Community Health Assessment

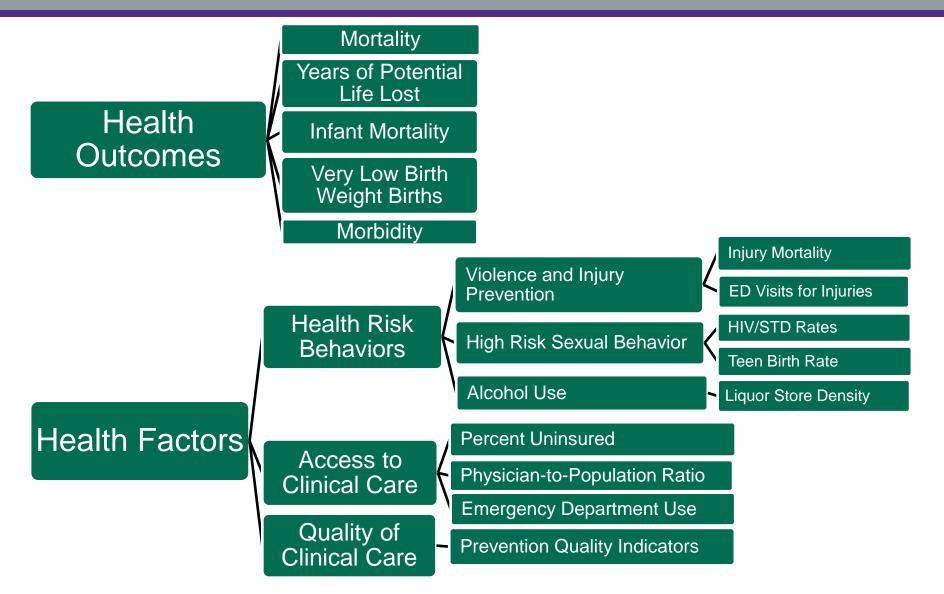
Northwest Dallas Service Area







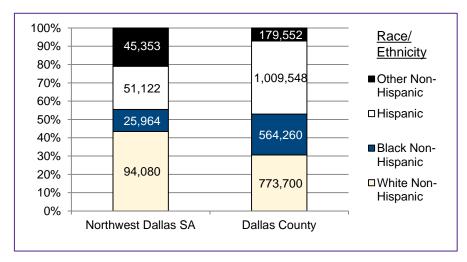
Organizational Model For the Community Health Dashboard

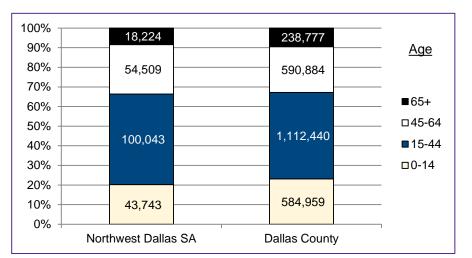


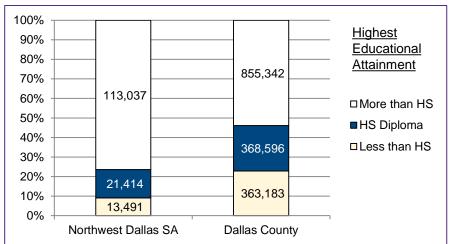


Demographic Profile Northwest Dallas Service Area

- The age distribution of the population of the Northwest Dallas Service Area is more workingage than the county population, with lower proportions of children and seniors than Dallas County.
- The service area's population has the highest proportion of other race non-Hispanics (21%).
- The service area has the highest percentage of people with more than a high school education (76.4%) of the 13 service areas.



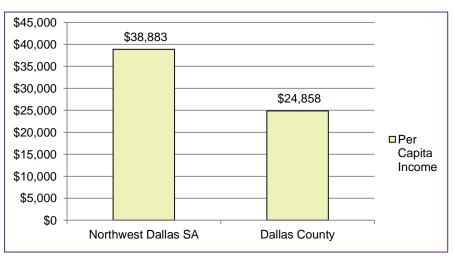


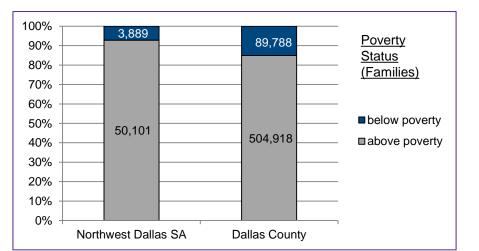


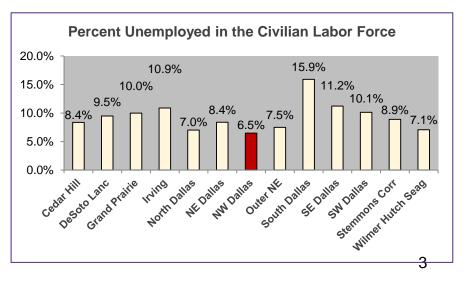


Demographic Profile Northwest Dallas Service Area

- The Northwest Dallas Service Area has the second lowest percentage of families in poverty (7.2%) of the 13 service areas, less than half the county poverty rate (15.1%).
- The Service Area's per capita income was the second highest of the 13 service areas, behind only North Dallas.
- The average 2012 unemployment rate for this Service Area was the lowest of all 13 service areas.

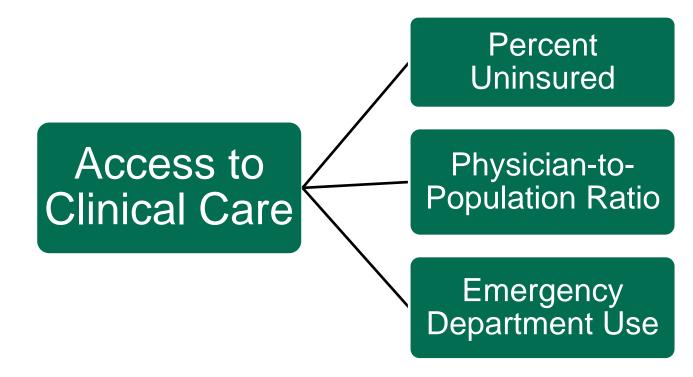








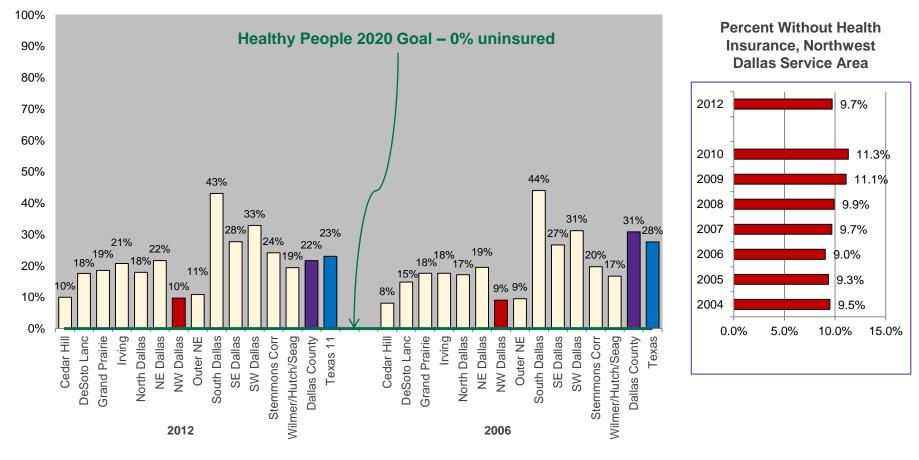
Access to care





Access to Healthcare: Percent Without Healthcare Insurance Northwest Dallas Service Area

Percent Uninsured

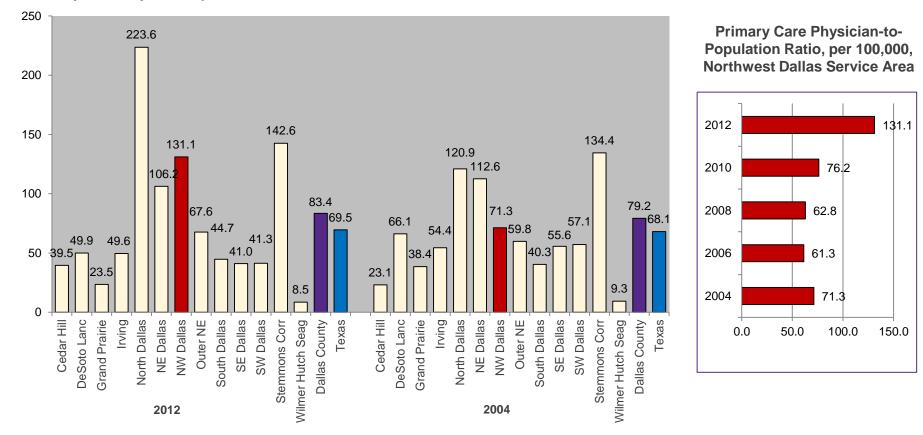


Source: 2012 Truven Analytics, Inc. Denominator population data from Claritas, Inc.; Texas rate from US Census Bureau's American Community Survey 2011; 2006 Solucient, Inc.



Access to Healthcare: Primary Care Physician-to-Population Ratio Northwest Dallas Service Area

Primary Care Physicians per 100,000



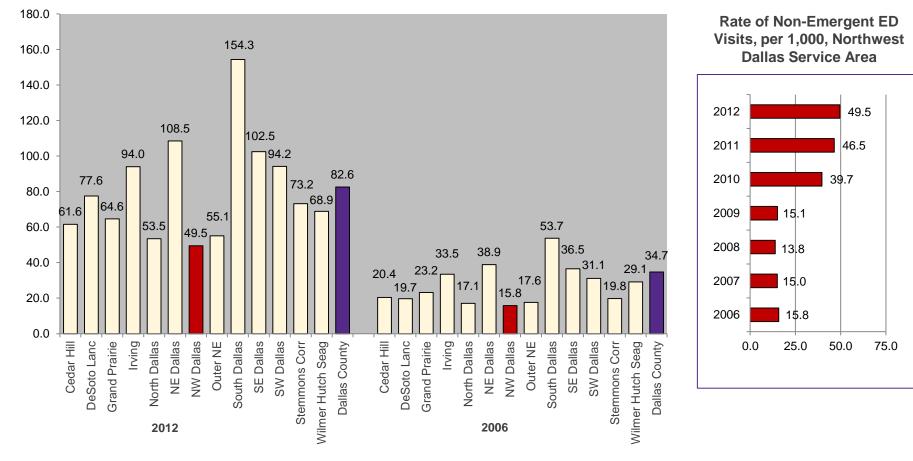
Source: Texas Medical Association Physician Practice Address files; denominator population data from Claritas, Inc., except 2010 from Nielson/Claritas, Inc. Pop Facts. Mid 2010 version. County and State source is Texas Bureau of Primary Care.



Access to Healthcare: Non-Emergent ED Utilization

Northwest Dallas Service Area





Source: DFWHC, Outpatient Data System; NYU Algorithm for determining appropriate Emergency Dept. Use; denominator population data from Claritas, Inc.

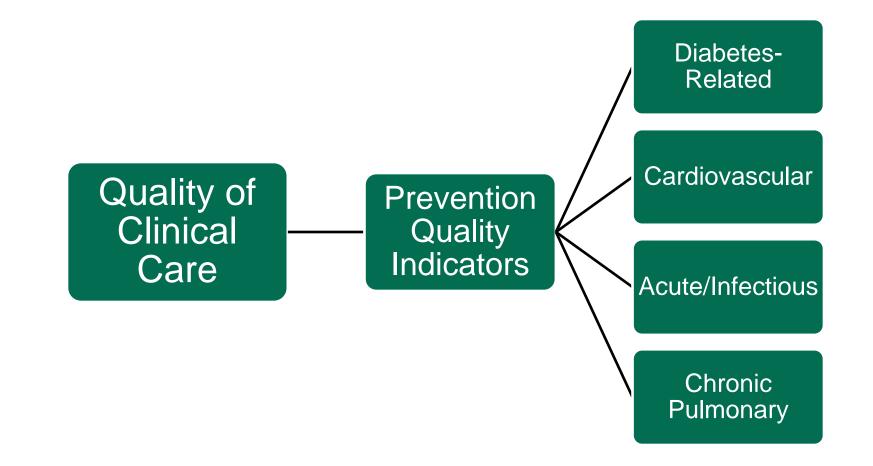


Access to Care

| Doing better than the benchmark Same as/not significantly different from the benchmark Worse than the benchmark | | Northwest Dallas Compared to Healthy People 2020 Goal | Northwest Dallas Compared to Other Service Areas (Quartiles) | Northwest Dallas Compared to Past Years' Data (CI) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------|
| Access to Clinical Care | Percent Uninsured | | | |
| | Physician-to- Population Ratio | N/A | | |
| | Emergency Department Use | N/A | | |

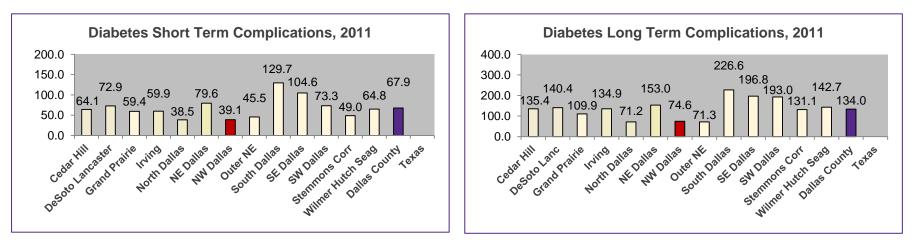


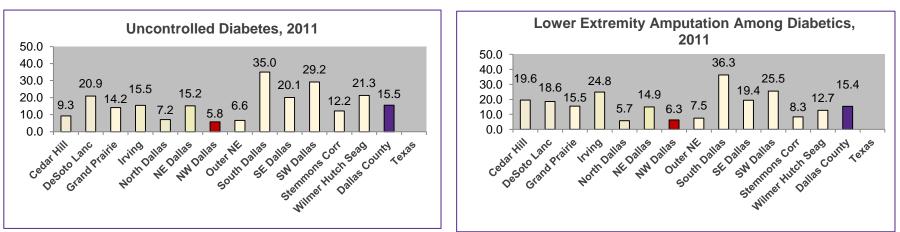
Quality of care





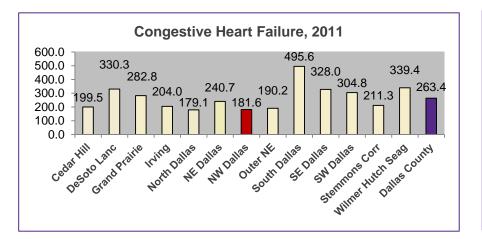
Healthcare Quality: Rate of Preventable Hospitalizations, 2011 Diabetes-Related Hospitalizations Northwest Dallas Service Area

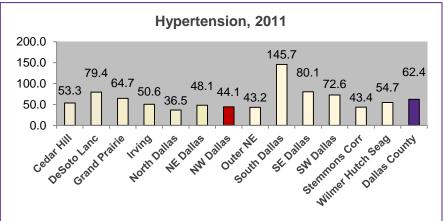


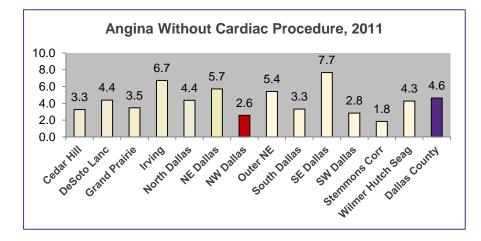




Healthcare Quality: Rate of Preventable Hospitalizations, 2011 Cardiovascular Disease Hospitalizations Northwest Dallas Service Area

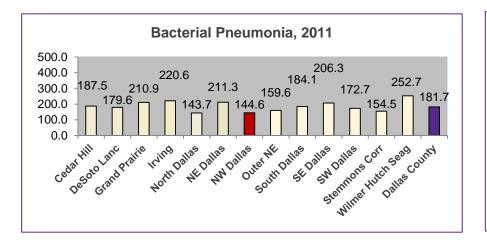


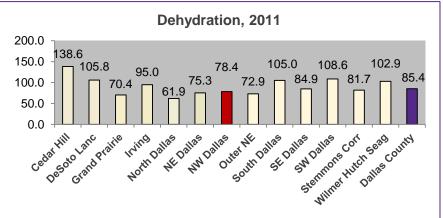


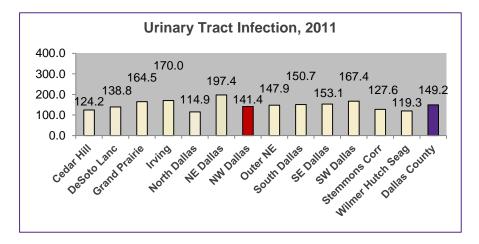




Healthcare Quality: Rate of Preventable Hospitalizations, 2011 Acute/Infectious Disease Hospitalizations Northwest Dallas Service Area

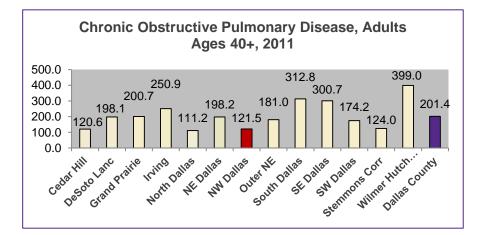


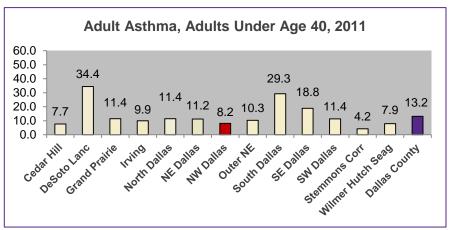






Healthcare Quality: Rate of Preventable Hospitalizations, 2011 Chronic Pulmonary Disease Hospitalizations Northwest Dallas Service Area



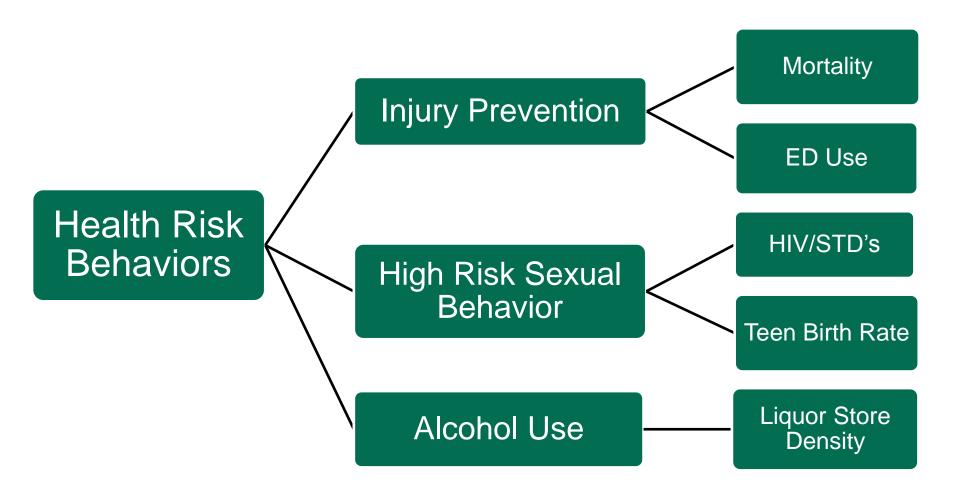




Healthcare Quality

| Doing better than the benchmark Same as/not significantly different from the benchmark Worse than the benchmark | | Northwest Dallas Compared to 12 Other Service Areas (Quartiles) | Northwest Dallas Compared to Past Years' Data (Percent Change vs. 2010) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| | Diabetes ST Comp | | |
| | Diabetes LT Comp | | |
| | Uncontrolled Diabetes | | |
| Lowe | r Extremity Amputations Among Diabetics | | |
| Quality of Prevention | Congestive Heart Failure | | |
| Clinical Quality Indicators | Hypertension | | |
| Care | Angina Without Cardiac Procedure | | |
| | Bacterial Pneumonia | | |
| | Dehydration | | |
| | Urinary Tract Infection | \bigcirc | |
| CH | nronic Obstructive Pulmonary Disease | | |
| | Adult Asthma | | |

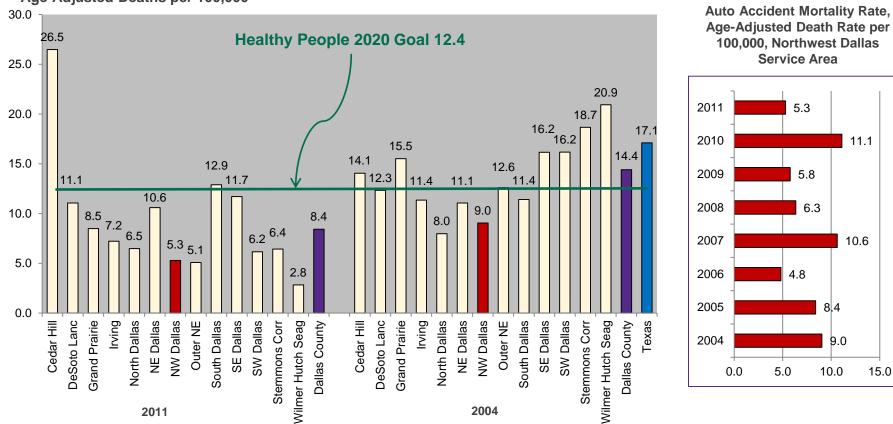






Risk Factors: Auto Accident Mortality Rates

Northwest Dallas Service Area

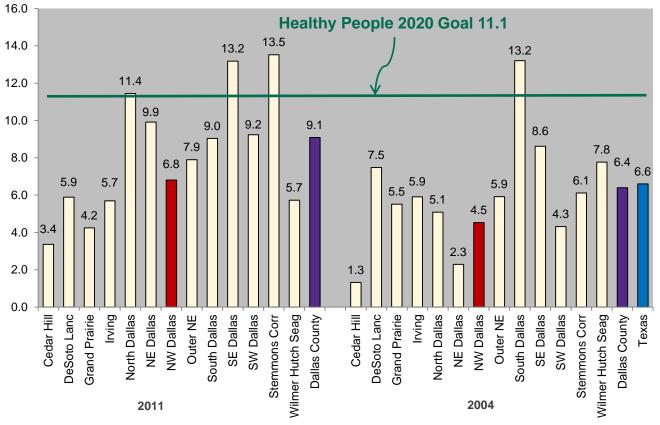


Age-Adjusted Deaths per 100,000

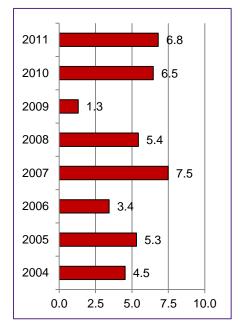


Risk Factors: Accidental Poisoning Mortality Rates Northwest Dallas Service Area

Age-Adjusted Deaths per 100,000



Accidental Poisoning Mortality Rate, Age-Adjusted Death Rate per 100,000, Northwest Dallas Service Area

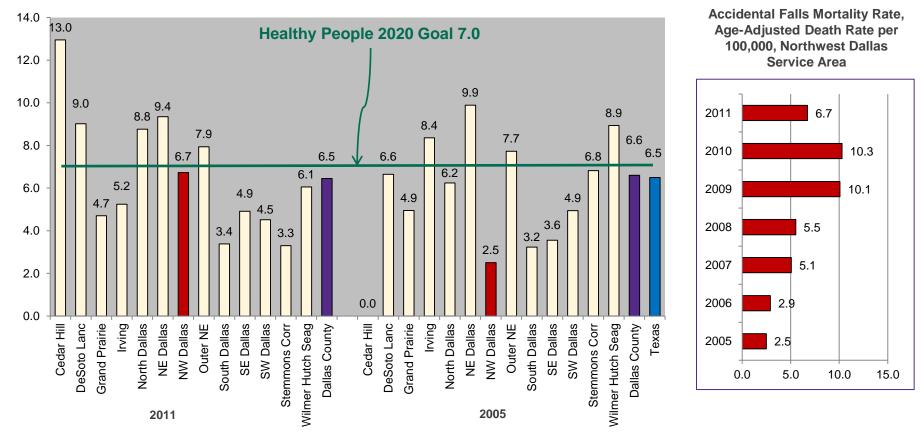




Risk Factors: Accidental Falls Mortality Rates

Northwest Dallas Service Area

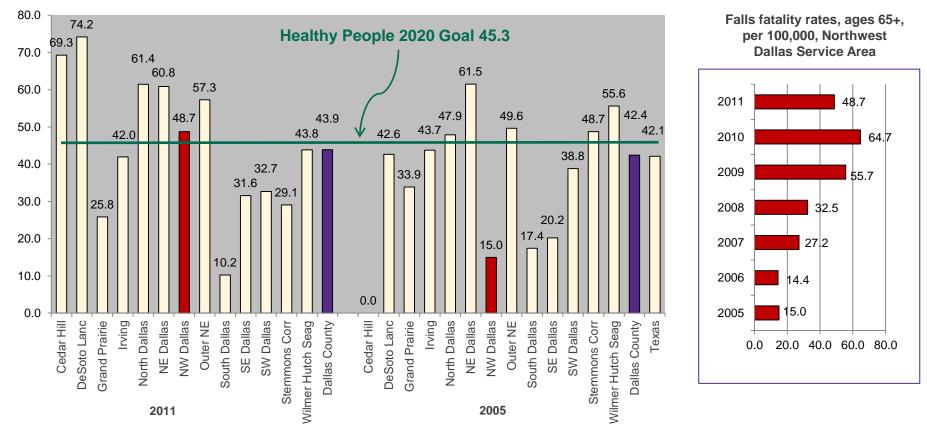
Age-Adjusted Deaths per 100,000





Risk Factors: Falls Death Rates Among Seniors *Northwest Dallas Service Area*

Falls Deaths Age 65+



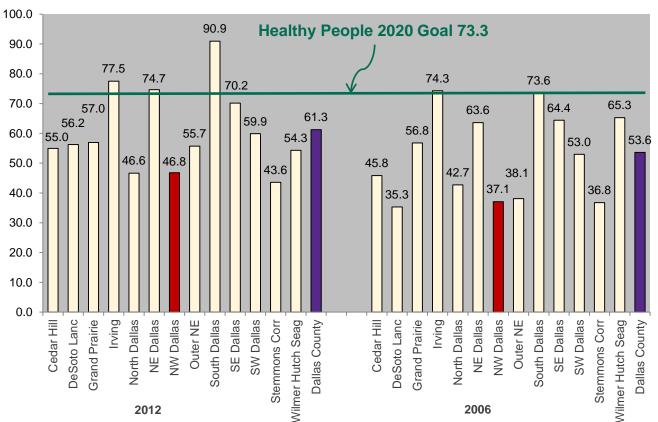
Source: Texas Department of State Health Services, Bureau of Vital Statistics, unpublished data; denominator population data from US Census Bureau American Community Survey. 2005 Dallas County data from Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death File 2005-2006. CDC WONDER On-line Database, compiled from Multiple Cause of Death File 2005-2006Series 20 No. 2L, 2012. Accessed at http://wonder.cdc.gov/mcd-icd10.html on Mar 25, 2010 2:52:15 PM; 2005 Texas data from http://wonder.cdc.gov/mcd-icd10.html

19



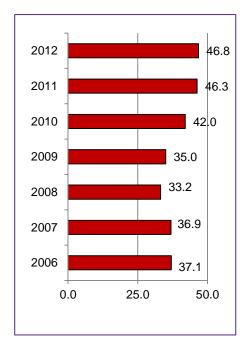
Risk Factors: Rate of Injury-Related ED Visits

Northwest Dallas Service Area



Rate of Injury-Related ED Visits

Rate of Injury-Related ED Visits, per 1,000, Northwest Dallas Service Area

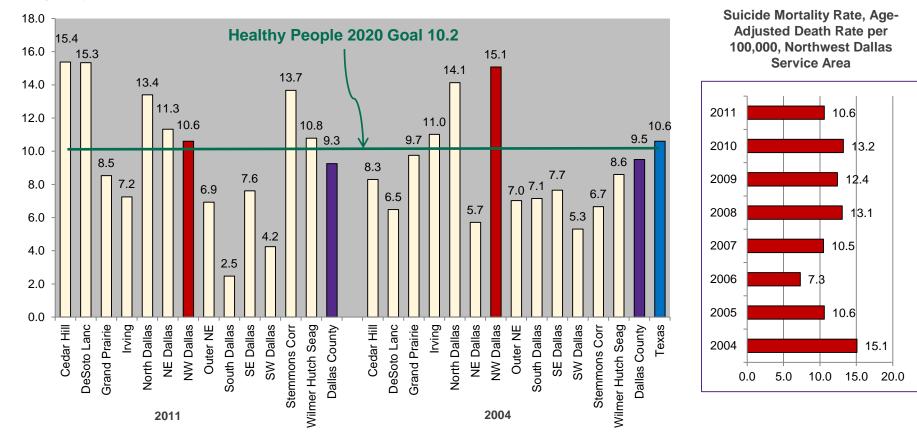


Source: DFWHC ERF Information Quality Services Center Regional Data, 2010. Dallas-Fort Worth Hospital Council Education and Research Foundation, Information and Quality Services Center, Irving, Texas. July 2013. Denominator population data from Claritas, Inc.



Age-Adjusted Deaths per 100,000

Parkland



Source: Texas Department of State Health Services, Bureau of Vital Statistics; denominator population data from US Census American Community Survey

21

Risk Factors: Homicide Mortality Rates

20.0

SW Dallas Stemmons Corr Wilmer Hutch Seag Dallas County

2004

7.2

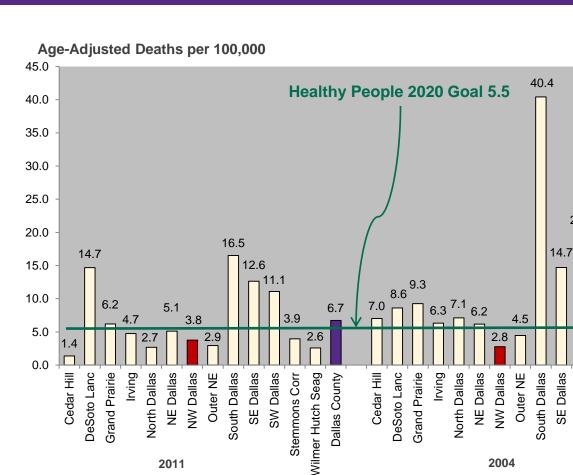
4.9

11.3

6.1

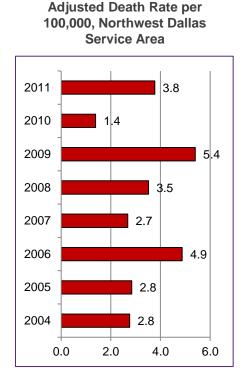
Texas

Northwest Dallas Service Area



Parkland

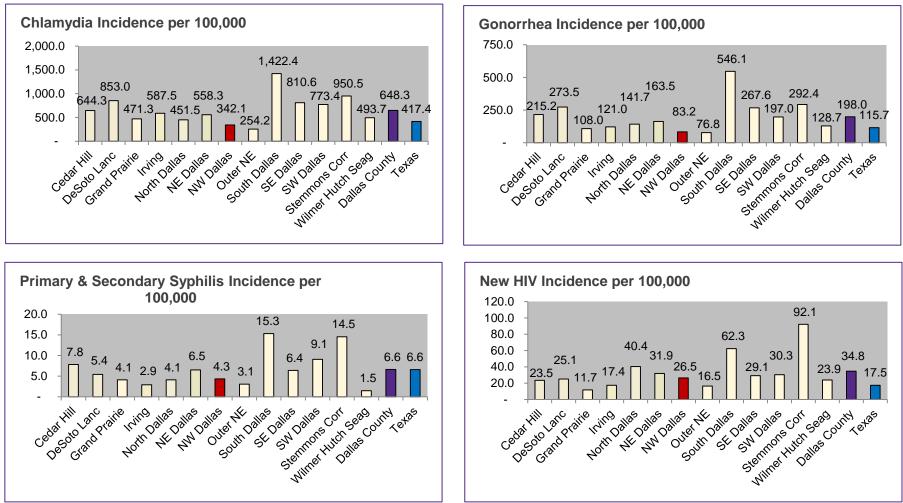
2011



Homicide Mortality Rate, Age-



Risk Factors: High Risk Sexual Behavior, Sexually Transmitted Disease Incidence Rates, 2011 *Northwest Dallas Service Area*

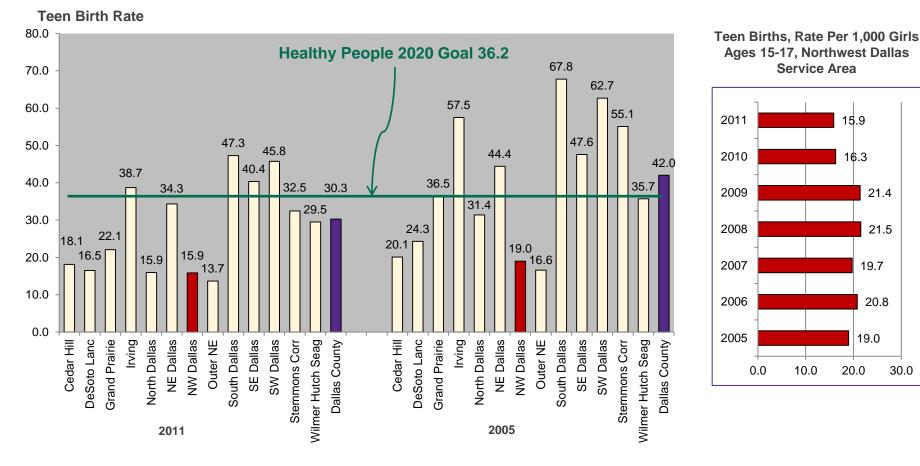


Source: Texas Department of State Health Services, Bureau of STD/HIV, unpublished data; Denominator population data from Claritas, Inc.; Dallas County and Texas Rates are from http://www.dshs.state.tx.us/hivstd/reports/STD2011.pdf and http://www.dshs.state.tx.us/hivstd/reports/HIV2011.pdf



Risk Factors: High Risk Sexual Behavior, Teen Birth Rates

Northwest Dallas Service Area



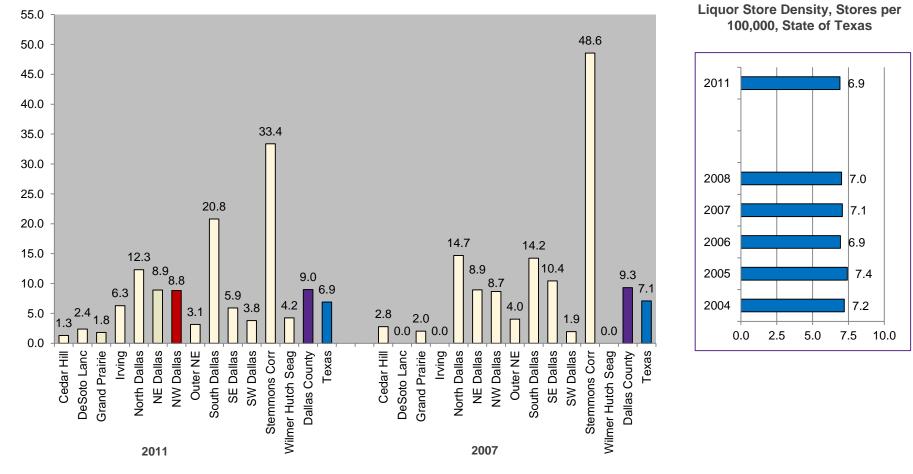
Source: Texas Department of State Health Services, Bureau of Vital Statistics; denominator population data from Claritas, Inc.



Risk Factors: Liquor Store Density, 2011

Northwest Dallas Service Area

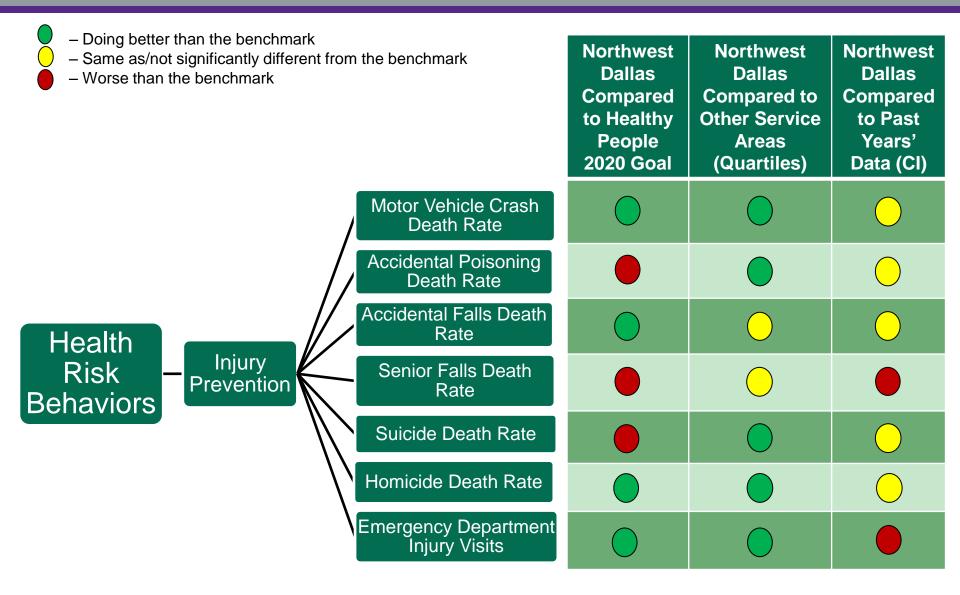




Source: US Census Bureau, 2011 County Business Patterns; denominator population data from US Census Bureau; 2007 from US Census Bureau, 2007 Economic Census; denominator population data from Claritas, Inc.; Dallas County and State of Texas data from US Census Bureau, NIACS annual business estimates



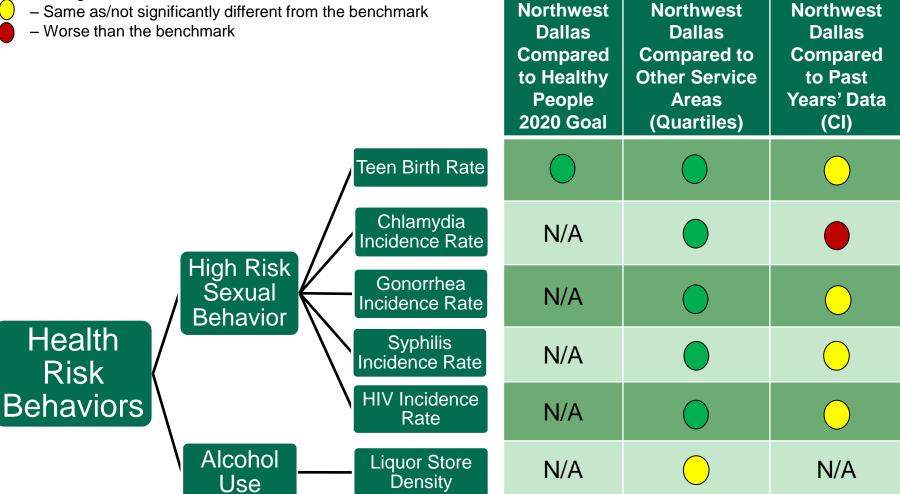
Health Risk Behaviors





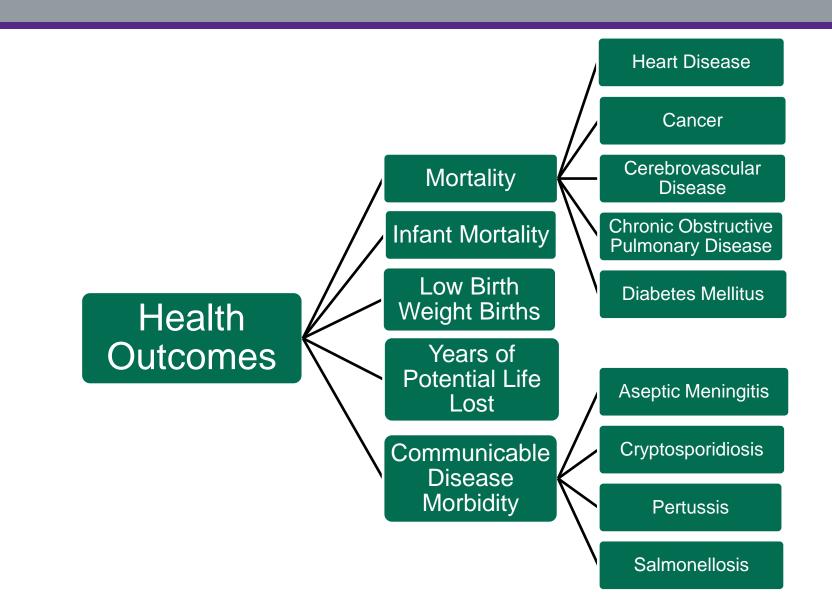
Health Risk Behaviors

- Doing better than the benchmark
- Same as/not significantly different from the benchmark
- Worse than the benchmark





Health Outcomes

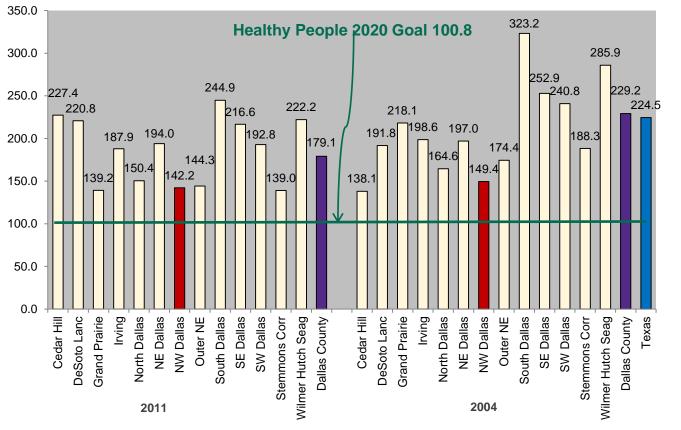




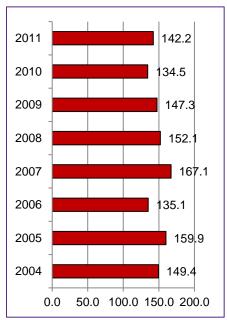
Health Outcomes: Heart Disease Mortality Rates

Northwest Dallas Service Area

Age-Adjusted Deaths per 100,000



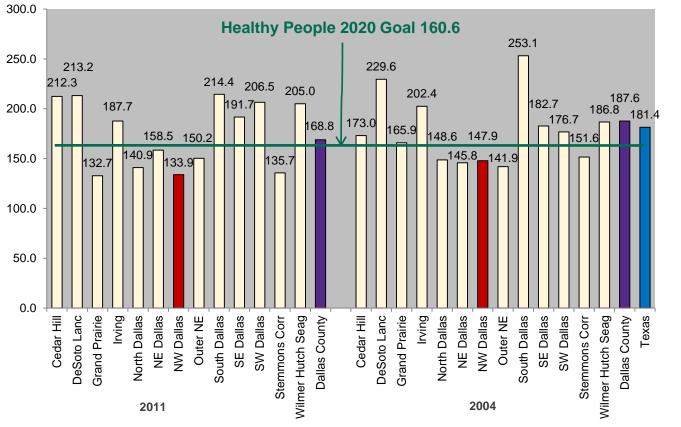
Heart Disease Mortality Rate, Age-Adjusted Death Rate per 100,000, Northwest Dallas Service Area



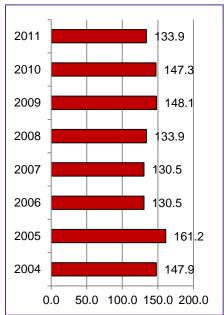


Health Outcomes: Cancer Mortality Rates Northwest Dallas Service Area

Age-Adjusted Deaths per 100,000



Cancer Mortality Rate, Age-Adjusted Death Rate per 100,000, Northwest Dallas Service Area

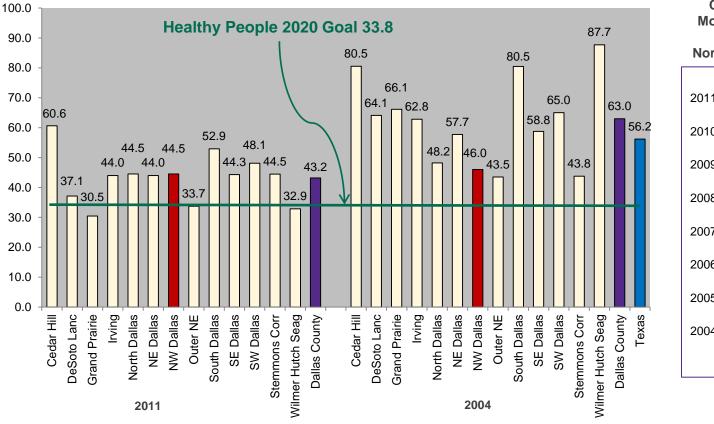


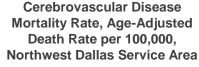


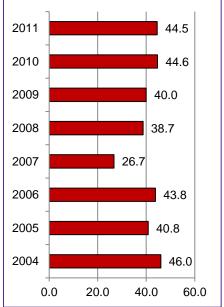
Health Outcomes: Cerebrovascular Disease Mortality Rates

Northwest Dallas Service Area

Age-Adjusted Deaths per 100,000







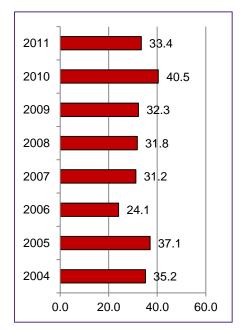


Health Outcomes: Chronic Obstructive Pulmonary Disease Mortality Rates Northwest Dallas Service Area

100.0 89.9 90.0 80.0 72.6 70.0 61.2 58.9 60.0 52.2 49.8 48.4 47.2 50.0 44.0 44.6 41.7 41.6 36.3 39.9 34.0 38.9 35.2 36.4 40.0 36.1 34.9 33.6 33.4 33.6 31.2 30.0 29.9 26.9 27.9 30.0 27.2 20.0 10.0 0.0 Irving Irving SW Dallas Cedar Hill Texas DeSoto Lanc **Grand Prairie** North Dallas NE Dallas NW Dallas Outer NE South Dallas SE Dallas Stemmons Corr Wilmer Hutch Seag Dallas County DeSoto Lanc **Grand Prairie** North Dallas NE Dallas NW Dallas Outer NE South Dallas SE Dallas SW Dallas Stemmons Corr Wilmer Hutch Seag Dallas County Cedar Hill 2011 2004

Age-Adjusted Deaths per 100,000

Chronic Obstructive Pulmonary Disease Mortality Rate, Age-Adjusted Death Rate per 100,000, Northwest Dallas Service Area



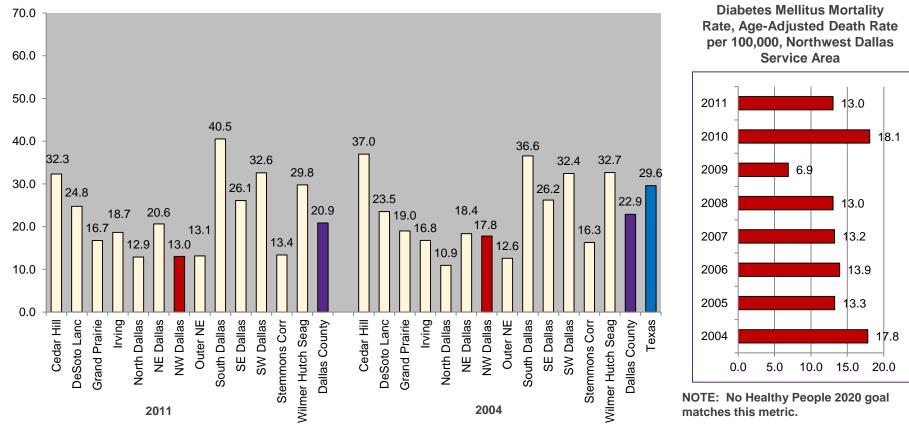
NOTE: No Healthy People 2020 goal matches this metric.



Health Outcomes: Diabetes Mortality Rates

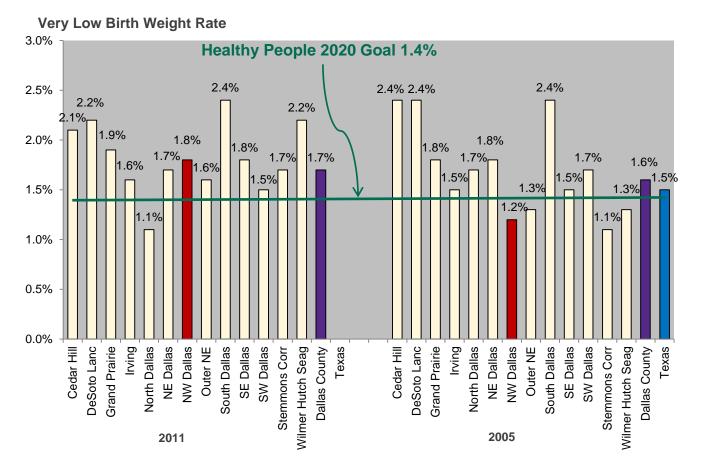
Northwest Dallas Service Area

Age-Adjusted Deaths per 100,000

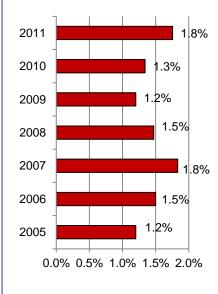




Health Outcomes: Birth Outcomes, Rate of Very Low Birth Weight Births Northwest Dallas Service Area



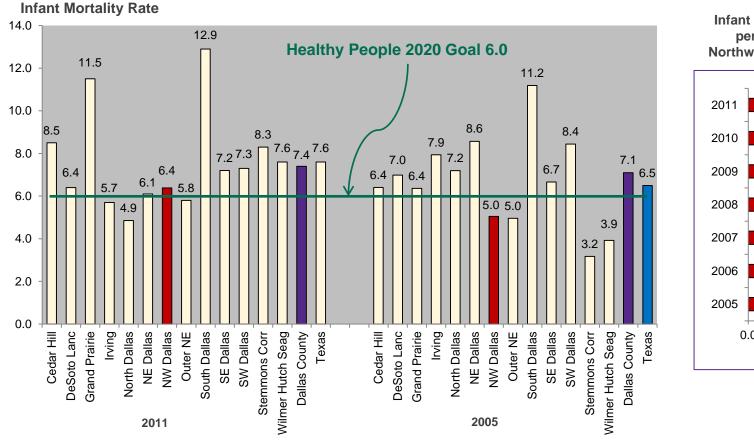
Very Low Birth Weight Rate, % of Births Below 1500 Grams at Birth, Northwest Dallas Service Area



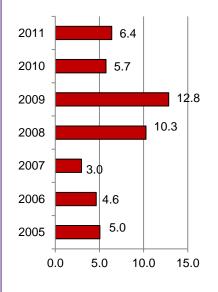


Health Outcomes: Birth Outcomes, Infant Mortality Rate

Northwest Dallas Service Area

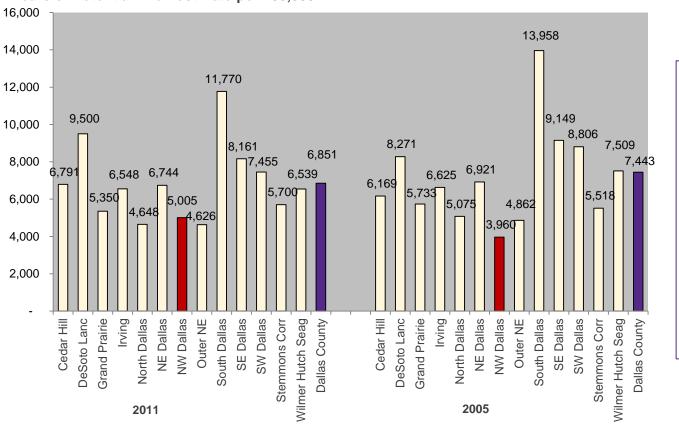


Infant Mortality Rate, Deaths per 1,000 Live Births, Northwest Dallas Service Area



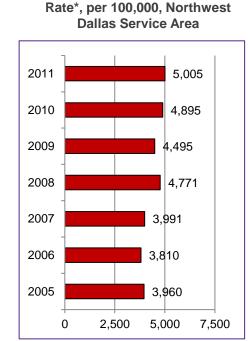


Health Outcomes: Years of Potential Life Lost, All Causes Northwest Dallas Service Area



Years of Potential Life Lost Rate per 100,000*

Source: Texas Department of State Health Services, Bureau of Vital Statistics; denominator population data from Claritas, Inc.



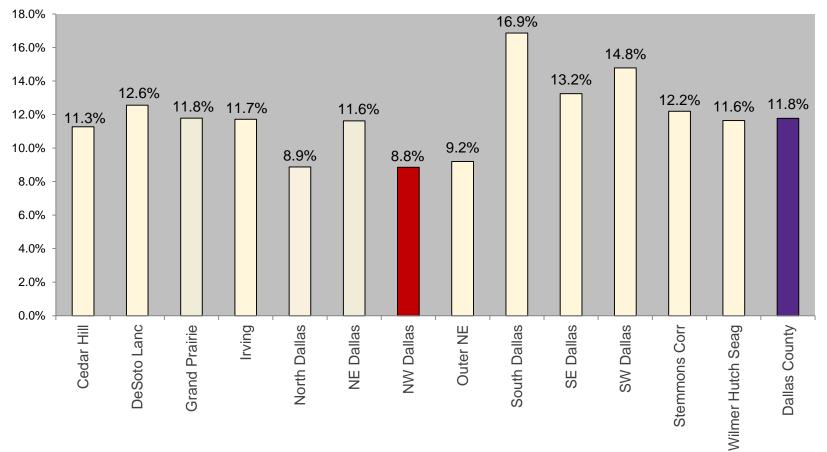
Years of Potential Life Lost

*Years of Potential Life Lost Rate is defined as the rate of deaths under age 75 per 100,000 population under age 75.



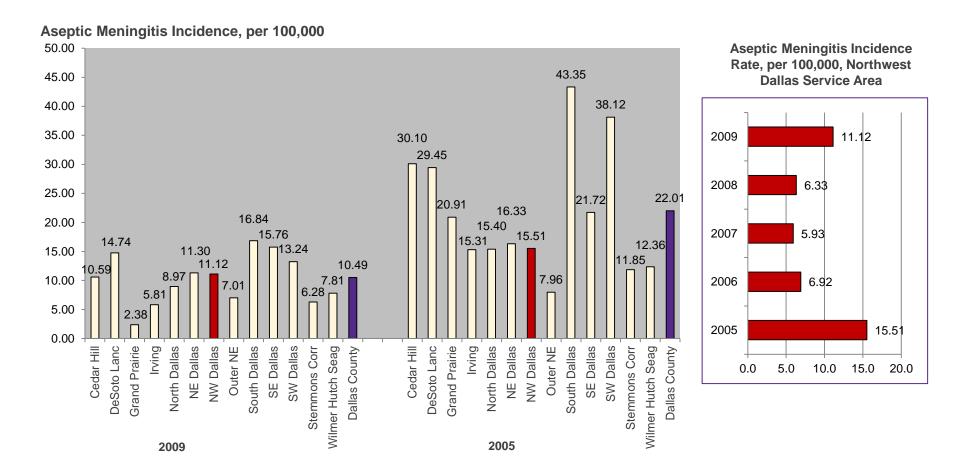
Health Outcomes: Estimated Diabetes Prevalence Rates (Diagnosed and Undiagnosed) Northwest Dallas Service Area

Diabetes Prevalence, percent



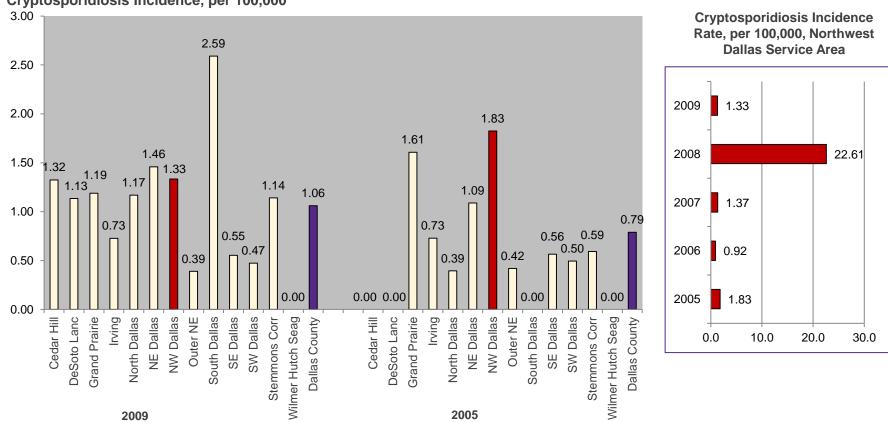
Source: US Diabetes Index, National Minority Quality Forum and Centers for Disease Control and Prevention, 2012; based on NHANES population prevalence estimates, 2010. Denominator population data 2010 from Nielson/Claritas, Inc. Pop Facts. Mid 2010 version





Source: Texas Department of State Health Services, Infectious Disease Control Unit, unpublished data; denominator population data from Claritas, Inc.; 2005 Dallas County data from Dallas County Health and Human Services web site: <u>http://www.dallascounty.org/department/hhservices/services/communicable/documents/ReportableConditions2003-07Annual.pdf</u>; 2005 Dallas County denominator population data from American Community Survey.

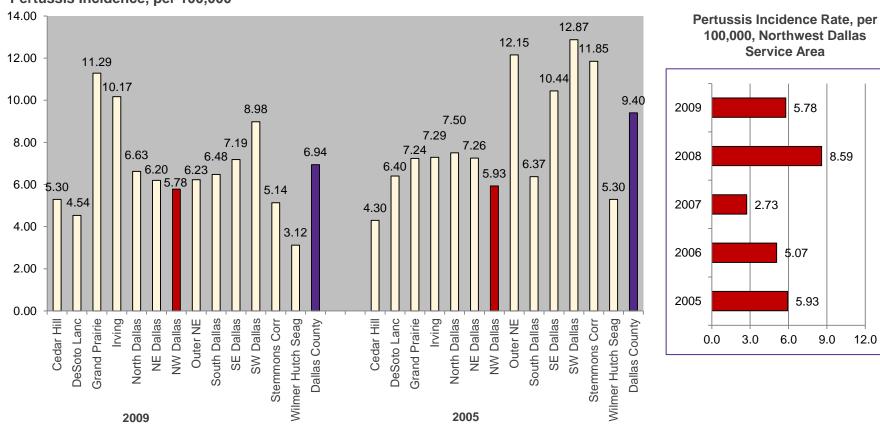




Cryptosporidiosis Incidence, per 100,000

Source: Texas Department of State Health Services, Infectious Disease Control Unit, unpublished data; denominator population data from Claritas, Inc.; 2005 Dallas County data from Dallas County Health and Human Services web site: http://www.dallascounty.org/department/hhservices/services/communicable/documents/ReportableConditions2003-07Annual.pdf: 2005 Dallas County denominator population data from American Community Survey.

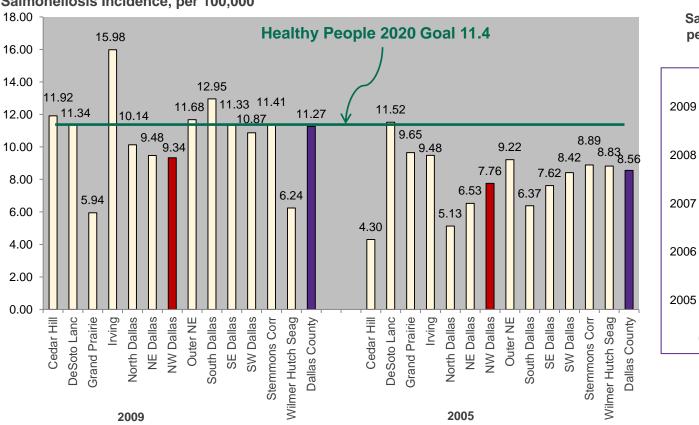




Pertussis Incidence, per 100,000

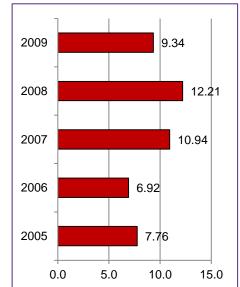
Source: Texas Department of State Health Services, Infectious Disease Control Unit, unpublished data; denominator population data from Claritas, Inc.; 2005 Dallas County data from Dallas County Health and Human Services web site: http://www.dallascounty.org/department/hhservices/services/communicable/documents/ReportableConditions2003-07Annual.pdf; 2005 Dallas County denominator population data from American Community Survey.





Salmonellosis Incidence, per 100,000

Salmonellosis Incidence Rate. per 100,000, Northwest Dallas Service Area



Source: Texas Department of State Health Services, Infectious Disease Control Unit, unpublished data; denominator population data from Claritas, Inc.; 2005 Dallas County data from Dallas County Health and Human Services web site: http://www.dallascounty.org/department/hhservices/services/communicable/documents/ReportableConditions2003-07Annual.pdf; 2005 Dallas County denominator population data from American Community Survey.



Health Outcomes

| Doing better than the benchmark Same as/not significantly different from the benchmark Worse than the benchmark | | Northwest Dallas Compared to Healthy People 2020 Goal | Northwest Dallas Compared to Other Service Areas (Quartiles) | Northwest Dallas Compared to Past Years' Data (CI) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------|
| Heart Diseas Death Rate | | | \bigcirc | \bigcirc |
| Health – Mortality | Rate | | | \bigcirc |
| Outcomes Cerebrovascu Disease Death | | | \bigcirc | |
| Chronic Obstruct Pulmonary Dise Death Rate | ease | N/A | | \bigcirc |
| Diabetes Death | Rate | N/A | \bigcirc | \bigcirc |

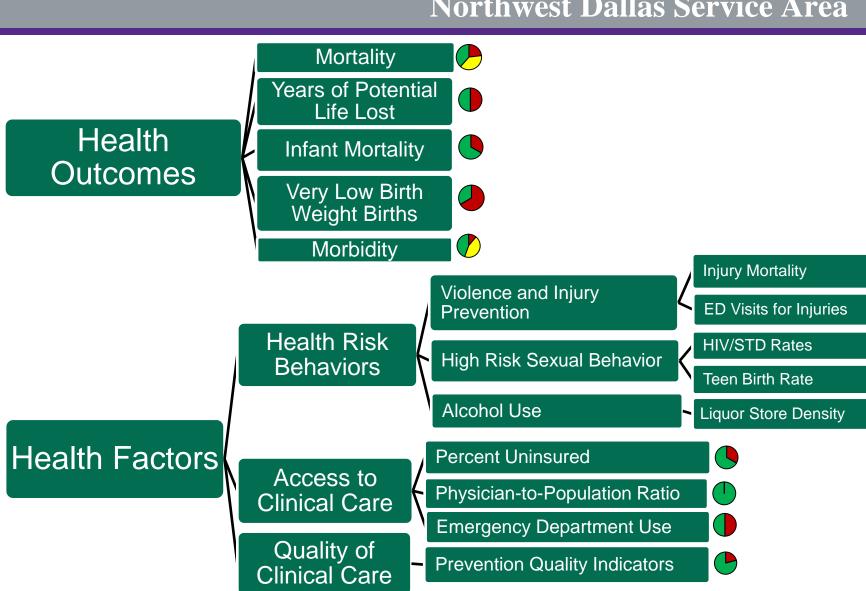


Health Outcomes

| Doing better than the Same as/not signification Worse than the benc | ntly different from the benchmark | Northwe Dallas Compare to Health People 2020 Go | ed Compared ny to Other Service | Northwest Dallas Compared to Past Years' Data (CI) |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------|
| | Infant Mort | ality Rate | | \bigcirc |
| Health Outcomes Communicable Disease Morbidity | Very Low Bi Birth F | | | |
| | Years of Pot Lost F | | \bigcirc | |
| | | Meningitis ace Rate | \bigcirc | \bigcirc |
| | ommunicable / Incider | ooridiosis N/A | | \bigcirc |
| | Morbidity Pertussis | Incidence N/A | | \bigcirc |
| | | nellosis nce Rate | \bigcirc | \bigcirc |

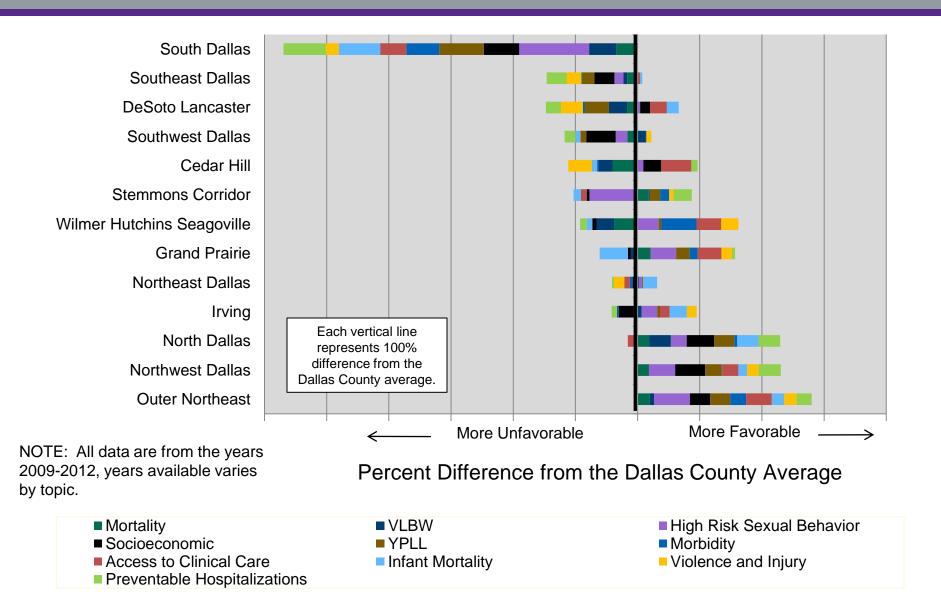
Summary – Model With Stoplight Pie Charts, Northwest Dallas Service Area

 $(\cap$





Parkland Deviations from the Dallas County mean





Methods of calculating deviations from the Dallas County mean for the preceding chart

- Mortality. For each service area and for Dallas County, add the 2011 age-adjusted death rates per 100,000 for the five leading causes of death, to
 get a single number. Calculate for each service area the percent deviation from the Dallas County total, from -infinity to +infinity. That deviation is
 the mortality deviation for the chart. Because heart disease and cancer predominate, this tends to over-weight these two causes compared to the
 other three (stroke, COPD and diabetes).
- Years of potential life lost. Using the Years of Potential Life Lost Rate per 100,000, calculate for each service area the percent deviation from the Dallas County YPLL rate, from -infinity to +infinity. That deviation is the YPLL deviation for the chart.
- Infant Mortality. Using the Infant mortality rate per 1,000 live births, calculate for each service area the percent deviation from the Dallas County infant mortality rate, from -infinity to +infinity. That deviation is the infant mortality deviation for the chart.
- Very Low Birth Weight. Using the Very Low Birth Weight rate per 1,000 live births, calculate for each service area the percent deviation from the Dallas County VLBW rate, from -infinity to +infinity. That deviation is the VLBW deviation for the chart.
- Morbidity. For each service area and for Dallas County, add the 2009 incidence rates per 100,000 for the four reportable diseases (aseptic meningitis, cryptosporidiosis, pertussis, salmonellosis), to get a single number. Calculate for each service area the percent deviation from the Dallas County total, from -infinity to +infinity. That deviation is the morbidity deviation for the chart. Meningitis and salmonellosis are more common, so this tends to over-weight them, although all are fairly rare in a population sense.
- Violence and Injury. Three steps:
 - For each service area and for Dallas County, add the 2011 age-adjusted death rates for the injury-related causes of death (motor vehicle crashes, poisoning, falls, suicide and homicide) and the age-specific seniors falls death rate (all of which are in units of deaths per 100,000), to get a single number. Calculate for each service area the percent deviation from the Dallas County total, from -infinity to +infinity.
 - Then using the rate per 100,000 of ED visits for injuries, calculate for each service area the percent deviation from the Dallas County rate, from -infinity to +infinity.
 - Calculate the arithmetic mean of these two percent deviations. That is the Violence and Injury deviation for the chart. This might over-weight ED visits somewhat, but it is qualitatively different from mortality.



Methods of calculating deviations from the Dallas County mean for the preceding chart

High Risk Sexual Behavior. Three steps:

- For each service area and for Dallas County, add the 2011 incidence rates for three non-HIV STDs (Chlamydia, gonorrhea and syphilis), to get a single number in units of cases per 100,000. Calculate for each service area the percent deviation from the Dallas County total, from -infinity to +infinity.
- Then using the rate of new HIV diagnoses per 100,000, calculate for each service area the percent deviation from the Dallas County rate, from -infinity to +infinity.
- Then using the rate of births to girls 15-17, per population of girls 15-17, calculate for each service area the percent deviation from the Dallas County rate, from infinity to +infinity.
- Calculate the arithmetic mean of these three percent deviations. That is the High Risk Sexual Behavior deviation for the chart. This might under-weight syphilis somewhat. Each category is given an the equal statistical weight (STDs, HIV and teen births), since they are qualitatively quite different we probably can't resolve that to everyone's satisfaction.
- Access to Clinical Care. For each service area and for Dallas County, add the 2011 percent of people without health insurance and rate of non-emergent ED user per 1000 population, then subtract the rate of primary care physicians per 100,000 population (since higher is better for this measure), to get a single number. Calculate for each service area the percent deviation of this total from the Dallas County total, from -infinity to +infinity. That deviation is the access to care deviation for the chart. Although these three measures are in different units, the values were in the range of 5-130 (in different units), such that the contributions of each of the three measures to the total was approximately equal.
- Quality of Clinical Care. There are 12 preventable hospitalization discharge rates for each service area, age-adjusted in units of discharges per 100,000. Some are more common, such as bacterial pneumonia (in the range of 100-400 discharges per 100,000), while some are more rare (around 5-10 per 100,000). So for each service area and for Dallas County, for each discharge category calculate the percent deviation from the Dallas County rate. Calculate the arithmetic average of these 12 deviations, that deviation is the quality of care deviation for the chart.
- Socioeconomic indicators. There are four socioeconomic indicators—percent age 65 or older, percent age birth to 14, percent of adults age 25+ without a high school diploma, percent of the population below the federal poverty limit. For each service area and for Dallas County, for each of these four indicators calculate the percent deviation from the Dallas County rate. Calculate the arithmetic average of these four deviations, that deviation is the socioeconomic deviation for the chart.





Age Adjusted Death Rates: Death rates that control for the effects in • population age distributions. The centers for Disease Control and Prevention established the standard population weights for direct age adjustments. The need for age adjustment becomes particularly important when cause-specific mortality is of interest. Unadjusted rates for chronic diseases (cardiovascular diseases, cancers, or chronic lower respiratory diseases) may appear to be higher for older populations when compared to a younger population. With age-adjustment those differences may be reduced or even reversed. A mechanism for adjusting the age structure differences is needed to determine if there really are mortality differences between two populations. By applying age-specific mortality rates to a standard population, direct standardization controls for differences in population composition. Mortality trends can be more accurately compared along geographic, temporal, or race/ethnicity lines, etc. In short, standardization lets us look at what the death rate would be in one population if that population had the same age structure as the standard population. Beginning with 1999 events, the United States year 2000 population is used as the standard for age-adjusting.