Carondelet Holy Cross Hospital
Community Health Needs Assessment

Santa Cruz County, Arizona

Prepared January 2013

by

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EXECUTIVE SUMMARY

Undergoing a Community Health Needs Assessment affords the community a look at the current state of its health - including where the community is doing well, and where it can improve. In many areas, Santa Cruz County is doing well; the community focus groups and key informant input demonstrated a strong sense of pride in the community, its health professionals, and culture. However, this is tempered by the fact that according to many health indicators, Santa Cruz County often falls short of state and national benchmarks.

Because of its close proximity to the border with Sonora, Mexico, many Mexican residents cross the border for care in Santa Cruz County. The culture in this border region is very much shared; despite a political boundary, the community of Ambos Nogales truly is “one community,” with family members often living on opposite sides of the border and many people crossing daily for work, school and social events. While this assessment mainly addresses the health status and needs of Santa Cruz County residents, it would be remiss not to include the overall health status and potential influencing factors – specifically, mortality and demographic information – of residents of Nogales, Sonora.

According to the Robert Wood Johnson Foundation’s and the University of Wisconsin’s annual County Health Rankings, Santa Cruz County ranked first out of the state’s 15 counties in terms of health outcomes – or rates of illnesses and deaths – while ranking eighth in terms of health factors, such as smoking, obesity, access to doctors and other factors. While Santa Cruz County’s health outcomes may be the best in the state, overall Arizona still continues to fall well below national averages in many health indicators.

Notably, the level to which Santa Cruz County residents, community leaders and health care professionals participated in this health needs assessment process is impressive and admirable and illustrates a genuine commitment to improving the health and well-being of the community. As one physician stated, “Our patients have the same needs as those in any other geographic area.”

KEY FINDINGS

Demographics
- Santa Cruz County has higher percentages of unemployed persons, people living in poverty, and a lower median household income than the rest of the state. A higher percentage of Santa Cruz County residents than the state rely on food stamps and cash public assistance.
- Santa Cruz County has a lower percentage than the state of people whose highest levels of education attained surpass high school.
- People in Santa Cruz County have lower incomes and pay a higher percentage of their income on housing rentals than the Arizona average.
- Nearly 83 percent of County residents are of Hispanic or Latino origin.

Access to Care
- Access to health care is a major issue for Santa Cruz County residents. The percentage of adults without health insurance is nearly double that of the state
percentage. More people in Santa Cruz County have no personal doctor or health care provider, and could not see a doctor because of cost, than the rest of the state.

- There is a shortage of primary care providers and specialists in Santa Cruz County. This results in long waiting times for many residents to see physicians or travel to Tucson for specialty care.
- Mental health is a major area of concern for Santa Cruz County residents. There is no psychiatrist in the county, and data show that a lower percentage of Santa Cruz County adults receiving mental health treatment were treated quickly compared to the rest of the state. This does not take into account those who are undiagnosed or not seeking treatment.

**Health Status**

- The leading causes of death in both Santa Cruz County and Nogales, Sonora, as in the state of Arizona as a whole, are heart disease and cancer. Santa Cruz has a higher percentage of its population succumbing to cancer than the state, yet a lower percentage of deaths from cardiovascular disease.
- Santa Cruz has a lower rate than the state of hospital discharges by first-listed diagnosis (by county of residence) for all of the leading diagnoses with the exception of diagnoses of the respiratory system.
- Santa Cruz has a lower rate of preventable hospitalizations for ambulatory-care sensitive conditions among Medicare enrollees than the state.

**Risk Factor Behaviors**

- A greater percentage of adults are smokers in Santa Cruz County than the state average.
- A greater percentage of children in Santa Cruz have smoked a cigarette or smoked at least one cigarette every day for 30 days than the state and national averages.
- A higher percentage of adults in Santa Cruz County report excessive drinking than the state average.
- A greater percentage of youth in Santa Cruz County binge drink than the state and national averages, but fewer use alcohol or prescription drugs.
- Santa Cruz County has a higher percentage of obese adults than the state average.
- Santa Cruz County has one of the lowest rates of adult leisure-time physical inactivity – meaning people, on average, are more active in the county than elsewhere. However, community members reported a need for additional recreational areas and facilities to increase activity levels.
- A lower percentage of women receive pap smear and mammography screenings in Santa Cruz County than the state average, yet a greater percentage are screened for diabetes.

**Maternal and Child Health**

- Santa Cruz County has the highest infant mortality rate in the state, yet this was at a four-year low in 2010 in terms of low-weight births.
- Santa Cruz County had a slightly higher percentage of women who received no prenatal care than the state average, and an overall lower than average number of prenatal care visits.
• Teen pregnancy is a key area of concern for health care providers in Santa Cruz County. While the county remains above the state average in teen pregnancy rates, it did see a significant decline from 2007-2009.

Reportable Diseases
• Santa Cruz saw increases in rates of many of the most common reportable diseases, and also had higher rates than the state of many diseases including campylobacteriosis, salmonellosis, shigellosis, amebiasis and meningococcal disease. Adjusted for the size of the population, these rates apply to relatively few individuals and do not represent a significant public health concern. Tuberculosis rates were lower than both the state and national rate.
• Santa Cruz fell well below the statewide rates for genital herpes, gonorrhea, syphilis and chlamydia.
• The prevalence of HIV/AIDS has remained stable since 2008, at 39 cases.

Natural and Built Environment
• Both the data and public input demonstrated an issue with air quality in Santa Cruz County. The number of particulate matter days in the county was 4, higher than the state number of 1 and the national benchmark of 0.
• There is limited access to affordable healthy foods and recreational facilities in Santa Cruz County. The percentage of restaurants in the county that are considered fast food is 43, much higher than the national benchmark of 25.

Social Environment
• Santa Cruz has lower rates of reporting for sexual and domestic violence than the state. However, community members indicated that domestic violence is in fact an issue of concern in Santa Cruz County.

*Refer to Table of Contents for page numbers for definitions and data sources for each indicator outlined above. For a summary of key themes identified through community input, see Section X: Community Input.
I. INTRODUCTION

The 2013 Community Health Needs Assessment is a comprehensive compilation of data about the health and well-being of the community served by Carondelet Holy Cross Hospital located in Nogales, Arizona. The assessment was conducted in the fall of 2012 to fulfill a provision in the 2010 Patient Protection and Affordable Care Act (PPACA), which requires hospitals designated as tax-exempt 501 (c) 3 non-profit organizations to complete a community health needs assessment every three years and adopt implementation strategies to address the needs identified in the report.

Throughout the assessment process, collaboration with community partners and organizations was critical to engaging the community and collecting valuable information. Carondelet Holy Cross Hospital worked closely with the Arizona Department of Health Services to bring together key members of the community for community forums and focus groups and to share resources to complete the assessment.

The majority of the information provided in the following report describes the health status and needs of Santa Cruz County residents. However, because of its unique location minutes from the U.S.-Mexico border and one of the state of Sonora, Mexico’s largest cities, Nogales, it is important to consider the dynamic status of the sister cities of “Ambos Nogales.” In addition to being a major port of entry for commerce, people commute daily to and from both sides of the border for work, school, family activities, shopping and, of course, health care. For Fiscal Year 2012, nearly 10 percent of Carondelet Holy Cross Hospital’s patients were Mexican residents.

The Internal Revenue Service expects that hospitals will conduct a community health needs assessment defined by a particular geographic area. For the purposes of this assessment, Carondelet Holy Cross Hospital determined that the geographic scope of the assessment would include all of Santa Cruz County, where the overwhelming majority of its patients reside. Taking into consideration the bi-national dynamic of the community and the demographics of its patient base, Carondelet Holy Cross Hospital chose to provide a brief overview of the general health status based on readily available data of Nogales, Sonora, Mexico as well.

Carondelet Holy Cross Hospital’s Community Health Needs Assessment draws on a variety of tools and best practices and utilizes a mixed methods approach of data collection and interpretation. Among these are the Catholic Health Association’s Assessing and Addressing Community Health Needs, a guide developed to assist tax-exempt hospitals with conducting community health needs assessments; a 2006 Maternal and Child Health Needs Assessment for Santa Cruz County conducted by University of Arizona public health students; and the Center for Rural Health at the Mel and Enid Zuckerman College of Public Health’s rural health resource library.
II. COMMUNITY PROFILE: SANTA CRUZ COUNTY

The following history and description of Santa Cruz County was derived with minor revisions from the Maternal and Child Health Needs Assessment, Santa Cruz County, Arizona 2006, which was conducted by three University of Arizona master of public health students. The full report is accessible here: http://crh.arizona.edu/resources/border-data-library/santa-cruz#link5.

History and Description

The 1,238 square miles of land that make up Santa Cruz County, Arizona, is covered with mountains, grasslands, and river valleys. Dispersed among this landscape are cattle ranches, state and national parks, manufacturing plants, and missions dating back to the first European settlement of the county and state.

The first residents of Santa Cruz County, Arizona, were the Apache, Pima, Yaqui, and Hohokam Native-American tribes. Despite the fact that Native-Americans lived in the area long before anyone else, today, Santa Cruz is the only county in the state that does not have land designated as an Indian Reservation. In 1539, when stories of gold began to circulate, the Native Americans were joined by the Fray Marcos de Niza, a Franciscan priest from Spain. He eventually made his way to present-day Lochiel, which was abundant in gold and silver. 150 years later a Jesuit priest, Padre Eusebio Francisco Kino, was sent by the Spanish to map the territory and establish missions. Among the most famous of these missions is the one located in Tubac, Arizona. It later became the first European settlement in the state due to promises of gold and silver.

After Mexico declared independence from Spain, they claimed the area as their own. It was not until the Treaty of Guadalupe Hidalgo in 1848, that the land became part of Arizona. Santa Cruz County was created in 1899 and Nogales and Patagonia were founded with the arrival of the railroad. Although Santa Cruz County is the smallest of the fifteen counties in the state of Arizona, it is a busy area due to its location along the U.S.-Mexico border. To the west and north of Santa Cruz County lies Pima County and to the east lies Cochise County.

Today, nine communities are located along the two major highways in the county, Interstate 19 and Highway 82: Amado, Carmen, Elgin, Nogales, Patagonia, Rio Rico, Sonoita, Tubac, and Tumacacori. The two largest communities are Rio Rico, with a population of 19,818, and Nogales, with a population of 20,948. As the largest community in the county, Nogales serves as the primary source of employment and public services for the entire county, making it the major metropolitan area. Additionally, its location right on the border affects it both positively and negatively. The transport of fruits and vegetables across the border each year totals more than four billion pounds, making Nogales the largest port of entry for produce in the U.S.\textsuperscript{11} In addition to agriculture, both cities are heavily accustomed to and in fact rely on the hustle and bustle of daily exchanges of culture, commerce, and politics; however, they also face challenges, such as illegal drug running, illegal immigration, unemployment, and a myriad of healthcare issues.
Two significant barriers to development of healthcare and the economy in general are long delays at the boarder for citizens of both countries trying to enter the US by vehicle, and significant negative media coverage which magnifies the dangers of visiting or living in our boarder communities. A border checkpoint on I-19, north of Tubac, also contributes to this perception. All of this exaggerated negative publicity makes both the recruiting of healthcare workers and development of businesses and commerce problematic in our community.

FIGURE 1: SANTA CRUZ COUNTY, ARIZONA

The passage of the North American Free Trade Agreement (NAFTA) may have exacerbated some of these issues. In times of political unrest and/or economic depressions in Mexico, there is a trend for people to migrate to Santa Cruz seeking stability. A sudden rise in the county population leads to an increase in the number of people looking for jobs and housing as well as services ranging from basic plumbing to schools and healthcare. This sudden influx of people can have serious outcomes, particularly on those residents who already lack these resources. However, the recent enactment of state laws such as SB 1070 and the Legal Arizona Workers Act (LAWA) combined with the U.S. economic downturn and a resurgent Mexican economy has tempered immigration rates (both legal and illegal), while at the same time added a damaging effect to cross boarder commerce.
People

i. Santa Cruz County at a Glance, 2010

Table 1: Santa Cruz County at a Glance, 2010

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<td>Population</td>
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<td>Median household income</td>
<td>$38,092</td>
<td>$50,752</td>
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<tr>
<td>Persons below poverty level</td>
<td>26.2%</td>
<td>16.2%</td>
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<tr>
<td>Foreign born</td>
<td>32.7%</td>
<td>13.9%</td>
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<tr>
<td>Speak language other than English at home</td>
<td>79.7%</td>
<td>27.1%</td>
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ii. Population

The population of Santa Cruz County consists of a near-even distribution of males and females. There were an estimated 22,559 males (47.5 percent) and 24,861 females (52.5 percent) in Santa Cruz County in 2010 compared to 3,175,823 males (49.7 percent) and 3,216,194 females (50.3 percent) in the state of Arizona. The median age of Santa Cruz County residents is 35.6 years, indicating a relatively young population that may be raising families and have young children. Because young children are among the highest users of health care services, it is important that family-centered health care education and services are sufficiently available.

Among persons 15 years and older, 57 percent of males and 51 percent of females are currently married, and 30.7 percent of males and 26.1 percent of females have never married.

![Population by age and gender in Santa Cruz County, 2010](image)
According to the 2010 U.S. Census, the racial composition of Santa Cruz County was 73.5 percent white, 82.8 percent Hispanic or Latino (of any race), 0.4 percent black or African American, 0.7 percent American Indian and Alaskan Native and 0.5 percent Asian. iv

**FIGURE 3: POPULATION BY RACE, 2010**

In 2009-2011, 67 percent of the people living in Santa Cruz County were native residents of the United States. Forty-seven percent of these residents were born in Arizona. Thirty-three percent of residents were foreign born, of whom 46 percent were naturalized U.S. citizens and 77 percent entered the country before the year 2000. vi Despite being in a border community, the population is fairly stable with only 7.6 percent of the population being foreign born and arriving in the United States after 2000.

**iii. Poverty Levels**

Poverty plays a critical role in assessing the health of a community. The poorer a family, the less healthy it tends to be. Poverty can impact access to health care services and can reduce overall mental and physical well-being, can lead to stress and anxiety, and can lead to reduced learning capacity. vii Poverty level is determined by income, age, number of people in a household, and family status (single or two-parent households). The percentage of families in Santa Cruz County who are below the poverty level is 24 percent, nearly twice that of the state of Arizona. This number increases to 34.5 percent when families with children under 18 are factored in, nearly 15 percentage points higher than the state. More than 51.2 percent of families in which women are the head of the household fall below the poverty level; in female households with children under the age of 18, that number rises to 63 percent. With the exception of individuals, the percentage of Santa Cruz County residents living in poverty exceeds that of the state of Arizona. viii
Table 2: Poverty Levels, Santa Cruz County and Arizona

<table>
<thead>
<tr>
<th></th>
<th>Santa Cruz</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Families</td>
<td>24%</td>
<td>12.80%</td>
</tr>
<tr>
<td>With children under 18</td>
<td>34.50%</td>
<td>20.30%</td>
</tr>
<tr>
<td><strong>Female Households</strong> (no husband present)</td>
<td>51.20%</td>
<td>30.80%</td>
</tr>
<tr>
<td>With children under 18</td>
<td>63%</td>
<td>38.30%</td>
</tr>
<tr>
<td><strong>Individuals</strong></td>
<td>20.20%</td>
<td>26.20%</td>
</tr>
</tbody>
</table>


iv. Percent of Population on Government Assistance

Santa Cruz County has a higher percentage of people on cash public assistance than the state of Arizona (3.3 compared to 2.7), and a significantly higher percentage of people receiving Supplemental Nutrition Assistance Program (SNAP) benefits (formerly the Food Stamp Program) (22.8 compared to 12.7).

A higher percentage of the population on government assistance programs indicates a community with higher rates of poverty and greater financial need.

Table 3: Government Assistance, Santa Cruz County and Arizona

<table>
<thead>
<tr>
<th></th>
<th>Santa Cruz</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Supplemental Security Income</td>
<td>3.6</td>
<td>3.7</td>
</tr>
<tr>
<td>With Cash Public Assistance Income</td>
<td>3.3</td>
<td>2.7</td>
</tr>
<tr>
<td>With Food Stamp/SNAP Benefits</td>
<td>22.8</td>
<td>12.7</td>
</tr>
</tbody>
</table>


![Poverty in Santa Cruz County and Arizona, 2009-2011 3-Year Estimates](image)

**FIGURE 4: POPULATION IN SANTA CRUZ COUNTY AND ARIZONA, 2009-2011 3-YEAR ESTIMATES**
Santa Cruz has a higher percentage of people with public health insurance (43.3 percent versus 33.9 percent) than the state of Arizona average, a higher percentage of uninsured people (18.8 percent versus 16.8 percent), and a lower percentage of people with private insurance (45.4 percent versus 60.7 percent).

Table 4: Insurance States Santa Cruz and Arizona 2009-2011 3-Year Estimates

<table>
<thead>
<tr>
<th>Insurance status</th>
<th>Santa Cruz</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Insurance</td>
<td>45.4</td>
<td>60.7</td>
</tr>
<tr>
<td>Public Insurance</td>
<td>43.3</td>
<td>33.9</td>
</tr>
<tr>
<td>No Insurance</td>
<td>18.8</td>
<td>16.8</td>
</tr>
</tbody>
</table>


FIGURE 5: INSURANCE STATUS SANTA CRUZ AND ARIZONA, 2009-2011 3-YEAR ESTIMATES

iv. Education

Santa Cruz County’s public education system is comprised of seven school districts: Nogales Unified School District, Patagonia Elementary District, Patagonia Union High School District, Santa Cruz County Regional School District, Santa Cruz Elementary District, Santa Cruz Valley Unified District and Sonoita Elementary District. For the 2011-2012 school year, 10,172 students were enrolled in public schools in Santa Cruz County. The Nogales Unified School District, the largest in the county with enrollment over 6,000, is one of few school districts in the state that offers an International Baccalaureate (IB) program where students can advance their learning beyond AP and honors programs to include college credit.

According to the 2007-2011 American Community Survey 5-year estimates, 71.2 percent of Santa Cruz County residents were high school graduates and 18 percent had obtained a bachelor’s degree. These percentages are significantly lower than the state of Arizona for the same time period, with 85.2 percent of residents having obtained a high school degree and 26.4 percent having obtained a bachelor’s degree.
Below are total enrollment numbers and percentages for all residents aged 3 years and over in Santa Cruz County and Arizona (total numbers in italics).

**Table 5: School Enrollment – Santa Cruz County and Arizona 2007-2011 5-Year Estimates**

<table>
<thead>
<tr>
<th>Level</th>
<th>Santa Cruz</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Enrollment</td>
<td>30.50%</td>
<td>28%</td>
</tr>
<tr>
<td>Pre-K</td>
<td>3.70%</td>
<td>4.70%</td>
</tr>
<tr>
<td>Kindergarten</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Elementary School</td>
<td>47%</td>
<td>42%</td>
</tr>
<tr>
<td>High School</td>
<td>28.20%</td>
<td>21%</td>
</tr>
<tr>
<td>College/Graduate</td>
<td>14%</td>
<td>27%</td>
</tr>
</tbody>
</table>


![School Enrollment - Santa Cruz County and Arizona 2007-2011 5-Year Estimates](image)

**FIGURE 6: SCHOOL ENROLLMENT – SANTA CRUZ COUNTY AND ARIZONA 2007-2011 5-YEAR ESTIMATES**

While school enrollment totals for Santa Cruz County are similar to those of the state of Arizona, more than a fourth of Santa Cruz County residents did not have a high school diploma. Education is important for the health of a community for a myriad of reasons, namely, reducing poverty, promoting healthy lifestyles and for improving health literacy and access to health care. Further, an educated community is better equipped to advocate for themselves and their families.
Table 6 Highest Levels of Education Attained, Santa Cruz County and Arizona

<table>
<thead>
<tr>
<th>Highest Level of Education Attained</th>
<th>Santa Cruz County</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 9th grade</td>
<td>14.3%</td>
<td>6.4%</td>
</tr>
<tr>
<td>9th to 12th grade, no diploma</td>
<td>14.4%</td>
<td>8.2%</td>
</tr>
<tr>
<td>High school graduate (includes equivalency)</td>
<td>30.3%</td>
<td>24.6%</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>18.0%</td>
<td>26.4%</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>4.6%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>12.5%</td>
<td>16.8%</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
<td>5.8%</td>
<td>9.5%</td>
</tr>
</tbody>
</table>


**FIGURE 7: HIGHEST LEVEL OF EDUCATION ATTAINED, 2009-2011 ACS 3-YEAR ESTIMATES FOR S.C. COUNTY & ARIZONA**

In Santa Cruz County, 79.7 percent of the population speaks a language other than English at home compared to 27.1 percent of Arizonans. In Santa Cruz County, Spanish is the most common language spoken at home accounting for 78.7 percent of the population. Further, in Santa Cruz County, 37.3 percent of the population speaks English “less than very well,” indicating that it is important for education, health and public safety personnel to be able to communicate in both English and Spanish and important for schools to make English fluency reading and writing a top priority.

**Income, Occupation and Employment**

**i. Income**

The median household income for the state of Arizona $48,518, slightly below the U.S. median household income of $51,484. Even lower is Santa Cruz County’s median household income of $35,707. The per capita income in Santa Cruz County is $17,526, significantly
lower than both the state and national per capita income levels which are $24,541 and 27,158, respectively.xi

ii. Housing Affordability
The 2009-2011 American Community Survey reports that 56 percent of renters in Santa Cruz County spend 30 percent or more of their household income on rent. This is a significant increase from the 2000 level, when 38.4 percent of renters in Santa Cruz County spend 30 percent or more of their household income on rent. According to this data, Santa Cruz County is slightly above the state average of 52 percent for this measure.xi According to the Arizona Department of Economic Security, there are three shelters in Santa Cruz County that supply beds to homeless individuals and families.

iii. Industry
The top 5 industries in Santa Cruz County based in the 2007-2011 American Community Survey 5-year Estimates are retail trade (20.5%), education, health care and social services (16.6%), public administration (9.7%), wholesale trade (9.2%), and professional, scientific and management and waste management (8.7%). Other industries include transportation and warehousing (6.8%), arts, entertainment and recreation (6.4%) and construction (4.7%). xii

![Top 5 Industries in Santa Cruz County, ACS 5-Year Estimates 2007-2011](image)

FIGURE 8: TOP 6 INDUSTRIES IN SANTA CRUZ COUNTY, ACS 5-YEAR ESTIMATES 2007-2011

iv. Occupation
The top 5 occupations in Santa Cruz County based in the 2007-2011 American Community Survey 5-year Estimates are sales and office (36.7 percent), management, business, science and arts (23.5 percent), service (17.9 percent), production, transportation and material
moving (13.2 percent), and natural resources, management and construction (8.7 percent).\textsuperscript{xi}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{chart.png}
\caption{Top Occupations in Santa Cruz County, ACS 5-Year Estimates 2007-2011}
\end{figure}

\textbf{v. Employment}

As of Oct. 2012, Santa Cruz County had an unemployment rate of 18.3 percent, much higher than the statewide rate of 8.1 percent and U.S. rate of 7.7 percent.\textsuperscript{xii} The 2007-2011 American Community Survey five-year unemployment estimates for Nogales, Rio Rico and Patagonia are 15.3 percent, 14.4 percent and 3.3 percent, respectively. (It is important to note that according to the American Community Survey data, the unemployment rate for Santa Cruz County during this time period was 13.2 percent, lower than the most recent available data.) In Santa Cruz County, the highest percentages of unemployment were among people aged 16 to 19 years (37.2 percent) followed by 20-24 years (33.3 percent).\textsuperscript{xiv}

A 2012 report from the CDC’s National Center for Health Statistics found that people's health status and access to care are affected by their employment status. Among the findings: unemployed adults aged 18-64 years were more likely to be uninsured, have fair or poor health, and have serious psychological distress than employed working-age adults. Further, unemployed adults had more difficulty obtaining needed medical care and prescription drugs due to cost.\textsuperscript{xv}
III. ACCESS TO HEALTH CARE

Access to health care can greatly affect the health outcomes of a community. In Santa Cruz County, 34.3 percent of residents who are ineligible for Medicare do not have health insurance coverage. This is almost double the rate for the state of Arizona, which is 18.6 percent. In addition, 32.1 percent of individuals in Santa Cruz County do not have access to a doctor or health care provider, a much higher percentage than the state average of 22.4 percent. Sixteen point three percent of Santa Cruz County residents were unable to see a doctor due to cost, which is also higher than the state average of 13.3 percent.xvi One focus group participant stated, “I think a lot of people don’t get themselves checked because they don’t have insurance. I think that’s probably the biggest barrier that we have.”

Table 7: Access to Health Care, Santa Cruz County and Arizona

<table>
<thead>
<tr>
<th>Access to Health Care</th>
<th>Santa Cruz County</th>
<th>95% CI</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults &lt;65 without Health Insurance</td>
<td>34.3%</td>
<td>28-40</td>
<td>18.6%</td>
</tr>
<tr>
<td>No personal doctor or health care provider</td>
<td>32.1%</td>
<td>27-37</td>
<td>22.4%</td>
</tr>
<tr>
<td>Could not see a doctor because of cost</td>
<td>16.3%</td>
<td>12-19</td>
<td>13.3%</td>
</tr>
</tbody>
</table>

Behavioral Risk Factor Surveillance System (BRFSS) - For combined years’ data, appropriate weighting adjustments were made according to ADHS recommendations. Confidence limits are given to show the precision of estimates. The BRFSS is a state-based, cross-sectional, random telephone survey of household residents aged 18 and older, conducted throughout the year. It has been conducted in Arizona since 1982 and gathers information on risk factors related to both chronic and infectious diseases. For more information, visit [http://www.azdhs.gov/plan/brfs/](http://www.azdhs.gov/plan/brfs/)
Provider Shortages and Medically-Underserved Areas

i. Health staffing shortages by Health Professional Shortage Area (HPSA)
The federal Health Professional Shortage Area (HPSA) designation identifies an area or population as having a shortage of dental, mental, and primary health care providers. HPSA designations are used to qualify for state and federal programs aimed at increasing primary care services to underserved areas and populations. A HPSA designation is based on three criteria, established by federal regulation:

- The area must be “rational” for delivery of health services.
- A specified population-to-provider ratio representing shortage must be exceeded within the area as evidenced by more than 3,500 persons per physician (or 3,000 persons per physician if the area has “high needs”).
- Health care resources in surrounding areas must be unavailable because of distance, overutilization or access barriers.

ii. Medically Underserved Areas/Populations (MUA/P)

- Medically Underserved Areas (MUAs) may be a whole county or a group of contiguous counties, a group of county or civil divisions or a group of urban census tracts in which residents have a shortage of personal health services.
- 38.0 percent of Santa Cruz County is designated as a MUA. This is lower than the state of Arizona, which has a MUA percent of 66.9 percent.
- Medically Underserved Populations (MUPs) may include groups of persons who face economic, cultural or linguistic barriers to health care.

iii. Population Healthcare Facilities

Santa Cruz County has a total of 16 licensed health care facilities consisting of the following types: ambulatory surgical center, medical facilities, end stage renal disease facility, federally qualified health center, home health agency, hospice, hospital, and single group licensure. The average for the state is 158 medical facilities per county.

iv. Ratio of Population to Primary Care Physicians

According to County Health Rankings, access to primary care physicians – which include practicing physicians specializing in general practice medicine, family medicine, internal medicine, pediatrics and obstetrics/gynecology is an important factor in access to care. Access to primary care physicians helps ensure access to preventive care and primary care.

The national benchmark of population to primary care providers is 631:1. The ratio for the state of Arizona is 1,427:1, whereas Santa Cruz County falls significantly lower at 1,961:1. A shortage of primary care physicians could lead to longer waiting times for appointments or fewer visits.
Table 8: Ratio of Population to Primary Care Provider, Santa Cruz County and Arizona

<table>
<thead>
<tr>
<th>Ratio of Population to Primary Care Provider</th>
<th>Santa Cruz County</th>
<th>National Rate**</th>
<th>National Benchmark*</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population to Provider</td>
<td>1,961:1</td>
<td>800:1</td>
<td>631:1</td>
<td>1,427:1</td>
</tr>
</tbody>
</table>

*The national benchmark is the point at which only 10% of counties in the nation do better, i.e., the 90th percentile or 10th percentile, depending on whether the measure is framed positively or negatively.**

**2008 Data. Source: Kaiser Family Foundation.

Mental Healthcare Access

The Arizona Department of Health Services measures the percent of patients who receive mental healthcare in a timely manner. In 2011, 85.8 percent of adults receiving mental health treatment in Santa Cruz County were treated quickly. This is lower than the state average for adults of 92.6 percent. In addition, 89.4 percent of children receiving mental health treatment in Santa Cruz County were treated in a timely manner. This is lower than the state average for children of 91.8 percent.

The Arizona Department of Health Services measures the percent compliance of care coordination between primary care providers and mental healthcare providers. In 2011, 82.9 percent of adults receiving mental health treatment had their care coordinated with their primary care provider. This is higher than the state average for adults of 81.1 percent. In addition, 73.0 percent of children receiving mental health treatment in Santa Cruz County had coordination with their primary care doctor. This is lower than the state average for children of 81.0 percent.

IV. HEALTH STATUS

General Mortality

In 2011, Santa Cruz County recorded 247 deaths, or 0.52 percent of its population. The leading cause of death in both Santa Cruz County and the state of Arizona is cardiovascular disease causing 25.1 percent of deaths in the county and 28 percent of deaths in the state. The second leading cause of death for both the county and the state is malignant neoplasms (24.7 and 22 percent, respectively). Cardiovascular disease and malignant neoplasms are by far the leading causes of death at the county, state and national level. In Santa Cruz County, accidents, including motor vehicle accidents, are the third leading cause of death accounting for 5.2 percent of all deaths.
The tables below show the leading causes of death in Arizona and Santa Cruz County by numbers and percentages of total deaths.

**Table 9: Number of Deaths by Leading Cause Santa Cruz and Arizona - 2011**

<table>
<thead>
<tr>
<th>Number of deaths by leading cause - 2011</th>
<th>Santa Cruz</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Cardiovascular Disease</td>
<td>62</td>
<td>13,271</td>
</tr>
<tr>
<td>2: Malignant Neoplasms</td>
<td>61</td>
<td>10,255</td>
</tr>
<tr>
<td>3: Accident</td>
<td>13</td>
<td>2831</td>
</tr>
<tr>
<td>4: Chronic lower respiratory diseases</td>
<td>11</td>
<td>3069</td>
</tr>
<tr>
<td>5: Chronic liver disease and cirrhosis</td>
<td>10</td>
<td>912</td>
</tr>
<tr>
<td>6: Diabetes</td>
<td>10</td>
<td>1684</td>
</tr>
<tr>
<td>7: Alzheimer's Disease</td>
<td>8</td>
<td>2283</td>
</tr>
<tr>
<td>8: Influenza and Pneumonia</td>
<td>6</td>
<td>616</td>
</tr>
<tr>
<td>9: Suicide</td>
<td>4</td>
<td>1085</td>
</tr>
<tr>
<td>10: Alcohol-induced deaths</td>
<td>4</td>
<td>944</td>
</tr>
<tr>
<td>11: Parkinson's Disease</td>
<td>4</td>
<td>534</td>
</tr>
</tbody>
</table>

### Table 10: Percentage of Deaths by Leading Cause Santa Cruz and Arizona - 2011

<table>
<thead>
<tr>
<th>Percentage of deaths by leading cause - 2011</th>
<th>Santa Cruz</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Cardiovascular Disease</td>
<td>25.1</td>
<td>28.0</td>
</tr>
<tr>
<td>2: Malignant Neoplasms</td>
<td>24.7</td>
<td>22.0</td>
</tr>
<tr>
<td>3: Accident</td>
<td>5.2</td>
<td>5.9</td>
</tr>
<tr>
<td>4: Chronic lower respiratory diseases</td>
<td>4.4</td>
<td>6.4</td>
</tr>
<tr>
<td>5: Chronic liver disease and cirrhosis</td>
<td>4.0</td>
<td>1.9</td>
</tr>
<tr>
<td>6: Diabetes</td>
<td>4.0</td>
<td>3.5</td>
</tr>
<tr>
<td>7: Alzheimer’s Disease</td>
<td>3.2</td>
<td>4.8</td>
</tr>
<tr>
<td>8: Influenza and Pneumonia</td>
<td>2.4</td>
<td>1.3</td>
</tr>
<tr>
<td>9: Suicide</td>
<td>1.6</td>
<td>2.3</td>
</tr>
<tr>
<td>10: Alcohol-induced deaths</td>
<td>1.6</td>
<td>2.0</td>
</tr>
<tr>
<td>11: Parkinson’s Disease</td>
<td>1.6</td>
<td>1.1</td>
</tr>
</tbody>
</table>


### Trends in Mortality in Santa Cruz County

Cardiovascular disease and malignant neoplasms were the top two leading causes of death in Santa Cruz County in 2007, 2009 and 2011. While the percentage of deaths from cardiovascular disease have declined from 29.6 percent in 2007 to 28.9 percent in 2009 to 25.1 percent in 2011, the percentage of deaths from malignant neoplasms has seen an overall increase from 23.7 percent in 2007 to 24.7 percent in 2011, although the percentage decreased from 26.8 percent in 2009. There has been a sharp increase in the percentage of accidents from 2007 (1.9 percent) to 2011 (5.2 percent), the cause of which may warrant further analysis. The percentage of deaths attributable to diabetes increased slightly from 2009 (3.9 percent) to 2011 (4 percent). The percentage of deaths from diabetes in 2007 was .7 percent.xxiii

The table below shows the trends in percentages of deaths based on the leading cause of death in 2011.
### Table 11: Percentage of Deaths by Leading Cause 2007-2011 Santa Cruz County

<table>
<thead>
<tr>
<th>Leading Causes</th>
<th>2011</th>
<th>2009</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Cardiovascular Disease</td>
<td>25.1%</td>
<td>28.9%</td>
<td>29.6%</td>
</tr>
<tr>
<td>2: Malignant Neoplasms</td>
<td>24.7%</td>
<td>26.8%</td>
<td>23.7%</td>
</tr>
<tr>
<td>3: Accident</td>
<td>5.2%</td>
<td>0.35%</td>
<td>1.9%</td>
</tr>
<tr>
<td>4: Chronic lower respiratory diseases</td>
<td>4.4%</td>
<td>1.7%</td>
<td>3%</td>
</tr>
<tr>
<td>5: Chronic liver disease and cirrhosis</td>
<td>4%</td>
<td>1%</td>
<td>1.5%</td>
</tr>
<tr>
<td>6: Diabetes</td>
<td>4%</td>
<td>3.9%</td>
<td>0.7%</td>
</tr>
<tr>
<td>7: Alzheimer’s Disease</td>
<td>3.2%</td>
<td>0.35%</td>
<td>5.3%</td>
</tr>
<tr>
<td>8: Influenza and Pneumonia</td>
<td>2.4%</td>
<td>0.35%</td>
<td>1.1%</td>
</tr>
<tr>
<td>9: Suicide</td>
<td>1.6%</td>
<td>2.8%</td>
<td>0.7%</td>
</tr>
<tr>
<td>10: Alcohol-induced deaths</td>
<td>1.6%</td>
<td>0%</td>
<td>1.1%</td>
</tr>
<tr>
<td>11: Parkinson’s Disease</td>
<td>1.6%</td>
<td>0%</td>
<td>0.76%</td>
</tr>
</tbody>
</table>


**FIGURE 12: PERCENTAGE OF DEATHS BY 2011 LEADING CAUSE IN SANTA CRUZ – 2007-2011**
Leading Causes of Death by Age Group

In 2011, the leading causes of death in Santa Cruz County by age group is as follows:

**Infant**
Congenital malformations, diseases of the digestive system, intrauterine hypoxia or birth asphyxia

**Children 1-14 years**
Assault (homicide), Leukemia

**Adolescents 15-19 years**
Malignant neoplasms

**Adults 20-44 years**
Motor vehicle accident, malignant neoplasms

**Adults 45-64 years**
Malignant neoplasms, diseases of heart

**Elderly 65+ years**
Malignant neoplasms, diseases of heart

* Due to the small population of Santa Cruz County, some of these deaths represent only one person per age group.

Deaths were highest among the elderly, with 41 percent of total deaths among this age group attributable to malignant neoplasms and diseases of the heart, compared to 45 percent of these causes attributable to deaths among this age group across the state.

Among adults 45-64 years of age, the leading causes of death (malignant neoplasms and diseases of the heart) accounted for 50 percent of total deaths among this age group, compared to 46 percent of these causes attributable to deaths among this age group statewide.

Rate of Hospital Discharges by First-Listed Diagnosis

An inpatient discharge occurs when a person who was admitted to a hospital leaves that hospital. A person who has been hospitalized more than once in a given calendar year will be counted multiple times as a discharge and included more than once in the hospital inpatient discharge data set; thus, the numbers in this report are for discharges, not persons.

In 2010, Santa Cruz County had lower rates than the state of Arizona of inpatient hospital discharges by first-listed diagnoses for most of the leading diagnoses, with a few exceptions. As seen in the table and figure below, Santa Cruz has higher discharge rates than Arizona of diseases of the respiratory system (95.6 compared to 63.1 per 10,000) and
of conditions originating in the prenatal period (7.4 compared to 5.2 per 10,000 population). This is not surprising given that Santa Cruz had an overall higher percentage of women who received no prenatal care than the state (see “Maternal and Child Health” section). In 2011, Santa Cruz County had a lower rate of death from chronic respiratory diseases than the state (4.4 compared to 6.4). xxiv

Table 12: Rate of Hospital Discharges by First-Listed Diagnoses, 2010

<table>
<thead>
<tr>
<th>Rate* of Hospital Discharges by First-Listed Diagnoses, 2010</th>
<th>Santa Cruz</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circulatory system</td>
<td>114.8</td>
<td>154.3</td>
</tr>
<tr>
<td>Digestive system</td>
<td>106.9</td>
<td>120.4</td>
</tr>
<tr>
<td>Respiratory system</td>
<td>95.3</td>
<td>63.1</td>
</tr>
<tr>
<td>Injury and poisoning</td>
<td>75.9</td>
<td>104.8</td>
</tr>
<tr>
<td>Genitourinary system</td>
<td>51.0</td>
<td>60.4</td>
</tr>
<tr>
<td>Musculoskeletal system</td>
<td>48.1</td>
<td>67.5</td>
</tr>
<tr>
<td>Neoplasms</td>
<td>35.8</td>
<td>42.8</td>
</tr>
<tr>
<td>Symptoms signs and ill-defined conditions</td>
<td>30.8</td>
<td>56.0</td>
</tr>
<tr>
<td>Infectious and parasitic diseases</td>
<td>28.7</td>
<td>43.7</td>
</tr>
<tr>
<td>Endocrine nutritional metabolic and immunity diseases</td>
<td>28.4</td>
<td>40.2</td>
</tr>
<tr>
<td>Nervous system</td>
<td>21.1</td>
<td>24.4</td>
</tr>
<tr>
<td>Mental disorders</td>
<td>12.2</td>
<td>29.3</td>
</tr>
<tr>
<td>Diseases of the skin</td>
<td>8.9</td>
<td>26.1</td>
</tr>
<tr>
<td>Conditions originating in prenatal period</td>
<td>7.4</td>
<td>5.2</td>
</tr>
<tr>
<td>Diseases of the blood and blood forming organs</td>
<td>6.9</td>
<td>11.2</td>
</tr>
<tr>
<td>Congenital anomalies</td>
<td>4.2</td>
<td>4.3</td>
</tr>
</tbody>
</table>

*Per 10,000 population

FIGURE 13: RATE OF HOSPITAL DISCHARGES BY FIRST-LISTED DIAGNOSES, 2010 – SANTA CRUZ AND ARIZONA

Rates of “preventable” hospitalizations

Table 13: Preventable Hospital Stays for Santa Cruz County Medicare Enrollees

<table>
<thead>
<tr>
<th>Preventable Hospital Stays for Santa Cruz County Medicare Enrollees (Rate per 1,000 Medicare Enrollees)</th>
<th>Santa Cruz County</th>
<th>Error Margin</th>
<th>National Benchmark*</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalizations for Ambulatory Care Sensitive Conditions, 2009</td>
<td>35</td>
<td>27-42</td>
<td>49</td>
<td>52</td>
</tr>
</tbody>
</table>

*The national benchmark is the point at which only 10% of counties in the nation do better, i.e., the 90th percentile or 10th percentile, depending on whether the measure is framed positively or negatively. xxv

DEFINITIONS:

- According to County Health Rankings, “Preventable hospital stays are measured as the hospital discharge rate for ambulatory care-sensitive conditions per 1,000 Medicare enrollees. This indicator is often used to assess the effectiveness and accessibility of primary health care. Two studies analyzing the association between self-reported accounts of individuals’ access to medical care with hospital
admissions rates for ambulatory-care sensitive conditions (ACSC) found that individuals who reported poor access to medical care had higher hospitalization rates for ACSC. xxvi”

• Ambulatory care sensitive conditions are illnesses that can often be managed effectively on an outpatient basis and generally do not result in hospitalization if managed properly. Examples include diabetes, asthma, chronic obstructive pulmonary disease, hypertension, and invasive cervical cancer.xxvii

Santa Cruz County had a rate of 35 discharges for ACSCs per 1,000 Medicare enrollees during the 2009 reported year. This rate is below the national benchmark of 49 per 1,000 and also well below the Arizona rate of 52 per 1,000 for preventable hospitalizations for ACSCs.

V. RISK FACTOR BEHAVIORS AND CONDITIONS RELATED TO LEADING CAUSES OF DEATH

Tobacco use in adults

Table 14: Current Smoking Prevalence in Adults, Santa Cruz County and Arizona

<table>
<thead>
<tr>
<th>Current Smoking Prevalence</th>
<th>Santa Cruz County</th>
<th>95% CI</th>
<th>National Benchmark*</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Smoking Prevalence</td>
<td>18%</td>
<td>14-22</td>
<td>15%</td>
<td>16%</td>
</tr>
</tbody>
</table>

*The national benchmark is the point at which only 10% of counties in the nation do better, i.e., the 90th percentile or 10th percentile, depending on whether the measure is framed positively or negatively. Source: 2011 Santa Cruz County, AZ County Health Rankings, http://www.countyhealthrankings.org/arizona/santacruz.

Source: (BRFSS) - For combined years’ data, appropriate weighting adjustments were made according to ADHS recommendations. The BRFSS is a state-based, cross-sectional, random telephone survey of household residents aged 18 and older, conducted throughout the year. For more information, visit http://www.azdhs.gov/plan/brfs/

DEFINITIONS:

According to County Health Rankings, Adult Smoking Prevalence is defined as “the estimated percent of the adult population that currently smokes every day or “most days” and has smoked at least 100 cigarettes in their lifetime.” The information is compiled from seven years of data (2003-2009) of the National Behavioral Risk Factor Surveillance
System (BRFSS), a random telephone survey, and included respondents in Santa Cruz County with landlines.

Santa Cruz County currently ranks above the national benchmark and statewide average for Arizona adult smoking prevalence.

**Youth tobacco use**

According to the Campaign for Tobacco-Free Kids, each year in Arizona 6,000 kids under the age of 18 become new daily smokers. Further, 105,000 Arizona kids now under 18 will ultimately die prematurely from smoking. Kids are twice as sensitive to tobacco advertising than adults and one-third of underage experimentation with smoking is due to tobacco company advertising.\textsuperscript{xxviii}

Through the Communities Putting Prevention to Work program (CPPW), the Youth Risk Behavior Survey was conducted in 2010 from a sample of 1,004 students from traditional public high schools throughout Santa Cruz County. Overall, Santa Cruz County has a greater percentage of students smoking cigarettes than the rest of the state or the United States when compared with state and national data. Along with Gila and Navajo counties, Santa Cruz County has the highest lifetime tobacco use for youth in the state. The figure below shows the percent of Santa Cruz County youth who smoke or have smoked:

![Cigarette Smoking](image)

**FIGURE 14: YOUTH CIGARETTE SMOKING, SANTA CRUZ, ARIZONA AND U.S.**

Source: 2010 Youth Risk Behavior Surveillance Survey, Santa Cruz County, Arizona & United States Results Comparison.

The Arizona Youth Tobacco Survey, which monitors trends in tobacco use among public school children, reported in 2009 that Santa Cruz County children first used cigarettes between 12.94 and 13.51 years of age.\textsuperscript{xxix}
### Alcohol abuse in adults

#### Table 15: Adult Excessive Drinking, Santa Cruz County and Arizona

<table>
<thead>
<tr>
<th>ADULT EXCESSIVE DRINKING</th>
<th>Santa Cruz County</th>
<th>Error Margin + or − 3%</th>
<th>National Benchmark*</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Excessive Drinking</td>
<td>18%</td>
<td>15-21</td>
<td>8%</td>
<td>17%</td>
</tr>
</tbody>
</table>

*The national benchmark is the point at which only 10% of counties in the nation do better, i.e., the 90th percentile or 10th percentile, depending on whether the measure is framed positively or negatively. Source: County Health Rankings. Accessed online from: [http://www.countyhealthrankings.org/app/arizona/2012/santa-cruz](http://www.countyhealthrankings.org/app/arizona/2012/santa-cruz).

#### DEFINITIONS:

Women and men who consume four or five alcoholic beverages at a given time, respectively, or at least one or two drinks per day, respectively, on average, would be included in the definition of adult excessive drinking. The measure is based on 2003-2009 data from the Behavioral Risk Factor Surveillance System (BRFSS).

Excessive drinking is related to several adverse health outcomes, including hypertension, suicide, motor vehicle crashes, interpersonal violence, fetal alcohol syndrome, and many others. While Santa Cruz County is above the rest of the state at 18 percent of adults reporting excessive drinking and it is more than double the national benchmark of eight percent.  

xxx
Alcohol and other drug use in youth

The information is compiled from seven years of data (2003-2009) of the National Behavioral Risk Factor Surveillance System (BRFSS), a random telephone survey, and included respondents in Santa Cruz County with landlines.

![Youth Current Alcohol and Drug Use](image)

**FIGURE 15: YOUTH CURRENT ALCOHOL AND DRUG USE**

*Source: 2010 Behavioral Risk Factor Surveillance Survey, Santa Cruz County, Arizona & United States Results Comparison.*

The data show that alcohol abuse among youth in Santa Cruz County is much higher than both state and national averages, at nearly 30%.

Current drug use is defined as having engaged in the use of the substance within the past thirty days. 12.6% of Santa Cruz County youth are currently using marijuana, which is less than both the state and national averages. Current youth cocaine use is Santa Cruz County is 2.8%, which is double the state average of 1.4%, but below the national average of 3.0%. Abuse of prescription drugs by youth in Santa Cruz County is less than both the state and national averages at 8.7%.
Adult Obesity

Table 16: Adult Obesity, Santa Cruz County and Arizona

<table>
<thead>
<tr>
<th>ADULT OBESITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santa Cruz County</td>
</tr>
<tr>
<td>Percent of adults who report a BMI of ≥ 30</td>
</tr>
</tbody>
</table>

*The national benchmark is the point at which only 10% of counties in the nation do better, i.e., the 90th percentile or 10th percentile, depending on whether the measure is framed positively or negatively. (From "2011 Santa Cruz County, AZ" County Health Rankings, http://www.countyhealthrankings.org/arizona/santacruz.)

**DEFINITIONS:**

Adult obesity is defined as having a body mass index (BMI) of 30 kg/m2 or greater. The prevalence is based on 2008 data compiled by the National Behavioral Risk Factor Surveillance System (BRFSS).

Obesity rates continue to rise in the United States. While genetic factors can impact a person’s risk of obesity, unhealthy diets and a lack of physical activity play an important role in the rise in obesity rates.xxx Obesity is related to many chronic diseases that affect Santa Cruz County residents, including cardiovascular disease, hypertension, and diabetes. The rate of obesity among Santa Cruz County adults has increased by two percent according to the average annual prevalence of 24.0 percent from 2001-2007.xxxi

**Adult Leisure-Time Physical Inactivity**

Santa Cruz County has one of the lowest rates of adult leisure-time physical inactivity in Arizona, with 17.0 percent of the adult population not participating in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise in the past month.xxxii According to the World Health Organization, physical inactivity is the fourth leading risk factor for global mortality. Regular moderate physical activity can reduce the risk of cardiovascular disease, diabetes, colon and breast cancer, and depression.xxxiii
Screening Utilization Rates

Table 17: Screening Utilization Rates Santa Cruz County and Arizona

<table>
<thead>
<tr>
<th>Screening Rates</th>
<th>Santa Cruz County</th>
<th>95% CI</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pap smear screening</td>
<td>77.4%</td>
<td>71-84</td>
<td>81.5%</td>
</tr>
<tr>
<td>Diabetic screening</td>
<td>81.0%</td>
<td>71-92</td>
<td>76.0%</td>
</tr>
<tr>
<td>Mammography screening</td>
<td>72.3%</td>
<td>66-73</td>
<td>75.4%</td>
</tr>
</tbody>
</table>

Source: Behavioral Risk Factor Surveillance System (BRFSS) - For combined years' data, appropriate weighting adjustments were made according to ADHS recommendations. Confidence limits are given to show the precision of estimates. Estimates for some indicators for several counties are unstable due to small sample size. Use caution when drawing conclusions based on those estimates. The BRFSS is a state-based, cross-sectional, random telephone survey of household residents aged 18 and older, conducted throughout the year. It has been conducted in Arizona since 1982 and gathers information on risk factors related to both chronic and infectious diseases. For more information, visit http://www.azdhs.gov/plan/brfs/
DEFINITIONS:

- **Mammography screening** represents women forty years of age or older who had a mammogram in the past year.
- **Pap smear screening** represents women eighteen years of age or older who had a pap test in the past three years.

Mammography and pap screening is known to reduce cancer death in women in the United States. Santa Cruz County has lower than state average pap and mammography screening rates of 77.4 percent and 72.3 percent respectively.

VI. MATERNAL AND CHILD HEALTH

Infant Mortality Rate

The infant mortality rate is the number of infant deaths, less than 1 year old, per 1,000 live births. Over the past five years, Santa Cruz County has seen fluctuation in the infant mortality rate, which stands relatively high at 15.9 deaths/1000 live births. This rate is much higher than the overall Arizona rate of 6.0/1000, and is the highest rate among all 15 Arizona counties.

Table 18: Infant Mortality Rates by County of Residence, Arizona and United States 2000-2010

<table>
<thead>
<tr>
<th>COUNTY OF RESIDENCE</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>6.9</td>
<td>6.9</td>
<td>7.0</td>
<td>6.8</td>
<td>6.8</td>
<td>6.9</td>
<td>6.6</td>
<td>6.7</td>
<td>6.5</td>
<td>6.4</td>
<td>NA</td>
</tr>
<tr>
<td>ARIZONA</td>
<td>6.7</td>
<td>6.9</td>
<td>6.3</td>
<td>6.5</td>
<td>6.7</td>
<td>6.8</td>
<td>6.3</td>
<td>6.8</td>
<td>6.3</td>
<td>5.9</td>
<td>6.0</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>3.8</td>
<td>2.6</td>
<td>5.2</td>
<td>1.3</td>
<td>8.7</td>
<td>5.1</td>
<td>5.3</td>
<td>6.5</td>
<td>5.0</td>
<td>5.3</td>
<td>15.9</td>
</tr>
</tbody>
</table>

1The number of infant deaths per 1,000 live births. The U.S. rates for 2007-2010 are provisional.

Low Birth Weight Statistics

Low birth weight is defined as the number of live births weighing 2,500 grams (5 lbs, 8 oz.) or less, per 1,000 live births. In 2010, Santa Cruz County was at a 4-year low in terms of number of low-weight births.

Table 19: Low Birth-Weight Births by County of Residence, Arizona, 2000-2010

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARIZONA*</td>
<td>5,975</td>
<td>5,943</td>
<td>5,926</td>
<td>6,427</td>
<td>6,704</td>
<td>6,640</td>
<td>7,266</td>
<td>7,285</td>
<td>7,026</td>
<td>6,573</td>
<td>6,155</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>51</td>
<td>50</td>
<td>48</td>
<td>60</td>
<td>78</td>
<td>50</td>
<td>52</td>
<td>49</td>
<td>61</td>
<td>73</td>
<td>58</td>
</tr>
</tbody>
</table>

Includes records with unknown county of residence.


Low birth weight was relatively similar in Tubac/Patagonia and Nogales between 2008-2010.

Table 20: Low Birth Weight in Tubac/Patagonia and Nogales

<table>
<thead>
<tr>
<th>Community Health Analysis Area*</th>
<th>Low Birth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubac / Patagonia</td>
<td>85.1</td>
</tr>
<tr>
<td>Nogales</td>
<td>86.1</td>
</tr>
</tbody>
</table>


The highest number of low-birth weight births in Santa Cruz County occurred among mothers of Hispanic or Latino ethnicity, with 58 low-weight births occurring among this population.

Women Who Receive Late or No Prenatal Care

Prenatal care is considered “late” if it began in the 2nd or 3rd trimester of pregnancy. In 2010, more than two-thirds (69.7 percent) of Santa Cruz County women received prenatal care in their first trimester, and less than three percent received no care at all. 27.6 percent of women received late prenatal care.
Table 21: Births by Trimester of Pregnancy Prenatal Care Began and Mother’s County of Residence, Arizona, 2010

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>No care</th>
<th>1st trimester</th>
<th>2nd trimester</th>
<th>3rd trimester</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>%</td>
<td>Count</td>
<td>%</td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>ARIZONA</td>
<td>87,053</td>
<td>100.0</td>
<td>1,382</td>
<td>1.6</td>
<td>71,331</td>
<td>81.9</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>693</td>
<td>100.0</td>
<td>19</td>
<td>2.7</td>
<td>483</td>
<td>69.7</td>
</tr>
</tbody>
</table>


Table 22: Number of Prenatal Care Visits by Mother’s Marital Status, Race/Ethnicity, Payee for Births, Length of Gestation, Weight at Birth and Newborn Intensive Care

<table>
<thead>
<tr>
<th></th>
<th>Marital status</th>
<th>Payee for births</th>
<th>Mother’s race/ethnicity</th>
<th>Length of gestation</th>
<th>Weight at birth</th>
<th>Newborn intensive care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Married</td>
<td>Unmarried</td>
<td>Other</td>
<td>AHCCCS</td>
<td>IHS</td>
<td>Private insurance</td>
</tr>
<tr>
<td>AZ</td>
<td>11.0</td>
<td>12.0</td>
<td>10.0</td>
<td>11.0</td>
<td>10.0</td>
<td>9.0</td>
</tr>
<tr>
<td>S. Cruz</td>
<td>9.0</td>
<td>9.0</td>
<td>8.0</td>
<td>8.0</td>
<td>9.0</td>
<td>8.0</td>
</tr>
</tbody>
</table>

*The arithmetic mean value for the number of prenatal visits in specified group. Excluded are cases with no prenatal care and/or unspecified number of prenatal visits.

Source: The Arizona Health Care Cost Containment System (AHCCCS) is the State’s Medicaid program.


As shown in Table 21 above, in Santa Cruz County in 2010, prenatal care visits averaged 9 for all mothers, which is less than the state average of 11.

The rate of women not receiving prenatal care in Tubac/Patagonia is 17.9 per 1,000 and 26.9 per 1,000 in Nogales, Arizona.

Table 23: Rate per 1,000 of Pregnant Women Who Receive No Prenatal Care by Community Health Analysis Area – Santa Cruz County

<table>
<thead>
<tr>
<th>Community Health Analysis Area*</th>
<th>No Prenatal Care Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubac / Patagonia</td>
<td>17.9</td>
</tr>
<tr>
<td>Nogales</td>
<td>26.9</td>
</tr>
</tbody>
</table>

Teen Pregnancy and Birth Rate

The Arizona Department of Health Services provides trend data for teen pregnancies according to the following age groups: 10-17 years; 18-19 years; and 19 years and younger. Overall, from 2007-2009 (the most recent published data), Santa Cruz County saw a decline in the number of teen pregnancies per 1,000 females in each of these age groups. From 2007 to 2009, the number of teen pregnancies per 1,000 females dropped from 32.2 to 29.1 in the 19 years and younger age group and from 17.7 to 11.4 in the 10-17 years age group. Santa Cruz County remains above the state teen pregnancy rate in all age categories.

Table 24: Teen Pregnancy and Birth Rate, Arizona and Santa Cruz

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Arizona</th>
<th>Santa Cruz</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 or younger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>34.4</td>
<td>32.2</td>
</tr>
<tr>
<td>2008</td>
<td>31.6</td>
<td>31.5</td>
</tr>
<tr>
<td>2009</td>
<td>28.0</td>
<td>29.1</td>
</tr>
<tr>
<td>18-19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>121.4</td>
<td>102.8</td>
</tr>
<tr>
<td>2008</td>
<td>111.3</td>
<td>111.6</td>
</tr>
<tr>
<td>2009</td>
<td>102.5</td>
<td>115.7</td>
</tr>
<tr>
<td>10-17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>14.8</td>
<td>17.7</td>
</tr>
<tr>
<td>2008</td>
<td>13.7</td>
<td>15.0</td>
</tr>
<tr>
<td>2009</td>
<td>11.2</td>
<td>11.4</td>
</tr>
</tbody>
</table>


CHAA teen birth rates per 1,000 females aged 14-19 years are detailed in the table below. In Tubac/Patagonia the teen birth rate per 1,000 females is 11.6 and 35.0 for Nogales, Arizona.

Table 25: Teen Births 14-19 Years per 1,000 Females by Community Health Analysis Area – Santa Cruz County

<table>
<thead>
<tr>
<th>Community Health Analysis Area*</th>
<th>Teen Births 14-19 years/1,000 females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubac / Patagonia</td>
<td>11.6</td>
</tr>
<tr>
<td>Nogales</td>
<td>35.0</td>
</tr>
</tbody>
</table>


While the age groups differ from those in the previous figure, among the total number of births for 18- to 19-year-olds in Santa Cruz County in 2010 (62), 2 were to White non-Hispanic mothers, 60 were to Hispanic or Latino mothers.
<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Mother’s age group</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>&lt;15 15-17 18-19 20-24 25-29 30-34 35-39 40-44 45+ Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARIZONA</td>
<td>Total</td>
<td>87,053</td>
<td>105 2,910 6,401 22,216 24,900 19,299 9,115 1,939 156 12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>White non-Hispanic</td>
<td>38,777</td>
<td>12 541 1,833 8,402 12,315 10,006 4,595 969 102 2</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Hispanic or Latino</td>
<td>34,333</td>
<td>68 1,859 3,421 9,952 8,921 6,380 3,071 636 24 1</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Black or African American</td>
<td>4,328</td>
<td>10 151 401 1,353 1,187 761 375 84 6 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>American Indian or Alaska Native</td>
<td>5,815</td>
<td>14 331 643 1,998 1,429 876 427 91 6 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asian or Pacific Islander</td>
<td>3,293</td>
<td>1 23 79 420 928 1,154 562 123 3 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>Other/unknown</td>
<td>507</td>
<td>0 5 24 91 120 122 85 36 15 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>Total</td>
<td>693</td>
<td>0 55 62 180 155 169 64 8 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>White non-Hispanic</td>
<td>34</td>
<td>0 0 2 4 11 11 5 1 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hispanic or Latino</td>
<td>656</td>
<td>0 55 60 176 143 157 58 7 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Black or African American</td>
<td>1</td>
<td>0 0 0 0 0 0 1 0 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>American Indian or Alaska Native</td>
<td>1</td>
<td>0 0 0 0 1 0 0 0 0 0</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asian or Pacific Islander</td>
<td>1</td>
<td>0 0 0 0 0 1 0 0 0 0</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Other/unknown</td>
<td>0</td>
<td>0 0 0 0 0 0 0 0 0 0</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
VII. REPORTABLE DISEASES

Healthy People 2020, developed by the U.S. Department of Health and Human Services, provides benchmarks and goals in regards to health status and behaviors for the year 2020. A goal of Healthy People 2020 is to “increase immunization rates and reduce preventable infectious diseases.” While immunization has led to increased life expectancy in the United States, incidences of vaccine-preventable and other infectious diseases still occur throughout the country and are among the leading causes of illness and death in addition to leading to increased health care spending.xxxiv

Below is a table listing 2005 and 2010 rates of selected reportable diseases for Santa Cruz County and Arizona.

Table 27: Selected Reportable Diseases, Arizona and Santa Cruz County 2005

<table>
<thead>
<tr>
<th>Selected Reportable Diseases, Arizona and Santa Cruz County 2005</th>
<th>Santa Cruz</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>2010</td>
<td>2005</td>
</tr>
<tr>
<td>Valley Fever</td>
<td>4.5</td>
<td>138.1</td>
</tr>
<tr>
<td>Campylobacteriosis</td>
<td>6.8</td>
<td>38.0</td>
</tr>
<tr>
<td>Salmonellosis</td>
<td>6.8</td>
<td>29.5</td>
</tr>
<tr>
<td>Shigellosis</td>
<td>43.1</td>
<td>21.1</td>
</tr>
<tr>
<td>Streptococcus pneumonia</td>
<td>2.3</td>
<td>8.4</td>
</tr>
<tr>
<td>Amebiasis</td>
<td>4.5</td>
<td>8.4</td>
</tr>
<tr>
<td>Meningococcal disease</td>
<td>0.0</td>
<td>2.1</td>
</tr>
</tbody>
</table>

In Santa Cruz County, with the exception of Shigellosis, the rates for the selected reportable diseases increased between 2005 and 2010. In 2010, the rates per 100,000 were
significantly higher than the state for Campylobacteriosis, Shigellosis, Salmonellosis and Amebiasis.xxxv

**Tuberculosis**

In 2010, Santa Cruz County reported a tuberculosis case rate of 2.1 per 100,000 population, lower than the Arizona state case rate of 4.4 per 100,000 and lower than the U.S. rate of 3.6 per 100,000.

Risk factors related associated with 2010 Arizona cases of tuberculosis include the following:

- Occupations, such as migrant farm workers and health care workers, comprising 3.0 percent and 1.4 percent of the cases in 2010, respectively;
- Substance abuse, including alcohol abuse and/or illicit drug use (13.5 percent of 2010 cases);
- Correctional facilities (23 percent of 2010 cases);
- Homelessness (8.5 percent of 2010 cases);
- Country of birth (in 2010, 64.5 percent of Arizona cases occurred in people born outside the U.S. and its territories); and
- Co-infection with HIV (3.5 percent of 2010 cases).

In 2010 in Arizona, Hispanic ethnicity accounted for 48.2 percent of the reported TB cases. The mean age for all active TB cases was 43.5 years of age. Males accounted for 66.7 percent of the TB cases.xxxvi

**Sexually Transmitted Diseases**

In 2010, Santa Cruz County fell well below the statewide rates for genital herpes, gonorrhea, syphilis and chlamydia. The most prevalent sexually transmitted disease (STD) is Chlamydia, accounting for 24,642 (81 percent) of the 30,432 reported STDs statewide and 141 (94 percent) of 150 reported STDs in Santa Cruz County.

<table>
<thead>
<tr>
<th>2010 Rates of STD’s - Santa Cruz and Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santa Cruz</td>
</tr>
<tr>
<td>Genital Herpes</td>
</tr>
<tr>
<td>Gonorrhea</td>
</tr>
<tr>
<td>Syphilis</td>
</tr>
<tr>
<td>Chlamydia</td>
</tr>
</tbody>
</table>


Sexually transmitted diseases such as chlamydia and gonorrhea can lead to additional, costly and/or painful health complications, such as pelvic inflammatory disease and infertility among women. Statewide, the chlamydia case rate among women in Arizona between 2005 and 2010 has been about three times higher in females than in males,
Further, according to the CDC, almost half of the 19 million estimated new sexually transmitted infections each year occur among those between the ages of 15 and 19 years. Regarding race and ethnicity, gonorrhea, chlamydia and syphilis case rates throughout Arizona between 2005 and 2010 were highest among African Americans, followed by American Indians (with the exception of syphilis; rates were higher among Hispanics between 2008-2009).

HIV/AIDS

It is estimated that in 2011, the prevalence of HIV/AIDS in Santa Cruz County was 39 whereas there were three incidents of new cases. 2011 had the highest incidence rate since 2007. In Santa Cruz County, as in the rest of the state, males have much higher emergent and prevalence rates of HIV/AIDS than females. Of the total number of prevalent cases of HIV/AIDS in 2011, 34 are male and 5 are female. The highest rates are among those aged 45-49 years (10 cases); of Hispanic ethnicity; and the highest percentage of transmission occurs among men having sex with men (64.1 percent).

VIII. NATURAL AND BUILT ENVIRONMENT

Air Quality Ratings

The Centers for Disease Control and Prevention and the EPA have collected data through the Public Health Air Surveillance Evaluation (PHASE) Project to measure air quality. Air pollution, such as exposure to excess levels of ozone or high levels of particulate matter, is associated with decreased lung function, bronchitis, asthma, and other respiratory conditions.xxxix

Table 29: Air Quality, Santa Cruz County and Arizona

<table>
<thead>
<tr>
<th>Air Quality</th>
<th>Santa Cruz County</th>
<th>National Benchmark*</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air pollution -- particulate matter days</td>
<td>4</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Air pollution -- ozone days</td>
<td>0</td>
<td>0</td>
<td>29</td>
</tr>
</tbody>
</table>

*The national benchmark is the point at which only 10% of counties in the nation do better, i.e., the 90th percentile or 10th percentile, depending on whether the measure is framed positively or negatively. Source: County Health Rankings. Accessed online from http://www.countyhealthrankings.org/app/arizona/2012/santa-cruz/county/1/overall

DEFINITIONS:

- Air pollution – particulate matter days represents the annual number of days that air quality was unhealthy for sensitive populations due to fine particulate matter.

- Air pollution – ozone days measures the annual number of days that air quality was unhealthy for sensitive populations due to ozone levels.

The most recent data available, from 2007, indicates that Santa Cruz County is among the counties with the highest number of particulate matter days. It is well below the state rate for ozone days.

Access to Healthy Foods and Recreational Facilities

For Santa Cruz County residents, recreational activities are much less accessible than for most Arizonans. In Santa Cruz County, there are two recreational facilities per 100,000 population, compared to seven per 100,000 throughout the state. According to the data, Santa Cruz County residents appear to have better access to healthy foods than most Arizonans; only two percent of Santa Cruz residents are considered to have limited access to healthy foods, compared to nine percent of Arizonans. This is tempered, however, by the high percentage of restaurants considered “fast food” – 43 and 52 percent in Santa Cruz and Arizona, respectively. xxxix
### Table 30: Access to Healthy Foods and Recreational Facilities, Santa Cruz County and Arizona

<table>
<thead>
<tr>
<th>Access to Healthy Foods and Recreational Facilities</th>
<th>Santa Cruz County</th>
<th>National Benchmark*</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited access to healthy foods</td>
<td>2%</td>
<td>0%</td>
<td>9%</td>
</tr>
<tr>
<td>Fast food restaurants</td>
<td>43%</td>
<td>25%</td>
<td>52%</td>
</tr>
<tr>
<td>Access to recreational facilities</td>
<td>2</td>
<td>16</td>
<td>7</td>
</tr>
</tbody>
</table>

*The national benchmark is the point at which only 10% of counties in the nation do better, i.e., the 90th percentile or 10th percentile, depending on whether the measure is framed positively or negatively.

**Source**: County Health Rankings. Accessed online from [http://www.countyhealthrankings.org/app/arizona/2012/santa-cruz/county/1/overall](http://www.countyhealthrankings.org/app/arizona/2012/santa-cruz/county/1/overall)

**DEFINITIONS:**

- Limited access to healthy foods measures the percent of a population that is low-income and does not live within 10 miles of a grocery store (for rural communities).
- Fast food restaurants measures the proportion of restaurants in a county that are identified by the NAICS as fast food restaurants.
- Access to recreational facilities represents the number of recreational facilities (establishments primarily engaged in fitness/conditioning and physical activity) per 100,000 population in a given county.

Access to healthy foods – specifically, grocery stores or produce stands where fresh fruits and vegetables as well as low-fat, high fiber foods are available – is often poor in low-income, minority neighborhoods. The lack of access to healthy foods has also been associated with higher prevalence of obesity, while increased access to fast food restaurants is associated with a higher prevalence of obesity and diabetes.

While various socioeconomic factors, as well as urban/rural status and weather patterns can impact a population’s tendency to utilize recreational facilities, the data collected to address access to recreational facilities is not reliable in determining the overall usage by community members. The data does not measure natural fitness activities, such as parks.
**IX. SOCIAL ENVIRONMENT**

**Violent Crimes, Sexual and Domestic Violence**

Santa Cruz County’s violent crime rate is 199 offenses per 100,000 population – much lower than the state offense rate of 466 per 100,000, but much higher than the national benchmark of 73 offenses per 100,000. Violent crime is defined as rape, homicide, robbery and aggravated assault. High crime rates can impact psychological and physical well-being, increase stress and deter people from exercising outdoors or pursuing other health behaviors.\(^{31}\)

Santa Cruz County has lower than the state average of both domestic and sexual violence based on the Behavioral Risk Factor Surveillance System (BRFSS).

<table>
<thead>
<tr>
<th>Table 31: Sexual and Domestic Violence Percentages - Santa Cruz County and Arizona</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Santa Cruz County</th>
<th>Confidence Interval</th>
<th>Arizona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Sexual Violence</td>
<td>4.0%</td>
<td>1.3-6.6%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Percent Domestic Violence</td>
<td>10.0%</td>
<td>4.7-15.3%</td>
<td>11.7%</td>
</tr>
</tbody>
</table>

Source: ADHS BRFSS.

**Definitions:**

The BRFSS is a state-based, cross-sectional, random telephone survey of household residents aged 18 and older, conducted throughout the year. It has been conducted in Arizona since 1982 and gathers information on risk factors related to both chronic and infectious diseases. Confidence limits are given to show the precision of estimates. Estimates for some indicators for several counties are unstable due to small sample size.
X. COMMUNITY INPUT

Among the most critical components of the Santa Cruz County Community Health Needs Assessment was direct input from the community. A total of five focus groups were held in November of 2012 with older adults (age 65 years and older), women of childbearing age, youth, and health care providers. Much of this data was collected through a partnership of the Arizona Department of Health Services and Carondelet Holy Cross Hospital, with assistance from Mariposa Community Health Center and the South East Arizona Area Health Education Center, was direct input from the community. Also included in this assessment are the previously-unpublished results of the Nogales Senior Care Preference Focus Group Study, a series of key informant surveys on senior service needs in Nogales and Santa Cruz County from 2010. Prominent themes are summarized below. Raw data and notes are provided as an appendix.

1. Focus Groups

Older Adults

Conducted at the Holiday Inn in Nogales, AZ on November 8, 2012. Breakfast was offered to participants. Recruitment was done via email by assessment partners as well as in person at shopping centers in Nogales, AZ.

Note-taker: 
Dave Ryder, Veer Consulting

Facilitator and Analyst: 
Salena Meyer, MPH Student ’13, University of Arizona College of Public Health, Arizona Department of Health Services Fellow

Translator: 
Livi Delgadillo, Veer Consulting

Summary of Key Themes

According to this focus group, there is a significant need for more medical providers and facilities in Santa Cruz County. More efforts need to be made to retain doctors in the community. This will reduce the need to travel long distances to see specialists. In addition, these participants felt that as older adults in the community, they lack a voice and are disenfranchised. They would like a monthly newsletter or bulletin that describes activities and events in the community to engage the senior population. They want to be listened to by policy makers in the community and be valued.

Youth

Conducted at the Holiday Inn in Nogales, AZ on November 8, 2012. Dinner was offered to participants. Recruitment was done via email by assessment partners as well as in person at shopping centers in Nogales, AZ.
Summary of Key Themes:

This youth focus group ranged in age and life experiences, but several key themes united the participating youth. A need for increased outreach efforts directed at drug use and sex education was brought up several times. The current health education techniques were criticized for not being realistic and meaningful to students. All agreed that having individuals share personal struggles with drug use and teen pregnancy would have a stronger impact. In addition, it was noted that a great portion of health education does not begin until high school, even though youth begin participating in risky behaviors at earlier ages.

Need for personal development programs, assistance finding jobs and learning vocational skills was noted. It was suggested that this come in the form of mentor relationships organized by the schools to help youth remain on the right path for success. A need for increased parental involvement was also noted. Courses to help parents understand the unique needs of youth are needed to help parents better communicate and foster success in their children.

Women of Childbearing Age 1

Conducted at the Esplendor Resort in Rio Rico, AZ on November 12, 2012. Dinner was offered to participants. Recruitment was done via email by assessment partners as well as in person at shopping centers in Nogales, AZ.

Summary of Key Themes

The major theme of this focus group was a need for increased services. Specifically for women in Santa Cruz County, it was noted that there are a lack of reproductive healthcare facilities and that youth do not know where to access contraception. There is a need for
improved mental health services, specifically for post-partum depression and crisis situations such as domestic violence. This focus group discussed the high cost of healthcare in the community and how many use Mexico as an alternative place to receive services. Many take their children into Mexico for healthcare, dentistry and prescription medications, at a reduced cost.

Women of Childbearing Age 2

Conducted at Carondelet Holy Cross Hospital on November 19, 2012. Dinner was provided to participants. Recruitment was done through a local OB/GYN practice.

Note-taker:
Taz Greiner, Carondelet Health Network

Facilitator and Analyst:
Emily Coyle, MPH Student ’13
University of Arizona College of Public Health

Translator:
Bilingual participants

Summary of Key Themes:

Although the focus group was small (consisting of only three women), the participants were passionate about the health of their community and engaged in the conversation. A major theme in this focus group, similar to the other women’s focus group, was a need for additional health care services and health care specialists. The women stated they are “always referred up to Tucson” for health care. Cost and a lack of insurance are major barriers to getting female health services, as well as a lack of information; the women felt too much of the information provided by health care providers is very general when they are looking for more specific information about how they can care for themselves and their families. As one participant stated following the birth of her son, “You go and you seek more information – purposeful information – and they pretty much tell you the same information or they tell you you’re depressed…. I wanted more – I was given the impression that they’d help me do more with my son after he was born – interact with him more, be more productive, but every time I would go they’d ask questions and then say ’Have you cried today?’” Additionally, the women felt exercise and recreation was important to overall physical and mental well-being, yet the community lacks sufficient recreational areas such as affordable gyms and parks for kids to play sports.

Health Care Provider Focus Group

Conducted at Carondelet Holy Cross Hospital on November 12, 2012. The group was comprised of one nurse practitioner and six physicians from Carondelet Holy Cross Hospital, Mariposa Community Health Center and Carondelet Medical Group representing
family practitioners, obstetricians and gynecologists, hospitalists, urologists and pediatricians.

**Note-taker:**
Taz Greiner, Carondelet Health Network

**Facilitator and Analyst:**
Emily Coyle, MPH Student ’13
University of Arizona College of Public Health

**Summary of Key Themes:**

The health care provider focus group was comprised of providers with many years’ experience living and working in Santa Cruz County. The most frequently mentioned health care need was mental and behavioral health for both adults and children. The lack of a psychiatrist in the county leaves primary care providers with the burden of mental and behavioral health issues. Another major need surrounds diabetes and its side effects; the need for an endocrinologist in the community was mentioned frequently. The group identified obesity, diabetes and teen pregnancy – despite access to birth control – as the most preventable health-related diagnoses in the community, all of which are related to behavioral health.

Another recurring theme was the cost of health care; specifically, a lack of access to care due to cost of copays. Additional obstacles to access to care include transportation for the elderly; a shortage of specialists and primary care providers; unemployment; cuts to AHCCCS; and outdated treatment and care facilities. An evening clinic could help alleviate some of the burden on providers, and new strategies should be in place to help recruit providers and specialists who “fit” with the community.

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**Nogales Senior Care Preference Focus Group Study**  
*(provided by Carondelet Health Network)*

Carondelet Senior Services Interview Summary  
Donna Zazworsky and Dina Sanchez  
September 6, 2010

In May, June and July 2010, Carondelet Health Network held five Key Informant Surveys on Senior Services needs in Nogales and Santa Cruz County. The following groups were interviewed:

- Medical Services:
  - Carondelet Medical Group: Dr. Crawford, Dr. Maudlin and Miriam Downey, NP
  - Mariposa Community Health Center: Dr. Pereira and Family Practice/Internal Medicine Physicians (8), and Mr. Bejarano, Psychologist
Summary of Key Themes:

Both the physician and the social services groups identified the following health and health-related issues for seniors: medication affordability; simplification and health literacy, screening, treatment and care coordination for Alzheimer’s and dementia; family problems with advanced directives; additional assisted living facilities; longer visits with primary care providers; language accommodation, and more nurse navigators. Transportation is a major issue for elders since the Dial-A-Ride program was disabled. Financial need is an area of concern, as is care coordination – there is a need for a “one stop for all” service for all resources.

Social services providers want to increase awareness of community services available through community outreach, while physicians would like more training in the area of dementia screening and resources. Both groups felt that cultural traditions and beliefs were important to consider with their elders. For example, getting help is considered a failure on the families’ part.

2. Santa Cruz County Community Meeting with Key Informants and Community Leaders

Engaging community leaders and stakeholders is important in assessing the health needs of a community. On Oct. 15, 2012, Carondelet Holy Cross Hospital and the Arizona Department of Health Services, with assistance from the Southeast Arizona Health Education Center and Mariposa Community Health Center, hosted a community leader/key informant focus group to assess the current health status and needs of Santa Cruz County, taking into account input from persons who represent the broad interests of the community. Participants included elected officials, first responders, medical professionals, representatives from various health and human services organizations and other individuals with special knowledge of and/or expertise in public health. The issues addressed are identified and described below. Complete data and notes are included in the appendices.

Diabetes, Obesity and Mental and Behavioral Health

Participants identified diabetes, obesity and mental and behavioral health as the top health issues in Santa Cruz County. Participants attribute these issues to cultural dietary traditions, poor nutrition and food availability due to cost of health foods and a low-income population, marketing of unhealthy foods and a lack of education on nutrition in schools. Additional causes include a lack bike lanes and trails to encourage outdoor activity.
The “militarization of the border” results in psychological issues such as post-traumatic stress disorder due to the increased violence, immigration concerns, and a sense of repression from the “community being occupied.” Further, participants feel behavioral health needs are going unaddressed because of competing priorities. Additionally, participants feel that there has been an increase in youth drinking and smoking.

**Natural/Built Environment**

Participants identified dilapidated housing, mold and insects in housing, scarce rental housing, poor sidewalks and unsafe roads, and a lack of maintenance of parks and community recreation areas as key environmental issues that affect health. Air quality is an issue.

**Access to Care**

Many participants cited access to adequate, quality health care as a major health issue in Santa Cruz County. There is a shortage of healthcare providers, and provider recruitment is a challenge due to negative external perceptions of the community. Participants stated that many people seek health care in Tucson because of a lack of resources and negative experiences with local doctors and providers. Further, there is no urgent care in Nogales; residents travel to Green Valley because it is less expensive than visiting the emergency room. There are no rehabilitation services for patients who are homebound. In addition, unemployment, a lack of insurance, cuts to AHCCCS all inhibit access to care due to cost.

**Health Programs and Services**

Participants identified several health or health-related programs and services that are lacking in Santa Cruz County. They are categorized into Maternal and Child Health, Adults, Elderly, and General Services below.

**Maternal and Child Health Programs and Services Needed**

- Maternity and lactation services
- After school programs
- Boys & Girls Club (this program currently exists, and participants feel it must be sustained because of the value it provides through promoting physical activity, character-building, decision-making, safety and self-esteem)

**Adult Programs and Services Needed**

- Mental health services
- Sexual assault nurse examiner (SANE)
- 24-hour shelter
- Fitness events, such as 5k and 10k walks/runs

**Elderly Programs and Services Needed**
• Support groups for Alzheimer’s and Parkinson’s diseases
• In-home health care

**General Programs and Services Needed**

- A discount/sliding fee scale (available at Mariposa) for screening, prescription, dental and acute care must be sustained
- 24-hour access to emergency care
- Dialysis center
- Outpatient rehab
- Family resource center
- Patient navigator program

*Note: Several of the above-mentioned programs and services do exist in Santa Cruz County; however, the participants’ lack of awareness may indicate a strong need for promotion of these programs.*

**Health Literacy and Education**

Health literacy, awareness and education were among the most common themes identified by participants. Generally, there is a lack of knowledge regarding programs and services available to the community, as indicated above. Participants suggested efforts to raise awareness including seminars, health topic information sessions, community education classes, and advertising to address nutritional and physical education, diabetes prevention and available health programs.

**Transportation**

Transportation is a major concern among Santa Cruz County residents. Participants feel that there is a lack of safe opportunities to exercise because transportation is required to recreational areas. Transportation impacts mobility, especially for the elderly, and is impacted by schedule and affordability. Inter-facility transportation is a concern for the community’s first responders, citing multiple bills to patients for transport due to multiple companies transporting them. Further, additional bus routes are needed, roads require repair, and walkable routes and bike paths are needed.

**Vision of a Healthy Community**

Participants have a strong perception of Santa Cruz County as a safe place to live and work. Their vision of a healthy community would include a coordinated public transportation system, including transport between Nogales and Tucson; adequate primary care providers; nutritional education, especially for children; affordable health care; increased outdoor activity and adequate infrastructure to support it; good schools; emergency preparedness classes; an online resources center containing all county-wide services; and access to services for undocumented immigrants.
3. Community Health Needs Assessment Surveys

As part of the Santa Cruz County Community Health Needs Assessment, a survey was administered to over 300 county residents. Surveys were made available in both English and Spanish. Digital surveys were sent using SurveyMonkey software to community meeting and focus group participants as well as local community partners. Forty-one surveys were collected electronically. Mariposa Community Health Center was instrumental in administering printed surveys to community members at health fairs, grocery stores and in clinic settings. Mariposa Community Health Center was responsible for collecting 161 completed surveys, 85 in Spanish and 76 in English.

Survey Results

The most important aspects of a healthy community are:
1. Good jobs and healthy economy
2. Access to healthcare
3. Good place to raise children
4. Good schools

The largest health issues in Santa Cruz County are:
1. Lack of health insurance
2. Obesity
3. Diabetes

What impacts health in Santa Cruz County?
1. Being overweight
2. Alcohol abuse
3. Drug abuse

• The Health of Santa Cruz County is:
  o Somewhat healthy

• Majority of survey respondents were:
  o Female
  o 40-45
  o Hispanic/Latino
  o Married / cohabitating

• The majority of respondents seek regular medical preventative care for their families.

• Most respondents seek care from:
  o Mariposa
  o Private practice physicians
  o Mexico
• English respondents pay for their healthcare through insurance while Spanish survey respondents mainly pay out of pocket and are uninsured. The majority of Spanish speakers get prescription medications from Mexico, while English survey respondents utilize prescription health plan benefits in the United States.

• The top health care concerns in Santa Cruz County are:
  o Quality of care
  o Cost

• The top concerns about raising children in Santa Cruz County are:
  o Quality of school system
  o Negative influences (drugs, teen pregnancy)

• The top concern about growing old in Santa Cruz County is:
  o Lack of elderly care facilities

• The biggest impact on economic security is:
  o Lack of jobs and career opportunities

• The majority of respondents believe that there are insufficient mental health services in the community to help in times of crisis.

4. ADHS Community Prioritization Meeting

As part of the Arizona Department of Health Service’s Community Health Improvement Plan for Santa Cruz County, on Dec. 13, 2012, ADHS hosted more than four dozen community stakeholders to prioritize key themes identified through the Santa Cruz County Community Health Needs Assessment primary and secondary data collection activities. Primary data included 161 surveys completed by Santa Cruz County residents; five community focus groups conducted by ADHS and/or Carondelet Holy Cross Hospital; and a key informant and community leader meeting hosted by Carondelet Holy Cross Hospital in collaboration with ADHS, SEAHEC and Mariposa Community Health Center. Secondary data included the most recent available morbidity and mortality data compiled by ADHS.

Participants were presented with the following twelve key themes (in no particular order) and asked to select three of the identified priorities the community should address: Obesity, Diabetes, Lack of Health Insurance, Alcohol Abuse, Drug Abuse, Quality Schools, Support for Older Adults, Physician Retention, Mental Health, Accessible Transportation, Places to Exercise and Teen Pregnancy.

Results of the prioritization meeting are in the following table.
Table 32: Community Priorities, Santa Cruz County 2012

<table>
<thead>
<tr>
<th>Rank</th>
<th>Theme</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Quality Schools</td>
<td>14%</td>
</tr>
<tr>
<td>2</td>
<td>Accessible Transportation</td>
<td>13%</td>
</tr>
<tr>
<td>3</td>
<td>Obesity</td>
<td>11.4%</td>
</tr>
<tr>
<td>3</td>
<td>Support for Older Adults</td>
<td>11.4%</td>
</tr>
<tr>
<td>3</td>
<td>Mental Health</td>
<td>11.4%</td>
</tr>
<tr>
<td>4</td>
<td>Diabetes</td>
<td>10.5%</td>
</tr>
<tr>
<td>5</td>
<td>Lack of Health Insurance</td>
<td>7.9%</td>
</tr>
<tr>
<td>6</td>
<td>Physician Retention</td>
<td>7%</td>
</tr>
<tr>
<td>7</td>
<td>Teen Pregnancy</td>
<td>5.2%</td>
</tr>
<tr>
<td>8</td>
<td>Drug Abuse</td>
<td>3.5%</td>
</tr>
<tr>
<td>9</td>
<td>Alcohol Abuse</td>
<td>2.6%</td>
</tr>
<tr>
<td>10</td>
<td>Places to Exercise</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

The highest priority theme was quality schools, selected by 16 community stakeholders, or 14 percent. Community survey respondents fear negative influences in Santa Cruz County schools, specifically, drug use, teen pregnancy, and high drop-out rates.

The second priority theme was accessible transportation, selected by 15 community stakeholders, or 13%. Community survey respondents identified the need for affordable transport to Tucson to see specialists. Currently, individuals depend on ambulance transport because they do not have a vehicle and there is not sufficient public transportation.

FIGURE 19: TOP HEALTH PRIORITIES, SANTA CRUZ COUNTY, 2012
The third priority themes were obesity, support for older adults, and mental health, each selected by 13 community stakeholders, or 11.4 percent. Sixty-seven percent of the population is overweight or obese, and obesity was ranked as the second largest community health concern based on survey data. Community survey respondents stated that older adults lack elderly care facilities; buses are ill-equipped for the disabled and elderly; and there is one licensed hospice facility in Santa Cruz County. The majority of community survey respondents believe Santa Cruz County has inadequate mental health services. There are no licensed Community Mental Health Centers in Santa Cruz County.
XI. KEY INFORMANTS

Several key informants from various health and human services organizations and representing the broad interests of the community provided valuable input during the initial stages of this assessment through a community focus group. Carondelet Holy Cross Hospital greatly appreciates the time, expertise, and valuable input of the following individuals:

Table 33: Key Informants, Santa Cruz County Community Health Needs Assessment

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Affiliation</th>
<th>Role, Special Knowledge and/or Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marcelino Varona</td>
<td>Member</td>
<td>Nogales Unified School District governing board, Santa Cruz Provisional Community College Governing Board</td>
<td>Facilitate community events, bi-national cross border issues, grant writing, fundraising to support NGOs, capacity building for local NPOs. Identify currently emerging issues and strengthen community resources to address those issues.</td>
</tr>
<tr>
<td>Pat Trulock</td>
<td>Volunteer</td>
<td>Santa Cruz Community Foundation</td>
<td>Grant writing &amp; program coordination, campaign manager, 11 years with RBT, 6 years grant writing</td>
</tr>
<tr>
<td>Marcella Chavez</td>
<td>Coordinator; Executive Director</td>
<td>Rebuilding Together; United Way</td>
<td>Resident of Santa Cruz County since 1995. 17 years as physical therapist. Worked in home health, acute care, long term care, sub-acute care and outpatient with pediatrics through adults/geriatrics</td>
</tr>
<tr>
<td>Kimberly Munoz</td>
<td>Physical Therapist</td>
<td>Carondelet Holy Cross Hospital; Self Contractor, Santa Cruz Valley Unified School District</td>
<td></td>
</tr>
<tr>
<td>Dina Sanchez</td>
<td>Director of Planning/Community Relations</td>
<td>Carondelet Holy Cross Hospital</td>
<td>Knowledge of local health care system and community affiliation</td>
</tr>
<tr>
<td>Debra Knapheide</td>
<td>Site Administrator/CNO/COO</td>
<td>Carondelet Holy Cross Hospital</td>
<td>Overall healthcare needs of acute care patient population</td>
</tr>
<tr>
<td>Michael Vetter</td>
<td>Executive Director</td>
<td>Catholic Community Services of Southern AZ</td>
<td></td>
</tr>
<tr>
<td>Suzanne David</td>
<td>Assistant Director</td>
<td>South East Arizona Health Education Center (SEAHEC)</td>
<td>Continuing education for health care providers</td>
</tr>
<tr>
<td>Joyce Hospodar</td>
<td>Manager, Health Systems Development</td>
<td>Center for Rural Health, MEZCOPH U of A</td>
<td>Working with rural hospitals and first responders</td>
</tr>
<tr>
<td>Alexa Bathe</td>
<td>Membership manager</td>
<td>Arizona Lifeline Air Medical Care</td>
<td>Paramedic, awareness manager of the membership program</td>
</tr>
<tr>
<td>Yvonne Delgado</td>
<td>Executive Director</td>
<td>Nogales Community Development</td>
<td>Working with Mariposa Community Health Center and local partners on a Healthy Foods Initiative. Working with/provide support for the Southwest Rural Policy Network</td>
</tr>
<tr>
<td>Name</td>
<td>Title/Role</td>
<td>Organization/Location</td>
<td>Responsibilities/Notes</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------------------------------------</td>
<td>------------------------------------------------------------</td>
<td>------------------------------------------------------------</td>
</tr>
<tr>
<td>Cassalyn David</td>
<td>Network Director</td>
<td>Mariposa Community Health Center; Santa Cruz County Adolescent Wellness</td>
<td>Adolescent health and wellness, rural health networks, health equity</td>
</tr>
<tr>
<td>Joyce LaTura</td>
<td>Maternal &amp; Child Health Manager</td>
<td>Mariposa CHC</td>
<td>Maternal &amp; Child health issues, community engagement, promotora (community health workers) training</td>
</tr>
<tr>
<td>William Sanchez</td>
<td></td>
<td>Nogales Fire Department</td>
<td></td>
</tr>
<tr>
<td>Gerry Castro</td>
<td></td>
<td>Nogales Fire Department</td>
<td></td>
</tr>
<tr>
<td>Octavio Gradillas</td>
<td></td>
<td>Nogales Police Department</td>
<td></td>
</tr>
<tr>
<td>Shane Dille</td>
<td>City Manager</td>
<td>Nogales</td>
<td></td>
</tr>
<tr>
<td>Christine Young</td>
<td></td>
<td>ADHS Office of Border Health</td>
<td></td>
</tr>
<tr>
<td>Gail Emrick</td>
<td>Executive Director</td>
<td>SEAHEC</td>
<td>Public Health Administration/Planning/Management, health workforce development, border health issues, international health</td>
</tr>
<tr>
<td>Jeffrey Maudlin</td>
<td>MD</td>
<td>Carondelet Medical Group</td>
<td>Community physician and chief of staff, Carondelet Holy Cross Hospital</td>
</tr>
<tr>
<td>Christia Bridges-Jones</td>
<td>Breastfeeding Coordinator</td>
<td>ADHS</td>
<td>Maternal &amp; child health nutrition, program coordinator/breastfeeding services</td>
</tr>
<tr>
<td>Lisa Nieri</td>
<td>Director of Community Development and Special Populations</td>
<td>Arizona Association of Community Health Centers</td>
<td>Migrant &amp; seasonal farmworker health, community health centers</td>
</tr>
<tr>
<td>Kelly Watters</td>
<td>Project Coordinator</td>
<td>Somos La Semilla; Community Food Bank of Southern AZ</td>
<td>Community food systems development (farmers markets, food production and education)</td>
</tr>
<tr>
<td>William Neubauer, MD</td>
<td>Chairman; Co-Chair; Trustee</td>
<td>Santa Cruz Community Foundation; Arizona Mexico Commission; Carondelet Holy Cross Hospital</td>
<td>Medical doctor</td>
</tr>
</tbody>
</table>


XII. HEALTH RESOURCES AND ASSETS

An inventory of a community’s existing health care facilities and resources is important in the health needs assessment process. It provides an opportunity for health care providers, public health professionals, and other stakeholders to review services that are currently available to the community and provides a basis from which to identify areas where services can be enhanced or utilized more effectively.

In Santa Cruz County, health care resources and assets are primarily located in Nogales. Below is information regarding health care facilities, behavioral health and medical groups, as well as various community social services.

Health Care Facilities

Carondelet Holy Cross Hospital, a 25-bed Critical Access Hospital located in Nogales, is Santa Cruz County’s only inpatient medical center. Health care services include general medical and surgical services, 24-hour emergency care, rehabilitation, mammography, ultrasound, CT and MRI imaging, chemotherapy, hospice, home health and long-term care, GI procedures, laboratory and birthing services.

Mariposa Community Health Center, located in Nogales, is a Federally Qualified Community Health Center (FQHC). Mariposa also operates the Mariposa Community Health

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FIGURE 20: HEALTH CARE FACILITIES IN SANTA CRUZ COUNTY
Center at Rio Rico, which opened a dental clinic in 2011, and the Family Health Center in Patagonia.

Health care services include family practice, obstetrics and gynecology, internal medicine, pediatrics, general dental services, telemedicine, immunizations, WIC/nutrition services, HIV/AIDS prevention and education, family planning, X-ray/mammography, laboratory and pharmacy.

**Behavioral Health**

- Southeastern Arizona Behavior Health Services
  441 N. Grand Ave. Suite 9, Nogales, AZ
  (520) 287-9816

- Corazon Behavioral Health Services
  1891 N Mastick Way, Nogales, AZ
  (520) 375-5300

**Medical Groups**

- Carondelet Medical Group
  1209 W Target Range Rd, Nogales, AZ
  (520) 287-4747

- Carondelet Surgical Group
  1209 W Target Range Rd, Nogales, AZ
  (520) 287-8004

- Mariposa Community Health Center
  1852 N Mastick Way, Nogales, AZ
  (520) 281-1550

- Oscar I Rojas MD
  1209 W Target Range Rd, Nogales, AZ
  (520) 287-4656

- Pima Heart Physicians
  480 N Morley Ave, Nogales, AZ
  (520) 287-5728

- Santa Cruz Urology
  490 N Carondelet Dr, Nogales, AZ
  (520) 761-3103

- Southwestern Eye Center
  1815 N Mastick Way, Nogales, AZ
  (520) 394-4714
• Carondelet Holy Cross Emergency Department 1171 W Target Range Rd, Nogales, AZ  
  (520) 285-3000

• Women’s Center  
  494 N Carondelet Dr, Nogales, AZ  
  (520) 761-1603

Specialists from Tucson that Provide Outpatient Services at the Carondelet Specialty Center

• Carondelet Specialty Center 1209 W Target Range Rd, Nogales, AZ  
  (520) 287-8071

• Arizona Oncology  
  Michael A. Boxer, MD  
  Oncologist and Hematologist  
  (520)886-0206

• Diego H. Calonje, MD  
  Ophthalmologist  
  (520)886-4080

• Amram, Dahukey, DPM  
  Podiatrist  
  (520)326-6766

• Moeen Din, MD  
  Neurology  
  (520)638-5553

• David N. Flieger, MD  
  Dermatology  
  (520)296-6204

• Rehan Iftikhar, MD  
  Gastroenterologist  
  (520)624-4342

• John R. Klein, MD  
  Orthopedic Surgeon  
  (520)290-0961

• Brian J. Levine, MD  
  General Surgery  
  (520)622-7384
• Eleazar Ley Tai, MD
  Plastic Surgery
  (520)881-5324

• Samantha L. C. Nogales, OD
  Doctor of Optometry
  (520)326-4321

• Marc Olivier, MD
  Nephrologist
  (520)623-2642

• The University of Arizona Medical Center
  Pediatric Cardiologists
  Daniel Lax, MD
  Brent Barber, MD
  Scott E. Klewer, MD
  Ricardo Samson, MD
  (520)626-6508

• Nicholas Ransom, MD
  Orthopedic Surgeon
  (520)624-0888

• Alejandro Rivero, MD
  Nephrologist
  (520)622-3569

• Rizwan Safdar, MD
  Gastroenterologist
  (520)624-4342

• Sylvain Sidi, MD
  Gastroenterologist
  (520)885-7600

• Basel Skeif, MD
  Cardiologist Tucson Heart
  (520)326-4811

• Reuban G. Wagelie, MD
  Pediatric and Adult Allergist
  (520)325-5701

**Social Services**

• Lutheran Social Services
  642 W Mesa Verde Dr, Nogales, AZ
  (520) 281-9240
• Catholic Community Services  
  (520) 287-2107

• Child & Family Resources Inc  
  1827 N Mastick Way, Nogales, AZ  
  (520) 281-9303

• Crossroads Nogales Mission  
  338 N Morley Ave, Nogales, AZ  
  (520) 287-5828

• Family Resource Center  
  441 N Grand Ave Ste 12, Nogales, AZ  
  (520) 287-3330

• Southeastern Arizona Community Action Program Inc  
  490 N Chenoweth Ave, Nogales, AZ  
  (520) 287-5066

• United Way of Santa Cruz County  
  855 W Bell Rd, Nogales, AZ  
  (520) 761-1840

• Santa Cruz Training Program & Community Based Services  
  70 E La Castellana Dr, Nogales, AZ  
  (520) 287-2043 x14

• Horizon Human Services  
  545 N Grand Ave Ste 2, Nogales, AZ  
  (520) 287-9678

Shelters

• New Life Center Emergency Shelter (Domestic Violence)  
  Location Confidential, Nogales, AZ  
  (520) 287-6335

• Our House/Nuestra Case Domestic Violence Shelter  
  Location Confidential, Nogales, AZ  
  (520) 287-2107

• Crossroads Nogales Mission Shelter  
  338 N Morley Rd, Nogales, AZ  
  (520) 287-5828
Senior Centers

• Nogales Senior Center  
  125 E Madison St Ste 4 Nogales, AZ 85621  
  (520) 287-7422

• Patagonia Senior Citizen Center  
  100 Quiroga Ln Patagonia, AZ 85624  
  (520) 394-2494

• Rio Rico Community Senior Center  
  391 Avenida Coati mundi Rio Rico, AZ 85648  
  (520) 281-7880

• Tubac Community Center  
  30 Bridge Rd Tubac, AZ 85646  
  (520) 398-1800
XIII. COMMUNITY PROFILE

Nogales, Sonora, Mexico

Up until the mid-19th century, the Mexican state of Sonora was a remote border region primarily inhabited by a native Indian population. When word got out about its vast mineral wealth and agricultural opportunity, North American settlers began to populate the region, creating a border lifestyle in a community comprised of two countries, cultures and peoples. Nogales was officially founded in 1882 along a north-south railroad line that was built to promote trade between the U.S. and Mexico.

In 2010, the municipality of Nogales had an official population of 220,292, an increase of more than 60,000 people since 2000. More than ten times the size of its sister city across the border, Nogales is a major destination for tourism, shopping and nightlife. It is also a major manufacturing town, with approximately 90 factories that are primarily used for assembling U.S.-made parts for shipment around the world. It is a major border crossing for people traveling from the U.S. to Mexico and also a major port of entry for commerce, especially produce, with a majority of the U.S. and Canada’s winter produce passing through its border.

Nogales has five private and three public hospitals as well as four free, public clinics located throughout the city. A number of specialists, such as dentists, cardiologists, chiropractors, and plastic surgeons draw medical tourists seeking care from across the border. In addition, Nogales has seven universities from which more than 5,000 students have graduated since 2006.
a. Demographics

Population\textsuperscript{xlv}

Nogales, Sonora’s population has grown significantly from 2000 to 2010. The male-female ratio in Nogales is 102.1, only slightly higher than that of Sonora (101.3). The percent of population aged 15-19 years is the same for both the municipality and the state (26), whereas the percent of population aged 60 years and older is much lower in Nogales (5) than statewide (9).

Table 34: Nogales, SO and Sonora Population 2010

<table>
<thead>
<tr>
<th></th>
<th>Nogales</th>
<th>Sonora</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>220,292*</td>
<td>2,662,480</td>
</tr>
<tr>
<td>Men</td>
<td>111,295</td>
<td>1,339,612</td>
</tr>
<tr>
<td>Women</td>
<td>108,997</td>
<td>1,322,868</td>
</tr>
<tr>
<td>Percent age 15-19 years</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Percent 60+ Years</td>
<td>5</td>
<td>9</td>
</tr>
</tbody>
</table>


*Official count. Some sources indicate the total population may be much higher.

Table 35: Nogales, SO Population Growth - 2000-2010

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nogales</td>
<td>220,292</td>
<td>193,517</td>
<td>159,787</td>
</tr>
</tbody>
</table>


FIGURE 22: NOGALES POPULATION GROWTH – 2000-2010
**Births**

The total birth rate in Nogales is slightly higher than that of Sonora, at 22.6 per 1,000 compared to 20.5 per 1,000. The rate of males to females is similar.

Table 36: Crude Birth Rates per 1,000, Nogales, SO and Sonora

<table>
<thead>
<tr>
<th>Births - 2011 (crude rate per 1,000)</th>
<th>Nogales</th>
<th>Sonora</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>22.6</td>
<td>20.5</td>
</tr>
<tr>
<td>Males</td>
<td>22.2</td>
<td>20.5</td>
</tr>
<tr>
<td>Females</td>
<td>22.9</td>
<td>20.5</td>
</tr>
</tbody>
</table>


**Deaths**

The death rate in Nogales is significantly lower than the state of Sonora at 3.8 per 1,000 compared to 6 per 1,000. However, the death rate of infants less than 1 year of age is slightly higher in Nogales (.28 per 1,000) than Sonora (.22 per 1,000).

Table 37: Crude Death Rates per 1,000, Nogales SO and Sonora

<table>
<thead>
<tr>
<th>Deaths - 2011 (crude rate per 1,000)</th>
<th>Nogales</th>
<th>Sonora</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3.8</td>
<td>6</td>
</tr>
<tr>
<td>Males</td>
<td>4.8</td>
<td>6.5</td>
</tr>
<tr>
<td>Females</td>
<td>2.8</td>
<td>4.5</td>
</tr>
<tr>
<td>Infants &lt;1 year</td>
<td>0.28</td>
<td>0.22</td>
</tr>
</tbody>
</table>

Nogales has a slightly lower percentage of residents with educational attainment than Sonora at the primary school level (98.2 compared to 98.3), the secondary school level (84.5 compared to 87.3), and the high school level (70.6 compared to 71.6).

Table 38: Percent Level of Educational Attainment, Nogales, SO and Sonora 2010

<table>
<thead>
<tr>
<th>Percent Level of Educational Attainment - 2010</th>
<th>Nogales</th>
<th>Sonora</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary School (6-12 yrs)</td>
<td>98.2</td>
<td>98.3</td>
</tr>
<tr>
<td>Secondary School (12-15 yrs)</td>
<td>84.5</td>
<td>87.3</td>
</tr>
<tr>
<td>High School (15-18 yrs)</td>
<td>70.6</td>
<td>71.6</td>
</tr>
</tbody>
</table>

Health Care Coverage

The total population of Nogales entitled to health care services is 71.5 percent compared to 74 percent statewide. A much higher percentage of residents are covered by the IMSS (55) in Nogales than Sonora (44.4), and a lower percentage are covered by ISSSTE (6.6) than in Sonora (10). This indicates a larger percentage of the population who are privately employed than the rest of the state.

Table 39: Percent of Population Covered by Health Insurance and Type, Nogales, SO and Sonora, 2010

<table>
<thead>
<tr>
<th>Percent of Population Covered by Health Insurance and Type - 2010</th>
<th>Nogales</th>
<th>Sonora</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population covered by health services</td>
<td>71.5%</td>
<td>74.0%</td>
</tr>
<tr>
<td>Pop. Covered by IMSS</td>
<td>55.0%</td>
<td>44.4%</td>
</tr>
<tr>
<td>Pop. Covered by ISSSTE</td>
<td>6.6%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Pop. Not entitled to health services</td>
<td>26.5%</td>
<td>25.0%</td>
</tr>
</tbody>
</table>

Note: IMSS is the Instituto Mexicano de Seguro Social, which provides health services for employed persons. ISSSTE is the Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado, which provides health services for government employees.


Figure 26: 2010 Percent Population Entitled to Health Services

Public Safety and Crimes

Nogales saw a significant drop in the total number of crimes recorded in 2010 compared to 2009 – from 3,482 to 2903. Similarly, the municipality saw a decline in traffic accidents (605 in 2011 compared to 1093 in 2009) and sexual offenses recorded (90 in 2010 compared to 124 in 2009). However, murders increased from 138 in 2008 to 174 in 2009 and 226 in 2010.
Table 40: Public Safety in Nogales - 2008-2010

<table>
<thead>
<tr>
<th>Public Safety - Nogales</th>
<th>2010</th>
<th>2009</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimes recorded</td>
<td>2903</td>
<td>3482</td>
<td>3359</td>
</tr>
<tr>
<td>Traffic accidents in urban and suburban zones*</td>
<td>605</td>
<td>1093</td>
<td>1147</td>
</tr>
<tr>
<td>Murder offenses recorded</td>
<td>226</td>
<td>174</td>
<td>138</td>
</tr>
<tr>
<td>Sexual offenses recorded</td>
<td>90</td>
<td>124</td>
<td>108</td>
</tr>
</tbody>
</table>

*Data from 2011, 2009 and 2008. 2010 data was not available.


b. General Mortality

The latest data available from 2009 show the leading causes of death among Nogales, Sonora residents were diseases of the heart (115), assault (115), malignant neoplasms (103) and diabetes (99). Many of the leading causes of death among Nogales, SO residents were also among the leading causes of death among Santa Cruz County residents, with a few exceptions. Suicide, alcohol-induced disease, Alzheimer’s disease, Parkinson’s disease, chronic lower respiratory disease, and influenza and pneumonia were not among Nogales, SO’s leading causes. Conversely, assault, conditions occurring in the perinatal period, hypertensive disease, and acute respiratory infections were not among the leading causes of death in Santa Cruz County.

The table and chart below show the leading causes of death Nogales, SO and throughout the state of Sonora. Note: The data was available through the Arizona Department of Health Service’s Office of Border Health website. The data was presented without a description of the measurement (e.g. raw number, crude death rate, etc.). As a result, it may be difficult to draw any definitive conclusions from this data.
Table 41: Leading Causes of Death Nogales, Sonora and Sonora - 2009

<table>
<thead>
<tr>
<th>Causes of Death</th>
<th>Nogales</th>
<th>Sonora</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diseases of the heart</td>
<td>115</td>
<td>496</td>
</tr>
<tr>
<td>Assault</td>
<td>115</td>
<td>209</td>
</tr>
<tr>
<td>Malignant neoplasms</td>
<td>103</td>
<td>379</td>
</tr>
<tr>
<td>Diabetes</td>
<td>99</td>
<td>330</td>
</tr>
<tr>
<td>Accidents</td>
<td>56</td>
<td>204</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>37</td>
<td>122</td>
</tr>
<tr>
<td>Conditions occurring in perinatal period</td>
<td>33</td>
<td>55</td>
</tr>
<tr>
<td>Acute respiratory infections</td>
<td>32</td>
<td>78</td>
</tr>
<tr>
<td>Liver diseases</td>
<td>28</td>
<td>89</td>
</tr>
<tr>
<td>Hypertensive disease</td>
<td>0</td>
<td>33</td>
</tr>
</tbody>
</table>


**FIGURE 28: LEADING CAUSES OF DEATH, NOGALES, SO AND SONORA - 2009**

**c. Breast Cancer**

In the most recent health indicators released by the Secretary of Health of Sonora and available through the Arizona Department of Health Service’s Office of Border Health, breast cancer death rate data is included. This indicates that the Secretary of Health is paying special attention to breast cancer, therefore warranting inclusion in this assessment.
Among the border cities of Agua Prieta, Caborca, Nogales, Puerto Peñasco and San Luis Rio Colorado, the death rate from breast cancer in 2011 was 37 per 100,000. With a death rate of 12.3 per 100,000, Nogales had the third highest breast cancer death rate among these cities, after Agua Prieta and Caborca. Further, breast cancer death rates in Nogales increased from 2006 to 2011 after declining from 2000 to 2006.

![Mortalidad por Cáncer de Mama según municipio de residencia](image)

**FIGURE 29: BREAST CANCER MORTALITY PER CITY OF RESIDENCE 2000-2011**

APPENDICES

Community Leader and Key Informant Meeting Notes and Data

Oct. 15, 2012
Chase Bank Community Room
Nogales, Arizona

Facilitator:
Emily Coyle, Master of Public Health Student ‘13
The University of Arizona

Table 1

Facilitator:
Joyce Hospodar, Center for Rural Health
The University of Arizona
Note Taker:
Christia Bridges-Jones, ADHS

Table 2

Facilitator:
Taz Greiner, Carondelet Health Network
Note Taker:
Patricia Tarango, ADHS

Table 3

Facilitator:
Andrew J. Gall, Master of Public Health Student ‘13
The University of Arizona
Note Taker:
Dina Sanchez, Carondelet Holy Cross Hospital

Table 4

Facilitator:
Salena Meyer, Master of Public Health Student ‘13
The University of Arizona
Note Taker:
Luz Oceguera, Carondelet Health Network
1: What do you think are the health issues most important to the community?

**TABLE 1:**

- Militarization of border (psychological issues, acceptance of violence/PTSD)
- Conversation on immigration/access to do anything about their health/people not seeking care/immigration climate/concerns/SB1070 – interrupter of seeking health care
- PTSD – repression from the military focus and presence – “community being occupied”
- Mental health (adults/children); hyper cholesterol (lipidemia); arthritis
- Environmental (air quality in winter)
- Healthcare provider recruitment/retention
  - Providers’ perception of quality of life and people here
- Seek HC in Tucson; Nogales does not have right people/resources
- Do not see high quality, negative experiences with local doctors/providers
- Concerns about confidentiality in town
- Rural communities are short changed w/ quality providers
- Hard to recruit docs/others
- Lactation services lacking
- Transportation
- Diabetes is a huge issue
- “Cultural” health needed on how to get a better diet to avoid h.c. issues
  - heart issues

**TABLE 2:**

- Obesity – Diabetes community
  - Food choices; low income/SES population
  - Nutrition/food availability
  - Transportation is required; Lack of safe opportunities to exercise
  - No bike lanes, no trails
  - Limited (occasional) safe routes to schools; not consistent
  - State highway fund are not tapped into for bike lane development (match required)
  - Education on nutrition (SNAP Schools)
  - Overabundance of marketing – food
  - “NACHOS” – meets grain definition
  - Cost of nutritional food
- Breastfeeding – Pro breastfeeding community
  - Baby friendly hospital; support breastfeeding
- High school graduation
- Behavioral health needs go unaddressed – due to competing priorities and time constraints

**TABLE 3:**

- Health care for elderly
• Hospital – out of geriatric population
• Appropriate health care facilities- for elderly population
• Family visitations/limitations
• Adult diaper shortage/affordability of basics for care
• Access to rehab services – speech, occupational, physical; no rehab providers for home health (homebound)
• Mobility/transportation limitations
  o Schedule, affordability
• Loan forgiveness – statewide to hire PTs; professional services in rural locations
• Coordination of care – need a navigator program
• Pediatric cuts in DDD, AZIP, “Everything is in Tucson”; barrier
• Flexibility of state government
• Inequality at county level for state funding
• Cannot get local services (Rehab) with AHCCCS/Apipa
• Navigation of health (system)
• Quality of services in Nogales (not having to send everyone to Tucson)
• Holy Cross turning down patients
• Quality of facility; $7 million turned down; need a new facility
• Partnership with the community to have a new facility

TABLE 4:

• Don’t have level 1 trauma care – (fire dept.); need physician to handle level 1
• Facility would be 1st choice
  o Care or expertise would be 2nd choice
  o Level 1 would be taken to Tucson
  o Cut back cost for patient – min. cost $10k
  o Lack of urgent care here
  o People go to urgent care in Green Valley as it’s cheaper than going to ER here in Nogales
• Inter-facility transportation is concern
  o Multiple bills to patients for transport due to multiple companies transporting
• How does it impact population??
  o Holy Cross is unfairly burdened with immigrants; immigration costs to hospital, fire and police
  o Lack of insurance falls on community; Many are uninsured
  o Mom & pop businesses are not insured
  o Unemployed uninsured
  o Border issues - Do receive funding from US

2: How would you rate the general health status of people in your community?

TABLE 1:
(Residents)

• Family: Good; good w/ family dynamics (stress)
• Friends: Fair/good
• Colleagues: Good
• Neighbors: Fair/good
• Dilapidated housing an issue
• Elderly living alone
• Epidemiological issues big in border

(Non-residents)

• Community: Binational city, represents a distinct dynamic
• Definition of community different for a border town
• Scarce rental housing; mold, bugs
• Lacking maternity services

TABLE 2:

• Some family: excellent; fair; community – poor.
• Varies – pre-diabetes and diabetes – control
• Mix; Patagonia/north Santa Cruz – vegan, biking, higher exercise
• Neighbors – Lot of prediabetes, hypertension, diabetes, cancer rates
• Lots of smoking – young 20+ age, increase in smoking rates
• Undiagnosed and unmanaged mental illness
• Substance abuse (drinking) needs to be addressed; increase in drinking
• Late entrance into prenatal care (perceptions)
• Status varies by geography of Santa Cruz County – NVS; S- varies by socio-economic status
• Nogales – no fitness options; poor sidewalks; unsafe roads
• Parks need to be updated to accommodate for team sports or free play; safety
• County parks – no lights, grass overgrown
• Boys & Girls Club – education, physical activity; financial challenges
• Rio Rico – park low maintenance due to finance
• Need to develop general coping skills among youth and adults
• All over the map – poor health habits

TABLE 3:

• Overall – health status – Fair
• Elementary schools – obesity, diabetes
• Community doesn’t understand diabetes and prevention
• A lot of Type 2 diabetes
• Eating habits/People need to know how to eat (at home)
• Affordability of healthier choices – linked to employment
• Hospital promoting healthy lifestyles (5ks, etc.); lack of 10k run through Carondelet
• More money needed for Meals on Wheels; MoW needs to be diet-specific
• Health education availability and location; hospitals? Support groups? Schools? Phys ed
• Seminars needed; decrease in seminars b/c of co-pay/fee
• Phys ed/nutrition teachers now being employed
• Deemphasis of fitness and nutrition
• Too much technology/more than before; kids not playing outside
• Family needs to incorporate physical activity (Parental responsibilities)
• Cost of gym membership is high; limited options for low-cost exercise
• Lack of swimming pools; not heated
• Schools w/ limited hours; need to open for the public
• Lack of support groups: alzheimers, Parkinson's, autism
• Lack of community resources: limited grant funding, knowledge of services, information center; need health topic information sessions
• Lack of understanding of what is available
• Need a one-stop, and easily navigable (continuum) preventive care

TABLE 4:

• Fair to good – most everyone agreed
  o Due to culture
  o Foods we eat
• Could be much healthier
• Have seen improvement
• Air quality is an issue
• Environmental issues
• Just had report from ADEG re: quality of air
• Fire dept. has seen a drop in high blood pressure;
  o people are more aware and educated re: health
• 2400-2500 EMS calls in the past which were
  o heart-related
  o stroke-related
  o Have seen less recently
• Depression/stress -> family time
• Obesity/diabetes awareness
• During financial hardships, people were eating out less frequently
• Police dept ranks it fair to good
  o Sees more people being more active
• People are seeing better food being offered, i.e. salad bars
• U.S. Border Health Commission
  o Hold events and activities to educate families re: health
  o Would like a more frequent health fair as opposed to 1 time per year; something more sustained
• Have observed more and more people walking the track early in the morning
• How does environment encourage physical activities? le schools, parks
  o Lacking adult sports
  o Acquired several thousand dollars for weights for weight room
  o Building soccer field
• Inspiration and word of mouth very important to pass along to others
  o Lacks bike lanes and walk lanes – petitions made
  o Structure is a big hindrance
3: Regarding programs in our community that are supporting health services or at least maintaining health status, what kind of programs do you think are absolutely essential to our community?

TABLE 1:

- Urgent car needed – 3 hour wait
- Lack of awareness of services – a real opportunity
- Health literacy
- Border towns have unique healthcare needs
- AZ legislative policy affecting economic development; can/mex corridor
- Economic health and well-being key to the health of the community (economic health = better health)
- More awareness of uses of SNAP/WIC nutrition education
- Diabetes education
- Mental health focus/lacking
- SANE nurse (sexual assault nurse examiner)
- Want a 24/hr shelter with one-stop services (most stay 2-3 days before moved to Tucson or Sierra Vista); no functioning for 24 hours, model for advocacy
  - SANE
  - Victim Advocate
- Question priority of resources – need policy issue and priority that is currently in existence
- More local financial support for shelter
- More family focused programs (in-home care)
- Childhood obesity
- Big family focus in Nogales – need in-home services
- Transportation
- Diabetes education
- Lactation services
- Culturally appropriate dietary management

TABLE 2:

- Services for children
  - In schools and outside schools to address risky behaviors (no time);
    Mariposa works with schools on nutrition
  - After school programs are needed
  - Boys & Girls Club → sustain this program, provides more than physical activity; helps build character, decision making, safety, self-esteem
- Mariposa → Has availability of health services; work at neighborhood level; diabetes, hypertension, work with family to manage chronic disease to improve family health status
- Community foundation → use of promotoras/promotora model; choices; resources; not sustainable
- Strong partnerships → due to small community, collaboration; reduce duplicate efforts; reduce duplicate efforts; grants include collaborative partnerships
- Community education classes → local in consulate office with structured classes
• Sponsor fitness events ➔ collaborations, partnerships
  o Runs, bike rides, be consistent
• First Friday – Art in Nogales
• Farmers Market ➔ maximize opportunity; involves kids in meaningful way
• Teen Health Facilitator ➔ Summer youth institute (10 years)
  o Leadership development
  o Add cooking component/classes for kids
• One stop, SEAHEC
• Discount/sliding fee scale must be available and sustained (Mariposa offers)
  o Screening, Rx, dental, acute care

**TABLE 3:**

• “We don’t know what all of the programs are” – fragmentation, lack of knowledge of all communities’ programs available
• Emergency care – 24 hr access
• Urgent care option (alternative to ER); weekend (thurs-Monday) options
• Need highly qualified providers in SC County
• Loan repayment/forgiveness
• Marketing of “Be Well” locally (only marketing in Tucson) – promoting individual responsibility for health
• Diabetes program
• Dialysis center
• Outpatient rehab
• Home health physicians/practitioners
• Hospitalist program
• 24 hour access to care
• Retention of high quality staff
• CRS essential – in small localities
• Santa Cruz Training Program/Center – essential; (development of employment skills); Safeway is one of few employers
• Nogales, SO residents prefer to get treatment here/in US – better equipment & free; Sonora lacks equipment
• WIC is sufficient/essential for rural community
• Family resource center

**TABLE 4:**

• Outreach at fire department
  o Soccer
  o AYO
  o Tball
  o City leagues – youth supports adults
• Mariposa clinic has good programs
  o Diabetic
  o Tobacco
  o Dieting
  o Exercise
• Advertising is lacking i.e. health fairs; good resources but lacking advertising
• Have seen a change since smoking law went into effect
• Central repository for information and promotion – is what this community really needs
  o People look for information i.e. flyers, advertisements
  o This community is not very computer savvy
• School districts
  o Kids don’t talk about issues
  o Need program for kids to open up
  o Create groups for different needs
• Drug use/trafficking not an issue. Has drastically diminished.
  o Parents would rather keep kids at home than send them to a program.

4: What is your vision for a healthy community?

TABLE 1:

• Public transportation between Nogales and Tucson
• Affordable health care
• Healthier diet to reduce disease
• Nutritionist
• Engage schools for better health/nutrition education
• Economic potential of region/regional development/Ambos Nogales
• One “Ambos Community”
• Walkable community, revitalize community
• Adequate bus system in town; bus services can increase walking
• School age – programs to get them more active (PE/Physical Activity)
• “Coordinated transportation system”
• Carondelet Holy Cross to start an exercise program; i.e. H2O aerobics (city rec.)
• Hospital-based wellness center

TABLE 2:

• Community supported by a new hospital
• Adequate number of primary care, dental and mental health
• Elected officials committed to built environment
  o Usable sidewalks
• Schools that support the same
  o Access to school facilities (pool)
• Access to services for undocumented (should not be afraid to call)
• Immigration is not a barrier – should be able to access services regardless of immigration status
• Border community needs to be able to recruit providers
• Community image is positive/safe – perception
• Positive economic impact of border community
• Accurate portrayal of community
  o Safe place to live and work
TABLE 3:

- Be Well
- Communicate our resources to each other (and stop/start cycles); coordinate all county-wide services through online resource center
- Quality Rural Health Care
  - Best practice
- CHCH – Primary rural health center
- Nurse case managers as navigators
- Paramedicine (trained EMTs)
  - Paramedics needed in all ambulances
- Emergency preparedness classes/collaboration
- SEAHEC Classes
- Nutritional education
- Nursing education – growing your own – (“home grown nurses”)
- Training/growing homegrown health
- Start young! (healthy lifestyles)
  - Education in the schools
  - Healthy foods only; b-day parties
  - Phys. Ed, innovative programs
- Affordable nutritious food – produce especially (selling at lower cost at the community food banks)
- Access to affordable fitness facilities

TABLE 4:

- Transportation and infrastructure
- Good community – health services
  - Help people relocate
  - Good business community
  - Good schools/education
- Multi-modal transportation – right infrastructure in place
  - Sidewalks, bike paths, walkways
- Outdoor activities
  - Get more people outdoors
- Outreach programs
  - Advertise through TV
- Do a coalition with every dept./agency
  - Hospitals
  - Schools
  - Fire department
  - Police department
- National night out put on by police dept – positive trend
- Most important is encouragement of parents to encourage children to play outside
- Distance infrastructure – rural
- US –Mex Border Health Commission
  - Working on platform for 2020
  - Develop partnerships and sustain (Goal)
Community Focus Group Data

Older Adults

Conducted at the Holiday Inn in Nogales, AZ on November 8, 2012. Breakfast was offered to participants. Recruitment was done via email by assessment partners as well as in person at shopping centers in Nogales, AZ.

Note-taker:
Dave Ryder, Veer Consulting

Facilitator and Analyst:
Salena Meyer, MPH Student ’13, University of Arizona College of Public Health, Arizona Department of Health Services Fellow

Translator:
Livi Delgadillo, Veer Consulting

Data

1. Health concerns for older adults in Santa Cruz County:
   a. Need for exercise
   b. Clean environment
   c. Prejudice in the community about older adults.
   d. No resources for older adults.
   e. Transportation
      i. No resources for seniors
      ii. Some have insurance – coverage for transportation
      iii. Diabetes / sight issues prevent driving
      iv. Buses not equipped for disabled and elderly.
      v. Must travel far to go to the pharmacy - cost impacts which pharmacies they go to
   f. Lack of insurance – people do not know how to get insurance – should provide instructions and health insurance guidance at the senior center
   g. Lack of interest in senior citizens by community leaders.
   h. Doctors are too busy to have individual relationships with patients.
   i. Medication delays at pharmacies (10-15 days waiting for refills)

2. Is Santa Cruz County a good place to retire?
   a. Nice, comfortable
   b. Outsider feelings – if older adults are not Mexican they feel isolated and unaccepted
   c. Fell ignored
   d. Not enough services
      i. No entertainment for seniors
      ii. Transportation
      iii. No retirement homes
   e. Peaceful tranquil
      i. No weather issues
   f. Want passenger car on the railroad to transport them North
3. Healthcare options:
   a. Most go to Tucson
   b. Holy Cross may send to Tucson (ambulance is so expensive)
   c. Very limited
   d. Very long lines even with appointment (30-45 mins late)
   e. Holy Cross is renovating since there is not enough funding for a new hospital
   f. Doctor recruitment is hard
   g. The doctors are good quality but there are not enough of them to manage the demand

4. How do you get health information?
   a. Computer
   b. Doctor
   c. Nowhere – practically none
   d. Tucson
   e. Mariposa Community Health Center

**Summary of Key Themes:**

According to this focus group, there is a severe need for more medical providers and facilities in Santa Cruz County. More efforts need to be made to retain doctors in the community. This will reduce the need to travel long distances to see specialists. In addition, these participants felt that as older adults in the community, they lack a voice and are disenfranchised. They would like a monthly newsletter or bulletin that describes activities and events in the community to engage the senior population. They want to be listened to by policy makers in the community and be valued.

*Youth*

Conducted at the Holiday Inn in Nogales, AZ on November 8, 2012. Dinner was offered to participants. Recruitment was done via email by assessment partners as well as in person at shopping centers in Nogales, AZ.

**Note-taker:**
Dave Ryder, Veer Consulting

**Facilitator and Analyst:**
Salena Meyer, MPH Student ’13, University of Arizona College of Public Health, Arizona Department of Health Services Fellow

**Data**

1. How important is your health to you?
   a. Very important
   b. Some don’t pay attention to it
   c. Nutrition is a cultural issue
   d. Diabetes prevention and genetics
   e. Parents and children have to work together
f. More vegetables
g. Exercise

2. Biggest health concerns for teens:
   a. Teen pregnancy
   b. Drop-out of high schools
   c. Freshmen drop-out
   d. Drinking age is 18 in Mexico
   e. Car accidents
   f. Teen drinking and DUIS
   g. After parties in Mexico

3. Biggest pressures and challenges to staying healthy:
   a. Drugs
   b. Peer pressure
   c. Friends defined by school
   d. Opportunities at school – many do not take advantage of them
   e. Sex education – culturally hard to discuss with children
   f. Drug education
   g. No sex education – parents complained
   h. STD’s
   i. Drug problems
   j. Need more exercise/fitness locations
   k. One free location to exercise
   l. Access to gyms is limited
   m. Not outside running trails
   n. Driving hazards for runners

4. Gaps in healthcare system for youth:
   a. Mental health services?
   b. Limited exposure to outreach opportunities
   c. No HIV/STD courses or outreach
   d. Lots of presentations on drugs and bullying
   e. Presentations on drugs – redundant
   f. Better to have speaker with experience in real life

5. Environmental influences:
   a. Need better mentors/ role models
   b. Uniformed speakers don’t help much
   c. Peer pressure is prevalent
   d. Parent influence
   e. Lots of resources in Santa Cruz County
   f. Job assistance/ life skills
   g. One stop resource – booklet/directory of services
   h. Isolated community
   i. Focus on dropouts/ disenfranchised
   j. Outreach to disenfranchised
   k. US Government funds available for education
   l. Adults need to reach out
   m. Outreach to elementary students
   n. Younger and younger involved in drugs and crime

6. Most powerful influence:
   a. Media bombardment
b. Environment  
c. Music  
d. Social acceptance  
e. Videos of performers  
f. Music promotes sex, drugs, partying and money  
g. Visuals of damage to body are powerful  
h. Parental education and guidance  
i. Early education about parenthood  
j. Economic impact of children  
k. Culture influence – generational impact – parents raise kids as they were raised  

7. Community assets:  
a. Boys and Girls Clubs  
b. Sports  
c. Parenthood classes  
d. Health classes  
e. Bi-lingual programs – computers  
f. Workforce programs  
g. DES one-stop programs (jobs)  
h. Job corps – teach trades, healthcare education

Summary of Key Themes:  

This youth focus group ranged in age and life experiences, but several key themes united the participating youth. A need for increased outreach efforts directed at drug use and sex education was brought up several times. The current health education techniques were criticized for not being realistic and meaningful to students. All agreed that having individuals share personal struggles with drug use and teen pregnancy would have a stronger impact. In addition, it was noted that a great portion of health education does not begin until high school, even though youth begin participating in risky behaviors at earlier ages.

Need for personal development programs, assistance finding jobs and learning vocational skills was noted. It was suggested that this come in the form of mentor relationships organized by the schools to help youth remain on the right path for success. A need for increased parental involvement was also noted. Courses to help parents understand the unique needs of youth are needed to help parents better communicate and foster success in their children.

Women of Childbearing Age 1

Conducted at the Esplendor Resort in Rio Rico, AZ on November 12, 2012. Dinner was offered to participants. Recruitment was done via email by assessment partners as well as in person at shopping centers in Nogales, AZ.

Note-taker:  
Ramiro Loredo, University of Arizona
Facilitator and Analyst:
Salena Meyer, MPH Student ’13, University of Arizona College of Public Health, Arizona
Department of Health Services Fellow

Translator:
Livi Delgadillo, Veer Consulting

Data

1. Biggest health problems:
   a. Long wait for appointments
   b. Dentist/doctor are over-booked and must be sent to Tucson (pediatric dentists)
   c. No stability with doctors
   d. No doctors/ no specialists – send up to Tucson or travel into Mexico
   e. No radiation services in that area for cancer patients – must go to Green Valley – traveling is difficult for cancer patients
   f. Waste resources by traveling
   g. No ophthalmologists

2. Is Santa Cruz County a good place to raise children?
   a. Yes, small community
   b. Calm
   c. Hard to find daycare
   d. Some people don’t work because of cost of childcare
   e. They want childcare center
   f. Safer than Tucson

3. Services for women:
   a. No specialists – take too long – 1 month waiting periods
   b. Mammograms, pap smears – saturated – waiting until next year to be seen
   c. Follow-ups get immediate attention
   d. Mariposa has mental health “Difficult to be a Woman” program
   e. Some women don’t get services or health plans

4. Available healthcare options:
   a. Emergency rooms
   b. Pregnancy programs
   c. Mariposa Community Health Center
   d. Holy Cross Hospital

5. Reproductive health
   a. No services for contraception or prevention
   b. Not aware of any programs to prevent pregnancy
   c. Youth don’t have money for condoms
   d. Community would support these programs
   e. Mariposa is the only place to go. – Other options would be good

6. Barriers for healthcare
a. Schools are good at providing healthy meals  
b. Bullying exists in schools  
c. Parents are more responsive

7. Where do you get health information?  
a. Television  
b. Mariposa Community Health Center  
c. Online  
d. Would like to receive health information through the mail – fliers and bulletins

8. How can we make the community healthier?  
a. We need a park  
b. Only place to walk is high school  
c. No resources to improve health  
d. Need community gyms or centers  
e. Many people don’t have cars to go to Mariposa for services  
f. Transportation was canceled for Mariposa – now have to wait for the ambulance

9. Final thoughts  
a. Need support groups for women – self esteem  
b. Need counselors / therapists  
c. Psychiatrist  
d. People without AHCCCS go to Mexico for healthcare  
e. Mariposa too expensive  
f. Mexico healthcare is better – less expensive, faster service

**Summary of Key Themes:**  

The major theme of this focus group was a need for increased services. Specifically for women in Santa Cruz County, it was noted that there are a lack of reproductive healthcare facilities and that youth do not know where to access contraception. There is a need for improved mental health services, specifically for post-partum depression and crisis situations such as domestic violence. This focus group discussed the high cost of healthcare in the community and how many use Mexico as an alternative place to receive services. Many take their children into Mexico for healthcare, dentistry and prescription medications, at a reduced cost.

*Women of Childbearing Age 2*  

Conducted at Carondelet Holy Cross Hospital on November 19, 2012. Dinner was provided to participants. Recruitment was done through a local OB/GYN practice.

**Note-taker:**  
Taz Greiner, Carondelet Health Network
Facilitator and Analyst:
Emily Coyle, MPH Student ’13
University of Arizona College of Public Health

Translator:
Bilingual participants

Data:

1. What does health mean to you?
   a. Maintaining health
   b. Exercising
   c. Eating healthy
   d. Education ourselves how to stay healthy
   e. Foundation of being happy
   f. Stress relief
   g. Overall well being
   h. Sex protection for teens
   i. Mental health and self-esteem
   j. Environmental surroundings and hygiene

2. How do you take care of your own health?
   a. Regular doctor and dentist appointments
   b. Dietary/meals, healthy foods
   c. Eat organic and fruits/vegetables; avoid fast food
   d. Workouts/exercise/walking 30 minutes per day
   e. Religious views
   f. Maintaining good relationships with others and having positive attitude towards others
   g. Personal hygiene
   h. Meditation, yoga for stress relief and relaxation
   i. Avoid soda

3. What types of providers do you get health advice from?
   a. Gwen (diabetes educator/NP)
   b. Physicians
   c. Specialist (Tucson)
   d. Dentist
   e. Platicamos Salud

4. What is your primary source of health care information?
   a. Internet
   b. Doctors, NPs
   c. Pamphlets
   d. Mom

5. Do you feel as though you have adequate access to the health care you need?
   a. Always get referred out
   b. Misdiagnoses
c. Long waits
d. No orthodontists
e. Travel to Mexico for health care – better doctors
f. Doctors not accepting new patients
g. Lack of physician retention

6. What do you think are the most important health problems of women in the community?
   a. Weight
   b. Diabetes
   c. Breast cancer
d. Cholesterol
e. High blood pressure
   f. Thyroid
g. Depression
   h. Anxiety, stress
   i. Domestic violence
   j. Bullying, harassment

7. What are the barriers to getting female health services?
   a. Money
   b. Lack of insurance
c. Lack of information/people are uninformed

8. If the hospital could do only one thing to help women in the community, what would that be?
   a. Better/new hospital
   b. Specialists
c. Better doctors

Additional Comments:
- There is a lack of adequate health information. The information provided is generalized, but not specific – much of it is what women already know.
- The town needs to be more open; people don’t go out and walk, in part because they’re embarrassed or feel they will be criticized by neighbors; “everybody talks about everybody;” “it’s such a small town it’s hard to leave your house without bumping into somebody you know.”

Summary of Key Themes:

Although the focus group was small (consisting of only three women), the participants were passionate about the health of their community and engaged in the conversation. A major theme in this focus group, similar to the other women’s focus group, was a need for additional health care services and health care specialists. The women stated they are “always referred up to Tucson” for health care. Cost and a lack of insurance are major barriers to getting female health services, as well as a lack of information; the women felt too much of the information provided by health care providers is very general when they are looking for more specific information about how they can care
for themselves and their families. As one participant stated following the birth of her son, “You go and you seek more information – purposeful information – and they pretty much tell you the same information or they tell you you’re depressed.... I wanted more – I was given the impression that they’d help me do more with my son after he was born – interact with him more, be more productive, but every time I would go they’d ask questions and then say “Have you cried today?” Additionally, the women felt exercise and recreation was important to overall physical and mental well-being, yet the community lacks sufficient recreational areas such as affordable gyms and parks for kids to play sports.

*Health Care Provider Focus Group*

Conducted at Carondelet Holy Cross Hospital on November 12, 2012. The group was comprised of one nurse practitioner and six physicians from Carondelet Holy Cross Hospital, Mariposa Community Health Center and Carondelet Medical Group representing family practitioners, obstetricians and gynecologists, hospitalists, urologists and pediatricians.

**Note-taker:**
Taz Greiner, Carondelet Health Network

**Facilitator and Analyst:**
Emily Coyle, MPH Student ’13
University of Arizona College of Public Health

**Data:**

1. Based on your experience, what are the three most significant health care needs in our community (Santa Cruz County)?
   a. Diabetes, hypertension, hyperlipidemia, side effects
   b. Mental health, depression, anxiety
   c. Pediatric behavioral diseases
   d. Economic downturn causes anxiety, depression
   e. Can't afford copay
   f. No psychiatrist – burden on PCPs
   g. Telemedicine for behavioral health but ineffective
   h. Lack of services/specialists
   i. Not using seatbelts (not most significant but a problem)
   j. No endocrinologist – patients must go to Tucson but cannot – either due to language barrier, transportation, border checkpoint, or it takes too much time
   k. Rheumatology, respiratory diseases/traumas are big problem
   l. Easy access to maternal and fetal medicine – other options are Tucson or Mexico

2. What are the most preventable health-related diagnoses in our community?
   a. Obesity
b. Diabetes
c. Despite access to birth control, teen pregnancy (high schools don’t allow sex ed, it’s cultural; pushback from parents from teaching sex ed in elementary school; taboo); teens want to get pregnant – older sisters are pregnant; nothing significant in their life - self esteem (behavioral health issue)
d. Local diet is full of trans fat but people don’t realize it; basic nutritional education
e. Cigarette smoking
f. Lack of exercise; schools cut back on PE
g. Asthma – need education on asthma exacerbation

3. What groups in our community are underserved regarding their health care needs, and what are obstacles to reaching and serving those groups?
   a. Insurance co-pays for visits, procedures, and medications
   b. People can’t afford $5 copay – will hide symptoms, want to be managed over the phone
   c. Transportation – public transportation is poor; working parents can’t take time to take kids in
   d. High unemployment
e. Elderly – transportation is barrier
   f. Doctor availability is a barrier
   g. Lack of primary care, specialists

4. What new or additional specialties should the hospital offer? Should the hospital consider a new facility?
   a. New facility is moot point – opportunity is lost
   b. Concern with current hospital is it’s been patched together and plumbing may fail
   c. Green Valley will have a hospital
   d. Community doesn’t want hospital in Rio Rico – they want it in Nogales
   e. Green Valley hospital is opportunity for Carondelet to improve Holy Cross’ OB/GYN program, pediatric program

5. Does your practice provide services for people who cross the border from Mexico and what are the health needs of people who are crossing?
   a. Two kinds of people: so-called “jumpers” who are severely dehydrated and must be hospitalized, ICU, ventilation, emergency services beyond scope of this hospital and those from Mexico who can afford good health care go to Scottsdale or Texas.
   b. Good number of patients come from Mexico – see a doctor there, but want to have baby here. For regular healthcare, 10-15% percent of patients live across the border. Some are U.S. citizens who live in Mexico.
   c. People from Mexico come in for physicals, get labs drawn
   d. Prenatal care, deliveries

6. What could reduce the need for the uninsured to use the Emergency Room for non-emergencies?
   a. More support for primary care – evening clinic
   b. Copays - $35 or $50 have decreased use; but many still don’t pay ER or office copay
   c. Just get people the primary care services they need, “Yeah, by not investing in giving people primary care they’re blocked from getting services until they’re so sick they end up in the hospital needing more expensive care.”
d. AHCCCS cuts – lots of people who were dual eligible lost their AHCCCS.
7. Where can Holy Cross, either on its own or in collaboration, have the greatest impact on meeting the identified needs? What should Holy Cross’ top 2 to 3 priorities be over the next three years?
   a. More doctors, nurses in primary care
   b. Specialists in endocrinology
   c. Get every specialist down here on a regular basis
   d. “Our patients have the same needs as those in any other geographic area.”
   e. Have a cardiologist who is part of the community, lives here
   f. Cardiac clinic in the hospital – gives cardiologist high priority
   g. Cardiac rehab
   h. Psychiatrist
   i. New strategies to recruit specialists
   j. Modern, up-to-date facility
   k. Recruit the kind of doctor who wants to work here
   l. Work with Mariposa to bring a pediatric nurse practitioner

Summary of Key Themes:

The health care provider focus group was comprised of providers with many years’ experience living and working in Santa Cruz County. The most frequently mentioned health care need was mental and behavioral health for both adults and children. The lack of a psychiatrist in the county leaves primary care providers with the burden of mental and behavioral health issues. Another major need surrounds diabetes and its side effects; the need for an endocrinologist in the community was mentioned frequently. The group identified obesity, diabetes and teen pregnancy – despite access to birth control – as the most preventable health-related diagnoses in the community, all of which are related to behavioral health. Another recurring theme was the cost of health care; specifically, a lack of access to care due to cost of copays. Additional obstacles to access to care include transportation for the elderly; a shortage of specialists and primary care providers; unemployment; cuts to AHCCCS; and outdated treatment and care facilities. An evening clinic could help alleviate some of the burden on providers, and new strategies should be in place to help recruit providers and specialists who “fit” with the community.

Senior Services Interviews
(provided by Carondelet Health Network)

Carondelet Senior Services Interview Summary
Donna Zazworsky and Dina Sanchez
September 6, 2010

In May, June and July 2010, Carondelet Health Network held five Key Informant Surveys on Senior Services needs in Nogales and Santa Cruz County. The following groups were interviewed:
- Medical Services:
  - Carondelet Medical Group: Dr. Crawford, Dr. Maudlin and Miriam Downey, NP
Mariposa Community Health Center: Dr. Pereira and Family Practice/Internal Medicine Physicians (8), and Mr. Bejarano, Psychologist
- Social Services: Sheriff Dept, Police Dept, Southeastern Arizona Council on Aging (SEAGO), Alzheimer’s Association, United Way, Nogales Unified School District, Public Fiduciary

Highlights reported below summarize these groups’ concerns and identified needs for the seniors they serve.

The major concerns/needs outlined by both the physician and social service groups revolved around:

1. **Healthcare Needs:**
   a. Medications: This included seniors’ ability to afford medications, take meds properly (health literacy) and the issue of polypedications with side effects.
   b. Neurology support for Alzheimers and dementia screening and treatment
   c. Family problems with Advanced Directives/End of Life issues
   d. Limited step down/assisted living facilities: There are only 2 Assisted Living homes in Nogales and 1 in Rio Rico. People need to go to Tucson for these arrangements.
   e. Limited Home Health services only covered by Medicare or health plans
   f. More phone support at physician offices for medication refills, appointment referrals and reminders
   g. Need more time for Elder visits with PCPs
   h. Need to simplify meds for seniors
   i. Need to accommodate language
   j. Nurse Case Managers/Care Navigators/Promotoras to help elders

2. **Behavioral Health/Dementia/Alzheimer’s:** Both groups discussed the needs for care coordination particularly related to behavioral health issues such as Alzheimer’s, dementia, chronic anxiety and depression and loneliness. **Physicians would like to see a service that would facilitate screening and then a diagnostic visit with a neurologist (perhaps via telemedicine).**

3. **Transportation:** There is a major concern about the discontinuation of Dial-a-Ride, a state funded program for seniors and disabled in Nogales. Last year, this service provided more than 11,000 rides to physician and social service appointments. This service has been discontinued.

4. **Financial Needs:** As one physician stated, “this community if poor.” Physicians work with Walmart formularies to help patients with limited funds.

5. **Care Coordination:** Both groups agreed that the health care and senior services need a “One Stop for All” service that would be easily accessible for all resources.

6. **Social Needs:** The Nogales Senior Center serves as a primary social center with nutrition services, congregate meals, bimonthly Carondelet Wellness Clinic, and regular entertainment.
7. **Awareness and Communication** The Social Service Groups felt there was a lack of awareness of community services available. They wanted to have more outreach through church and community forums.

8. **Physician Education.** The physicians would like more training in the area of dementia screening and resources.

**Complementary and Alternative Meds:**
- Many self medicate with medications from across the border
- People use Vicks
- People will use herbs for diabetes
- Need to always ask: “Did you go to Mexico to get treatment?”

**Tradition, Beliefs and Barriers**
Both physician groups felt that cultural traditions and beliefs were important to consider with their elders. Getting help is considered a failure on the families’ part. “If I need help that I’m a failure.” Other concerns included:
- Family delays diagnosis because medical professionals just want money.
- There is a resistance to taking certain medications, such as insulin, so the provider needs more time to convince the senior and their family.
- Transportation is dependent on elder’s children—who may have to take time off from work
- People don’t want to cross the border patrol line
- There are no pharmacies open after hours, so patients go across the border for meds

**Program Option Responses:**
1. **PACE:** The physicians did not have any specific comments on a Program for All-Inclusive Care for the Elderly (PACE) program, but that they would like any support that seniors could have in their home. The social service group supported the interdisciplinary team and paying family caregivers. Were concerned about ALTCS support.
2. **Community Nurse Case Management:** This was strongly supported since many of the social support agencies and physicians remembered Carondelet’s Healthy Seniors Program which provided Nurse Partners and Nurse Case Managers to help seniors navigate their health care. The Nursing Assessment Program out of Willcox’s Northern Cochise Community Hospital was promoted. This program offers a nursing assessment and psychiatry evaluation via telemedicine by the University of Arizona.
3. **Adult Day Care:** This was another well received and supported service from both groups. It was noted that it would need to be affordable.
4. **Via Christi Model:** This model was described as a comprehensive service that included telehome and concierge services. The main concern was affordability.
5. **Other:** The groups offered the following suggestions:

**Social Service Group Suggestions:**
- Your Health Hotline in Santa Cruz County to include Elder Services and Community case management
- Lifeline
Medical Group Suggestions

i. One stop place for physicians to refer to help patient with “best fit” for services: knowledgeable of all services
ii. Hold a Dementia Day with a neurologist and support services
iii. Continuity program to check on seniors
iv. MD needs navigator for seniors
v. Hold during week

Survey Template

Arizona Department of Health Services
Santa Cruz County, Arizona

Please take a minute to complete the survey below. The purpose of this instrument is to get your opinions about community health issues and quality of life. Mariposa Community Health Center, Holy Cross Hospital, South East Arizona Area Health Education Center and the Arizona Department of Health Services is compiling this information to aid in improving the quality of services offered in Santa Cruz County as well as develop a Community Health Improvement Plan.

Thank you for your time and interest in helping us to identify our most pressing problems and issues.

Part I: Community Health

1. In the following list, what do you think are the three most important factors for a “Healthy Community”? (Those factors which most improve the quality of life in a community.)

Check only three:

<table>
<thead>
<tr>
<th>Choice</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good place to raise children</td>
<td>Excellent race/ethnic relations</td>
</tr>
<tr>
<td>Low crime / safe neighborhoods</td>
<td>Good jobs and healthy economy</td>
</tr>
<tr>
<td>Low level of child abuse</td>
<td>Strong family life</td>
</tr>
<tr>
<td>Good schools</td>
<td>Healthy behaviors and lifestyles</td>
</tr>
<tr>
<td>Access to health care (e.g., family doctor)</td>
<td>Low adult death and disease rates</td>
</tr>
<tr>
<td>Parks and recreation</td>
<td>Low infant deaths</td>
</tr>
<tr>
<td>Clean environment</td>
<td>Religious or spiritual values</td>
</tr>
<tr>
<td>Affordable housing</td>
<td>Emergency preparedness</td>
</tr>
<tr>
<td>Arts and cultural events</td>
<td>Other</td>
</tr>
</tbody>
</table>

2. In the following list, what do you think are the three most important “health problems” in our community? (Those problems which have the greatest impact on overall community health.)

Check only three:

<table>
<thead>
<tr>
<th>Choice</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of health insurance</td>
<td>Tobacco use</td>
</tr>
<tr>
<td>Lack of prenatal care</td>
<td>Tobacco use during pregnancy</td>
</tr>
<tr>
<td>Coronary heart disease</td>
<td>HIV / AIDS</td>
</tr>
<tr>
<td>Stroke</td>
<td>Physical inactivity</td>
</tr>
<tr>
<td></td>
<td>Heat mortality</td>
</tr>
<tr>
<td></td>
<td>Occupational deaths</td>
</tr>
<tr>
<td></td>
<td>Sexually Transmitted Diseases (STDs)</td>
</tr>
</tbody>
</table>
3. In the following list, what do you think are the three most important factors which have the greatest impact on overall community health?

**Check only three:**

- Alcohol abuse
- Being overweight
- Dropping out of school
- Drug abuse
- Lack of exercise
- Lack of maternity care
- Proximity to Mexico Border
- Not getting “shots” to prevent disease

4. How would you rate the overall health of our community?

- Very unhealthy
- Unhealthy
- Somewhat healthy
- Healthy
- Very healthy

5. How would rate your own personal health?

- Very unhealthy
- Unhealthy
- Somewhat healthy
- Healthy
- Very healthy

6. What is your primary language?

- Spanish
- English
- Other

7. Can you read, write and understand in English?

- Yes
- Somewhat
- No

8. Do you feel your English comprehension impacts the quality of healthcare you receive?

- Yes
- Somewhat
- No

**Part II: Demographics**

Please answer questions #7-15 so we can see how different types of people feel about local health issues.

9. Are you a resident of Santa Cruz County?

- Yes
- No

10. Ethnic group you most identify with:

- African American / Black
- Asian / Pacific Islander
- Hispanic / Latino
- Native American
- White / Caucasian
- Other

11. Marital Status:

- Married / cohabitating
- Not married / Single
12. Education
   ___ Less than high school
   ___ High school diploma or GED
   ___ College degree or higher

13. Household income
   ___ Unemployed
   ___ Less than $20,000
   ___ $20,000 to $29,999
   ___ $30,000 to $49,999
   ___ Over $50,000

14. Do you and your family get regular preventative health care?
   ___ Yes   ___ No

15. Where do you receive healthcare in your community?
   ___ Mariposa Health Center
   ___ Holy Cross Hospital
   ___ Private practice physicians
   ___ Mexico
   ___ Other ____________________

16. How do you pay for your health care? (check all that apply)
   ___ Pay cash (no insurance)
   ___ Health insurance (e.g., private insurance, Blue Shield, HMO)
   ___ AHCCCS
   ___ Medicare
   ___ Veterans’ Administration
   ___ Indian Health Services
   ___ Other ____________________

17. How do you pay for prescription medications?
   ___ Insurance covers cost
   ___ Pay out of pocket in U.S.
   ___ Pay out of pocket in Mexico
   ___ Do not purchase medication
   ___ Other ____________________
PART III: Quality of Life

Please Select One Answer Per Question.

18. Which aspect of health care in Santa Cruz County are you most concerned about?
   - Access to care
   - Cost
   - Quality of Care
   - Health care options available to you

19. What are your biggest concerns about raising children in Santa Cruz County?
   - Quality of school system
   - Available child care / day care
   - Safe recreation facilities
   - Negative influences (drugs, teen pregnancy)

20. What problems do you see with growing old in Santa Cruz County?
   - Lack of elderly care facilities
   - Transportation to medical services
   - Social support (senior centers)
   - Economic support (meals on wheels, affordable housing)

21. What issues have the greatest impact on economic security in Santa Cruz County?
   - Lack of jobs and career opportunities
   - Limited job training/higher education
   - Lack of affordable housing
   - Lack of transportation to quality jobs

22. Are there sufficient mental health services in Santa Cruz County to help in times of crisis and need?
   - Yes
   - No

23. If no, what improvements need to be made to improve mental health services?
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