

Community Health Needs Assessment:

Health and Behavioral Health Needs

Val Verde 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 20-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.



Val Verde County Courthouse – Del Rio, 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 Val Verde County.

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PREFACE

Community Development Initiatives at Angelo State University prepared this Community Health Needs Assessment for the people of Val Verde 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. Community Development Initiatives led the research project.

The Concho Valley Community Action Agency (CVCAA) 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. CVCAA served as the fiscal agent for the project.

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 Val Verde 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 six-member advisory group including:

- Mark Bethune, Concho Valley Community Action Agency
- 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 Val Verde 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 border areas such as Val Verde County comprise important segments 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 Val Verde 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 VAL VERDE COUNTY COMMUNITY

Val Verde County comprises 3,150 square miles in southwestern Texas on the Mexican border. The county is a plateau cut by many arroyos and canyons, giving deep relief to the topography. Soils are dark, calcareous stony clays and clay loams. Del Rio, the county seat, is 154 miles west of San Antonio.



Today, Del Rio features itself as a main-line rail freight switching point with international air services through a designated Port of Entry for Customs and Immigration inspection. With its neighboring border city, Ciudad Acuña, the area hosts more than 50 maquiladora plants. The Del Rio Chamber of Commerce highlights wage levels in Ciudad Acuña as being among the lowest in Mexico.¹

Texas Workforce Commission employment data for 2013-2014 shows employment in Val Verde County increasing at a faster rate than the overall state in natural resources and mining, as well as information, education, and health services jobs. The Commission rates the county below the average level of economic diversity compared to counties across the state.²

Table 1 reports private industry and employment for Val Verde County in 2013. More than 730 private industry establishments employed approximated 11,256 county residents at an average pay rate of \$27,539. Private industry employees comprised approximately 52 percent of the county's 21,853 person labor force in 2013.³

The importance of the health care sector is demonstrated by the 23 percent of private industry employment in NAICS code 62 (health care and social assistance) establishments. This made the sector the county's largest source of private employment. However, no single sector dominates the employment picture in Val Verde County.⁴

¹ "Industry Information," Del Rio Chamber of Commerce, retrieved September 3, 2015: <http://www.drchamber.com/Industry>.

² County Narrative Profiles, Texas Workforce Solutions, retrieved September 3, 2015: <http://socrates.cdr.state.tx.us/CNP/index.asp>.

³ The estimate of 21,853 labor force participants is from the US Census Bureau's 2009-2013 5-Year American Community Survey, retrieved September 3, 2015: <http://factfinder.census.gov>.

⁴ The largest location quotient for employment in Val Verde County was 1.5 for NAICS sector 48-49, indicating that employment in transportation and warehousing was about 1 and ½ times more concentrated than the nationwide level.

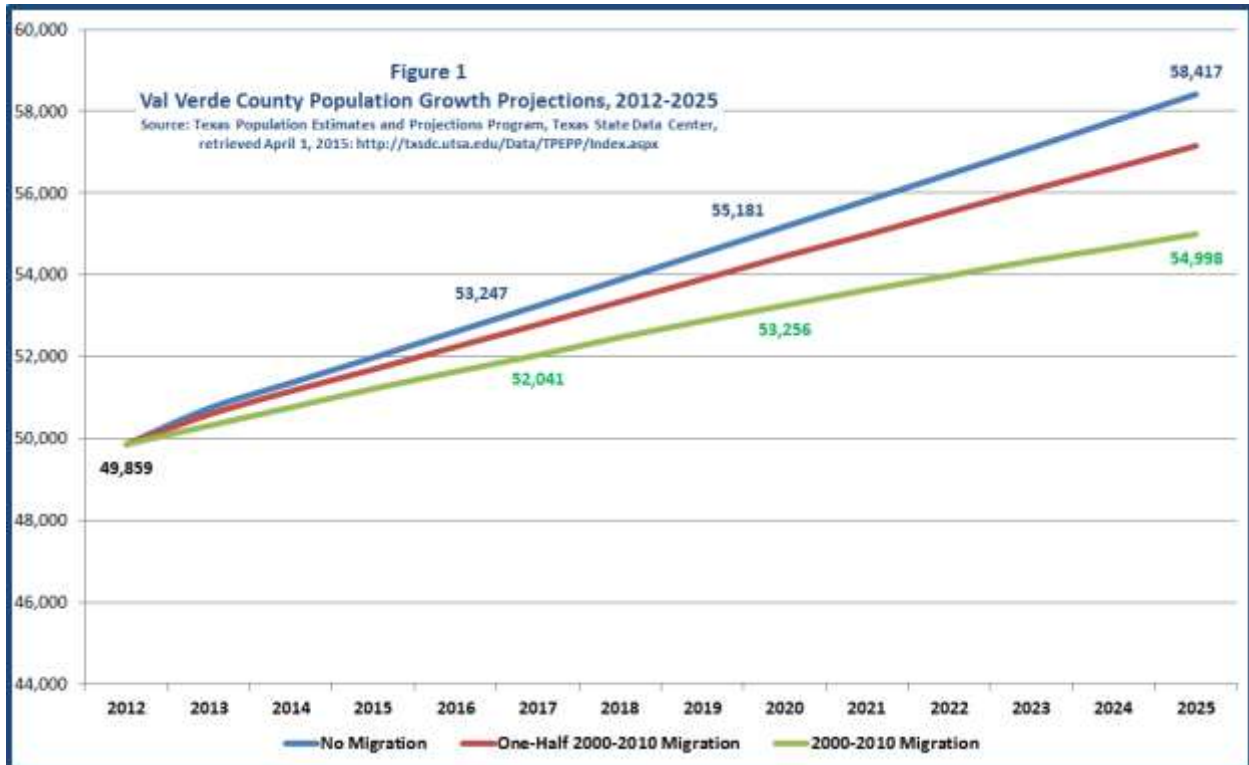
**Table 1
Val Verde County Private Industry & Employment, 2013**

North American Industry Classification System (NAICS) Sectors	Annual Average Establishment Count	Annual Average Employment	Percent Total Employment	Average Annual Pay
All private industries	732	11,256	100	\$27,539
NAICS 23 Construction	68	372	3	\$41,638
NAICS 31-33 Manufacturing	31	2,002	18	\$30,542
NAICS 44-45 Retail trade	145	2,016	18	\$24,350
NAICS 48-49 Transportation and warehousing	57	792	7	\$46,428
NAICS 51 Information	11	140	1	\$31,017
NAICS 52 Finance and insurance	56	481	4	\$34,529
NAICS 53 Real estate and rental and leasing	35	164	1	\$40,336
NAICS 54 Professional and technical services	44	215	2	\$38,300
NAICS 56 Administrative and waste services	33	594	5	\$27,839
NAICS 61 Educational services	6	90	1	\$28,952
NAICS 62 Health care and social assistance	82	2,613	23	\$25,665
NAICS 71 Arts, entertainment, and recreation	6	36	0	\$14,232
NAICS 72 Accommodation and food services	85	1483	13	\$13,555
NAICS 81 Other services, except public administration	72	257	2	\$18,821
NAICS 99 Unclassified	1	1	0	\$23,480

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

DEMOGRAPHICS

The Census Bureau's 2014 estimate of the Val Verde County resident population is 48,974.⁵ The most recent official Texas estimate from the State Demographer is 49,859 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 Val Verde County through 2025.



The highest growth projection (blue line) is based on the assumption that migration in and out of the county will lead to no net gain or loss of population.⁶ This projection approximates the county will reach 53,247 residents in 2017, 55,181 by 2020, and 58,417 for 2025 (an overall 17% gain from 2012-2025). Nearly all population increase in the county is likely to result from natural increase (the difference between births and deaths).

⁵ From US Census Bureau, Population Division, Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2013, retrieved September 3, 2015: <http://factfinder.census.gov>.

⁶ IRS data is roughly consistent with the "no migration" scenario. Tax returns indicate an 8.2 percent out-migration flow from Val Verde County between the filing seasons for 2010 and 2011. This was matched by a 7.2 percent in-migration flow to the county. This suggests a one year reduction of one percent resulting from migration. See County Narrative Profiles, Texas Workforce Solutions, retrieved September 3, 2015: <http://socrates.cdr.state.tx.us/CNP/index.asp>.

Vulnerable Populations

Val Verde County has a majority Hispanic population as depicted in Table 2 below. The county's more than 40,000 Hispanic residents comprised 80 percent of the population in 2012 according to estimates of the State Demographer.

Table 2 Race & Ethnicity: 2012 Estimate with Projections to 2025								
Groups	2012		2017		2020		2025	
White, Non-Hispanic	8,578	17%	8,773	16%	8,774	16%	8,696	15%
Total Minority	41,281	83%	44,474	84%	46,407	84%	49,721	85%
Hispanic	40,107	80%	43,216	81%	45,099	82%	48,363	83%
Black	583	1%	617	1%	641	1%	669	1%
Other	591	1%	641	1%	667	1%	689	1%
Total Population	49,859	100%	53,247	100%	55,181	100%	58,417	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.

The Demographer's projections also indicate that the majority status of Hispanic residents is likely to continue with increased numbers in the near future. The expectation is for the Hispanic segment of the community to grow steadily to 83 percent by 2025. The county's Non-Hispanic White population is expected shrink to 15 percent in 2025.

Children under age 18 (numbering 14,741) made up nearly 30 percent of the county's population in 2012 according to State estimates. Youngsters of school attendance age (5-17 years) comprised 71 percent of the children, while preschoolers accounted for 29 percent.

Table 3 Children: 2012 Estimate with Projections to 2025								
Groups	2012		2017		2020		2025	
All Children (under age 18)	14,741	100%	15,673	100%	16,280	100%	17,419	100%
School-age children (ages 5-17)	10,488	71%	10,818	69%	11,269	69%	12,192	70%
Pre-school-age children (under 5)	4,253	29%	4,855	31%	5,011	31%	5,227	30%

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 by 18 percent, reaching 17,419 in 2025. The projected growth of the child population will add nearly 1,000 pre-school children and nearly 2,000 school-age children to the county's population by 2025.⁷

⁷ Most growth in the child population is also expected to take place in the Hispanic segment of the community. Hispanic children were an estimated 87% of youngsters in 2012; they are expected to grow to 88% in 2025.

The county was home to about 6,480 senior citizens in 2012 according to State estimates. They comprised 13 percent of the total population. Hispanics (numbering 4,746) made up 73 percent of the senior residents in the county.

Table 4								
Seniors: 2012 Estimate with Projections to 2025								
Groups	2012		2017		2020		2025	
Total Population	49,859	100%	53,247	100%	55,181	100%	58,417	100%
Seniors (65 & over)	6,480	13%	7,370	14%	7,883	14%	8,703	15%
Hispanic Seniors (65 & over)	4,746	73%	5,435	74%	5,862	74%	6,539	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.

Official State projections suggest the senior population will comprise 15 percent of the total county population by 2025. The projection is that more than 2,000 elder residents will be added to the county population between 2012 and 2025.

Hispanics, once again, will account for the majority of the increase. The number of Hispanic seniors is expected to increase by nearly 1,800 persons between 2012 and 2025, increasing their representation within the elder population from 73 to 75 percent.

There is a one-to-one ratio of females to males in the Val Verde County population according to the State Demographer's 2012 population estimate. Women and girls comprised 50 percent of the population. Projections indicate the sex ratio will remain in balance as the number of females and males increase at roughly equal rates through 2025.

Table 5								
Females: 2012 Estimate with Projections to 2025								
Groups	2012		2017		2020		2025	
Total Population	49,859	100%	53,247	100%	55,181	100%	58,417	100%
Female (all ages)	24,835	50%	26,516	50%	27,469	50%	29,059	50%
Female (ages 13-17)	1,927	8%	1,941	7%	2,022	7%	2,096	7%
Hispanic Female (ages 13-17)	1,717	89%	1,702	88%	1,757	87%	1,793	86%

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, single parenthood, poverty, and a range of associated factors. Girls in this age range make up eight percent of the county's female population. Hispanic teens comprise 89 percent of the population in this age group.

COMMUNITY HEALTH RESOURCES

The Val Verde Regional Medical Center anchors the county's health resources. The Center has been part of the history of Val Verde County since the original Val Verde Memorial Hospital opened its doors in 1959 with fewer than 30 beds.

Today's facility is a CIHQ-accredited, 93-bed, level IV trauma center serving Val Verde County and surrounding areas. The facility features a staff of nearly 400 health care professionals delivering hospital medical services; an emergency department; acute care services; hospice care; imaging center; an intensive care unit; inpatient dialysis service; a women's center; telemedicine; behavioral health; and rehabilitation services encompassing physical, speech, and occupational therapy.

The Regional Medical Center is a county facility governed by a board of directors appointed by the Val Verde County Hospital District. According to Texas Comptroller records, the Hospital District's 2013 tax rate was 11.9 cents per \$100 of the county's taxable property base valued at \$1.8 billion. Only 39 of the 142 Texas hospital districts levying taxes in 2013 had lower tax rates than Val Verde's Hospital District. Still, the tax levy produced \$2,130,231 in revenue for 2013.⁸ The District dedicated all revenue to maintenance and operation of the Regional Medical Center according to the Comptroller report.

Hospital Utilization, Revenue, and Charges

Val Verde Regional Medical Center reported availability of 80 staff beds in the 2012 Annual Survey of Hospitals.⁹ The number translates to 1.6 staff beds available per 1,000 residents of the county; this compares to an average 2.7 staff beds available per 1,000 residents in the 13 acute care hospitals located in 10 counties within the 20-county study area.¹⁰ The Center is affiliated with Amistad Medical Professionals; a multispecialty group of 9 physicians, three physician assistants, three nurse practitioners, and a nurse specialist. Amistad's professionals

⁸ Special District Rates and Levies, 2013, Texas Comptroller of Public Accounts, retrieved May 2, 2015: <http://www.window.state.tx.us/taxinfo/proptax/taxrates/>. The dollar value produced by the Hospital District's levy exceeded the median amount of \$1.2 million raised by the 142 districts levying taxes in 2013. However, the Val Verde tax rate of 11.9 cents per \$100 valuation was lower than the median rate of 17.5 cents for districts levying taxes.

⁹ The Annual Survey of Hospitals is a cooperative project of the American Hospital Association, the Texas Hospital Association and the Texas Department of State Health Services. The Annual Survey of Hospitals reports for Texas are available at: <http://www.dshs.state.tx.us/chs/hosp/>.

¹⁰ The 13 hospitals within the study region include Concho County Hospital, Kimble Hospital, Heart of Texas Healthcare System, Reagan County Memorial Hospital, Ballinger Memorial Hospital District, North Runnels Hospital, Schleicher County Medical Center, Lillian M. Hudspeth Memorial Hospital, San Angelo Community Medical Center, Shannon West Texas Memorial Hospital, McCamey Hospital, Rankin County Hospital District, and Val Verde Regional Medical Center.

offer specialty care in cardiology, urology, general surgery, orthopedics, pediatrics, family practice, and psychiatry.

The 3,333 annual admissions for 10,645 inpatient days reported for 2012 indicates a modest level of underutilization at Val Verde Regional Medical Center. This computes to 66.8 admissions per 1,000 county residents and compares to 91.8 per 1,000 in the combined 13 hospitals within the study region.

Table 6		
2012 Hospital Utilization, Revenue and Charges		
Service Geography	Val Verde Regional Medical Center	Region
Utilization Measures		
Staff Beds	80	643
Admissions	3,333	21,832
Inpatient Days	10,645	95,593
Medicare Inpatient Days	55%	59.6%
Medicaid Inpatient Days	20%	12.9%
Average Daily Census	29.1	20.1
Average Length Stay	3.2	4.5
Staffed Occupancy Rate	36.4%	40.6%
Revenue & Charges		
Total Uncompensated Care	\$9,014,095	\$130,254,618
Bad Debt Charges	\$8,891,485	\$67,864,830
Charity Charges	\$122,610	\$62,389,788
Net Patient Revenue	\$55,433,816	\$401,687,575
Total Gross Patient Revenue	\$153,397,378	\$1,474,374,831
Gross Inpatient Revenue	\$49,635,594	\$664,983,937
Gross Outpatient Revenue	\$103,761,784	\$809,390,894
Percent of Gross Patient Revenue in Uncompensated Care	5.9%	8.8%
Population Measures		
Population Estimate	49,859	237,912
Staff Beds per 1,000 Population	1.6	2.7
Admissions per 1,000 Population	66.8	91.8
Inpatient Days per 1,000 Population	213.5	401.8
Per Capita Gross Patient Revenue	\$3,077	\$6,197
Per Capita Uncompensated Care	\$181	\$547
Source: Texas Department of State Health Services, Annual Survey of Hospitals, retrieved May 12, 2015: http://www.dshs.state.tx.us/chs/hosp/ .		

The average daily hospital census at the Regional Medical Center is slightly higher than the average for hospitals in the study region. However, the Staffed Occupancy Rate for Val Verde Regional indicates that about 36.4 percent of its staff bed capacity was used in 2012. This compares to a 40.6 percent Staffed Occupancy Rate for the 13 hospitals across the region. Per capita gross patient revenue at Val Verde Regional was about half the average for hospitals in the study region in 2012, and per capita uncompensated care was about one-third the average for the study region.

Nevertheless, the Center constitutes a core resource for the county and the broader area. Of more than 4,200 inpatients served by the hospital in 2013, 92 percent came from Val Verde County, neighboring Mexico, or nearby Kinney and Maverick Counties.

Table 7 Residential Location of Val Verde Regional Medical Center Inpatient Discharges, 2013		
Residence	Inpatients	Percent
Val Verde County	3,565	84.5
Mexico	142	3.4
Travis County	112	2.7
Kinney County	96	2.3
Maverick County	63	1.5
Other	239	5.7
Total	4,217	100.0

Source: Texas Department of State Health Services, Inpatient Public Use Data Files, 2013.

Hospital Quality of Care

Hospital Compare is part of the Centers for Medicare & Medicaid Services (CMS) Hospital Quality Initiative. The Initiative uses a variety of tools to encourage and support improvements in the quality of care delivered by hospitals by distributing objective, easy to understand data from consumer perspectives. The data are risk-adjusted to reflect characteristics of hospitals and patients. Thus, hospitals are compared to like-hospitals of similar size and patient mix. The Hospital Compare website includes data on more than 4,000 Medicare-certified hospitals across the country.¹¹

Healthcare associated infections are sometimes contracted by patients during the course of their medical treatment. Rates for six serious infections were collected for the Hospital Quality

¹¹ Hospital Compare is available online at <https://www.medicare.gov/hospitalcompare>.

Initiative between October 2013 and September 2014. The infections can often be prevented when healthcare facilities follow guidelines for safe care. The healthcare associated infections data includes all patients treated in acute care hospitals including adult, pediatric, neonatal, Medicare, and non-Medicare patients.

Rates for five out of the six healthcare associated infections included in the Hospital Quality Initiative are not yet available for Val Verde Regional Medical Center. For intestinal *C. difficile* bacterial infections, the Center has a “Better” (lower) rate than similar hospitals around the country.

The Hospital Quality Initiative on Val Verde Regional also focused on readmission of discharged patients who were hospitalized again within 30 days. The data covers unplanned readmission for heart attack (AMI), chronic obstructive pulmonary disease (COPD), stroke, heart failure, hip/knee replacement, and pneumonia. A hospital-wide readmission measure included all medical, surgical, gynecological, neurological, cardiovascular, and cardiorespiratory patients. Based data from July 2011 to June 2014, the Center’s readmission rates are “No Different” compared to similar hospitals nationwide.

Hospital Quality Initiative mortality data is based deaths within 30-days of a hospital admission from heart attack, COPD, heart failure, pneumonia, and stroke. The data was collected between July 2011 and June 2014. Death rates at Val Verde Regional were in line (“No Different”) with comparable hospitals nationwide.

The Hospital Quality measures of effective care report the percentage of hospital patients receiving the treatments recommended for best results with certain medical conditions or surgical procedures. These include conditions like heart attack, heart failure, pneumonia, children’s asthma, stroke, influenza, and blood clots, as well as best practices to prevent surgical complications. Additional measures focus on timely treatment of patients who come to a hospital with medical emergencies.

Val Verde Regional Medical Center achieved a good level of adherence to the effective care recommendations. The Hospital Quality Initiative analyzed 26 data sets related to effective care at the Center between October 2013 and September 2014. The results revealed an 89.5 percent rate of adherence to recommended care standards.

Table 8		
Timely and Effective Care		
Measures	Val Verde RMC	
In-Patient Care	Data Sets	Adherence
Adherence to Quality Standards	26	89.5%
Emergency Wait Times	Minutes	Statewide
Average time before going home	128	147
Median time to get pain medication for patients with broken bones	81	54
Median time from arrival to admission	241	267
Average time from admit decision to admission	59	94
Source: Hospital Compare Data, Centers for Medicare & Medicaid Services, retrieved August 7, 2015: https://data.medicare.gov/ .		

The emergency department of the Regional Medical Center also compares positively on timely delivery of emergency care services when compared statewide to emergency rooms of similar patient volume. For instance, patients who seek emergency services and return home as outpatients average 19 fewer minutes in the process than patients across Texas going to emergency rooms with similar patient traffic. Patients who go to the emergency room with conditions that result in being hospitalized also spend less time in the process.

A potential emergency care issue in the Hospital Quality Initiative data concerns the timeliness of pain medication for outpatients with broken bones. Quality Initiative data for 2013-2014 showed a median time interval of 81 minutes between arrival of such patients and the delivery of pain medication. This compares to a median interval of 54 minutes in Texas emergency rooms with similar volume.

Val Verde Regional Medical Center also received an average rating from more than 300 discharged patients in the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey. Conducted in partnership with Centers for Medicare and Medicaid Services between October 2013 and September 2014,¹² the survey collected responses on patient experiences of the hospital environment as well as communication and responsiveness of doctors, nurses, and staff members.

¹² HCAHPS items cover topics such as doctor and nurse communication, hospital cleanliness and noise levels, medication and post-discharge care instructions, and overall patient ratings. Data retrieved July 31, 2015: <https://data.medicare.gov/>.

The Centers for Medicare and Medicaid Services uses a star rating procedure to compare a hospital's patient survey to other facilities of similar patient mix. Val Verde Regional Medical Center's 3-star rating indicates that the level of positive patient responses to the hospital is average compared to similar hospitals.

Doctor communication with patients was among the survey items that garnered the most positive patient response. Eighty-three percent reported that Val Verde's doctors "Always" communicated well with them. This compares to an 84 percent rate of positive response in Texas hospitals and an 82 percent rate for hospitals nationally.

At the other end of the spectrum, only 66 percent of Val Verde's patients felt their pain was "Always" well controlled in the hospital. Comparatively, the positive response rate on the pain control items was 73 percent in similar Texas facilities and 71 percent nationally.¹³

Other Health Care Resources

Val Verde Regional Medical Center also has a hospital-based Emergency Medical Services (EMS) E-911 licensed mobile intensive care unit (MICU) provider that has served residents of the county and the surrounding communities since 1971. The service operates six ambulances and one first response vehicle. The service reports an average response time within Del Rio of less than four minutes. Response times may take more than 60 minutes within the county. The service is available 24 hours a day.

Val Verde's EMS features a state-certified professional staff with more than 300 total years of experience. They respond to more than 500 hundred calls per month and travel more than 12,000 miles per year.

The service also operates an EMS Academy providing initial training and continuing education courses for the community and surrounding areas. The Academy is an approved advanced training center through the Texas Department of State Health Services.¹⁴

Texas Department of State Health Services data for 2014 reports that 185 certified EMS professionals reside in Val Verde County. This amounts to one trained professional for every 277 residents of the county, a ratio that compares favorably to ratios for the study region and the state.

¹³ Results of the Hospital Consumer Assessment of Healthcare Providers and Systems survey are available to the public at Hospital Compare, <https://www.medicare.gov/hospitalcompare>.

¹⁴ Current information on the hospital-based EMS is available on the Val Verde Regional Medical Center website, retrieved October 2, 2015: <http://www.vvrmc.org/services-ems.html>.

However, additional data from the Texas Department of State Health Services highlights a shortage of health professionals in Val Verde County. The data for 2014 identifies a total of 1,143 health practitioners in the county representing the selection of key health professions depicted in Table 9. This translates to a ratio of one practitioner for every 45 county residents. By comparison, the data shows one practitioner for every 33 residents in the 20-county study region, and one professional for every 38 residents statewide.

Licensed or Certified Professionals	Number in Val Verde County (51,160 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	329	156	1,879	127	124,616	213
Dentists	10	5,116	70	3,422	12,767	2,082
Dieticians	6	8,527	33	7,258	4,668	5,694
Emergency Medical Services	185	277	812	295	60,690	438
Licensed Chemical Dependency Counselors	6	8,527	87	2,753	9,285	2,863
Licensed Professional Counselors	15	3,411	158	1,516	20,655	1,287
Licensed Vocational Nurses	199	257	1,197	200	77,624	342
Marriage and Family Therapists	1	51,160	12	19,961	3,149	8,441
Medication Aides	17	3,009	139	1,723	10,012	2,655
Occupational Therapists	6	8,527	45	5,323	7,914	3,359
Optometrists	3	17,053	18	13,307	3,272	8,124
Pharmacists	14	3,654	146	1,641	23,561	1,128
Physical Therapists	14	3,654	109	2,198	13,136	2,024
Physician Assistants	9	5,684	51	4,697	6,543	4,063
Physicians (Direct Patient Care)	37	1,383	357	671	47,289	562
Primary Care Physicians	25	2,046	168	1,426	19,277	1,379
Psychiatrists	1	51,160	12	19,961	1,971	13,486
Promotores (Community Health Workers)	10	5,116	15	15,969	2,032	13,081
Psychologists (All)	2	25,580	43	5,570	7,382	3,601
Registered Nurses	227	225	1,696	141	206,027	129
Advanced Practice (APRN)	17	3,009	119	2,013	15,194	1,749
Social Workers	10	5,116	117	2,047	19,536	1,361
Total Selected Health Professionals	1,143	45	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>.

Shortages are notably acute in core specialties. For instance, State Health Services data identifies only one primary care physician for every 2,046 residents compared to ratios of one to 1,426 in the study region and one to 1,379 statewide. Similarly large gaps indicate shortages of dentists, optometrists, pharmacists, psychiatrists, psychologists, and social workers.

Val Verde County resident health resource usage patterns give further indication of short supply in the professions. For instance, inpatient usage data documents 5,200 hospitalizations of Val Verde County residents, with 1,635 (31.4%) occurring outside the county in 2013. Similarly, the data shows 17,746 visits by Val Verde residents to outpatient facilities, with 3,856 (21.7%) to facilities outside of the county.¹⁵

¹⁵ Texas Department of State Health Services, Inpatient and Outpatient Public Use Data Files, 2013.

At the same time, the county has significant health care service organizations in addition to the Regional Medical Center. United Medical Centers (UMC) is a Federally Qualified Health Center operating three medical clinics and one dental clinic in Del Rio. UMC also operates community clinics in Kinney and Maverick counties.

UMC's Del Rio facilities provide pediatric care, family medicine, internal medicine, well women/obstetrics services, and dentistry for adults and children. Additional services include WIC, laboratory and radiology, family planning and women's health, nutrition counseling, health education, and podiatry and pharmacy services. The clinics care for uninsured, Medicare and Medicaid, and privately insured patients. UMC is accredited by the Joint Commission.

Del Rio has three resident nursing homes housing 185 certified beds. Data for 2015 indicated 168 residents in the three facilities, yielding an occupancy rate of 91 percent. This compares to an occupancy rate of 71 percent for 1,220 Texas nursing homes included in the 2015 Nursing Home Compare data from the Centers for Medicare and Medicaid Services.

The average overall star rating for the three Val Verde County nursing homes is 2.7, equal to the average for nursing homes across Texas. However, Val Verde County's nursing homes scored slightly above the statewide average star rating for quality of care. The Texas average quality rating based on 2015 data was 3.1 on the 5-point rating scale. The Val Verde County average was 3.3.¹⁶

There are also two home health services with offices based in Del Rio. These agencies offer nursing care, physical therapy, occupational therapy, speech pathology, medical social services, and home health aide services. The average 5-point star quality rating for the two service agencies is 3.0 based on data for 2015. This compares to an average of 2.9 for 1,695 Texas agencies that were rated in the 2015 Home Health Compare Data.¹⁷ Both the local and state quality ratings are near the national average range (3.0-3.5 on the 5-point scale) of quality performance.

The high ratios comparing population to the available psychiatrists, psychologists, and licensed counselors (see Table 9 above) illustrate the limited behavioral health resources in Val Verde County. The county is one of 19 counties served by Hill Country Mental Health and Developmental Disabilities (MHDD) Centers based in Kerrville. Hill Country MHDD maintains

¹⁶ Nursing Home Compare Data, *op. cit.*, retrieved August 16, 2015: <https://data.medicare.gov/>.

¹⁷ Home Health Compare Data, Centers for Medicare and Medicaid Services, retrieved August 13, 2015: <https://data.medicare.gov/>.

two satellite offices in Del Rio, one providing access to Hill Country's mental health services and another for intellectual and developmental disability (IDD) service access.¹⁸

One organization based in Del Rio providing behavioral health services is Quad Counties Council on Alcohol and Drug Abuse. Quad Counties provides drug and alcohol prevention services including community and school education programs.

Quad Counties shares a location with the Del Rio Field Office of the Texas Department of State Health Services. The Field Office vaccinates eligible children and adults; provides STD testing, treatment and education; and supports tuberculosis (TB) investigations, case management, and administering medications. The field office also provides community education on topics such as teen suicide, bullying, and infant safety.¹⁹

¹⁸ See Hill Country MHDD Centers at <http://hillcountry.org/default.asp>.

¹⁹ See the Texas Department of State Health Services Val Verde County Field Office report, retrieved September 27, 2015: <http://www.dshs.state.tx.us/region8/countyinfo.shtm>.

HEALTH STATUS

Family and Maternal Health

The Census Bureau's 2009-2013 5-Year American Community Survey estimated 11,599 resident families residing in Val Verde County. The county has many positive indicators of family and maternal health. For instance, the county's rates of abortion, child abuse, and intimate violence are lower than comparable rates for the 20-county study region and the state (see Table 10).²⁰

Indicator	Val Verde County	Study Region	Texas
Divorce Rate (Annual Divorces as a Percent of Annual Marriages)	44.5	43.2	45.0
Percent Women Age 15 & Over who are Currently Divorced	10.2	12.4	12.2
Single-Parent Families (Percent of All Families)	13.8	13.1	15.6
Teen Pregnancy Rate (Pregnancies per 1,000 Females Age 13-17)	31.8	25.3	21.4
Teen Birth Rate (Births to Mothers Age 13-17 per 1,000 Same Age Females)	29.9	23.1	18.4
Abortion Rate (Abortions as a Percent of Pregnancies among Females Age 15-44)	7.3	9.8	15.6
Percent Births to Unmarried Mothers (Female Population Age 15-44)	42.3	44.6	42.3
Child Abuse Rate* (Confirmed Incidents of Abuse per 1,000 Children)	4.6	12.9	9.5
Intimate Violence Rate (Incidents of Family Violence & Sexual Assault per 1,000 Population)	6.8	9.4	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 Val Verde County. Over the years 2008-2012, both rates in Val Verde County exceeded comparable rates for the state by about 10 pregnancies and 10 births per 1,000 teen

²⁰ Not reported in Table 10 is the county's low rate of infant death. Vital statistics data indicate a rate of 3.5 infant deaths per 1,000 live births in Val Verde County for 2012. This compares to a rate of 5.8 for Texas and 4.1 for the study region in the same year. See the Texas Department of State Health Services, 2012 Annual Vital Statistics Report, retrieved June 8, 2015: <http://www.dshs.state.tx.us/chs/>.

females in the 13-17 age range. 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 11
Potentially Preventable Hospitalizations for Adult Residents of Texas, 2008-2013

Potentially Preventable Hospitalizations	Val Verde County			Study Region			Texas		
	Number	Average Charge	Per Capita Charge	Number	Average Charge	Per Capita Charge	Number	Average Charge	Per Capita Charge
Bacterial Pneumonia	254	\$23,990	\$172	3,572	\$20,816	\$437	280,079	\$36,925	\$530
Dehydration	204	\$11,794	\$68	936	\$3,222	\$30	91,238	\$21,706	\$101
Urinary Tract Infection	200	\$14,604	\$83	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	874	\$25,108	\$621	3,580	\$22,942	\$421	326,337	\$41,191	\$689
Hypertension (High Blood Pressure)	158	\$18,003	\$80	463	\$1,927	\$8	65,973	\$25,365	\$85
Chronic Obstructive Pulmonary Disease or Older Adult Asthma	282	\$17,361	\$139	2,857	\$15,320	\$264	253,148	\$31,674	\$411
Diabetes Short-term Complications	87	\$15,549	\$38	466	\$2,952	\$11	63,954	\$26,913	\$88
Diabetes Long-term Complications	346	\$32,905	\$322	1,285	\$9,768	\$86	134,630	\$46,872	\$323
All Hospitalizations	2,405	\$22,388	\$1,523	15,141	\$21,483	\$1,371	1,433,955	\$34,178	\$2,512
Total Charges, 2008-2013		\$53,843,226			\$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/>.

Val Verde County residents recorded approximately 2,405 potentially preventable hospitalizations between 2008 and 2013. This accounts for 16 percent of such events in the 20-county study region. Hospital charges for the county's 2008-2013 preventable hospitalizations added up to \$53.8 million; the equivalent of an average charge of \$1,523 per adult resident of the county.

Hospitalizations for congestive heart failure and for long-term complications associated with diabetes were the most numerous and most expensive preventable hospitalizations among

residents. Potentially preventable hospitalizations with these conditions may indicate priority health issues of concern for Val Verde County.²¹

Leading Causes of Death

The Department of State Health Services recorded 1,661 deaths from all causes among Val Verde County residents between 2008 and 2012. This computes to a five-year crude death rate of 33.3 deaths per 1,000 residents based on the 2012 population estimate. This is slightly higher than the Texas rate of 32 per 1,000 over the same time frame, while it is lower than the rate of 45.6 per 1,000 for the 20-county study region.

Table 12 lists 13 leading causes of death for Val Verde County residents from 2008-2012. Medical conditions classified as Diseases of the Heart top the list. Val Verde residents have a crude death rate from Diseases of the Heart that is 11 percent higher than the state overall.

County residents have higher death rates than the state on nine of the leading causes in Table 12. These include heart diseases, cerebrovascular diseases, Alzheimer's disease, renal ailments (nephritis, nephrotic syndrome, and nephrosis), septicemia, diabetes, influenza and pneumonia, liver disease and cirrhosis, and hypertension.

A variety of priority health issues for Val Verde County may be reflected in the leading causes of death for residents.

²¹ 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>.

Table 12
Leading Causes of Death in Val Verde County, 2008-2012

Causes of Death	Deaths	Crude Death Rate*	Study Region Rate*	Texas Rate*
Diseases of the Heart (ICD-10 Codes I00-I09, I11, I13, I20-I51)	408	8.183	9.541	7.350
Malignant Neoplasms (ICD-10 Codes C00-C97)	344	6.899	9.617	7.023
Cerebrovascular Diseases (ICD-10 Codes I60-I69)	98	1.966	2.324	1.772
Alzheimer's Disease (ICD-10 Code G30)	73	1.464	1.610	1.002
Accidents (ICD-10 Codes V01-X59, Y85-Y86)	70	1.404	1.971	1.783
Nephritis, Nephrotic Syndrome and Nephrosis (ICD-10 Codes N00-N07, N17-N19, N25-N27)	65	1.304	0.971	0.691
Septicemia (ICD-10 Codes A40-A41)	64	1.284	0.752	0.624
Diabetes Mellitus (ICD-10 Codes E10-E14)	55	1.103	1.538	0.958
Chronic Lower Respiratory Diseases (ICD-10 Codes J40-J47)	52	1.043	2.736	1.728
Influenza and Pneumonia (ICD-10 Codes J09-J18)	49	0.983	0.967	0.613
Chronic Liver Disease and Cirrhosis (ICD-10 Codes K70, K73-K74)	45	0.903	0.803	0.562
Intentional Self-Harm (Suicide) (ICD-10 Codes X60-X84, Y87.0)	22	0.441	0.685	0.543
Essential (Primary) Hypertension and Hypertensive Renal Disease (ICD-10 Codes I10, I12)	20	0.401	0.521	0.312

*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>.

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.²²

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.²³ 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.²⁴ 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 13 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 with adults age 18 and over by state health departments in partnership with the Centers for Disease Control and Prevention (CDC), served as a model for questions.²⁵ Indeed, the three-page questionnaire yielded 31 indicators which closely parallel similar items in the 2013 BRFSS results for Texas.

²² 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/>.

²³ 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>.

²⁴ 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.

²⁵ 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 13
Sample Characteristics***

County of Residence		
Edwards	5	3.4%
Kinney	19	12.9%
Val Verde	123	83.7%
Poverty Status		
Severly 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 14 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 question²⁶ asked in 2013 estimate that only 13.7 percent of all adult residents in the three counties share this risk of impairment.

Table 14					
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 14 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 14. For instance, the 55.1 percent of southern county poor and extremely poor residents who reported not seeing a doctor because of cost indicates

²⁶ 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.²⁷

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 14 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 14 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.

²⁷ 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 Val Verde 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 Val Verde County:

- **Demographic Trend Data:** Demographic projections of population growth in Val Verde County were reviewed. Growth trends for vulnerable population groups were included in the review.
- **Hospital Data:** Available data on utilization, revenue, charges, and quality of care at Val Verde Regional Medical Center were analyzed.
- **Other 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 Val Verde 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 Val Verde 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 Val Verde County:

1. Needs of children and seniors.
Increase capacity to address health needs of growing numbers of children and seniors.

2. Quality of services.
Continue to improve the quality of hospital services provided by Val Verde Regional Medical Center.
3. Shortage of core health professionals.
Create a collaborative community effort to recruit and retain more health professionals in core shortage areas such as primary care physicians, physician assistants and nurse practitioners, as well as dentists, optometrists, pharmacists, psychiatrists, psychologists, and social workers.
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 capacity and access.
Increase capacity and access to quality behavioral health resources.
7. Teen pregnancy reduction.
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
 - 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 health 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.

Develop a collaborative campaign to increase revenue to invest in addressing community health needs through the taxing authority of the Val Verde County Hospital District and 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 Val Verde 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 Val Verde County. Respondents ranked the needs based the specified criteria. A total of 14 responses ranking the identified needs for Val Verde 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 15 reports the results of the prioritization of needs in Val Verde 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:

$$\text{Adjusted Average} = [\text{prevalence score} + \text{significance score} + \text{impact score} + (\text{feasibility score} \times 2)] \div 4$$

Thus, the first row of Table 15 shows the average prevalence score was 4.43 on the five-point scale. The averages for significance, impact, and feasibility were 4.50, 4.36, and 3.43

respectively. Applying the formula yields an adjusted average of 5.04, making capacity to reach vulnerable groups with preventative actions to reduce obesity the highest ranking community need for Val Verde County.

Table 15 Prioritization of Val Verde County Community Health Needs						
Community Health Need	Respondents	Prevalence	Significance	Impact	Feasibility	Adjusted Average
Increase community capacity to reach vulnerable groups with preventative actions to reduce Obesity	14	4.43	4.50	4.36	3.43	5.04
Increase emphasis on preventative actions (screening, treatment, case management, outreach & education) to reduce Diabetes	14	4.36	4.36	4.21	3.21	4.84
Continue to improve the quality of hospital services provided by Val Verde Regional Medical Center	14	3.93	3.93	4.00	3.43	4.68
Increase emphasis on preventative actions (screening, treatment, case management, outreach & education) to reduce Heart & Vascular Diseases	14	4.14	3.93	3.93	3.21	4.61
Increase capacity to address health needs of Children & Seniors	14	4.14	3.86	4.07	3.14	4.59
Increase community capacity to reach vulnerable groups with preventative actions to reduce Cost & Other Barriers to treatment	14	4.29	4.07	4.00	2.86	4.52
Increase community capacity to reach vulnerable groups with preventative actions to promote Healthy Living & Wellness	14	4.14	4.14	3.86	2.93	4.50
Develop a collaborative campaign to increase revenue for investment in addressing community health needs through the taxing authority of the Val Verde County Hospital District and Mobilize a collaborative community effort to reduce Teen Pregnancies	14	4.08	4.08	4.00	2.86	4.47
Increase community capacity to reach vulnerable groups with preventative actions to improve Case Management & Outreach	14	3.93	3.79	3.79	3.07	4.41
Increase the Food Security of vulnerable populations by increasing access to nutritious foods	14	4.43	3.79	3.79	2.79	4.39
Increase the Food Security of vulnerable populations by increasing access to nutritious foods	14	3.86	3.71	3.50	3.00	4.27
Create an engaged process for recruiting & retaining core health professionals for Primary Care, including Physicians, Physician Assistants & Nurse Practitioners	14	3.86	3.71	3.50	3.00	4.25
Increase capacity and access to quality Behavioral Health resources	13	3.64	3.86	4.00	2.69	4.22
Create an engaged process for recruiting & retaining core health professionals including Social Workers	14	3.71	3.57	3.86	2.57	4.07
Create an engaged process for recruiting & retaining core health professionals including Psychiatrists & Psychologists	14	3.43	4.00	3.86	2.50	4.07
Increase emphasis on preventative actions (screening, treatment, case management, outreach & education) to reduce COPD	14	3.79	3.29	3.79	2.71	4.07
Increase the Residential Security of vulnerable populations by increasing affordable housing in safe neighborhood environments	14	3.71	3.67	3.57	2.64	4.06
Increase emphasis on preventative actions (screening, treatment, case management, outreach & education) to reduce Influenza & Pneumonia	14	3.21	3.36	3.57	2.79	3.93
Increase capacity and access to quality Dental Care, especially by poor and extremely poor residents and households	14	3.71	3.36	3.50	2.50	3.89
Create an engaged process for recruiting & retaining core health professionals including Dentists	14	3.36	3.29	3.36	2.50	3.75
Increase the capacity for quality Nursing Home care	14	3.14	3.14	3.36	2.57	3.70
Create an engaged process for recruiting & retaining core health professionals including Pharmacists	14	3.36	3.07	3.36	2.36	3.63
Create an engaged process for recruiting & retaining core health professionals including Optometrists	14	3.29	2.86	3.29	2.36	3.54

Respondents recognized the special needs of vulnerable populations in six additional priorities. In addition to the top need to reduce obesity, these include: increasing the capacity to address health needs of children and seniors (5th); improving capacity to reach vulnerable populations with preventative actions to reduce cost and other barriers (6th), to promote healthy living and

wellness (7th), and to improve case management and outreach (10th); as well as efforts to reduce teen pregnancies (9th).

Respondents prioritized two additional needs for preventative actions in the community, including efforts to reduce diabetes (2nd) and to reduce heart and vascular diseases (4th). The remaining top priorities address the quality and capacity of health care services: continuing to improve the quality of hospital services (3rd), and to increase investment in community health needs through the hospital district (8th).