Diabetes (non-gestational)	8.4%	7.2%	10.0%	5.2%	2.5%
Stroke	2.1%	0.8%	3.9%	2.2%	**
Osteoporosis	8.2%	6.9%	10.0%	10.0%	8.0%
Liver Disease	2.2%	2.4%	1.8%	0.9%	**

*Healthy People 2010. HP 2010 is a statement of national health objectives designed to identify health factors that may be negatively influencing health and to set national goals for the year 2010 on reducing these threats.

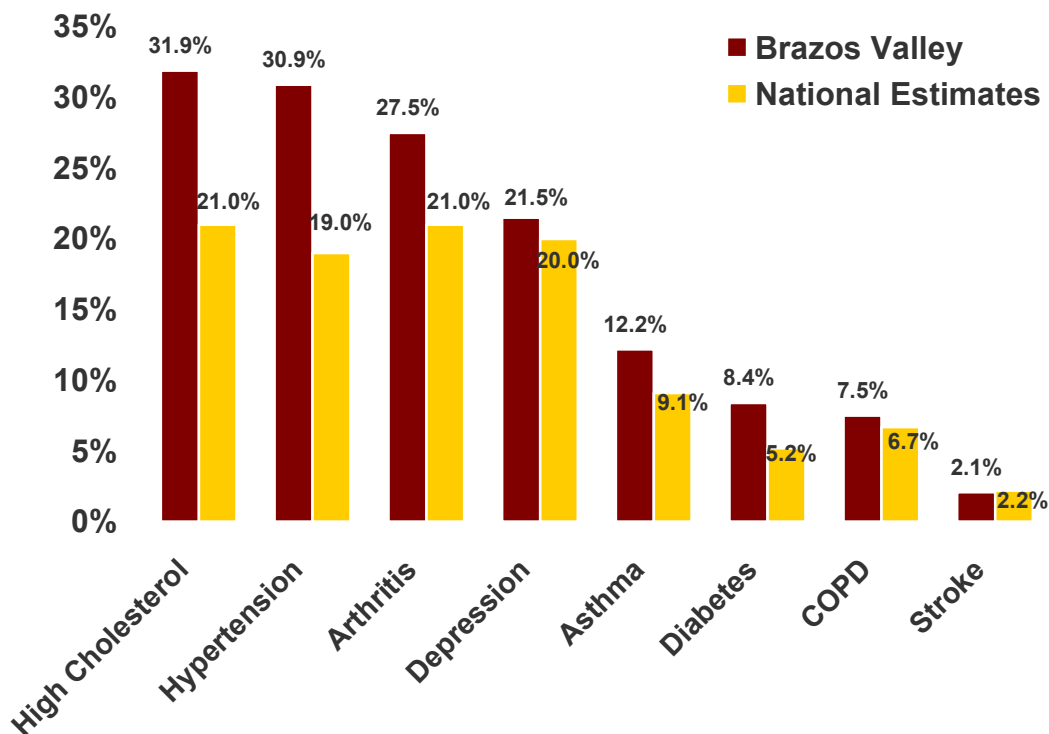
** = No reported/published values.

These data indicate that percentages in rural counties are higher than Brazos County in every case except asthma and liver disease. The proportion of respondents with liver disease is higher in Brazos County, and this number (2.4%) is almost threefold compared to the Nation (0.9%). Not included in the table, but asked about in the survey, alcohol/drug dependence scores are lower than expected (BV 1.4%; BC 1.2%; rural counties 1.7%). Liver disease can often be the result of alcohol/drug dependence; thus, with high rates of the disease, higher rates of alcohol or drug abuse could be expected. Arthritis, diabetes, and osteoporosis were reported much more often in the rural counties compared to Brazos County.

The following table displays survey results compared to national figures. It highlights the following:

- Heart disease risk factors such as high cholesterol and hypertension were reported at much higher proportions in BV compared to the nation.
- About 1 of every 5 residents in BV reports depression.
- The rate of reported diabetes is four times the HP 2010 goal.

Chronic Diseases

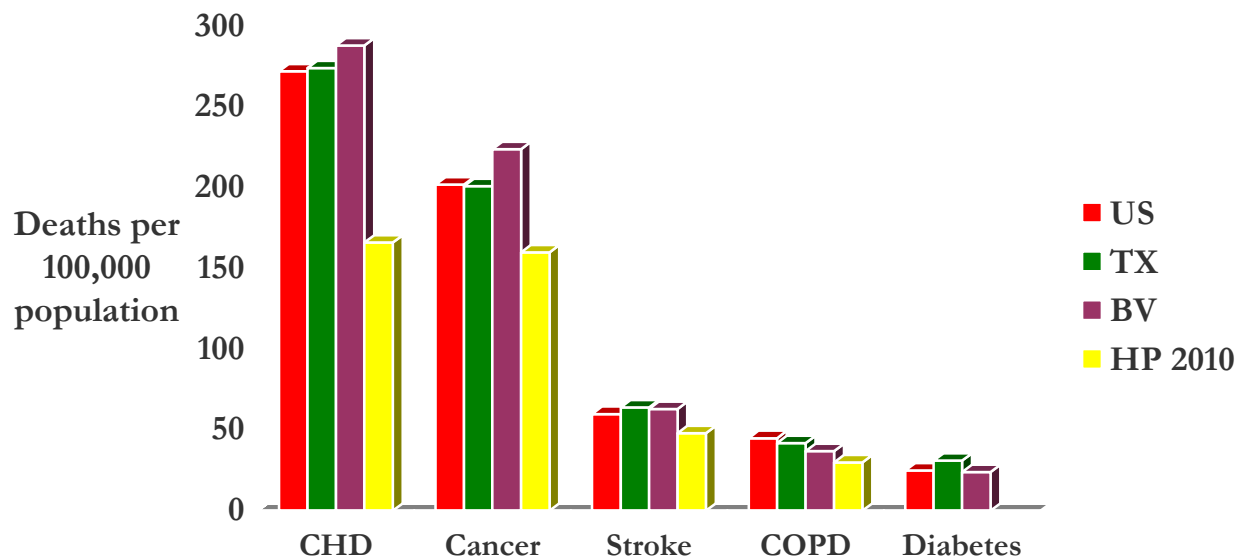


Stroke is presented on this graph, although it is not significantly different from the nation. Figures for stroke may be low overall, but the percentage in rural counties (3.9%) is more than four times that of Brazos County (0.8%), a comparison worth noting considering that stroke is one of the five leading causes of death and a primary cause of debilitation in the nation and that rural residents tend to have less access to medical services. Similarly, twice as many rural respondents (10.2%) as Brazos residents (5.6%) report chronic obstructive pulmonary disease (emphysema/chronic bronchitis).

Correlating the prevalence of a disease in a region to the mortality rates due to those diseases can give perspective on the anticipated impact of controlling for these diseases. According to background data collection, the overall leading causes of death in BV are:

1. Congestive Heart Failure
2. Cancer
3. Stroke
4. Unintentional Injury
5. Chronic Obstructive Pulmonary Disease (Emphysema and chronic bronchitis)

Mortality Rates for Chronic Diseases

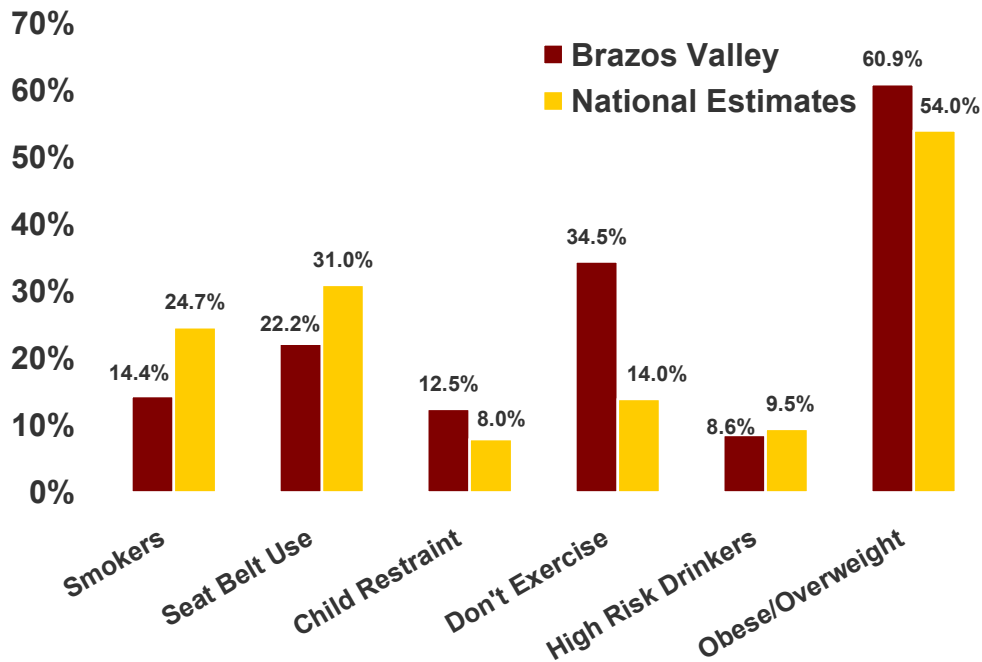


The chart above shows the mortality rates for each of those diseases in the Brazos Valley as compared to the nation, state, and HP 2010 goals. The BV rates are higher than the other comparison groups for heart disease and cancer. Unintentional injury ranks as the fourth leading cause of death in BV. Some of the contributing factors to this may be many of the characteristics that are common in rural areas such as increased distance to a trauma center, poor road conditions that lead to a high vehicular accident mortality, and increased agricultural-related accidents.

Risk Factors

The next section of the survey inquired about health habits or characteristics that may place individuals at higher risk of disease. These “risk factors” are elements, such as genetics, lifestyle, or behavior patterns that contribute to disease or overall state of health. For instance, persons who are obese (≥ 30 kg/m² BMI) or overweight (25-29.9 kg/m² BMI) may be more prone to developing heart disease. In the current survey, higher proportions of those who are classified “obese” compared to healthy individuals (18.5-24.9 kg/m²) report hypertension, congestive heart failure, high cholesterol, depression, arthritis or rheumatism, diabetes, heart attack, and sleep apnea. Because individuals can often control many of these factors to prevent subsequent development of disease, the survey assessed the number and type of risk factors found in the BV population. The responses by Brazos Valley residents are given below, and figures from the National Health Survey are used for comparison.

Risks for Chronic Disease or Serious Injury



The graph above illustrates how Brazos Valley residents compare to national estimates in several key risk factors. Brazos Valley appears slightly worse than the rest of the nation in some of these factors:

- 14.4 percent of respondents are current smokers.
- 12.5 percent of respondents do not “always” place their child (0-4) in an age and weight appropriate safety restraint.
- 34.5 percent exercise zero times/week.
- 60.9 percent of respondents were either overweight (34.6%) or obese (26.3%).

A fifth of BV respondents do not *always* wear seatbelts. While this is better than the national average, it is three times the goal HP 2010 has set (8.0%). The percentage of people in rural counties (29.9%) who do not *always* buckle up is twice that of Brazos County (16.6%). Approximately thirteen percent (12.5%) of total respondents said they *do not always* buckle their children into age appropriate car safety devices. The HP 2010 goal for this item is 0%—that all parents will *always* buckle up their children. High risk drinking is calculated based on 15 or more drinks per week for men and 8 or more drinks per week for women.

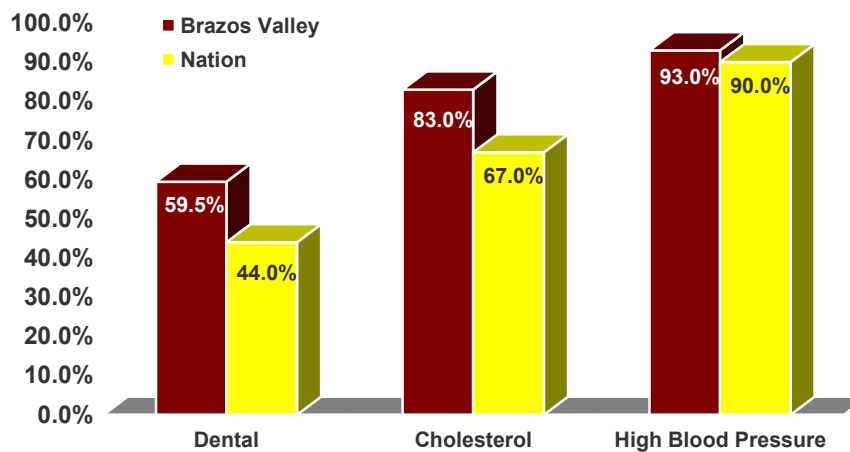
As mentioned earlier, being overweight or obese places individuals at elevated risk for many chronic diseases. On the survey, obese persons reported significantly poorer health (22.5%) and depression (24.4%) as those in healthy weight ranges (10.7% and 17.7%, respectively). This information should be viewed in light of the percentages of BV respondents who are obese/overweight (60.9%) and the percentage who do not exercise (34.5%). In addition, higher proportion of the underweight population reported “fair/poor” health status (23.3%) in comparison to the proportion who fall in the healthy range (10.7%).

The relative number of risk factors, independent of which risks, is a good indication of the likelihood of eventual development of chronic disease in a population. Over 80 percent of BV respondents (80.5%) reported at least one risk factor. Nearly 1 in 5 (19.5%) has three or more. As mentioned earlier, considerably higher numbers of obese persons present with three or more risk factors (44.8%) as opposed to those at a healthy weight (9.2%).

Preventive Screenings

Preventive screenings are medical tests or other services utilized for the purpose of detecting and possibly preventing the spread of disease. Screenings can limit the consequences (such as heart disease, cancer, etc.) from risk factors. The Brazos Valley Health Assessment asked correspondents of their use of these services. Clinical guidelines, HP 2010 recommendations, and national comparison data help determine to what extent residents engage these services. This chart shows several categories of preventive screening tests and their utilization by BV residents.

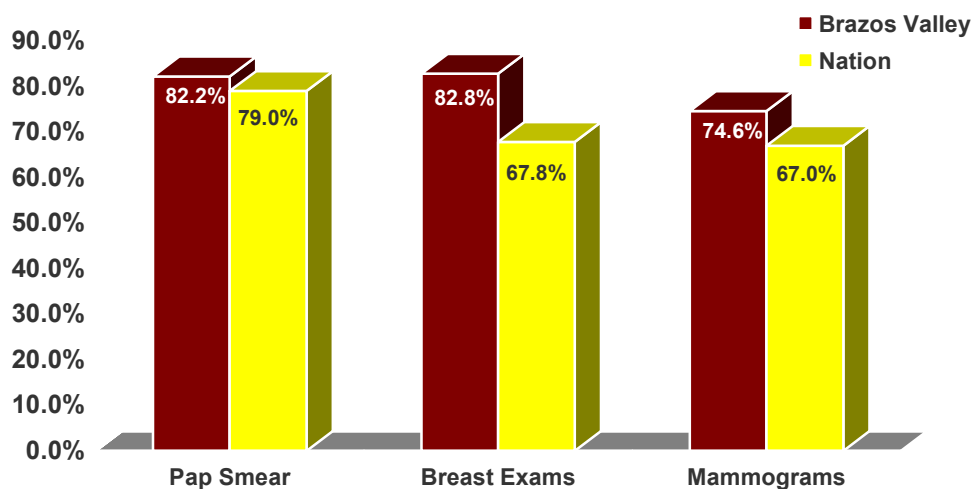
*Preventive Screenings:
Within U.S. Preventive Guidelines (BV)*



The figures shown on the graph above were calculated based on clinical guidelines (dental exam within the last twelve months, cholesterol screening within the past five years, and blood pressure check within the last two years). All BV percentages are slightly higher than national figures. Overall, more local residents are getting screened for these conditions than people across the county. Comparing the outlying six counties to Brazos shows that 63 percent of Brazos County respondents receive dental exams every year while only slightly over half of rural residents (54.6%) obtain this service.

Appropriate screening for cancer among women is a significant opportunity to reduce morbidity and mortality. The chart below illustrates the Brazos Valley’s use of preventive services for women. Clinical guidelines for these screenings suggest that women aged 40 or over obtain a mammogram every two years and a breast exam by a physician every year. Women over 18 years of age or older should receive a pap smear every three years.

Preventive Screening for Women



This graph says that BV women are obtaining more screenings compared to the female population of the whole nation.

When lack of screening is analyzed, significant parts of the population are identified as at risk. Below are the percentages of the relevant age groups have NEVER received the indicated screening:

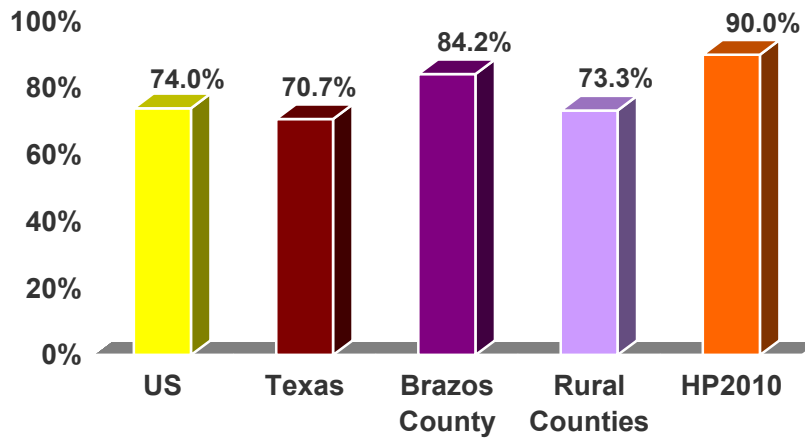
- 11.7% - cholesterol screening (ages 18+)
- 57.9% - colorectal cancer (ages 50+)
- 16.6% - prostate cancer (ages 40+)
- 3.2% - mammograms (ages 40+)

Prenatal Care

Prenatal care (PNC) is important for better health outcomes for mothers and infants. Many studies have shown that obtaining adequate prenatal care beginning in the first trimester (12 weeks) of pregnancy has been proven to decrease the possibility of lower birth weights in newborns. Statistics have shown that lower birth weights, in turn, are correlated to higher chances of early infant death or other adverse physical conditions.

A significant opportunity for improving prenatal care and subsequent birth outcomes exists in the Brazos Valley. According to the Kessner Index, adequate prenatal care is when the mother begins the care in the first trimester and continues the care with a certain number of physician visits during each gestation period. Although BV is doing better than the nation and the state in terms of “adequate” PNC, almost twice as many as those in the rural areas are failing to receive adequate PNC than in Brazos County. The HP 2010 goal for adequate care is 10 percent.

% Births Receiving Adequate Prenatal Care

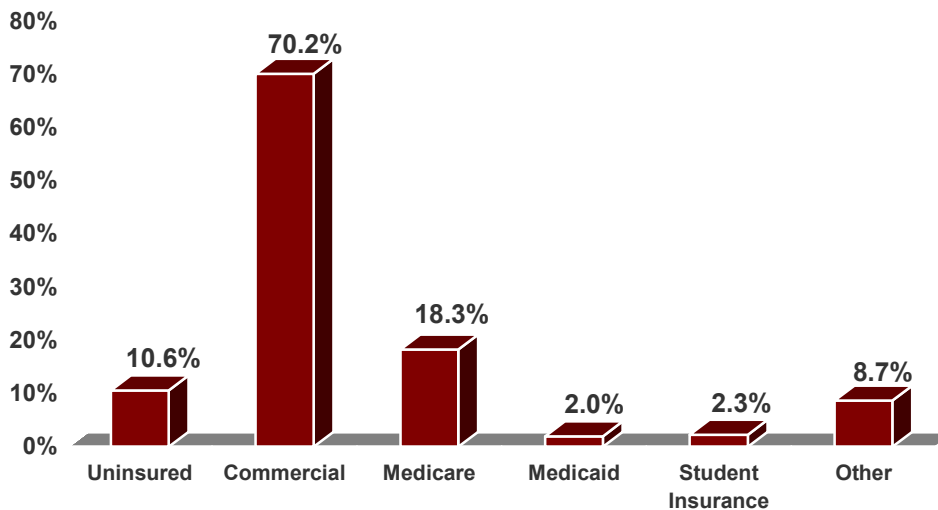


*“Adequate” refers to care not meeting the Kessner Criteria for prenatal care

Health Insurance

The Healthy People 2010 goal for health insurance coverage is that **no one** in the United States be without health insurance coverage. The BV survey responses concerning health insurance coverage is illustrated in the chart below.

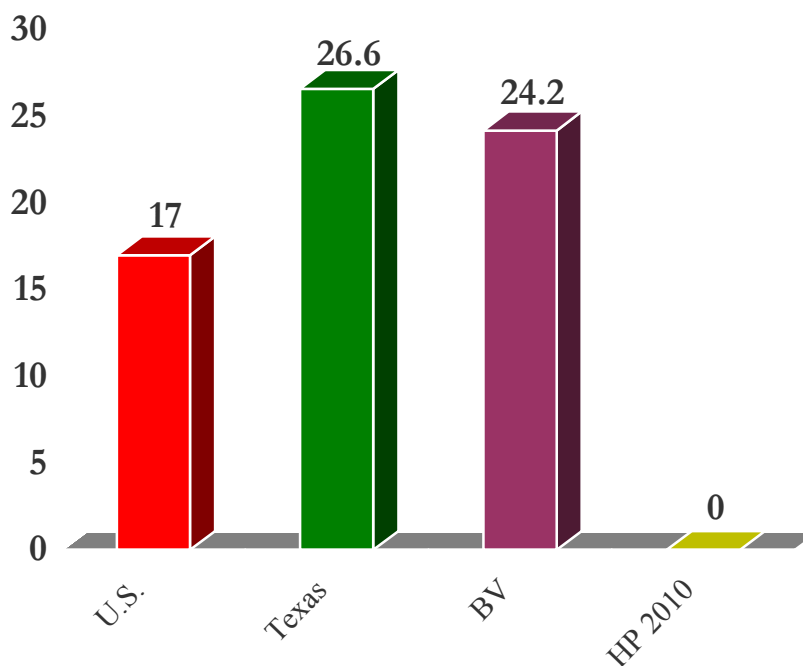
Health Insurance Coverage



The sample characteristics mentioned earlier, such as older, higher, non-minority status of most of the correspondents, impact the percentages found for Medicaid. The “other” category includes a small percentage (3.7%) of those who said they had some type of military insurance. Secondary data analysis indicates that the Medicaid rate for BV is 8.6 percent.

In terms of being uninsured, the secondary data analysis revealed the following differences between national, state, BV, and HP 2010.

Percent of Population Under 65 Uninsured

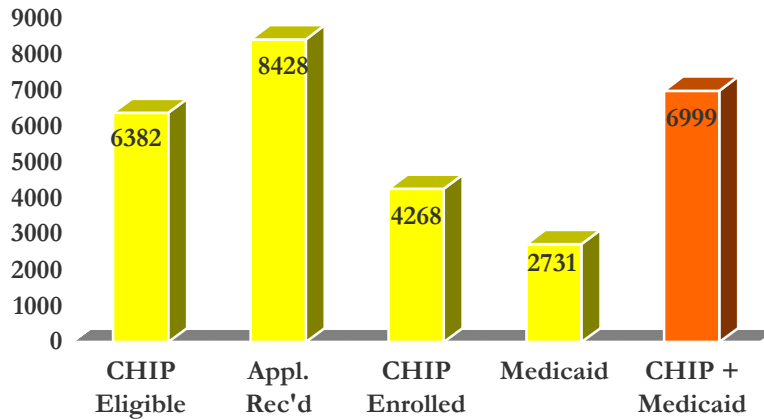


Child Health Insurance Coverage

Particular emphasis has been placed recently on the number of children not covered by any health insurance. The Children’s Health Insurance Program or CHIP was designed to meet this need in Texas. Among the number of children represented by the survey respondents, 6.2 percent have no health insurance, 13.0 percent were enrolled in Medicaid, and about 7.9 percent were enrolled in CHIP. The State estimate for CHIP coverage is 8.8 percent for the Brazos Valley. When asked about finding care for children, regardless of the type of health insurance, almost six percent (5.5%) stated that they could not find a provider that accepts their child’s insurance. The 17.3 percent commented that they were unable to find a dentist accepting their insurance. No significant differences between Brazos and the other six counties were observed in acceptance of children’s health insurance.

CHIP has been a successful program to reduce the number of uninsured children in BV. The graph below shows the distribution of the number of children who applied and the number of children who enrolled in CHIP or Medicaid. Children are eligible for certain insurance groups based on family income that falls between 101 and 199 percent of the federal poverty level. “CHIP eligible” is only an estimate. Of all applicants, 83.0 percent were enrolled in either CHIP or Medicaid. The remaining 17.0 percent who were ineligible were referred to private insurance.

Child Health Insurance Coverage Brazos Valley



Time without Insurance Coverage

Because enrollment status in insurance programs change quite often due to job turnover and possible economic setbacks, respondents were asked about their coverage over the past three years. One in five people (19.2%) were without insurance at least one month, and 9.1 percent had no health insurance for more than a year out of the last three.

Health Care Access Limitations Due to Cost

The community discussion groups revealed that residents often put off care or medications because of the cost. The survey inquired about the extensiveness of this issue and found that more than forty percent (40.6%) of those responding to our survey put off dental care because of costs. Nearly a third (32.2%) put off medical care. This information should be observed in light of survey demographics which over represent those with more money. In other words, the 40 percent response is obtained from a pool of BV residents who have higher incomes compared to the census population. Comparing the overall survey respondents to just those with no insurance highlight that almost three-fourths (74.4%) of respondents without insurance coverage put off dental care, 67.2% delay medical care and slightly more than half (51.6%) do not timely take medications prescribed for them. The table below summarizes the comparisons.

Type of Service	Brazos Valley	No Insurance
Dental Care	40.6%	74.4%
Medical Care	32.2%	67.2%
Medication or Treatment	23.2%	51.6%
Mental Health	9.8%	21.9%

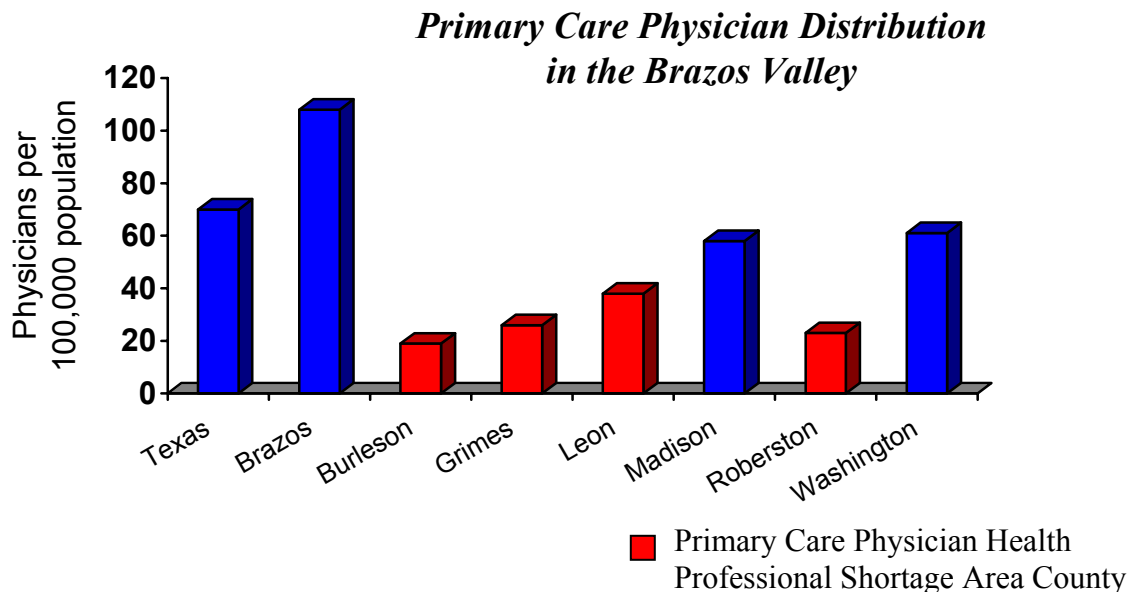
Transportation

Transportation is another indicator of access to health care services. The average distance traveled for medical services for BV respondents is 16.7 miles: 10.3 miles within Brazos County and 25.6 miles for rural counties. Similar distances were reported for dental care, and slightly shorter distances were indicated for pharmacy. Two-thirds (30.5%) of rural residents travel 45 minutes or more for health care in comparison to 7.4% of Brazos residents. The vast majority (98.5%) of survey respondents drive or ride with a friend for medical care.

Health-related Resources & Regular Healthcare Provider

Health related resources are an important factor in health determination. The overall health of the Brazos Valley is closely tied to the resources in the cities of Bryan and College Station. These are the largest cities in the region and are both located in Brazos County. This twin city has three hospitals and several clinics. Although there are hospitals in three of the other counties, Bryan/College Station is the only area that has all of the different specialties.

Another element of access to care involves the person providing care (the provider) and the location where care is given. The following chart gives a representation of physicians per 100,000 population. The counties of Burleson, Grimes, Leon, and Robertson are considered Health Professional Shortage Areas (HPSA).



BV has 114 primary care physicians per 100,000 population compared to 37 per 100,000 in the six rural counties. Many of the residents in Health Professional Shortage Areas seek care in Brazos County.

In terms of regular healthcare provider, majority (77.3%) of Brazos Valley respondents reported having a health care professional they consider their regular provider. Among the survey pool without health insurance, this number drops to 46.1 percent. These numbers approximate the national averages.

In terms of a place for care, private doctors’ offices were exceedingly the most frequent site of *outpatient* care. About fifty percent (49.7%) of survey participants indicated private doctors’ office. Only ten percent (10.1%) of respondents reported not having a regular place for outpatient care.

St. Joseph’s hospital was most frequently reported as respondents’ regular place for *inpatient* care (32.5%). More than a third (34.1%), however, reported not having a place they “usually go” for inpatient care.

Satisfaction with Access to Care

Several survey questions dealt with residents’ overall satisfaction with different aspects of care. The answer choices included *very poor, poor, fair, good, very good, excellent, and don’t know*. The following table summarizes the satisfaction the respondents had with health care, specialty care, and hospital care.

	Total Respondents Answering “Good- Excellent”	Uninsured Respondents Answering “Good- Excellent”
Primary Care	85.9%	58.2%
Specialty Care	82.3%	55.2%
Hospital Care	87.7%	56.2%

The table above compares the entire sample to those who do not have health insurance. A consistent difference can be seen in each category. Lower percentages of *uninsured* tend to report *good, very good, or excellent*. Again, these numbers closely reflect the national experience.

Needed Community Services

Discussion on the health of a community should not be limited to medical services or health insurance. Numerous social and community problems impact health, and various agencies and organizations exist to address these problems.

The survey included questions asking about individuals’ need for and use of different services with response options of *did not need, needed and used, and needed but did not use*. The top six community services needed (this includes the *needed and used* and *needed but did not use* categories) as reported by survey respondents were:

1. Work-related or employment services— **16.6%**
2. Information and referral Services— **14.9%**
3. Financial assistance or welfare— **11.8%**
4. Mental health services— **11.4%**
5. Services for the disabled or their families— **10.1%**
6. Food, meal, and nutrition services— **9.5%**

Examining the differences between what services people said they “*needed and used*” and “*needed but did not use*” shows the gap in service delivery. The items presented below indicate where the Brazos Valley falls short in providing access.

Community Services	% Who Needed and Used Services	% Who Did Not Use Needed Services
Work-related or Employment Services	16.6%	48.2%
Services for the Disabled or their Families	10.1%	29.9%
Services for Children with Delinquent Behavior	5.3%	34.1%
Childcare Services	6.1%	39.4%
Mental Health Services	11.4%	37.9%
Assistance to Victims of Violent Crimes or Abuse	2.3%	52.5%
Food, Meal, and Nutritional Services	9.7%	29.5%
Financial Assistance	11.8%	31.5%
Information & Referral Services	14.9%	26.4%
Alcohol/Drug Abuse Services	3.5%	57.6%
Housing Services	8.2%	35.0%
Smoking Cessation	7.5%	88.2%
Transportation	4.8%	56.8%
Family Planning	5.2%	33.0%
Literacy Training	4.6%	51.9%
Home Healthcare/ Hospice/Homemaker Services	6.7%	33.3%
Respite Care	4.7%	67.9%
Education Programs to Manage Medical Problems	6.5%	49.5%

Community Issues

The respondents were asked to rate a list of about 20 issues on the seriousness of the problem in the community. The top six rated issues overall are:

1. Teen Pregnancy— **33.4%**
2. Illegal drug use— **32.9%**
3. Public Transportation— **30.7%**
4. Alcohol abuse— **27.7%**
5. Poverty— **17.3%**
6. Lack of affordable housing— **16.0%**

An interesting contrast can be seen when comparing the “top six” community issues for respondents from Brazos County with those from the rural counties. The top four issues remain the same, though in different order; however, issues more unique to rurality emerge as the second tier is examined.

Brazos County	Rural Counties
Teen Pregnancy	Transportation
Illegal Drug Use	Teen Pregnancy
Alcohol Abuse	Illegal Drug Use
Transportation	Alcohol Abuse
Population Growth	Lack of Recreational Activities
Domestic Violence/ Child Abuse	Affordable Housing

People in the Brazos County are more concerned about population growth and domestic violence whereas rural community members report a lack of recreational activities and affordable housing as significant problems.

Community Preparedness

As a result of the September 11th terrorist attacks on the United States, a question developed by the Centers for Disease Control and Prevention (CDC) was added to the survey. It simply asked the respondent to say how well they believed their community is prepared to deal with a local act of terrorism. One in five (21.8%) respondents overall felt their community was not prepared (*somewhat unprepared* or *completely unprepared*). A very significant difference exists between respondents living in the rural counties (28.7%) than those in Brazos County (16.7%).

Socioeconomic Factors' Effects on Health

A summary of several factors is presented below to emphasize the impact of social determinants on the health of the community.

Health Status	BV	Poverty	Low Income	<HS Educ	Not Insured
“Fair/Poor” Health	14.6%	28.7%	18.0%	41.5%	22.5%
Current Smoker	14.4%	20.3%	19.8%	27.4%	27.0%
Never had Dental Exam	2.6%	8.3%	2.9%	9.5%	7.7%
Never had Breast Exam	6.9%	16.3%	9.1%	12.1%	13.3%
No Regular Place for Care	10.1%	19.5%	8.9%	16.3%	26.5%
No Regular Provider	22.7%	44.7%	25.6%	37.1%	53.9%
Used ER in past year	24.8%	34.2%	29.0%	38.8%	35.1%
Put off Care Because \$\$	32.2%	42.7%	44.8%	40.9%	67.2%

The bolded items on the table are significantly different from the comparison numbers. Within the BV sample overall, education, income, and lack of health insurance are strongly correlated to a wide variety of health problems including:

- The percent of people with less than a high school education reporting fair or poor health status (41.5%) is three times greater than the overall sample (14.6%). Smoking among the same group (27.4%) is almost twice as frequent as the overall sample (14.4%).
- Going to the dentist is three to four times less frequent among those in the poverty group (8.3%), among those with less than a high school education (9.5%), and among those with no health insurance (7.7%).
- Twice as many women have not had a breast exam among those in the poverty group (16.3%) and those without health insurance (13.3%) compared to the total pool of respondents (6.9%).
- Not having a regular place for care (10.1%) and not having a regular provider of care (22.7%) are higher among those in poverty (19.5%; 44.7%), lower education (16.3%; 37.1%) and uninsured groups (26.5%; 53.9%).
- The use of the emergency room is much more frequent among those in poverty (34.2%), with less than a high school education (38.8%), and the uninsured (35.1%).
- The rate of putting off medical care because of costs doubles for the uninsured group (67.2%) and is significantly higher as a function of lower income (44.8%) and less education (40.9%).

SUMMARY OF KEY FINDINGS

The key findings from this survey include:

- Perceived overall BV health status by survey respondents is *slightly worse* compared to nation.
- More BV respondents report having *chronic diseases* than the nation.
- One fifth of BV survey population has *three or more risk factors*.
- A third of the population “often” or “occasionally” *delay seeking medical care* due to cost. Numbers are higher for dental care.
- Two thirds of those who do not have insurance “often or “occasionally” *delay seeking care* due to cost. For dental, almost 75% report cost as a problem.
- Percentage of people who *did not receive adequate prenatal care* is double in rural counties compared to Brazos County.
- A fifth of BV respondents report that their *children’s insurance is not accepted* by health care providers.
- A third of the respondents feel that *teen pregnancy, drug abuse and public transportation* are serious community issues.

Perceptions of community members around access to care are the focal point of discussions around health, but health itself is not a particularly high priority as a community issue.

COMMUNITY DISCUSSION GROUP RECOMMENDATIONS

From participants in the community discussion groups, “advice” or suggestions on how to go about addressing local health problems were given. Among these were:

- “*Organize efforts* to improve health across the region”
- “*Involve key institutions* in solving problems but don’t expect them to solve them for you”
- “*Create a centralized clearinghouse* for information on health”
- “*Focus on prevention and proper utilization* of health care services.”
- “*Work with schools* to get better health education for children.”
- “*Consider establishing a taxing authority* for base financial support for core health services.”
- “*Work with local government to develop a regional transportation strategy.*”

Using the findings from a community health status assessment in a strategy which incorporates local advice is a proven and effective approach to improving local health status.

References

- Centers for Disease Control and Prevention. (1997). National Health Interview Survey (NHIS). [On-line.] Available at http://www.cdc.gov/nchs/data/series/sr_10_205.pdf
- Healthy People 2010. [On-line.] Available at <http://www.health.gov/healthypeople/document/html/volume1/01Access.htm>
- National Center for Health Statistics, Centers for Disease Control and Prevention. (2000). [On-line.] Available at <http://www.cdc.gov/nchs/>
- Texas Department of Health. (2001). Health Professionals Resource Center. [On-line.] Available at <http://www.tdh.state.tx.us/dpa/PHYS-lnk.htm>
- Texas Department of Health. (2000). Mortality Data. [On-line.] Available at <http://soupon.tdh.state.tx.us/death10.htm>
- Texas Health and Human Services Commission. (2001). [On-line.] Available at http://www.hhsc.state.tx.us/budget/cons_bud/dssi.htm
- U.S. Census Bureau, United States Department of Commerce. (2000). [On-line.] Available at <http://www.census.gov/>