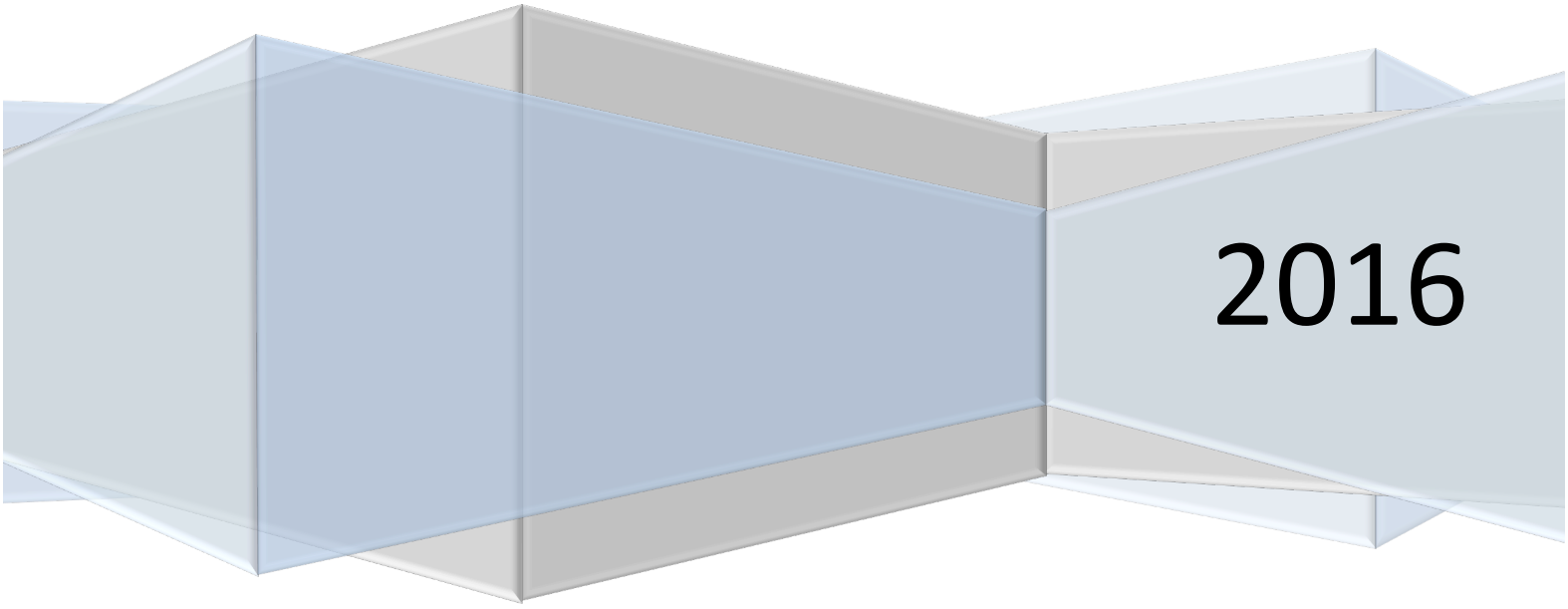
Colorado County Community Health Needs Assessment



2016

Colorado County Community Health
Needs Assessment

Presented to
Mr. James Vanek, CEO
And
Columbus Community Hospital
Board of Directors

Submitted by
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History and Location

Colorado County is located in the southeast quadrant of Texas, halfway between Houston and San Antonio, and is approximately 60 miles from the Gulf of Mexico (figure 1). The county contains three incorporated towns, and 46% of the county's population resides in Columbus, Eagle Lake, and Weimar (figure 2). The remaining population resides in nine other communities, with populations ranging between 100 and 741 people, or in rural areas. Despite its rural nature, the location of Colorado County is important because it has a major thoroughfare (Interstate 10) that connects the East Coast and West Coast, a well-connected state highway system, and railroads. This infrastructure is valuable for transporting products of the county's agribusinesses, gravel mining, and oil/gas services (Texas Almanac, 2016).

Figure 1. Colorado County, Texas

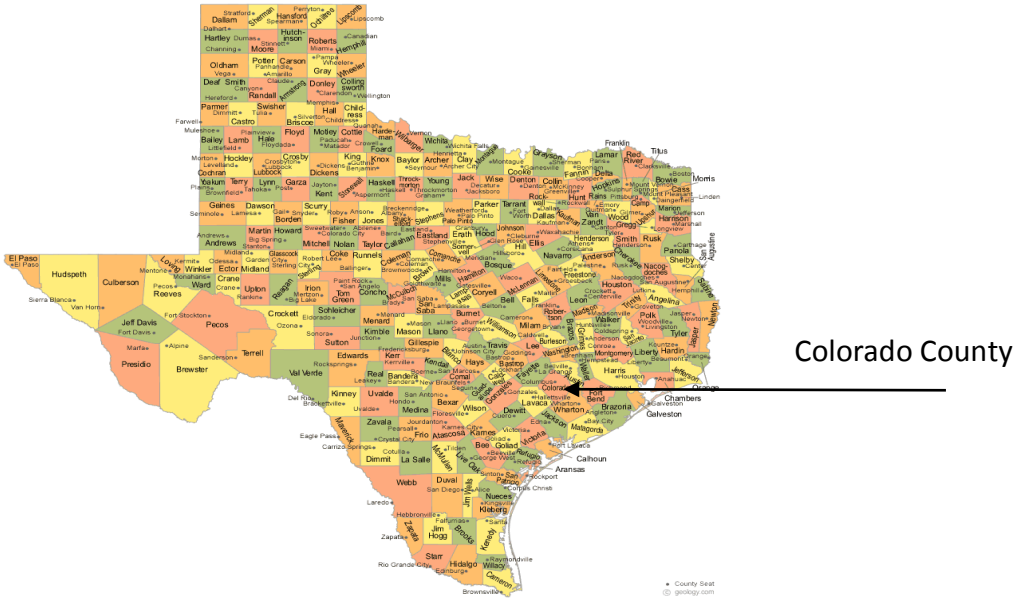


Figure 2. Major Communities of Colorado County, Texas

Historically, Colorado County is important. Many of Stephen F. Austin's "Old Three Hundred" colonists settled in Colorado County in 1821, along the banks of the Colorado River. Although it was a site for the headquarters of the Austin Colony, it later was abandoned due partially to Indian raids. Later, the area played an important role during the fight for Texas Independence; after the Battle of the Alamo, General Sam Houston camped on the east bank of the Colorado River and General Santa Anna camped about two miles to the west of the river.

When the Republic of Texas was recognized, Colorado County became one of the original counties, being settled mainly by German immigrants. This German influence has continued today, and approximately 30% of the community is of German ancestry. Because of good soil, the mild climate, and a long growing season, the county was an important agricultural area. At first, cotton and corn, the main cash crops, were exported via the Colorado River. However, after the Civil War, water transportation was replaced by railroad. Although cotton remained a viable product, more people turned to ranching for their livelihoods, and the impact of railroads certainly contributed to the emphasis on livestock.

In the early 1900s, rice was introduced into the county and became an important cash crop due to large-scale irrigation processes; today, Colorado County is the third greatest producer of rice in Texas. In addition to farming, oil and gravel industries were initiated in the early 1900s. Colorado County has remained one of the leading producers of gravel since the 1930s. Although both farming/ranching and oil/gravel industries have waxed and waned over the centuries, they remain paramount in the county's economy.

The county's racial/ethnic makeup is approximately 58% Anglo, 28% Hispanic, and 13% Black (Texas Almanac, 2016). The county has an unemployment rate of approximately 4.4% (Bureau of Labor Statistics, 2016), with the unemployment rate in Colorado County steadily decreasing over the past four years (see Figure 3).

Figure 3. Unemployment Rate, Colorado County, Texas

Year	Colorado County
2016	4.2
2015	4.4
2014	5.3
2013	6.2

Source: Bureau of Labor Statistics, 2016

Because of common culture, socioeconomics, and businesses, the communities within the county work together for common interests of the county. The county is bordered by Austin, Lavaca, Fayette, and Wharton counties. Three of these counties (Lavaca, Fayette, Wharton) are similar in size and demographics as Colorado County, while Austin County, also bordering Houston, tends to have a larger population (people/square mile) although a smaller land mass (US Census, 2016).

The overall appearance of the county is that of a content and proud area, with neighbors willing to help each other. There is a pride in all of the communities, and homes and businesses seem well-kept. Large shade trees cover the community, and there are parks and recreation areas that support outdoor activities. The Colorado river is a source of recreation, drawing people from outside the county as well as residents of the county for swimming and boating. In addition, the communities seem to have drawn on their historical emphasis to attract tourists with home tours being highlighted in the springtime. Because of the tourists and the proximity to Interstate 10, the communities, especially Columbus, have a plethora of fast-food restaurants. The bucolic appearance of Colorado County may be deceiving, especially when considering an identified

transient population uses bridges along the interstate as a home base; this could be of a concern, especially from a public health perspective.

Government

Although the towns that make up Colorado County have their own city governments, when considering the health of the entire county, it is important to appreciate the county government as well as state legislative officials. Colorado County has four men serving as County Commissioners – Doug Wessel, Darrel Kubesch, Tommy Hahn, and Darrell Gartson. The County Judge, Ty Prause, has served in this position for six years. Although fiscally conservative and having a limited tax base, the Commissioners adopted a tax rate of 4.82% for the 2015 fiscal year (Colorado County, 2016). The county has an emergency management department, an emergency medical services department, and an indigent health care department. It currently has no public health department but is included in Region 6-5 South of the Texas Department of State Health Services.

Colorado County is represented in the Texas Senate by Lois Kolkhorst, who was elected in a special election in 2014. She previously served as a member of the House of Representatives from 2001-2014 (http://www.statescapes.com/LegislatorInfo). Senator Kolkhorst sits on the Senate Finance Committee and is Vice Chairperson of the Senate Committee on Health and Human Services. She serves as a member of three other committees – Committee on Education; Committee on Transportation; and

Committee on Agriculture, Water, and Rural Affairs. Known as a fiscal conservative, Senator Kolkhorst has written legislation to toughen Texas laws on medical privacy.

When Senator Kolkhorst vacated her representative position, she was followed by Representative Leighton Schubert, elected in a special 2014 election. Representative Schubert is a lawyer who has clerked for the Texas Attorney General and has served as a staff assistant to a U.S. Senator and has been with the U.S. Department of State. He currently sits on the two committees – Corrections and County Affairs (http://www.statescapes.com/legislatorinfo).

Colorado County continues to be represented in the United States House of Representatives by Representative Michael McCaul. In 2013, he was named Chairman of the Homeland Security Committee; previously he has held the position of Chairman of the Oversight and Investigations Subcommittee, and he authored the report *A Line in the Sand: Confronting Crime, Violence and Terrorism at the Southwest Border* (http://mccaul.house.gov). During the 112th Congressional session, Representative McCaul introduced the Creating Hope Act that encouraged pharmaceutical companies to develop new pediatric cancer treatments and has chaired the Congressional Childhood Cancer Caucus since its creation. He currently serves as chairperson of the US-Mexico Inter-Parliamentary Group to create joint discussion between the two nations.

Workforce/Economy

Continuing its agriculture history, Colorado County remains predominantly agribusiness. It has the third highest acres of rice within the state although drought

conditions and upstream damming of rivers has decreased the production. Other important agriculture endeavors include cattle, corn, cotton, soybeans, sesame, hay, pecans, and nurseries, with these businesses bringing in approximately $68 million dollars in 2015, which is down from the $72 million in 2012 (Texas Almanac, 2015).

Because of its location and number of irrigated acres of rice, Colorado County is also an important duck and goose hunting area. Besides waterfowl, there are numerous other animals for hunting including deer, dove, and exotic animals. With the vast amount of wildlife, Colorado County has nearly year-round hunting leases open. This means there is potential for unintentional injuries.

Other businesses which impact Colorado County include gas, oil, and gravel. Although Colorado County is not a component of the Eagle Ford Shale Oil region, the industry does contribute indirectly to the Colorado County economy through equipment sales and transportation through the county. The recent decrease in oil services in South Texas has, most likely, contributed to the decrease in the 2015 revenue of the county (see previous paragraph). The impact of the oil industry also is reflected in local wages. In 2013, the personal income for Colorado County was $59,087 whereas, the current per capita income is $45,389 (Texas LMCI Tracer, 2016). Thus, although the unemployment rate has decreased over the past years, the actual earning power is lower. This is probably due to the decrease of people working directly in the oil fields where wages are usually high. A closer look at the labor workforce in mid-2014 (latest statistics) found that the average wage increased 0.7% from 2013 although the increase for the State for the same timeframe was 4.6% (County Narrative Profile, 2016). This

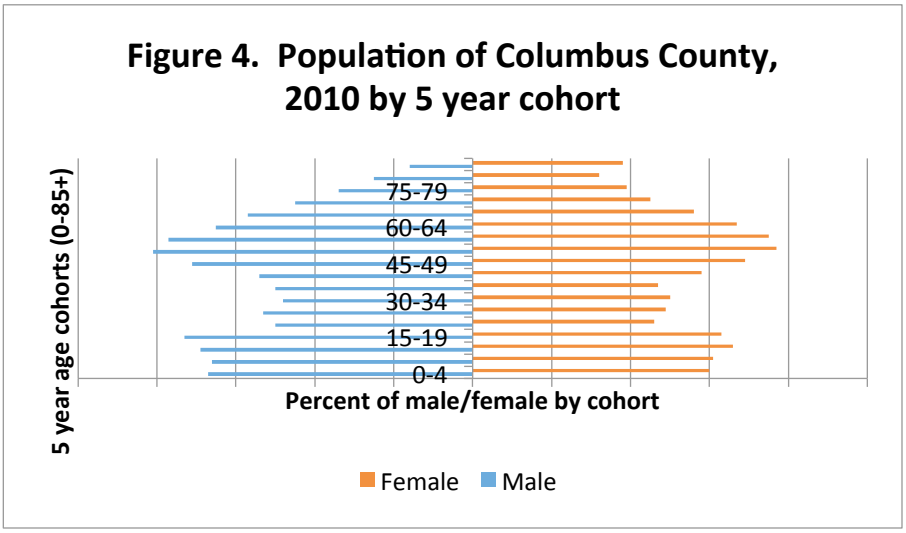
would seem to indicate that there has been an exodus of higher paying positions while entry-level jobs have been created. This could have impact on health benefits, and thus could impact health and healthcare in the community.

Although the unemployment rate has decreased over the past few years, the level of poverty has increased. The Texas Workforce Commission indicated that in 2011, there were 3,207 Colorado County residents classified as poverty level; this was 15.7% of the population compared to Texas' 17.6% poverty (Fields & Hatala, 2013). Reviewing more recent statistics finds that Colorado County somewhat mimics Texas in percent of people who are at-or-below poverty. In 2014, Colorado County's poverty rate was 17.4% compared to Texas 17.7% (U.S. Census, 2016). For children under the age of 18, the situation remains deplorable. In 2014, nearly 20% (19.7%) of Colorado County children under the age of 17 were at/below poverty compared to 24.5% for Texas as a whole (USDA, 2015). Although, Colorado County's poverty for children does not reach the state average, the fact that one in five children are in poverty should be of great concern.

Demographics

Age. Actual number of people residing in a county is determined every 10 years through the national census. For that reason, the picture of actual people living in Colorado County has not officially changed since the 2013 Community Needs Assessment was created. According to the 2010 census (Fields & Hatala, 2013), Colorado County has 20,874 residents, with that number equally divided between male (10,3247) and females (10,527). The population of Colorado County tends to be older,

with the female population being even older (median age of females is 44.9; median age of males is 42.3). The median age (male and female) for Colorado County is 43.6 compared to Texas' median age of 33.6. Thus the population of Colorado County tends to be older. The population pyramid (figure 4), displays the 5-year increments of population, and reflects a larger older working-age group of people and a larger percent of young children. The graph, originally shown in the 2013 Colorado County Community Needs Assessment (Fields & Hatala, 2013), reflects a low percent of young adults (20-35 age cohorts), which indicates that youth seem to leave the county after high school. This also reflects that there is an older cohort of people (45-64) in the area; this might indicate a group of people who have immigrated to the county later in the work-years, perhaps pre-retirement. This large cohort also could reflect people who did not leave the area during their youth. Finally, the population reflects more older women than older men, a norm throughout the nation; this large cohort of women is especially true in the oldest cohort (85+) where women outnumber men 400 to 166 (Fields & Hatala, 2013).



Source: Fields & Hatala, 2013

Although the 2010 census is the most accurate picture of people living in Colorado County, the U.S. Census does project change in population throughout the decade. Although these are extrapolations, it does provide some insight into population change at the county level. According to the Texas Demographic Center (You & Potter, 2016), by January 1, 2015, Colorado County had a 5% increase in population between 2010 and 2015. Some other interesting concepts found in the projections (Texas Association of Counties, 2016) include the following:

- About 40% (568 of 1449) children under the age of 1 are Hispanic;
- About 39% (2440 of 6312) of children between 1-5 are Hispanic;
- Approximately 87% (545 of 629) of people older than 85 are Anglo.

This suggests that the county is changing to a "minority majority" status; this change should be considered in any decisions on health issues.

The county remains equally divided between the sexes, with males accounting for 49.6% and females accounting for 50.4%. As Figure 4 demonstrates, there is a

skewed distribution in that there are more males in the working age, especially the 40-55 cohorts, and more females in the oldest cohorts (75-85+).

Socioeconomics. According to the U.S. Census estimates (US Census, 2016b), in 2014, Colorado County had 17.4% of its residents at or below poverty. This is slightly less than the Texas rate of 17.7%. Figure 5 compares the poverty rate from the 2010 census with the 2014 estimate for Colorado County.

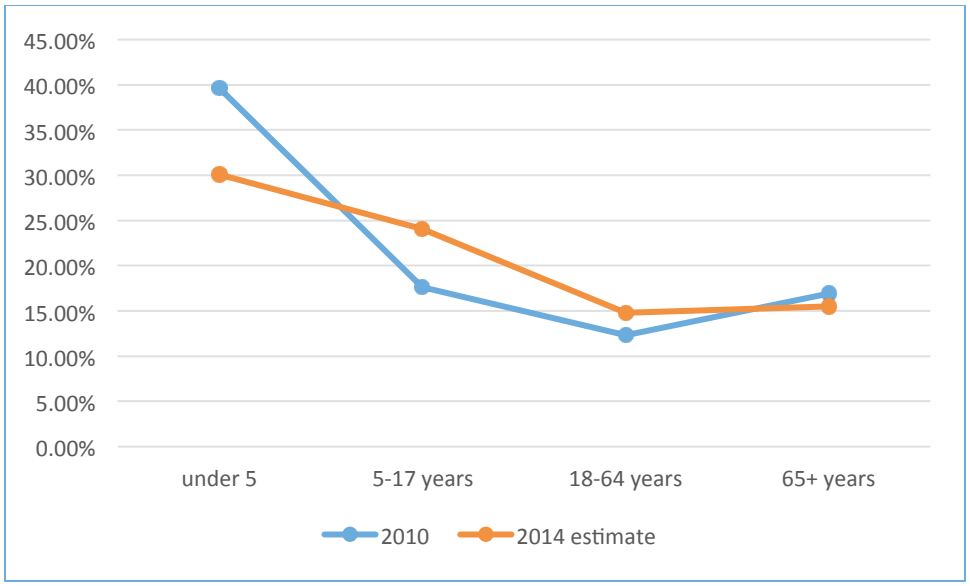
Figure 5. Comparison of Residents in/at Poverty for Colorado County

AGE COHORT	2010	2014 estimate
under 5	39.60%	30.10%
5-17 years	17.60%	24.10%
18-64 years	12.30%	14.80%
65+ years	16.90%	15.50%

Source: US Census

Closer analysis (Figure 6) of the comparison reflects that the percent of children under 5 and the percent of people over 65 who are at poverty have decreased over the last four years whereas the percent of people at poverty in the “working age” cohort has increased. This potentially reflects the economic issues occurring in the county as it relates to more people having minimum pay positions.

Figure 6. Comparison of Colorado County Residents at Poverty, 2010 and 2014



Source: US Census

Race and Ethnicity. According to the Texas Health Data Center, in 2013 Colorado County had a total estimated population of 21,514 (TDSHS, 2016). Of this number, the majority of the residents were classified as Anglo/White. The second most populous group was Hispanics, with the Black/African American population being a distant third. These percentages differ from the Texas percentages, as Figure 7 demonstrates.

Figure 7. Comparison of Race/Ethnicity in 2013, Colorado County and Texas

Race/Ethnicity	Colorado County	Texas
African America/Black	12.80%	11.50%
Hispanic	27.90%	39.10%
White/Anglos	57.80%	43.30%
Other	1.50%	6.10%

Source: Center for Health Statistics

Colorado County continues to have a larger percent of White/Anglos and African American/Blacks than Texas and less Hispanics than Texas. Although the 2013 estimates for individual race/ethnicity has slightly changed from the 2010 census county, overall the trend remains. There is a greater percent of older whites/Anglos and a greater percent of younger Hispanics. This difference will have long-term implications for education, health care, and the workforce.

Education. According to 2014 population estimates for Colorado County, about 40% of children under the age of five are Hispanic. This statistic will impact the education system in the county and in the three most populous school districts in the area. Currently there are three main school districts within Colorado County – Columbus ISD, Rice ISD, and Weimar ISD. These school districts have between 635 and 1613 students and reflect slight change from the 2013 statistics (602-1538). As Figure 8 indicates, the percent of Black students has decreased in Columbus ISD and Rice ISD between 2009 and 2015 whereas the percent of Black students increased in Weimer ISD (note that in 2009, the percent/number for Black students was not revealed due to the low student count). On the other hand, the percent of Hispanic students increased from 2009 to 2015 in all three school districts. The percent of White students decreased in the two larger school districts (Columbus and Weimer) between 2009 and 2015 but increased in the Rice CISD. This change in percentages may reflect migration between county school districts or may reflect transfer of students from outside of the county.

Figure 8. Comparison of Students by School Districts, 2009 and 2015

	Columbus ISD (2009)	Columbus ISD (2015)	Rice CISD (2009)	Rice CISD (2015)	Weimer ISD (2009)	Weimer ISD (2015)
Black	16.10%	12.80%	20.30%	3.20%	*	14.20%
Hispanic	28.00%	40.40%	48.60%	55.40%	36.70%	41.90%
White	54.70%	44.80%	30.70%	40.00%	46.50%	40.80%

Source: Texas Tribune, 2016

It was reported in the 2013 Colorado Community Needs Assessment (Fields & Hatala, 2013) that over 40% of the students in the three school districts were considered "at risk" of dropping out of school according to state defined criteria. In the latest statistics released by the Texas Department of Education, the percent of students "at-risk" of dropping out of school has increased, with the range being between 46.8% and 53.6%. The three school districts reported that the percent of children who were considered economically disadvantaged ranged between 53.1% and 67.6%; this also is an increase from the statistics reported in the 2013 Needs Assessment (Fields & Hatala, 2013). Overall, the three school districts continue to have risk factors for students, although the specific types vary between the school districts.

Figure 9. Comparison of Risk Factors for Colorado County ISDs, 2009 and 2015

	Columbus ISD (2009)	Columbus ISD (2015)	Rice ISD (2009)	Rice ISD (2015)	Weimar ISD (2009)	Weimar ISD (2015)
At Risk	41.9%	53.6%	45.4%	51.10%	46.8%	46.80%
Eco Disadv.	50.7%	61.0%	71.7%	67.60%	55.5%	53.10%
Eng. Lang. Learner	7.5%	10.3%	8.8%	24.80%	13.8%	15.40%

Source: Texas Tribune

Another school district statistic that reflects the overall health of a community is school dropout rates. As Figure 10 indicates, Colorado County had a drop-out rate somewhat paralleling the Texas rate. Columbus ISD had an overall drop-out rate equal to Texas, whereas Rice ISD and Weimar ISD had rates below the Texas average. Weimar ISD had a drop-out rate for Black students that was higher than the Texas rate and Columbus ISD has a drop-out rate for Hispanic students that was higher than the Texas rate. Although there are many factors that may contribute to drop-out rates, the concern is the long-range repercussions for not having high school degrees. These young people are poised to find low-paying jobs, frequently without health insurance benefits.

Figure 10. Comparison of Drop-out rates for ISDs with Texas, 2015

Race/Ethnicity	Columbus ISD	Rice ISD	Weimar ISD	Texas
All students	2.2%	0.0%	1.0%	2.2%
Black	2.7%	0.0%	3.7%	3.1%
Hispanic	4.1%	0.0%	0.0%	2.7%
White	1.10%	0.0%	1.0%	1.1

Source: Texas Tribune

Low education attainment and low paying jobs often lead to poor housing conditions. In a community where housing is at a premium, and cost of housing is considered high, as more young people begin seeking housing, the issue will worsen. According to the U.S. Commerce Department, in 2015, only five single-family residential building permits were issued for Colorado County (US Commerce Department, 2016) and no multi-family residential building permits were issued. This reinforces the inadequate number of housing units in the area. Without adequate numbers of structures, people may be forced to leave the community, thus creating lost revenue for the communities within Colorado County.

Social and Behavior Factors

Social and behavior factors include numerous underlying determinants that contribute to people developing disease. These factors include, but are not limited to personal behaviors, exposure to infection, genetics, geography, environment (natural and built), access to medical care, education, income, occupation, cultural and religious factors. Many people, unfortunately, do not appreciate the impact of these factors on their ultimate health. These risk factors, however, can contribute to heart disease, cancers, diabetes, and other chronic diseases.

In the 2013 Colorado County Community Needs Assessment, social and behavior factors for the county were compared to counties throughout the U.S that were similar in size and demographics. In the current Community Needs Assessment, current statistics for Colorado County will be compared with similar counties throughout

the U.S using the 2015 Community Health Status Indicator (CHSI) (CDC, 2016) survey as well as compared with baseline data from the 2013 community needs assessment.

Tobacco. According to state and local health sources, tobacco use is a major risk factor for multiple cancers, heart disease, stroke and lung disease. In Texas, about 24,000 adults die of smoking attributable illness annually. For each cancer-associated death, another 20 people suffer directly from at least one serious illness related to smoking. The 2013 Colorado Community Needs Survey reported approximately 13% adults of Colorado County smoked, and this number seems to be maintained in the 2014 aggregated percent of people who smoke (Region 6/5S) (BRFSS, 2016) although an estimation technique used by the University of Washington for analyzing 3,143 U.S. counties determined that the smoking prevalence in 2012 for Colorado County males was 24.0% and for females was 17.9% (Institute of Health Metrics, 2016). This estimate, however, does not seem accurate when compared with information gleaned from the 2011 data.

Obesity. The Centers for Disease Control and Prevention has estimated that one-third of the adult population in the U.S. and 17% of American children are clinically obese (Fields and Hatala, 2013). Obesity is defined as a Body Mass Index (BMI) greater than 30, with the calculation being based on an individual's weight and height. In the first Colorado County Community Needs Assessment, it was determined that 29% of Colorado County adults were classified as obese (Fields & Hatala, 2013). More current

statistics reflected in the 2015 Community Health Status Indicators (CHSI) show that adult obesity for Colorado County is 32.4% compared to the U.S. rate of 30.4% (CDC, 2016); this percent places Colorado County in the middle two quartiles of the CHSI findings when compared to other U.S. counties of similar size and demographics but with a higher percent than other counties found within the Region 6/5S Health Department (T-BSRFF, 2016).

Some factors that contributes to obesity include physical activity, access to fast food, poor access to grocery stores, and food insecurity. The initial Community Needs Assessment reported that 20.9% of Colorado County's population had low access to grocery stores (Fields & Hatala, 2013). Although Colorado County has a rate of grocery stores per population higher than Texas' rate (2.44/10,000 vs. 1.47/10,000), this would imply that the distribution of the grocery stores is the issue (City-Data, 2016). The U.S. Department of Agriculture has analyzed access to grocery stores, dividing the county into quadrants and determined areas where residence did not have a grocery story within ½ mile and did not have any form of vehicle (USDA.ERS, 2016). The northwest quadrant of the county has 1.8% of its population not having access to grocery stores and not owning vehicles; the southeast quadrant of the county has a 3.3%, the southwest quadrant has a 3.0%, and the northwest has a 3.9%. People without vehicles must rely on neighbors or family for transportation to the grocery store or they rely on nearby convenience stores which usually do not provide healthy foods. The most current information (City-Data, 2016) indicates that Colorado County has 2.93 convenience stores (without gas) per 10,000 residents compared to Texas' 1.11/10,000.

For convenience stores with gasoline, Colorado County has a rate of 9.27/10,000 compared to Texas 3.95/10,000.

Paralleling people's inability to get healthy food was the number of fast food restaurants in the county. According to USDA (2016), foods that are consumed while "eating out" tend to be lower in nutrition and higher in calories. The research further cited that availability, convenience, price of fast food contribute to poor dietary health. Thus, it is important to appreciate not only the number of "fast food" restaurants in a location but also the amount of funds spent for eating out. Statistics for this information tend to lag behind, and the most current information for Colorado County was from 2012. In that year, there were 15 "fast food" restaurants in Colorado County, which indicated a rate of 0.72 restaurants per 1,000 population (USDA.ERS, 2015). In addition, Colorado County had 13 "full service" restaurants, which is 6.34 restaurants/10,000 people compared to 6.13/10,000 for Texas (City-Data, 2016). During the same timeframe, the expenditures per capita for fast food restaurants was $784 (USDA.ERS, 2016). Food from fast food restaurants tend to satisfy hunger by providing food with high fat content but this does not equate with "healthy."

Although there is not data specific to Colorado County regarding food insecurity in 2016, the USDA has reported that nationwide the expenditures for food supplement/nutrition assistance programs has decreased about five percent from the historical high of 2013 (USDA. ERS, 2015). However, the general trends remain - about 14 percent of households were food insecure in 2014, with food insecurity meaning that sometime during the year, the person/family was concerned with not

having enough food. In addition, nationwide, in 2014, about 44% of SNAP participants were children (13.9% were children younger than five and 30.3% were children between 5 and 17) (USDA,ERS, 2015). In keeping with this trend, one could expect the percent of food insecurity for children in Colorado County to have decreased slightly from the 12.8% of 2011 (Fields & Hatala, 2013).

Physical Activity. Lack of physical activity is a contributing factor to obesity. The 2015 Community Health Status Indicator (CHSI) determined that physical inactivity for Colorado County residents was 25.4% compared to 25.9% for its peer counties throughout the U.S. In addition, this number is lower than the *Healthy People 2020* target of 32.6% (CHSI, 2016). Contributing to this lower percent could be another finding of the CHSI (2016) that found only 8% of residents in Colorado County indicated they lived within ½ mile of a park compared to 14% of people throughout the US (CHSI, 2016). Despite having a river for recreational activities and warm weather throughout most of the year, residents in Colorado County do not seem to take advantage of existing outdoor recreation.

Perhaps part of the issue could be travel time for work. The 2010 US Census determined that 78% of employees commuted alone to their worksite, and the mean travel time was 26.4 minutes (Fields & Hatala, 2013). More current data determined that the median travel time to work was 22.1 minutes (US Census, 2015); this decrease in time may reflect that people who have entered the workforce at the entry-level positions are working closer to their homes. The commuting time may have taken quality time that

could have been used in physical activity. One factor that may be associated with length of time in vehicle is an increase in the annual PM2.5 concentration. In 2015, the annual average PM2.5 concentration was 9.5 μ/m^3 meter compared to 10.7 μ/m^3 for the US. This 9.5 μ/m^3 concentration placed Colorado County in the 50% range when compared to 49 other counties of similar size and demographics (CHSI, 2015).

Injuries. Although the Texas Department of State Heath Services indicates that fewer than 10 motor vehicle fatalities occurred in 2013, the CHSI determined that the rate of motor vehicle deaths was 25.6 per 100,000 compared to the US rate of 19.2 per 100,000 and a *Healthy People 2020* target of 12.4 per 100,000 (CHSI, 2016). With the rate of fatalities associated with motor vehicles higher than the national and target rates, the root causes for these injuries should be investigated to determine if policy or environmental changes could address the issue.

Stress and Mental Health. Colorado County, along with most of the nation, is a Mental Health Professional Shortage Area (HRSA, 2016), meaning there is not enough mental health providers to service the need. The designation of Mental-HPSA has not changed from the 2013 Community Needs Assessment. Because of the limited number of mental health providers, Colorado County works with Texan Center, a 501(c) organization, to addresses mental health issues (Texana, 2016). Texana has a geographical region that covers 6,000 square miles and serves over 16,000 clients annually. The Corporation has numerous sites throughout the region, with the sites

varying in size. There is a small Texana office located in Columbus, Texas. However, because access to mental health services is still difficult, many people continue to seek care at the local hospital's emergency room.

Health Indicators

To understand the changes that are occurring in Colorado County, data for this Community Needs Assessment will be compared to the 2013 Colorado County Community Needs Assessment, the most current county health data, other counties within Texas, and comparable counties throughout the US. Comparison data will come from the Texas Department of State Health Services, the County Health Rankings (CHR, 2016), and the CDC's Community Health Status Indicators (CHSI).

Maternal and Child Health. A key to determining the health of a community is by analyzing the health of children. Although Colorado County is considered an "older county," meaning that its average age is higher than the State's median age, the health of the youth remains a way to gauge the health of the community. The 2013 Community Health Needs Assessment (Fields & Hatala, 2013) reported that the pre-term live births in Colorado County was 13.2% compared to the State's rate of 12.0%. In 2015, the rate increased to 14% (CHSI, 2016) compared to the US rate of 12.1% (and a *Healthy People 2020* target rate of 11.4%). This statistic is important as early delivery is the leading cause of perinatal deaths in newborns. In addition, preterm births increase the risk of long-term morbidity and often require intensive care after birth and longer stays in the hospital.

Equally important for healthy birth outcomes is prenatal care. The 2013 Community Health Needs Assessment reported that approximately 63% of Colorado County women received first trimester prenatal care compared to the state's 63% (Fields & Hatala, 2013). Currently, 56.8% of women received first trimester care in 2015 compared to Texas 62.5% (TDSHS, 2016). Of the 246 babies born in Colorado County in 2013 (TDSHS, 2016), fewer than 10 were to women younger than 18. This indicates a rate per 100 of less than 4, which is a decrease from the information reported in 2013 when the rate was 4.1%. The percent of babies born to unmarried women, although higher than the state average (43.9% vs. 42.4%) has decreased from the 2013 reporting (46.6% vs. 42.6%) (TDSHS, 2016).

Pregnancy and birth. The 2013 Community Health Needs Assessment reported that Colorado County had 13.7% premature births. Since health statistics reported by the State Health Department usually lags about five years, the 2013 data is the most current (TDSHS, 2016). Thus, the 13.7% premature births places Colorado County in the middle two quartiles of the CHSI survey and is higher than the 12.1% for the US and the proposed *Healthy People 2020* target of 11.4%. (CHSI, 2015). Low Birth Weight, which may or may not be associated with pre-term births, occurred in 8% of the births in Colorado County in 2015 (CHR, 2016) which was equal to the Texas rate. Because of the small number, no percent was calculated for comparison with the state rate. However, for the families of babies who were born at low birth weights, there are short- and long-term repercussions. In addition, according to the Texas Behavioral

Risk Factor Surveillance System (2014), the mean hospital charge for low birth weight babies in Colorado County was $116,861.

Chronic Diseases. Most chronic diseases have behavior factors that contribute to the disease. This is why a good understanding of health determinants is so important. In a county like Colorado that has an older-than-average population, the rates of chronic diseases are expected to be higher. According to the TDSHS, the main causes of death to residents of Colorado County (2016) were heart disease (196.9 per 100,000 compared to Texas' 170.7/100,000) and cancer (192.4 per 100,000 compared to Texas 156.1/100,000). Colorado County reported few deaths attributed to stroke (n=13), chronic lower respiratory disease (n=11), and diabetes (n=13) and comparable rates were not determined for these diseases. The CHSI (2015) substantiated this by indicating that Colorado County was in the "most favorable" quartile for cancer deaths (168.2/100,000 vs. US 185.0/100,000), chronic lower respiratory disease deaths (31.5/100,000 vs. US 49.6/100,000). The same report found the diabetes deaths in Colorado County to be higher than the US deaths attributed to diabetes (35.7/100,000 vs. 24.7/100,000).

Diabetes. Although Colorado County had 13 death attributed to diabetes, it did have many people who have been diagnosed with diabetes. Diabetes continued to be of concern throughout the US because of the percent of people who have behavior factors that predispose them to developing the disease. Specific Colorado County behavior statistics identified in the County Health Ranking (2015) include the following:

- Adult smoking (15% vs. Texas 15%);
- Adult obesity (31% vs. Texas 28%);
- Physical inactivity (28% vs. Texas 24%); and
- Access to exercise opportunities (48% vs. Texas 84%).

In Colorado County, 76% of people with diabetes are monitoring their disease compared to rates of 84% in Texas and 90% in the US (CHR, 2015).

Hypertension and other cardiac problems. The rate of Colorado County residents who died from coronary heart disease was 196.9 per 100,000 compared to Texas 170.7/100,000 in 2014 (CHR, 2016). This is lower than the statistics reported in the 2013 Community Needs Assessment (234.8/100,000 for Colorado County) (Fields & Hatala, 2013). Although higher than the State rate, the demographics of the county must be considered; with a much older median age than Texas, Colorado County would be expected to have more cardiac problems. On a positive note, however, the rate of hypertension and other cardiac problems has decreased from the 2013 Report; this may reflect better case management, earlier diagnosis of disease, or more emphasis on prevention. This is substantiated by the observed rate of hypertension admission rate to the local hospital. The Texas Department of State Health Services (2016) reported that Colorado County had a rate of 49.25/100,000 compared to 59.24/100,000 for Texas.

Cancer. The rate of cancer, as reported in the 2013 Community Needs Assessment (Fields & Hatala, 2013) was 190.2 per 100,000. The Texas Cancer Registry (2016) reported in 2012 that the number of cases of cancer in Colorado County

was 612 which would be a crude rate of 588.8/100,000 (compared to Texas 386.7 per 100,000) which would be higher than the state average. However, the age adjusted rate of cancer for Colorado County was 410.8 versus 412.8 for Texas; again, this helps to emphasize the impact of the county's older population on chronic disease statistics. Cancer statistics seem to be difficult to capture; there are statistics from the CHSI (2015) and the CHR (2014) which reflect different rates. One issue with cancer statistics is the reporting mechanism, with some organizations reporting cancer mortalities or perhaps specific (i.e. "common") cancers.

Communicable Diseases. It was reported in the 2013 Community Needs Assessment that the communicable diseases that are required to be reported to the state's health department were not relevant to Colorado County. The same holds true with the more current information. The latest health profile for Colorado County (TDSHS, 2016) found rates of AIDS, chlamydia, gonorrhea, pertussis, syphilis, tuberculosis, and varicella to be well below the state's rates. Figure 11 reflects the incidence rates for select reportable diseases for Colorado County, health department Region 6, and Texas. The reported rates for chlamydia is lower than the region and the state. However, chlamydia is a sexually transmittable disease and would, more likely, be found in a younger population.

Figure 11. Incidence Rate (per 100,000) of select reportable diseases for Colorado County, Region 6, and Texas for 2013

Disease	Colorado County	Region 6	Texas
AIDS	0	13.3	9.2
Chlamydia	274.2	452.9	473.1
Gonorrhea	116.2	122	125.2
Pertussis (whooping cough)	0	7.2	15.1
Syphilis (1° and 2°)	*	5.4	5.6
Tuberculosis	0	5.2	4.6
Varicella (chicken pox)	*	5.2	7.1

Source: TDSHS, County Health Profiles

Rates for two diseases, syphilis and varicella, are not shown in the chart for Colorado County. This indicates that the number of reported cases was too low to report a rate (in both cases, the number of actual cases in Colorado County was less than 5). This is different than the "0" rate which is reflected in AIDS, pertussis, and tuberculosis where no cases were reported for the county.

Immunizations. Childhood immunization has been viewed as an important component of disease prevention. Historically, babies received a number of immunizations and young people were required to have met vaccination requirements prior to entering school. A recent trend has emerged whereby many parents are opting out of having their children receive any/all of the immunizations, citing concern for the safety and efficacy of the vaccine. The 2013 Colorado County Community Needs Assessment (Fields & Hatala, 2013) reported on the percent of children who were vaccinated for a number of specific diseases, with the rates ranging between 90% for polio and 37% for three dose of pneumococcal conjugate vaccine (PCV). More recent

county rates have not been published. However, the National Immunization Survey reflects the state levels for 2014; in this survey, 64% of children ages 19-35 months of age were fully immunized in the "combined 7 vaccine series" (Hill et al., 2015). This is an alarming statistic, and the CDC reported that the rate reflected an 8.5% decrease from the previous year (Hill et al., 2015). Although the data was for the state, two specific geographical regions (San Antonio/Bexar County and Houston) also reflected decreases in immunization rates. Most sources (health organizations as well as providers) place much of the blame for the decrease on Texas' "personal belief" exemption whereby parents can "opt out" (for nonmedical exemptions to school immunization laws) of having their children vaccinated.

Access to Care. Access to health care depends on many factors such as availability of providers, types of services, insurance providers, vulnerable populations, and safety nets. These factors contribute to a person having the ability to get healthcare when needed.

Facilities. With the reopening of the Weimar hospital in December 2012, the total number of hospitals in Colorado County is three (two not-for-profits and one public hospital). The total number of hospital beds for the county is 103, with the largest number of beds (n=40) located at the Columbus Community Hospital. The county's hospitals offer acute care and offer specialty services on a limited basis (i.e. specialists are in the county on specific days). There are a number of medical clinics located in the county, and the ratio of patients to primary care physicians is 1,380:1 compared to

Texas' 1,680:1 ratio (County Health rankings, 2016). Other statistics which shed light on the ability to access healthcare is reflected in the Health Workforce information provided by the US Department of Health Resources and Services Administration (HRSA). The 2013 information (US Health Resources and Services Administration, 2016) reflects 2013 data per 100,000 population.

Figure 12. Rate per 100,000 of Providers in Colorado County, 2013

Provider	Rate/100,000
Total Physicians	125.3
Primary Care Physician	72.3
Nurse Practitioner	14.5
Nurse Anesthetist	19.3
Nurse Midwife	0
Physician Assistant	0

Source: HRSA, 2013

Colorado County does not have a county health department but relies on Texas Department of State Health Services, Region 6/5 for services. Region 6/5 provides basic public health services for 16 counties that have a total population over five million. In conjunction with Region 6/5, there is a WIC Office located in Colorado County as well as a small public health clinic offering immunizations and tuberculosis control.

HPSA, MUA, MUP. Health Professional Shortage Area (HPSA) is a federal designation for a geographic area that meets certain criteria. Counties may seek federal HPSA designation as Primary Care HPSA, Mental HPSA, and/or Dental HPSA. Primary Care HPSAs are based on a 1:3,500 physician-to-population ratio plus meet a number of other factors such as age of the community, mid-levels in the area, travel

time to services. Mental HPSA is based on a psychiatrist-to-patient ratio of 1:30,000. Dental HPSA determination is based on a dentist-to-patient ration of 1:5,000. Counties may have all three designations, and partial county status can occur. In addition, the federal government also has established Medically Underserved Areas (MUA) and Medically Underserved Populations (MUP), with status being determined by shortage of personal health services or inclusion of vulnerable populations that face economic, cultural, or language barriers. HPSA/MUA/MUP designations are important when/if federal funding is sought and are often used to recruit health providers to a region, as these designations may have a "loan forgiveness" bonus. As of June 2016, all of Colorado County has been designated Primary Care HPSA, Dental HPSA, and Mental Health HPSA (HRSA, 2016).

Medicaid/Medicare/CHIP. The 2013 Colorado Community Needs Assessment (Fields & Hatala, 2013) indicated that approximately 30% of the county's 0-64 population did not have health insurance, and approximately 21% of the children (under 17) did not have insurance. Statistics from 2014 (Texas Health Data Center for Health Statistics, 2016) reflect that 26.3% of the county's 0-64 population were without insurance and 16.2% of youth (under 17) did not have insurance. These statistics remain higher than the state average (12.7% for youth under 17 and 24.8% for 0-64). This does indicate that effort has been made to identify and enroll people into health insurance programs.

Preventable Hospital Days. For the last few years, the Texas Department of State Health Services has displayed a database that analyzes hospital diagnoses that have a prevention component. Although not required to submit the information, hospitals are urged to submit annual data. The concept of the database is to have an area where success of prevention programs throughout the community can be highlighted. Based on this information, the 2013 Colorado Community Needs Assessment reported that adults in Colorado County received $17,068,938 in charges for (calendar year 2011) hospitalizations which had a prevention component (Fields & Hatala, 2013). During the same time, the state legislature allocated funding for 16 rural hospitals to address nine potentially preventable hospitalization diseases. Although hospitals in Colorado County were not eligible to participate in the initiative, findings from the 16-hospital study provide insight into preventable hospital days. Results from that study (Gilliam, 2015) determined the following for hospitals participating in the initiative:

- "There was a decrease of 10.5% in hospitalizations compared to Texas which had a decrease of 3.1%;"
- "There was a decrease of 2.7% in hospital charges compared to Texas' 4% increase";
- "There was a 14.8% decrease in hospitalizations for the Uninsured compared to Texas' increase of 7.7%";
- "There was a 15.6% decrease in hospital charges for the Uninsured compared to Texas which had a 15.0% increase"; and

- "There was a 22.9% decrease in hospitalizations for African Americans/Blacks compared to Texas' 5.6% decrease."

These findings should emphasize the need to analyze "best practices" of other hospitals and to consider applying appropriate ones to the local hospitals as a way to decrease the hospital charges for diseases that have a preventable component.

2013 Colorado County Community Needs Assessment

To comply with PPACA regulations, Columbus Community Hospital implemented its first community health needs assessment in 2013. The hospital contracted with Dr. Tina Fields and Dr. Jeff Hatala to facilitate focus groups that would use an instrument, validated by the Centers for Disease Control and Prevention, to ascertain the overall health of the county. Based on the findings from four groups and input from hospital staff and health providers, recommendations were presented to the hospital's Board of Directors. For transparency, the entire 2013 Colorado County Community Healthy Needs Assessment, was placed on the hospital's website.

The 2013 Community Health Needs Assessment included two main recommendations and seven suggestions. To that end, the hospital joined with community organizations to address issues in the county. In 2015, the hospital published its accomplishments for meeting the recommendations. These accomplishments included the following:

1. Developed a steering committee, linking the hospital and the community, to address community needs;

2. Offered education programs on Medicare Part D plans;
3. Worked with Texas Agriculture Agent to develop and offer “meal prep on a budget” at the Columbus WIC and Food Pantry organizations;
4. Organized informal group sites (including Friends of CCH Exercise Group, Garwood Gadabouts, Older Texans Fair, and Sheridan Go Getters) for socialization outlets for the elderly;
5. Offered a four-unit education session on diabetes nutrition; implemented a Spanish-language version (Si Yo Puedo) through a joint effort of the Texas Ag Extension Service, the Wesley Nurse, UTMB Residency Program, and the Columbus Community Hospital;
6. Through the Steering Committee, worked with the Texas Workforce Commission to identify ways to train youth, including offering of scholarships for Allied Health Professions students and hosting Health Occupation Student Association (HOSA) programs with the Columbus ISD;
7. Worked with The Texas Ag Extension Service to offer programs on bullying at the Columbus Junior High School;
8. Worked with a number of local and state agencies to develop an annual “Circus of Health” that emphasized childhood health;
9. Worked with Texas Statewide Preceptorship Program to offer medical students a rural rotation at the Columbus Community Hospital; also worked with HOSA to allow students pursuing healthcare professions to rotate weekly through the

various hospital departments (i.e. medical records, radiology, emergency room, and respiratory therapy).

Other accomplishments, based on identified needs discussed in the 2013 Community Assessment, included the following:

1. Provided free backpacks, filled with school supplies, to elementary students attending the Circus of Health. The hospital coordinated the efforts of the community to provide the school supplies.
2. Offered car seat checks for families with young children.
3. Distributed car seats, sponsored by the Texas Children's Hospital and Woman's Hospital of Texas, to families who could not afford car seats.
4. Worked with the Texas Medical Association Foundation and local physicians to sponsor the "Hard Hats for Little Kids" that provided bicycle helmets.
5. Offered free Coronary Risk Panel and glucose testing to the community during American Heart Month.
6. Coordinated free physical examinations for student athletes of Columbus ISD and St. Anthony's athletic departments.

2016 Colorado Community Needs Assessment

Since the 2013 Needs Assessment was presented to the Board of Directors, the Columbus Community Hospital lost its CEO. The new CEO, James E. Vanek, felt there should be a continuity between the 2013 needs assessment and the development of the 2016 needs assessment. For that reason, the Columbus Community Hospital has contracted with Dr. Jeff Hatala and Dr. Tina Fields to coordinate the new endeavor.

Focus Groups and Informational Sessions

As part of the community health needs assessment, consultants conducted informational sessions with hospital executives and key nursing staff, and held focus groups with physicians, community leaders, representatives from the school system, the health care community, and representatives from local businesses. The various groups met for approximately two hours, with group size varying between 3 and 6 people. The consultants explained the need for the community health needs assessment and provided guidance as to where the earlier version could be found. The consultants used structured, open-ended questions to facilitate discussion. During the discussion, one consultant took notes to ensure comments were captured accurately. The following section summarizes findings from the informational sessions and focus groups.

Nurses. Nurses listed diabetes, hypertension, obesity, CHF, COPD, ailments pertaining to the elderly population, mental health concerns, and the ability to pay for medications as the leading health problems in the community.

Regarding diabetes, the biggest problems pertain to diabetes education for Hispanics and general non-compliance of diabetic patients. Nurses reported that the community is home to a large Spanish-speaking population and the community has no resources to deliver diabetes education in Spanish. Perhaps a bigger issue, diabetics are not adhering to provider recommendations regarding management of the disease.

The nursing leadership reported that mental health issues are especially evident in the youth of the community, but are present in all age categories. The community has few mental health resources; nurses state that those with mental health issues spend up to 4 days in the Emergency Department awaiting transfer to the regional mental health facility, assuming there is space available. Nurses say that Texana provides mental health resources to the community, but are difficult to engage.

Medication costs can be prohibitive for some patients. For example, asthma patients can pay up to $300 for a one-month supply of medications. Nurses and members of other groups have indicated that part of the problem is people not registering for ACA. There was little discussion on reasons behind the community not seeking insurance, but this should be investigated. With chronic diseases such as diabetes being prevalent in the community, it would behoove the community have more people sign up for insurance.

Nurses report that there are a number of aspects of the community that are effective in helping the community improve its health. Churches, the local health fair sponsored by the hospital, and the Boys and Girls Club are identified as key highlights in the community. According to the nurses, some local churches provide education,

programming, food and shelter for those in need. Some churches provide groceries 3-4 times per month. Some organizations provide assistance to pregnant teenagers.

Nurses indicate that the health fair provides an opportunity for people of all ages and backgrounds to obtain health information and screenings. Bike, fire and water safety sessions are also conducted at the health fair. The health fair is a joint effort by numerous local and regional health organizations, and it exemplifies the willingness of partners to work together for the benefit of the community.

The Boys and Girls Club provides after-school services for youth during the academic year and delivers services 8 am – 5 pm during the summer. Boys and Girls Club provides educational classes as well. The Boys and Girls Club is viewed by the community as an integral component of social, physical, and emotional health for local youth.

Nurses also report the need for health education and communication resources. Existing resources include provider-based education, the local 50+ program for the elderly, newspaper articles and local health presentations by providers, pharmaceutical representatives, physical therapists, etc. While continued access to such resources is important, the extent of non-compliance suggests a need for additional education and communication resources to “bridge the gap” between knowledge and behavior change.

Nurses also note that transportation in the community serves as a good resource. The bus will transport people door-to-door from Monday through Friday for health-related services if the passenger contacts them the day before.

The challenge in the community is that it is small and “everyone knows your business.” For example, mental health issues are often personal and private. However, should a mental health issue be evident in the form of crime, it is reported in the local newspaper. The public identification can help lead to a cycle of heightened mental health issues and negative behaviors.

Nurses note that there is a large retirement-age population in the community; there is also a high unemployment rate and housing is limited and expensive. Many people who work in the community cannot afford to live in the community. Being forced to live in other communities does not create a sense of “ownership” for many people who only work in the community; when economic downturns occur, these people are more likely to leave the area.

Hospital Executive Community. The hospital executives reported that mental health, geriatric issues, diabetes (and non-compliance), heart disease and stroke, accidents, and prescription drug use topped the list of major health concerns in the community. Other health-related concerns included payment resources, recent layoffs resulting from the closing of a large local business, and a gap in the health insurance exchange for those 55-64 years old.

Hospital executives state that the community does offer mental health services, but resources have not increased and demand seems to have increased. Hospital executives note that case workers have a hard time finding mental health resources for those who come to the Emergency Department. Executives indicate that illegal

prescription drug use has increased, but it may or may not be linked to mental health. The community now has a pain medicine specialist in town who is “booked.”

Executives state that a health-related strength in the community is the availability of a variety of clinic-based care. One executive notes that one “can always find a doctor to see...” Recently, cardiology service availability in the community expanded and a number of out-of-area doctors visit the community to offer various specialty services and provide follow-up visits. Also, the community offers home health services and a Wesley nurse works in the area.

Executives believe that transportation is a community issue; the demand for scheduled routes is insufficient so passengers need to schedule the services themselves. Executives also note that more formal transportation to the hospital (EMR, helicopter) has challenges and is quite expensive as well.

Additionally, executives discuss a significant problem related to coordinating care. There are a number of health care organizations, such as hospice, nursing homes and pain management, in town. But working together under the nation’s health policies present financial challenges for these organizations, which affect the patient’s overall health and quality of life. This issue is magnified for patients with multiple conditions. The executive team believes that an influx of funding can help reduce or prevent the Emergency Department from being treated as a medical home and can support the development of programs that can help the patient to appropriately navigate through the system.

The hospital is planning to build a new wellness center adjacent to the existing facility. This center will offer fitness services as well as respiratory care, physical therapy and rehabilitative services. Classrooms will be available to offer health education programs, such as diabetes self-management and smoking cessation.

Physicians. Hospital doctors also recognize the importance of diabetes as a health concern. Additional concerns pertain to obesity and cardiovascular disease. Physicians stress that the problem stems from behaviors seen at the elementary school level regarding diet and exercise, particularly in the Hispanic population. Physicians report that children do not obtain enough physical activity in relation to the calories consumed and it is easy to sidestep the physical activity requirement in schools. Physicians stated that fighting childhood obesity is imperative at the elementary school level and the battle starts in the home. Local schools face challenges with delivering healthy school lunches; they feel the school lunch program does not provide healthy food for children or that children are not inclined to eat the healthy foods that were presented. Physicians noted that there are many rules pertaining to the school lunch program that are a struggle for the local school district. On the positive side, physicians noted that state government did require nutrition education to be included in the school curriculum and that AgriLife has been a helpful source of health education.

Additionally, physicians discussed that the schools distribute, as part of a community-based effort, backpacks of healthy foods and snacks designed to provide healthy foods for low-income children over the course of a weekend. This program allowed children to have access to food over a weekend if food was difficult to obtain on

the weekend. Physicians have heard that these children often will eat the backpack contents before they arrive at home on Friday afternoon. Other area efforts around healthy eating (not just for children) include Grace's Table and the local food pantry through the Methodist Church.

Physicians note that access to care is not a problem in the community. Patients can make same-day appointments, but patients, particularly those who cannot pay, do not always keep their appointments. Physicians indicate that there are ample physicians in number and the community has an ability to attract and retain physicians. This success is credited to being a designated Rural Health Clinic.

Physicians stated that the supply of immunizations in the community present health problems and replied that the community "always runs out". Working with the state health department (DSHS) is never "a smooth process." Physicians remarked that patients recalled having received a vaccine, but they oftentimes did not remember what vaccine they received. In cases where multiple doses were required, this lack of awareness could present a significant problem. Physicians noted that creating a statewide immunization registry could eliminate or significantly reduce the effects of that problem; physicians noted that collecting information about pneumonia vaccine, a vaccine recommended for the older population, would be a good start.

Physicians commented on the severity of the mental health problem in the community. Physicians noted that Texana was difficult to access; only the most extreme of cases were supported by the organization. Access to mental health services has worsened over the last 10 years. Other than Texana, the closest counselors (not

psychologists or psychiatrists) were located in Weimer. For other mental health services, patients had to drive as far as Katy.

Physicians stated that primary care physicians treat some forms of mental health issues, such as depression, anxiety, drug use and chronic pain management. Primary care physicians will refer patients when needed, but because of the limited referral capability within the county, primary physicians feel the future will remain dismal and they must continue to address mental health issues.

Physicians also commented on the closing of the local business and its impact on the community's economy; physicians believe that the skilled workers will be able to find new jobs in the area. Other local businesses are facing challenges as well.

Physicians recommended that they would like to see the hospital provide semi-annual diabetes-related lab work in the community at a free or reduced cost.

School Sector. Representatives/officials from public and private schools in the community stated a number of health issues that affected the community, specifically with the children and youth they see. Issues included diabetes, cancer, eating disorders, anxiety, mental health issues (including anger management issues at a young age and, perhaps related, abuse of prescription drugs), drug and alcohol use, and speech (articulation) and hearing problems. School officials stated that the number of children diagnosed with diabetes was increasing. One official said, "Normal healthy looking kids are getting diabetes." Parents come to school to have lunch with their children but would bring fast food with them. One official reported that "it's easy to see the nutritional issues" within the school. Officials reported that 70% of the student

population received free or reduced school meals. Officials stated that there were more special needs children in the schools today, and these special needs pertained to emotional and intellectual issues, including dyslexia, autism, and language issues. A notable portion of the student body was learning English as a second language.

Representatives also note family issues, sexually transmitted infections, pregnancy, lice, bullying, social media and suicide as direct and indirect problems to health that are seen in their schools. Officials report that the amount of pregnancies in the schools has declined, but students are getting pregnant at younger ages. Schools are helping to provide services for pregnant students/students who are also parents. Officials report that some schools have a day care within the school.

Regarding bullying, officials report this is a problem but also state that the term is overused and is often regarded as a catch phrase. Students are using the term as a means of protection when they get into a situation where they are uncomfortable; learning coping skills and the ability to navigate through social situations would be more effective and require less administrative resources. However, officials report that cyber bullying is “a different beast.” Social media worsens the effects of bullying and makes it more difficult for schools to investigate and stop.

School officials reported that many of the problems listed above relate to issues in the home. For example, speech and articulation problems have some relationship to parents not reading to their children; there are many single parent households and stressors in the home that put reading low on the priority list. Parents are often not educated about how to deal with the health issues of their children, which causes

setbacks in learning. In addition, school representatives stated that parents often avoided obtaining services for their children so "labeling" was less likely to occur. Many students in grades 6-8 have cell phones and parents would text their child during the school day. Schools limit WiFi during the school day, but the issue remains a concern.

Officials said that the general home life could be a problem for the children they teach; discipline, lack of focus on personal ethics and responsibility, and being Millenial were problematic. School representatives noted that some students came to school because it was the "best thing they have going." Officials emphasized lack of respect as a key issue – lack of respect for themselves, lack of respect for their parents, and lack of respect for their teachers. School leaders reported the need for parent education, parent involvement in their children's education, resources to help parents support their children in the learning and studying process, and a resource to help parents understand school policies and the importance of working under these policies.

As these issues exist and the teacher population ages, more teachers are retiring and replacing them can be difficult. In addition, ESL issues create the need to have more bilingual faculty, which is also hard to find. Teachers who come to the area are not motivated by money as they could drive 30 more minutes to work and make a lot more money by working in a Houston suburb. Housing is related to the challenge of replacing teachers; the Colorado River creates boundaries so new construction of affordable housing is presently impossible. Housing prices in the community are quite high; school employees have to live outside of town and commute to Columbus.

The schools report having a good relationship with Texana for mental health services. One official states that the schools receive service within an hour. This appears to be a different perception from that of health providers. It could be the degree of difficulty of the mental health issue associated with schools and that of hospitals. Nonetheless, health organizations should investigate if there are Letters of Agreement between Texana and schools that contribute to the speedy responses.

Schools report there are a number of important services to help with health-related needs in the community. The Boys and Girls Club (BGC), also stated in the 2013 Community Health Needs Assessment, continues to provide critical support for the youth of the community. BGC delivers after-school programs and two meals a day (breakfast and lunch) for children ages 0-18. Due to health code and fire code problems, the location for food provision has shifted since the 2013 Community Health Needs Assessment.

Additionally, schools reported favorable feedback about Columbus Community Hospital and the health-related events it held, the local Urgent Care organization, the office of the health department in the community (for immunizations and WIC services), the local physical therapy/rehabilitation center, and Rotary and other civic organizations. School officials emphasized the importance of churches in the area; some offered after-school programs, some offered clothing, and some offered food and groceries to those in need. There were a number of other organizations that provided a small, but important, piece to improve the health of the community or provided safety-net services

to those in need. School leaders reported they had no problem gathering resources – financial support or volunteers.

The biggest strength in the community, per the school administrators, is the sense of community. Volunteerism is quite strong and people are more than willing to help. Many people are affiliated with one or more local groups to help in some way.

Business/Work Site sector. Representatives from the business community listed geriatric concerns and cancer as the top health issues in the community. Representatives also listed drug use, dental, and obesity as significant health problems in the community. One representative noted that a significant percentage of the population has oral health issues but other respondents questioned if the issue lies with the amount of fluoride in the water, access to dentists, drug (meth) use, health education and behavior (brushing), or use of cigarettes and/or chewing tobacco.

In terms of obesity, one respondent stated that, "we drink our calories here." Representatives noted that the community, which is located off a major interstate, has a large number of fast food restaurants. Representatives believed that most residents could not read a nutrition label. One member from the business sector noted that lunch came from the vending machine in her place of business. Another member mentioned that Wal-Mart employees walked across a business road to eat lunch in the hospital's cafeteria because the price was affordable. Weight Watchers was mentioned and participants suggested that the hospital adopt Weight Watchers-like program.

In term of health care-related issues, health insurance tops their list. Not all employers in the community offer health insurance for their employees. For those with

health insurance, the business community reports that the nature of health insurance is very complicated; it is always changing. It is not a part of the every day life of the employee, and few understand how it works or how to successfully use it. For those who are approaching Medicare eligibility, understanding how Medicare works, associated fees and plan selection is very difficult.

From the workplace perspective, representatives from the business sector appreciate that the hospital offers screenings, but the timing of it creates challenges for employers/employees to take advantage of the services. The events are not something that employers would put on a daily calendar, as reported by one member of the business group. The workplace representatives stated that the trailer used for the screenings could be placed in front of local businesses or in company parking lots, which might result in higher utilization. Business sector representatives also said that promoting the event through more than one medium would be useful; push-in ground signs, flyers with payroll stubs, and flyers sent to local companies, churches and other organizations (Rotary, Lions, CCW, etc.) would also help to remind people to visit the health fair to obtain a screening. Employer representatives question how thorough an exam might be at a health fair as compared to what they would receive in a doctor's office. Employers also note that employees, and people in general, lack the knowledge of how important health and health screenings can be. In addition, if people do receive the screening, they are fearful of the results.

Another representative said, “We forget to take care of our health.” Related to health insurance, companies are incenting employees, either positively or negatively, to obtain health screenings.

The employer representatives discussed the economy of the community. Representatives noted the importance of the oil and gas industry to the community. One of the larger organizations in the oil and gas sector has had recent layoffs. The local Walmart has reduced hours for employees although it has recently hired more people. Many of the community’s employers offer low-wage positions; even with overtime (if available), a worker cannot support a family on that level of income. One respondent reported, “If people can’t make it here, they will go elsewhere.”

When asked, respondents felt that mental health issues would not be listed in the top five health conditions. Some respondents felt mental health was an issue for the community while others did not. The employers saw small mental health issues in the community, but not major ones. However, representatives from the community workforce commented that awareness for mental health services was needed in schools; parents did not know what resources were available for their children or how to access those services. Representatives also noted that mental health support groups were needed. For example, one representative informed the group that she knew someone who died from a vehicle accident and there were no support groups in the community that could help the deceased’s family through the grieving process. One respondent reported that the closest group was in Katy.

The business community stated that the Columbus Community Hospital's Emergency Department is greatly improved, especially in terms of setting times and expectations for wait times.

Health Care Organizations. Representatives from various health care organizations in the community stated that the community's biggest health-related problems pertained to vision issues, diabetes, mental health and lack of health insurance. Diabetes was noted as a significant problem, particularly for the Hispanic community and those with no insurance. Representatives from the health care organizations indicated that diabetes education is present in the community but the education is not in Spanish. A pharmaceutical rep comes to the community to do diabetes education, but he only comes every three months. Representatives noted that there is a new county extension agent who serves the community. Because diabetes is prevalent in the Hispanic community, there is a great need to be able to offer education in both English and Spanish.

Mental health issues noted by the group included anxiety, depression, issues stemming from a family situation or a change in family dynamics, and loss of independence (pertaining to the elderly population).

Representatives from health care organizations noted that, in the community, the patient frequently must serve as his/her own health advocate. Lack of health insurance means that patients need help paying for treatment and medications. Representatives also stated that the unemployment rate in the community led people to not take proper care of themselves, which resulted in Emergency Department visits. Some Emergency

Department visits were obtained through an uncompensated ride in an ambulance. Employment, either lack of or low-paying, is a stressor.

Representatives from the community's health care organizations noted that there were a number of services available to help with health-related needs. Noted was the food pantry with the Methodist church and HEB donated fresh eggs and other food items. Representatives noted that menu labeling and options for healthy eating were improving in the community.

Representatives discussed a variety of resources needed in the community, which included a community garden, a dedicated community paramedic who would provide "house calls" during non-urgent times, and the ability for high school students in the community to be able to learn a trade.

Community Leaders. Community leaders stated that the top health-related concerns in the community pertain to mental health, obesity, physical activity, cardiovascular disease and diabetes. Leaders noted that the heat affected the likelihood of participation in outdoor activities and added that there was an abundant assortment of fast food options in the area. Leaders stated that the most important health issues pertain to mental health.

While the resources for healthy eating are limited, leaders have noted that there are avenues available for physical activity. A crossover to get to Beason's Park is in development. The Lions Club sponsors a bike ride. Approximately 500 riders participate, but only a handful come from the community.

There are a number of gyms and fitness classes, like Zumba and Cross Fit, in the community and the hospital is planning to build a state-of-the-art wellness center that offers nutrition classes, exercise classes, physical therapy, and healthy living classes. This wellness center will be adjacent to the hospital. Friends of Columbus Community Hospital offers free exercise classes on Tuesday and Thursday mornings at 9 a.m. and offers health education classes as well.

Community leaders also stressed the importance of employment in relation to the health of the community. The leaders noted that one of the oil and gas-related companies in the community recently closed. One leader stated, "We are like every place else in Texas… we walk on egg shells living in oil and gas." Upticks and declines in the oil and gas industry have a significant impact (both positive and negative) in all aspects of Texas communities, including health.

Community leaders report that these negative impacts of employment can be manifested through depression and other mental health issues, substance abuse and addiction. While leaders noted that Alcoholics Anonymous holds meetings in the community and churches offer help, there is not enough support to meet the mental health needs in the community.

Leaders stated that the employment situation has not resulted in an increase in crime, but there is an increase in self-medicating and family violence. The family violence may result in jail time, which can lead to involvement by Texana. Texana is strained and is challenged to provide timely response, leaders reported, but has a good relationship with the community.

Mental health services are a challenge, as reported by the community leaders. There is stigma that is associated with use, which prevents use by those who need the services. Leaders do not know if there is a counseling service available, but did know that Texana offers a crisis hotline.

Leaders in the community discussed the issues between Exit 699 and 700 on I-10, which was highlighted in the 2013 Community Health Needs Assessment. This area still has a number of accidents. Representatives noted that the road curves in one place and cell phone service is unavailable. People look at their phones to see what is wrong, which means they are not looking at the road. Where the road curves, accidents happen, particularly in wet weather. Although the Texas Department of Transportation has erected wire boundaries in the median of the interstate, accidents continue to happen.

EMS is often called to help in these cases. First responders in the community are involved in emotionally difficult situations. One community leader is looking into finding funding to provide a counselor for the police department, fire department and other first responders in the community.

Community leaders discussed that recruiting physicians to the area may become challenging. With the growth of Katy, a Houston suburb only 30 minutes away, it will be more difficult to recruit physicians when they can have greater resources, amenities and pay by driving a short distance. The community's health care community is using more mid-levels, which is lowering hospital Emergency Department readmissions.

The leaders noted a number of effective programs and services available for the health of the community. Community leaders listed AgriLife Extension, the Wesley Nurse, Circle of Friends and other health fairs in the community as vitally important elements serving the health of the community.

While the events and programs are good, leaders commented that more people could take advantage of the classes and educational offerings. One leader noted that approximately 200 people attended the health fair in February, but 400-500 people should be attending. Leaders noted that more social media (including use of video) and signage in front of the hospital should be used to promote the events.

Leaders stated that the African American and Hispanic communities have had low participation in the educational offerings provided. Leaders commented that some people do not want to know what might be wrong with them, suggesting that "ignorance is bliss." Leaders noted that it is very important for those people to get screenings because the community is ultimately going to be paying for their care. Related to this, leaders discussed ideas around incentives and disincentives for participation in the health fair screenings. Some leaders noted apathy and a desire to use welfare services as a primary means of living. One leader stated that some people are "smart enough" to use the system to their advantage and noted that there is a market for food stamps and "Obama phones" in the community.

Recommendations

Based on the statistical data and feedback from the focus groups, there are a number of recommendations for the hospital and the community in general. These recommendations have been categorized by topic. Some suggestions may cross multiple areas.

1) **Repository of Community Information.** Develop website or repository of community health events and resources. When asked about services and offerings in the community, many had an idea, but few had a full picture, of what was offered. Adding such a repository on the hospital's website will reinforce that the hospital is critical to the success of the community's overall health and will solidify its role in addressing community needs. Consider leveraging information from this repository to be included on social media and the hospital's new LED sign. The Chamber of Commerce may be able to help support these efforts.
    a. **Repository of Immunization Information --** Work with the local medical society and the Texas Medical Association to develop an immunization registry; initially gear the registry toward one immunization, such as pneumococcal, in order to measure success.
2) **Partnerships.** Partner with academic and volunteer resources to augment and sustain existing efforts. With the close proximity of Houston universities (UT Houston, Rice, University of Houston), Texas A&M and even Texas State University, leveraging students who need and want professional experience

before graduation could infuse existing efforts with additional energy and new ideas for success. Students can do much of the legwork to inform the community of programs and services, and promote events. Some students may be willing to travel to Columbus to help with specific events. Internship coordinators at these universities probably would be happy to help however they can. Consider students from public health, health administration, community health education, sociology and psychology, marketing, and journalism for these tasks. Examples include monitoring/updating the community resource webpage and finding grant possibilities. Other tasks can be determined by hospital and by community need. Students, particularly those in public health programs, can be quite useful in searching for grant opportunities and can monitor grant funding sites on a regular basis. Once the community identifies specific funding needs, the student can identify potential funders and can search for grant opportunities accordingly.

a. Consider expanding preceptor sites to include nursing and allied health students as well as other professional internships that could prove beneficial to the community/hospital. With significant health issues found in the African American and Hispanic communities, consider having students from Historically Black Colleges and Universities and Hispanic Serving Institutions of learning to enhance the focus of the community health education within the community. Consider schools such as Prairie View A&M University, Texas Southern University, St. Philips College, Texas State University, University of Houston, and the Lone Star College

System. Prairie View A&M offers a nursing program. Texas Southern University and St. Phillips University offer some allied health programs. Texas State University, University of Houston and the Lone Star College System offer both allied health programs and ~~a~~ nursing programs.

b. Leverage Houston-area resources to help tackle the community's most notable health problems -- diabetes and mental health. Community members generally support church and civic groups throughout the community. However, the community is aging and fewer people are moving into the community. As human resources may be more scarce, it will be more important to leverage existing health resources, such as the American Diabetes Association, in Houston. Due to distance, these resources may be more difficult to secure or coordinate. Consider using technology to assist in this process (i.e. Skype, telemedicine-like options).
c. Continue to work with the local HOSA program to encourage local high school students to consider careers in healthcare.
d. Discuss possibility of serving as preceptor/training sites for other health-related career training that is offered through community colleges. Most health profession curricula require on-site training that often serves as a doorway to employment.
e. Explore the possibility of using retired nurses and other healthcare workers to serve as patient navigators to assist people in working through the medical system (not just the hospital system). The hospital could

server as the convener of such a program and could provide training for how to navigate the majority of the health care system. The hospital could include times for other organizations to provide training for unique areas of the healthcare system that people have difficulty navigating (i.e. insurance, EMS, transportation).

f. Convene a brainstorming session of agencies (TAMU, UT-H, ADA, NAMI, etc.) to discuss ways to partner in order to seek funding. Identify one or two areas on which to focus. Since EMS is looking for grant funding for mental health counseling for first responders, this could be the first program to investigate.

3) **Interventions – General.** Interventions targeted toward the African American and Hispanic communities need to be led by community members of that same race/ethnic background. Cultural and trust issues can be difficulty to overcome if such issues are not addressed during the planning process. This would include having diversity on the planning committees so that age, religion, language, etc. are represented from the onset. Including diverse people to head up program activities will help the general population feel more comfortable with the program. For example, the hospital's Director of Nursing would be an excellent candidate to work with select church members to identify ways to increase participation in local health events and educational programming, particularly as they relate to diabetes, mental health, and issues related to health care (health insurance, how to obtain health care services, etc.). Perhaps another hospital employee would

be willing and able to do the same thing in the Hispanic community; however, do not limit the leadership role to hospital employees. Obtaining this information could provide valuable insights for reaching these hard-to-serve populations. Also, it is vital to engage local clergy in these efforts.

a. Ensure that the hospital's steering committee continues to have representation of diverse interest groups – this would include having people of all ethnic/racial groups, all ages, all economic groups, all education groups – to ensure programs are developed that meet unique needs of all people of the community.
b. Investigate the possibility of conducting health screenings off the hospital's campus; locations such as Walmart and church parking lots may increase participation.
c. Increase local participation in the planning of health events. For example, include business leaders who could identify better times to hold health fairs that would allow working people to attend. At the same time, educate employers as to the benefit of the free screenings and how the employers could "sell" the concept to their employees.

4) **Interventions – Mental Health.** Identify ways to address mental health issues of first responders. Encourage all community organizations as well as the hospital, local health organizations and providers to support any attempt by EMS to have a grief counselor. In today's strange world, all communities need some type of grief counselor for First Responders and hospital personnel. The Department of

Justice may have grant funding available to support such an initiative. Resources at Texas A&M or UTHSC/Houston may be able to help with the grant application. Based on recent media stories, funding may be more readily available.

a. One of the keys to successful interventions pertains to continually engaging in dialog. Continue talking with representatives from schools, work sites, the hospital and other health organizations to assess what efforts are effective and not as effective. Keep minutes/records of all meetings, as grant funding currently focuses on demonstrating sustained community dialog. The dialog should also pertain to creating a list of community needs on a regular basis and prioritizing those needs. The local steering committee should consider membership representing different populations, different ages, and different organizations.
b. Meet with Texana representation to ascertain how the community can better address mental health needs of all citizens of the community, recognizing that Texana is overwhelmed by the needs of the area but also recognizing that many existing health issues have a mental health root cause. Consider engaging local clergy in that discussion.
c. Strongly engage AgriLife (specifically new AgriLife representative in the community) and Wesley Nurse in the community. These resources are designed to help with issues that fall under the mantel of social/mental/emotional health. Consider using their services strategically

as well as tactically. This recommendation also applies to diabetes education and other health conditions facing the community (see #5 below).

5) **Diabetes.** Investigate a community effort for diabetes education, using AgriLife, hospital, new wellness center, and others. Work with the existing diabetes educator (pharmaceutical rep) to ascertain ways that the educational benefits could be expanded at minimum cost – both to other languages and to more formal meetings. Perhaps investigate if the specific pharmaceutical company would be willing to augment partial salary for a community diabetes educator to continue the existing diabetes program when the pharmaceutical rep is not in town.
6) **Health Insurance -**- Ensure that at each health fair there is at least one representative who can enroll people into health insurance. Check with CMS as to how to get more people to have the ability to serve as enrollers.
    a. Expand the pre-retirement Medicare Awareness education sessions by offering them at local industries, opened to everyone in the community, on a quarterly basis. Perhaps work with Chamber of Commerce to put these on a continual schedule.
7) **Other health concerns and community issues.**
    a. The secondary data does not indicate that the dental problem is THAT much of an issue (not in the “big 5”). Contact the Community Dental Department at either UTHSC-Houston or UTHSC-San Antonio to

ascertain the possibility of using community dentistry students to perform an assessment of the dental issues in the community. Based on the findings, work with the same dental school to identify ways to address the problem.

b. In conjunction with the opening of the Hospital's wellness center, implement a "weight watchers" look-alike program to assist low-income people to learn healthy ways to lose weight and eat healthy on a limited budget.

c. In conjunction with the opening of the Hospital's wellness center, implement a grief support group to assist families and friends. This could be developed in conjunction with American Cancer Society and other national groups that have existing programs; however, gear the local grief support group to any type of death. Be cognizant that grief includes issue other than death – issues such as loss of home, break-up of family, loss of job can create the need for grief support.

d. Explore the possibility of having signage placed on the Interstate that indicates "limited cell phone coverage" where accidents frequently occur between Exits 699-700. Such signage could make drivers aware that phones are not out of service, just out of range temporarily. Investigate opportunities with Texas A&M School of Public Health and/or Texas Transportation Institute to secure funding from TxDOT to determine if signage would decrease the incidence of accidents in that one area.

Appendix 1: List of Participants

Russell Brown, Edward Jones

Robert Burton, Columbus Eye Associates

Dwain Dungen, Mayor, City of Columbus

Beth Easterling, Grand Oaks Antiques and Gifts

Michael Furrh, Colorado County EMS

Michelle Gorman, Columbus Chamber of Commerce

Betty Hajovsky, Columbus Community Hospital

Tom Hancher, MD, Columbus Community Hospital

Jeno Hargrove, Columbus Community Hospital

Alison Korell, AL&M Building Supply

Bill Lattimore, City of Columbus Police Dept.

Gary Leopold, Columbus ISD

Tracy Lilie, Columbus Community Hospital

Ashley Mathis, Columbus Community Hospital

Samantha McMullin, Columbus Medical Clinic

Al McNutt – Four Oaks Medical Clinic

LaPorchia Miller, Walmart

Troy Millican, MD, Columbus Community Hospital

Lisa Moeller, Industry State Bank

Tim Mueller, MD, Columbus Community Hospital

John O'Leary, Columbus ISD

Barbara Peterman, Columbus Community Hospital Steering Committee

Catherine Purser, LNFA, LCSW, TruCare Living Center

Robert Russell, Columbus ISD

Debora Shimeh, Methodist Health Ministries

Prisca Soto, Columbus Community Hospital

Terri Tomlinson, Columbus ISD

James Vanek, Columbus Community Hospital

Yvonne Wagner, NP, Columbus Community Hospital

Regina Wicke, Columbus Community Hospital

Russell Wicke, Columbus Community Hospital

Appendix 2 – Consultant Biosketches

Jeffrey J. (Jeff) Hatala, PhD
2016 biosketch

Current Position: Assistant Professor & MPH Program Director
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Education:

Degree	Year	University	Major	Thesis/Dissertation
PhD	2013	University of South Carolina	Health Services Policy and Management	Factors Influencing Local Public Health Agency Participation in Core Public Health Functions Related to Obesity Prevention
MPH	2007	University of Colorado Health Sciences Center	Public Health	Participated in graduate certificate in public health.
MBA	2005	University of Phoenix	Business	NA
MMC	1994	University of South Carolina	Mass Communication, emphasis in public relations	Feasibility Study of Desktop Publishing Businesses
BA	1988	West Virginia University	English	Minors in psychology and journalism

Health-Related Experience:

Position	Organization	Dates
Assistant Professor & MPH Program Director	Texas A&M School of Public Health, Department of Health Policy and Mgmt	2015-present
Assistant Professor	Texas State University-San Marcos	2011-2015
Graduate Research Associate	South Carolina Rural Health Research Center	2008-2011
Proposal Manager	Policy Studies Inc, Denver, CO	2006-2007
Certified Fitness Trainer	24 Hour Fitness	2006
Regional Director	American Heart Association	1991-1992
Public Relations Assistant	Chernoff/Silver (now Chernoff/Newman) and Associates	1990-1991

Recent publications:

Factors associated with Southern and non-Southern LPHA participation in obesity prevention.
Hatala, J. & Fields, T. *Southern Medical Journal*. 108(5): 283-289.

That, That, But Not That…Using a Cafeteria Plan to Enhance Writing Skills: Fields, T., **Hatala, J.** *Administrative Issues Journal*. 4(2):3-11.

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Martin AB, **Hatala J**, Shaw, K, Probst JC. (2009) *South Carolina Public School Nurses' Perceptions of Oral Health Status and Dental Partnerships in their Schools.*

Recent presentations at professional meetings:

Hatala, J. (2015) *Obesity Prevention Efforts in Texas: Pilot test of Systematic Review.* Southern Obesity Summit. Jackson, MS. Oral presentation.

Hatala, J., Fields, T. (2013) *Obesity Prevention in the Southern States: The Role of the Local Public Health Agency*. Southern Obesity Summit, Nashville, TN. Oral presentation.

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Hatala J, Probst J, Byrd, M, Harden, J. (2011) The Relationship between Local Public Health Agency Infrastructure and Partnership Activities and Obesity Prevention. Keeneland Conference. Poster.

Martin AB, **Hatala J**, Veschusio, C, Probst JC. (2010) Oral Health in SC: Importance of the Relationship between School Nurses and Dentists. American Public Health Association. Poster.

Martin AB, **Hatala J**, Veschusio, C, Probst JC. (2010) Oral Health in SC: Importance of the Relationship between School Nurses and Dentists. Academy for Health Equity. Poster.

Martin AB, **Hatala J**, Veschusio, C, Probst JC. (2010) Oral Health in SC: Importance of the Relationship between School Nurses and Dentists. Academy Health. Poster.

Martin AB, **Hatala J**, Veschusio, C, Probst JC. (2010) Oral Health in SC: Importance of the Relationship between School Nurses and Dentists. National Rural Health Association, Oral presentation.

Tina Taylor Fields, PhD, MPH
2016 biosketch

Former Position: Associate Professor (retired 2015)
School of Health Administration
Texas State University
601 University Drive
San Marcos, TX 78666
Tinafields456@gmail.com

Education:

Degree	Year	University	Major	Thesis/Dissertation
MPH	1981	University of Texas-School of Public Health	Health Administration	Patterns of Low Birth Weights in Selected Census Tracks in Bexar County, Texas
PhD	1979	Texas A&M University	Health Education	Attitude of Family Planning Workers Toward Teenage Sexual Permissiveness
MS	1974	Texas A&M University	Health Education	A Study of the Attitudes of Arkansas School Superintendents Concerning Sex Education Classes
BA	1971	Texas A&M University	Education	Specialties: Russian and History

Academic Experience:

Position	University	Dates
Contributing Faculty (public health)	Creighton University (on-line)	2014-present
Contributing Faculty (health admin.)	Walden University (on-line)	2014-present
Associate Professor	Texas State University-San Marcos	2008-present
Lecturer	Texas State University-San Marcos	2008 (spring)
Visiting Professor	University of Texas at Brownsville	2004 (summer)
Assistant Professor	University of Texas Health Science Center – San Antonio	2001-2007
Associate Professor	Southwest Texas State University	1998-2000
Assistant/Associate Professor & Division Head	Texas Tech University	1983-1994

Relevant Professional Experience:

Position	Entity	Dates
Executive Director	Center for South Texas Programs, UTHSCSA, San Antonio, TX	2007-2008
Interim Director	Center for South Texas Programs, UTHSCSA, San Antonio, TX	2006-2007
Assistant Director	Center for South Texas Programs, UTHSCSA, San Antonio, TX	2001-2006
Executive Director	Western Colorado Area Health Education Center, Grand Junction, CO	2000-2001

County Public Health Administrator	Cameron County, TX	1996-1998
Planner/Grant Writer	Brownsville Community Health Center, Brownsville, TX	1994-1996
Health Education Specialist	Texas Department of Health, Austin, TX	1982-1984
Health Promotion Bureau Chief	New Mexico Health & Environment Dept., Santa Fe, NM	1981-1982

Recent publications:

Hatala, J.J. & Fields, T.T. (2015). Factors associated with local public health agency participation in obesity prevention in southern states. *Southern Medical Journal, 108*(5), 283-289.

Fields, T.T., & Hatala, J.J. (2014). That, that, but not that…Using a cafeteria plan to enhance writing skills. *Administrative Issues Journal, 14*(2), 3-11.

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Fields, T.T. (2009). Doorways into the Hospital. In D.J. Griffin (Ed.), Hospitals: What they are and how they work (pp. 51-64). Sudsbury, MA: Jones & Bartlett Learning.

Recent presentations at professional meetings:

Fields, T.T., Johnson, P.S., & Hatala, J. (2013, March). *The collaboration of not for profit hospitals and public health departments to perform community needs assessments that meet PPACA requirements.* Paper to be presented at Southwest Academy of Management 2013 Conference. Albuquerque, NM. [acceptance letter received 12/28/2012]

Fields, T.T. (2011, October13-14). *A 3-Prong Approach to Competency-Based Curriculum*. Inaugural Academic Conference of Administrative Issues Journal. Weatherford, OK.

Fields, T.T. (2011, April 30). *Making diversity activities your own*. 2011 Texas NAME conference. Mesquite, TX.

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Fields, T.T. (2010, November 19). *A theoretical model to cultivate promotores.* Midwest Stream Farmworker Health Forum. Austin, TX [poster session]

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Fields, T.T., Rodriguez, P., Rabbin, K., & Carabel, G. (2006, August 16-18). *The mental health vacuum in rural communities – Legal and ethical concerns*. Paper presented at the Texas Rural Health Summit, Austin, TX.

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