# Community Health Outcomes Report: Phase 1 

Bexar County Community Health Collaborative<br>William Spears<br>Wright State University, william.spears@wright.edu<br>David W. Smith

Follow this and additional works at: https://corescholar.libraries.wright.edu/comhth
Part of the Community Health Commons, and the Community Health and Preventive Medicine Commons

## Repository Citation

, Spears, W., \& Smith, D. W. (2006). Community Health Outcomes Report: Phase 1. . https://corescholar.libraries.wright.edu/comhth/275

Our thanks to these organizations for their funding of Phase I of the assessment:

- Baptist Health Foundation
- Methodist Healthcare Ministries
- The Kronkosky Charitable Foundation
- The United Way of San Antonio and Bexar County

The Health Collaborative would like to extend our deepest gratitude to our member organizations and supporters. Without their commitment to community health in Bexar County and San Antonio, our mission to improve the health status of the community through collaborative means wouldn't be possible. Thank you for all you do!

## Executive Summary

The 2006 Bexar County Community Health Assessment is a major initiative of The Health Collaborative, a cutting-edge, public-private model for solving community health issues. The mission of the organization is to improve the health status of the community through collaborative means. Partners include the major health systems in San Antonio, the YMCA of Greater San Antonio, Community First Health Plans, Methodist Healthcare Ministries, San Antonio Metropolitan Health District, and a community representative. Major health systems represented are Baptist Health System, CHRISTUS Santa Rosa Health Care, Methodist Healthcare, and University Health System. For additional information about the Collaborative, please go to http://www.healthcollaborative.net.

The Health Collaborative began informally in 1997 when several area health care organizations agreed to put aside their competitive business practices to conduct the first community health assessment. The 2006 Bexar County Community Health Assessment is the third in a series of assessments issued every four years. Since the first version was issued in 1998, the assessment has served as a comprehensive report of local health, guiding the community's efforts toward prevention and health improvement. It is compiled and published as a gift to the community with the understanding that the more the community knows about its health status, the better able the community will be to take collaborative action to improve it.

Major health care systems in the area have used the data to make critical program decisions. Nonprofit organizations throughout the city have found the assessment to be an insightful planning tool, using its data when writing grants and evaluating and developing their programs. Area media also cite the data in covering healthcare issues.

Also, data from the first two assessments led to the development of The Health Collaborative's Fit City program and the Youth Mental Health Council.

## An Overview of the Process

The 2006 Bexar County Community Health Assessment is being conducted in three phases. The initial phase relies on traditional public health sources, such as vital records of births and deaths, to construct outcome indicators of community health, such as low birth weight and causes of death. Other indicators of community health that can be derived from hospital discharges and health care providers are also included in phase 1.
Phase 2, which will be implemented during summer 2006, will focus on behaviors, such as nutrition, exercise, and the use of seat belts, that influence the health outcomes assessed in Phase 1. Indicators of behaviors that promote good health outcomes and behaviors that elevate the risk for poor health outcomes will be selected from the Bexar County component of national datasets such as the Centers for Disease Control and Prevention's Behavior Risk Factor Survey and other sources of information that pertain to the county. The emphasis of Phase 3 is providing the community with the opportunity to have a direct voice in the health assessment process in the form of community meetings to evaluate assessment findings of Phases 1 and 2, to suggest additional
measures of community health, to undertake community-based collaborations for further data collection, to set priorities for further action, and to plan for programmatic response to community health issues of concern.

A report also will be published at the end of Phase 2 with a final report on the complete assessment to be published after the first of the year. This report covers the period 1998 to 2004. We ended the coverage period with 2004 in order to provide a four year reporting for comparability with the final report for the 2002 Assessment (the ending year for the vital data reporting for the 2002 Assessment was 2000) and in order to be assured of completeness of the 2004 vital data reported by the Texas Department of State Health Services. As a rule, vital data of birth and death records are considered provisional until reviewed by the Department for accuracy. The review is usually not finished until well into the year following the year of reporting interest. The assurance of accuracy and completeness of 2005 data for the purpose of reporting will be later in the year 2006 at the earliest. However, to obtain at least a preliminary look at community health data for San Antonio for 2005, please see the 2005 Health Profile published by the San Antonio Metropolitan Health District:
http://www.sanantonio.gov/health/Profiles/hp2005/index.htm
The Bexar Community Health Assessment is guided by the determinants of health model ${ }^{1}$. The model defines health broadly, as the consequence of several domains, social and physical environments, genetics, and individual behavior choices. The model provides a framework for interpreting the outcome data collected by the assessment that encourages the reader to ask such questions as 'To what extent is the relatively high rate of infant mortality in this sector of the city the consequence of the social context of the neighborhood?" Furthermore, the model suggests that individual level behavior choices are themselves in large part the consequence of social environments.
Reports in each phase and the final summary report will compare the findings for Bexar County with Texas and another large urban area, Harris County.

## Summary of findings

## Phase 1

## Social Indictors That Contribute to the Health of the Community

The median family incomes of people who live in the north part the county are 75 percent higher than the incomes of people living in south Bexar County. The level of education of residents of south Bexar County is much lower than in the north. Forty percent of the residents living in the South and West sectors have less than 12 years of education. Research studies show that health outcomes are worse for people with lower levels of education.

[^0]
## Health Literacy

Understanding how to care for one's health and how to deal with medications and symptoms is important. People who have trouble understanding the content of a newspaper will have difficulty in understanding the complex issues dealing with health. Community efforts to support residents in dealing with personal, social, and health concerns, including the employment of lay health educators or promoteras, can help. Healthcare providers can work to reduce the amount of medical terminology and jargon and be more considerate of differences in levels of understanding whether differences are the result of age, culture, or education.

## Infant and Child Health

Though Bexar County looks good overall on birth characteristics when compared to Texas and Harris County, teenage pregnancy remains a concern. It is important that mothers receive early prenatal care to reduce risks to the baby and the mother. Teenage mothers have somewhat worse pregnancy outcomes than older mothers. It is proven difficult for young parents to provide the financial and emotional support needed to care for a baby while completing their education. Support and encouragement should be given mothers younger than 18 to complete their high school education.

Single mothers are also a concern. Thirty-nine percent of births in Bexar County occur to single mothers. Pregnancy outcomes for these mothers are worse than for those for married mothers. Single mothers tend to have less financial, emotional and physical support to help care for their child. These conditions can contribute to poor health and lower educational performance for their children. The community would benefit from finding better ways to strengthen and support these families.

- The fertility rate was 79 births per 1,000 women of childbearing age, an increase from 78 births per 1,000 women of childbearing age in 2000.
- Teenage fertility rate was 25 births per 1,000 females between 13 to 17 years old, down from 28 births per 1,000 females between 13 to 17 years old in 2000.
- The low birth weight rate was 8.8 percent of total births; this is a noticeable increase from 7.5 percent in 2000.
- 75 percent of mothers received prenatal care starting in the first trimester of pregnancy; this is a slight increase from 73 percent in 2000.
- The infant mortality rate (the number of deaths to children under 1 year of age divided by the number of live births times 1000) is elevated for Bexar County and a number of the Sectors over the rate in 2000 published in the 2002 Community Health Assessment. It is also slightly elevated for Harris County and for Texas as a whole. We believe this elevation to be a consequence of random variation where, thankfully, the number of infant deaths each year is relatively small. Nonetheless, the fact that infant mortality is elevated in so many of the Sectors, as well as Bexar County, Harris County, and Texas suggests that something may be occurring that warrants close monitoring of this vital indicator of public health for an enduring increase.

The 2005 Health Profile of San Antonio indicates a decline in early entry into prenatal care by as much as $12 \%$ between 2004 and 2005. According to preliminary data reported
by TDHS, with the implementation of the new birth certificate form, the participation in early prenatal care appears to be down across the state an average of $18 \%$. Because the early entry into prenatal care is a key indicator of maternal and child health, there is a potential for concern about the decline but, because the Centers for Disease Control (CDC) mandated a substantial change in the birth certificate form leading into 2005, it is more likely that the decline in Bexar County and across the state is an artifact of the changes in the birth certificate rather than a substantive change in behavior of women seeking prenatal care. Because the Texas Department of State Health Services (TDHS) has not yet validated the 2005 birth data for accuracy, the data ought to be considered provisional. Therefore, some caution in the interpretation of what the decline means is warranted until the CDC and TDHS have a chance to evaluate whether any change in the data is a consequence of the forms change or a consequence of substantive change in behavior. See Appendix A of the Phase 1 Report for additional discussion and associated tables.

## Leading Causes of Death

We measured the leading causes of death in Bexar County in two ways-- the number of people who died and the number of years of potential life lost as a result of death. The number of years of potential life lost (YPLL) is a measure of premature death. A premature death is one that occurs earlier than 65 years of age. Sixty-five was chosen because this is the age when everyone is eligible for Medicare health benefits. We have chosen YPLL as a measure of mortality for this assessment because it helps to show the dramatic impact of premature death and the burden that the loss places on the community to fill the gap left by the loss of a productive member of the community.
Safety and Injury. The leading reason for premature death in Bexar County is unintentional injuries. Nineteen percent of years of life lost to premature death are the result of vehicle crashes and injury in the home and in other locations. The people who die due to unintentional injuries tend to be young. On average, an individual who dies of an unintentional injury loses 29 years of life in which he or she might have been productive member of society.

Vehicle crashes alone account for over one-half of years of life lost to premature unintentional injury deaths in Bexar County. People who die from vehicle crashes lose an average of 34 years of life. This is compared to an average 15 years for those who die prematurely from cancer and 10 years for victims of heart disease. The county would benefit substantially from efforts to reduce unintentional injuries, especially vehicle crash deaths.

The number of people dying from homicide is the thirteenth leading cause of death in Bexar County and results in large losses of years of life with an average of 31 years. Homicides are signals to the community that a much larger problem with violence exists. The community needs to find ways to address violence among its residents.

- Unintentional injury mortality claims 831 years of potential life per 100,000 population, an average of 29 years for every death. This is up from 813 years of potential life lost per 100,000 population in 2000. Motor vehicle crashes account for over 50 percent of years of life lost due to unintentional injury death or 438 years of
potential life lost per 100,000 population and average of 34 years for each death. This is down from 451 per 100,000 in 2000.
- Unintentional injury mortality has increased from an age adjusted rate of 36 per 100,000 population to 44 per 100,000 population.
- Homicide mortality claims 221 years of potential life per 100,000 population, an average of 31 years for every death. This is down from 246 years of potential life lost per 100,000 population in 2000.

Heart Health and Cancer. The causes that claim the largest number of lives are heart disease and malignant neoplasms (cancer). These two conditions claim the lives of 48 percent of all residents of Bexar County who die. By the time people have developed heart disease or cancer, the community can do little for them other than help ensure access to the healthcare system. However, the scientific literature indicates that there is much that can be done to help prevent these conditions and help maintain the quality of life for those who have heart disease or cancer, especially in the early stages of the disease. Unhealthy behaviors such as smoking and making uninformed eating choices that lead to obesity, are major factors that contribute to these conditions. Community prevention strategies and interventions that support exercise and healthy eating choices can help to reduce the risk for heart disease and cancer.

- Heart disease mortality claims 450 years of potential life per 100,000 population, an average of 12 years for every death. This is down from 492 years of potential life lost per 100,000 population in 2000.
- Cancer mortality claims 639 years of potential life per 100,000 population, an average of 12 years for every death. This is down from 702 years of potential life lost per 100,000 population in 2000.
- Heart disease mortality has decreased from an age adjusted rate of 264 per 100,000 population to 223 per 100,000 population.
- Cancer mortality has decreased from an age adjusted rate of 192 per 100,000 population to 179 per 100,000 population.
- Stroke mortality has decreased from an age adjusted rate of 61 per 100,000 population to 60 per 100,000 population.
- Diabetes mortality has decreased from an age adjusted rate of 45 per 100,000 population to 41 per 100,000 population.

Mental Health. The number of people dying from suicide is substantially smaller than heart disease or cancer but this is the twelfth leading cause of death in Bexar County. A person who dies prematurely as a result of suicide loses an average of 26 years of life. The leading cause of suicide is depression. The 2000 Surgeon General's report on mental illness indicates that mental illness is the second leading cause of disability. People who live on incomes lower than the federal poverty guidelines are 50 percent more likely to be depressed. A suicide death is a signal to the community that residents are in distress and need help.

- Suicide mortality claims 221 years of potential life per 100,000 population, an average of 26 years for every death. This is down from 281 years of potential life lost per 100,000 population in 2000.

To access the full phase I report, visit www.healthcollaborative.net

## Bexar County Community Health Assessment Table of Contents

Phase 1: Assessing Community Health Outcomes ..... 1
The Determinants of Health ..... 2
Bexar County Demographic Information ..... 5
The Social Environment ..... 10
2004 Hispanic population ..... 10
Level of education ..... 11
Unemployment ..... 11
Median Family Income. ..... 12
Families with children under 18 living below the federal poverty guidelines ..... 12
Residents living on incomes that are below 200 percent of poverty ..... 13
Families with single female head of household ..... 13
Single female-headed families with children under 18 living below poverty ..... 14
Healthy Lifestyles ..... 15
Direct care physician to population ratio ..... 15
Primary care physician to population ratio ..... 16
General practice dentists to population ratio ..... 16
Infant and Child Health ..... 18
Infant Mortality ..... 18
Fertility women ages 15 to 44 ..... 19
Prenatal care in the first trimester of pregnancy ..... 20
Late or no prenatal care. ..... 20
Low birth weight ..... 21
Fertility in females 12 to 17 years of age ..... 22
Prenatal care among teenage mothers ..... 23
Late or no prenatal care. ..... 23
Low Birth Weight ..... 24
Prenatal care for single mothers ..... 25
Late or no prenatal care. ..... 26
Low birth weight ..... 26
Safety and Injury ..... 28
Direct care physician to population ratio ..... 29
Hospitalization rate for unintentional injury ..... 29
Age-adjusted mortality for unintentional injury ..... 30
Years of potential life lost (YPLL) due to unintentional injury ..... 31
Hospitalization rate for motor vehicle crashes. ..... 31
Age-adjusted mortality for motor vehicle crashes ..... 32
Years of potential life lost (YPLL) due to motor vehicle crashes ..... 33
Homicide ..... 34
Age-adjusted mortality for homicide ..... 34
Years of potential life lost (YPLL) due to homicide ..... 35
Mental Health ..... 37
Affective disorder hospitalization rate ..... 37
Schizophrenia hospitalization rate ..... 38
Age-adjusted mortality for suicide ..... 38
Years of potential life lost (YPLL) due to suicide ..... 39
Oral Health ..... 41
General practice dentists to population ratio ..... 41
Heart Health and Stroke ..... 42
Direct care physician to population ratio ..... 43
Hospitalization rate for Heart Disease ..... 43
Age-adjusted mortality for heart disease ..... 44
Years of potential life lost (YPLL) due to heart disease. ..... 45
Cerebrovascular Disease (Stroke) ..... 46
Direct Care Physicians ..... 46
Hospitalization rate for cerebrovascular disease (stroke) ..... 46
Age-adjusted mortality for cerebrovascular disease (stroke) ..... 47
Years of potential life lost (YPLL) due to cerebrovascular disease (stroke) ..... 48
Diabetes Health ..... 49
Direct care physician to population ratio ..... 49
Hospitalization rate for diabetes mellitus with complications ..... 50
Age-adjusted mortality for diabetes mellitus ..... 50
Years of potential life lost (YPLL) due to diabetes mellitus ..... 51
Cancer Health ..... 53
Direct care physician to population ratio ..... 54
Hospitalization rate for malignant neoplasms (cancer) ..... 54
Years of potential life lost (YPLL) due to malignant neoplasms (cancer) ..... 55
Age-adjusted rates for female breast cancer mortality ..... 56
Years of potential life lost (YPLL) due to female breast cancer ..... 57
Appendices ..... 59
Appendix A ..... 59
Glossary ..... 62

# Bexar County Community Health Assessment 2006 

Phase 1: Assessing Community Health Outcomes

The 2006 Bexar County Community Health Assessment (BCCHA) is being conducted in three phases; the initial phase relies on traditional public health sources such as vital records of births and deaths to construct outcome indicators of community health, such as low birth weight and causes of death, about community health that can be derived from hospital discharges and health care providers is also included in phase 1. Phase 2 will focus on behaviors that influence the health outcomes. Indicators of behaviors that promote good health outcomes and that elevate the risk of poor health outcomes will be selected from the Bexar County component of national datasets such as the Behavior Risk Factor Survey of the Centers for Disease Control and other sources of information that pertain to the county. The emphasis of phase 3 is providing the community the opportunity to have a direct voice in the health assessment process. Community forums will be held to review assessment findings from phases 1 and 2 and to recommend a list of health issues by priority for further elaboration or for programmatic response. If there are any additional community health issues of concern not addressed by phases 1 and 2 and for which there are no available extant data, community-based collaborations that involve participation by community residents will conduct primary data collection on the issues.

The assessment will have three reports, one at the end of each of the first two phases and the final summary report. While the health indicator information gathered from the vital records for phase 1 and the behavior risk indicator information from national data sets for phase 2 were originally collected on individuals through birth and death certificates and surveys, the assessment's emphasis is on community-level health status. For purposes of reporting health behaviors and health outcomes, the individual level data from the two phases will be aggregated to a level of geography that is representative of community at a large scale. Reports of each phase and the final summary report will compare the findings for Bexar County with Texas and another large urban area, Harris County. The final report will contain a report card format in which each of the segments of a level of geography will be ranked on a dimension of health relative to the other segments of the geography.

This report covers the period 1998 to 2004 . We ended the coverage period with 2004 in order to provide a four year reporting for comparability with the final report for the 2002 Assessment (the ending year for the vital data reporting for the 2002 Assessment was 2000) and in order to be assured of completeness of the 2004 vital data reported by the Texas Department of State Health Services. As a rule, vital data of birth and death records are considered provisional until reviewed by the Department for accuracy. The review is usually not finished until well into the year following the year of reporting interest. The assurance of accuracy and completeness of 2005 data for the purpose of reporting will be later in the year 2006 at the earliest. However, to obtain at least a preliminary look at community health data for San Antonio for 2005, please see the 2005 Health Profile published by the San Antonio Metropolitan Health District: http://www.sanantonio.gov/health/Profiles/hp2005/index.htm

## The Determinants of Health

The Bexar County Community Health Assessment is guided by the determinants of health model ${ }^{2}$. The model defines health broadly, as the consequence of several domains, social and physical environments, genetics, and individual behavior choices. The model provides a framework for interpreting the outcome data collected by the assessment that encourages the reader to ask such questions as 'To what extent is the relatively high rate of infant mortality in this sector of the city the consequence of the social context of the neighborhood?" Furthermore, the model suggests that individual level behavior choices are themselves in large part the consequence of social environments. For example, social contexts of stress can lead to individual choices that increase the risk of poor health outcomes, e.g., smoking, alcohol, substance abuse ${ }^{3}$. Each health topic section of the assessment reports will link outcomes of that section to domains of the model.


Note: From Healthy People 2010: An Introduction, by U.S. Department of Health and Human Services, 2000, Page 6

[^1]Health can be described as "a state of well being and the capacity to function in the face of changing circumstances" ${ }^{\prime 4}$. The model emphasizes the interaction between individuals and the social and environmental circumstances in which we live that influence health. In this way the model functions to emphasize that the health of individual is interconnected with the "health" of the community. Social factors such as how much education a person has, their income, occupational status as well as the strength of their connection to the community will have an impact on their health. The physical environment also plays a role in health; aspects such as the quality of the air we breathe and the water we drink, contribute to health in the community. Other features of the community such as access to places to make a living wage, places to exercise (sidewalks, parks, and recreation facilities), places to learn (schools, colleges and universities, libraries) and relax (theatres, and cultural events) create the social environment in which we live and contribute to a healthy community ${ }^{5}$.

The interactive aspect of the model emphasizes that individual behavior choices are made in the context of the social and physical environment. The stresses that are created by the inequities found in the environment often result in individual behaviors that lead to poor health, behaviors such as smoking, excessive alcohol consumption, and obesity.

Community health is also influenced by social policy. Policies about funding for education, how environmental contaminants are managed; whether employers provide health insurance and a living wage contribute to a healthy community. Training programs to enhance or learn new job skills, public funding for services and healthcare for children and the elderly are interventions that influence the quality of life in the community.

Access to quality health care also contributes to health status. Access to healthcare facilities and providers with knowledge and skill to address mental and physical dysfunctions influences our ability to maintain health. However, the health system affects a small portion of overall health of individual.
To know whether we are making progress in improving community health, it is necessary to go beyond measures of individual health. Individual health issues are usually monitored by the medical care system. Community influence on care provided by the healthcare system is minimal. To have a good understanding community impact on health it is important to include measures of the vitality of the community. Community interest demonstrated through interaction in the community and participation in community projects can help increase the vitality of the community. This assessment is based on the premise that statistical indicators provide information about the magnitude and severity of community health problems.

But statistical indicators are only a metric to monitor status. To improve the health of the community it is necessary that we establish clear goals of what we want to achieve and objectives to set a course to reach those goals. In setting goals and objectives for community health, it is crucial that community members participate in the process of

[^2]community assessment to create more of a complete understanding of community health concerns. The knowledge and values of the community should lead the establishment of goals and objectives for creating a healthier community. Participation will give ownership of the process and can help build a sense of trust and social cohesion. It is through this process that we can attach the root causes of poor health in Bexar County. A root cause is a cause that is at a root of an effect. An effect can have more than one root. Thus a given effect can have, and usually does have, more than one root cause ${ }^{6}$. For example, people die as a result of complications of diabetes. However, scientific research indicates that obesity is a risk factor for diabetes and lack of exercise is a risk factor for obesity. Factors that influence obesity may be lack of education about appropriate eating choices and/or lack of resources to buy healthy foods. Living in a community that does not provide access to locations to exercise may limit ones ability or willingness to exercise.

## Organization of the 2006 Bexar County Community Health Assessment

Health and ill-health occurs across the lifespan and across the domains of the determinants of health. The 2006 report will build on the experience of the 2002 Bexar County Community Health Assessment. In 2002 the assessment's community review committee considered the information that was being collected in the context of the current scientific knowledge about health and the factors that influence health outcomes and developed a format for presentation of the information. Also included in this format was the committee's understanding of how residents of Bexar County valued different aspects of culture and beliefs about health and the community.
Using this knowledge they determined that community health information should be present in nine topic areas:

1. Social environment
2. Healthy lifestyles
3. Heart health and stroke
4. Cancer health
5. Diabetes health
6. Safety and injury
7. Mental health
8. Infant and child health
9. Oral health

Within each topic area, information is presented for a number of behaviors and conditions that impact health. The basic behaviors and conditions that influence health are similar across many health topic areas. For example, the amount of exercise one gets has an influence on healthy lifestyles, heart health and stroke, and diabetes. Nutritional habits have an impact on healthy lifestyles, heart health, diabetes, and cancer. Throughout the report, information is repeated in topic areas to show the inter-connective relationship of health behaviors. The 2006 Bexar County Community Health Assessment will focus more on providing information about the determinants of health within topic areas than was provided in the earlier report.

[^3]
## Bexar County Demographic Information



The 2000 census count determined that $1,392,921$ people were living in Bexar County. Ninety-four percent of the population in the county is in an urban area. In 2004 there were an estimated $1,493,965$ people living in the county. This shows that the county grew by 7 percent between 2000 and 2004. In 2000, the county population was 54 percent Hispanic and estimates suggest that by 2004, Hispanics increased to 57 percent of the population. Minority races represent a small proportion of the population. In 2000, there were 94,147 African Americans ( 6.8 percent) and 46,505 of other races (American Indian, Asian, Pacific Islander, and other races).

## Population growth

The population of Bexar County increased by 101,034 persons between 2000 and 2004. Most of the population growth in Bexar County has occurred in the areas on the far edges of the county. The Far West, Far Northwest, and the Far North areas have all grown by approximately 25 percent since 2000. It is not surprising that these growth areas tend to be less similar to the overall sector than the areas in middle and center of the county. These growth areas have higher median family incomes, higher levels of education and
 are less Hispanic than other areas within the same sector.

## Community Assessment Tables

Community assessment tables provide information for Bexar County, Texas, and Harris County. The information from Bexar County is further broken down into sectors and then areas within the county sectors. This allows comparisons within the county and to the county as a whole. In order to understand the information in the context of the county, it is important to compare Bexar County to statewide data. Harris County information is provided to allow the reader to compare local areas to another major metropolitan area with similar urban problems.

Tables are constructed to show rates, proportions, and counts for each of the sectors as well as areas within each sector when sufficient data is available. In some cases, as with hospital discharge information and surveys, data were available only for ZIP code areas, these data are shown only for sectors. ZIP codes and census tracts do not share boundaries; consequently, there is no continuity between census tracts. Thus, sectors can be constructed by overlaying ZIP codes on census tracts, but the discontinuity makes it impossible to construct the smaller areas with ZIP codes. Military bases cover five areas within the county. Due to differences in reporting requirements, statistical systems and the dynamic nature of the military populations, there is no way to know the reliability of the military numbers. When counts are available for the military areas they are shown in tables, but rates are not calculated for military. The counts are provided for informational reasons only and are not included in analysis for the community assessment.

## Brief demographic profiles of sectors

The map above shows the 21 areas used in the Community Assessment where community health characteristics are monitored. The areas are based on similarities in population, economic, and housing characteristics based on census tracts. The areas range in population from 13,824 in the Far Northeast to 140,189 in the West Northside with an average of population of 70,300 . The areas on the outskirts of the county have smaller and less dense populations. However, it is in the Far North and Far West areas that have experienced the greatest population growth over the past 5 years.

The areas are grouped (with similar colors) into 6 large sectors that radiate from the center of the county.

## Sector Profiles

The Northwest sector in 2004 was home to 363,196 residents, of whom 57 percent are Hispanic. Eighty-three percent of the adults have high school or additional education. In 2000 , the median family income was $\$ 57,427$. Thirteen percent of the population live below poverty guidelines. There are four areas within the sector.

The West Northside, inside Loop 410 North, west of San Pedro and north of Culebra, is home to 140,189 residents; this area is 79 percent Hispanic. Seventy percent of the adults have high school or more education. The median family income is $\$ 36,083$. Nineteen percent of the population live below poverty guidelines.

The East Northwest, between Loop 410 North and North Loop 1604, east of Bandera, is home to 105,925 residents, this area is 47 percent Hispanic. Ninety-two percent of the adults have high school or more education. The median family income is $\$ 53,353$. Eleven percent of the population live below poverty guidelines.

The West Northwest, between Loop 410 North and North Loop 1604, west of Bandera, is home to 88,537 residents, this area is 53 percent Hispanic. Ninety-two percent of the adults have high school or more education. The median family income is $\$ 56,019$. Six percent of the population live below poverty guidelines.

The Far Northwest, north of North Loop 1604, west of I-10 West, is home to 28,544 residents, this area is 25 percent Hispanic. Ninety-five percent of the adults have high school or more education. The median family income is $\$ 84,254$. Five percent of the population live below poverty guidelines. The Far Northwest was one of the fastest growing areas in the county with a 24 percent growth between 2000 and 2004.

The North Central sector was home to 231,251 residents in 2004, of whom 35 percent are Hispanic. Ninety-one percent of the adults have high school or more education. In 2000 the median family income was $\$ 72,785$. Nine percent of the population live below poverty guidelines. There are three areas within the sector.

The East Northside, inside Loop 410 North, east of San Pedro and north of I-35 North, is home to 81,889 residents; this area is 36 percent Hispanic. Eighty-eight percent of the adults have high school or more education. The median family income is $\$ 54,661$ and 12 percent of the population live below poverty guidelines.

The North Central, between Loop 410 North and North Loop 1604, west of US-281 and east of $\mathrm{I}-10$, is home to 121,454 residents, this area is 37 percent Hispanic. Ninety-three percent of the adults have high school or more education. The median family income is $\$ 62,256$, and 8 percent of the population live below poverty guidelines.

The Far North, north of North Loop 1604, west of US-281 North and east of I-10 West, is home to 27,908 residents; this area is 21 percent Hispanic. Ninety-six percent of the adults have high school or more education. The median family income is $\$ 101,429,2.3$ percent of the population live below poverty guidelines. The Far

North is one of the fastest growing areas in the county with a 25 percent increase between 2000 and 2004.

The Northeast sector was home to 276,587 residents in the 2004 census. Thirty-five percent of the sector population is Hispanic. Ninety percent of the adults have high school or more education. In 2000, the median family income was $\$ 64,988$. Eight percent of the population live below poverty guidelines. There are three areas within the sector.

The Northeast, between Northeast Loop 410 and North Loop 1604 East, east of US 281 North and west of I- 35 North, is home to 130,078 residents, this area is 34 percent Hispanic. Ninety-two percent of the adults have high school or more education. The median family income is $\$ 57,355$ and 7 percent of the population live below poverty guidelines.

The Far Northeast, north of North Loop 1604 East, east of US 281 North and west of I-35 North, is home to 13,824 residents, this area is 23 percent Hispanic. Ninety-six percent of the adults have high school or more education. The median family income is $\$ 89,543$. Two percent of the population live below poverty guidelines. The Far Northeast was one of the fastest growing areas in the county with a 26 percent increase in population between 2000 and 2004.

The East, northeast of North Loop 410 East between I-35 North and I-10 East, is home to 124,685 residents, this area is 37 percent Hispanic. Eighty-seven percent of the adults have high school or more education. The median family income is $\$ 48,067$. Ten percent of the population live below poverty guidelines.

The West sector was home to 206,014 residents in 2004, and 78 percent of the sector is Hispanic. Sixty-three percent of the adults have high school or more education. In 2000 the median family income was $\$ 45,323$. Twenty-three percent of the population live below poverty guidelines. There are three areas within the sector.

The Westside, between I-35 in downtown San Antonio and Loop 410, south of Culebra and north of US-90, is home to 125,535 residents; this area is 90 percent Hispanic. Forty-eight percent of the adults have high school or more education. The median family income is $\$ 25,793$ and 31 percent of population live below poverty guidelines.

The West, between Northwest Loop 410 and State Road-1604, south of Culebra and north of US-90, is home to 66,543 residents; this area is 63 percent Hispanic. Eightyeight percent of the adults have high school or more education. The median family income is $\$ 47,151$. Eight percent of the population live below poverty guidelines.
The Far West, west of Loop 1604, south of FM-471 (Culebra) and north of US-90 West, is home to 13,935 residents, this area is 37 percent Hispanic. Ninety-two percent of adults have high school or more education. The median family income is $\$ 63,024$ and 7 percent of the population live below poverty guidelines. The Far West was the fastest growing areas in the county with a 27 percent population increase between 2000 and 2004.

The East sector in 2004 was home to 139,654 residents of whom 62 percent are Hispanic. Sixty-seven percent of the adults have high school or more education. In 2000 , the median family income was $\$ 34,420$. Twenty-three percent of the population live below poverty guidelines. There are three areas within the sector.

The Eastside, between east of downtown San Antonio (I-37) and Loop 410 East, south of Fort Sam Houston (I-35 North) and north of Roland Ave, is home to 52,098 residents. This area is 56 percent Hispanic and 41 percent African American. Sixty percent of the adults have high school or more education. The median family income is $\$ 25,565$ and 30 percent of the population live below poverty guidelines.

The South East, south of Roland Avenue, east of South Presa and north of Loop 410 South, is home to 62,722 residents. This area is 77 percent Hispanic. Sixty-seven percent of the adults have high school or more education. The median family income is $\$ 33,083$ and 20 percent of the population live below poverty guidelines.

The Far Southeast, south of Loop 410 Southeast between I-10 East and US-181 South, is home to 24,834 residents, this area is 34 percent Hispanic. Eighty percent of the adults have high school or more education. The median family income is $\$ 44,614$. Eleven percent of the population live below poverty guidelines.

The South sector was home to 259,594 residents in 2004, of whom 67 percent are Hispanic. Fifty-six percent of the adults have high school or more education. In 2000, the median family income was $\$ 30,851$ and 26 percent of the population lived below poverty guidelines. There are five areas within the sector.

The Central, mostly downtown San Antonio area, is home to 38,283 residents, this area is 82 percent Hispanic. Fifty-two percent of the adults have high school or more education. The median family income is $\$ 27,484$ and 34 percent of the population live below poverty guidelines.

The Southside, south of US-90 and north of Southeast Loop 410, east of State Road 353 to State Road 122 Spur (South Presa), is home to 88,499 residents, and this area is 88 percent Hispanic. Fifty-four percent of the adults have high school or more education. The median family income is $\$ 28,794$. Twenty-four percent of the population live below poverty guidelines.

The Southwest, northeast of Loop 410 Southwest between US-90 West and I-35 South, is home to 76,134 residents. This area is 86 percent Hispanic. Fifty-five percent of the adults have high school or more education. The median family income is $\$ 26,828$. Twenty-seven percent of the population live below poverty guidelines.

The South, south of Loop 410 South between I-35 South and US-181 South, is home to 41,621 residents, this area is 74 percent Hispanic. Sixty-one percent of the adults have high school or more education. The median family income is $\$ 33,194$. Twentytwo percent of the population live below poverty guidelines.

The Far Southwest, southwest of Loop 410 Southwest, south of US-90 South and north of I-35 South, is home to 15,057 residents, this area is 62 percent Hispanic. Sixty-five percent of the adults have high school or more education. The median family income is $\$ 37,953$ and 20 percent of the population live below poverty guidelines.

## The Social Environment

The health of a community and the people living in the community is dynamic and depends on a multitude of factors. The determinants of health model shows that the social environment has an important effect on health. The social environment is shaped by cultural customs, languages, and interactions between people. Social institutions, such as law enforcement, the workplace, places of worship and school also contribute to the social environment. Other influences in the social environment include housing, transportation, education, poverty, crime, and violence.

The information about the social environment comes mostly from the data collected by the U.S. Census Bureau. The census is conducted every 10 years; the last census was in 2000. Limited updated information about the size of the population is available from estimates and projections that are based on the components of population change (births, deaths, and migration). The U.S. Census Bureau provides annual estimates of the population by race-ethnicity and age for states and counties. Estimates for areas smaller than counties are difficult to determine and less reliable because it is hard to obtain data about changes within counties. The estimates for 2004 used in this assessment are based on changes in the number of ZIP plus 4 ZIP Codes.

## 2004 Hispanic population

Census estimates suggest that 824,275 Hispanics lived in Bexar County in 2004. This accounts for 57 percent of the population. The map on the right shows that while Hispanics are represented in significant numbers throughout the county, Hispanics are more concentrated in the south and west areas of the county. The proportion of Hispanics increased or stayed constant in all areas in Bexar County between 2000 and 2004. The Westside, the area just west of downtown San Antonio, has the highest concentration of Hispanics in the county with 90 percent. The Far West, Far North, and Far Northeast areas each have concentrations of 25,23 , and 21 percent Hispanic, respectively. The eastside (east of downtown San Antonio) has traditionally
 been described as the Black or African American area of the City. The eastside is in fact, 56 percent Hispanic and 41 percent African American. Other areas with concentrations of African Americans are the Far Southeast (11.1 percent) and the West (11.6 percent). Asians and other races represent 7 percent or less of the population across county. The areas with the greatest Asian population are the East Northwest ( 6.5 percent), the West ( 5.8 percent), Far West ( 4.5 percent) and the East ( 5.7 percent). The North Central sector is 4.5 percent Asian and other races.

## Level of education

As the level of education increases most health outcomes improve. Higher levels of education are associated with better jobs and higher incomes. In 2000, 77 percent of residents of Bexar County were high school graduates or had more years of education. Thirty percent had some college or an associate degree. Twenty-three percent were college graduates. For all levels of education Bexar County meets or exceeds the Texas average as well as exceeds the level in Harris County. However, within the county there is considerable disparity between the sectors in southern Bexar County where only 56 to 67 percent of residents have completed high school or more education. In the sectors in the north between 83 and 91 percent of residents have this level of education. It is

High school or more education
 important to note that in the Westside, 31 percent of residents have completed less than 9 years of education. Across the South sector, between 20 and 27 percent of residents have completed less than 9 years of education. Education plays an important role in determining the type of employment available to a person. The positive association between education and good health outcomes supports increasing literacy in all populations. Estimates of educational attainment are not available for 2004 but it is reasonable to assume that they are similar to the 2000 levels.

## Unemployment

The ability to find and maintain employment is essential to a stable family life. In 2000, the unemployment rate was 5.9 percent in Bexar County. This is lower than both the Texas and Harris County rate ( 6.4 and 6.1 percent respectively). In the northern sectors, the rate is between 4.0 and 4.6 percent. The rates in the sectors in the south are double those in the north at 8.1 to 9.1 percent. Employment rates will fluctuate with the economy. However,

Unemployment rate
 since employment is associated with level of education, it is reasonable to expect that the trends in unemployment rates will follow the trends depicted here. Another concern in areas with low levels of education is under employment. In Bexar County, many people who have low- income jobs and work at more than one job. There are efforts in the county that promote a living wage, which is
the wage a full-time worker would need to earn to support a family above federal poverty guidelines.

## Median Family Income

Adequate income helps ensure that families have access to food, shelter and transportation. In 2000, there were 347,923 families living in Bexar County and the county-wide median family income was $\$ 42,724$. This was lower than the Texas median family income of $\$ 45,861$ and substantially below that of Harris County $(\$ 49,004)$. There is a significant disparity in family income between the sectors on the south side of Bexar County compared to the sectors
 on the north side. On average, incomes for families living in the north are 70 percent higher than for families living in the south. In Texas and in Bexar County, the median family income of Hispanics is 55 percent of that of non-Hispanic whites. However, when viewed on a sector-by-sector basis, the disparity between Hispanic and non-Hispanic white family incomes is around 80 percent. This suggests that factors other than race/ethnicity play a role in the noticeably lower incomes in the sectors in south of Bexar County. Estimates of median family income are not available for 2004.

Families with children under 18 living below the federal poverty guidelines
The official poverty rate in the United States in 2004 was 12.7 percent, up from 12.5 percent in 2003. The increase is the equivalent of about one million people ${ }^{7}$. The federal poverty guidelines in 2004 set an income of $\$ 20,000$ for a family of four as living at the poverty threshold ${ }^{8}$. These families are at risk of not being able to adequately meet their needs for food and shelter. There were 202,384 families with children younger than 18 living in Bexar County in 2000, of these,
 18 percent were living on incomes below the federal poverty guidelines. This is slightly higher than Texas (16.6 percent) and Harris County (16.3 percent). As with other

[^4]income measures, the proportion of families with children under 18 living below poverty is 2.5 to 3 times higher in the south than in the north part of the county. Thirty percent of children under 18 residing in the South sector live below the poverty level. In the Northeast and North Central sectors only 9 and 10 percent of children live below poverty.

Residents living on incomes that are below 200 percent of poverty
In 2000, 514,033 residents ( 38 percent) of Bexar County lived on incomes that were below 200 percent of poverty. This is the level of income often used to determine eligibility for state and federal assistance programs. Though slightly higher than Texas, this is similar to Texas and Harris County rates. Within Bexar County the northern sectors have the lowest proportion living below 200 percent of poverty, the Northwest sector has the highest with 32 percent. In the south, 50 percent or more of the population have incomes below 200 percent of poverty. In the South sector 58 percent of the population live on incomes below 200 percent of poverty.
 Estimates of income below 200 percent of poverty are not available for 2004. People with low incomes have to make decisions about how to allocate resources to make ends meet. This may result in choices that adversely impact nutritional options. The consequences of these choices may be malnutrition and, almost certainly, support consumption of foods high in fat and carbohydrates that result in higher levels of overweight and obesity.

## Families with single female head of household

In 2000, there were 51,661 families with children in Bexar County with female heads, this is 26 percent of the 202,384 families with children under 18 years old. This is notably higher than Texas at 22 percent and somewhat higher than Harris County at 23 percent. The highest proportion of families with children headed by single women is in the East sector with 34 percent. The South and West sectors have only somewhat lower rates with
 28 percent. The North Central has the fewest female-headed households with children with 22 percent, closely followed by the Northeast sector.

Families headed by single mothers were eight times more likely to report that their children were hungry, compared to other families ${ }^{9}$.

## Single female-headed families with children under 18 living below poverty

There were 19,505 families with children under 18 headed by single females in Bexar County in 2000. Thirty-eight percent of these families had incomes that were below the federal poverty guidelines. This is similar to the Texas rate of 36 percent but above the Harris rate of 33 percent. Approximately 50 percent of female households with children in the southern sectors live on incomes that are below the poverty level. Though the rates are considerably lower in the northern sectors there are significant numbers of single female households with children living below the poverty level ranging from 25 percent in the Northeast to 31
 percent in the Northwest. The percent of single female head of households living below poverty is comparable to the total percent of families living below 200 percent of poverty. Families with children having a single female head of household are a population at particular risk in Bexar County and Texas. Along with other problems faced by low income families, single heads of families living below poverty guidelines cope with even greater difficulty in finding child care.

[^5]
## Healthy Lifestyles

Healthy lifestyles are associated with behaviors that promote health. More than 90 million Americans today are affected by chronic disease and five of the top six causes of death in the United States are chronic diseases. Long-term suffering, disability, and premature death attributable to chronic disease negatively affect individuals, communities, and the nation as a whole. However, there are characteristics associated with health, and many factors have been identified that decrease health risk, including factors related to lifestyle. Expressions of a healthy lifestyle such as good dietary practices, active engagement in physical activity, avoiding the use of tobacco, and using motor vehicle safety restraints are common contributors to preventing and slowing the development of disease and/or disabling conditions. Positive lifestyle practices can lay a foundation for general health and well-being. Behaviors such as cycling, walking and the use of public transport promote health in four ways. They provide exercise, reduce fatal accidents, increase social contact and reduce air pollution ${ }^{10}$.

Many of the individual characteristics associated with healthy lifestyles are behaviors. Phase 2 of the assessment will address health behaviors.

Most of the heart health measures available for phase 1 of the Bexar County Community Assessment are more directly related to individual health and disease. When thinking about healthy lifestyles, it is necessary to consider aspects of daily life that contribute to disease. The scientific literature indicates that many social and physical environmental influences contribute to a healthy lifestyle. The more direct influences such as cigarette smoking, alcohol consumption, diet, and exercise are affected by both social and environmental influences. The economic resources and level of knowledge a person has affects health behaviors. The built environment which includes assets such as bike paths, parks, community centers and libraries can also influence behaviors. Less tangible issues such as a sense of acceptance and security within the in the community helps create a sense of a safe community and contribute to healthier lifestyles. The quality of air, water, and soil can directly affect health. Healthy behaviors and other community indicators that contribute to cardiovascular disease will be included in phase 2 of the community assessment. Measures that will be included in phase 2 are listed at the end of this section.

## Direct care physician to population ratio

One component of a healthy lifestyle is regular physical exams by a physician. Access to physician services is required for residents to utilize these services. In 2004, there were 2,748 direct care physicians in Bexar County and the ratio of direct care physician to the population per 100,000 is 184 . The trend data shows that this rate is constant over the last


[^6]12 years for the state and for the Harris and Bexar Counties. The distribution of physicians within Bexar County is skewed to the sectors in the north of the county, 72 percent of physicians in Bexar County practice in the north, one-half of these are located near the South Texas Medical Center in the East Northwest area. An additional 16 percent have offices in the Central (downtown) area. The remaining 12 percent of physicians practice in the southern part of the county. Health insurance coverage helps provide access to health care services. An estimated 24.6 percent of the Texas population, or 5.4 million persons, were uninsured in 2004. In San Antonio it is estimated that 24.3 percent or 363,033 residents of the county are uninsured ${ }^{11}$.

## Primary care physician to population ratio

Physicians who work in family practice, internal medicine, pediatric, obstetric, gynecological, and geriatric practices provide primary care services. Primary care physicians are the first line of care for most people. In 2004 there were 1,106 direct primary care physicians in Bexar County. This represents a ratio of 74 direct primary care physician to 100,000 people. Trend data shows that this rate is constant over the last 12 years for the state and for the Harris and Bexar Counties. Sixty-four
 percent of physicians in Bexar County practice in the north, 41 percent of these are located near the South Texas Medical Center in the East Northwest area. An additional 16 percent have offices in the central (downtown) area. The remaining 20 percent of physicians have practices in the southern part of the county where 41 percent of the population resides.

## General practice dentists to population ratio

The need for oral health care is often overlooked as an important part of a health service plan. The ratio of direct care dentist to the population per 100,000 in the year 2004 is 40 for the Bexar County with 597 dentists practicing general dentistry. Data from the last 12 years shows that these rates are fairly constant for the Texas State and for the Harris and Bexar Counties. The distribution of dentists
 within Bexar County is skewed to the sectors in the north of the county, 76 percent of general practice dentists in Bexar County practice in the north, 24 percent of these are located near the South Texas Medical Center

[^7]in the East Northwest area. Twenty-four percent of private practice dentists have primary offices in the southern part of the county. The distribution in the South Texas Medical Center and Downtown areas is not as concentrated as physicians but 60 percent of dentist practice in the Northwest and Central areas.


Making healthcare available to low income and uninsured populations plays an important role in community health. Large segments of the southern part of Bexar County have been declared health professions shortage areas and Medically Underserved Areas by federal programs designed to increase access to health services.

A number indicators are available that help fill in a clearer picture of the influences that contribute to healthy lifestyle. These include measures from both the social and the physical environments. Measures for Phase 2 will include:

1. Percent who engage in leisure time physical activity
2. Percent who read food labels
3. Percent who eat the recommended daily allowance of fruits and vegetables
4. Healthy Body Mass Index
5. Percent who report good, very good and excellent health
6. Percent who use seatbelts while driving
7. Percent who use child restraints
8. Percent who are non-smokers
9. Percent who have health insurance coverage
10. Percent who report routine medical checkup
11. Percent indicating cost as a barrier to seeing a physician
12. Average number of days work lost in the last year
13. Percent who suffer from chronic back pain

Suggestions for other available measures can be made to The University of Texas School of Public Health Community Health Assessment staff (210) 562-5510.

## Infant and Child Health

The health of mothers, infants and children is critical, both as a reflection of the current health status of a population and as a predictor of the health of the next generation. ${ }^{1}$ Important determinants of infant health begin to operate even before a child is conceived. A woman's general health, her socioeconomic and family circumstances, and her intentions regarding pregnancy all influence the health of the children she gives birth to. During pregnancy, maternal health, nutrition, lifestyle, and socioeconomic and physical environments have an even more immediate influence on infant health. ${ }^{2}$

Most of the child and infant health measures available for phase 1 of the Bexar County Community Assessment are more directly related to individual health. When thinking about child and infant health, it is necessary to consider aspects of daily life and factors other than the physical body that result in disease. The scientific literature indicates that many social and physical environmental influences contribute to child and infant health. The more direct influences such as diet and exercise are affected by both social and environmental influences. Parental behaviors also have a large influence on child and infant health. The economic resources and level of knowledge a person has affects health behaviors. The built environment which includes assets such as bike paths, parks, community centers and libraries can also influence behaviors. Less tangible issues such as a sense of acceptance and security within the in the community helps create a sense of a safe community and contribute to healthier lifestyles. The quality of air, water, and soil can directly affect health. Healthy behaviors and other community indicators that contribute to infant and child health will be included in phase 2 of the community assessment. Measures that will be included in phase 2 are listed at the end of this section.

## Infant Mortality

Infant mortality has been used as a broad measure of community health because of the sensitivity of infant to social conditions. For the past several decades the infant mortality rate in the United States and Texas has been declining. In 2000 the infant mortality rate was 5.7 deaths per 1,000 live births. In Bexar and Harris County the rate was even

## Infant Mortality

 lower at 4.9 deaths per 1,000 live births.
In the past four years there has been a reversal of the trend. The infant mortality rate has risen to above 6 deaths per 1,000 live births. The reason for this increase is not yet clear. Public Health officials speculate that the increase is occurring among the very low birth weight infants less than 1,500 grams, the reasons for these deaths may be related to medical conditions of birth. If this is the case the utility of infant mortality as a measure of community health may be reduced.

In 2004 the infant mortality rate in Bexar County was 6.2 deaths per 1,000 live births. This is slightly higher than the Texas rate. The infant mortality rate has increased across the county in all sectors except the Southeast. It is surprising that the Southeast rate (6.7) is only a little higher than the County rate this rate is down fro 7.7 in 2000. Typically the African American population have infant mortality rates 1.7 to 2.0 times higher than the general population. The fact that the West has the highest rate in the County at 7.7 is also an area of concern. This rate has increased from 4.8 in 2000. It is less likely that in the Westside and West areas that the increase in infant mortality
 is the result of the use of fertility drugs. Low incomes and other social factors may be contributing to the increase in infant mortality. In the Northwest the infant mortality rate has also increased since 2000. More information is needed to help understand the changes in infant mortality in Bexar County.

## Fertility women ages 15 to 44

The fertility rate establishes the size of the future population. There were 25,020 births in Bexar County in 2004. This results in a fertility rate of 72 births born per 1,000 females age 15 44. The fertility rate in Bexar County has remained fairly constant since

Fertility Rate
 1992 when the fertility rate was 74.
The Bexar rate is lower than the Texas rate and noticeably lower than the Harris County rate (79 per 1,000).
The fertility rate throughout the northern sectors in Bexar County varies from 62 to 67 births per 1,000 females. This rate is similar to the non-Hispanic fertility rate which is 61 per 1,000 females in Bexar County. In the southern sectors, fertility rates are much higher than the county average. In the West sector, the rate is 89 and the Southeast and South have rates of 85 and 84 respectively.
 These rates are similar to the Hispanic fertility rate of 84 for Bexar County but are noticeably lower that the Texas Hispanic fertility rate of 100 per 1,000 . The fertility rates in the northern sectors are approximately 20 births per 1,000 fewer than in the south.

## Prenatal care in the first trimester of pregnancy

Early prenatal care helps ensure a healthy pregnancy and can identify risks to the health of the fetus or mother. Eighty-six percent of mothers in Bexar County received early prenatal care in 2004. Across Texas the percentage of mothers receiving prenatal care beginning in the first trimester of pregnancy has slowly but steadily increased since 1992. The percentage of Bexar County mothers receiving prenatal care is consistently slightly higher than Harris County and the state average. The 2004 state average for mothers receiving prenatal care in the first trimester is 82 percent.

In 2004, 86 percent of Bexar County mothers began prenatal care in the first trimester. Slightly more mothers in the north appear to start prenatal care early. The North Central sector has the highest percentage of mothers seeking early prenatal care with 89 percent. The East sector has the lowest early prenatal care rate with 83 percent of mothers received early prenatal care, this is only one point higher than the state average of 82
 percent.
Recent reports suggest that there was a dramatic drop in the number of mothers seeking prenatal care in 2005. A new birth certificate introduced across the United States in 2005 changed the way information was obtained about when prenatal care began. It is likely that the change in the way the information is obtained is responsible for the change in prenatal care rates, not mothers' prenatal care seeking behavior. See appendix A for more information on this issue.

## Late or no prenatal care

In 2004, of the 25,020 births to residents of Bexar County, only 2.8 percent of Bexar County mothers received no prenatal care or waited to start care in the third trimester. This number is slightly lower but consistent with the rates for the state and Harris County. After a noticeable drop in the percentage of mothers receiving late or no prenatal care between

Percent receiving late or no prenatal care all mothers
 1992 and 1996 rates for the state, Bexar and Harris County have remained at stable rates since 1996.

Within Bexar County, the percent of mothers who receive late or no prenatal care varies little. Rates of mothers receiving late or no prenatal care in each of the sectors is lower than the state average of 4.5 percent. Slightly more mothers in the south sectors receive late or no prenatal care. The sector with the highest rate of mothers receiving late or no prenatal care is the East sector, with a rate of 3.6
 percent, followed closely by the South ( 3.4 percent) and the West ( 3.3 percent). The rate in the northern sectors ranges from 1.9 percent in the North Central to 2.3 in the Northwest and 2.5 percent in the Northeast.

## Low birth weight

Good prenatal care helps reduce health risks during pregnancy and lowers the risk of low birth weight. In 2004, Bexar County babies weighing less than 2,500 grams accounted for 8.8 percent of all births. This rate marks a small but continuing gradual increase in low birth weight births since 1992. This trend is consistent with the percentage of low birth weight births for Texas and Harris County.


The low birth weight rates in each of the sectors are consistent with or slightly higher than the statewide average low birth weight rate of 8 percent. The highest rate is in the East sector with a rate of 10.5. The East sector has the highest concentration of African American population at 19 percent, and the Eastside area is 41 percent African American. Historically, the African American low birth weight rate is 1.5 to
 1.7 times the non-Hispanic white rate.

Fertility in females 12 to 17 years of age
Teenage pregnancy is a public health concern. Births to teenage mothers account for only 5.8 percent of the births in Bexar County. However, when a teenage girl becomes pregnant, there are a number of obstacles. The health of the mother and the fetus are compromised because both bodies are growing and need nutrients. It often becomes more difficult for the girl to continue to go to school because of the competing needs of caring for a
 baby. This reduces the potential for the mother to find and keep a well-paying job. Unemployed and low-income mothers often have to rely on public assistance to provide for themselves and their child. Keeping the teenage pregnancy rate as low as possible is a worthy topic of social concern. Fertility among females between 12 and 17 years of age has declined since 1996 across Texas. This follows the trend in the United States. In Texas the rate has fallen from 26 per 1,000 females between 12 and 17 to 19. In major metropolitan areas such as Houston and San Antonio the fertility rates among teens are similar to the State rate.

There were 1,463 births to mothers younger than 18 in Bexar County in 2004.
 This results in a fertility rate of 21 per 1,000 females age 12 to 17 . The teenage fertility rate mimics the general fertility rate in Bexar County. There are notable differences in the rates across the county. In the southern sectors the rate varies between 35 and 32 births per 1,000. In the northern sectors the teenage fertility rate is 20 births per 1,000 population lower than the rate in the south of the county. The rates range from 9 in the North Central sector to 15 births per 1,000 in the Northwest sector.

Prenatal care among teenage mothers
Across Texas the percentage of teenage mothers who received prenatal care in the first trimester has increased slowly after a noticeable increase between 1992 and 1996. In 2004 the proportion of teenage mothers receiving early prenatal care in Bexar County ( 75 percent) was higher than the percentage for Texas ( 68 percent) and Harris County ( 66 percent). This pattern has been consistent since 1992.

Seventy-five percent of teenage mothers in Bexar County received prenatal care in the first trimester. In each sector in Bexar County the percentage of teen mothers starting prenatal care in the first trimester is equal to or exceeds the state average of 68 percent. Though the differences are small, in 2004, the percentage of teenage mothers who received prenatal care in the first trimester was highest in the South, West and East sectors.

## Late or no prenatal care

The rate among teenage mothers who received
either late or no prenatal care mirrors the early prenatal care rate. In 2004, 5.6 percent of teenage mothers received late or no prenatal care. This rate is lower than both the Texas ( 6.7 percent) and the Harris County ( 5.8 percent) rates. Trend information for prenatal care indicates that the rates across Texas dropped after 1992 and has remained fairly stable since 1996.

Percent receiving prenatal care in first trimester teenage mothers


teenage mothers


The percent of teenage mothers in all Bexar County sectors receiving late or no prenatal care is lower than the Texas rate with the exception of the Northeast sector. Differences in rates of late or no prenatal care demonstrate no discernable geographic pattern.

The fact that the rate for Bexar County teenage mothers receive late or no prenatal care is below the state average is notable. However, it is important that all mothers obtain prenatal care. The earlier prenatal care begins, the better chance for good outcomes for baby and mother. For teenage mothers, the importance of beginning prenatal care early is greater because the age of the
 mother puts her at greater risk.

## Low Birth Weight

Good prenatal care helps reduce risk in pregnancy and lowers the risk of low birth weight. In Bexar County, 9.9 percent of the 1,463 births in 2004 to teenage mothers were below 2,500 grams. This is Percent receiving late or no prenatal care teenage mothers slightly higher than the 8.8 percent of low birth weight among all births. The Bexar County low birth weight rate is similar to low birth weight rates for teenage mothers in Harris County (9.5 percent) and Texas (10.2 percent). Overall, the rate trends indicate that the
 percent of low birth weight births to teenage mothers has remained relatively stable since 1992.

Within Bexar County, the teenage mother low birth weight rates are somewhat higher ( 9.9 percent) than the rate for mothers of all ages ( 8.8 percent). Rates vary from a low of 7.5 percent low birth weight births in the North Central sector to 11 percent in the East and West sectors. Both the East and West sectors are slightly higher than the state low birth weight rate. It is likely that the social determinants of health have an impact on low birth weight. The levels of income and education are the
 most identifiable influences on health but factors such as social cohesion and feeling safe in the community also may play a role by increasing social support for mothers.

Public health professionals often express concern about births to teenage mothers but little is attention is paid to births to single mothers over the age of 18 .

## Prenatal care for single mothers

Of the 25,020 births in Bexar County,

39 percent $(9,758)$ were to single

Percent receiving prenatal care in first trimester single mothers mothers. Eighty-seven percent of births to single mothers were to mothers at least 18 years of age. In Harris County and across Texas, 35 percent of births are to unmarried women. This is a concern because on average, births to single mothers have
 poorer outcomes than births to married mothers. Having the support of one's family and friends during pregnancy and while raising a child is important. The support of social networks helps make mother and child feel cared for, loved, valued, and esteemed. It is important to support strategies that help these families feel cared for and valued.

After a substantial increase in the percent of single mothers receiving early prenatal care between 1992 and 1996 there has been a very gradual increase in rates across Texas. As with other birth indicators in 2004, Bexar County (79 percent) single mothers do slightly better at starting care in the first trimester than do single mothers in Harris County (74 percent) and the state ( 74 percent). The percentage of Bexar County single
 mothers starting prenatal care in the first trimester is still notably lower than the 91 percent of married mothers who began receiving prenatal care in the first trimester.

Across Bexar County sectors, the variation in the percent of single mothers beginning prenatal care in the first trimester is minimal with the exception of the South sector. Eighty-two percent of single mothers in the South began prenatal care in the first trimester of pregnancy, compared with the lowest rate in the Northeast sector (76 percent). These rates indicate that Bexar County single mothers are more likely to begin prenatal care in the first trimester than single mothers across Texas (74 percent).

## Late or no prenatal care

The rate of single mothers receiving late or no prenatal care was 4.6 percent in Bexar County in 2004. This is similar to the proportion of teenage mothers receiving late or no prenatal care. After a sharp decline between 1992 and 1996, the rate of single mothers seeking prenatal care late in pregnancy or not at all has changed little.

Percent receiving late or no prenatal care single mothers


In 2004, 4.6 percent of single mothers delayed prenatal care until the last trimester of pregnancy or sought no prenatal care. This is noticeably lower than the Texas rate of 6.7 percent. The rate of late or no prenatal care among single mothers varies only slightly between sectors in Bexar County.

As with other birth indicators, a better rate in Bexar County does not signify that improvement is not needed. Single mothers are at a higher risk for poor birth outcomes and more likely to be living on incomes below the poverty
 level than married mothers. It is important that health professionals find ways to improve access to early prenatal care and support single mothers in using that care.

## Low birth weight

Good prenatal care helps reduce risk in
pregnancy and lowers the risk of low birth weight. In 2004 the rate of births

Percent low birth weight
births to single mothers of low birth weight among single mothers in Bexar County was 10 percent. This is slightly higher than the 8.8 percent of low birth weight among all births. This is similar to the percent of low birth weight births to unmarried mothers across the state. Since 1992, the low birth weight rates in Texas and
 Bexar and Harris Counties have remained steady at around 10 percent.

The differences in the rate of low birth weight babies across the six sectors of Bexar County are generally small. The rates vary from a low of 8.5 percent in the North Central sector to 10.1 in the West and 10.6 in the Northwest. The exception is in the East sector where 12.7 percent of births to single mothers are low birth weight. This is higher than the 10.6 percent of all births in the East. It is probable that the higher percent of low birth weight births reflects the concentration of African American population in the sector. Across the
 United States, African American mothers have a higher percentage of low birth weight babies than non-African American mothers.

Maternal and Infant health measures that will be included in phase 2

1. Children having water safety classes
2. Use child restraints
3. Firearms in home
4. Smoke detector in home

Suggestions for other available measures can be made to The University of Texas School of Public Health Community Health Assessment staff (210) 562-5510.

## Safety and Injury

Intentional and unintentional injury rank high among the leading causes of death in the United States. In Texas, unintentional injuries are the fourth leading cause of death; suicide is the ninth leading cause. Among youth and young adults, injury is the leading cause of death. When people die prematurely, years of productive life are lost. Subsequently, this creates a loss to society in the lost wages and support for childcare. More important is the loss of social and emotional support within the family and community. Premature death due to unintentional injury results in a heavy burden in our communities. The highest number of years of potential life lost is represented by unintentional injury. Research shows that most unintentional injuries are preventable.

The measures related to safety and injury, available for phase 1 of the Bexar County Community Assessment, are directly related to individual consequences. When considering safety and injury, it is important to consider how the exposures and actions of daily life contribute to safety and good health. The scientific literature indicates that there are many social and physical environmental influences that contribute to safety and injury. Most injuries can be avoided. Motor vehicle crashes are a major cause of injury. Excessive speed and/or alcohol or other drug use often contribute to these crashes. The level of knowledge and the amount economic resources a person has, have an impact on the ability and willingness to engage in safe behaviors. Families with low incomes may choose to live in areas where rents are less expensive but are more exposed to unsafe environments. Less tangible issues such as a sense of acceptance in the community, or neighbors who can be trusted and are willing to help, can aid in creating a sense of a safe community and can contribute to a safer, healthier community overall.

Healthy behaviors and other community indicators that contribute to cancer will be included in phase 2 of the community assessment. Measures that will be included in phase 2 are listed at the end of this section.

## Direct care physician to population ratio

Easy and fast access to physician services is required for residents to utilize services needed at the time of injury. Injury care is not always an emergency, but prompt care helps promote a timely recovery. In 2004, there were 2,748 direct care physicians in Bexar County and the ratio of direct care physician to the population per 100,000 is 184 . The trend data shows that this rate is constant over the last 12 years for the state and for the Harris and Bexar Counties. The distribution of physicians within Bexar County is skewed to the sectors in the north of the county, 72 percent of physicians in Bexar County practice in the north, one half of these are located near the South Texas Medical

Direct care physicians


Center in the East Northwest area. An additional 16 percent have offices in the central (downtown) area. The remaining 12 percent of physicians practice in the southern part of the county. Health insurance coverage helps provide access to health care services. An estimated 24.6 percent of the Texas population, or 5.4 million persons, were uninsured in 2004. In San Antonio it is estimated that 24.3 percent or 363,033 residents of the county are uninsured ${ }^{12}$. The disparity in the distribution of physicians may result in the inability of many residents in the southern areas of the county to have access to urgent care providers in a timely fashion when needed.

## Hospitalization rate for unintentional injury

In 2004, in Bexar County there were 5,530 hospitalizations for unintentional injuries. This is 35 hospitalizations per 10,000 population. Rates across the sectors of the county are all lower than the state and Harris County rates. The rates vary from 29 to 30 hospitalizations per 10,000 people in the Northeast sector, West, and South sectors to 36 to 40 in the East, Northwest and North Central sectors.


[^8]The number of deaths due to unintentional injury per 100,000 people is has been gradually rising in Bexar County. The increase has occurred across the state. In 1992, the death rate due to injuries was 28 deaths per 100,000 population, this has increased to 44 deaths per 100,000 in 2004. The 2004 age-adjusted injury mortality rates mark for the first time, since prior to 1992, the

Unintentional Injury
 Bexar County age-adjusted injury death rate exceeding the statewide rate.
In contrast to hospitalization rates, the 2004 age-adjusted morality rates for unintentional injuries within Bexar County do suggest a geographic pattern. Rates are highest in the southern part of the county. The West and East sectors have the highest rates at 56 and 55 per 100,000. The South sector has the third highest injury mortality rate (48 per 100,000) followed by the North Central sector. The Northwest and Northeast sector each have rates of 38 injury deaths per 100,000 residents living in the area.


Both social and environmental factors contribute to injury deaths. It is likely that the conditions that contribute to injury may be different depending on the social conditions in which one lives. People doing manual labor are more often exposed to hazards than those working in offices. Poor quality roadways are likely to result in more automobile crashes. Variations in the quality of the streets and highways occur according to the tax and voter base in different areas of the county.

Years of potential life lost (YPLL) due to unintentional injury
In 2004, there were 379 premature deaths in Bexar County caused by unintentional injuries. This resulted in the loss of 11,444 years of life to those less than 65 years of age who died. On average, people who died from unintentional injury lost 29 years of life. This is 2 to 2.5 times as many years of life lost for chronic conditions such as heart disease, diabetes, and cancer. The YPLL was 831 per 100,000 people in 2004 for Bexar


County. In the last 12 years, Bexar County experienced an increase of twenty percent in the YPLL rate. Texas and Harris, on the other hand, have experienced a slow decline in premature mortality due to unintentional injury.

Years of potential life lost rates for the unintentional injury are approximately 65 percent higher the southern sectors when compared to the sectors in the north. East and West sectors have rates that are considerably higher than in the north sectors at 1,113 and 1,215 per 100,000 people respectively. In the north sectors, YPLL rates range form 594 to 753 . The higher proportion of years of life lost suggests that people living in the southern sectors are at
 greater risk of injury than people living in the north.

## Hospitalization rate for motor vehicle crashes

The rate of hospitalizations in 2004 due to motor vehicle crashes in Bexar County is 3.3 per 10,000 population, which is below the state average of 7.5 hospitalizations per 10,000 population. The East sector reported the highest rate with 4.5 hospitalizations per 10,000 people. Many motor vehicle crashes are known to involve the use of alcohol and other drugs. Often drug use is associated with social and economic disadvantage.


People turn to drugs to dull the pain of harsh social and economic conditions ${ }^{13}$. In addition, the number of miles driven per day may contribute to higher hospitalizations rates for motor vehicle crashes in Texas and Harris County.

## Age-adjusted mortality for motor vehicle crashes

In 2004, 204 people died in motor vehicle crashes. This number accounts for one-third of the deaths due to unintentional injury. Deaths due to motor vehicle crashes generate a rate of 14 deaths per 100,000 people, which is somewhat lower than the statewide average of 17 deaths per 100,000 people. Trend data show that rates, both in Texas and Bexar County, have remained fairly

Motor vehicle crashes stable since 1992. It is likely that the higher rate for motor vehicle deaths in Texas is the result of more miles driven on average throughout the State than in Bexar County.
Within Bexar County, the East, South and West sectors report rates that exceed the statewide rates motor vehicle crash deaths.
In the East sector, 21 deaths per 100,000 population were attributed to motor vehicle crashes, this is followed by the West with 19 deaths per and the South at 17 deaths per 100,000. The county's lowest rate of 9 motor vehicle crash deaths per 100,000, reported in the Northeast sector. Determinants of health concerns, among others, that influence motor vehicle deaths include race-ethnicity, age, income, education, and quality of roads. Young males are high-risk groups; Hispanic and African American males have higher mortality rates than non-Hispanic Whites.

[^9]Of the 201 deaths due to motor vehicle crashes in Bexar County in 2004, 175 were to a person under age 65. This results in a motor vehicle crashes rate of 438 years of potential life lost per 100,000 population. The people who died lost on average of 33 years of life. The Bexar County YPLL rate trend is similar to that of the state of Texas and Harris County in that there was a slow increase in the YPLL rate from 1992 to 1996 followed
 by a slow decline in rates.
The West sector with an YPLL rate of 645 per 100,000 for motor vehicle crashes exceeds the Texas rate of 515 YPLL per 100,000 by 25 percent. The YPLL rates of the other southern sectors, while lower than the state rate, exceed the sectors in the north by approximately 40 percent. Efforts to reduce motor vehicle deaths such as requiring the use of seat belts and passing laws prohibiting street racing have been effective but the lost of young lives, as a result of careless behaviors, is still much higher than acceptable. Perhaps community based projects that
 involve those at risk can design new ways to think about reducing risks.

## Homicide

Homicide is an intentional injury. Intentional injuries are avoidable. Homicide is the second leading cause of death for young persons aged 15 to 24 years and the leading cause of death for African Americans in this age group ${ }^{14}$. In Texas, homicide is the $8^{\text {th }}$ leading cause of death in the Hispanic and African American populations. Many factors that contribute to injuries also are closely associated with violent and abusive behavior, such as low income, discrimination, lack of education, and lack of employment opportunities. Males are most often the victims and the perpetrators of homicides. African Americans are more than five times as likely as whites to be murdered. There has been a decline in the homicide of intimates, including spouses, partners, boyfriends, and girlfriends, over the past decade, but this problem remains significant ${ }^{15}$. Homicide is a sentinel event, these events should not occur. Their occurrence in the community is a signal that other tensions are smoldering and/or building in the community. Community involvement may be a way to help build social cohesion and trust.

## Age-adjusted mortality for homicide

Over the past 12 years the age-adjusted death rates due to homicide have declined in Texas, and Bexar and Harris Counties. The homicide mortality rates in Bexar County is 6.7 deaths per 100,000, compared to a statewide average of 6.1 deaths per 100,000 people, Harris County is somewhat higher with a rate of 9.4 per 100,000 .


Within Bexar County, the homicide mortality rate is 3 times higher in the southern part of the county than in the north. The highest rate is in the West sector with 14 deaths per 100,000 residents due to homicide. The East sector with 13 per 100,000 deaths, and the South with 10 deaths per 100,000 residents closely follow this pattern. The homicide rates in the three northern sectors are between 3 and 4 deaths per
 100,000 population. There is little doubt that social and environmental stressors play a role in the higher rates of violence in the south side of Bexar County.

[^10]Years of potential life lost (YPLL) due to homicide
Of the 101 homicides in Bexar County in 2004, 95 of them occurred to people younger than 65 years of age. This resulted in the loss of 2,662 years of life or an average of 31 years of live lost for every death. This results in an YPLL rate for homicide of 221 years lost per 100,000 people living in Bexar County. There has been a very notable decline in
 years of potential life lost rates across Texas since 1992. In Harris and Bexar County the rates have been cut by 48 percent and 72 percent respectively. This good news should be encouragement to continue efforts that have been successful and find new ways to reduce violence in our communities.
The impact of the chart for years of potential life lost by sector is dramatic. The rates of years of potential life lost within Bexar County are 4.7 times as high in the South, with 375 YPLL per 100,000 as in the North, with 79 YPLL per 100,000. Often economic deprivation leads to stresses that result in violence. Family incomes in the south are less than half those of the northern sectors. The poverty rates are double those of the north, levels of education are much lower. Social and economic barriers create circumstances that increase
 social stress and result in increased
violence. Children who grow up in this environment learn the culture of poverty and violence and have little chance of escaping it. Better ways of dealing with these concerns are needed.

A number of indicators are available and may help provide in a better picture of the influences that contribute to safety and injury. These include measures from both the social and physical environment. Safety and injury measures that will be included in Phase 2:

1. Firearms in home
2. Smoke detector in home
3. Children having water safety classes
4. Seatbelt use
5. Use child restraints
6. Report drinking and driving
7. Report of binge drinking
8. Domestic violence
9. Routine medical checkup
10. Emergency room care

Suggestions for other available measures can be made to The University of Texas School of Public Health Community Health Assessment staff (210) 562-5510.

## Mental Health

People who get less social and emotional support from others are more likely to experience less well-being, more depression, a greater risk of pregnancy complications, and higher levels of disability from chronic diseases. In addition, bad relationships can lead to poor mental and physical health. The amount of emotional and practical social support people get varies by social and economic status. Poverty can contribute to social exclusion and isolation ${ }^{16}$. Poor mental health reflects in part the lack of trust and mutual respect in communities and in the larger society. Improved mutual support can help protect people in our communities and may influence levels of violent behavior and crime. Lower levels of social and economic inequities tend to support feeling of social cohesion. Stigma around mental health issues resulted in less attention to these concerns and results in many people refusing needed care.

Mental illness often is debilitating, as with other illnesses, depending on the condition and the severity, the ill person may experience a range of symptom from discomfort and reduced ability to function to complete inability to function. In 1999, the Surgeon General of the United States issued a report on mental health to emphasize the severity of mental health problems in this country. Using a measure called disability adjusted life years (DALYs) the report shows that "major depression alone ranked second only to ischemic heart disease in magnitude of disease burden. Schizophrenia, bipolar disorder, obsessive-compulsive disorder, panic disorder, and post-traumatic stress disorder also contributed significantly to the burden represented by mental illness ${ }^{17}$." The fact that mental illness doesn't cause physical symptoms and is not directly a cause of death, is not cause to not take these conditions seriously.

Affective disorder hospitalization rate
Affective disorders include depression, bipolar disorder, and mood disorders. In 2004, there were 6,948 hospitalizations for affective disorders. The hospitalization rate in the county was 44 affective disorders per 10,000 population. This is notably higher than the Texas rate of 32 per 10,000 . The highest hospitalization rate in the county was of residents in the East sector with 43 hospitalizations per 10,000 . Other sectors show hospitalizations at about the same rate for
 27 to 31 hospitalizations per 10,000 .

[^11]
## Schizophrenia hospitalization rate

In 2004, there were 3,620 hospitalizations in Bexar County for schizophrenia, this produces a rate of 23 hospitalizations per 10,000 residents. Again the East sector has a notably higher rate of 41 per 10,000 , for schizophrenia hospitalizations than the rest of the county. At this time there is no explanation for this large disparity. The South has the next highest rate at 21 per 10,000 , this rate is half the rate of the East sector. The other sectors range from 14 to 17 schizophrenia hospitalizations for 10,000 residents each.


## Age-adjusted mortality for suicide

Suicide is a sentinel event. Suicide is preventable and should never happen. "More than 90 percent of people who kill themselves have a diagnosable mental disorder, most commonly a depressive disorder or a substance abuse disorder. The highest suicide rates in the U.S. are found in white men over age $85^{18}$." A recent national study of people ages 15 to 40 reported on two depression diagnoses by race/ethnicity. It was determined, using a standardize questionnaire, if respondents had "major depression" (at least two weeks of depressed mood), or "dysthymic disorder" (at least two years of dysthymic mood, [have you] felt depressed or sad almost all the time, even if you felt OK sometimes?). The study indicates that 10.4 percent of Whites, 8.0 percent of Hispanics, and 7.50 percent of African Americans reported the symptoms of major depression. Responses for dysthymic disorder indicate that 5.7 percent of Whites, 7.4 percent of Hispanics and 7.5 percent of African Americans have long-term depression. The study reports that people living below poverty guidelines and those with less than a high school education have higher levels of both types of depression ${ }^{19}$.

[^12]Bexar County suicide mortality rates have gradually declined since 1992 despite an increase in 1996, from 11.7 deaths per 100,000 residents to 9.1 per 100,000 . Suicide rates in Harris County and Texas have followed a trend similar to that in Bexar County.

In 2004, there were 131 suicide deaths in Bexar County, for a rate of 9.1 suicide deaths per 100,000 county residents. This is lower than the state average of 10.6 per 100,000 . The highest ageadjusted death rate in the county was in the Northeast sector with a rate of 12.5 deaths per 100,000 people. This is followed they Northwest sector with a rate of 11.4 per 100,000 . The sectors with the lowest rates are the South and West sectors, with 5.9 and 6.4 suicide deaths per 100,000 respectively.


## Years of potential life lost (YPLL) due to suicide

Suicide is an individual event that has
dramatic affects on surviving family and friends. It is a sentinel event experienced by those who may be unable to deal with isolation and alienation in the community. Of the 131 Bexar County suicide deaths in 2004, 114 were to people under 65 years of age. Each person who died lost an average of 26 years of life. This number produces a
 rate 221 years per 100,000 population. Since 1992, the Bexar County rate has followed the state trend of a gradual decline in deaths due to suicide.

The largest number of years of potential life lost in Bexar County sectors was in the Northeast and Northwest sectors with 299 and 276 years of life lost per 100,000 population. This is consistent with the reports that indicate that middle-aged and elderly white males have the highest suicide rates. YPLL
 suicide rates in the southern sectors are consistent with rates in Texas and Harris County.

A number of indicators are available and may help provide in a better picture of the influences that contribute to mental health. These include measures from the social environment. Measures for mental health in Phase 2 will include:

1. Leisure time physical activity
2. Report binge drinking
3. Report chronic drinking
4. Report days of work lost due to illness
5. Report "fair" or "poor" health status
6. Report poor mental health
7. Report seeking mental health services
8. Routine medical checkup

Suggestions for other available measures can be made to The University of Texas School of Public Health Community Health Assessment staff (210) 562-5510.

## Oral Health

Oral health is emerging as a public health priority. "Oral disease is progressive and cumulative and becomes more complex over time. If left untreated, tooth decay can lead to needless pain and suffering; difficulty in speaking, chewing, and swallowing; missed school days; increased cost of care; the risk of other systemic health problems due to poor nutrition; and loss of self-esteem. Additionally, connections are emerging between the condition of the mouth and diabetes, heart disease, and adverse pregnancy outcomes ${ }^{20}$."

There is little information available about oral health at the county and sub-county level. The 2006 Bexar County Community Health Assessment is working with The University of Texas Health Science Center at San Antonio School of Dentistry and communitybased dental programs to identify other sources of data.

## General practice dentists to population ratio

The ratio of direct care dentists to the population per 100,000 in the year 2004 is 40 for the Bexar County with 597 being the number of dentists practicing general dentistry. Data from the last 12 years show that these rates are constant for Texas and for Harris and Bexar Counties. The distribution of dentists is better than physician distribution but only 22 percent
 practice in the southern part of Bexar
County. The distribution in the South Texas Medical Center and Downtown areas is not as concentrated as physicians but 60 percent of dentist practice in the Northwest and Central areas.

Measures of dental health that will be included in phase 2

1. Have you seen a dentist in the past 2 years?

Suggestions for other available measures can be made to The University of Texas School of Public Health Community Health Assessment staff (210) 562-5510.

[^13]
## Heart Health and Stroke

Heart Disease and Cerebrovascular disease (Stroke) are the first- and third-leading causes of death in the United States. These two causes account for more than 40 percent of all deaths. Although cardiovascular disease (CVD) is often thought to primarily affect men and older people, it is also a major concern for women middle-aged people. Studies have identified a number of factors that decrease the risk of heart disease and stroke. These include regular moderate exercise, eating foods low in fat, maintaining a healthy body weight, and getting regular check-ups. Medical and prevention research studies have demonstrated effective strategies to prevent and control these risk factors and thereby reduce illnesses, disabilities, and deaths caused by heart disease and stroke. Other social and environmental inequities contribute to the stresses that impact life and result in cardiovascular disease.

Most of the heart health measures available for phase 1 of the Bexar County Community Assessment are more directly related to individual health and disease. When thinking about heart health, it is necessary to consider aspects of daily life and factors other than the physical body that can lead to disease. The scientific literature indicates that a number of social and physical environmental influences contribute to heart health. The more direct influences such as cigarette smoking, alcohol consumption, diet, and exercise are affected by both social and environmental influences. The economic resources and level of knowledge a person has affects health behaviors. The built environment, which includes assets such as bike paths, parks, community centers, and libraries, can also influence behaviors. Less tangible issues, such as, a sense of acceptance and security within the community, helps create a sense of a safe community and contribute to healthier lifestyles. The quality of air, water, and soil can directly affect health.
Healthy behaviors and other community indicators that contribute to cardiovascular disease will be included in phase 2 of the community assessment. Measures that will be included in phase 2 are listed at the end of this section.

## Direct care physician to population ratio

One component of a healthy lifestyle is regular physical exams by a physician. Routine care can detect hypertension. Controlling hypertension and other cardiovascular risk factors reduces the chances of developing more serious heart problems. Access to physician services is required for residents to utilize these services. In 2004, there were 2,748 direct care physicians in Bexar County and the ratio of direct care physician to the population per 100,000 is 184 . The trend data shows that this rate is constant over the last 12

Direct care physicians
 years for Texas and for Harris and Bexar
Counties. The distribution of physicians within Bexar County is skewed toward the sectors in the north of the county, 72 percent of physicians in Bexar County practice in the north, one half of these are located near the South Texas Medical Center in the East Northwest area. An additional 16 percent have offices in the central (downtown) area. The remaining 12 percent of physicians practice in the southern part of the county. Health insurance coverage helps provide access to health care services. An estimated 24.6 percent of the Texas population, or 5.4 million persons, were uninsured in 2004. In San Antonio it is estimated that 24.3 percent or 363,033 residents of the county are uninsured ${ }^{21}$.

## Hospitalization rate for Heart Disease

If cardiovascular risk factors are managed properly the chance of being hospitalized for cardiovascular problems is greatly reduced. There were 17,642 hospitalizations for heart disease in Bexar County in 2004. This is 113 discharges for every 10,000 Bexar County residents. This rate is similar to the Harris County rate of 111 per 10,000 , and somewhat lower than the Texas rate of 134 per 10,000.

In the East sector, the hospitalization rate 180 per 10,000 for heart diseases exceeds that for all other sectors in the county. This rate is more than double of the Northeast sector rate of 84 per 10,000. The concentration of African Americans living in the East sector contributes to the high rate. In the East sector the hospitalization rate for African
 Americans is two times that of the White population. The second highest rate in the county is the South sector 133 per 10,000. Loss rates of social and/or environmental determinants such as education and income may have an influence on heart disease morbidity in the South sector.

[^14]Age-adjusted mortality for heart disease
More deaths are caused by heart disease in Bexar County than any other condition. In 2004, 2,693 deaths resulted from heart disease. Trend data indicate heart disease mortality rates have declined noticeably since 1992. This is similar to statewide age adjusted heart disease mortality rates. The 2004 Bexar County rate was 223 deaths per 100,000 people living in the county.

Throughout the county, the death rate due to heart disease varies from the lowest rate of 201 deaths per 100,000 people in the North Central sector, to 277 deaths per 100,000 people in the East sector. The high mortality rate in the East reflects the high heart disease hospitalization rate in the sector. The remaining sectors are similar to the statewide rate of 223 deaths per 100,000
 people. The lower rates in the North Central and Northwest could reflect better standards of living. The fact that the average age at death for heart disease is between 75 and 76 years may affect the relatively small difference in age adjusted mortality rates across the county.

Years of potential life lost (YPLL) due to heart disease
Years of potential life lost demonstrate the burden of premature mortality in the community. In 2004, of the 2,693 heart disease deaths, 505 occurred to people younger than 65 . This reflects the loss of 6,015 years of life or 448 years of potential life lost per 100,000 people living in Bexar County. This translates into 12 years of productive life lost, on average, for every person who dies before age 65 . There has been a slow but steady decline in the premature

Heart disease
 mortality rate across Texas since 1992. In 1992, the YPLL rate in Bexar County was substantially different than other areas in the state. Since, in subsequent years, the rate is similar to other areas, it is possible that this was an aberration that occurred only in that year.

The premature mortality rate due to heart disease in Bexar County is somewhat lower than the Harris County and Texas YPLL rates of 484. Across the county the mortality rate varies considerably from a low of 305 per 100,000 in the North Central sector, to the county's high, in the East sector the rate is 754 YPLL per
 100,000 population. The rate in the East Sector is 2.5 times greater than the YPLL rate in the North Central sector. In the East sector, the average number of years of life lost (12.5) is similar to the rest of the county but a higher proportion of people die from heart disease than in other sectors. It would appear that the northern sectors have somewhat of an advantage losing fewer years of potential life than the southern sectors.

## Cerebrovascular Disease (Stroke)

Heart and cerebrovascular disease (Stroke) - the principal components of cardiovascular disease - are the first- and third-leading causes of death in the United States respectively. These causes account for more than 40 percent of all deaths. Although cardiovascular disease (CVD) is often thought to primarily affect men and older people, it is also a killer of middle-aged men and women. Studies have identified a number of factors including tobacco use, high fat diet, hypertension and obesity that increase the risk of heart disease and stroke. In addition, clinical trials and prevention research studies have demonstrated effective strategies to prevent and control these risk factors and thereby reduce illnesses, disabilities, and deaths caused by heart disease and stroke.

## Direct Care Physicians

Access to quality health care is especially important to persons with chronic conditions. Regular checkups and routine care for those with hypertension and other cerebrovascular risk factors can save lives. It is not surprising that since Bexar and Harris Counties have mainly urban populations, the counties also have higher direct care physician to population ratios than Texas as a whole. However, the access to direct care physicians in the southern part of Bexar County is substantially lower than is the case in the north. Lack of transportation, substantially lower

Direct care physicians
 incomes, and higher rates of uninsured populations have greater impact on a family's ability to access care than is the case with more affluent families. The uneven distribution of health care providers is an important barrier to health care in South Bexar County.

Hospitalization rate for cerebrovascular disease (stroke)
In 2004, there were 3,626 hospital discharges related to stroke in Bexar County, or 23 per 10,000 people. The rate of hospitalization due to stroke (cerebrovascular disease) in five of Bexar County's six sectors is lower than the Texas rate of 29 hospitalizations per 10,000 . The East sector is the only area within the county representing a higher hospitalization rate due to stroke than the statewide average. The rate in the East sector is 36 hospitalizations per 10,000 .
 This rate reflects racial disparities related to many causes of death that affect the African American population.

Age-adjusted mortality for cerebrovascular disease (stroke)
In 2004, the death rate due to stroke in Bexar County was 60 deaths per 100,000 population. The mortality rate has remained fairly constant since 1992. This is similar to the trend seen across Texas and in Harris County's death rates between 1992 and 2004. It appears that there was a decrease in stroke mortality rates between 2000 and 2004 in Texas and Harris County but not in Bexar County.

Within Bexar County, the age-adjusted stroke mortality rate is similar to the Texas rate of 56. The rate is fairly even throughout the six sectors. Not surprisingly, the East sector, with the highest concentration of African Americans, has the highest rate in the county at 76 deaths per 100,000 people. The Northwest sector has the lowest rate due to stroke at 51 deaths per 100,000 people. In addition, the Northwest sector is the only other area that
 represents a lower mortality rate than the statewide average with a rate of 56 deaths per 100,000 people.

Years of potential life lost (YPLL) due to cerebrovascular disease (stroke)
Stroke (cerebrovascular disease)
deaths, on average took 12.3 years of life for each premature death in 2004. The 130 premature deaths in 2004 claimed 1,594 years of life or 119 years of potential life per 100,000 population. The YPLL rate in Bexar County is higher than the Texas rate of 91 per 100,000. The Bexar County rate is generally consistent with the
 Harris County YPLL rate. Following a substantial jump between 1992 and 1996, the YPLL rate in Bexar County has been fairly stable for the past 8 years.

Premature mortality due to cerebrovascular disease varies considerably across Bexar County. The highest YPLL rate in Bexar County is in the East sector with a rate of 230 YPLL per 100,000 people living in the area. There is no detectable geographic pattern among the sectors. The lowest rate is 64 YPLL per 100,000. The average age at death for stroke is 77 years. It may be that at this age, death occurs more as the result of co-morbidities and other contributing physical factors.

A number indicators are available
 that help fill in a better picture of the influences that contribute to cardiovascular disease. These include measures from both the social and the physical environment. Measures for phase 2 will include:

1. Leisure time physical activity
2. Eating adequate amounts of fruits and vegetables
3. Reading food labels
4. Healthy Body Mass Index
5. Consumption of a high fat diet
6. Chronic drinking
7. Non-smokers
8. Health Insurance Coverage
9. Percent reporting heart disease
10. Percent reporting hypertension
11. Routine medical checkup

Suggestions for other available measures can be made to The University of Texas School of Public Health Community Health Assessment staff (210) 562-5510.

## Diabetes Health

Diabetes is increasing in Texas. More than 1.3 million Texans have diagnosed diabetes, and an additional 343,000 are estimated to have undiagnosed diabetes (BRFSS, 2003). Uncontrolled diabetes indicates that the individual's blood sugar level is not kept within acceptable levels and the glucose and fats remain in the blood and, over time, damage vital organs.

Most of the diabetes health measures available for phase 1 of the Bexar County Community Assessment are more directly related to individual health and disease. When thinking about diabetes health it is important to consider how the actions of daily life influence the physical body and contribute to health. The scientific literature indicates that a number of social and physical environmental influences contribute to diabetes health. The more direct influences such as diet and exercise are affected by both social and environmental influences. The economic resources and level of knowledge a person has will affect health behaviors. A family with more economic resources may be able to purchase foods that are lower in fats and carbohydrates and helpful in maintaining a healthy body weight. The built environment, assets such as bike paths, parks, and the availability of community centers and libraries can also encourage residents' willingness to exercise and eat better diets. Less tangible issues such as a sense of acceptance in the community, neighbors that can be trusted and are willing to help, can help create a sense of a safe community and contribute to healthier lifestyles. The quality of air, water, and soil may also directly affect health.
Healthy behaviors and other community indicators that contribute to diabetes will be included in phase 2 of the community assessment. Measures that will be included in phase 2 are listed at the end of this section.

## Direct care physician to population ratio

One component of a healthy lifestyle is regular physical exams by a physician. Routine care can detect early signs of diabetes. Controlling diabetes risk factors reduces the chances of developing more serious disease later in life. Routine care is especially important for diabetes. Clinical practice guidelines recommend periodic testing and screening for diabetics. Access to physician services is required for residents to utilize these services. In the year 2004, there were 2,748 direct care physicians in Bexar County and the ratio of direct care physician to the population per 100,000 is 184 . The trend data shows that this rate is constant over the last 12 years for the state and for the Harris and Bexar Counties. The distribution of physicians within Bexar County is

Direct care physicians
 skewed to the sectors in the north of the county, 72 percent of physicians in Bexar County practice in the north, one half of these are located near the South Texas Medical

Center in the East Northwest area. An additional 16 percent have offices in the central (downtown) area. The remaining 12 percent of physicians practice in the southern part of the county. Health insurance coverage helps provide access to health care services. An estimated 24.6 percent of the Texas population, or 5.4 million persons, were uninsured in 2004. In San Antonio, it is estimated that 24.3 percent or 363,033 residents of the county are uninsured ${ }^{22}$.

## Hospitalization rate for diabetes mellitus with complications

If a diabetic receives adequate primary care they should never be hospitalized. Hispanics are more disposed to diabetes than the Non-Hispanic White population. Because Bexar County is 57 percent Hispanic, there is a need for special concern about diabetes. There were 2,308 hospitalizations for diabetes in Bexar County in 2004 for a rate of 15 per 10,000 population. This is slightly lower than the state rate of 16 per 10,000. Three sectors within Bexar County have higher rates of hospitalization due to complications of diabetes than the state. These sectors are the South, West and East with 23, 18, and 18 hospitalizations per 100,000, respectively.

Diabetes mellitus


These rates are more than double the sectors with the lowest rates, including the Northeast, North Central and Northwest. It is likely that social determinants of health play a role in the differences. Though the southern sectors are more heavily Hispanic, levels of income and education are considerably lower in these sectors than in the north.

## Age-adjusted mortality for diabetes mellitus

Diabetes is the fourth leading cause of death in Texas and Bexar County. The Bexar County diabetes mortality rate is 41 per 100,000 , which is 40 percent higher than the Texas rate of 30 per 100,000 . The death rate in Harris County is lower than the state rate at 26 per 100,000. The mortality rate due to diabetes in the county climbed during the 1990s, peaking in 2000 with a rate of 45 deaths per 100,000 people. In Texas and Harris County, the rate

Diabetes Mellitus
 was fairly stable over the same time period. The diabetes mortality rate for Hispanics living in Bexar was 60 per 100,000; this is twice the rate for the non-Hispanic population which is 30 per 100,000.

[^15]With the exception of the North Central sector, all sectors within Bexar County have diabetes mortality rates that are higher than the statewide rate. The South, West, and East sectors report death rates that are almost double the rates in the North. The South and West sectors are highest with 57 and 55 deaths per 100,000 population respectively. The North Central sector has the lowest rate in the county with 27 diabetes deaths per 100,000 people living is the area.


## Years of potential life lost (YPLL) due to diabetes mellitus

In 2004, there were 121 premature deaths due to diabetes in Bexar County. These deaths resulted in the loss of 1,207 years of life for a rate of 90 years of life lost per 100,000 population. This means that on average, persons who die before age 65 from the complications of diabetes lose 10 years of life. Trend data show that while the YPLL rate in Texas was fairly consistent between 1992 and 2004 in the major metropolitan areas of Harris and Bexar Counties the rate appears to be increasing slowly.

The YPLL rates in two of the sectors in the southern part of Bexar County, the East and West, are double the rates in the rest of the county with rates of 153 and 136 respectively. The Northeast and North Central sectors in the county have rates that are similar to the State rate with 80 and 87 deaths per 100,000 population each. The South and the Northwest sectors have the lowest number of years of potential life lost at 72 and 67 YPLL per 100,000 . It is notable that the South sector is 87 percent Hispanic and has one of the lowest diabetes YPLL rates in the County.


A number indicators are available that may help provide a better picture of the influences that contribute to diabetes. These include measures from both the social and the physical environment. Measures for diabetes health in phase 2 will include:

1. Leisure time physical activity
2. Eating adequate amounts of fruits and vegetables
3. Reading food labels
4. Healthy Body Mass Index
5. Consumption of a high fat diet
6. Chronic drinking
7. Non-smokers
8. Health Insurance Coverage
9. Report having diabetes
10. Percent reporting hypertension
11. Routine medical checkup

Suggestions for other available measures can be made to The University of Texas School of Public Health Community Health Assessment staff (210) 562-5510.

## Cancer Health

Only a few decades ago, people thought that there was little they could do to protect themselves against cancer. In recent years, however, scientists learned more about how the disease develops and what biological and environmental factors increase cancer risk. There are now more options for diagnosis and treatment, improved therapies and new technologies for early detection. Perhaps most importantly, we also now know that people can take steps to protect themselves against cancer. All people can lower their overall cancer risk by avoiding tobacco, maintaining a healthy body weight, being active and eating a diet rich in fruits and vegetables.

Cancer health measures available for phase 1 of the Bexar County Community Assessment are directly related to individual health and disease. When thinking about cancer health, it is important to consider how the actions of daily life influence the physical body and contribute to health. The scientific literature indicates that social and physical environmental influences contribute to cancer health. Most cancer progress slowly and take years to develop into disease. The more direct influences such as the use of tobacco products and diet are affected by both social and environmental influences. The economic resources and level of knowledge a person has will affect health behaviors. Families with low incomes may choose to live in areas where rents are less expensive but are near sites with hazardous material. Level of knowledge and availability of resources may have an affect on the choices a family makes in purchasing and consuming foods that are known to be protective agents in cancer prevention. The built environment, proximity to solid waste landfills and toxic waste sites, can influence behaviors. Less tangible issues such as a sense of acceptance in the community, neighbors that can be trusted, and are willing to help, can help create a sense of a safe community and contribute to healthier lifestyles. The quality of air, water, and soil may directly affect health and may also contain carcinogens.
Healthy behaviors and other community indicators that contribute to cancer will be included in phase 2 of the community assessment. Measures that will be included in phase 2 are listed at the end of this section.

## Direct care physician to population ratio

Access to quality health care helps to ensure that medical problems are detected and treated promptly. Regular screenings are helpful in early detection of cancer. Clinical practice guidelines recommend periodic cancer testing and screening. Access to physician services is required for residents to utilize these services. In 2004, there were 2,748 direct care physicians in Bexar County and the ratio of direct care physicians to the population per 100,000 is 184 . The trend data shows that this rate is constant over the last 12 years for the state and for the Harris and Bexar Counties. The distribution of physicians within Bexar County is skewed to the sectors in the north of

Direct care physicians
 the county, 72 percent of physicians in Bexar County practice in the north, one half of these are located near the South Texas Medical Center in the East Northwest area. An additional 16 percent have offices in the central (downtown) area. The remaining 12 percent of physicians practice in the southern part of the county. Health insurance coverage helps provide access to health care services. An estimated 24.6 percent of the Texas population, or 5.4 million persons, were uninsured in 2004. In San Antonio, it is estimated that 24.3 percent or 363,033 residents of the County are uninsured ${ }^{23}$.

## Hospitalization rate for malignant neoplasms (cancer)

In 2004, 7,380 people received hospital care for cancer (malignant neoplasm) in Bexar County. The County hospitalization rate of 47 hospitalizations per 10,000 population is lower than state rate of 59 per 10,000. The East sector represents the area with the highest rate of hospitalizations for cancer, at 59 hospitalizations per 10,000 people. The South and West sectors show similar rates at around 40 hospitalizations per 10,000 . In the Northern sectors there were 45 to 50 discharges per 10,000 population for cancer care. It is likely that the higher concentration of African Americans
 living in the East sector explain the higher rate. No definitive research explains why African Americans have higher morbidity and mortality rates. It is possible that a combination of social and environmental factors play a role in this health disparity.

[^16]Age-adjusted mortality for malignant neoplasms (cancer)
In 2004, the number of deaths due to cancer in Bexar County was 179 deaths per 100,000 people.
Historically, rates in Bexar County are similar to the statewide and the Harris County rates. Data from 1992 to 2004 show a decline in rates of approximately 30 deaths per 100,000 over the 12-year period.


The cancer mortality rate in Bexar County is highest in the West and East sectors. In the West sector, the mortality rate is 198 deaths per 100,000 people; this is closely followed by the East sector with 196 deaths. Not far behind are the Northeast and South sectors with 188 and 183 cancer deaths per 100,000 . The Northwest and North Central Sectors have the lowest rates in the
 County.

Years of potential life lost (YPLL) due to malignant neoplasms (cancer)

There were 710 residents of Bexar County who experienced premature death due to cancer in 2004. The consequence was the loss of 8,570 years of life or an average of 12 years for each person younger than 65 who died. This results in a rate of 639 years of potential life lost per 100,000 . This is noticeably down from 710 years of life lost since 1992. Throughout the state and Harris County there is a steady, gradual decline in the YPLL rate in since 1992.


The amount of years of potential life lost to malignant neoplasms varies across the sectors of Bexar County. Rates range from 534 YPLL per 100,000 in the North Central sector to 760 YPLL per 100,000 in the Northeast sector. The highest rates are in the Northeast, the East, and the South, with rates that are on average approximately 100 YPLL per 100,000 higher than the sectors with the lowest rates. It could be that environmental determinants of health play a role in the distribution of YPLL due to cancer. Further investigation related to this question could provide a clarification
 of whether there is an association between environmental determinants and cancer rates in various areas in the county.

## Female Breast Cancer

## Age-adjusted rates for female breast cancer mortality

Breast cancer is not included in the 10 leading causes of death in Texas. However, when calculated for the female population only, the Texas rate of 24 breast cancer deaths per 100,000 women would rank seventh among all causes. Breast cancer claimed the lives of 164 Bexar County women in 2004. This results in an age-adjusted mortality rate of 23 deaths per 100,000
 women. The Bexar County rate is similar to the rates for both Texas which is 24 per 100,000 and Harris County which is 26 per 100,000. Rates over the past 12 years show that there has been a slow steady decline in breast cancer since 1992.

Age-adjusted rates for female malignant neoplasm of the breast are fairly consistent across the County except for in the West is 30 deaths per 100,000 population and the Northwest with 26 deaths 100,000. Rates range from 19 to 21 per 100,000 in the rest of the county.


There are a number of factors that contribute to the risk of breast cancer including genetic predisposition, use of oral
contraceptives, and estrogen replacement therapy. Risks associated with behavior include obesity and alcohol consumption. Regular mammograms are recommended as secondary prevention for women over age 40.

## Years of potential life lost (YPLL) due to female breast cancer

There were 83 residents of Bexar County who experienced premature death due to
 cancer in 2004. The consequence was the loss of 915 years of life or an average of 11 years for each person younger than 65 who died. This produces a rate of 135 years of potential life lost per 100,000 women living in Bexar County. This is down from 181 years of life lost since 1992. Although there was some variation in 1996 it appears that there has been a steady, gradual decline in the breast cancer YPLL rate in since 1992.
The number of years of life lost to breast cancer total 135 years per 100,000 women residing in Bexar County in 2004. This rate is similar to the statewide rate of 139 deaths per 100,000 people. Trend data reveals that premature death rates since 1992 have declined slightly in Bexar and Harris Counties as well as statewide.

Each of the sectors of Bexar County and the county as a whole has similar YPLL rates, with the exception of the South sector. The female breast cancer YPLL rate of 94 years per 100,000 is much lower than the other sectors of the county or the statewide YPLL rate of 139 years lost per 100,000 women. The East, Northeast, and the Northwest sectors have YPLL rates around 149 years of life lost per 100,000,
 the East and North Central have rates around 135 years of life lost per 100,000 women.

A number of indicators are available and may help provide a better picture of the influences that contribute to malignant neoplasm. Included are measures from both the social and the physical environment. Measures for malignant neoplasm in phase 2 will include:

1. Report having pap smear
2. Report having mammogram
3. Report family history of cancer
4. Report colorectal cancer screen
5. Healthy Body Mass Index
6. Non-smokers
7. Health Insurance Coverage
8. Routine medical checkup

Suggestions for other available measures can be made to the health assessment staff (210) 562-5510.

## Appendices

## Appendix A

Recent reports suggest that the number of mothers seeking prenatal care dropped precipitously between 2004 and 2005. Tables 1A and 1B, below, shows prenatal care information since 1990. The trend has been that prenatal care visits beginning in the first trimester (as recommend by Healthy People 2010) has slowly but gradually increased to 82 percent of Texas mothers and 87 percent of Bexar County mothers in 2004 followed by a drop to 63 percent and 73 percent respectively in 2005 . It seems unlikely that the behaviors of mothers would change so suddenly after 15 years of steady increases of one to two percent per year.

In 2003 the National Center for Health Statistics of the Centers for Disease Control and Prevention adopted a new birth certificate. This new birth certificate was adapted and introduced in Texas for use in 2005. The goal for the new certificate is "Making Vital Statistics More Vital." Among the changes on the birth certificate was how information about prenatal care is obtained.

On the previous birth certificate the question for prenatal care asked: "Prenatal care began in what month $1^{\text {st }}, 2^{\text {nd }}, 3^{\text {rd }}$ etc. Please specify ___" and "Number of prenatal care visits." The new birth certificate obtains the information by asking "Date of first prenatal care visit MM/DD/YY; No prenatal care" and "Date of last prenatal care visit MM/DD/YY" and "Number of prenatal care visits."

The more likely explanation is that prenatal care rates changed because of the method of data collection.

Table 2 shows the proportion of mothers reporting the month they began prenatal care by month in 2004 and 2005. Nineteen percent fewer mothers report that they started prenatal care in the first month of pregnancy in 2005 than in 2004. In 2004 mothers were asked in what month of your pregnancy did you began receiving prenatal care. In 2005 they were asked to provide the actual date they first received prenatal care. It is possible that in each case the mother answered honestly. In 2004 mothers could say they began prenatal care the first month they knew they were pregnant. In 2005 mothers were asked to provide the date of the first prenatal care visit. If measured from the date of last menses it may well have been more than four weeks before they learned they were pregnant, make an appointment and were able to see their physician.

It is likely that the lower rate in 2005 does not reflect a deterioration in the behaviors of mothers seeking prenatal care. Instead, we most likely have more accurate information about when mothers receive their first prenatal care visit. It will be necessary to monitor prenatal care rates over the next few years to know whether there has been a change in behavior.

Table 1A
Texas

| Year | Total Births | Care Began First Trimester | Pct 1st trimester | No or 2nd <br> or 3rd <br> trimester | $\begin{gathered} \text { No } \\ \text { prenatal } \\ \text { care } \end{gathered}$ | Pct no prenatal care |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1990 | 316,257 | 210,589 | 66.6 | 33.4 | 10,613 | 3.4 |
| 1991 | 317,680 | 212,205 | 66.8 | 33.2 | 12,789 | 4.0 |
| 1992 | 320,713 | 220,267 | 68.7 | 31.3 | 12,673 | 4.0 |
| 1993 | 321,961 | 226,201 | 70.3 | 29.7 | 12,470 | 3.9 |
| 1994 | 321,088 | 236,442 | 73.6 | 26.4 | 6,973 | 2.2 |
| 1995 | 322,669 | 242,550 | 75.2 | 24.8 | 6,300 | 2.0 |
| 1996 | 330,238 | 251,438 | 76.1 | 23.9 | 5,846 | 1.8 |
| 1997 | 333,829 | 257,266 | 77.1 | 22.9 | 5,823 | 1.7 |
| 1998 | 342,199 | 266,152 | 77.8 | 22.2 | 6,816 | 2.0 |
| 1999 | 349,157 | 271,133 | 77.7 | 22.3 | 7,195 | 2.1 |
| 2000 | 363,325 | 276,720 | 76.2 | 23.8 | 7,197 | 2.0 |
| 2001 | 365,092 | 283,822 | 77.7 | 22.3 | 6,777 | 1.9 |
| 2002 | 372,369 | 295,284 | 79.3 | 20.7 | 6,812 | 1.8 |
| 2003 | 377,374 | 300,927 | 79.7 | 20.3 | 5,415 | 1.4 |
| 2004 | 360,612 | 305,345 | 81.9 | 18.1 | 6,536 | 1.8 |
| 2005 | 372652 | 237692 | 63.8 | 36.2 | 17,699 | 4.7 |

Change from 2004 to 2005
18.1

Table 1B
Bexar County

| Year | Total <br> Births | Care <br> Began <br> Frirst <br> Trimester | Pct 1st <br> trimester | No or 2nd <br> or 3rd <br> trimester | No <br> prenatal <br> care | Pct no <br> prenatal <br> care |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1 9 9 0}$ | 22,067 | 16,958 | 76.8 | 23.2 | 346 | 1.6 |
| 1991 | 22,224 | 16,919 | 76.1 | 23.9 | 391 | 1.8 |
| 1992 | 22,215 | 17,174 | 77.3 | 22.7 | 432 | 1.9 |
| 1993 | 22,714 | 18,193 | 80.1 | 19.9 | 421 | 1.9 |
| 1994 | 22,879 | 18,389 | 80.4 | 19.6 | 326 | 1.4 |
| $\mathbf{1 9 9 5}$ | 22,564 | 18,527 | 82.1 | 17.9 | 247 | 1.1 |
| $\mathbf{1 9 9 6}$ | 22,869 | 19,306 | 84.4 | 15.6 | 187 | 0.8 |
| $\mathbf{1 9 9 7}$ | 22,952 | 19,548 | 85.2 | 14.8 | 246 | 1.1 |
| $\mathbf{1 9 9 8}$ | 23,367 | 19,644 | 84.1 | 15.9 | 257 | 1.1 |
| $\mathbf{1 9 9 9}$ | 23,597 | 19,769 | 83.8 | 16.2 | 287 | 1.2 |
| $\mathbf{2 0 0 0}$ | 24,033 | 20,242 | 84.2 | 15.8 | 255 | 1.1 |
| $\mathbf{2 0 0 1}$ | 23,742 | 20,211 | 85.1 | 14.9 | 285 | 1.2 |
| $\mathbf{2 0 0 2}$ | 25,023 | 21,642 | 86.5 | 13.5 | 293 | 1.2 |
| $\mathbf{2 0 0 3}$ | 24,927 | 21,659 | 86.9 | 13.1 | 286 | 1.1 |
| $\mathbf{2 0 0 4}$ | 24,735 | 21568 | 87.2 | 12.8 | 150 | 0.6 |
| $\mathbf{2 0 0 5}$ | 27,839 | 20,316 | 73.0 | 27.0 | 1337 | 4.8 |

Change from 2004 to 2005

## 14.2

| Table 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Month |  |  |  |  |  |
| PNC | 2004 |  | 2005 |  |  |
| Began | Births | Pct | Births | Pct |  |
| Total | 24,735 |  | 27,691 |  |  |
| 01 | 7,794 | 31.5 | 3,352 | 12.1 | 19.4 |
| 02 | 9,774 | 39.5 | 10,423 | 37.6 | 1.9 |
| 03 | 4,000 | 16.2 | 6,541 | 23.6 | -7.4 |
| 04 | 1,440 | 5.8 | 2,763 | 10.0 | -4.2 |
| 05 | 901 | 3.6 | 1,457 | 5.3 | -1.6 |
| 06 | 455 | 1.8 | 884 | 3.2 | -1.4 |
| 07 | 224 | 0.9 | 565 | 2.0 | -1.1 |
| 08 | 114 | 0.5 | 335 | 1.2 | -0.7 |
| 09 | 33 | 0.1 | 182 | 0.7 | -0.5 |
| None | 150 | 0.6 | 1,337 | 4.8 | -4.2 |
| Missing | 327 | 1.3 | 1,371 | 5.0 | -3.6 |
| Total | 25,212 |  | 29,210 |  |  |

## Glossary

(adapted from the Texas Department of State Health Services Vital Statistics Annual)

Age-adjusted death rate: A weighted average of the age-specific death rates where the age-specific weights represent the relative age distribution of a standard population. ${ }^{1}$ $\mathrm{AADR}=\sum w_{s i} * R_{i}$, where $R_{i}$ is the age-specific death rate for age interval $i$ and $w_{s i}$ denotes the standard weight for age interval $i$ such that $w_{s i}=P_{s i} / \sum P_{s i}$ where $P_{s i}$ denotes the population in age interval $i$ in the standard population, $0<w_{s i}<1$, and the $w_{s i}$ sum to Beginning with the analyses of data collected in 1999, all agencies of the U.S. Department of Health and Human Services (DHHS) switched from using rates based on the 1940 standard population to single standard based on a projection of the year 2000 U.S. population. ${ }^{1,2}$

Age-adjusted rate: A rate that has taken into account influences on a crude rate, such as differences in age composition of the population. Age adjustment, using the direct method, is the application of age-specific rates in a population of interest to a standardized age distribution in order to eliminate differences in observed rates that result from age differences in the population composition. This adjustment is usually done when comparing two or more populations (such as race/ethnic groups) at one point in time or one population at two or more points in time. Age-adjusted rates are useful for comparison purposes only, not to measure absolute magnitude. (To compare absolute magnitude, numbers or crude rates are used.) ${ }^{3}$

Age-specific rate: Rate obtained for specific age groups (for example, age-specific fertility rate, death rate, marriage rate, illiteracy rate, school enrollment rate, etc).
Birth weight: The weight of an infant at delivery, recorded in pounds and ounces or in grams.
Cause of death: Any condition which leads to or contributes to death and is classifiable according to the tenth revision of The International Classification of Diseases (ICD-10).
Childbearing years: The reproductive age span of women; conventionally defined as 15 through 44 years of age for the U.S. population.
Clinical Classification Software: A coding system developed by the Agency for Healthcare Research and Quality that classifies ICD-9 codes in to disease classifications
Comparison Ratio: The measure of the effect of changes between revisions of the International Classification of Diseases (ICD).
Crude rate: The rate of any demographic or vital event that is based on an entire population.
Demography: The study of populations including their size, age-sex composition, distribution, density, growth, natality, mortality, nuptiality, migration, and any other characteristics which may affect these factors.

Direct Patient Care: Physicians are those who work directly with patients, and do not include researchers, administrators, or teachers.

Ethnicity: The classification of a population that shares common characteristics, such as, religion, traditions, culture, language, and tribal or national origin.

Federal poverty guidelines: The poverty guidelines updated periodically in the Federal Register by the U.S. Department of Health and Human Services under the authority of 42 U.S.C. 9902(2).

Fertility: The actual reproductive performance of an individual, couple or a population.
Fertility rate: The number of live births, regardless of age of mother, per 1,000 women of reproductive age, 15-44 years. ${ }^{4}$

Gestation period: Number of completed weeks elapsed between the first day of the last normal menstrual period and the date of delivery.
ICD-10: The International Classification of Diseases, 10th edition. A system for classifying diseases and injuries developed by the World Health Organization and used worldwide to improve comparability of cause of death statistics reported from different countries. The tenth revision has been in use since January 1, 1999.
Infant: An individual less than one year of age.
Infant death: Death of an individual less than one year of age. Infant deaths are further classified as neonatal deaths and postneonatal deaths. (See also neonatal death and postneonatal death.)

Life expectancy: The average number of years that a person can anticipate living after a given age, usually birth. Most often based upon the current mortality experience of a population.
Live birth: The complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which after such separation, breathes or shows any other evidence of life such as beating of the heart, pulsation of umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached.

Low birth weight: A birth weight less than 2,500 grams or less than 5 pounds, 9 ounces.
Malignant neoplasm of the breast: (breast cancer) A tumor in the breast having the properties of invasion and metastasis.

Mean: The arithmetic average of a set of values. It is calculated as the sum of the values divided by the number of values.

Median: The value in an ordered set of values above and below which there are an equal number of values; the 50th percentile.

Morbidity: Refers to the occurrence of diseases in a population.
Mortality: Death as a component of population change.
Natality: Birth as a component of population change.

Neonatal death: Death of an infant less than 28 days of age.
Neonate: An infant less than 28 days of age.
Nosology: The division of the Bureau of Vital Statistics that classifies, for statistical purposes, causes of deaths, based on the ICD-10; the branch of medical science that deals with classification of diseases.
Population: The total of all individuals in a given area.
Postneonatal death: Death of an infant at least 28 days of age but less than one year of age.
Postneonate: An infant at least 28 days of age but less than one year of age.
Preterm birth: Birth at less than 37 completed weeks of gestation.
Primary Care: Physicians are those who indicate that they have a primary specialty of General Practice, Family Practice, Internal Medicine, Pediatrics, Obstetrics and/or Gynecology, or Geriatrics, and are a sub-set of Direct Patient Care Physicians. Note:
Geriatrics began to be included in the primary care statistics in 2004.
Proportion: A portion of a population in relation to another portion of the population or to the population as a whole. Proportions are a special type of ratio in which the denominator always includes the numerator. (See also ratio.)

Race: A geographical population of humankind that possesses inherited distinctive physical characteristics that distinguish it from other populations.
Range: The distance between the smallest and largest numbers in a set of numbers.
Rate: The frequency of a demographic event in a specified period of time divided by the population at risk of the event.

Ratio: The relation of one population subgroup to another subgroup, or to the whole population. The denominator of a ratio may or may not include the numerator. If the denominator includes the numerator, it is a special type of ratio known as a proportion. (See also proportion.)
Residence: The geographic area of the usual place of abode.
Residence data: Data compiled by the usual place of residence without regard to the geographic place where the event occurred. For births and fetal deaths, the mother's usual residence is used as the place of residence.
Statistical cut-off: Date by which records of vital events for a specific year must be received in order to be included in the statistical analyses for that year.

Statistical Significance: Used to evaluate the likelihood that chance variability may be considered an explanation for observed results. An appropriate mathematical test of statistical significance is calculated to determine the $p$ value, which is the probability that the observed results may be due to chance alone. If the $p$ value is less than an arbitrarily chosen value, commonly selected as 0.05 , the findings are accepted as statistically significant at the 5 percent level. This indicates there is less than 5 percent probability that the observed results are due to chance alone.

Texas Vital Statistics Law: Texas Health and Safety Code, Title 3.
Underlying cause of death: The disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury.
Very low birth weight: A birth weight less than 1500 grams, or less than 3 pounds, 5 ounces.

Vital event: An occurrence of birth, adoption, induced abortion, marriage, divorce or death, together with any change in civil status, shown as number on tables.

Vital statistics: Demographic data on abortions, births, deaths, fetal deaths, marriages and divorces.

Vital Statistics Unit: The office within the Texas Department of State Health Services charged with the implementation of the Texas Vital Statistics Law. (See also Texas Vital Statistics Law.) Functions within the Bureau include the registration, preparation, transcription, collection, compilation, and preservation of data pertaining to births, adoptions, deaths, stillbirths, marital status, and data incidental thereto.

Years of potential life lost (YPLL): A measure of premature mortality for Bexar County YPLL is calculated for individuals who die before age 65. The sum of the years of life lost annually by persons who suffered early deaths.

YPLL $=\sum\left(64.5_{\text {DEATHS }}-\mathrm{X}_{\text {decedent's age in years }}\right)$
The YPLL rate is the number of years of potential life lost before age 65 per 1,000 population ages 0-64.

YPLL Rate $=($ YPLL $/$ Population $<65$ Years of Age $) * 1000$

## References

1. U.S. Department of Health and Human Services (HHS). Healthy People 2010. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000.
2. Anderson, R.N., and Rosenberg, H.M. Age Standardization of Death Rates: Implementation of the Year 2000 Standard. National Vital Statistics Reports. Vol. 47, No. 3. Hyattsville, MD: NCHS, 1998.
3. Shryock, H.S., and Siegel, J.S. The Methods and Materials of Demography. San Diego, CA: Academic Press, 1976.
4. Arthur Haupt and Thomas T. Kane, Population Handbook (Washington, D.C.: Population Reference Bureau, Inc., 1978), p. 54.

[^0]:    1 Evans RG and Stoddart, GL. Producing Health, Consuming Health Care, Social Science and Medicine. Vol. 31. No. 12. pp. 1347-1363. 1990

[^1]:    2 Evans RG and Stoddart, GL. Producing Health, Consuming Health Care, Social Science and Medicine. Vol. 31. No. 12. pp. 1347-1363. 1990
    3 Unhealthy Societies: The Afflictions of Inequality, Richard G Wilkinson, Routledge: London and New York, 1996.

[^2]:    4 Evans RG and Stoddart, GL. Producing Health, Consuming Health Care, Social Science and Medicine. Vol. 31. No. 12. pp. 1347-1363. 1990
    5 Kretzmann, J.P. \& Mcknight, J.L. Building Communities From The Inside Out: a Path Toward Finding and Mobilizing A Community’s Assets, ACTA Publications, Chicago, 1993

[^3]:    ${ }^{6}$ Root Cause Analysis. Accessed from http://www.systems-thinking.org/rca/rootca.htm, Apr 6, 2006

[^4]:    7 DeNavas-Walt, Carmen, Bernadette D. Proctor, and Cheryl Hill Lee, U.S. Census Bureau, Current Population Reports, P60-229, Income, Poverty, and Health Insurance Coverage in the United States: 2004, U.S. Government Printing Office, Washington, DC, 2005.
    8 Department of Health and Human Services - http://aspe.hhs.gov/poverty/06poverty.shtml

[^5]:    9 McIntyre L., Walsh G. and Connor S.K. (2001). A Follow-Up Study of Child Hunger in Canada. Working Paper W-01-1-2E, Applied Research Branch, Strategic Policy, Ottawa, Human Resources Development Canada, June

[^6]:    ${ }^{10}$ Social determinants of health: the solid facts. 2nd edition / edited by Richard Wilkinson and Michael Marmot. The World Health Organization, 2003

[^7]:    11 Texas Hospital Association, FAST FACTS: The Uninsured in Texas, 2006 http://www.thaonline.org/Issues1/Uninsured/UninsuredFastFacts.pdf, accessed May 152006.

[^8]:    12 Texas Hospital Association, FAST FACTS: The Uninsured in Texas, 2006 http://www.thaonline.org/Issues1/Uninsured/UninsuredFastFacts.pdf, accessed May 152006.

[^9]:    13 Social determinants of health: the solid facts. 2nd edition / edited by Richard Wilkinson and Michael Marmot. The World Health Organization, 2003

[^10]:    ${ }^{14}$ Singh, G.K.; Kochanek, K.D.; and MacDorman, M.F. Advance report of final mortality statistics, 1994. Monthly Vital Statistics Report 45(3S), 1996

    15 Healthy People 2010 (Group). Healthy people 2010 : understanding and improving health. Washington, DC : U.S. Dept. of Health and Human Services

[^11]:    16 Social determinants of health: the solid facts. 2nd edition / edited by Richard Wilkinson and Michael Marmot. The World Health Organization, 2003

    17 Department of Health and Human Services. Mental Health: A Report of the Surgeon General U.S. Public Health Services. 1999

[^12]:    18 National Institutes of Mental Health. The Numbers Count: Mental Disorders in America: A summary of statistics describing the prevalence of mental disorders in America.
    http://www.nimh.nih.gov/publicat/numbers.cfm\#WHOReportBurden accessed June 4, 2006.
    19 Riolo, S, Nguyen, T, Greden, J. and King, C. Prevalence of Depression by Race/Ethnicity: National Health and Nutrition Examination Survey III. American Journal of Public Health, 2005, 95 (6) 9981000.

[^13]:    20 U.S. Department of Health and Human Services. Oral Health in America: A Report of the Surgeon General-Executive Summary. Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health, 2000.

[^14]:    ${ }^{21}$ Texas Hospital Association, FAST FACTS: The Uninsured in Texas, 2006 http://www.thaonline.org/Issues1/Uninsured/UninsuredFastFacts.pdf, accessed May 152006.

[^15]:    22 Texas Hospital Association, FAST FACTS: The Uninsured in Texas, 2006 http://www.thaonline.org/Issues1/Uninsured/UninsuredFastFacts.pdf, accessed May 152006.

[^16]:    23 Texas Hospital Association, FAST FACTS: The Uninsured in Texas, 2006 http://www.thaonline.org/Issues1/Uninsured/UninsuredFastFacts.pdf, accessed May 152006.

