Community Health Needs Assessment:

Health and Behavioral Health Needs
Kinney County, Texas

Prepared by:

Community Development Initiatives,
Angelo State University

Principal Investigators:

Kenneth L. Stewart, Ph.D., Director, Community Development Initiatives
Susan McLane, Project Coordinator, Concho Valley Community Action Agency
Cera Cantu, Research Assistant, AmeriCorps VISTA

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This report is part of a comprehensive project to assess the Health and Behavioral Health Needs of vulnerable populations in a twenty-county region of West Texas. The region covers Coke, Concho, Crockett, Edwards, Irion, Kimble, Kinney, Mason, McCulloch, Menard, Mills, Reagan, Runnels, San Saba, Schleicher, Sterling, Sutton, Tom Green, Upton, and Val Verde counties. The set of project documents includes a report for each county and a comprehensive regional-level assessment.

Kinney County Courthouse - Brackettville, Texas

Methodist Healthcare Ministries of South Texas and the San Angelo Health Foundation provided support for this Community Health Needs Assessment for the people of Kinney County.

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PREFACE

Community Development Initiatives at Angelo State University prepared this Community Health Needs Assessment for the people of Kinney County, Texas. The assessment is the product of collaboration among Community Development Initiatives, the Concho Valley Community Action Agency, and many community champions and stakeholders of the twenty-county region covered in the comprehensive study of the Health and Behavioral Health Needs of the Extremely Poor in West Texas.

Community Development Initiatives is based on a belief that flourishing communities thrive on trust between individuals, organizations and institutions. Its mission is to link Angelo State University to West Texas communities through innovative community-based research in support of their development.

The Concho Valley Community Action Agency is a 501(c)3 nonprofit corporation founded in 1966 in response to War on Poverty legislation. Although programs and services have changed over the years, the purpose of fighting the causes of poverty in the Concho Valley has been constant. CVCAA's vision is a community free of barriers to self-sufficiency.

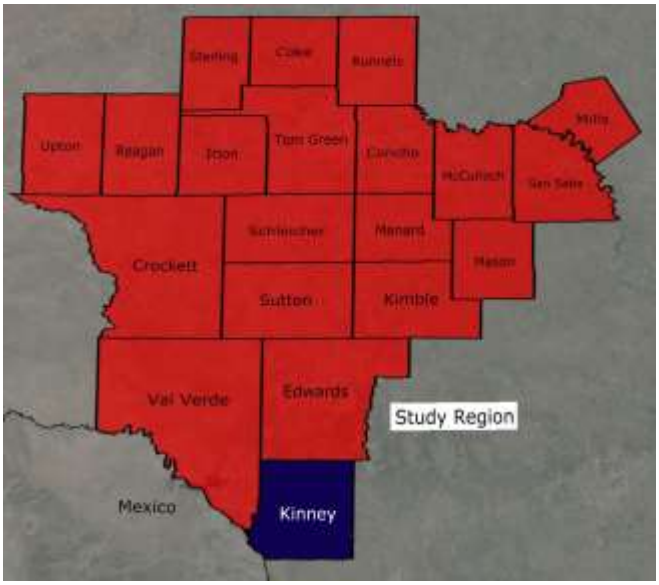
The purpose of the comprehensive study is to identify and prioritize health and behavioral health needs of the approximately 14,743 extremely poor individuals living in a twenty-county region covered by the project. The Kinney County Community Health Needs Assessment is a vital part of the regional project.

The research to assess the Health and Behavioral Health Needs of the Extremely Poor in West Texas was guided by a seven-member advisory group including:

- Mark Bethune, Concho Valley Community Action Agency
- Cera Cantu, AmeriCorps VISTA
- Tim Davenport-Herbst, St. Paul Presbyterian Church of San Angelo
- Dusty McCoy, West Texas Counseling & Guidance
- Susan McLane, Concho Valley Community Action Agency
- Sue Mims, West Texas Opportunities & Solutions
- Kenneth L. Stewart, Community Development Initiatives

The generous support of Methodist Healthcare Ministries of South Texas and the San Angelo Health Foundation made the comprehensive regional project and this Community Health Needs Assessment for the people of Kinney County possible.

INTRODUCTION



The project to assess Health and Behavioral Health Needs in West Texas employs a collaborative community-based research approach to evaluate the health status and situation of the vulnerable population groups in the study region. By definition, vulnerable populations are the most underserved by the health care system. They include individuals with the least education, low incomes, and members of racial or ethnic minority groups. People living in rural areas such as Kinney County are an important segment of the vulnerable populations in health care. The assessment includes the following:

1. A demographic profile featuring the vulnerable groups in the population. The profile integrates publicly available secondary demographic data.
2. A health status profile of community health and mental health care resources, utilization patterns, and morbidity and mortality rates.
3. Results of a survey of poor and extremely poor residents of selected counties in the southern part of the study region.
4. Identification and prioritization of health and behavioral health issues in Kinney County based on the prevalence, consequences, and impact of risk factors on health inequities, and the feasibility of communities acting toward solutions.

GENERAL DESCRIPTION OF THE KINNEY COUNTY COMMUNITY

Kinney County is a 1,360 square mile land area in the Rio Grande Plain region of West Texas. The state legislature authorized the formation of the county in 1850, and it was organized in 1874. There are three communities located in Kinney County: Brackettville, Fort Clark Springs, and Spofford. Brackettville, Texas is the county seat, which is located along U.S. Highway 90.

Less than one percent of the land in Kinney County is considered prime farmland. Instead, the primary agricultural industry is livestock. The county's economy since the Civil War had been largely dependent on cattle ranching, though as sheep and goat ranching gradually replaced cattle, wool and mohair became significant exports for Kinney County. Tourism has been increasingly important for the Kinney County economy, including hunters drawn by the county's large deer population.

Despite a period of steady growth and prosperity following the Civil War, thanks to rail access and increased numbers of soldiers at Fort Clark, Kinney County's economy plummeted during the Great Depression and did not recover until the Second World War's increased demand for wool and mohair for the defense industries. Otherwise, Kinney's sparse population and slow growth are characteristics that date back to its beginnings as a frontier settlement.

Table 1 reports private industry and employment for Kinney County in 2013. About 27 private industry establishments employed approximately 118 county residents at an average pay rate of $21,420. Private industry employees comprised approximately 9 percent of the county's 1,346 person labor force in 2013.[1]

Table 1
Kinney County Private Industry & Employment, 2013

North American Industry Classification System (NAICS) Sectors	Annual Average Establishment Count	Annual Average Employment	Percent Total Employment	Average Annual Pay
All private industries	27	118	100	$21,420
NAICS 11 Agriculture, forestry, fishing and hunting	14	22	19	$24,782
NAICS 62 Health care and social assistance	3	14	12	$34,199
NAICS 81 Other services, except public administration	10	82	69	$18,336

Source: US Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages, April 1, 2015: http://www.bls.gov/cew/

[1] The estimate of 1,346 labor force participants is from the US Census Bureau's 2009-2013 5-Year American Community Survey, retrieved October 15, 2015: http://factfinder.census.gov.

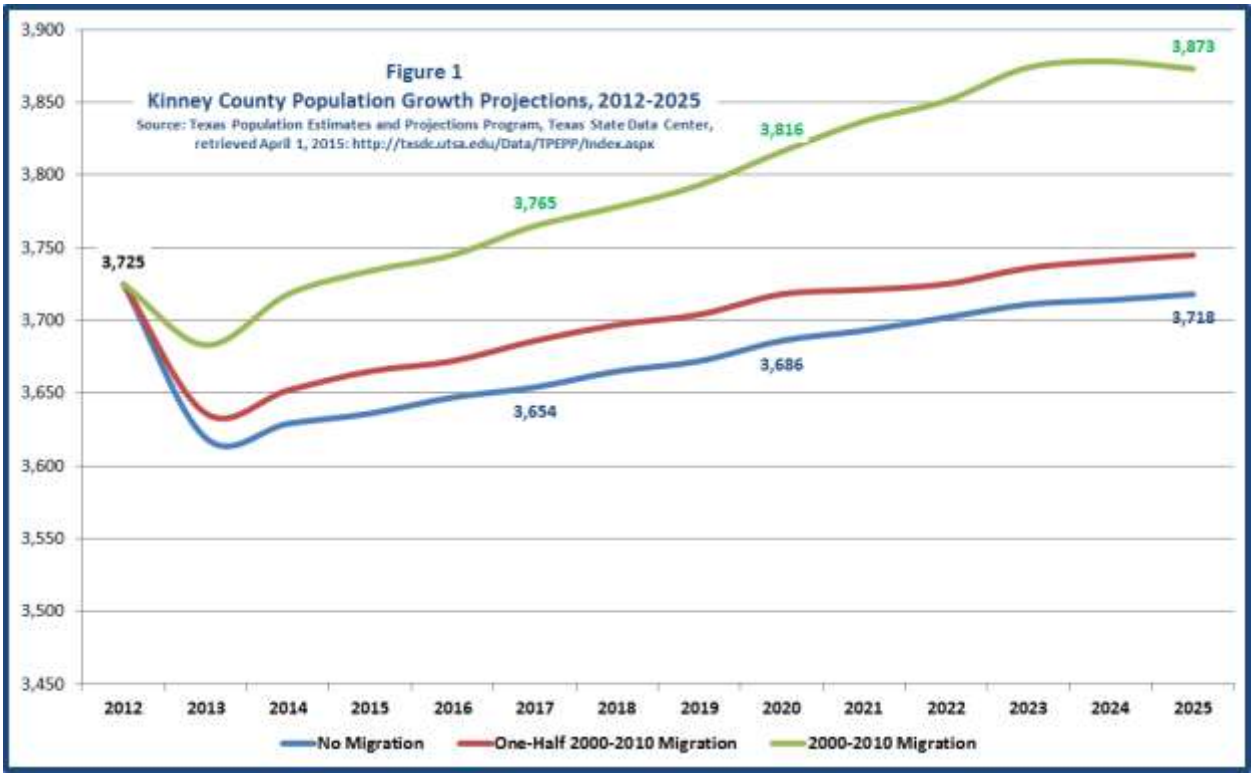
Table 1 indicates that in 2013, the large majority of private employment in Kinney County fell within the North American Industry Classification System (NAICS) sector for other services, except public administration (NAICS code 81). About 69 percent of the county's private industry employees worked in repair and maintenance, personal services, and private households, among others.[2] Many of these jobs bring in low wages, evidenced by the average annual pay of $18,336, or about 22 percent more than someone earning minimum wage.

The agriculture, forestry, fishing and hunting sector (NAICS 11) was the next largest private industry in Kinney County, comprising 19 percent of private employment. The annual average pay for this sector was $24,782, which is slightly higher than the average for all private employment in the county.

[2] The North American Industry Classification System (NAICS) defines the Other Services (except Public Administration) sector as: "[comprising of] establishments engaged in providing services not specifically provided for elsewhere in the classification system. Establishments in this sector are primarily engaged in activities, such as equipment and machinery repairing, promoting or administering religious activities, grantmaking, advocacy, and providing drycleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services." More information about this NAICS code and others is available at the Bureau of Labor Statistics, http://www.bls.gov/bls/naics.htm.

DEMOGRAPHICS

The Census Bureau's 2013 estimate of the Kinney County resident population is 3,586.[3] The most recent official Texas estimate from the State Demographer is 3,725 for 2012. In addition, the State Demographer developed three population projections based on varying assumptions about migration to and from the county in years ahead. Figure 1 depicts the State's official projections for population growth in Kinney County through 2025.



The highest growth projection (green line) is based on the assumption that migration in and out of the county is following the trend set between the decennial census counts in 2000 and 2010. This projection approximates the county gradually increase to 3,765 residents in 2017, 3,816 by 2020, and 3,873 for 2025 (an overall 4% gain from 2012-2015).

Vulnerable Populations

Kinney County has a "majority-minority" population as described in Table 2 below. The county's 2,098 Hispanic residents comprised the majority (56%) of the population in 2012 according to estimates of the State Demographer. Black citizens and other minorities added another 104 residents, bringing the total minority population to 59 percent.

[3] From US Census Bureau, Population Division, Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2013, retrieved October 15, 2015: http://factfinder.census.gov.

Table 2 Race & Ethnicity: 2012 Estimate with Projections to 2025								
Groups	2012		2017		2020		2025	
White, Non-Hispanic	1,523	41%	1,398	37%	1,335	35%	1,225	32%
Total Minority	2,202	59%	2,367	63%	2,481	65%	2,648	68%
Hispanic	2,098	56%	2,271	60%	2,384	62%	2,558	66%
Black	37	1%	38	1%	38	1%	35	1%
Other	67	2%	58	2%	59	2%	55	1%
Total Population	3,725	100%	3,765	100%	3,816	100%	3,873	100%

Source: Texas Population Estimates and Projections Program, Texas State Data Center, retrieved April 1, 2015: http://txsdc.utsa.edu/Data/TPEPP/Index.aspx. The forward projections for 2017, 2020, and 2025 reflect the State Demographer's high-growth assumption that migration will equal the rates of the 2000-2010 time period.

In addition, the State Demographer's projections indicate that Hispanic residents are likely to account for all of the county's population increase in the near future. The expectation is for the Hispanic segment of the community to steadily grow from 56 to 66 percent between 2012 and 2025. The White, Non-Hispanic group mirrors the Hispanic group's gains in loss of population, dropping from 41 percent in 2012 to 32 percent in 2025. Black and other minorities will see slight declines in their already small population numbers.

Children under age 18 (numbering 703) made up 19 percent of the county's population in 2012 according to State estimates. Youngsters of school attendance age (5-17 years) comprised 73 percent of the children, while preschoolers accounted for 27 percent.

Table 3 Children: 2012 Estimate with Projections to 2025								
Groups	2012		2017		2020		2025	
All Children (under age 18)	703	100%	691	100%	736	100%	772	100%
School-age children (ages 5-17)	516	73%	468	68%	505	69%	549	71%
Pre-school-age children (under 5)	187	27%	223	32%	231	31%	223	29%

Source: Texas Population Estimates and Projections Program, Texas State Data Center, retrieved April 1, 2015: http://txsdc.utsa.edu/Data/TPEPP/Index.aspx. The forward projections for 2017, 2020, and 2025 reflect the State Demographer's high-growth assumption that migration will equal the rates of the 2000-2010 time period.

The child population is expected to grow at a faster rate than the overall population from 2012-2025. While numbers of pre-school and school-age children will both increase by a similar magnitude by 2025, children under 5 will see a slight increase, and their older counterparts a slight decrease, as a percentage of the total child population by 2025.

The county was home to 973 senior citizens in 2012 according to State estimates. They comprised 26 percent of the total population. Hispanics (numbering 276) made up 28 percent of the senior residents in the county.

Table 4 Seniors: 2012 Estimate with Projections to 2025								
Groups	2012		2017		2020		2025	
Total Population	3,725	100%	3,765	100%	3,816	100%	3,873	100%
Seniors (65 & over)	973	26%	983	26%	1,025	27%	1,074	28%
Hispanic Seniors (65 & over)	276	28%	330	34%	385	38%	461	43%

Source: Texas Population Estimates and Projections Program, Texas State Data Center, retrieved April 1, 2015: http://txsdc.utsa.edu/Data/TPEPP/Index.aspx. The forward projections for 2017, 2020, and 2025 reflect the State Demographer's high-growth assumption that migration will equal the rates of the 2000-2010 time period.

Official State projections suggest a slight growth of the senior population to 28 percent by 2025. The population of Hispanic seniors is not only expected to rise significantly (from 276 to 461) between 2012 and 2025, their representation within the elder population would also see an increase of 15 percent.

There are 1.2 males in Kinney County for every female. Women and girls comprised 45 percent of the population according to the State Demographer's 2012 population estimates. Projections indicate the female population will increase minimally in number through 2025, but decline slightly as a segment.

Table 5 Females: 2012 Estimate with Projections to 2025								
Groups	2012		2017		2020		2025	
Total Population	3,725	100%	3,765	100%	3,816	100%	3,873	100%
Female (all ages)	1,691	45%	1,704	45%	1,715	45%	1,706	44%
Female (ages 13-17)	106	6%	76	4%	88	5%	88	5%
Hispanic Female (ages 13-17)	81	76%	54	71%	58	66%	66	75%

Source: Texas Population Estimates and Projections Program, Texas State Data Center, retrieved April 1, 2015: http://txsdc.utsa.edu/Data/TPEPP/Index.aspx. The forward projections for 2017, 2020, and 2025 reflect the State Demographer's high-growth assumption that migration will equal the rates of the 2000-2010 time period.

Girls age 13-17 are particularly vulnerable to risks of teen pregnancy and a range of associated factors. This segment of the population is projected to dip from six percent in 2012 to four percent in 2017, and then rising to 5 percent and remaining steady through 2025. Hispanic females comprised 76 percent of this age range (13-17) according to the 2012 population estimates.

COMMUNITY HEALTH RESOURCES

United Medical Centers (UMC) is a Federally Qualified Health Center that operates a health clinic and mobile dental clinic in Brackettville. The Brackettville facilities provide family medicine, podiatry, and dentistry for adults and children. The clinics care for uninsured, Medicare and Medicaid, and privately insured patients. UMC is accredited by the Joint Commission which certifies that services meet national ambulatory care and laboratory standards.[4]

Hospital Utilization, Revenue, and Charges

Kinney County does not have a hospital or hospital district. However, the Texas Department of State Health Services Public Use Files indicate that most Kinney County residents obtain hospital services from neighboring Uvalde and Val Verde counties, or farther away in San Angelo or San Antonio.[5]

Kinney residents made 383 inpatient visits to 36 providers in 2013, totaling $16.1 million in charges. The majority (52%) utilized two hospitals in neighboring counties: 27 percent at Uvalde Memorial Hospital, and 25 percent at Val Verde Regional Medical Center.

In addition, residents made 1,417 outpatient visits to 71 providers totaling $6.6 million in charges during 2013. Again, the majority (72%) sought care from two neighboring hospitals, 41 percent at Uvalde Memorial Hospital and 31 percent at Val Verde Regional Medical Center.

The Texas EMS & Trauma Registries report that Texas hospitals received 220 trauma patients from Kinney County over five years from 2010-2014. This computes to an average of 44 EMS trauma incidents per year. The most common were unintentional fall incidents at 53 percent.[6]

Other Health Care Resources

Kinney County EMS provides Emergency Medical Services (EMS) to for the county. Kinney County EMS was granted one of 36 variances in 2013 by the Department of State Health Services, indicating hardship regarding the nearest available service, geography, demography,

[4] Joint Commission, Quality Check, Retrieved October 28, 2015: http://www.qualitycheck.org/consumer/searchQCR.aspx.

[5] Inpatient and Outpatient Public Use data files from the Department of State Health Services provides discharge information from only Texas facilities.

[6] Data provided by the Injury Epidemiology & Surveillance Branch from the Texas EMS & Trauma Registries, Texas Department of State Health Services, June, 2015. Since the data is based on incoming trauma patients to hospitals, the reported incidents may or may not have been handled by EMS services operated by Kinney County EMS.

or other relevant factors.[7] The Kinney Volunteer Fire Department, which operates with 15-20 volunteers, assists with emergency medical calls.

A recent assessment of services across rural West Texas details major challenges facing EMS in Kinney County and other rural parts of the study region. The "Assessment of Rural West Texas Emergency Medical Services" was conducted by the F. Marie Hall Institute for Rural and Community Health at Texas Tech University Health Sciences Center (TTUHSC) in 2013.[8] The assessment featured a 23 item telephone interview with 176 EMS service representatives. The interviews covered EMS personnel, service areas, wages, training, funding, equipment, and distances to trauma facilities. The study found the following challenges shared by many rural EMS providers:

- Funding: Rural EMS services often rely on unstable revenue streams. State funding is allocated by formulas that include the trauma service area size, population, and number of runs submitted to the State EMS/Trauma Registry. Oil and gas companies operating in rural areas sometimes give donations or help buy emergency equipment. Some rural services depend on funds from local foundations, farmers, and ranchers.
- Equipment: The 2013 Assessment identified 539 ambulances in the 108 county area served by TTUHSC. Ambulances in rural areas were generally older; some were as old as 27 years at the time of the study. The combination of distances traveled and vehicle maintenance deficiencies linked to breakdown issues during transport. Failing road systems also complicate this issue.
- Distances: In addition to wear and tear on ambulance vehicles, distances in West Texas represent obstacles for EMS personnel licensing and continuing education training opportunities. Distance obstacles to education and training are particularly challenging for keeping paramedics (essential personnel for Medical Intensive Care service) in rural West Texas.
- Personnel: The TTUHSC Assessment estimated 3,685 practicing EMS providers in its 108 county area in 2013. At the same time, The Department of State Health Services listed 6,748 licensed providers in the same area. This suggests that as many as half of the

[7] Chapter 773, Subchapter A, Section 052 of the Health and Safety Code allows volunteer emergency services providers with a hardship to apply for a variance, or exemption, from minimum staffing and equipment standards; for instance, the requirement of two certified personnel on an ambulance when responding to a call. Some providers struggle to find enough volunteers to staff an ambulance 24 hours a day, and therefore apply for a variance to respond with just one certified person. See "Variances granted in 2013," *Texas EMS Magazine*, March-April 2013 Issue, http://www.dshs.state.tx.us/emstraumasystems/mag.shtm.

[8] F. Marie Hall Institute for Rural and Community Health, "Assessment of Rural West Texas Emergency Medical Services," Texas Tech University Health Sciences Center, Lubbock Texas, retrieved May 27, 2015: http://www.ttuhsc.edu/ruralhealth/.

officially licensed personnel in rural West Texas counties may not be practicing due to retirement, career changes, change in residence, or other factors.

In Kinney County specifically, 2014 data from the Department of State Health Services counts 11 EMS professionals. This yields a population ratio of 332 residents per EMS specialist; an unfavorable population ratio compared to 295 residents per specialist in the 20-county study area, though favorable compared to 438 for Texas overall.

Kinney is one of 19 counties served by Hill Country Mental Health and Developmental Disabilities (MHDD) Centers based in Kerrville. Hill Country MHDD maintains two satellite offices in Del Rio that serve Kinney County, one providing access to mental health services and another for intellectual and developmental disability (IDD) service access.[9]

Table 6
Selected Health Professionals by Geography, 2014

Licensed or Certified Professionals	Number in Kinney County (3,652 Population)	Ratio of Population per Professional	Number in 20 County Study Region (239,529 Population)	Ratio of Population per Professional	Number in Texas (26,581,256 Population)	Ratio of Population per Professional
Certified Nurse Aides	5	730	1,879	127	124,616	213
Dentists	0	No Supply	70	3,422	12,767	2,082
Dieticians	0	No Supply	33	7,258	4,668	5,694
Emergency Medical Services	11	332	812	295	60,690	438
Licensed Chemical Dependency Counselors	0	No Supply	87	2,753	9,285	2,863
Licensed Professional Counselors	0	No Supply	158	1,516	20,655	1,287
Licensed Vocational Nurses	5	730	1,197	200	77,624	342
Marriage and Family Therapists	0	No Supply	12	19,961	3,149	8,441
Medication Aides	0	No Supply	139	1,723	10,012	2,655
Occupational Therapists	0	No Supply	45	5,323	7,914	3,359
Optometrists	0	No Supply	18	13,307	3,272	8,124
Pharmacists	5	730	146	1,641	23,561	1,128
Physical Therapists	0	No Supply	109	2,198	13,136	2,024
Physician Assistants	1	3,652	51	4,697	6,543	4,063
Physicians (Direct Patient Care)	2	1,826	357	671	47,289	562
Primary Care Physicians	2	1,826	168	1,426	19,277	1,379
Psychiatrists	0	No Supply	12	19,961	1,971	13,486
Promotores (Community Health Workers)	4	913	15	15,969	2,032	13,081
Psychologists (All)	0	No Supply	43	5,570	7,382	3,601
Registered Nurses	6	609	1,696	141	206,027	129
Advanced Practice (APRN)	0	No Supply	119	2,013	15,194	1,749
Social Workers	0	No Supply	117	2,047	19,536	1,361
Total Selected Health Professionals	41	89	7,283	33	696,600	38

Source: Texas Department of State Health Services, Supply and Distribution Tables for State-Licensed Health Professions in Texas, retrieved May 26, 2015: http://www.dshs.state.tx.us/chs/hprc/health.shtm.

Table 6 depicts the supply of key health professionals in Kinney County according to 2014 Department of State Health Services data. Based on population ratios, it appears the county is well supplied with low-level personnel such as promotores (community health workers), while it is undersupplied with advanced practitioners such as physicians and registered nurses. Kinney County joins many rural West Texas areas with no advanced professionals for oral (dentists) or

[9] See Hill Country MHDD Centers at http://hillcountry.org/default.asp.

behavioral health (psychiatrists, psychologists). As of 2014, the data indicate two physicians and one physician assistant residing in Kinney County.

HEALTH STATUS

Family and Maternal Health

The Census Bureau's 2009-2013 5-Year American Community Survey estimated 805 resident families residing in Kinney County. The county has many positive indicators of family and maternal health. For instance, the county's rates of divorce, abortion, child abuse, and intimate violence are much lower than comparable rates for the 20-county study region and the state (see Table 7).

Table 7
Kinney County Family and Maternal Health Indicators*

Indicator	Kinney County	Study Region	Region 9	Texas
Divorce Rate (Annual Divorces as a Percent of Annual Marriages)	4.0	43.2	No Data	45.0
Percent Women Age 15 & Over who are Currently Divorced	9.3	12.4	No Data	12.2
Single-Parent Families (Percent of All Families)	5.8	13.1	No Data	15.6
Teen Pregnancy Rate (Pregnancies per 1,000 Females Age 13-17)	30.8	25.3	30.5	21.4
Teen Birth Rate (Births to Mothers Age 13-17 per 1,000 Same Age Females)	25.4	23.1	28.1	18.4
Abortion Rate (Abortions as a Percent of Pregnancies among Females Age 15-44)	8.3	9.8	9.0	15.6
Percent Births to Unmarried Mothers (Female Population Age 15-44)	45.8	44.6	45.9	42.3
Child Abuse Rate* (Confirmed Incidents of Abuse per 1,000 Children)	2.7	12.9	13.8	9.5
Intimate Violence Rate (Incidents of Family Violence & Sexual Assault per 1,000 Population)	1.1	9.4	No Data	8.0

* All ratios and percents, except the Child Abuse Rate, cover 2008-2012. The Child Abuse Rate is for 2010-2014.
Sources: All calculations of rates and percents were performed by Community Development Initiatives at Angelo State University using data on Divorce, Teen Pregnancy, Teen Birth, and Abortion from Vital Statistics, Texas Department of State Health Services, retrieved, June 9, 2015: http://www.dshs.state.tx.us/. The Child Abuse Rate was calculated using data from the Annual Data Books, Texas Department of Family and Protective Services, retrieved June 9, 2015: http://www.dfps.state.tx.us/. Estimates of Single-Parent Families and Percent Divorced Women were computed using data from the US Census Bureau, American Community Survey 2009-2013 5 Year Data, retrieved June 9, 2015: http://factfinder.census.gov/. Intimate Violence Rates were derived from data at Crime in Texas, Texas Department of Public Safety, retrieved June 9, 2010: http://www.txdps.state.tx.us.

Rates of teen pregnancy and birth, on the other hand, may be maternal health issues of concern for Kinney County. Over the years 2008-2012, both rates exceeded comparable rates for the state. The county rates of teen pregnancy and birth were also higher than similar rates for the study region.

Potentially Preventable Hospitalizations

Hospitalizations that would likely not occur if an individual had accessed and cooperated with appropriate outpatient healthcare are termed potentially preventable hospitalizations. The State of Texas initiative to reduce potentially preventable hospitalizations works to improve health while diminishing the cost of health care.

The Texas Department of State Health Services estimates that potentially preventable hospitalizations for just ten identifiable health conditions generated $49 billion in hospital charges between 2008 and 2013. Some $386 million of these charges were incurred by residents of the 20-county study region.

Table 8
Potentially Preventable Hospitalizations for Adult Residents of Texas, 2008-2013

Potentially Preventable Hospitalizations	Kinney County			Study Region			Texas		
	Number	Average Charge	Per Capita Charge	Number	Average Charge	Per Capita Charge	Number	Average Charge	Per Capita Charge
Bacterial Pneumonia	41	$22,402	$309	3,572	$20,816	$437	280,079	$36,925	$530
Dehydration	0	$0	$0	936	$3,222	$30	91,238	$21,706	$101
Urinary Tract Infection	0	$0	$0	1,916	$8,880	$114	204,853	$25,282	$265
Angina (without procedures)	0	$0	$0	66	$1,452	$1	13,743	$24,987	$17
Congestive Heart Failure	51	$22,296	$382	3,580	$22,942	$421	326,337	$41,191	$689
Hypertension (High Blood Pressure)	0	$0	$0	463	$1,927	$8	65,973	$25,365	$85
Chronic Obstructive Pulmonary Disease or Older Adult Asthma	52	$17,326	$303	2,857	$15,320	$264	253,148	$31,674	$411
Diabetes Short-term Complications	0	$0	$0	466	$2,952	$11	63,954	$26,913	$88
Diabetes Long-term Complications	0	$0	$0	1,285	$9,768	$86	134,630	$46,872	$323
All Hospitalizations	144	$20,531	$993	15,141	$21,483	$1,371	1,433,955	$34,178	$2,512
Total Charges, 2008-2013		$2,956,503			$386,127,532			$49,010,136,451	

Source: Potentially Preventable Hospitalizations, Center for Health Statistics, Texas Department of State Health Services, retrieved June 12, 2015: http://www.dshs.state.tx.us/ph/.

Kinney County residents recorded approximately 144 potentially preventable hospitalizations between 2008 and 2013. Hospital charges for the county's 2008-2013 preventable hospitalizations added up to nearly $3.0 million; the equivalent of an average charge of $993 per adult resident of the county.

Bacterial pneumonia, congestive heart failure and chronic obstructive pulmonary disease (COPD) are conditions that prompted the preventable hospitalizations in Kinney County.[10]

Leading Causes of Death

The Department of State Health Services recorded 178 deaths from all causes among Kinney County residents between 2008 and 2012. This computes to a five-year crude death rate of 47.8 deaths per 1,000 residents based on the 2012 population estimate. This is higher than the Texas

[10] The Department of State Health Services recommends a combination of outpatient clinical and public health interventions to help reduce potentially preventable hospitalizations. See the recommended interventions at http://www.dshs.state.tx.us/ph/interventions.shtm.

rate of 32 per 1,000 over the same time frame. It is slightly higher than the rate of 45.6 per 1,000 for the 20-county study region.

Table 9
Leading Causes of Death in Kinney County, 2008-2012

Causes of Death	Deaths	Crude Death	Study Region	Texas Rate*
Malignant Neoplasms (ICD-10 Codes C00-C97)	56	15.0	9.6	7.0
Diseases of the Heart (ICD-10 Codes I00-I09, I11, I13, I20-I51)	34	9.1	9.5	7.4
Chronic Lower Respiratory Diseases (ICD-10 Codes J40-J47)	13	3.5	2.7	1.7
Cerebrovascular Diseases (ICD-10 Codes I60-I69)	11	3.0	2.3	1.8
Diabetes Mellitus (ICD-10 Codes E10-E14)	7	1.9	1.5	1.0

*All rates in the table express the number of deaths per 1,000 residents based on the estimated population for 2012. They are crude rates, not adjusted for age or other demographic characteristics.
Source: Texas Department of State Health Services, retrieved June 23, 2015: http://www.dshs.state.tx.us/ chs/datalist.shtm.

Table 9 lists the five leading causes of death among Kenney County residents for the period 2008-2012. The county's crude death rate is higher than the state for all five. The county has higher death rates than the study region on four of the five leading causes.

SURVEY OF THE POOR AND EXTREMELY POOR IN WEST TEXAS

The Census Bureau's 2009-2013 5-Year American Community Survey data approximates that 11,706 residents of Edwards, Kinney, and Val Verde counties, the southern-most counties in the 20-county study region, are living below the federal poverty level. This computes to a poverty rate of 22.2 percent for these three southern counties combined. Moreover, the Census Bureau data indicates that some 3,655 or 31.2 percent of these residents are extremely poor, living with incomes less than half the poverty level.[11]

Between April and September 2015, Angelo State University's Community Development Initiatives and 72 organizations collaborated to complete detailed interviews with poor and extremely poor residents of the 20 counties in the study region.[12] A total of 597 interviews were completed, including 147 with residents of the three southern counties in the study region: Edwards, Kinney, and Val Verde counties.[13] Respondents from the three southern counties had self-reported household incomes below the applicable federal poverty level. Approximately 40 percent were extremely poor with incomes equal to or below half of the applicable poverty level. They ranged in age from 18 to 83 with an average age of 50.3 years. About 71 percent were female. See Table 10 below for a summary of sample characteristics.

A schedule of questions covering health, behavioral health, and dental health topics was developed for the interviews. The Behavioral Risk Factor Surveillance System (BRFSS) surveys, conducted by state health departments in partnership with the Centers for Disease Control and Prevention (CDC), served as a model for questions.[14] Indeed, the three-page questionnaire yielded 31 indicators which closely parallel similar items in the 2013 BRFSS results for Texas.

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[11] The combined rates of poverty and extreme poverty for the three counties were computed by Angelo State University's Community Development Initiatives based on data from the US Census Bureau, American Community Survey, 2009-2013 5-Year Estimates, retrieved October 2, 2015: http://factfinder.census.gov/.

[12] Residents were defined as extremely poor for the purposes of the interviews if their self-reported household income was near 50 percent or less of the applicable federal poverty level for 2015. They were deemed to be poor if self-reported household income was near or below the applicable 2015 poverty level. Based on the results of the 2009-2013 five-year combined samples of the Census Bureau's American Community Survey, we estimated that approximately 14,743 extremely poor individuals reside in the 20-county study region. See the US Census Bureau's 2009-2013 5-Year American Community Survey at http://factfinder.census.gov.

[13] The number of interviews conducted in the respective counties was proportional to the estimated total of extremely poor population from the American Community Survey. Based on the American Community Survey, for instance, we estimated that 24.8% of extremely poor individuals in the study region resided in the southern counties of Edwards, Kinney, and Val Verde. Reflecting this, we conducted 147 or 24.6% of the interviews in these counties.

[14] BRFSS interviews are conducted by telephone. In contrast, the interviews for this project were conducted by trained community-based interviewers in a face-to-face informal format. More information on the BRFSS is available at http://www.cdc.gov/brfss/index.html. Information on Texas participation and results for the BRFSS is at http://www.dshs.state.tx.us/chs/brfss/default.shtm.

Table 10 Sample Characteristics*		
County of Residence		
Edwards	5	3.4%
Kinney	19	12.9%
Val Verde	123	83.7%
Poverty Status		
Severely poor	59	40.1%
Poor	82	55.8%
Gender		
Male	42	28.6%
Female	104	70.7%
Ethnicity		
Not Hispanic	16	10.9%
Hispanic	130	88.4%
Age		
18-29	19	13.2%
30-39	24	16.7%
40-49	22	15.3%
50-64	44	30.6%
65 & Over	35	24.3%
Average Years of Age		50.3
Years of Schooling		
Less than 12	75	52.8%
12 or More	67	47.1%
Average Years of Schooling		9.5
Household Composition		
Single Person	15	10.2%
Single Parent	25	17.0%
Couples with Children**	39	26.5%
Couples without Children**	37	25.2%
Other***	31	21.1%
Average Household Size		3.0

*The sample size in the south counties was 147. Some frequencies and percentages reported do not sum to 147 or 100% because of missing data for selected variables.

**Couples may be married couples or unmarried partners.

***Other households includes small numbers of respondents living with their parents, grandparents living with grandchildren, persons living with extended relatives, and persons living with roommates.

The results in Table 11 below apply only to the southern counties (Edwards, Kinney, and Val Verde) of the study region. The table compares results from the Survey of the Poor and Extremely Poor to BRFSS estimates of health risk among the total adult populations of the south counties and the state overall. The first row of the table, for instance, reports that 55 individuals or 37.4 percent of the 147 survey participants from Edwards, Kinney, and Val Verde counties said they were limited by poor mental, physical, or emotional health conditions. Texas BRFSS results from a similar question[15] asked in 2013 estimate that only 13.7 percent of all adult residents in the three counties share this risk of impairment.

Table 11
Health Risks of the Poor and Extremely Poor in South Counties with BRFSS Comparisons

Risk Indicators	Survey Results: South Counties*			BRFSS Risk Comparisons**	
	Sample	Population at Risk	Percent at Risk	South Counties	Texas
Limited by poor physical, mental, or emotional health conditions	147	55	37.4	13.7	11.6
Could not see a doctor because of cost during past 12 months	147	81	55.1	21.0	19.3
Diagnosed high blood pressure	147	77	52.4	35.8	31.2
Diagnosed heart disease	147	13	8.8	7.3	5.7
Diagnosed stroke	147	9	6.1	4.5	2.5
Diagnosed COPD (including emphysema, chronic bronchitis)	147	21	14.3	5.0	5.4
Diagnosed arthritis, rheumatoid arthritis, gout, lupus, fibromyalgia	147	45	30.6	23.8	20.7
Diagnosed depression (major, chronic, minor)	147	44	29.9	15.1	16.0
Diagnosed kidney disease	147	12	8.2	2.0	3.1
Diagnosed diabetes	147	43	29.3	14.5	10.9
Diagnosed diabetes, not checking blood glucose or sugar daily	43	30	69.8	44.3	39.1
Morbidly Obese BMI => 35	147	41	27.9	12.0	12.7
Current smoker	147	34	23.1	18.6	15.9
Current smokeless tobacco user				7.6	4.3
Binge drinking	147	26	17.7	14.4	16.7
Difficult to access fresh fruits & vegetables	147	25	17.0	8.8	7.7

*These columns report the Survey of the Poor and Extremely Poor in West Texas combined results for Edwards, Kinney, and Val Verde counties.
**These columns include results from the Texas BRFSS conducted by the Texas Department of State Health Services in 2013. The BRFSS estimates reported for the South Counties are risk-adjusted by Community Development Initiatives at Angelo State University to account for the specific demographic characteristics of Edwards, Kinney, and Val Verde counties.

The 15 risk indicators featured in Table 11 were selected because the Survey of the Poor and Extremely Poor suggests that the level of risk for these factors is at least 10 percent higher for the target group than the total adult population in the southern counties. Indeed, based on the comparisons to the BRFSS estimates, the vulnerable poor and extremely poor population experiences elevated risks that range from 21 percent higher (for being diagnosed with heart disease) to 301 percent higher (for being diagnosed with kidney disease).

Other significant findings from the Survey of the Poor and Extremely Poor add context to some of the elevated risks indicated in Table 11. For instance, the 55.1 percent of southern county poor and extremely poor residents who reported not seeing a doctor because of cost indicates

[15] The similar item in the BRFSS was a more formal question asking whether respondents were kept from normal activities for five or more days in the past 30 days by poor mental or physical health.

an elevated cost barrier to health care. Results from the survey expand on this by indicating that 41.5 percent of survey respondents lack health insurance. This compares to the Census Bureau's 2013 estimate that 36.9 percent of all adults age 18-64 in Edwards, Kinney, and Val Verde counties are uninsured.[16]

The survey findings also indicate that 83 percent of the poor and extremely poor do not have dental insurance; 69.4 percent do not have a regular dentist; 31.7 percent have not had a routine dental checkup within the past five years; and 42.9 percent never had dental cleaning or x-rays.

In addition to the apparent lack of access to preventative dental care, the survey shows other serious obstacles to preventative medicine among poor and extremely poor residents of the south counties. For instance, 36.5 percent of poor and extremely poor females reported never having a mammogram or Pap smear. Including men and women, 68 percent said they never had a colon/rectal exam.

Still other survey findings shine additional light on the indication in Table 11 of a 98 percent higher risk of poor and extremely poor adults being diagnosed with depression. Sizeable proportions of survey respondents also reported always, often, or sometimes feeling a fulfilling life is impossible (44.2%); avoiding situations out of nervousness, fear, or anxiety (54.4%); and feeling alone or not having much in common with people (43.5%).

Finally, Table 11 indicates that 17 percent of the poor and extremely poor in the southern counties have difficulty accessing grocery stores with fresh fruits and vegetables. This suggests a 93 percent higher level of food insecurity compared to the BRFSS estimate of 8.8 percent lacking such access in the overall adult population. Additional indications of insecure living conditions among the poor and extremely poor include a high percentage of respondents using food assistance services in the past 12 months (63.3%); homelessness within the past five years (13.6%); accidental injury in the past year (15.6%); and use of housing assistance (14.3%) and TANF (11.6%) within the past year.

[16] US Census Bureau, Small Area Health Insurance Estimates, retrieved September 29, 2015: http://www.census.gov/did/www/sahie/.

IDENTIFICATION AND PRIORITIZATION OF HEALTH NEEDS

Identification of Community Health Needs

The previous sections of this report summarize the findings relating to Kinney County from primary and secondary data collected by community-based participants in a comprehensive project to assess the Health and Behavioral Health Needs of vulnerable populations in a 20-county region of West Texas. The following data provide a foundation for identifying pertinent community health needs in Kinney County:

- Demographic Trend Data: Demographic projections of population growth in Kinney County were reviewed. Growth trends for vulnerable population groups were included in the review.
- Health Care Resources: Data and information on the supply of health care professionals, community clinics, nursing homes, home health agencies, and mental health services were reviewed.
- Family and Maternal Health: Indicators of family composition, domestic abuse data, and maternal health were reviewed.
- Potentially Preventable Hospitalizations: Data on hospitalization of Kinney County residents that might have been avoidable if individuals accessed and complied with relevant preventative and outpatient healthcare services were reviewed.
- Leading Causes of Death: Data on leading causes of death were used to identify specific diseases associated with higher death rates in Kinney County compared to the state.
- Survey of the Poor and Extremely Poor in West Texas: Original survey data was reviewed in conjunction with Texas BRFSS data to identify elevated health and behavioral health risks among the poor and extremely poor population of Edwards, Kinney, and Val Verde counties.

It is important at this point to assert the community-wide and regional focus of this study of the health needs of vulnerable populations in the 20-county study region of West Texas. With this perspective at the forefront, the needs assessment has made every effort to use data to identify needs of community-level importance which, in many instances, can only be addressed through cooperative, collective community action. Analysis of the data from the community level focus leads to the following summary list of identified needs for Kinney County:

1. Needs of children and seniors.
   Increase capacity to address health needs of growing numbers of children and seniors.
2. Quality of EMS.
   Continue to improve the quality of EMS in the county by creating more access to EMS training opportunities

3. Shortage of core health professionals.
   Create a collaborative community effort to recruit and retain one or more health professionals in core shortage areas including:
   - Physicians, Physician Assistants, or Nurse Practitioners
   - Dentists
   - Psychiatrists or Psychologists
4. Access to dental care.
   Increase capacity and access to quality dental care, especially by poor and extremely poor residents and households.
5. Nursing home capacity.
   Increase the capacity for quality nursing home care.
6. Behavioral health.
   Increase capacity and access to quality behavioral health resources.
7. Teen pregnancy.
   Mobilize a collaborative community effort to reduce teen pregnancies.
8. Preventative actions.
   Increase emphasis on preventative actions in treatment, case management, and community outreach and education to reduce preventable hospitalizations, re-hospitalizations, and mortality from:
   - Heart disease and cerebrovascular diseases
   - Cancer
   - Complications arising from diabetes
   - Influenza and pneumonia
   - COPD
9. Preventative outreach to the poor and extremely poor.
   Increase community capacity to reach the poor, extremely poor, and other vulnerable groups with preventative actions to:
   - Reduce obesity
   - Reduce cost barriers to treatment
   - Improve case management and outreach
   - Provide education to promote healthy living and wellness
10. Food, housing, and neighborhood security.
    Increase the security of poor and extremely poor individuals and households by:
    - Increasing access to nutritious foods
    - Increasing affordable housing in safe neighborhood environments

11. Investment in community health needs.
    Continue to improve the community collaborative campaign to increase revenue to invest in addressing community health needs; consider developing an EMS special district and/or hospital district; pursue other funding sources.

Prioritization of Community Health Needs

A prioritization instrument was used to facilitate a priority ranking of the identified health needs. Key informants and stakeholders reviewed the instrument at a series of community forums during October 2015. Invitations were sent to county judges and county officials, mayors and city officials, law enforcement officials, hospital/clinic administrators and key personnel, mental health leaders, dentists, health departments, church leaders, service organization leaders, school administrators and key personnel, chambers of commerce, and significant employers. Two events were held in San Angelo, one in Brady, and one in Del Rio.

Access to preview copies of the previous sections of this report, including the above list of identified needs, were subsequently distributed via e-mail to key informants and stakeholders interested in Kinney County. The informants and stakeholders also received an e-mail invitation and link to respond to the online instrument. Key informants and stakeholders responded from November 13 to December 14, 2015.

The prioritization instrument provided an opportunity for key informants and stakeholders to rank the health needs identified by the study for Kinney County. Respondents ranked the needs based the specified criteria. A total of 11 responses ranking the identified needs for Kinney County were returned.

Respondents ranked the identified community health needs on four criteria. A score between 1 and 5 was assigned for each criterion. The four criteria were presented to respondents as follows:

- Prevalence: How many people are potentially affected by the issue, considering how it might change in the next 5 to 10 years?

    5 - More than 25% of the community (more than 1 in 4 people)
    4 - Between 15% and 25% of the community
    3 - Between 10% and 15% of the community
    2 - Between 5% and 10% of the community
    1 - Less than 5% of the community (less than 1 in 20 people)

- Significance: What are the consequences of not addressing this need?

    5 - Extremely High
    4 - High
    3 - Moderate
    2 - Low
    1 – Minimal Consequences

- Impact: What is the impact of the need on vulnerable populations?

    5 - Extremely High
    4 - High
    3 - Moderate
    2 - Low
    1 - Minimal Impact

- Feasibility: How likely is it that individuals and organizations in the community would take action to address this need?

    5 - Extremely High
    4 - High
    3 - Moderate
    2 - Low
    1 - Minimal

Table 12 reports the results of the prioritization of needs in Kinney County. The needs are listed in the rank order reflected in the adjusted averages on the right side of the table. The adjusted averages emphasize the importance of needs that respondents viewed as the most feasible ones for the community take action upon.

The adjusted average for each need is based on the separate average scores assigned by respondents for prevalence, significance, impact, and feasibility. To emphasize the practicality of community action, however, the average for feasibility is given double-weight according to the following formula:

Adjusted Average = [prevalence score + significance score + impact score + (feasibility score x 2)] ÷ 4

Thus, the first row of Table 12 shows the average prevalence score was 4.64 on the five-point scale. The averages for significance, impact, and feasibility were 4.36, 4.64, and 4.09

respectively. Applying the formula yields an adjusted average of 5.45. The top ranked need in Kinney County is an increased emphasis on preventative actions to reduce diabetes.

Table 12
Prioritization of Kinney County Community Health Needs

Community Health Need	Respondents	Prevalence	Significance	Impact	Feasibility	Adjusted Average
Increase emphasis on preventative actions (screening, treatment, case management, outreach & education) to reduce Diabetes	11	4.64	4.36	4.64	4.09	5.45
Increase community capacity to reach vulnerable groups with preventative actions to reduce Obesity	11	4.55	4.55	4.64	4.00	5.43
Create an engaged process for recruiting & retaining core health professionals including Dentists	11	4.45	4.36	3.55	4.55	5.36
Increase capacity to address health needs of Children & Seniors	11	4.64	4.55	4.27	3.73	5.23
Increase community capacity to reach vulnerable groups with preventative actions to reduce Cost & Other Barriers to treatment	11	4.45	4.50	4.45	3.73	5.22
Create an engaged process for recruiting & retaining core health professionals for Primary Care, including Physicians, Physician Assistants & Nurse Practitioners	11	4.55	4.36	4.27	3.82	5.20
Create an engaged process for recruiting & retaining core health professionals including Psychiatrists & Psychologists	11	4.45	4.36	4.36	3.82	5.20
Increase community capacity to reach vulnerable groups with preventative actions to promote Healthy Living & Wellness	11	4.45	4.40	4.50	3.73	5.20
Increase community capacity to reach vulnerable groups with preventative actions to improve Case Management & Outreach	11	4.36	4.30	4.45	3.82	5.19
Increase capacity and access to quality Behavioral Health resources	11	4.45	4.45	4.27	3.73	5.16
Increase the Food Security of vulnerable populations by increasing access to nutritious foods	11	4.36	4.36	4.18	3.82	5.14
Increase revenue to invest in addressing community health needs, including consideration of an EMS special district and/or hospital district as well as other funding sources	11	4.45	4.30	4.27	3.73	5.12
Increase capacity and access to quality Dental Care, especially by poor and extremely poor residents and households	11	4.64	4.36	4.36	3.55	5.11
Increase the Residential Security of vulnerable populations by increasing affordable housing in safe neighborhood environments	11	4.45	4.18	4.09	3.73	5.05
Mobilize a collaborative community effort to reduce Teen Pregnancies	10	4.27	4.18	4.09	3.70	4.99
Increase emphasis on preventative actions (screening, treatment, case management, outreach & education) to reduce Heart & Vascular Diseases	11	4.36	4.18	4.18	3.55	4.95
Increase emphasis on preventative actions (screening, treatment, case management, outreach & education) to reduce Cancer	11	4.36	4.18	4.09	3.55	4.93
Increase emphasis on preventative actions (screening, treatment, case management, outreach & education) to reduce COPD	11	4.09	4.18	4.00	3.45	4.80
Increase emphasis on preventative actions (screening, treatment, case management, outreach & education) to reduce Influenza & Pneumonia	11	4.09	4.00	4.00	3.55	4.80
Increase the capacity for quality Nursing Home care; improve the quality of EMS by creating more access to EMS training	21	4.05	3.95	3.77	3.52	4.71

Other high ranking items for Kinney County include:

- Increasing community capacity to reach vulnerable groups to address health needs of children and & seniors, and conduct preventative actions to reduce obesity, to reduce cost and other barriers to treatment, to improve case management and outreach, and to promote healthy living and wellness.
- Creating an engaged process for recruiting and retaining core health professionals including dentists, primary care professionals, and psychiatrists and psychologists.