Miller Children's Hospital Long Beach

Community Health Needs Assessment

June, 2013

Miller **Children's Hospital Long Beach**

Table of Contents

Tables

Figures

EXECUTIVE SUMMARY

Introduction: Four major non-profit hospitals in the city of Long Beach; Community Hospital Long Beach, Long Beach Memorial, Miller Children's Hospital Long Beach and St. Mary Medical Center have come together in a community partnership to address the health needs of greater Long Beach. Working together in the community, the four local hospitals conducted the greater Long Beach Community Health Needs Assessment (LBCHNA) survey along with key informant survey for 2012. Secondary data analysis was conducted to support the primary data collection. The results of the surveys and data analysis are shared with community leaders, community-based organizations, stakeholders and the community to improve the quality and quantity of services available; to determine health priorities, and barriers to care and gaps in available services, and to identify social issues/problems in greater Long Beach. This process informs the hospital's development of an implementation strategy related to community benefit programming under their direction.

Service Area: Miller Children's Hospital Long Beach is located at 2801 Atlantic Ave. , Long Beach, California 90806. The service area is located in Los Angeles County is comprised of 27 zip codes covering 6 geocoded regions, expressed as Greater Long Beach.

Methodology: Survey instruments were developed through an iterative process with questions covering health related topics affecting, children, teens, young adults, adults and the elderly. The LBCHNA survey instrument was provided in English and Spanish languages. The surveys were collected from a convenience sample at community forums, health fairs and events within the city of Long Beach from September 2011 until March 2012 using web technology. The total number of surveys collected from the LBCHNA and key informants surveys were 1,309 (only 1,066 were valid) and 122, respectively. The secondary data analysis was conducted using Census 2010, Community Health Assessment (City of Long Beach, Department of Health and Human Services, 2012) and the California Health Interview Survey (CHIS) to validate the primary data collected. These data are up-to-date and provide information related to community demographics, and inform an overall impression of priority health needs for the community. Results are reported in bar and pie charts along with tables to summarize findings.

Results and Recommendations: The LBCHNA found asthma, obesity, mental health, diabetes and arthritis to be the top five health priorities in greater Long Beach. About 14% of the survey respondents needed medical care but did not receive it. Further investigation showed that lack of health, dental and vision coverage are major barriers to care along with lack of information about where to get care and transportation to services. Most needed health care services are family physician/primary care, behavioral health, and specialty care, along with dental care and prescription drugs. Major social issues identified in the study are: lack of exercise, poor nutrition, lack of insurance and affordable health care, air pollution, and drug and alcohol programs. Lastly, the study revealed the top five most needed health related services and they are: transportation, CalFresh (food stamp), before and after school program, counseling and assisted living. Results are mostly consistent between LBCHNA and key informant surveys.

Limitations: The study used convenience sampling to reach vulnerable populations. The study employed basic statistics so the study results may not be generalizable for the whole population of Long Beach.

Future Considerations: Hospitals, in conjunction with the public health department and community organizations, should collaborate and implement the recommendations made in this report. Each hospital should emphasize a certain area (s) so no overlapping occurs. Monitoring and evaluating of each program implemented by hospitals must be made every year until the next LBCHNA report.

With the creation of a community partnership, hospitals are able to decrease the amount of duplicate services as well as increase the amount of resources available to target the most significant community needs of a diverse population.

INTRODUCTION

Community health needs assessments are used to identify and prioritize the community's health needs through the collection and analysis of community input and data. Essential local service providers and policy makers use the community needs assessment results to clearly inform policy development related to health care in the city. Through the analysis of the community data, hospitals can use the results to develop new strategies to improve the health of their community (Bilton, 2011).

In 1996, the Senate Bill 697 passed, requiring non-profit hospitals in the state of California to conduct community needs assessments every three years to assist in the development of their community benefit plans (Official California Legislative Information, 1994). In addition, the Patient Protection and Affordable Care Act of 2010 required all non-profit, tax-exempt hospitals to develop and adopt an implementation strategy to address the identified needs and report such strategies to the Internal Revenue Service (Bilton, 2011). The purpose of this report is to create more transparency between the organization's mission and the community benefit services being offered.

Authors

Over the past twenty years, a community needs assessment has been conducted to determine the specific health needs of the Long Beach population. The Long Beach Community Health Needs Assessment was conducted in partnership with and funded by non-profit hospitals in Long Beach (Long Beach Memorial, Miller Children's Hospital Long Beach, Community Hospital Long Beach and St. Mary Medical Center) and representation from the local health department and City. We contracted with Tony Sinay, Ph.D., department chair of Health Care Administration in the College of Health and Human Services at California State University Long Beach to conduct the primary data collection, analysis and resulting report. This is the fourth health needs assessment Dr. Sinay and his team has conducted for the non-profit hospitals in Long Beach. His background in health care management and statistical analysis provides an excellent partnership in our efforts to collect and analyze primary health data in the City. Cindy Gotz, MPH, C.H.E.S., Community Benefit Manager for Long Beach Memorial and Miller Children's Hospital Long Beach, lead the secondary data assessment and analysis. Her background in public health and community health education provides an excellent foundation to direct this assessment. Cheryl Barrit, M.P.I.A. Preventive Health Bureau Manager, Long Beach Department of Health and Human Services (LBDHHS), was instrumental in providing access to the LBDHHS recent 2012 Community Health Assessment. With a commitment to ensure the health of the Long Beach population, this partnership conducted the Long Beach Community Health Needs Assessment.

Methods

The Community Health Needs Assessment survey for 2012 was based on self-reported health experiences of participants. The data were analyzed, focusing primarily on access to care, availability of health services, major health problems and social issues affecting children, teens, and adults living in the greater Long Beach area. According to Healthy People 2020, access to health care services impacts a range of health outcomes, from physical and mental health status, to disease prevention and treatment of health conditions (U.S. Department of Health and Human Services, 2010). In order to access such services, individuals need to know where to locate the services needed. Through the results of the survey analysis, community partners can identify gaps in services provided, leading to improvements in the health status and quality of life of the community through education, program development, increased access and availability of services.

A key informant survey, which was similar to the LBCHNA survey, was also administered with individuals who represent the local health care system in the city of Long Beach. Using web technology (Survey

Monkey), key informants from local hospitals, public health and nonprofit organizations, academicians and city officials responded to a survey to enhance the findings of the LBCHNA survey and attempted to discover relatively new emerging health and health-related issues.   Results of the key informant surveys are reported as well.

The secondary data analysis was conducted using Census 2010, Community Health Assessment (City of Long Beach, Department of Health and Human Services, 2012), Office of Statewide Health Planning and Development (OSHPD) and the California Health Interview Survey (CHIS) to validate the primary data collected. Combined with the survey results, these data are up-to-date and provide information related to community demographics and inform the identification of health needs in the community.

Information Gaps
Information gaps that impact the ability to assess the Miller Children's Hospital Long Beach service area health needs were identified. Most notably, there are limited sources for city level data related to childhood obesity. The study used convenience sampling to reach vulnerable populations and may be over sampled as compared to other areas of the City. The study employed basic statistics so the study results may not be generalizable for the whole population of greater Long Beach.

Healthcare Facilities and Community Resources
A list of existing facilities and resources within the community that are available to meet identified community health needs are outlined at the end of this report.

Community Served

The city of Long Beach is situated in Los Angeles County in Southern California. According the 2010 U.S. Census, the city is the thirty-fourth largest city in the nation and the fifth largest city in California (California Department of Finance, 2011). Long Beach is recognized as one of the most diverse cities in the nation, with the largest Cambodian population outside of Southeast Asia (U.S. Census Bureau, 2010). The racial composition of the city is predominantly Hispanic or Latino (40.8%), followed by White (29.4%), Black or African American (13.0%), Asian (12.6%), Native Hawaiian and Other Pacific Islander (1.1%), two or more races (2.7%), and 0.2% reporting some other race.

According to the 2010 U.S. Census, the population of Long Beach was 462,257, only a 0.2% increase from the 2000 U.S. Census. The estimated median family income in 2010 was $51,173 and the percentage of families below the poverty line was reported at 19.1% compared to the state rate of 13.7% and national rate of 15.1% (De Navas-Walt, Proctor & Smith, 2011). Table 1 identifies household incomes in the city of Long Beach and Figure 1 identifies the poverty rate by family and family type. The unemployment rate in Long Beach for November 2010 was reported as 12.2 %, slightly higher than Los Angeles County's 11.1% and the state's average of 10.9% (State of California, 2012). Overall, Los Angeles County ranks number 28 out of 58 California counties according to the County Health Outcomes and Ranking data, which includes socioeconomic, health, education and welfare statistics (Robert Wood Johnson Foundation, 2013).

Table 1: Long Beach Household Income

Income	Percent of Population
Less than 10,000 to 14,999	12.9%
15,000 – 24,999	11.2%
25,000 – 34,999	10.9%
35,000 – 49,999	13.7%
50,000 – 99,999	29.4%
100,000+	21.9%

Source: American Community Survey 2006 – 2010 (www.healthycities.org)

Figure 1: Family Poverty Rates
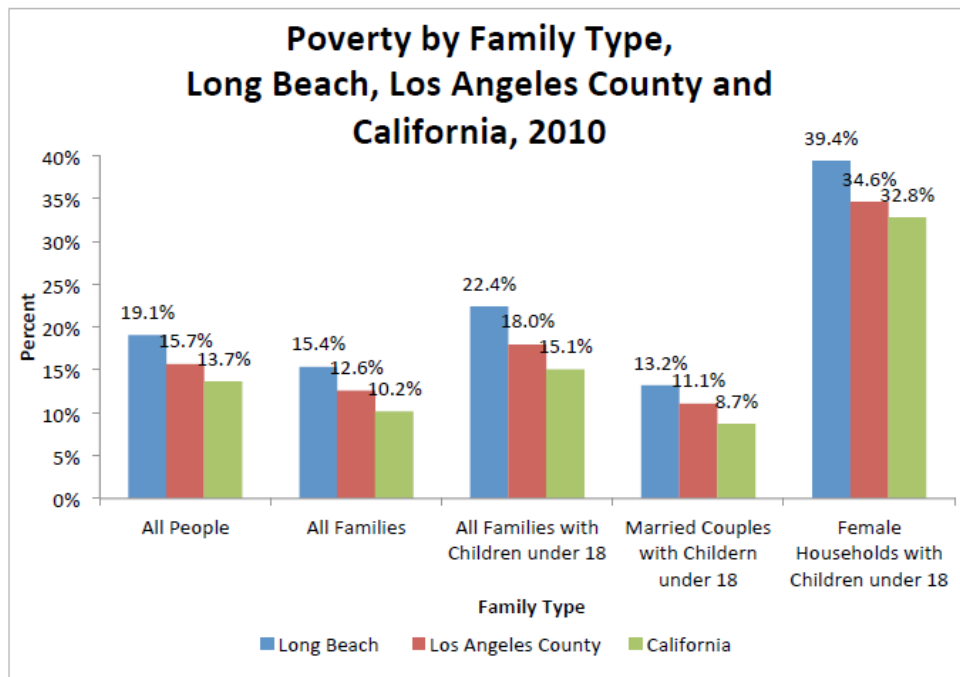
Source: City of Long Beach, Department of Health and Human Services, 2012 (ACS 2010)

Population (age & gender)

According to the 2010 Census and reported in the Community Health Assessment conducted by the City of Long Beach, Department of Health and Human Services in 2012, the population of Long Beach is evenly split along gender lines, 51% female and 49% male and the average age is 33.2 years. The largest segment of the population is within the age group 25-44 (30.5% of the population) followed by those aged 18 and under with 24.9%. The elderly aged 65 and over make up 9.3% of the city's population, which is reported to be slightly lower than the county and state averages of those in this age group (10.9 % for County of Los Angeles and 11.4% for the state of California) with 7% of the population under the age of five and 9.3% of the population 65-years and older (U.S. Census Bureau, 2011).

Figure 2: City of Long Beach Population by Figure 2: Age Group based on 2010 Census
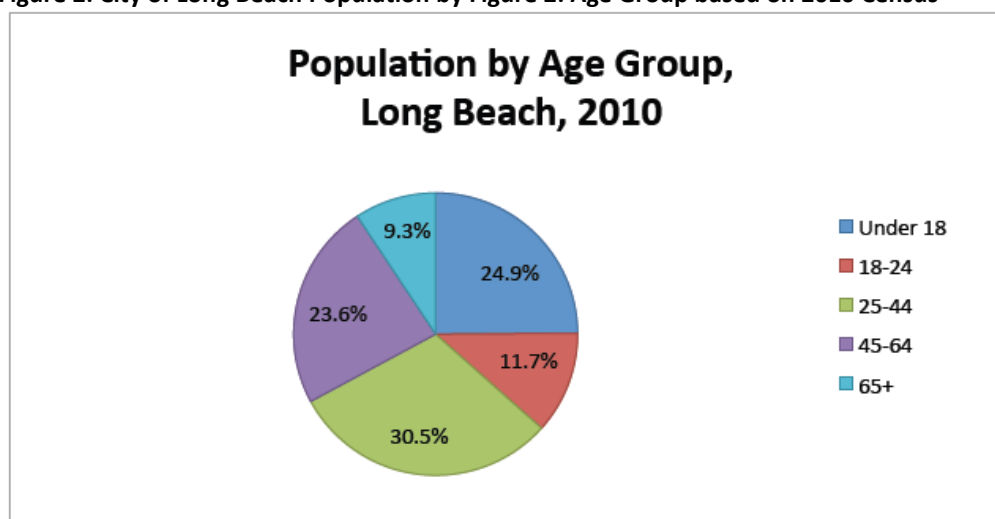
Source: City of Long Beach, Department of Health and Human Services, 2012

Children in Poverty

According to LBDHHS, there are more than 30,000 children living in poverty within the City representing over a quarter of the population (age 18 and under). Table 2 provides comparison data related to children living in poverty for the service planning area that houses Long Beach, SPA8, and California as a whole. There is a higher percentage of children in the 0-99% FPL category in SPA8 as compared to California.

Table 2: Children Living in Poverty, Ages 0-17 - SPA8

	SPA 8	California
0-99% FPL	32.7%	23%
100-199% FPL	16.3%	20.2%
200 – 299% FPL	9.9%	14%
300% FPL and above	41.1%	42.8%

Source: California Health Interview Survey, 2009

Service Area

Long Beach Memorial Medical Center (LBMMC) is comprised of three separately licensed hospitals, Long Beach Memorial, Miller Children's Hospital Long Beach and Community Hospital Long Beach and is part of the MemorialCare Health System based in Fountain Valley, California. The three MemorialCare Long Beach hospitals together serve the greater Long Beach area and the zip codes related to the primary and secondary service areas are delineated in Table 2 below. Long Beach has its own health jurisdiction, one of only three cities in the state, and is also considered a part of service planning area eight (SPA8) within Los Angeles County. All three hospitals are in SPA8.

Table 3: Long Beach Memorial Medical Center Primary and Secondary Service Areas by Zip Code

LBMMMC Primary Service Area*	
City	**Zip Code(s)**
Long Beach	**90805**, **90806**, **90807**, 90810, 90808, **90813**, 90815, 90802, 90804, 90803, 90814
LBMMC Secondary Service Area*	
City	**Zip Code(s)**
Lakewood	90712, 90713
Seal Beach	90740
Compton	90221, 90220
Bellflower	90706
Carson	90745, 90746
Cerritos	90703
Paramount	90723
Los Alamitos	90720
Signal Hill	90755
Cypress	90630
Norwalk	90650
Lynwood	90262
Wilmington	90744

Based on calendar year 2008 OSHPD data

Figure 3: City of Long Beach Zip Code Map
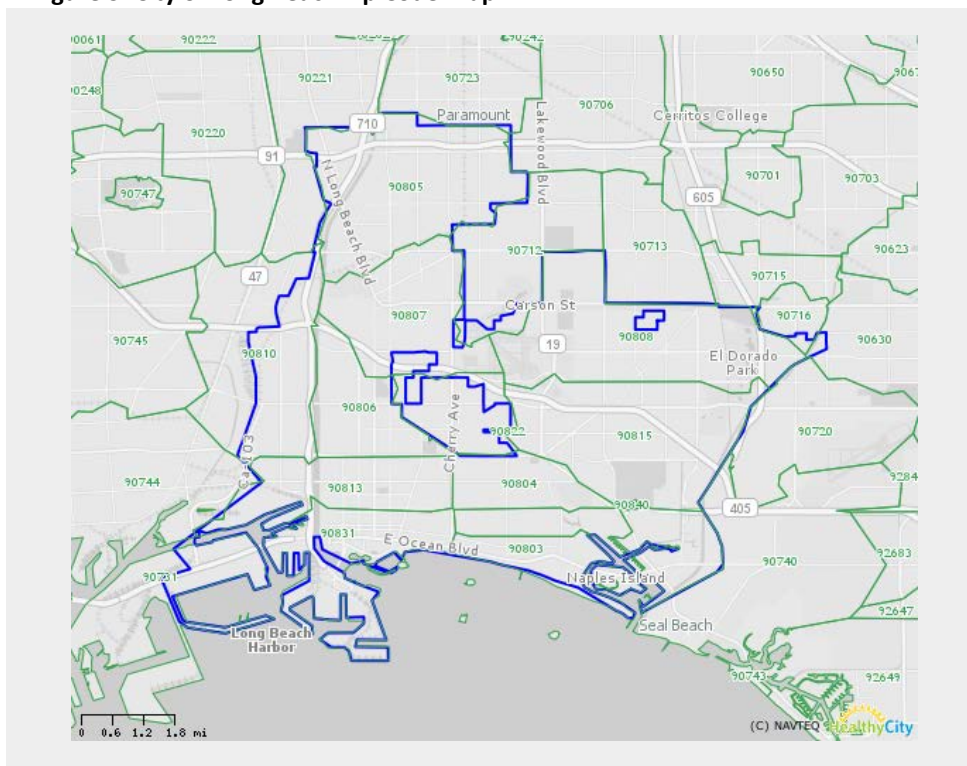
Map created on December 19, 2012 at HealthyCity.org

The community benefit service area of Miller Children's Hospital Long Beach is depicted in Figure 4 and is comprised of where our patients originate based on discharge data; 27 zip codes in 6 geocoded regions. We provide service to greater Long Beach, South Bay, both a part of Los Angeles County, and northern sections of Orange County.

Figure 4: Hospital Service Area by Geocode
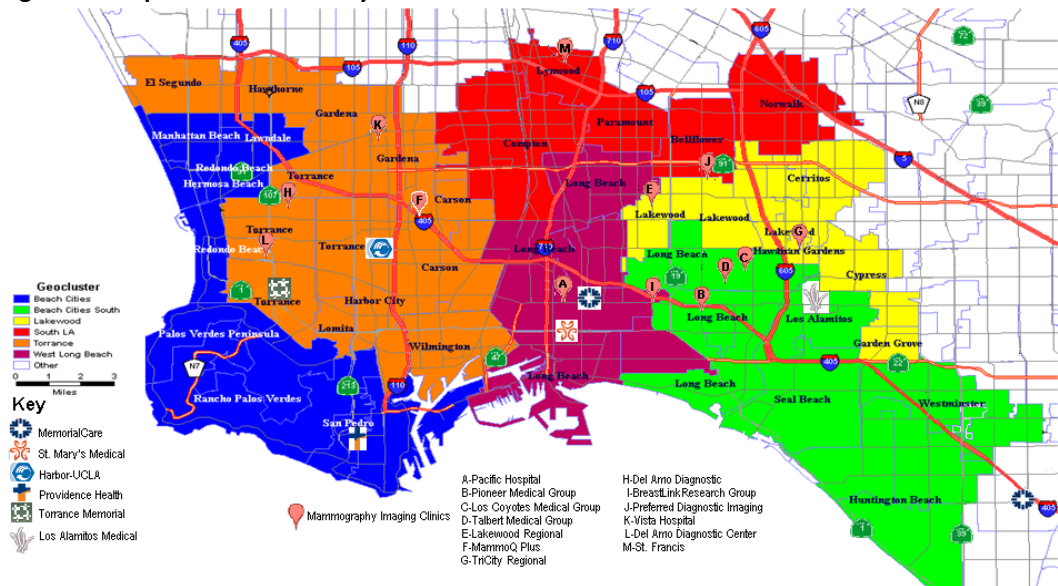
When comparing all the zip codes in Long Beach by age distribution there are pockets of the City, which look very different with a larger percentage of those under the age of 18 predominately residing in 90805, 90806, 90810 and 90813 zip codes. Additionally, the areas with higher percentages of older adults (age 45 and older) are found in the 90803, 90807, 90808 and 90815 zip codes.

Figure 5: Long Beach Population by Age Range and Zip Code, 2010

Population Age Range by Zip Code, Long Beach, 2010

	Long Beach Total	90802	90803	90804	90805	90806	90807	90808	90810	90813	90814	90815
65+	9.3%	8.5%	15.5%	5.9%	6.7%	7.6%	12.9%	14.1%	10.3%	5.5%	9.8%	13.6%
45-64	23.6%	24.0%	31.2%	20.1%	20.7%	21.7%	29.3%	30.4%	22.4%	18.3%	26.5%	26.3%
24-44	30.5%	40.6%	33.8%	34.5%	29.0%	28.9%	28.5%	25.2%	26.9%	30.1%	38.0%	25.1%
18-24	11.7%	10.4%	7.8%	15.1%	12.2%	11.8%	8.2%	8.0%	11.5%	13.4%	10.0%	16.0%
Under 18	24.9%	16.5%	11.7%	24.5%	31.4%	29.9%	21.1%	22.3%	28.9%	32.7%	15.6%	19.0%

Zip Code
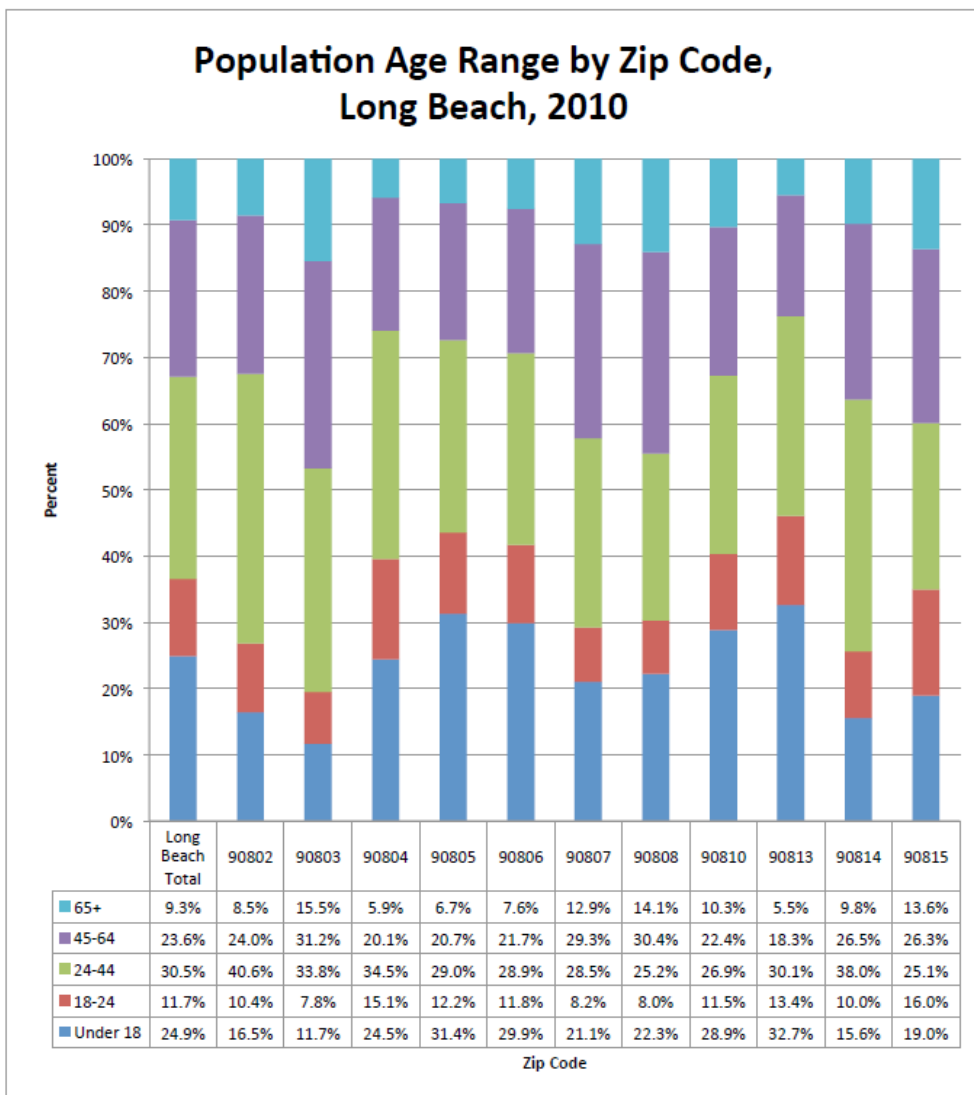
Source: City of Long Beach, Department of Health and Human Services, 2012

Race and Ethnic Composition

The City of Long Beach is often referred to as one of the most diverse cities in the nation. Over 40% of the population is Hispanic followed by White (29%), African American (13%) and Asian (over 12%) and other ethnic or race identifiers (4.3%) according to the 2010 Census. The City of Long Beach, Department of Health and Human Services report Hispanic's make up 50% or more of the population in the following zip codes; 90805, 90806, 90810 and 90813 whereas Whites make up the majority in 90814, 90803, 90808 and 90815. The highest concentration of African Americans is found in 90805, 90806, 90807, 90810, 90802, 90804 and 90813 and Asians are found in 90806, 90807, 90810, 90804, and 90813.

Figure 6: : Long Beach Hispanic/Latino Population by Zip Code
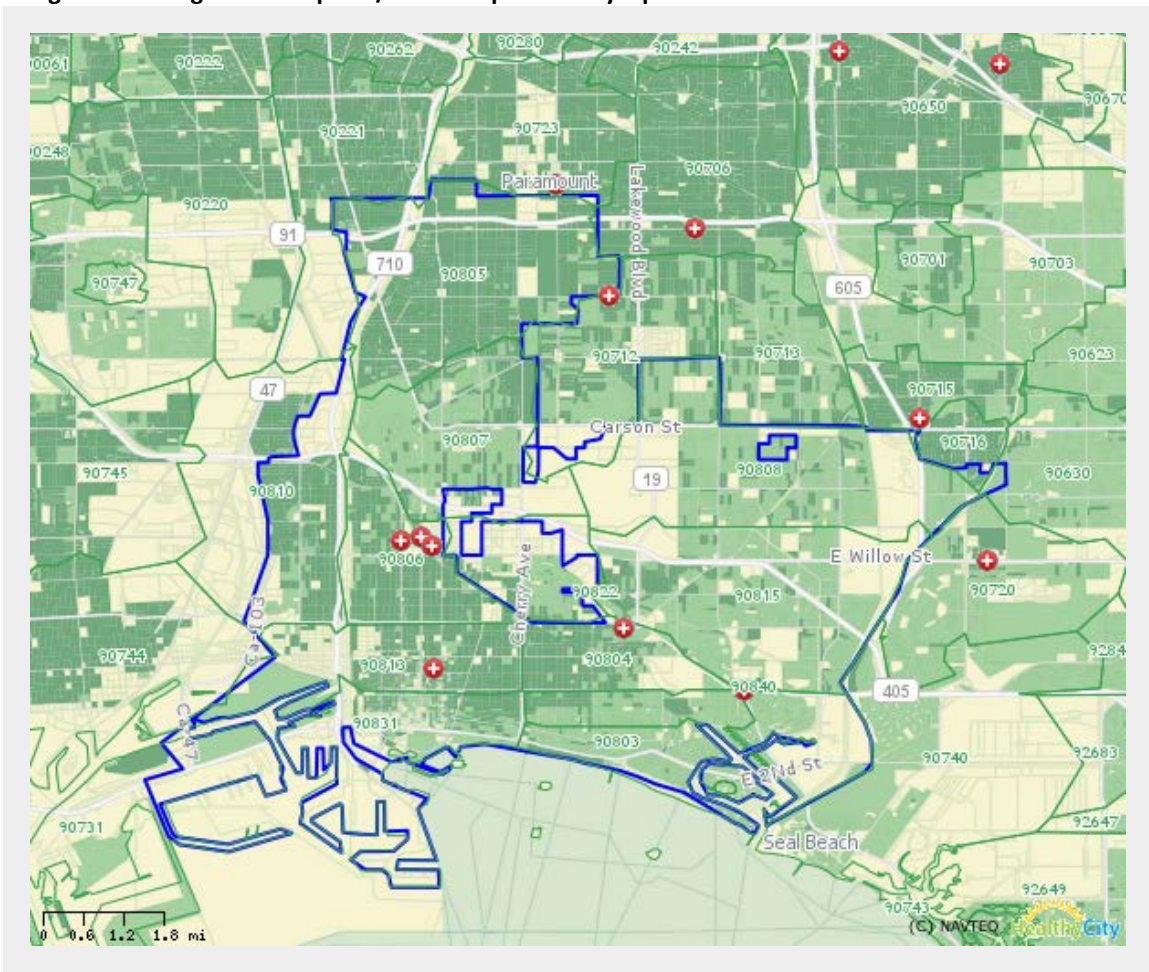
Resources

Health Care

Ethnicity / Race: Latino Population (DOJ Tabulation)

0 - 0.0

0 - 0.1

0 - 26.4

27 – 100

Universe: Total Population. Datasource: U.S. Census Bureau Decennial Census. Data Year: 2010. Data Level: Census Block (2010). Map created on December 19, 2012 at HealthyCity.org

Along with the diversity in the population comes language diversity. The majority of the population in Long Beach speak English (53.2%) followed by Spanish (34%). About 10% of the population reports speaking an Asian or Pacific Islander language e.g., Khmer.

During the 2010-2011 school year, the number of English language learners in grades K-12 in the Long Beach School District totaled 19,774,out of the 84,816 students enrolled or 23.3% (California Department of Education, 2011). The Long Beach Unified School District is very diverse with a total of 30 different languages spoken including Spanish, Khmer, Tagalog, Vietnamese and Samoan (California Department of Education, 2011).

Health Status

The City of Long Beach, Department of Health and Human Services (LBDHHS) reports a disconnect between reported health status and life expectancy for residents of Long Beach as compared to the broader Los Angeles County service planning area eight (SPA 8) (South Bay area which includes Long Beach). The health status is reported as good, very good or excellent for SPA 8 according to the California Health Interview Survey (CHIS) 2009. However, the life expectancy is lower for Long Beach (78.6) than Los Angeles County (80.3) and the South Bay. Additionally the mortality and morbidity rates and causes vary geographically across the City. According to the LBDHHS, life expectancy by zip code analysis found those living in the 90802 zip code had the lowest life expectancy in the City, 75.6 years and 90815 had the highest life expectancy, 82.8 years. Life expectancy measures began at age 1.

Figure 7: Life Expectancy at Age 1 by Zip Code
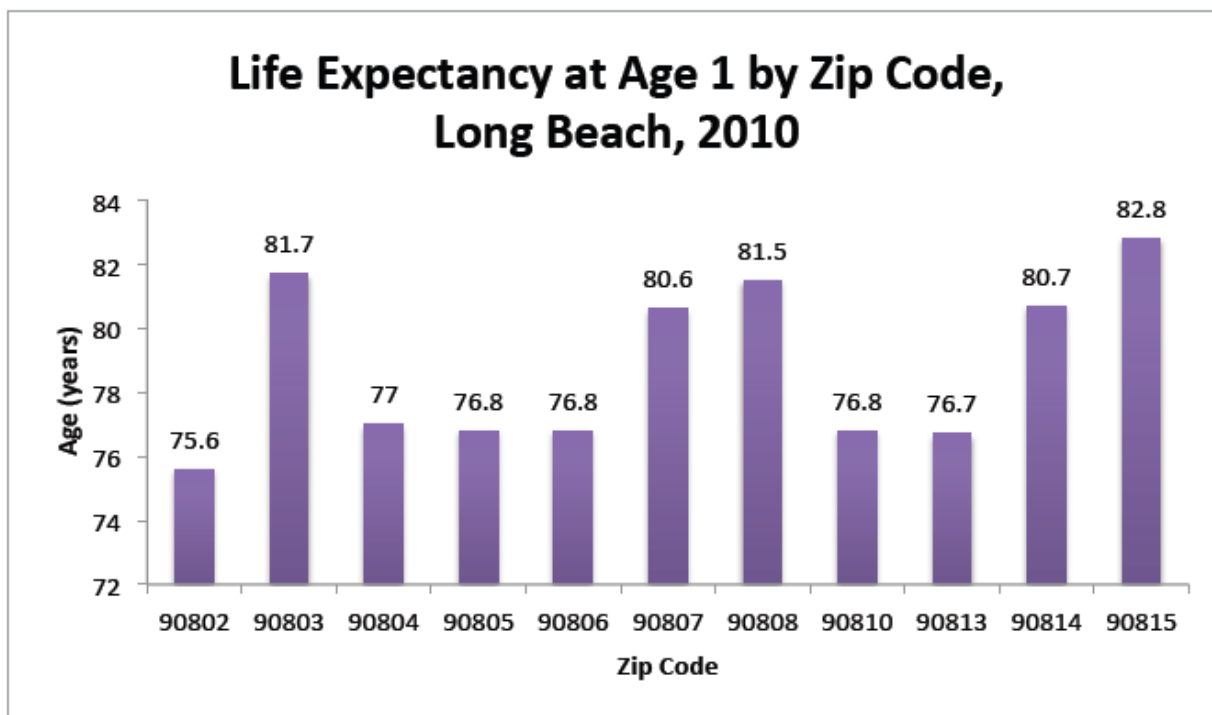
Source: City of Long Beach, Department of Health and Human Services, 2012 and Rethinking Greater Long Beach

The infant mortality rate in Long Beach has decreased and is on a steady downward trend. According to the LBDHHS, 2008 infant mortality rate in Long Beach was 4.3 deaths per 1,000 per live births. However, when reviewing the infant mortality rate by ethnicity it varies greatly, Figure 8 provides a look at the trend by ethnicity in Long Beach.

Figure 8: Infant Death Rate by Ethnicity
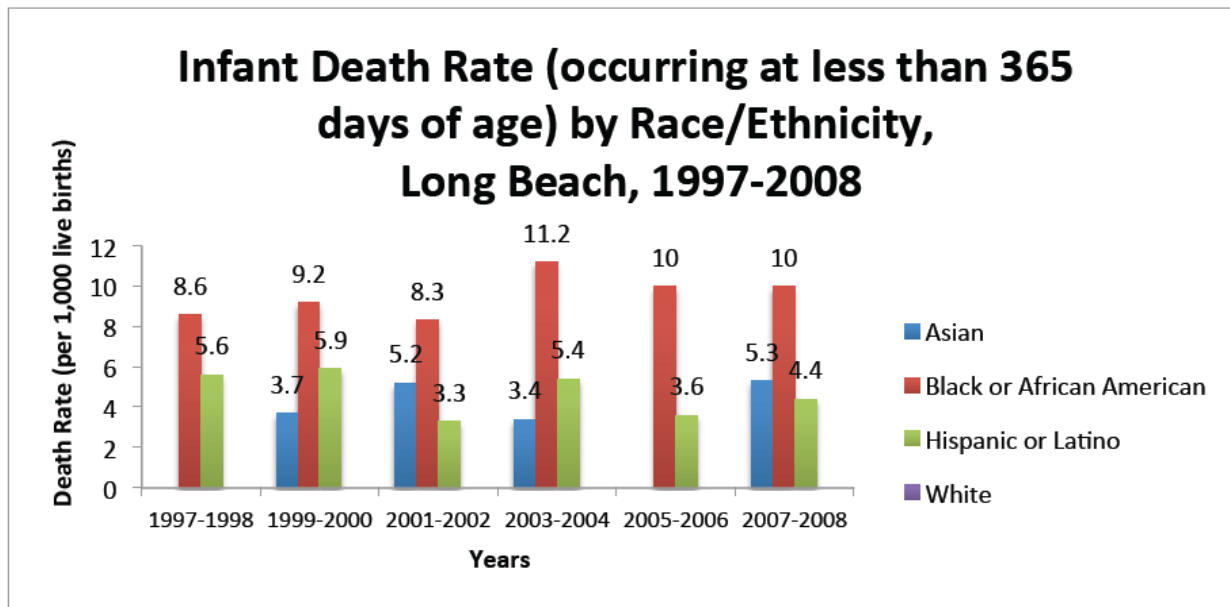
Source: City of Long Beach, Department of Health and Human Services, UCSF, FHOP 2008

According to LBDHHS, the leading causes of death for children were due to external causes (19%), respiratory disorders (6.6%) and Cancer (5.5%).

Asthma

Asthma is a respiratory disease that is on the rise not only nationally but locally as well. Asthma prevalence among fifth grade students living in Los Angeles county, it was reported that 18% of children were living with asthma between 2006 and 2008 (Healthycity.org) and CHIS reports for SPA8, 14.6% of the population aged 0-17 had received a diagnosis of asthma and 35% take a daily medication to control their asthma. According to OSHPD 2011 hospital discharge data for Miller Children's Hospital Long Beach, nearly 11% of discharges were due to a respiratory diagnosis. Figure 9 provides the breakdown in age categories for hospitalizations related to asthma and the second highest number of hospitalizations is in the 0-14 age group.

Figure 9: Asthma Hospitalization by Age
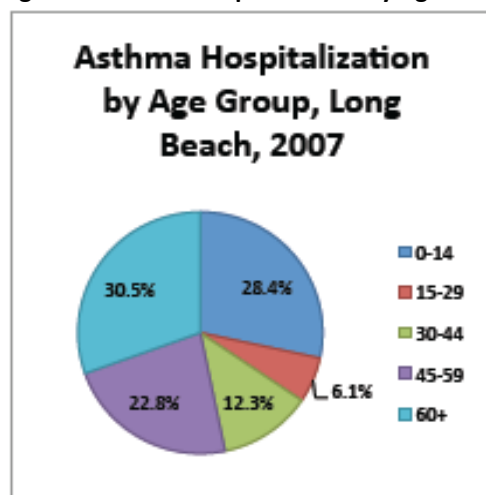
Source: City of Long Beach, Department of Health and Human Services, OSHPD 2007

Mental Health

Mental health can be characterized as emotional, psychological distress. Severe stress, abuse of alcohol and/or drugs can also impact a person's mental state and quality of life. Access to mental health services is increasingly important. Identified in the 2009 and 2012 Long Beach Community Health Needs Assessments, conducted by area hospitals, mental health was indicated as a high need for all age groups.

Table 4: Child and Adolescent Mental Health Indicators

	SPA 8	California
Teens who needed help for emotional-mental and/or alcohol-drug issues in the past year	15.5%	12.9%
Teens received psychological/emotional counseling in past year	5.2%	9.5%
Teens at risk for depression	23.1*	21%*
Percentage of children aged 3 to 17 who tried to get mental or behavioral healthcare in the past year	8.3%	

Source: California Health Interview Survey, 2009, 2005*

Table 5: Depression-related Feelings by LBUSD Grade Level 2008-2010

Depression-Related Feelings, by Grade Level in 2008-2010		
Grade Level	**Yes**	**No**
7th Grade	28.8%	71.2%
9th Grade	35.0%	65.0%
11th Grade	32.8%	67.2%
Non-Traditional	29.0%	71.0%

Source: As cited on kidsdata.org, California Department of Education, California Healthy Kids Survey (WestEd). http://www.wested.org/chks

The definition of Table 5 reflects the percentage of students in grades 7, 9, and 11, and non-traditional students, reporting whether in the past 12 months, they had felt so sad or hopeless almost every day for two weeks or more that they stopped doing some usual activities. The grade levels included in school district-level data depend on the grades offered in each school district; for example, high school districts do not include 7th grade data. "Non-traditional" students are those enrolled in Community Day Schools or Continuation Education.

Physical Activity and Obesity

Obesity has become a national problem and the prevalence of obesity continues to grow. Public health and medical professionals have warned if this trend continues this will be the first generation to have shorter lives than their parents and sicker ones. Obesity and lack of physical activity has been linked to an increase in chronic disease such as; heart disease, high blood pressure, diabetes, arthritis and cancer. Long Beach is no different than the rest of the nation. In Los Angeles County the percentage of children aged 6 to 17 that did not meet the guidelines for physical activity in 2011 was 60.3%. In Long Beach it is

estimated that more than 12% of children do not participate in any physical activity (LBDHHS, 2007). According to the California Endowment, 1 out of 3 California children are overweight or at risk of becoming overweight. Table 6 describes the obesity problem in the childhood and adolescent years.

Table 6: Childhood Obesity

	Long Beach	SPA8	Los Angeles County
Percentage of children in grades 5, 7 and 9 who are overweight or obese	40.7%	20.7%*	45.2%
Percentage of children between 0-18 years of age overweight for their age**	n/a	10%	12.1%

Source: Babey S. H., et al. (2012). <u>Overweight and obesity among children by California cities, 2010</u>. UCLA Center for Health Policy Research and California Center for Public Health Advocacy. Los Angeles County Department of Public Health, Key Indicators of Health by Service Planning Area 2013. California Health Interview Survey (2009)***

LITERATURE REVIEW

The Patient Protection and Affordable Care Act of 2010 require that all non-profit hospitals conduct a Community Health Need Assessment every three years.   Community Health Needs Assessments (CHNA) provides the opportunity to help identify and prioritize the needs of a community and offer an implementation strategy to address these needs (Bilton, 2011).   In addition to the community needs assessment, the U. S. Department of Health and Human Services released a National Strategy for Quality Improvement in Health Care, March 2011 in an effort to create national priorities to improve the quality of health care in the United States (USDHHS, 2011). The strategy lists three aims for the health care system: better care, healthy people and communities, and affordable care (USDHHS, 2011).

In order to collect "community intelligence," local community-based organizations, advocacy groups and the entire community of health providers need to be engaged in the collection process and in determining the potential needs of the community. Community health partnerships are essential for community health improvements. Community partnerships can identify the gaps in services provided; leading to improvement in the health status and quality of life of the community through education, program development, increased access and availability of services (Somerville, et al., 2012).

When unmet health needs are identified through the process, the community partnership can help develop initiatives to address the needs brought forth by the assessment process.   Hospitals have been entrusted to address the acute needs of patients walking through their doors.   In addition, they are entrusted with improving the lives of community residents which they serve. This includes: conducting health fairs, providing community clinics and leading health education classes. Hospitals are expected to be accessible and provide cost effective services to all community members equally. By conducting a community health needs assessment, hospitals are viewed by their respective service area constituents as being concerned, focused and responsive to the community's health (Proenca, Rosko & Zinn, 2000).

Through the use of health needs assessments, the community is included in the overall process of needs identification (Holt, 2008).

The purpose of a community health assessment is to determine if the community has access to quality, affordable and effective health services and to implement a plan to address the needs brought forth by the assessment process.   The vision of Healthy People 2020 is to create a society in which all people live long healthy lives. In order to reach this vision, communities need to achieve health equity, eliminate disparities, and improve the health of all groups (USDHHS, 2010a). CHNAs assist the community in maintaining a long term strategic view of the community's health status and the associated influencing factors. A CHNA can be instrumental in determining not only the current health status of a defined population, but also uncover the capacity for addressing the needs. Communities who completed an assessment found that health problems were prioritized, 100% of the time. Additionally, a CHNA improved communications between community groups, and problems were better understood within the community.   "Motivating communities to take responsibility for their own health problems is very much the point of community assessment and may represent a more important outcome than the community benefit derived from an assessment alone" (Curtis, 2002, p.21).

The main reason hospitals are putting resources into community engagement is "health is our mission." Only ten percent of health production is contributed by medical care, the other 90% has to do with genetics, behavior, and the environment in which a person lives. In the United States, seven of the ten leading causes of death are linked to preventable lifestyle behaviors (CDC, 2009). In order to improve health, hospitals (especially not-for-profit hospitals) must focus on the community, which is made up of the social network, environment and behaviors of its constituents. Designing an environment through active engagement and fostering healthy lifestyles, is imperative to the creation of health (Health Research & Educational Trust, n.d). In addition, psychosocial health contributes greatly to a person's quality of life (Donatella, 2010). When developing programs, psychosocial health needs must be considered as an aspect of wellness. "Comprehensive community needs surveys should include assessment of environmental, psychosocial, and physiological aspects of health as well as indicators of health-related behaviors in the population" (Lundeen, 1992, p. 243).

All communities should collect data on the health related problems of its residents at regular intervals. The use of the assessment data can assist in health program planning and evaluation, which is sensitive to identified issues and needs of the population or subgroups. Once the health needs are identified, the process of meeting those needs through clinical and health promotion or education interventions need to be put in place and executed (Clegg & Doherty, 2001). The assessment process allows for identification of health problems that need to be addressed along with any changes that need to occur since the last health needs assessment in the community (McKenzie, Pinger & Kotecki, 2008).

In order to assess the needs of the city of Long Beach, Community Hospital Long Beach, Long Beach Memorial, Miller Children's Hospital Long Beach and St. Mary Medical Center came together in a community partnership to conduct an assessment. The last three assessments were conducted in 2005, 2007 and 2009. A newly revised needs assessment survey and a key informant questionnaire were used for the 2012 report, which aimed to collect information regarding the health status, access and issues related to all segments of the population living in Long Beach. The next section discusses Methodology used in the study followed by the "Results" section. The "Conclusion" and "Specific Findings and Recommendations" sections summarize findings and offer recommendations for hospitals to consider.

METHODOLOGY

A literature review was conducted to ascertain the use of community health surveys and assessments within the published texts. Peer reviewed journals were consulted and several articles were selected. The Community Health Needs Assessment of the city of Long Beach consisted of two parts. In the first part of the study, the Long Beach Community Health Needs Assessment Survey was used to collect data related to the health care needs within the Long Beach community. The community health survey instrument included 31 questions covering topics such as; population demographics, health concerns affecting children (ages 0 – 12), teens (ages 13 – 18), young adults (ages 19 – 25), adults (ages 26 – 65) and the elderly (ages 65 and over), and access to services and providers. The survey instrument was developed through an iterative process involving a literature review and analysis of previous surveys to determine types of questions and specific wording to generate information important to the process. The survey instrument was provided in both English and Spanish languages. Several meetings were held with community partners to obtain input in order to capture the unique needs of community partners, which resulted in several revisions of the survey instrument.

Surveys were collected from a convenience sample at community forums, health fairs and events within the city of Long Beach from September 2011 until March 2012 using SurveyMonkey. In an effort to control costs, the surveys were either self-administered or interns helped in completing surveys to a convenience sample at these events. The survey was also posted on the hospitals' web sites along with the Long Beach Department of Public Health web site so other participants could have easy access to the survey. Respondents were residents of the greater Long Beach area, which included; Long Beach, Lakewood, Compton, Carson, Lynwood, Torrance, Wilmington, Signal Hill, Seal Beach and Bellflower. A total of 1,309 surveys were collected; however, only 1,066 surveys were accurately completed and used for analysis. Data were transformed into Statistical Package for the Social Sciences (SPSS) Program and descriptive statistics were computer for each question.

The second part of the study employed a key informant survey. The main reason for surveying key informants was to enhance the data collection activity with input from individuals who have access to special segments of the population. The key informant survey was developed the same way the community health survey instrument was developed. Through an iterative process involving a literature review, examination of previous surveys and community partnerships input from several meetings helped finalize the key informant survey. Each hospital included in the study used key informants for community outreach and community benefit activities. Key informant lists were combined into a master list, which resulted in 433 key informants. Using web technology (SurveyMonkey), informants were asked to complete and submit surveys in order to share their valuable input in this project. E-mail reminders were sent to key informants twice in order to increase the response rate.

Descriptive statistics were used to analyze primary data from both the community and key informant surveys. Health priorities identified in both surveys were then consolidated and ranked according to an aggregate score. Presentation of all the health indicators and survey results data were presented at a community forum. Prioritization of health needs was discussed in a small group breakout session and results were disseminated to all attendees.

RESULTS OF THE COMMUNITY HEALTH NEEDS ASSESSMENT SURVEY

Participant Demographics

The Long Beach Community Health Needs Assessment survey was developed to provide insight into the health needs of residents living in greater Long Beach. A total of 1,309 surveys were received from the public as a result of intense effort at community events. Survey data were transferred to SPSS and data cleaning was performed. The final data sample included 1,066 surveys because 243 surveys were removed from the data sample for two main reasons: (1) out of area zip codes and (2) blank surveys or those with a significant amount of missing information.

The Catholic Healthcare West (CHW) developed a Community Need Index (CNI) tool that provides a "picture" of the community's needs and access to care. The CNI collects five socioeconomic variables by zip codes, which have demonstrated a link to health disparities (income, language, education, housing and insurance coverage). The scale is 1-5, the higher the score, the greater the need for services (St. Mary Medical Center, 2011). In Long Beach, six of the fourteen zip codes are in areas identified as greatest need for services.

Respondents living in the 90813 zip code had the highest percentage (12.6%) of participation in the survey followed by 90802 (9.6%), 90805 (6.4%) and 90806 (6.4%) and 90804 (5.5%). All of these zip codes fall into the highest need category, according to the Community Needs Index (CNI). The zip code 90815 acquired 5.8% of the survey responses; however this zip code falls in the moderate need according to the CNI.

The zip codes with the highest need included 90802, 90804, 90805, 90806, 90810 and 90813. A large number of survey respondents (490) live in 'Highest need' areas in Long Beach. The other half of the survey sample was drawn from the moderate to low need zip codes. The data sample properly represented the vulnerable neighborhoods of Long Beach.

Zip Codes with the Greatest Frequency of Responses

ZIP	COUNT
90813	134
90802	102
90805	68
90806	68
90815	62
90804	59
90807	47
90803	38
90808	35
90810	35
Others	418

Racial Composition

The majority of survey respondents were Hispanic/Latino (33.9%) and non-Hispanic Whites (31.3%) followed by Asian, Pacific Islander (16.5%), Black/African American/African (17.6%), Biracial/Multiracial (3.4%) and Native American, Alaska Native (.1%). When Asian and Pacific Islanders are split into discrete ethnic groups, the representation was Filipino (72.9%), Khmer (16.7%), Vietnamese (4.2%), Samoan and Chamorran (2.8%) and Tongan (.7%). Hispanic/Latino when split into discrete ethnic group included Mexican (82.3%), South or Central American (15.3%), Puerto Rican (2.8%) and Cuban (1.2%).

According to the 2010 U. S. Census, the racial distribution in the city of Long Beach included Hispanic or Latino making up 40.8%, followed by White (29.4%), Black or African American (13.0%), Asian (12.6%), Native Hawaiian and Other Pacific Islander (1.1%), two or more races (2.7%) and 0.2% reporting some other race. The Black/African American and White population is slightly over represented; and the Hispanic/Latino and Asian and Pacific Islanders are slightly under represented (see Figure 1).

Figure 10: Representation of Races in the Data
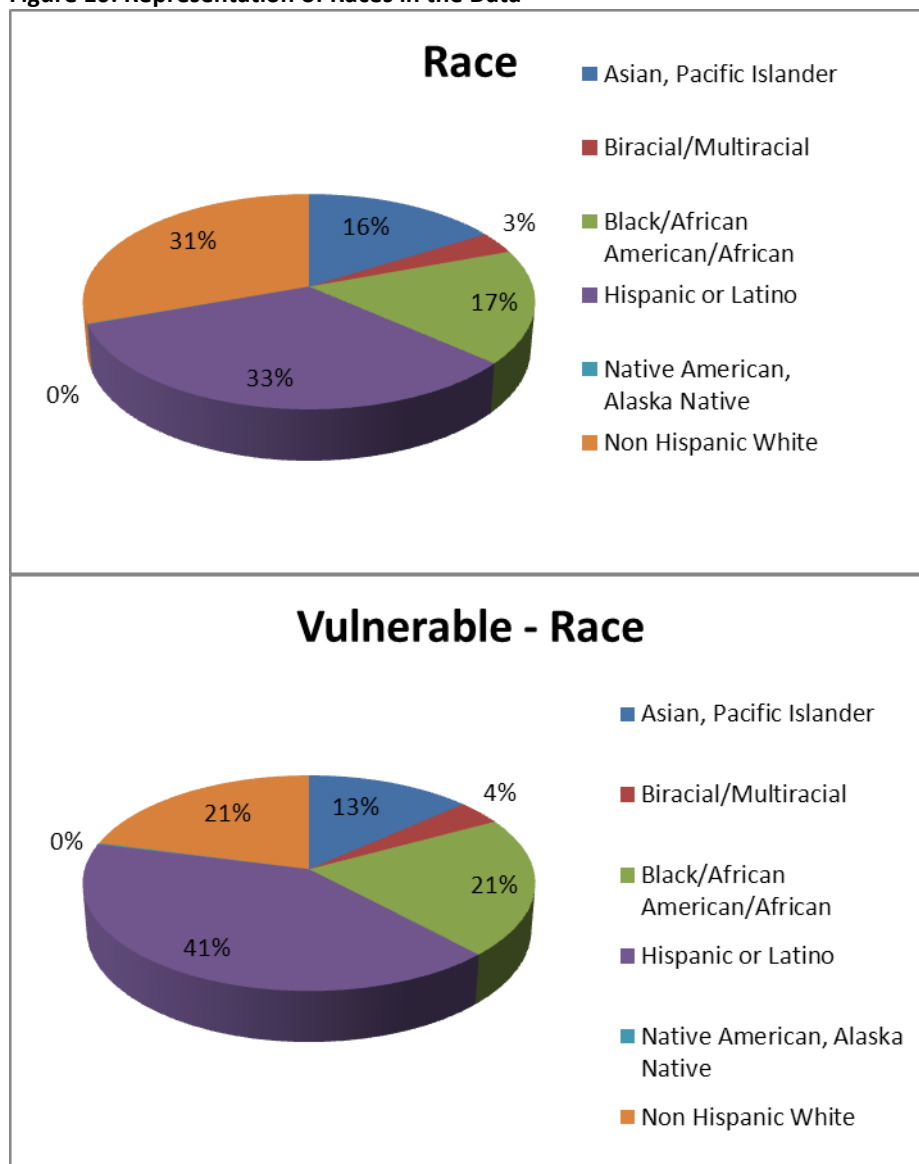
When the data sample was divided between most vulnerable and less vulnerable zip codes, Hispanic/Latino and Black/African American population in most vulnerable areas increased up to 41.1% and 21.2%, respectively. Further investigation of Hispanic/Latino data suggested that about 81.5% of the respondents have a Mexican origin and another 15.2% have a Cuban origin. This distribution stayed about the same when the data were analyzed for only vulnerable areas. The majority of the Asians are Filipinos in the data, about 69.7% in vulnerable areas.

Age Distribution of Survey Respondents

The age distribution from survey respondents were 46-64- years-old (35.7%) followed by 27-45-years old (34.4%), 65 and older (16%) and finally 18-26-years-old (12.1%). This age distribution translated to an average age of approximately 46 years. According to the 2010 U. S. Census, the median age of the Long Beach population was 33.2 years old, which is clearly significantly younger than the average person in the survey sample. That is why the results of the survey should be interpreted cautiously. When the smaller data sample for only vulnerable zip codes was used, the age distribution stayed about the same which means that results are more applicable for older individuals living in the most vulnerable sections of the city (see Figure 2).

Figure 11: Age Distribution of the Survey Respondents
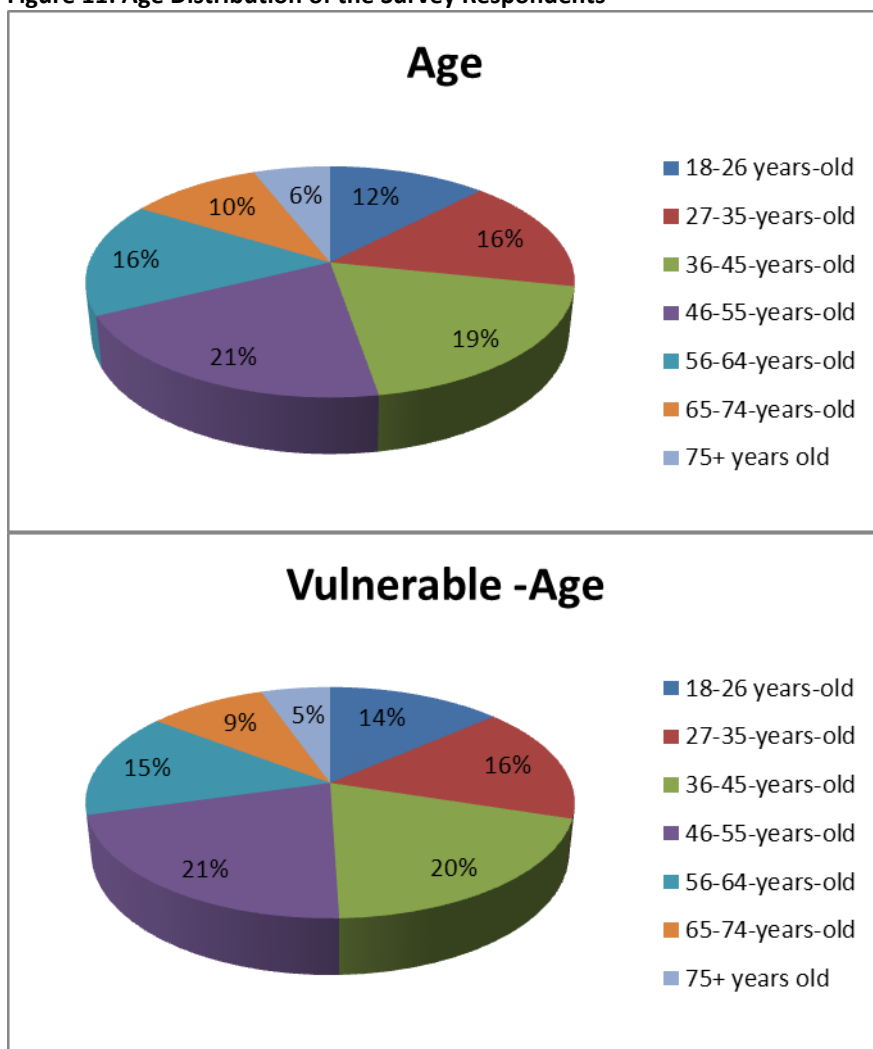
Gender and Gender Orientation

The majority of the survey respondents were females (67.8%) followed by males (32.1%) and transgender (.1%). In the 2009 Long Beach Needs Assessment Survey, approximately 60% percent of the respondents were females. According to the 2010 U. S. Census, 51% of the population living in Long Beach is female and 49% are male. Women were overrepresented in this study. When the data were analyzed for only vulnerable zip codes, the gender distribution stayed about the same.

Figure 12: Gender Distribution
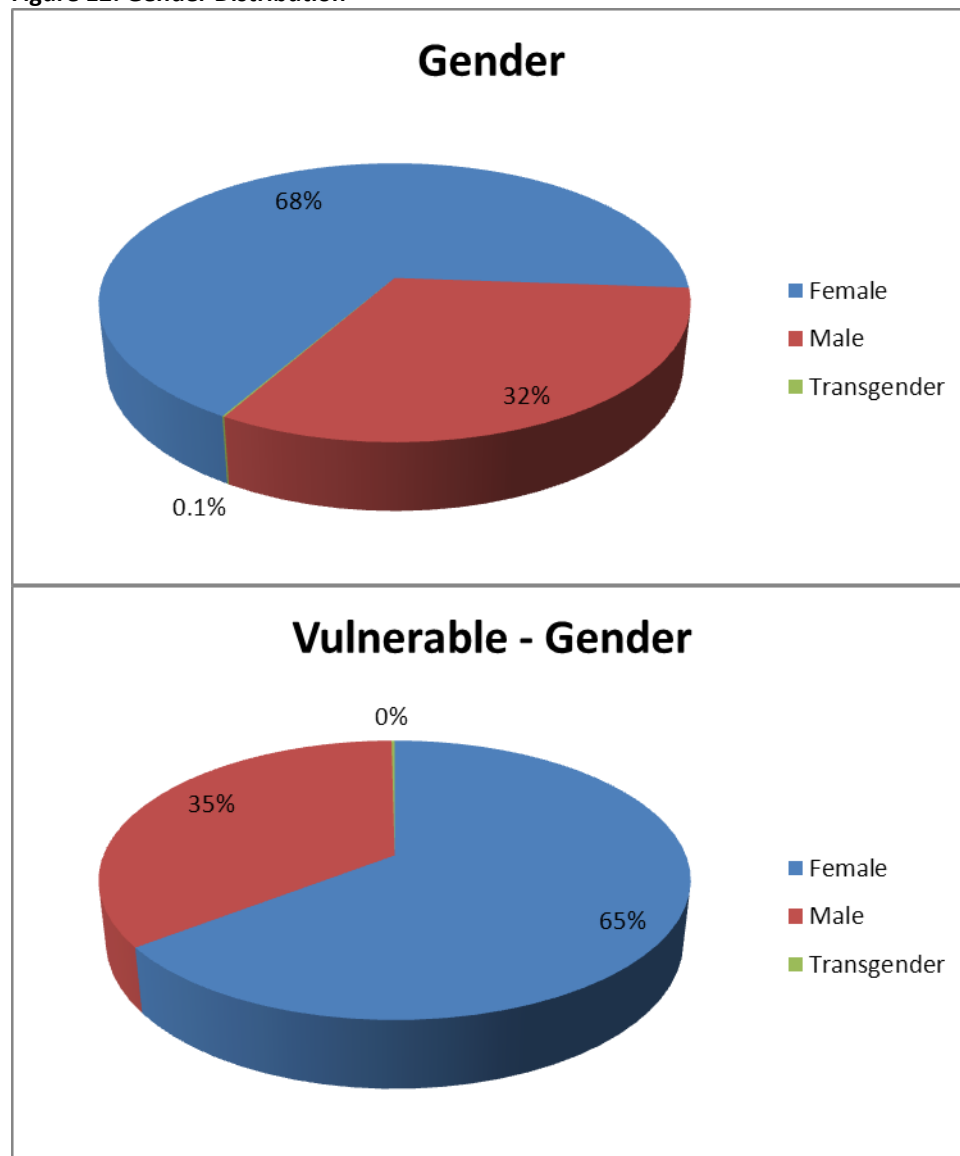
Long Beach has one of the largest gay, lesbian, bisexual and transgender populations in Los Angeles County. Over eighty percent of respondents identified as heterosexual (80.7%) followed by no comment (9.9%), gay (6.2%), lesbian (2.3%) and bisexual (.8%). This distribution is very similar to the gender orientation obtained in the 2009 Long Beach Community Health Needs Assessment. When the data sample was analyzed for only vulnerable zip codes, the distribution of gender orientation stayed the same except for the "no comment" proportion, which increased to 14.2%.

Figure 13: Gender Orientation of Survey Participants

Gender Orientation

81%

10%

6%

1%

2%

- Heterosexual
- Lesbian
- Gay
- Bisexual
- No Comment

Vulnerable - Gender Orientation

1%

8%

3%

14%

74%

- Heterosexual
- Lesbian
- Gay
- Bisexual
- No Comment
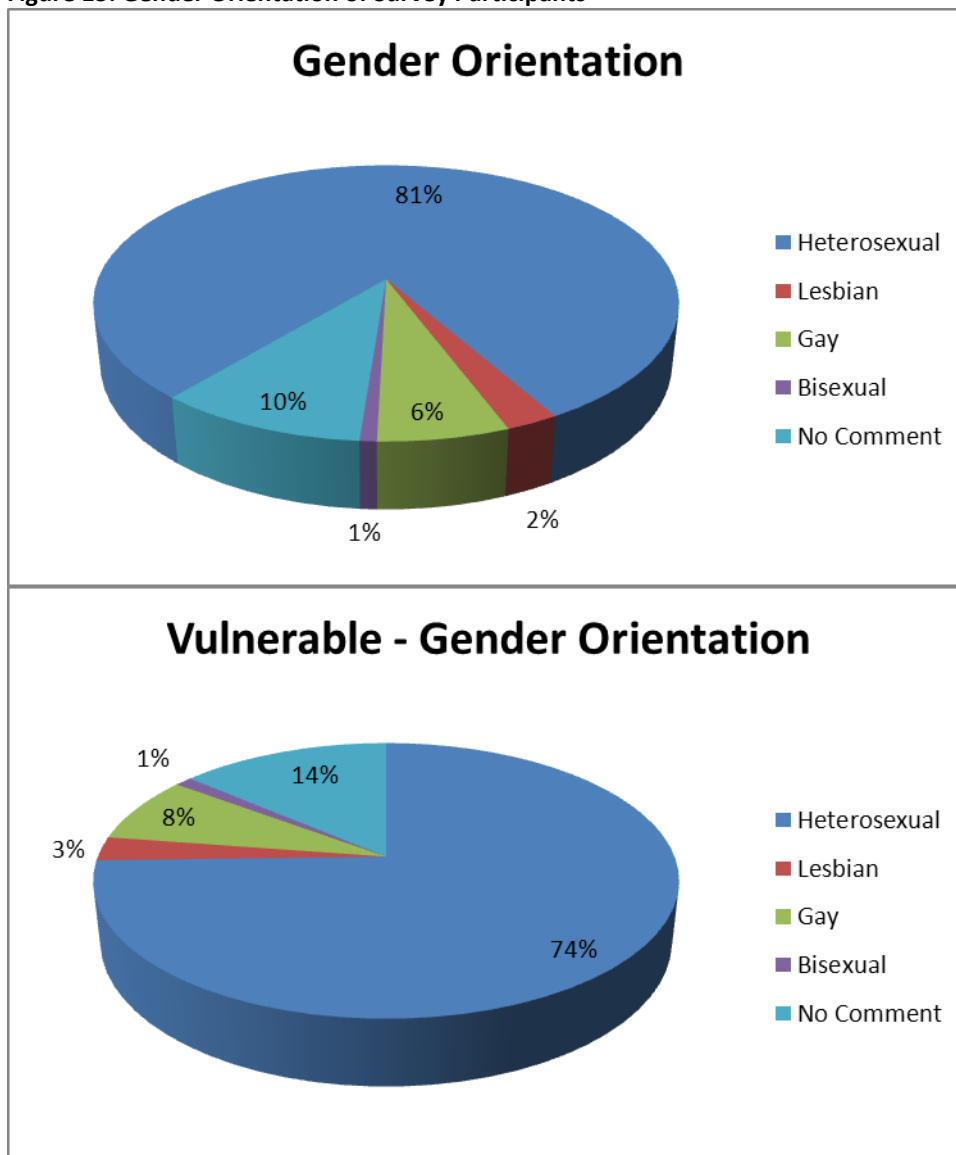
Marital Status

The breakdown of respondents based on marital status is identified in Figure 5. Almost equal numbers of respondents were married or single in the data, about 39.6% and 40.0%, respectively. According to the 2010 U. S. Census, 36.2% of residents of Long Beach were married and 46.1% have never been married. Our sample has slightly more married and more single individuals than the general population. This may be the result of overrepresentation of the older population in the study.

When the data sample was analyzed for only vulnerable zip codes, the proportion of married people in the sample decreased to 33.1% from 39.1%. In addition, the proportion of single individuals went up to 45.3% from 40.0%; about a 5 percent increase.

Figure 14: Respondents Marital Status
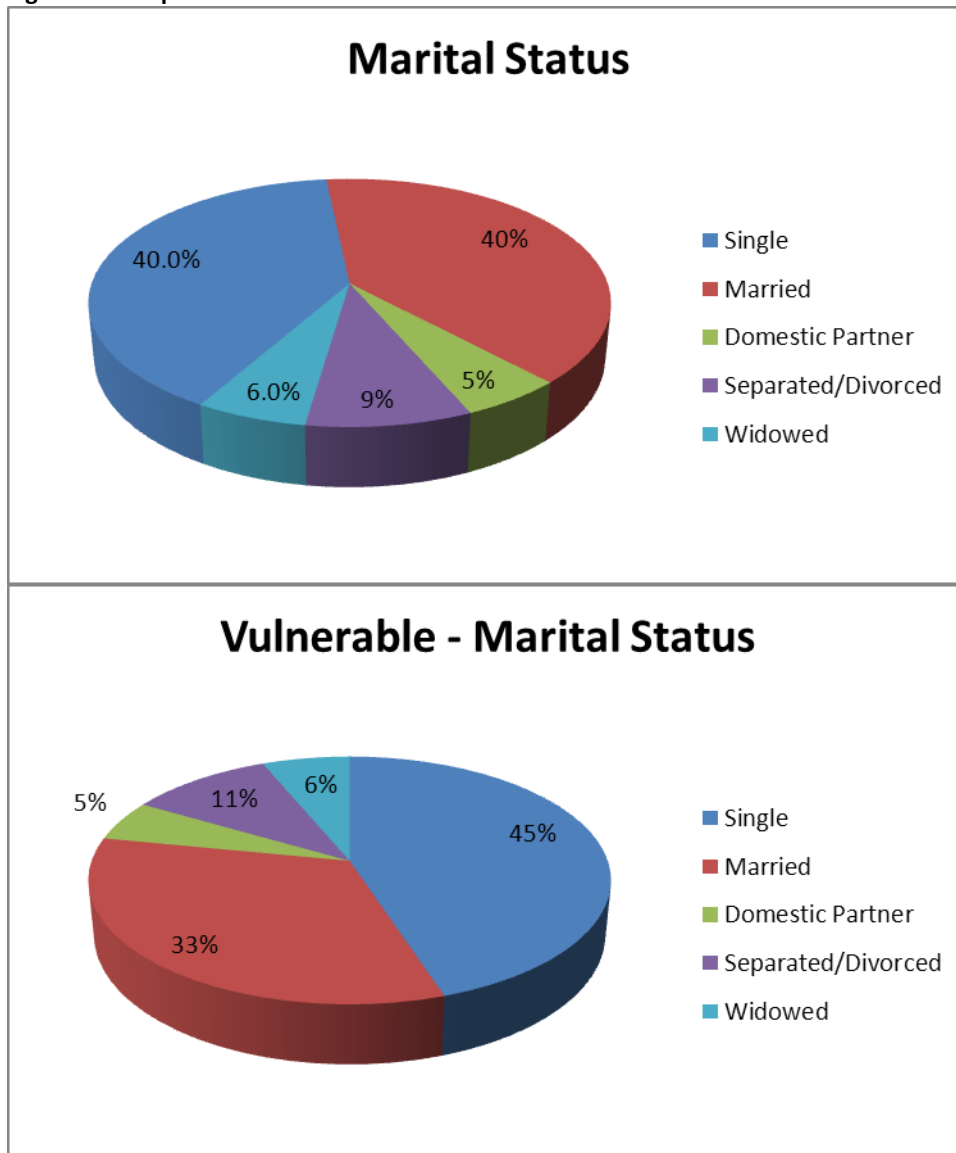
Educational Attainment

The majority of respondents have completed grade 12 or beyond, 93% overall when combining high school equivalency and college attendance categories. Only 7% of the respondents did not finish high school and .7% of the respondents never attended school. According to the 2010 American Community Survey, 83.2% of 18-24-year-olds living in Long Beach have a high school education and 78.5% of individuals over the age of 25 were high school graduates (see Figure 7). When the data was analyzed for only vulnerable zip codes, the proportion of the following categories, grades 1 through 5, 6 through 8, 9 through 12 (and GED) and some college, increased whereas the proportion of other categories representing more education attainment decreased.

Figure 15: Educational Attainment

Educational Attainment

- Never attended school
- Grades 1 through 5
- Grades 6 through 8
- Grades 9 through 12 including GED
- Some College
- Associate Degree
- Trade School

1% 1% 3% 3%
9%
21%
21%
5%
13%
20%
3%

Vulnerable - Educational Attainment

- Never attended school
- Grades 1 through 5
- Grades 6 through 8
- Grades 9 through 12 including GED
- Some College
- Associate Degree
- Trade School
- Bachelor's Degree
- Graduate Degree
- Post Graduate Degree
- Other

0% 1% 1%
7%
16%
6%
10%
22%
27%
5%
5%

Annual Income

The survey indicated that 23.0% of respondents had an income over $75,000, which increased 10% from the Long Beach Community Health Needs Survey conducted in 2009. The income category most frequently reported was over $75,000 (23.1%), followed by don't know/not sure (13.7%) and less than $10,000 (13.4%). According to the 2010 U. S. Census Bureau, the mean family income for residents of Long Beach was $51,173; however, 19.1% of families were living below the poverty line. When the data sample was analyzed for only vulnerable zip codes, as expected, the percentages of higher income categories decreased and those of lower income categories increased.

Figure 16: Income Distribution of Survey Respondents
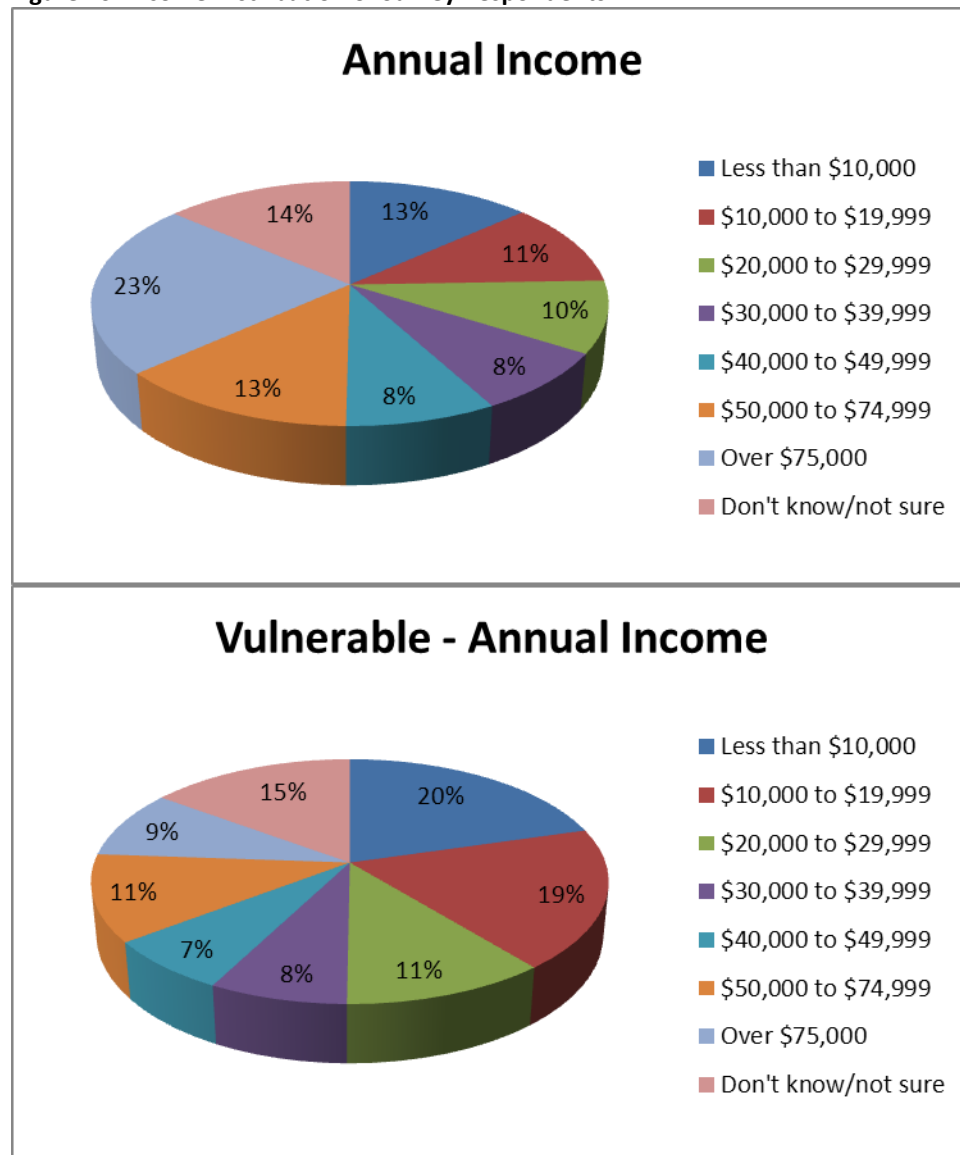
Average Household Size

The majority (80.3%) of respondents reported between 1 and 4 people living in the households and 20.0% living with 5 or more individuals. According to the 2010 U. S. Census   the average household size in Long Beach was 2.78 and the average family size was 3.52. Analyzing the data for vulnerable zip codes changed the distribution very minimally.

Figure 17: Distribution of Number of Residents in Household
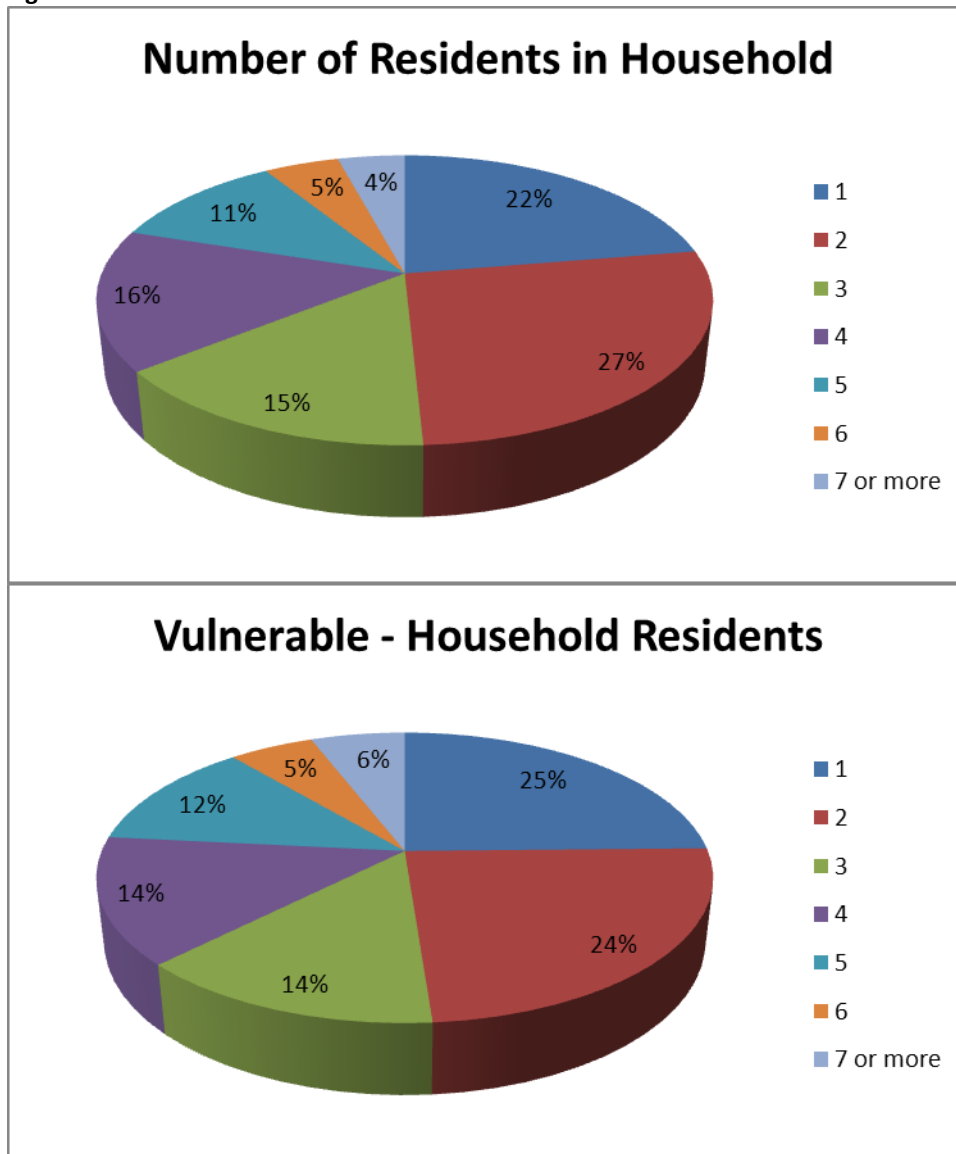
Caring for Family Member at Home

One of the important findings of the study is related to caregivers at home, which previous needs assessment reports did not address. Twenty-three percent of respondents were caring for a family member at home. Individuals who need care at home included elderly parent (8.0%), family member with special needs (3.4%), and grandchild/children (12.0%). When the data of vulnerable zip codes was isolated, these findings did not change significantly.

Figure 18: Households Caring for Family Member

Caring for Family Member at Home

- No one — 77%
- Elderly Parent — 8%
- Special needs family member — 3%
- Grandchild/children — 12%

Vulnerable - Caring for someone at home

- No one — 76%
- Elderly Parent — 7%
- Special needs family member — 5%
- Grandchild/children — 12%
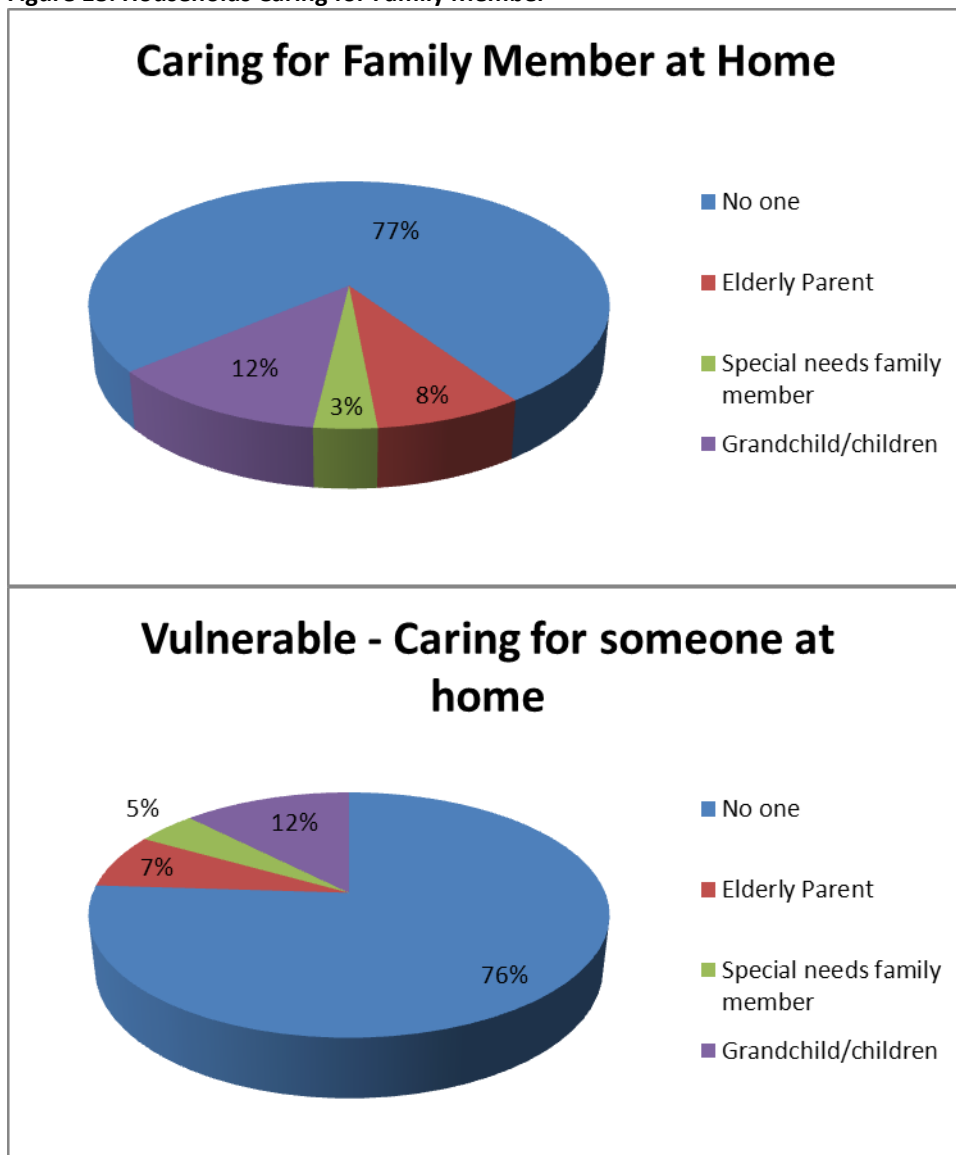
<u>Years Living in the United States</u>

The majority of participants were born in the United States (52.2%) and only 5.8% have lived here for less than five years. Further analysis showed that only 0.4% of the survey respondents lived in Long Beach less than one year. When the data sample was analyzed for vulnerable zip codes, results stayed about the same. The proportion of individuals who lived in the United States less than one year increased to 1%. Socioeconomic factors and acculturation are closely related to health outcomes. Sometimes acculturation improved health outcomes, but many times, it increased risks for diseases such as diabetes and obesity (Fitzgerald, 2010).

Figure 19: Distribution of Years Living in the United States
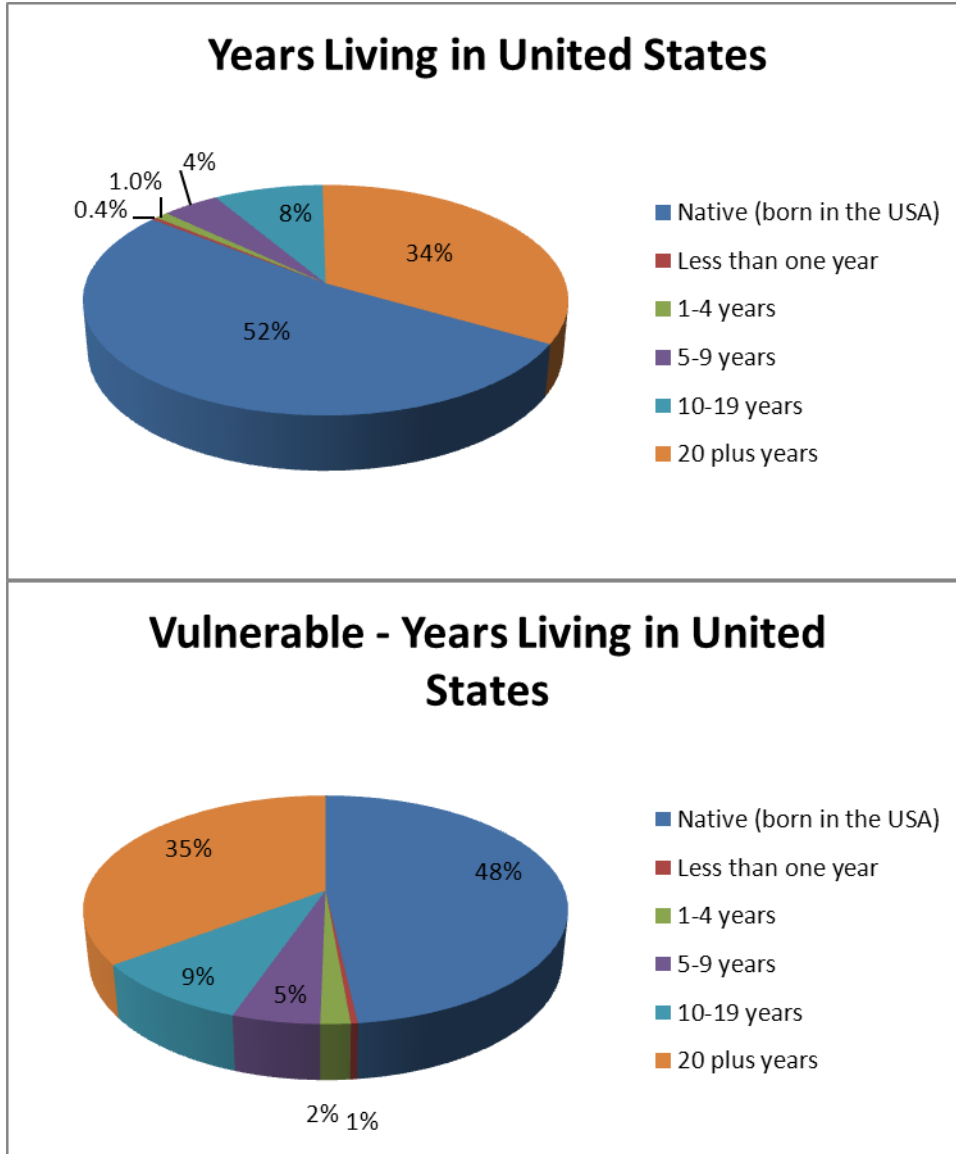
Health Status

Respondents to the Long Beach Community Health Needs Assessment Survey reported their health as excellent (18%), good (55%), fair (23%) and poor (4%). There were more people with excellent to good health status (74%) than there were with poor to fair health (36%). Sixty-seven percent of participants living in vulnerable zip codes viewed their overall health as excellent to good and 33% of participants viewed their health as fair to poor. According to the County Health Rankings 2012, those reporting poor to fair health in Los Angeles County was 22%, which was slightly lower than the survey respondents (University of Wisconsin, 2012). This may be attributed to the oversampling of older age groups in the data sample.

Figure 20: Distribution of Self-Reported Health Status
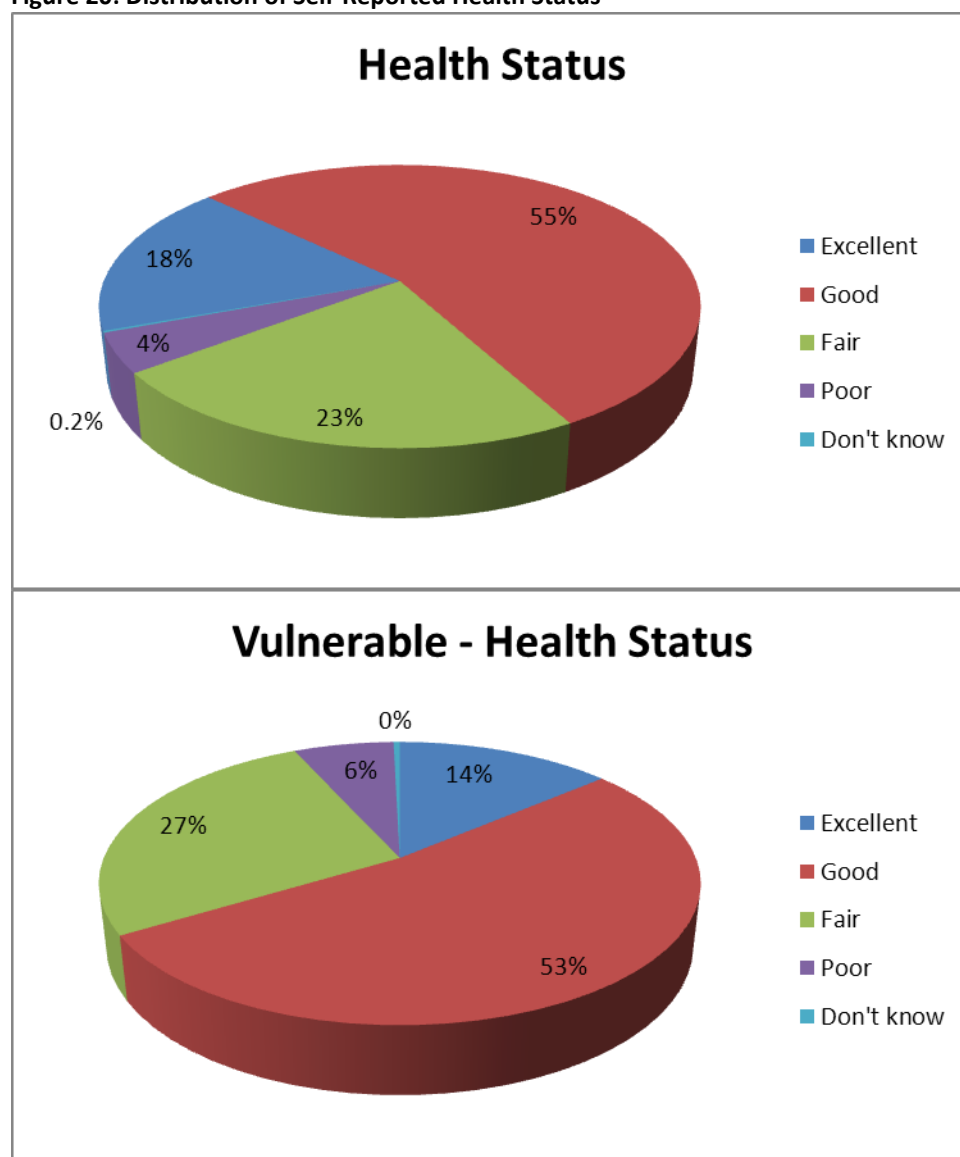
Health Insurance Status

Participants were asked about their health care coverage, as well as the coverage for their children. About thirty-eight percent of respondents reported that they have employer job-based insurance, followed by no insurance (17%), Medicare (16%), Private Pay (15%), Medicaid (12%), Healthy families (2%) and VA (1%). Of those individuals reporting some type of private health care insurance coverage, 39% were also covered by dental insurance and 35% were covered by vision insurance. Los Angeles County reported an uninsured rate of 28.9% (Lavarreda, & et al., 2010). When the data were analyzed for vulnerable zip codes, uninsured population and the Medicaid coverage in the data sample increased to 24% and 20%, respectively.

Figure 21: Types of Insurance Coverage for Adults
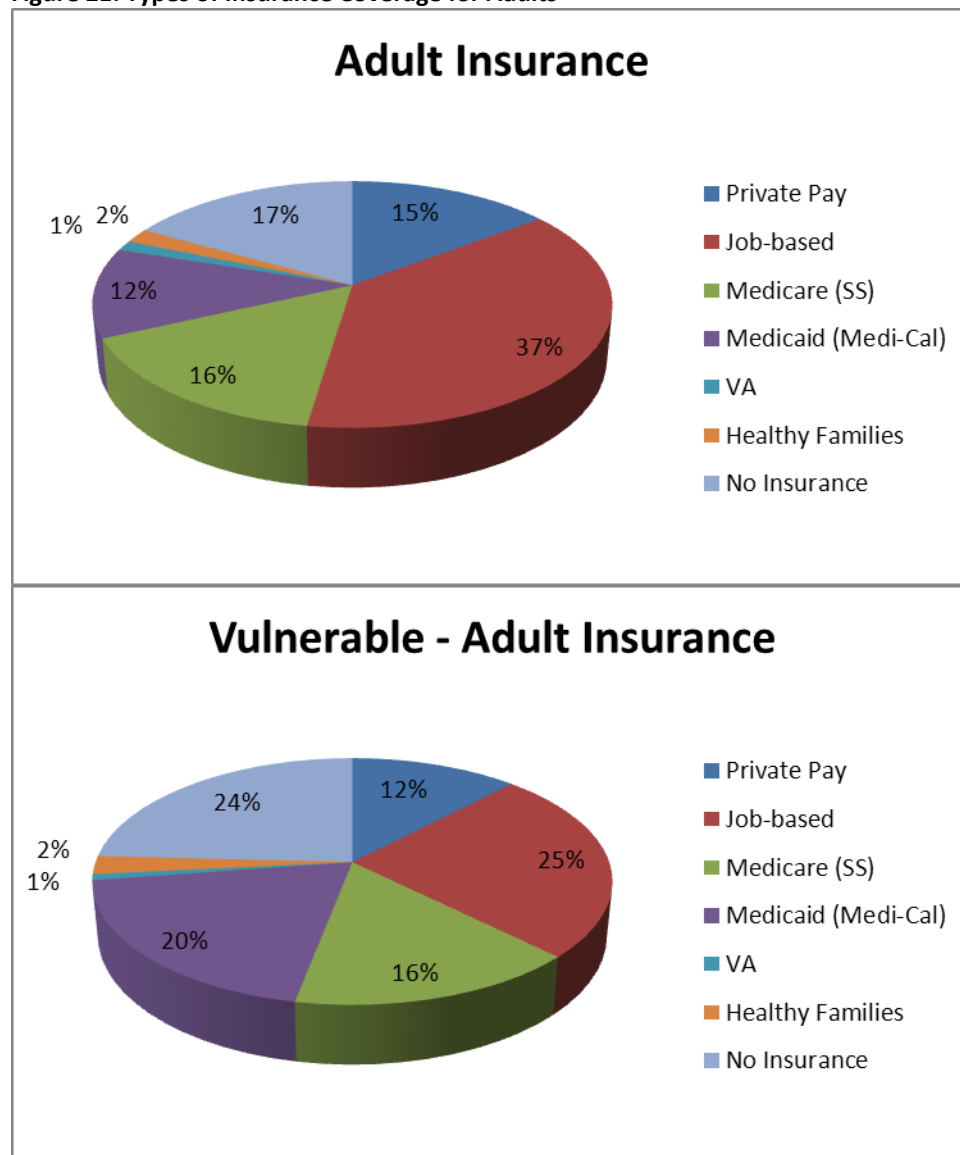
For the children's insurance coverage, employer job-based insurance was the highest category (50%), followed by Medicaid (20%), Private Pay (12%), No insurance (8%), Healthy Families (7%), Medicare (3%) and VA (1%). Children covered by private health care insurance were also covered by dental insurance (42%) and vision insurance (37%). When the data for children were analyzed for vulnerable zip codes, Medicaid coverage jumped to 34% along with that of Healthy Families (11%).

Figure 22: Types of Insurance Coverage for Children
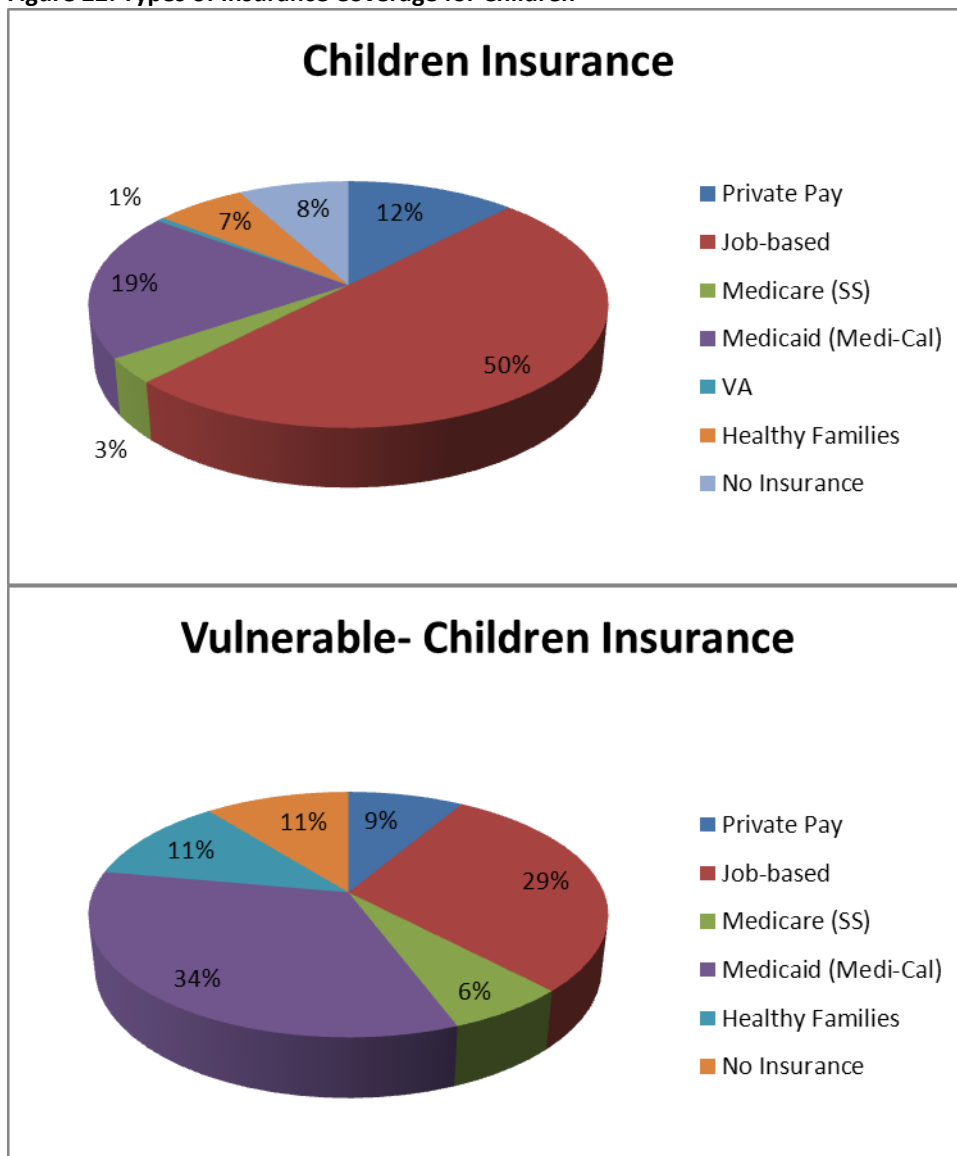
Top Child and Adolescent Health Problems in Long Beach

The top health issues and problems that currently affect the city of Long Beach residents are reported below for children, teenagers. The most important health problems for children were asthma, high blood pressure, dental disease/decay and obesity. Participants were allowed to check more than one single health problem so the total percentage of given answers exceeds 100%. Of the 129 individuals who responded to this question, 46% marked asthma as a major health issue for their children. At the aggregate level, this was about 6% of the sample population. The other health problems for children existed, but not as urgently as asthma. When the data sample was analyzed for only vulnerable zip codes, asthma's strong show holds and the other health problems identified earlier increased such as high blood pressure, dental disease and obesity.

Figure 23: Top Health Issues of Children
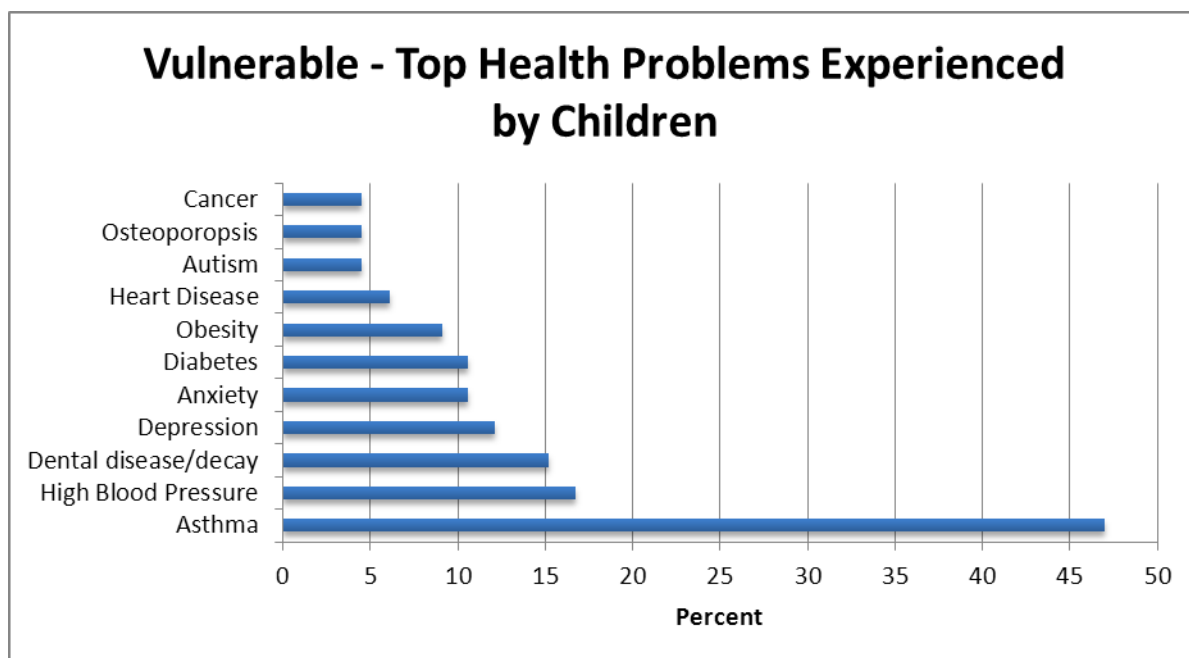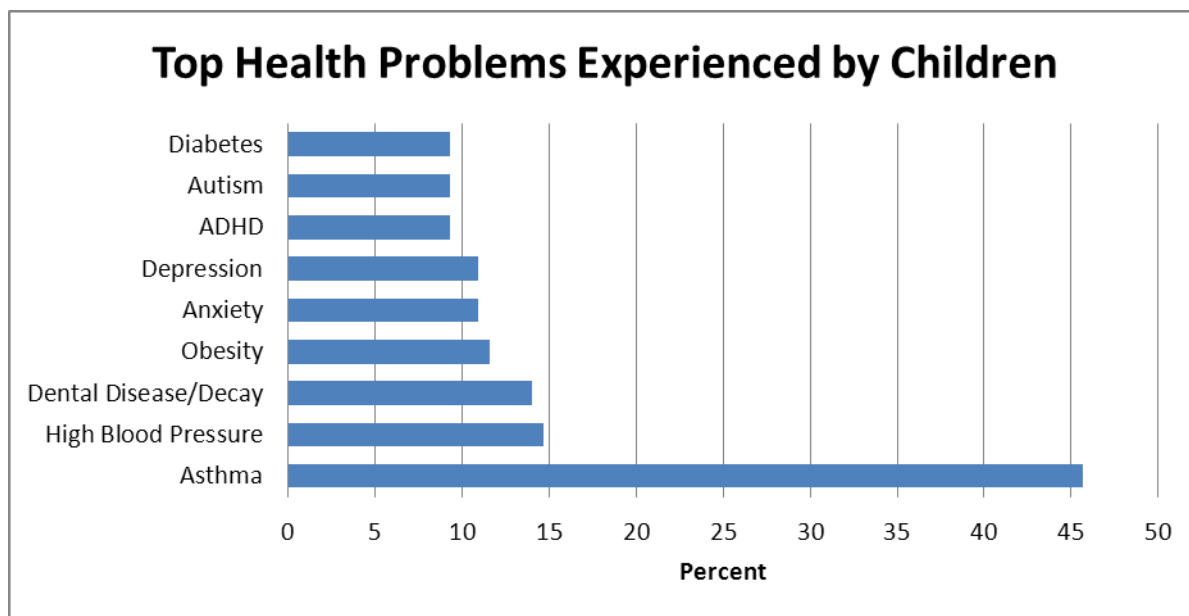
Teenagers reported being plagued with asthma, attention deficit hyperactivity disorder (ADHD), obesity, dental disease and depression. Asthma continued to be a major issue amongst teenagers in addition being to a major problem for children. Out of 68 individuals who responded to the question, about 44% identified asthma as a major issue. Once again, the strength of the health problems for teenagers increased when the data were analyzed for vulnerable neighborhoods.

Figure 24: Top Health Issues of Teenagers
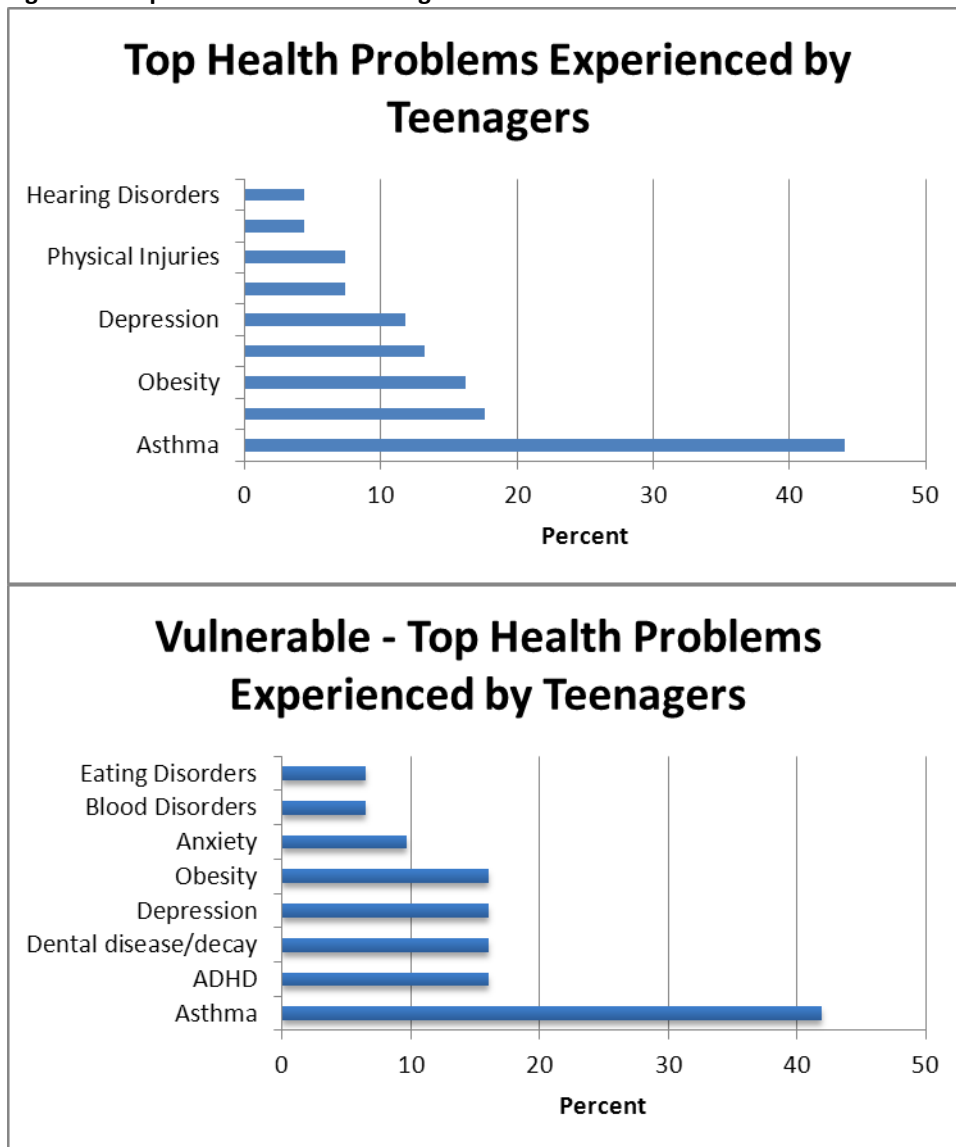
Barriers to Care, Lack of Health Services, Alternative Health Methods and Health Education Sources

In the 2012 Long Beach Community Health Needs Assessment, participants were asked if their family needed medical care but did not receive the care, only 14% of the respondents needed care but did not get care. This rate went up to 17% when only vulnerable zip codes were included in the analysis. Participants were also asked about barriers to receiving proper medical care over the previous 12 months as a follow-up question. The majority of participants (60%) reported that they did not receive the health care needed due to lack of insurance (60%) followed by co-payment being too high (23%). Two other reasons included, did not have time (11%) and took care of it at home (10%), respectively. All other reasons for not receiving proper medical care had single digit percentages, with the highest being-did not know where to get care (8%), providers did not take my insurance (8%) and lack of transportation (8%). When the data were analyzed for vulnerable zip codes, statistics remained almost unchanged.

Figure 25: Proportion of Barriers to Care
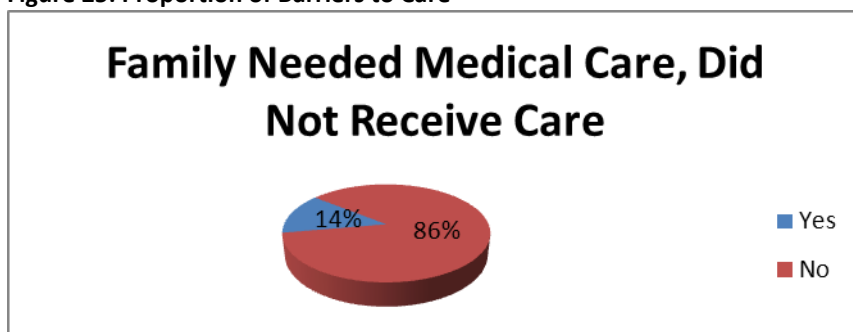
Figure 26: Type of Reasons for Barriers to Care
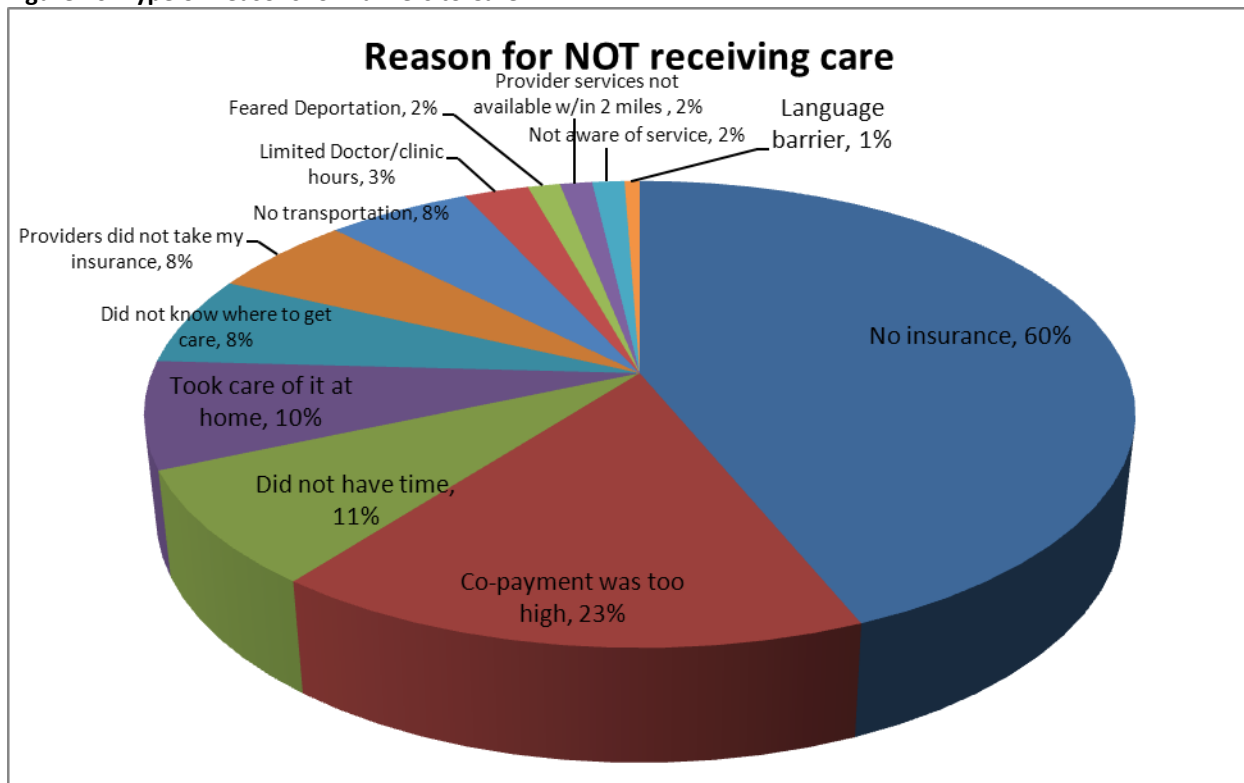
Participants were asked to identify the type of health care needed but did not receive for themselves, their teenagers and children. Ninety-two survey respondents answered this question; 37% needed hospital services, 24% needed specialists, 20% needed prescription drugs, and 16% needed access to a community clinic, but did not receive these services. Due to a very small number of responses for children and teenagers, those statistics were not reported. Only 13 participants marked responses for children and eight for teenagers. When the data sample was analyzed for only vulnerable zip codes, results stayed about the same.

The next area the survey explored was the top health-related services needed by participants but were not received. Fifty-nine individuals responded to this question. The most needed services were transportation (39%) and CalFresh (food stamps) program (37%), followed by counseling services (25%).

Figure 27: Lack of Health-Related Services
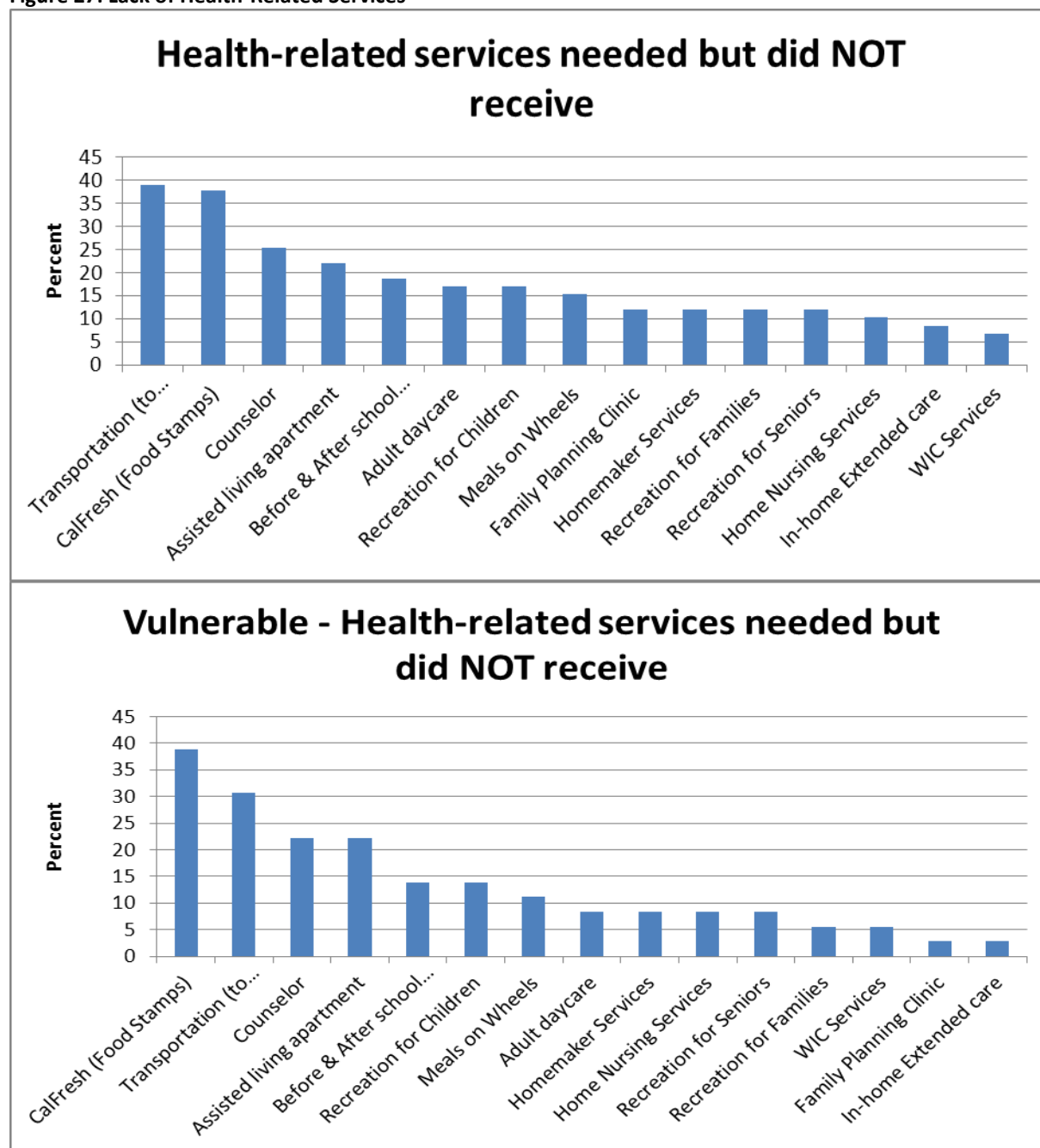
Respondents reported alternative health methods used in the last 12 months. Over 20% reported using prayer, down from 30% in the last survey. Over 18% utilized massage as a form of health care and about 12% used herbal medicines. These results are consistent with the results of previous surveys.

Figure 28: Alternative Health Methods in Long Beach
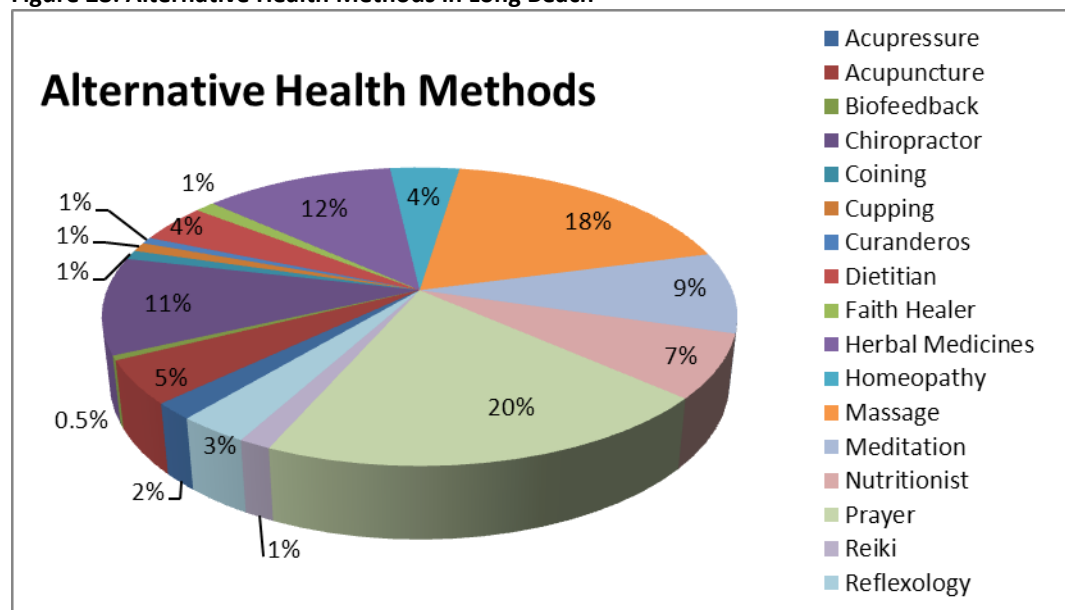
The Health Needs Assessment Survey included a specific question about where the residents of the city of Long Beach receive health education and health-related information. The majority of the respondents received this information from their health care providers (29%) and the Internet (19%). Word of mouth (9%), health fairs (9%), TV (9%) and newspaper (7%) are the other outlets for health information.

Figure 29: Sources of Health Education and Health-Related Information
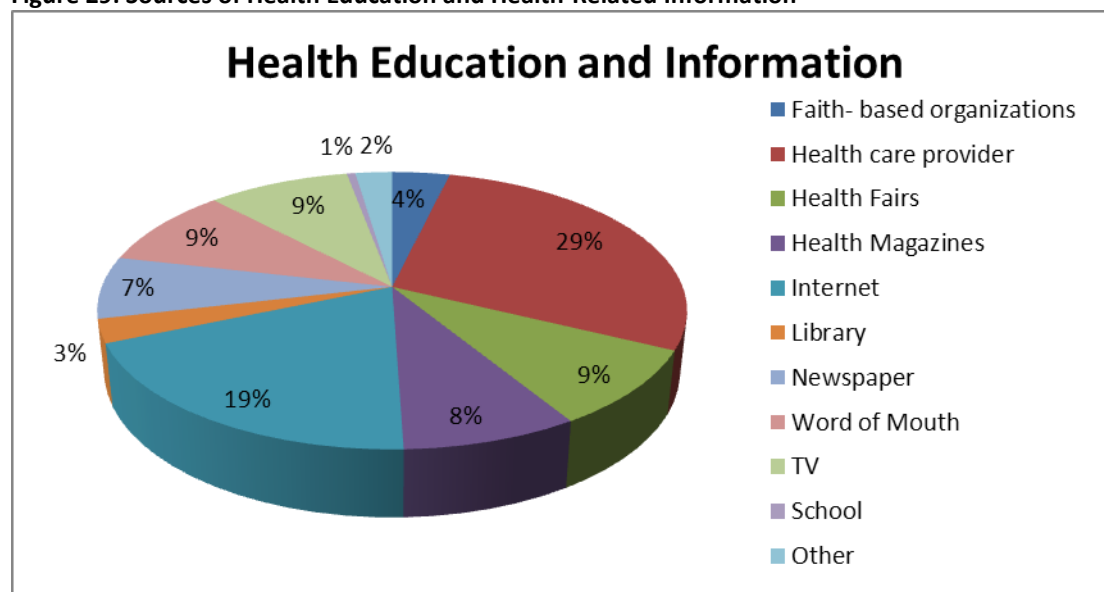
Social Issues Experienced by Children, Teenagers

The LBCHNA survey also examined the social issues of the city's residents and identified areas for careful consideration. For children, the main issues are: lack of exercise (32%), bullying (19%), poor nutrition (17%), accidents (17%), air pollution (17%), and lack of health insurance (16%). When the data were analyzed for vulnerable zip codes, results stayed about the same except homelessness, which was identified as one of the major issues in vulnerable zip code areas.

Figure 30: Top Social Issues for Children

Top Social Issues Experienced by Children

- Alcohol Abuse, 8%
- Homelessness, 8%
- Smoking, 9%
- Lack of affordable health care, 13%
- Air Pollution, 16%
- Lack of health insurance, 16%
- Lack of exercise, 32%
- Bullying, 18%
- Accidents, 17%
- Poor nutrition, 17%

Vulnerable -Top Social Issues Experienced by Children

- Homelessness, 17%
- Lack of Affordable Health Care, 17%
- Air Pollution, 14%
- Lack of Health Insurance, 17%
- Accidents, 19%
- Lack of exercise, 31%
- Bullying, 17%
- Poor nutrition, 17%

The top social issues experienced by teenagers included lack of exercise, poor nutrition, air pollution, and accidents. When this data were analyzed for vulnerable zip codes, similar social issues remained as areas of concern. Two other areas, a lack of health insurance and a lack of affordable health care, also emerged for vulnerable zip codes.

Figure 31: Top Social Issues for Teenagers

Top Social Issues Experienced by Teenagers

- Lack of exercise, 25%
- Poor nutrition, 20%
- Air Pollution, 20%
- Accidents, 13%
- Lack of health insurance, 12%
- Teenage pregnancy, 10%
- Lack of affordable health care, 10%
- Bullying, 8%
- Jobless/Change, 7%
- Gang Activities, 5%
- Unplanned Pregnancy, 5%

Vulnerable -Top Social Issues Experienced by Teenagers

- Lack of exercise, 30%
- Poor nutrition, 17%
- Air Pollution, 17%
- Lack of Health Insurance, 17%
- Lack of Affordable Health Care, 13%
- Bullying, 13%
- Teenage Pregnancy, 10%
- Jobless/Change, 10%

Diabetes, Exercise, and Fast Food Consumption

Diabetes

Diabetes continues to be a problem in Long Beach as well as the United States. According Babey, Wolstein, Diamant, Bloom and Goldstein (2012), the obesity rate in Long Beach is 40.7%. Overweight and obesity are associated with increased risk for diabetes, cardiovascular disease, hypertension, stoke, certain types of cancer, and musculoskeletal conditions. Obesity is the second leading preventable cause of disease and death in the United States. According to the CDC (2012b), 1 in 5 youth between the ages of 6 and 19 is obese. Although only 18% of respondents reported that they were recently diagnosed with diabetes, diabetes was a common problem in all age categories surveyed. The majority of participants taking medication for diabetes received their medicine from a pharmacy (76%).

Figure 32: Family Member with Diabetes
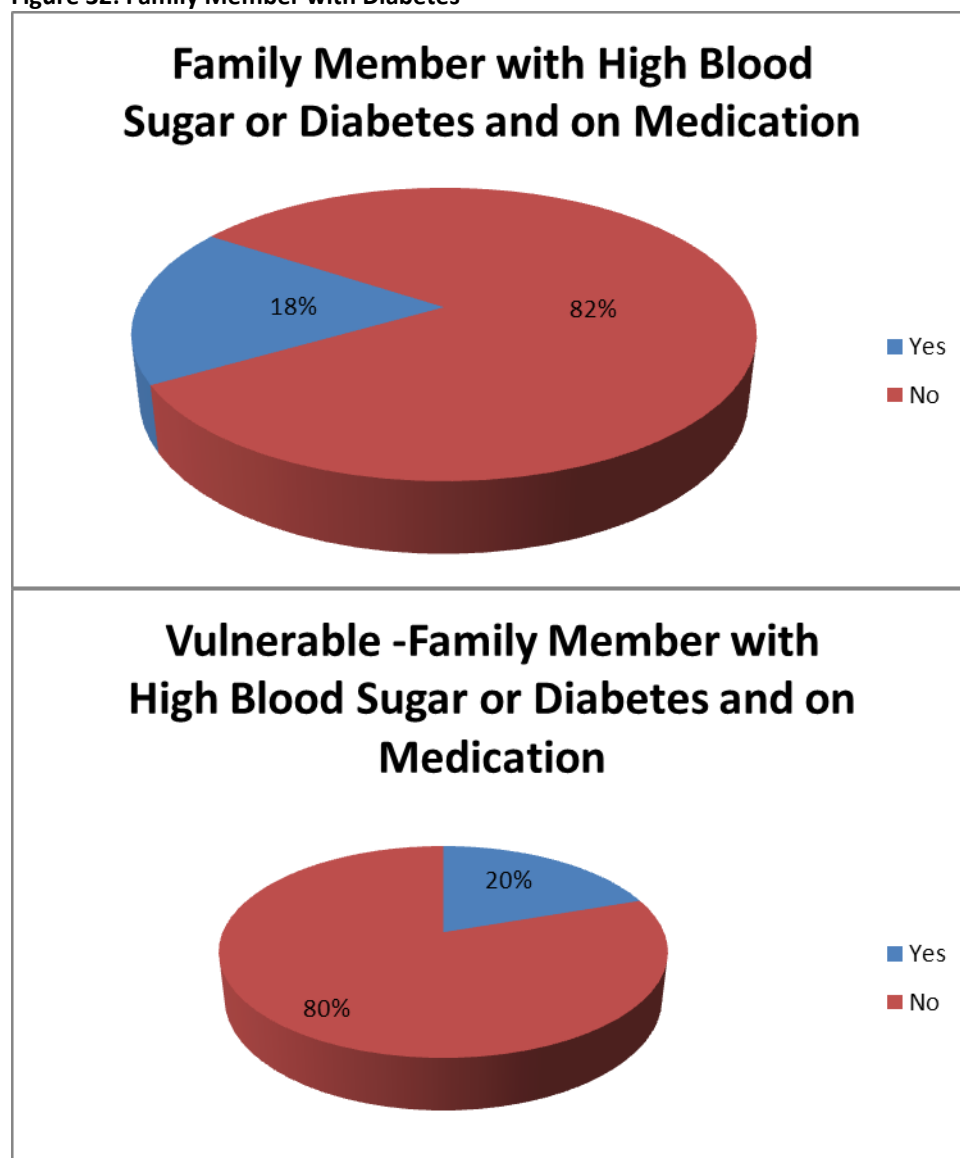
Figure 33: Where Participants Receive Diabetes Medication

Location to Receive High Blood Sugar/Diabetes Medication

- Community Clinic, 7%
- Doctor's office, 20%
- Family or Friends, 2%
- Health Center, 3%
- Pharmacy (Costco, Walmart, etc), 76%
- Hospital, 13%
- Online, 3%

Vulnerable - Location to Receive High Blood Sugar/Diabetes Medication

- Community Clinic, 11%
- Doctor's office, 20%
- Family or Friends, 3%
- Health Center, 5%
- Pharmacy (Costco, Walmart, etc), 73%
- Hospital, 12%
- Online, 1%

<u>Exercise</u>

Regular physical activity can improve health, improve cardiorespiratory and muscular fitness, decrease body fat composition, reduce symptoms of depression, and reduce risk a certain types of cancer. The Community Health Needs Assessment survey included a specific question about exercising 30 minutes a day for children, teenagers, and adults. The proportion of children and teenagers who exercised in the last 12 months for at least 30 minutes a day was 93% (97% for vulnerable children).

Figure 34: Exercise Habits of Children and Teenagers

Exercise 30 Minutes per Day - Child

93%   7%

■ Yes
■ No

Exercise 30 Minutes per Day - Teenager

100%

■ Yes
■ No
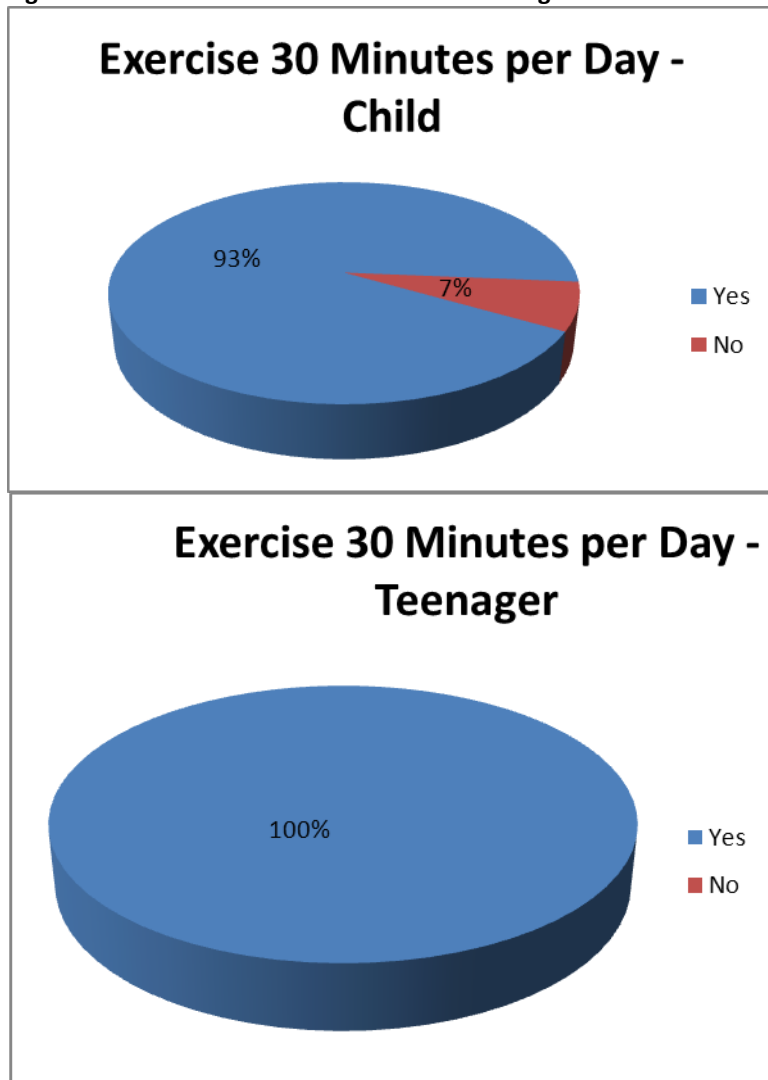
Fast Food

Americans are not consuming adequate amounts of fruits and vegetables per day, less than 22% of high school students and 24% of adults reported eating 5 or more servings of fruits and vegetables per day (CDC, 2012b). A healthy diet can reduce the risks for many health conditions including: diabetes, heart disease, high blood pressure, obesity, and certain types of cancers (USDHHS, 2012d).

Approximately sixty-percent of adults who responded to the survey acknowledged that they ate fast food once a week. Twenty-nine percent of the adult respondents consumed fast food 2-3 times a week. Eleven percent of adults consumed fast food 4 or more times per week. For vulnerable zip codes these statistics were slightly higher (62% and 26%), respectively. Children, on the other hand, ate fast food once a week at a rate of 62%, followed by 2-3 times a week at a rate of 32%. For vulnerable neighborhoods, results were about the same.

Figure 35: Fast Food Consumption by Children
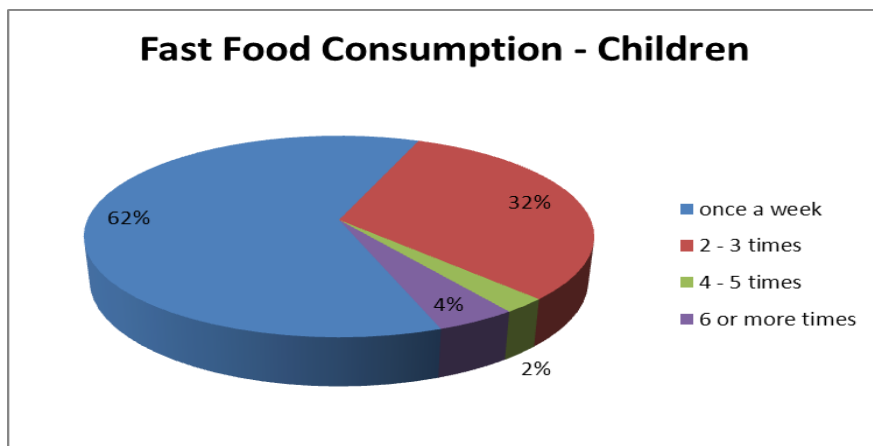
Parents of teenagers reported that teenagers ate fast food once a week (45%); 2-3 times a week (43%) and 4 or more times (12%). This trend was clearly a major concern for teenagers because they consumed more fast food than children and adults per week. When the teenager data were analyzed for vulnerable zip codes, there is little change in the results.

Figure 36: Fast Food Consumption by Teenager
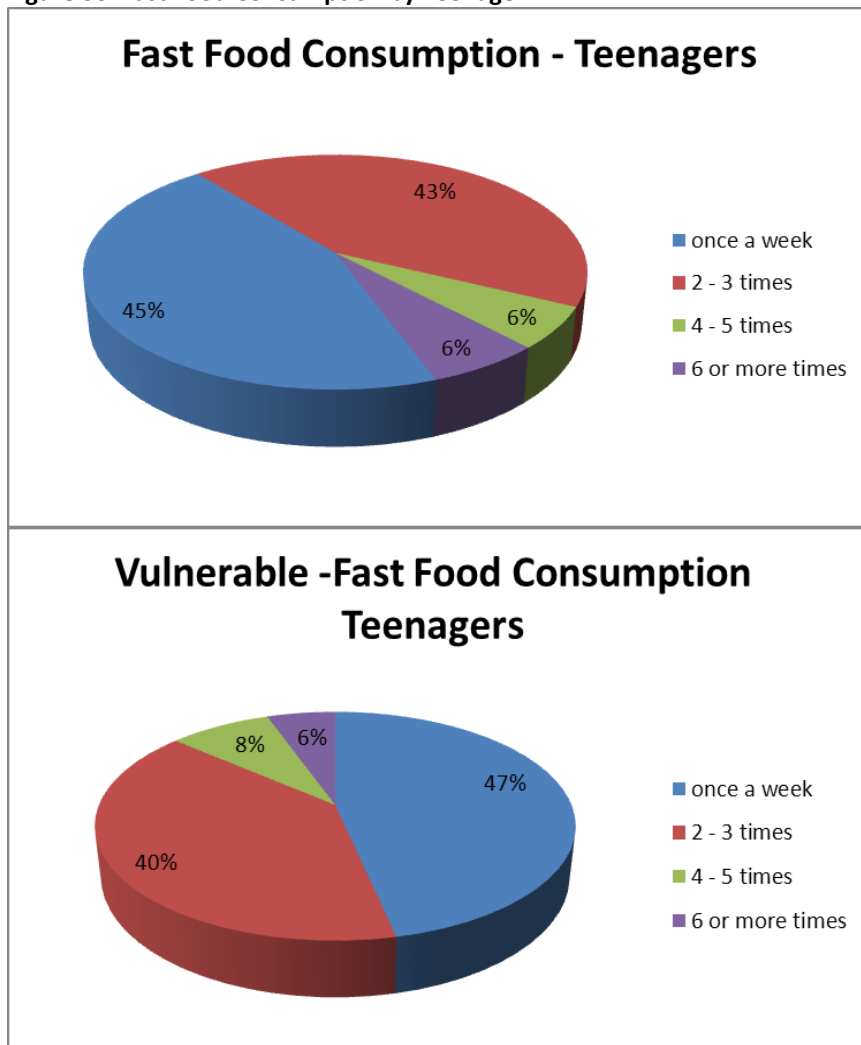
RESULTS OF THE KEY INFORMANT SURVEY

The 2012 Key Informant survey was conducted to understand the health needs of Long Beach residents and surrounding communities, as well as the barriers faced by patients accessing health services. A total of 122 of the 433 invited individuals completed the survey, for a response rate of 25%. The zip codes with the most key informant surveys included 90813 (32), 90815 (17), 90802 (9), 90803 (3), 90804 (2), 90805 (4), 90806 (9), 90807 (6), 90808 (5), and 90810 (3). Adult specific data are discussed in the Long Beach Memorial LBCHNA report.

The majority of the key informants represented four groups: non-profit service organizations (24%), educational institutions (19%), hospital providers (17%), and public health employee (15%). The rest of the participating key informants and their role are in Figure 36. Key informants also reported about special target populations they represented as follows: general community (42%), the Hispanic or Latino community (15%), the Asian/Pacific Islander community (10%), the non-Hispanic/White community (5%), and Black/African American/African and LGBT communities (4% each).

Figure 37: Role in Health Care System
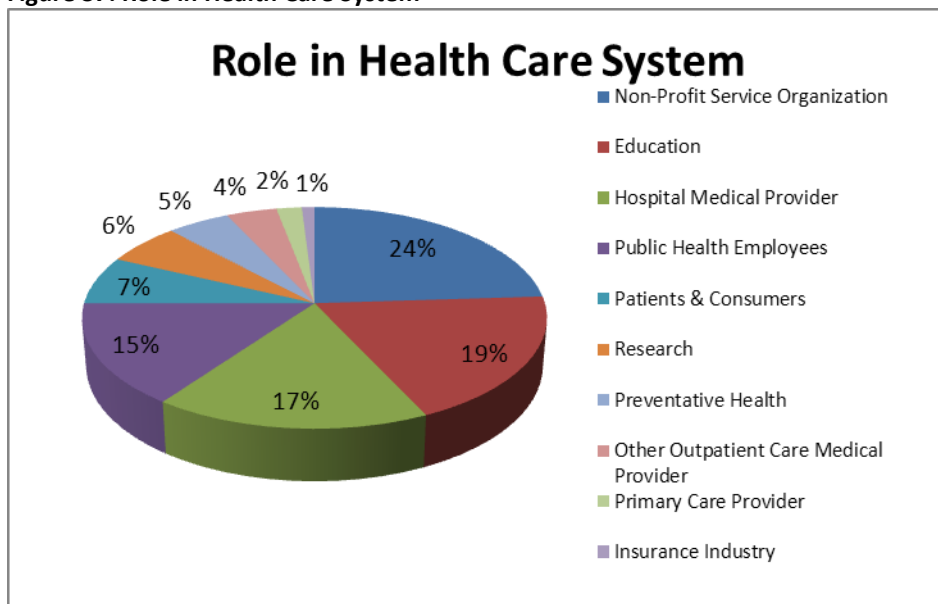
Figure 38: Target Population of Key Informants
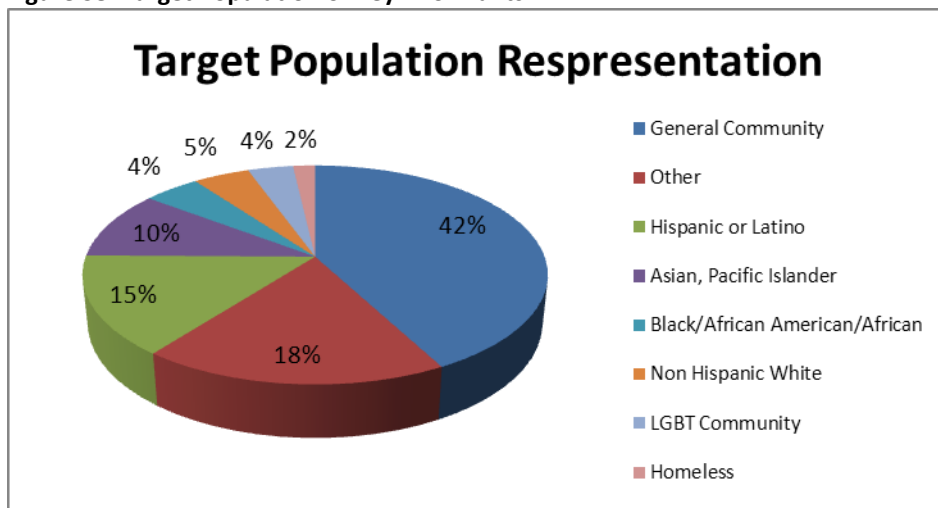
Key informants were asked five major questions to provide their opinion for children, teenagers, young adults, adults and elderly. These five areas are: (1) health problems, (2) reasons for individuals not to receive needed care, (3) lack of health care providers in their service area, (4) lack of health related services (such as enabling services), and (5) social issues experienced by all groups. The main purpose of this part of the study is to identify the problem areas highlighted above and hopefully to support the findings of the Long Beach Community Health Needs Assessment.

Top Child and Adolescent Health Problems in Long Beach

The top five health issues for children in order of frequency were identified as asthma, obesity, ADHD, dental disease/decay and autism. The top five health issues for teenagers were asthma, obesity, mental health, depression and diabetes.

Figure 39: Health Problems for Children & Teens
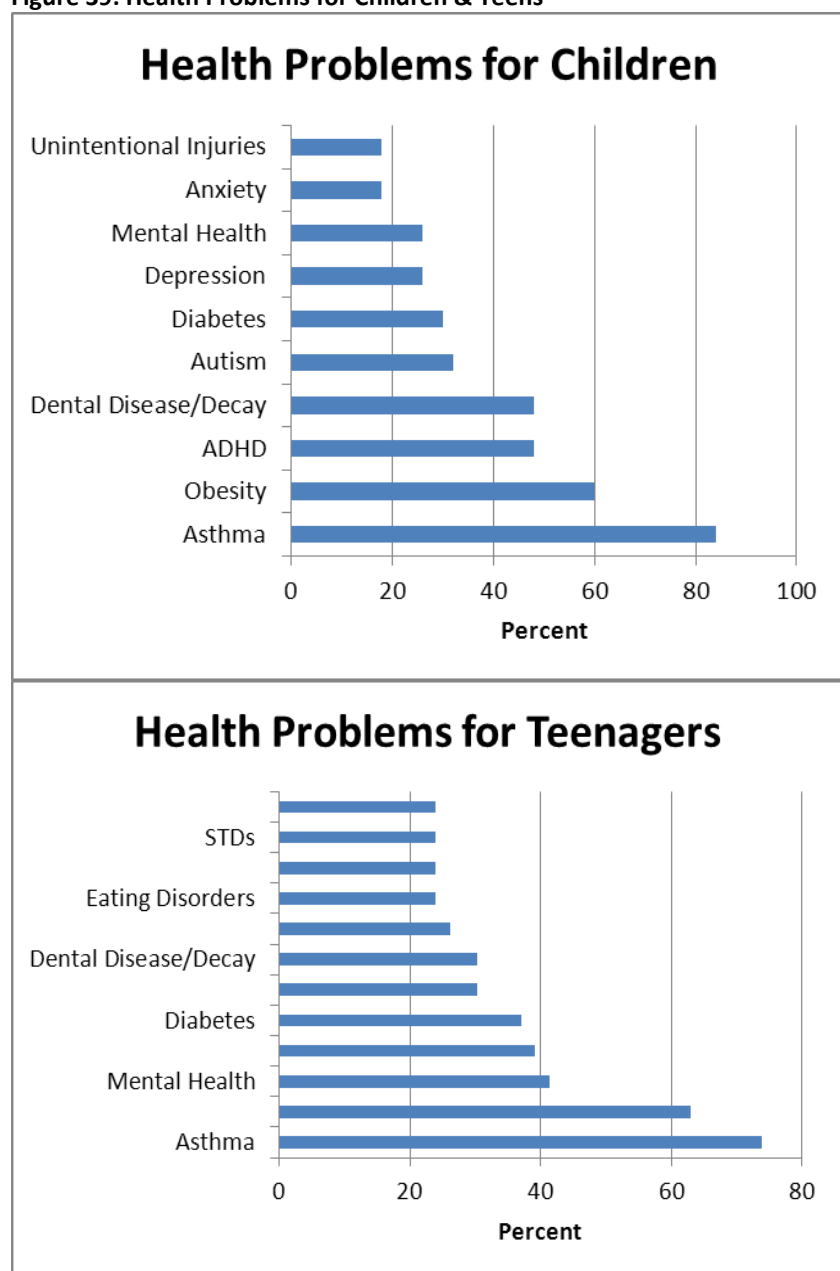
Top Reasons for Not Receiving Medical Care

In the next question, key informants reported top reasons why individuals in their community were not receiving needed medical care for each of the age categories (Children, Teens, Young Adult, Adult and Elderly). The most frequently selected reasons for children and teens for not receiving care were no health insurance coverage and no dental insurance coverage.

Figure 40: Top Reasons for Not Receiving Medical Care
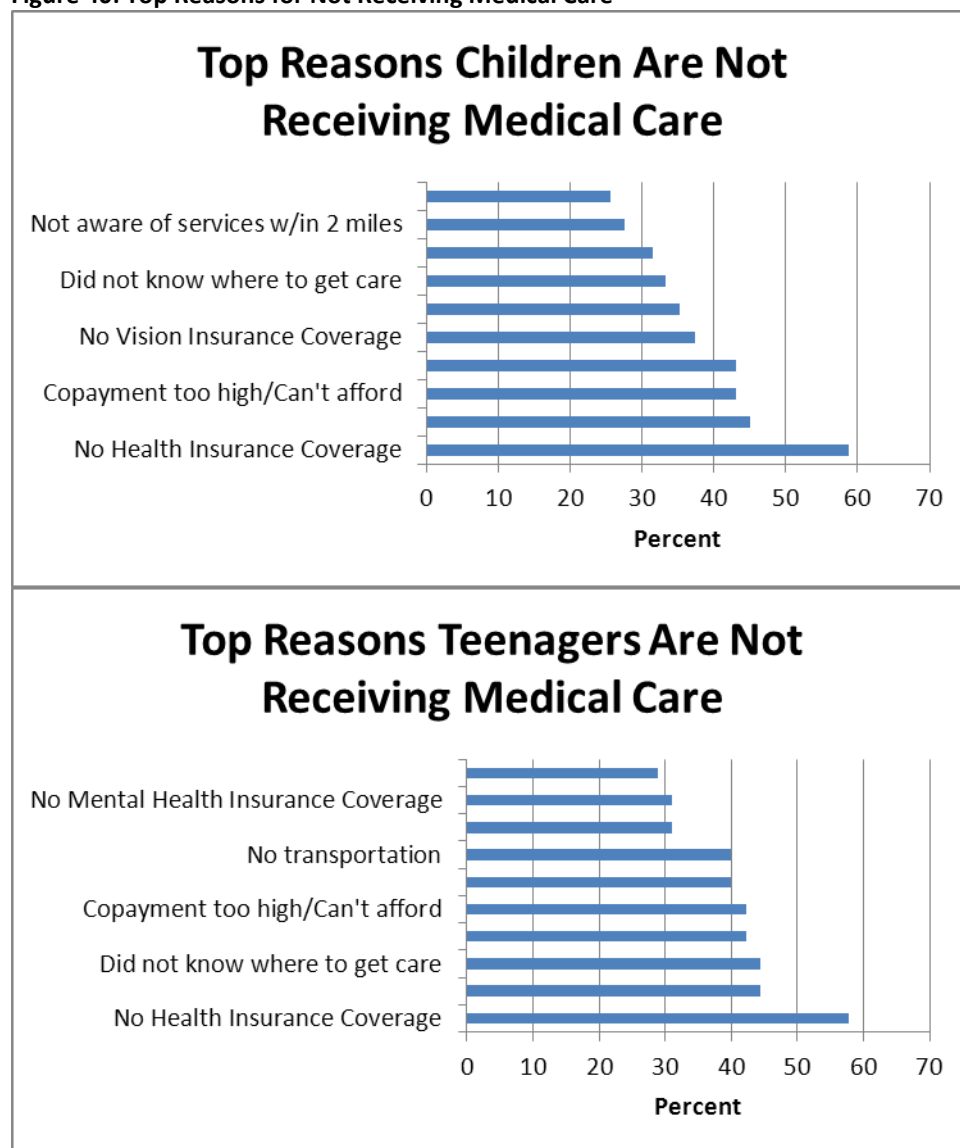
Lack of Health-Related Services

Key informants were also asked to identify the major problems in health-related services in their community for each age category. The top services lacking for children included recreation, before and after school programs and transportation services. The top services lacking for teenagers included before and after school programs, health education and recreation.

Figure 41: Lack of Health Related Services for Children and Teens
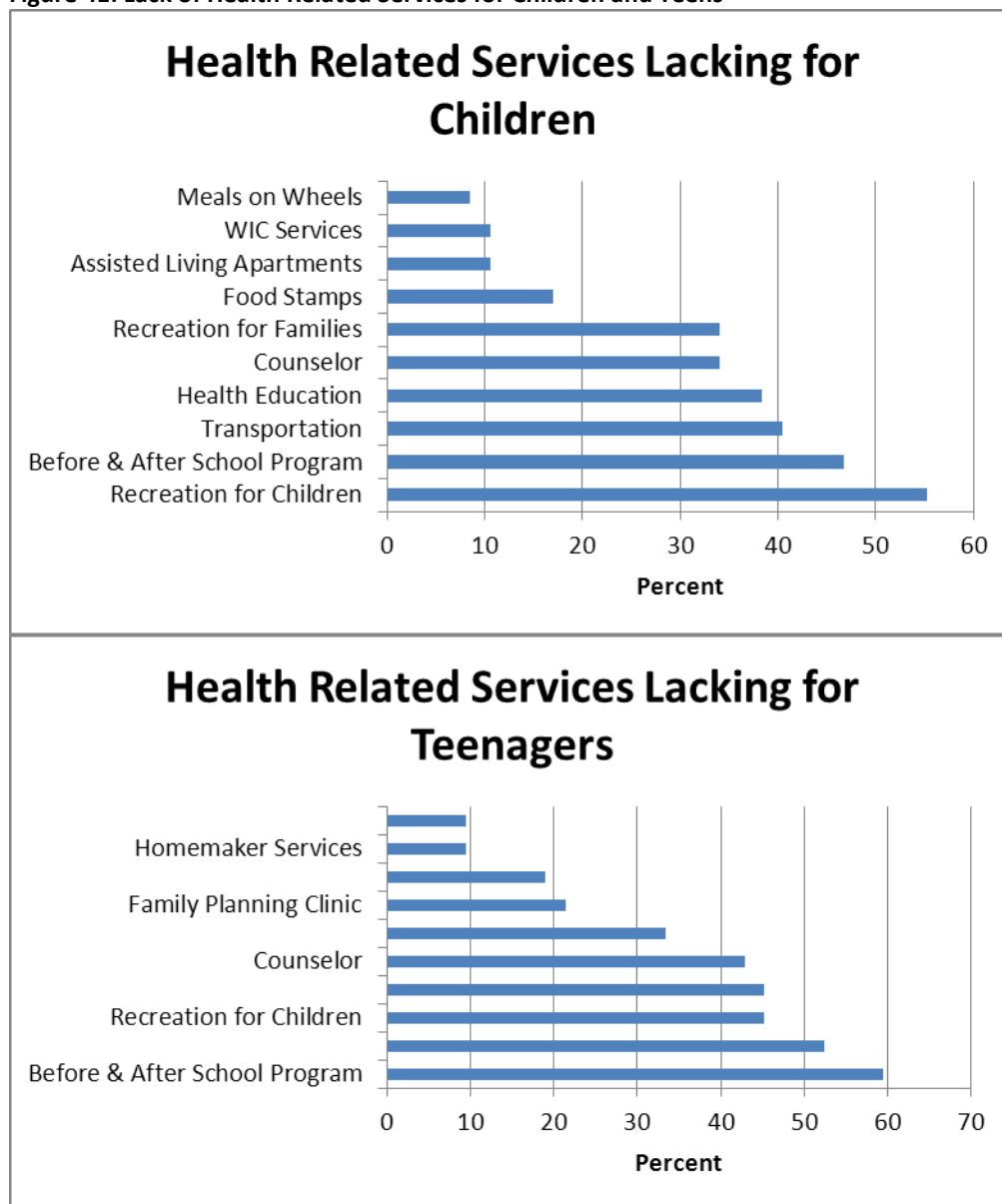
Social Issues in the City of Long Beach

In addition, the top social issues by age group in the greater Long Beach area were identified by the key informants. In children, the top five social issues identified were poor nutrition, air pollution, child abuse, lack of exercise and bullying. The top five social issues in teenagers were gang activities, poor nutrition, air pollution, lack of exercise and teenage pregnancy.

Figure 42: Social Issues for Children and Teens

Social Issues - Children

Social Issues - Teenagers
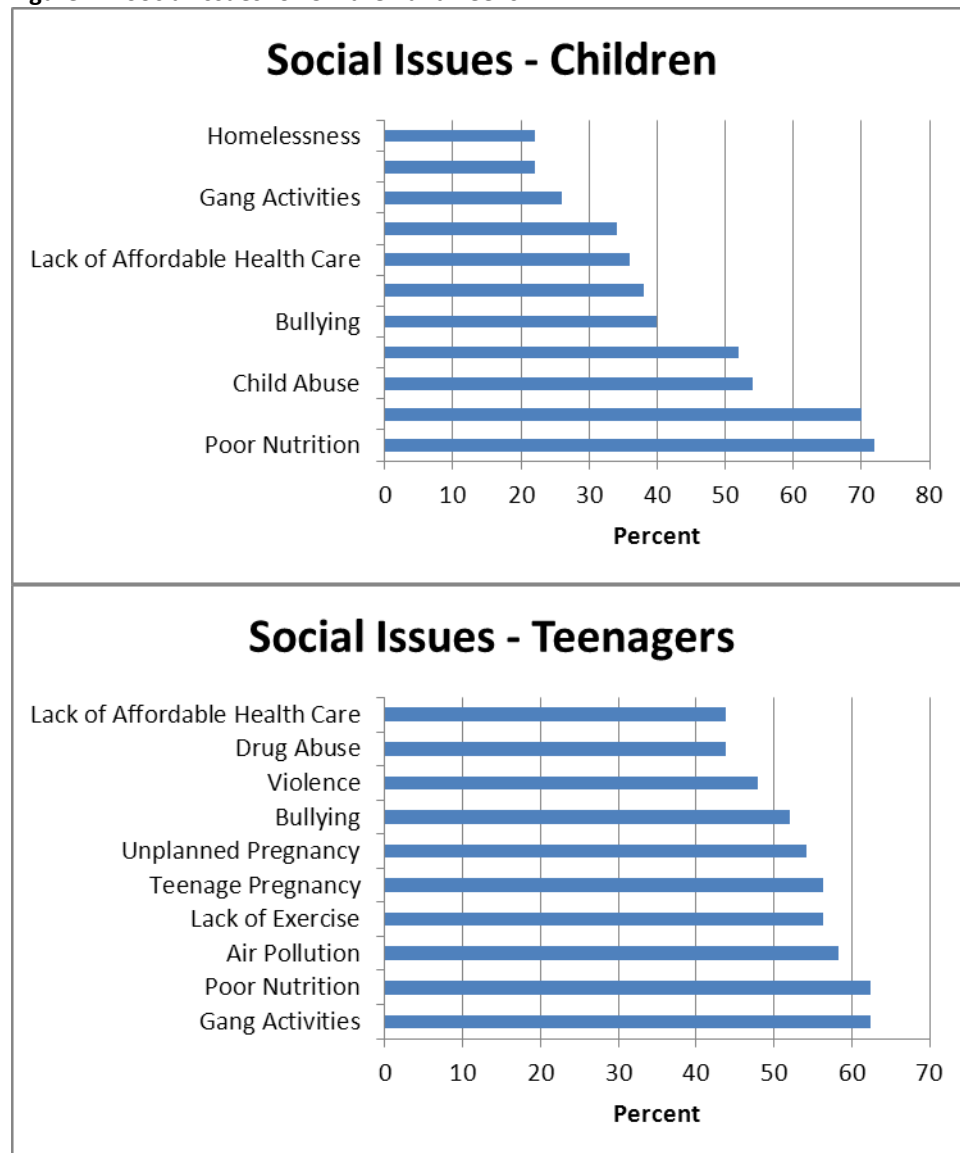
Lack of Health Care Providers in the City of Long Beach

The top three providers that children were lacking included specialty doctor, family doctor/primary care doctor and eye doctor. The top health care provider lacking for teenagers was a behavioral/mental health provider (about 80%).

Figure 43: Lack of Health Care Providers for Children and Teens

Lack of Health Care Providers for Children

Lack of Health Care Providers for Teenagers
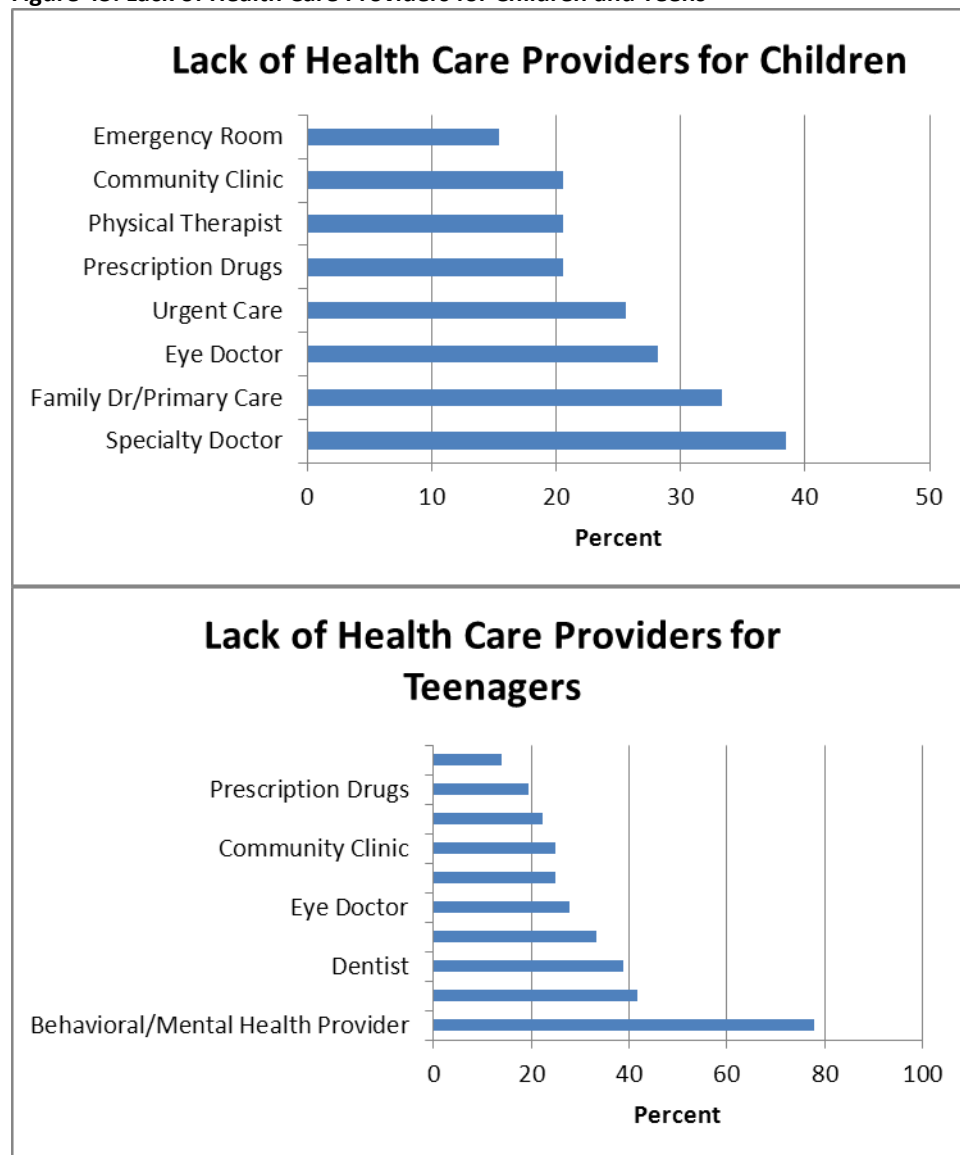
Places to Receive Prescription Drugs, Health Education and Alternative Health Methods

Key informants were asked to report where the community members fill their prescription drugs and receive medicine; where they received health education and health information, and what type of alternative health care the community may be using. The majority of the individuals received their medicine at a pharmacy (32%) and community clinics (24), followed by hospitals (12%) and health centers (10%). According to key informants, the community members received health education and health information mostly from health fairs (19%), health care provider (18%), word of mouth (18%) and faith based organizations (13%). Finally, the community's top three choices for alternative medicine were herbal medicine (16%), prayer (10%) and massages (8%). These results are consistent with those received from the Long Beach Community Health Needs Assessment Survey.

Figure 44: Where the Community Members Receive Medicine

Target Population Receive Medicine

- Pharmacy — 32%
- Community Clinic — 24%
- Hospital — 12%
- Health Center — 10%
- Doctor's Office — 10%
- Family or Friends — 7%
- Other — 3%
- Online — 2%
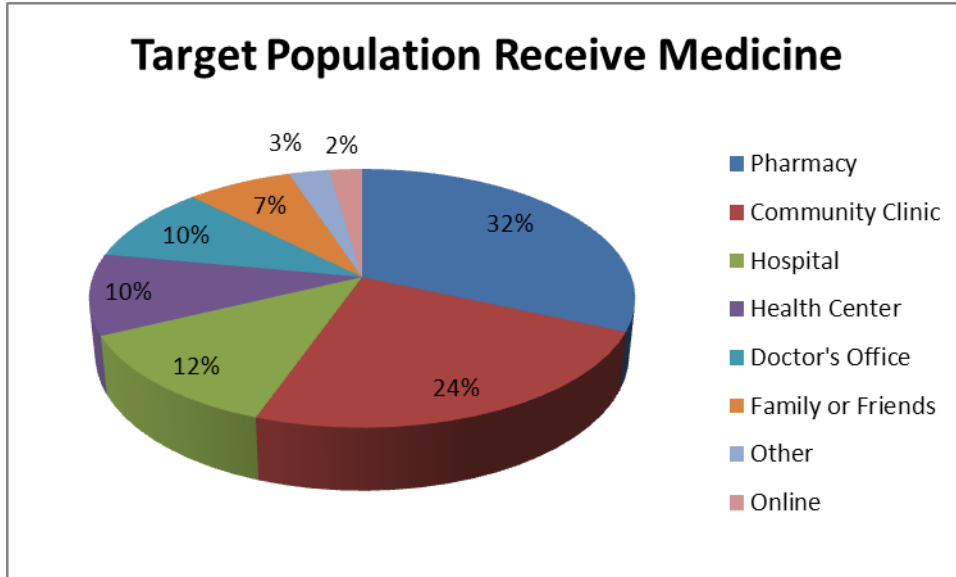
Figure 45: Health Education Information

Health Education or Health Related Information

- Health Fairs — 19%
- Health Care Provider — 18%
- Word of Mouth — 18%
- Faith-based Organizations — 13%
- TV — 12%
- Internet — 9%
- Newspaper — 4%
- Library — 3%
- (additional) — 3%
- (additional) — 3%
- (additional) — 2%
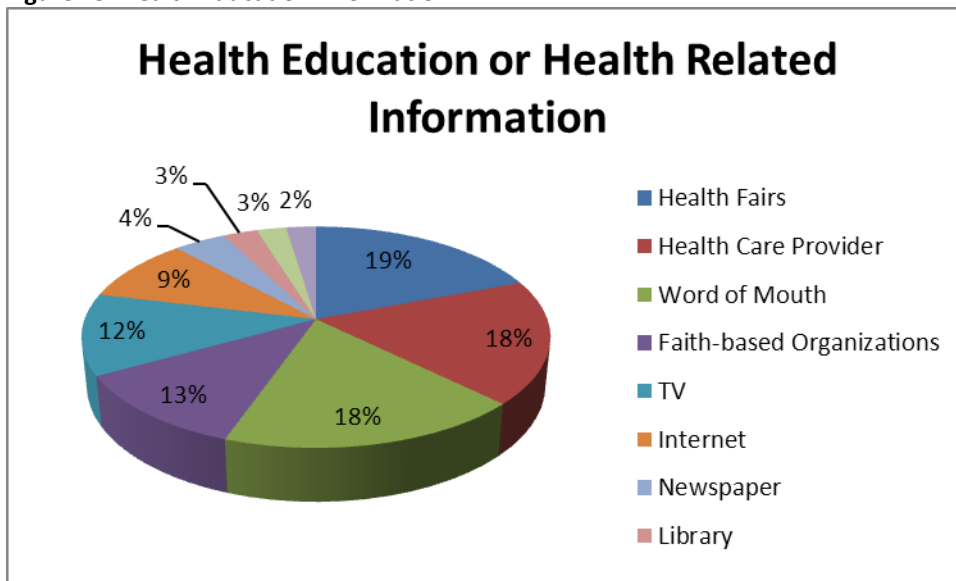
Figure 46: Use of Alternative Health Methods
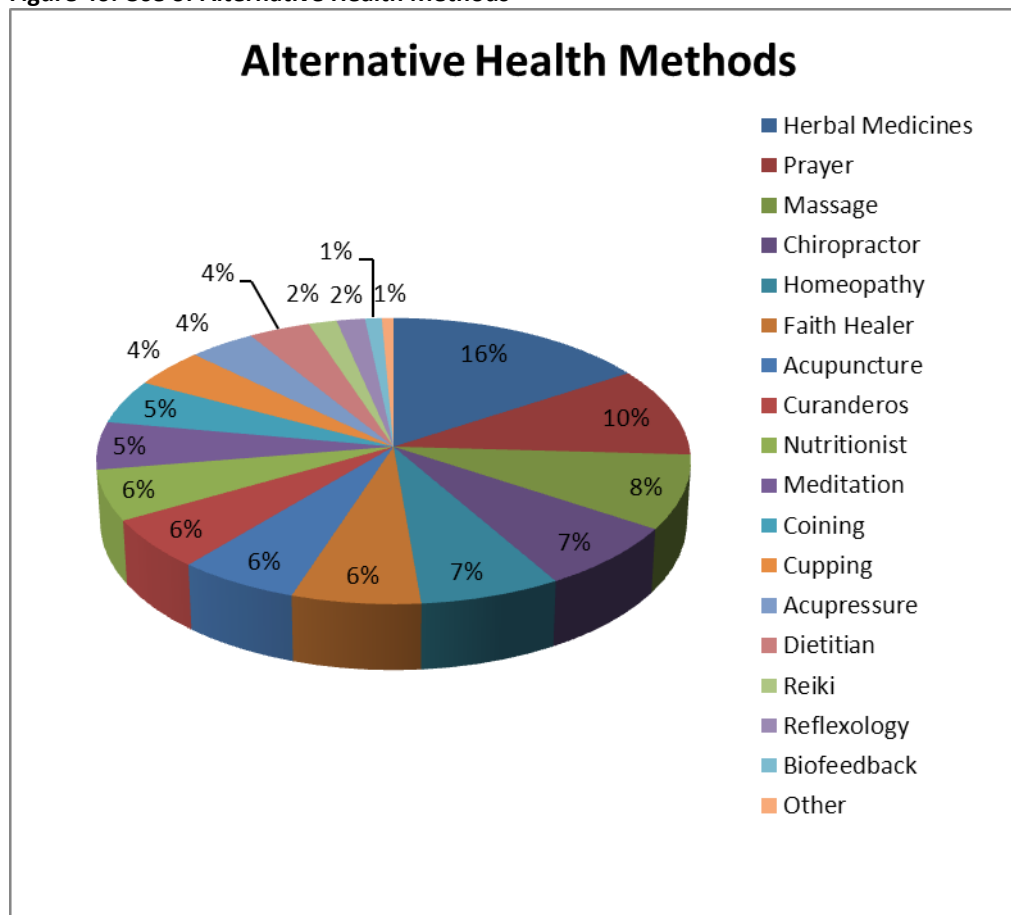
SPECIFIC FINDINGS FOR MILLER CHILDREN'S HOSPITAL LONG BEACH

Results of the Long Beach Community Health Needs Assessment represent all zip codes in the catchment areas of four hospitals-St. Mary Medical Center (SMMC), Long Beach Memorial, Community Hospital Long Beach and Miller Children's Hospital Long Beach. The last three hospitals are part of the MemorialCare Health System serving the same geographic market with the same zip codes.

In this section, we analyzed the LBCHNA data set for only Miller Children's Hospital Long Beach (MCHLB), which included 674 valid complete questionnaires for nineteen zip codes. These zip codes and their frequencies are: 90802 (102), 90803 (38), 90804 (59), 90805 (68), 90806 (68), 90807 (47), 90808 (35), 90810 (35), 90813 (134), 90814 (26), and 90815 (62). Overall there is no observable difference between the results of the complete set and those of the MCHLB. In most cases, results from Miller Children's Hospital and the current study fluctuated by 1%-2% from their original values. In several cases, especially for children and teenagers the number of observations was too limited to report meaningful changes that are reliable. Regardless, there are a few changes in the results to mention.

In MCHLB/Long Beach Memorial catchment area, only 34.7% of the adult respondents had job-based insurance coverage (42.5% obtained from the full sample), for children, similar results in insurance coverage were obtained. Private-pay and job-based coverage declined to 10.7% and 44.1%,

respectively. On the other hand, Medicare, Medicaid, Healthy Families and Uninsured population percentages went up by 2%-4% with the highest jump on Medicaid percentage by 7.8%.

Figure 27 revealed information on the participants and their family when they needed medical care but did not receive it. Sixty-two percent of respondents in the MCHLB catchment area said they did not have insurance and 26.6% indicated that copayment was too high preventing them obtaining medical care. These are slightly higher figures than those in the overall results; however, this question received only 114 responses, so statistics should be cautiously interpreted. The MCHLB respondents also had a stronger complaint about the lack of family doctors (57.1% versus 52.2%) but the need for hospital care went down from 37% to 33.3%.

When the health issues experienced by children in Miller Children's Hospital Long Beach/Long Beach Memorial market area were examined, the proportion of ADHD (7.2% vs. 7.5%), asthma (42.2% vs. 43.0%), autism (6% vs. 6.5%) dental disease/decay (15.7 % vs. 17.25), and high blood pressure (16.9 % vs. 17.2% declined in comparison to the original results (see Figure 24). On the other hand, obesity (12% vs. 10.8%) and heart disease (6% vs. 5.4%) increased. There were not enough responses for teenagers to analyze further.

Table 7 shows the results of institution- based data analysis of health issues for MCHLB along with those from the full data set. There are significant differences in the statistics in either direction. Asthma, autism and ADHD appear to have a significantly higher self-reported prevalence rates in the primary catchment area of Miller Children's Hospital Long Beach. On the other hand, anxiety, depression, diabetes, high blood pressure, mental health and obesity appear to be a less of a problem for the families in MCHLB catchment area. The largest differences are in the proportion of anxiety (9.1% vs. 22.1%), high blood pressure (16.9% vs. 46.2%), depression (11.7% vs. 21.5%), diabetes (9.1% vs. 25.6%) and obesity (13.0% vs. 22.3%), which suggests that the efforts of local hospitals started to show some positive results. However, due to the small number of respondents, results should be interpreted cautiously.

Table 7: Comparison of Children Health Issues for Miller Children's Hospital

CHILDREN HEALTH ISSUES	Miller Children's Hospital N=77	Overall Survey Results
ADHD	7.8%	3.2%
Asthma	40.3%	17.6%
Anxiety	9.1%	22.1%
Arthritis	6.5%	21.5%
Autism	6.5%	.8%
Blood Disorders	0%	4.1%
Bone Loss (Osteoporosis)	7.8%	3.4%
Cancer	3.9%	6.5%
COPD	1.3%	3.0%
Dementias including Alzheimer's	0%	.2%
Dental disease/decay	16.9%	13.6%
Depression	11.7%	21.5%
Diabetes	9.1%	25.6%
Eating Disorders	1.3%	3.9%
High Blood Pressure	16.9%	46.2%
Hearing Disorders	3.9%	6.1%
Heart Disease	5.2%	7.5%
HIV/AIDS	0%	8.9%
Kidney Diseases	1.3%	4.7%
Mental Health	1.3%	8.1%
Obesity	13%	22.3%
Physical Injuries	3.9%	11.4%
STDs	1.3%	2.4%
Stroke	1.3%	3.2%

Table 8 reveals the comparison data of health issues for MCHLB for LBCHNA for only teens because the number of observations for children is too small. Although there are several observed differences in the statistics, results should be interpreted with extreme caution due to the very limited number of respondents answering this question for teens.

Table 8: Comparison of Teen Health Issues for Miller Children's Hospital Long Beach and LBCHNA

TEEN/YOUNG ADULT HEALTH ISSUES	Miller Children's Hospital Teens N=36	Overall Survey Results
ADHD	16.7%	3.2%
Asthma	36.1%	17.6%
Anxiety	13.9%	22.1%
Arthritis	5.6%	21.5%
Autism	0%	.8%
Blood Disorders	2.8%	4.1%
Bone Loss (Osteoporosis)	0%	3.4%
Cancer	2.8%	6.5%
COPD	0%	3.0%
Dementias including Alzheimer's	0%	.2%
Dental disease/decay	13.9%	13.6%
Depression	19.4%	21.5%
Diabetes	0%	25.6%
Eating Disorders	5.6%	3.9%
High Blood Pressure	2.8%	46.2%
Hearing Disorders	2.8%	6.1%
Heart Disease	0%	7.5%
HIV/AIDS	0%	8.9%
Kidney Diseases	0%	4.7%
Mental Health	2.8%	8.1%
Obesity	11.1%	22.3%
Physical Injuries	2.8%	11.4%
STDs	0%	2.4%
Stroke	0%	3.2%

Next, the data specific to MCHLB are analyzed for the social issues of children and teenagers and results are reported in Table 9 along with the overall data. Although Table 9 reports data related to children and teenagers, information should be interpreted with extreme caution due to the small number of observations. Authors recommend that reader should use results for children from the overall survey.

Table 9: Comparison of Social Issues of Children, Teens and Young Adults for Miller Children's

CHILDREN AND TEENS SOCIAL ISSUES	Miller Children's Hospital Children N= 43	Miller Children's Hospital Teens N=34	Overall Survey Results
Accidents	16.3%	5.9%	14.8%
Air Pollution	14%	8.8%	15.9%
Alcohol Abuse	4.7%	2.9%	12.6%
Bullying	16.3%	11.8%	.5%
Child Abuse	4.7%	0%	1.1%
Domestic Violence	4.7%	2.9%	3.2%
Drug Abuse	2.3%	2.9%	7.3%
Gang Activities	0%	5.9%	1.6%
Gender Discrimination	0%	2.9%	2.4%
Homelessness	14%	2.9%	8.9%
Incarceration	4.7%	0%	3.0%
Jobless/change	9.3%	8.8%	30.1%
Lack of Affordable Health Care	16.3%	11.8%	23.4%
Lack of Health Insurance	0%	14.7%	26.3%
Lack of Exercise	32.6%	35.3%	39.8%
Poor Nutrition	18.6%	14.7%	16.7%
Smoking	9.3%	5.9%	25.8%
Sexual Assault (rape)	0%	0%	1.6%
Teenage Pregnancy	0%	11.8%	.5%
Tobacco Use	7.0%	2.9%	15.1%
Unplanned Pregnancy	2.3%	5.9%	1.6%
Violence	2.3%	2.9%	2.7%

Last, we report the top 25 Diagnosis Related Groups (DRGs) for Miller Children's Hospital Long Beach in Table 4 and linked the top 25 DRGs to the study findings. As can be seen in this table, MCHLB delivered approximately 10,000 babies in 2011, included in many DRG categories such as 795, 775, 766, 765, 774 and 793. In addition, the MCHLB delivered medical care to treat several childhood diseases such as bronchitis, asthma, pneumonia and diabetes. Because MCHLB's mission focuses on medical care for children and teenagers, MCHLB could emphasize outreach activities and health education efforts in the areas of pre-and postnatal care, unplanned pregnancy, nutrition problems which lead to complicated deliveries, diabetes, childhood obesity, and lack of exercising.

Table 10: Miller Children's Hospital Long Beach Top 25 DRGs in 2011

RANKINGS	DRG #	DESCRIPTION	CASES	LOS
1	795	NORMAL NEWBORN	4,104	2.3
2	775	VAGINAL DELIVERY W/O COMPLICATING DIAGNOSES	2,688	2.3
3	766	CESAREAN SECTION W/O CC/MCC	1,314	3.6
4	203	BRONCHITIS & ASTHMA W/O CC/MCC	813	3.4
5	765	CESAREAN SECTION W CC/MCC	549	5.7
6	794	NEONATE W OTHER SIGNIFICANT PROBLEMS	544	3.8
7	392	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS W/O MCC	495	3.1
8	781	OTHER ANTEPARTUM DIAGNOSES W MEDICAL COMPLICATIONS	395	2.6
9	792	PREMATURITY W/O MAJOR PROBLEMS	380	8.3
10	774	VAGINAL DELIVERY W COMPLICATING DIAGNOSES	363	2.8
11	793	FULL TERM NEONATE W MAJOR PROBLEMS	355	11.1
12	202	BRONCHITIS & ASTHMA W CC/MCC	341	5.0
13	153	OTITIS MEDIA & URI W/O MCC	318	2.9
14	767	VAGINAL DELIVERY W STERILIZATION &/OR D&C	262	2.5
15	603	CELLULITIS W/O MCC	245	3.9
16	343	APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAG W/O CC/MCC	244	1.9
17	639	DIABETES W/O CC/MCC	231	4.5
18	101	SEIZURES W/O MCC	219	3.0
19	195	SIMPLE PNEUMONIA & PLEURISY W/O CC/MCC	210	3.6
20	690	KIDNEY & URINARY TRACT INFECTIONS W/O MCC	198	4.9
21	194	SIMPLE PNEUMONIA & PLEURISY W CC	196	5.2
22	790	EXTREME IMMATURITY OR RESPIRATORY DISTRESS SYNDROME, NEONATE	183	58.4
23	778	THREATENED ABORTION	178	2.7
24	847	CHEMOTHERAPY W/O ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS W CC	167	4.9
25	791	PREMATURITY W MAJOR PROBLEMS	159	25.1

Reviewing 2011 hospital discharge data from the Office of Statewide Health Planning and Development (OSHPD) and the top diagnosis codes for acute care admissions children Miller Children's Hospital Long Beach (MCHLB), are listed in Table 10.

Table 11: Miller Children's Hospital Long Beach Discharge Data 2011

OSHPD 2011 - LBMMC	MCH	% of Admissions
Principal Diagnosis Groups	# of cases	
All pregnancies	6037	29.90%
Birth Defects	284	1.40%
Blood/Blood-forming Organs	258	1.30%
Circulatory	118	0.60%
Digestive	1233	6.10%
Endocrine/Metabolism	505	2.50%
Genitourinary	384	1.90%
Infections	383	1.90%
Injuries/drugs/complications	999	5.00%
Musculoskeletal	196	1.00%
Neoplasms	216	1.10%
Nervous & Sensory Systems	363	1.80%
other	878	4.35%
Psychoses & Neurosis	50	0.20%
Respiratory	2185	10.80%
Skin Disorders	313	1.60%
Perinatal Disorders	496	2.50%
Births	5283	26.20%
Total	20181	

Miller Children's Hospital Long Beach top three principal diagnoses were related to pregnancy, birth and respiratory disorders. The top three principal causes of injuries resulting in hospitalization were accidental falls and rail or motor vehicle accidents, and submersion/suffocation/foreign body.

CONCLUSION

This report presents two sets of results that are consistent throughout the study. The Long Beach Community Health Needs Assessment results highlight the major health priorities, health system challenges, perceived gaps in the health services availability, and barriers to health services. Most of the results were reported separately for children, teenagers, and the Long Beach Memorial report contains information related to the young adults, adults and elderly. The Key Informant survey, which is the second part of the study, was used to support the findings from the LBCHNA. In addition, the Key Informant survey sought emerging issues that were not clearly visible and/or identifiable to hospitals and community partners.

The report provided an extensive list of findings from 1,066 community health needs assessment surveys and another 122 key informant surveys received. The methodology used in this study was descriptive and did not rely on inferential statistics to make results generalizable for the entire population of the greater Long Beach area. It focused on hard-to-reach populations to understand the needs of these populations who live in certain pockets of the city. Since all health problems, issues, gaps and health system irregularities are important to us but resources are limited, we prioritized the health needs of the community in this section.

Miller Children's Hospital Long Beach is a leading health care provider for children and teenagers in the area, providing comprehensive care to a very large population in nine zip codes. MCHLB specializes in delivering babies with or without complications, childhood diseases such as bronchitis, asthma, pneumonia and diabetes. We analyzed the LBCHNA data set for only MCHLB to identify specific health problems and health related needs of the MCHLB catchments area. Unfortunately there were not sufficient observations to make meaningful comparisons. In some cases, descriptive statistics changed significantly but due to the small number of surveys completed for children and teenagers we were not able to draw any reliable conclusions.

Specific Findings and Recommendations

Health Priorities

The Community Health Needs Assessment and the Key Informant survey revealed consistent results for hospitals and the community organizations to focus on. Table 12 consolidated the results of both surveys and focused on only the top few health issues/problems mentioned in both surveys by age groups. Asterisks were used for the results of LBCHNA and plus signs were used for those obtained from Key Informant survey. Much stronger results were represented by three or two asterisks or three or two plus signs.

The top health problem for children and teenagers was, inarguably, asthma (PRIORITY #1). Obesity (PRIORITY #2) surfaced as a major problem for children, teenagers in the community health needs assessment, and was supported by key informants. The LBCHNA results for obesity were somewhat weaker than the Key Informant survey results, but it is consistently reported by all parties that obesity is a major issue in the community. Another major health problem is mental health (PRIORITY #3) for teenagers. The LBCHNA results strongly supported the value of programs addressing anxiety and depression problems. More information is available in Table 12 below.

Table 12: Consolidated Results of Health Needs Assessment and Key Informant Survey – Health Priorities

Potential Priorities	Children		Teenagers	
Asthma	***	+++	***	+++
Dental Disease	*	++	*	
Obesity	*	+++	*	+++
High Blood pressure	*			
Anxiety				
Depression	*		*	++
ADHD		++	*	
Arthritis				
Diabetes				++
Physical Injur.				
Bone Loss				
Cancer				
Hearing Loss				
Heart Disease				
Mental Health		++		
STD				

* = Community Health Needs Assessment
+ = Key Informant Survey

Barriers to Care (ACCESS)

The Long Beach Community Health Needs Assessment survey results showed that 13.6% of the respondents needed care but did not get care. This ratio increased to 17% when only vulnerable zip codes were included in the analysis. The majority of participants (60%) reported that they did not receive health care needed due to lack of insurance and another 23% stated co-payment being too high. A similar question was answered by key informants of the local community for children and teenagers,. The most frequently selected reasons for children and teenagers for not receiving care were no health insurance coverage and no dental insurance coverage.

Therefore, PRIORITY # 1 and PRIORITY #2 in this area should focus on the lack of insurance, and dental and vision coverage in order to provide regular access to medical care. Health education and community outreach activities should be PRIORITY #3 to educate the community members to access the health care system (at least the safety net providers).

Participants and key informants also identified the type of health care services that community members needed, but were not received. For adults, fifty-two percent of the survey respondents checked family doctor and another 37% marked hospital care as a needed service provider. Specialty doctor and prescription drugs followed the top two responses by 24% and 20%, respectively. According to the key informants, children were lacking specialty doctor, family doctor/primary care doctor and eye doctor. Key informants had an overwhelming consensus on the health care needs of teenagers.

According to both survey results behavioral/mental health providers were desperately needed in the community (80%). In conclusion, PRIORITY #1 and PRIORITY #2 in this section go to behavioral

health/mental health and family doctors/primary care. PRIORITY #3 should be assigned to specialty care; however, an additional analysis of this particular data did not suggest any specific type of specialty care needed. Dental care and prescription drugs should be PRIORITY #4. Dental care has been moderately checked by key informants for all age categories except for children.

Social Issues (SERVICE GAPS)

Both the Community Health Needs Assessment and Key Informant surveys examined the social issues of the city's residents and identified areas for improvement. Results are consistent in both surveys for many of the social issues. Table 13 highlights the top social issues identified by both survey respondents and makes suggestions for prioritizing these social issues for local hospitals, public health officials and community leaders.

The most important social issue appeared to be lack of exercise in the community, which was supported by the survey respondents across the board. Clearly, PRIORITY #1 involves the lack of community exercise programs. The second major social issue (perhaps as important as lack of exercise) is the poor nutrition and/or lack of food support program in the community. This appears to be a major problem for all age categories. PRIORITY #2 is to improve nutrition across all age groups and increase food support programs. PRIORITY #3 is lack of health insurance and affordable health care combined. These were not new issues to community activists, hospitals, and public health officials. Earlier in the study, lack of insurance was also identified as one of the priority areas as well. PRIORITY #4 is air pollution and PRIORITY #5 is drug and alcohol programs, which have a moderate show in the surveys

Table 13: Consolidated Results of Health Needs Assessment and Key Informant Survey - Social Issues

Potential Priorities	Children		Teenagers	
Lack of Exercise	***	++	**	++
Bullying	*	+		++
Air pollution	*	+++		++
Lack of Affordable C.	*		*	
Lack of Insurance	*	+	*	
Poor Nutrition	*	+++	**	+++
Accidents	*			
Child Abuse		++		
Teenage Preg.			*	++
Gang Activities				+++
Alcohol Abuse				
Drug Abuse				
Jobless/change				
Smoking/Tobacco				
Homelessness				

* = Community Health Needs Assessment   + = Key Informant Survey

Last but not least, the study explored the needs for health related services in the community.   Both surveys explored the issue and results were somewhat consistent in both surveys. According to the LBCHNA survey, the most needed services were transportation and CalFresh (food stamps) program, followed by counseling services, assisted living and after school programs.

Key informants also identified the top needs of the community for various age groups. The top services for children included recreation, before and after school programs and transportation services. The top services lacking for teenagers included before and after school programs, health education and recreation. Based upon the various needs reported, the priorities should be: 1) transportation, 2) CalFresh (food stamps), 3) before and after school programs, and 4) counseling.

Community Assets and Resources

The Long Beach Community Health Needs Assessment references hospitals and clinics located near the hospital as well as, the links to sources for additional health care facilities and community resources.

Local area hospitals include:
Long Beach Memorial
Community Hospital Long Beach
Miller Children's Hospital Long Beach
Pacific Hospital
Los Alamitos Hospital
St. Mary Medical Center
Torrance Memorial
Veterans Administration Hospital

Local Area Community Clinics include:
Alta Med Health Services Corp.
Harbor Community Clinic
The Children's Clinic (multiple locations in greater Long Beach)
Westside Neighborhood Clinic
Wilmington Family Health Center
Additional sites can be found at www.healthcity.org/services

The City of Long Beach is fortunate to have its own health jurisdiction, one of only three city-based health departments in the state of California. The City of Long Beach Department of Health and Human Services asset inventory of community agencies, addressing community health priorities will be used to provide a comprehensive and up-to-date list. This provides an excellent connection to community resources related to health and healthcare within the greater Long Beach community http://www.longbeach.gov/health.

Miller Children's Hospital Long Beach Identification and Prioritization of Health Needs

Utilizing information from the primary and secondary data collection, community health needs were identified and prioritized through an iterative process conducted with the community benefit oversight committee (CBOC) on February 7, 2013 and presented to the strategy committee and the hospital board representing LBM, MCHLB and CHLB hospitals for final approval, which was received on March 26, 2013.

The health needs were identified from issues supported by the primary and secondary data sources gathered for the Long Beach Community Health Needs Assessment. The needs were indicated by community survey responses, key informants and secondary data sources. The needs were given a

value based on the size and seriousness of the problem (as indicated by survey respondents, key informants and prevalence and incidence within the community) and are displayed in the tables below.

Table 14: Adult Health Needs – primary data combined score (community survey and key informant)

Identified Need	Young Adults (19-25)	Adult (26-64)	Elderly (age 65+)
Asthma	4	1	0
Dental Disease	3	1	0
Obesity	4	4	1
High Blood pressure	3	6	6
Mental Health (incl. anxiety, depression, ADHD)	13	9	4
Arthritis	0	2	5
Diabetes	3	5	5
Physical Injury	1	0	0
Bone Loss	0	0	1
Cancer	0	0	1
Hearing Loss	0	0	1
Heart Disease	0	0	3
STD	2	0	0

Those needs with a score of 4 or higher were identified as a priority.

Adult priorities
Obesity
Diabetes
High Blood Pressure
Asthma
Mental Health

These health needs are supported by secondary data analysis and the community forum (conducted in August, 2012), which identified the same priorities. These health priorities fall into two broader categories of chronic disease and mental health.

Based on the community health needs assessment the hospital board approved the following priorities:

Adult Priorities
Chronic Disease
Mental Health
Obesity/Overweight
Access to Care
Preventative Care/Prevention

The CBOC developed an implementation strategy to address these needs at their 2/7/2013 meeting. The implementation strategy will be attached to the IRS form 990 schedule H per the PPACA requirements.

Bibliography

Baby, S. H., Wolstein, J., Diamant, A. L., Bloom, A., & Goldstein, H. (2012). Overweight and obesity among children by California cities – 2010. *UCLA Center for Health Policy Research and California Center for Public Health Advocacy.*

Bilton, M. (2011) Community health needs assessment. *Trustee,* 64 (9), 21-24.

California Department of Education (2012). *Long Beach Unified District, Language Group Data – Districtwide for 2010-2011*. Retrieved from http://dq.cde.ca.gov/dataquest/lc/ DistrictLC.aspx?cSelect=1964725--1964725%2D%2DLONG+BEACH+UNIFIED&cYear=2010-11

Centers for Disease Control and Prevention (2012a). Community engagement: Definitions and organizing concepts from the literature. Retrieved from http://www.cdc.gov/ phppo/pce/part1.htm

Centers for Disease Control and Prevention (2012b). Chronic diseases and prevention. Retrieved from http://www.cdc.gov/chronicdisease/overview/index.htm

Clegg, A. & Doherty, B. (2001). Health needs assessment in intermediate care of elderly people. *British Journal of Nursing, 10* (19), 1269-1274.

Curtis, D. C. (2002). Evaluation of community health assessment in Kansas. *Journal of Public Health Management Practice, 8* (4), 20-25.

De Navas-Walt, C. , Proctor, B. D., & Smith, J. C. (2011). Income, poverty, and health insurance coverage in the United States: 2010. *U. S. Census Bureau*.

Fitzgerald, N. (2010) Acculturation, socioeconomic status, and health among Hispanics. *NAPA Bulletin,* 34, 28-46.

Holt, J.K. (2008). Community profiling as part of a health needs assessment. *Nursing Standard, 22* (18), 51.56.

Lavarreda, S. A., Chia, Y. J., Cabeza, L. & Roby, D. (2010) California's uninsured by County. *UCLA Center For Health Policy Research.* Health Policy Fact Sheet. Retrieved from: http://www.healthpolicy. ucla.edu/pubs/Publication.aspx?pubID=422

Lundeen, S. P. (1992). Health needs of a suburban community: A nursing assessment approach. *Journal of Community Health Nursing, 9* (4), 235-244.

McKenzie, J. F., Pinger, R.R., & Kotecki, J. E. (2008). Community organizing/Building and health promotion programming 120-144. *In An Introduction to Community Health (6ᵗʰ ed)*. Boston: Jones & Bartlett Publishers.

Principe, K. Adams, E. K., Maynard, J., & Becker, E. R. (2012). The impact of the individual mandate and internal revenue service form 990 schedule H on community benefits from nonprofit hospitals. *American Journal of Public Health, 102* (2), 229-237.

Sharma, A., Lanum, M., & Suarez-Balcazar, Y. (2000). A community needs assessment guide. *Center for Urban Research and Learning and the Department of Psychology*. Loyola University, Chicago.

Sommerville, M. H., Mueller, C. H., Boddie-Willis, C. L., Folkemer, D. C., & Grossman, E. R. (2012). Hospital community benefits after theACA: Partnerships for community health improvement. *The Hilltop Institute,* 1-20.

State of California, Employment Development Department,(May 2012). Retrieved from: http://www.edd.ca.gov/About_EDD/Quick_Statistics_Information_by_County.htm

United States Census Bureau (2011a). 2010 American Community Survey. *Marital Status* Retrieved from http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview .xhtml?pid=ACS_10_1YR_S1201&prodType=table

United States Census Bureau (2011b). 2006- 2010 American Community Survey 5-year Estimates. *Educational Attainment* .   Retrieved from http://factfinder2.census.gov/faces/tableservices/ jsf/pages/productview.xhtml?pid=ACS_10_5YR_S1501&prodType=table

United States Department of Health and Human Services (2010a). Healthy People 2020: The Road Ahead. *About healthy people.* Retrieved from http://www.healthypeople. gov/2020/about/default.aspx

United States Department of Health and Human Services (2010b). Healthy People 2020: The Road Ahead. *Access to health services.* Retrieved from http://www.healthypeople.gov/2020/ topicsobjectives2020/overview.aspx?topicid=1

United States Department of Health and Human Services (2010c). Healthy People 2020: The Road Ahead. *Educational and community based programs.* Retrieved from http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=11

United States Department of Health and Human Services (2010d). Healthy People 2020: The Road Ahead. *Nutrition and weight status*. Retrieved from http://www.healthypeople.gov/2020/ topicsobjectives2020/overview.aspx?topicid=29

United States Department of Health and Human Services (2010e). Healthy People 2020: The Road Ahead. *Physical activity.* Retrieved from http://www.healthypeople.gov/ 2020/topicsobjectives2020/overview.aspx?topicid=33

United States Department of Health and Human Services (2011). Press release. National quality strategy will provide better health, quality care for Americans. Retrieved from: http://www.hhs.gov/news/press/2011pres/03/20110321a.html

University of Wisconsin Population Health Institute & Robert Wood Johnson Foundation (2012). *County health rankings & roadmaps. A healthier nation, county by county.* Los Angeles County*.* Retrieved from http://www.countyhealthrankings.org/#app/california/2012/los-angeles/county/1/overall

Appendix A: PARTICIPATING KEY INFORMANTS

Name: - Debbie Acevedo Title: - Supervisor Agency: - Low Vision Center Service area zip code: - 90813	Name: - Tiffany Cantrell Title: - Director of Grants Agency: - St. Mary Medical Center Foundation Service area zip code: - 90813, 90807, 90815, 90808, 90805, 90810, 90744, 90716, 90715, 90713, 90712
Name: - Luis Agredano Title: - Program specialist Agency: - Cambodian association of America Service area zip code: - 90806	Name: - Laura Cargill Title: - Director Case Management and Social Services Agency: - DignityHealth Service area zip code: - 90813
Name: - Harald Arndt MD Title: - Emergency Dept Medical Director Agency: Emergency Physicians Medical Association of Long Beach Service area zip code: - 90274	Name: - Paul Carter Title: - Attorney Agency: - Self Service area zip code: - 90802
Name: - Annabel Barajas Title: - Assistant Coordinator Agency: - Long Beach Health Department Service area zip code: - 90813,90810,90805,90807	Name: - Ladine Chan Title: - Program Coordinator Agency: - Families in Good Health/Educated Men with Meaningful Messages (EM3) Program Service area zip code: - 90813
Name: - Cheryl Barrit Title: - Prevention Services Officer Agency: - City of Long Beach Department of Health & Human Services Service area zip code: - City-wide	Name: - Maribel Chavez Title: - Key Family Contact Agency: - For The Child Service area zip code: - 90807
Name: - Sandra L Bazant Title: - Senior Services Coor. Agency: - St. Mary Medical Center Service area zip code: - 90813	Name: - Chester Choi Title: - MD Agency: - St. Mary Medical Center Service area zip code: - 90813
Name: - Roz Boger Title: - Community Services Supervisor Agency: - City of Long Beach Service area zip code: - 90802	Name: - Eleanor Cochran Title: - Senior Director Physician Strategic Business Development Agency: - St Mary Medical Center Service area zip code: - 90813
Name: - Heidi Burkey Title: - Coordinator of the Health Resource Center Agency: - CSULB Student Health Services Service area zip code: - 90840	Name: - Patricia Costales, LCSW Title: - Executive Director Agency: - The Guidance Center Service area zip code: - All Greater Long Beach

Name: - Andrew Burg, MD
Title: - Chief Medical Officer
Agency: - St Mary Med Ctr
Service area zip code: - 92813

Name: - Gary DeLong
Title: - Councilmember
Agency: - City of Long Beach
Service area zip code: - 90815

Name: - Robin Diaz
Title: - Access Care Director
Agency: - St Mary Medical Center
Service area zip code: - 90813

Name: - Pamela Fair
Title: - Director of Critical Care
Agency: - St Mary Medical Center
Service area zip code: - 90813

Name: - Dennis Fisher
Title: - Director
Agency: - Center for Behavioral Research and Services
Service area zip code: - 90813

Name: - Lani Garcia
Title: - Rehab Unit Director
Agency: - St. Mary Medical Center
Service area zip code: - 90813

Name: - Lorena Garcia
Title: - Asthma community health worker
Agency: - Children's center
Service area zip code: - 90806

Name: - Sister Gerard Earls
Title: - VP Mission Integration
Agency: - St. Mary Medical Center
Service area zip code: - 90813

Name: - Steve Gerhardt
Title: - Senior Planner
Agency: - Long Beach Development Services
Service area zip code: - 90802

Name: - Lesbia De La Feente
Title: - Adminisrtrator
Agency: - Un Mundo de Amigos
Service area zip code: - 90813

Name: - Maria Green
Agency: - Molina healthcare
Service area zip code: - 90802

Name: - Michael Gomez
Title: - Vice President, Business Development
Agency: - St. Mary Medical Center
Service area zip code: - 90813

Name: - Teresa Gonzalez
Title: - Specialist
Agency: - City of Long Beach Neighborhood Services
Service area zip code: - 90802

Name: - Rita Goshert
Title: - Clinical Operations Manager, Child Life
Agency: - Miller Children's Hospital Long Beach
Service area zip code: - 90806

Name: - Antionette Greer
Title: - Executive Director
Agency: - My Sister My Friend Breast Cancer Support
Service area zip code: - 90803

Name: - Darlene Helm
Service area zip code: - 92649

Name: - Bonnie Henson
Title: Manager clinical Operations, Perinatal Education
Agency: - Miller Children's Hospital Long Beach Women's Hospital
Service area zip code: - 90801-90806

Name: - Lillian Herrera
Title: - Office Manager
Agency: - St. Mary Medical Center
Service area zip code: - 90813

Name: - Chan Hopson
Title: - Executive Director
Agency: - Khmer Parent Association
Service area zip code: - 90813

Name: - Krikor Jansezian, Ph.D.
Title: - Administrator
Agency: - Community Hospital Long Beach
Service area zip code: - 90804

Name: - Diane Johnson
Title: - Director/Commissioner
Agency: - RSVP & Mayors Senior Citizen
Advisory Commission
Service area zip code: - 90815-1734

Name: - Michael Johnson
Title: - Manager, Support Services
Agency: - City of Long Beach Health
Department
Service area zip code: - 90815

Name: - Nancy Johnson
Title: - Director
Agency: - St. Mary LB
Service area zip code: - 90813

Name: - Daa'iyah Jordan
Title: - Marketing/Editorial Manager
Agency: - St. Mary Medical Center
Service area zip code: - 90813

Name: - Cindy Jovel
Title: - Community Work Incentives
Coordinator
Agency: - Human Ptential Consultants
Service area zip code: - 90746

Name: - Sabrina Junkin
Title: - Community Services Coordinator
Agency: - City of Lakewood
Service area zip code: - 90712, 90713, 90715

Name: - Rosa Kelson
Title: - Director, Community Mission
Agency: - American Cancer Society
Phone: - (562)437-0791 (option 3) Ext 224
Service area zip code: Greater Long Beach

Name: - Pat Kennedy
Title: - Exec. Dir.
Agency: - Greater Long Beach Interfaith
Community Organization
Service area zip code: - 90805

Name: - Cailine Kim
Title: - Voc Rehab Case Manager
Agency: - VA Long Beach Healthcare System
Service area zip code: - 90822

Name: - Patti LaPlace
Title: - Mental Health Coordinator
Agency: - City of Long Beach, Department of
Health and Human Services
Service area zip code: - 90813

Name: - Elsie Larriva
Title: - Center Director
Agency: - County of Los Angeles
Service area zip code: - 90731

Name: - Ann Lee
Title: - Clinical Psychologist II
Agency: - Los Angeles County Department of
Mental Health
Service area zip code: - 90802

Name: - Val Lerch
Title: - Sr. Field Rep.
Agency: - Congresswoman Laura Richardson
Service area zip code: - 90805

Name: - Lillian Lew
Title: - Director
Agency: - Families in Good Health
Service area zip code: - All of Long Beach

Name: - Ramona Locsin
Title: - Early Head Start Manager
Agency: - Long Beach Unified School District
Service area zip code: - citywide

Name: - Luis Lozano
Title: - Executive Director
Agency: - The Beacon House Association of
San Pedro
Service area zip code: - 90731

Name: - Stela Lugo
Title: - Case analyst
Agency: - Fair housing foundation
Service area zip code: - 90807

Name: - Judeth Luong
Title: - Program Coordinator - CAARE, ALSAA, Healthy Homes
Agency: - City of Long Beach Department of Health and Human Services
Service area zip code: - citywide

Name: - Anthony Ly
Title: - Program Coordinator
Agency: - Long Beach Dept of Health and Human Services
Service area zip code: - All zip pertaining to Long Beach

Name: - Gabriela Madrigal
Title: - Immunizations and Lead outreach worker
Agency: - Long Beach Health Department
Service area zip code: - 90815

Name: - Isela Magallanes
Title: - LAG Chair
Agency: - Latino Advisory Group to the Chief of Police, LB
Service area zip code: - All of Long Beach

Name: - C. Kevin Malotte
Title: - Professor
Agency: - California State University, Long Beach – Health Science Department

Name: - Mel Marks MD
Title: - Executive Vice-President
Agency: - Memorial Health Services
Service area zip code: - 90806

Name: - Jose Milland
Agency: - Long Beach Health Department
Service area zip code: - 90815

Name: - Mary Margaret Montgomery
Title: - Rehab Manager
Agency: - St. Mary Medical Center
Service area zip code: - 90813

Name: - Marisela Montoya
Title: - Public Health Associate III
Agency: - City of Long Beach WIC Program
Service area zip code: - 90813

Name: - Ismael Morales
Title: - Director of Health Services
Agency: - The Center Long Beach
Service area zip code: - 90814

Name: - Susan Needham
Service area zip code: - 90806

Name: - Terri Nikoletich
Title: - Public Health Nurse Supervisor, MCAH Director
Agency: - City of Long Beach DHHS
Service area zip code: - 90815

Name: - Uduak Ntuk
Title: - Petroleum Engineer
Agency: - City of Long Beach
Service area zip code: - 90807

Name: - Julie Nunez RN
Title: - Palliative Care Manager
Agency: - St, Mary Medical Center
Service area zip code: - 90813

Name: - Phyllis O'Connor
Title: - Director (Health Care Issues)
Agency: - League of Women Voters, LA County

Name: - Judy Ogunji
Title: - Manager
Agency: - City of Long Beach
Service area zip code: - 90746

Name: - Veronica Ornelas
Title: - Health Educator
Agency: - City of Long Beach Department of Health and Human Services
Service area zip code: - 90815

Name: - Tim Patton
Title: - Senior Field Representative
Agency: - Office of Assemblymember Bonnie Lowenthal
Service area zip code: - 90815

Name: - Luz A. Parra
Title: - Case Manager
Agency: - Long Beach Health Department – Latino Diabetes
Service area zip code: - 90807

Name: - Jean Petrillo
Title: - Oral Health Education Coordinator
Agency: - Children's Dental Health Clinic
Service area zip code: - 90806

Name: - Loraine Phomsopha
Title: - RN, Director of Education
Agency: - St Mary Medical Center
Service area zip code: - 90813

Name: - Rachel Plotkin Olumese, RN, DHSc, MSN/MSHCA, PHN
Title: - Community Outreach, Community Benefits, & Advocacy
Agency: - St. Mary Medical Center
Service area zip code: - all

Name: - Jennifer Ponce
Title: - Director of Special Projects
Agency: - The Children's Clinic
Service area zip code: - all Long Beach zip codes

Name: - Wendy Puzarne
Title: - Executive Director
Agency: - Jewish Family and Children's Service
Service area zip code: - 90815

Name: - Naomi Rainey
Title: - President
Agency: Long Beach Branch NAACP
Service area zip code: - 90803

Name: - Joe Ramirez
Title: - Director Ancillary Services
Agency: - St Mary Medical Center-LB
Service area zip code: - 90813

Name: - Elsa Ramos
Title: - Multi-Service Center Coordinator
Agency: - Long Beach Multi-Service Center
Service area zip code: - Long Beach, 90813

Name: - Nori Readdy
Title: - Director, Transformational Care
Agency: - St. Mary Medical Center
Service area zip code: - 908136

Name: - Karen Reside
Title: - Principal
Agency: - Reside & Associates
Service area zip code: - 90802

Name: - Tonia Reyes Uranga
Title: - Executive Director
Agency: - The Miguel Contreras Foundation
Service area zip code: - 90806, 90057

Name: - Britt Rios-Ellis
Title: - Professor and Director
Agency: - NCLR/CSULB Center for Latino Community Health

Name: - Leslie Rosenthal
Title: - Owner, Certified Massage Therapist
Agency: - Massage Works
Service area zip code: - 90815

Name: - Judy Ross
Title: - Executive Director
Agency: - Long Beach Nonprofit Partnership
Service area zip code: - 90808

Name: - Anthony Schiavoni
Title: - Physician Liaison
Agency: - St. Mary Medical Center
Service area zip code: - 90813

Name: - Danielle Sees
Title: - PHN
Agency: - City of Long Beach Department of Health & Human Services
Service area zip code: - all zip codes in Long Beach

Name: - Lucille Sevigny
Title: - Parish nurse, RN
Agency: - St Matthews
Service area zip code: - 90813 90802

Name: - Pam Shaw
Title: - Nursing Services Officer
Agency: - Long Beach Department of Health and Human Services
Service area zip code: - 90815

Name: - Tiffany Sickler
Title: - District Administrator
Agency: - Koinonia Family Services
Service area zip code: - 90746

Name: - Laura Sidney
Agency: - LB Community Improvement League
Service area zip code: - 90805

Name: - Delores Simms
Title: - Community health worker
Agency: - Long Beach Alliance for Children with Asthma
Service area zip code: - 90808

Name: - Stephanie Stembridge
Title: - Family Advocate
Agency: - Long Beach Memorial
Service area zip code: - 90808

Name: - Joan Swain
Title: - RN
Service area zip code: - 90806

Name: - Diana Tang
Title: - Government Affairs Analyst
Agency: - City of Long Beach
Service area zip code: - 90802

Name: - Jeanne Tapia
Title: - Director, Epidemiology and Employee Health
Agency: - St. Mary Medical Center
Service area zip code: - 90813

Name: - Alan Terwey
Title: - Executive Director
Agency: - Westside Neighborhood Clinic
Service area zip code: - 90810

Name: - Mauro Torno
Title: - Physician
Agency: - LB DHHS
Service area zip code: - 90815

Name: - Marie Treadwell
Title: - Membership Chair
Agency: - Long Beach NAACP
Service area zip code: - 90810-3531

Name: - Lara Turnbull
Title: - Project Director, Healthy Active Long Beach
Agency: - City of Long Beach Department of Health and Human Services
Service area zip code: - City-Wide (Long Beach) 908XX

Name: - Noemy Umana
Title: - Director
Agency: - YMCA
Service area zip code: - 90808

Name: - Francisco Vargas
Title: - Youth services officer
Agency: - Long beach public library
Service area zip code: - 90822

Name: - Rosie Velazquez-Gutierrez LCSW
Title: - Center Director
Agency: - City of LB DHHS Center for Families and Youth
Service area zip code: - Greater Long Beach Area

Name: - Mark Wallace
Title: - Director of Public Affairs and Governmental Relations
Agency: - Cerritos College
Service area zip code: - 90650

Name: - Felton Williams, Ph.D.

Name: - Jeff Williams
Title: - Executive Director
Agency: - Leadership Long Beach
Service area zip code: - 90813

Name: - Donna Woo Title: - Vice President Agency: - Pacific College Service area zip code: - 92626 Name: - Lori Woodruff Title: - Executive Director Agency: - Tichenor Orthopedic Clinic for Children Service area zip code: - greater Long Beach area Name: - Mary Wright Title: - Immunization Project Coordinator Agency: - Long Beach Health Department Service area zip code: - 90815 Name: - Samin Yoak Title: - Parent and family advocate Agency: - Pacific Asian counseling services Service area zip code: - 90807 Name: - Becky Yourex Title: - RN – Manager Agency: - St Mary Medical Center - CARE Clinic	

Appendix B: Acknowledgements