

2016-2021

Live Well Lake County Community Health Assessment Final Draft



Live Well Lake County Steering Committee
LAKE COUNTY HEALTH DEPARTMENT
SUMMER 2016

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INTRODUCTION

Introduction

The Lake County Health Department and Community Health Center (LCHD/CHC), with guidance from the Live Well Lake County Steering Committee, conducted the community health improvement process between early 2015 and spring 2016. The community health improvement process yields two distinct, but connected deliverables: the Community Health Assessment and the Community Health Improvement Plan.

The Community Health Assessment is not a singular activity, but a developmental process that is added to and amended over time. It is not an end in itself, but a way of using information to plan public health programs in the future. The ultimate goal of a Community Health Assessment is to develop strategies to address the community's health needs and identified issues, providing the foundation for improving and promoting the health of our community.

The Community Health Assessment uses quantitative and qualitative methods to collect and examine health status indicators and provide an understanding of health in a community. Risk factors, mortality, morbidity, forces of change, the capacity of the local public health system, quality of life, community assets, social determinants of health, and health inequities were collected to identify the community's key health issues. Ultimately, the Community Health Assessment guides the development and implementation of a Community Health Improvement Plan by justifying how and where resources should be allocated to best meet community needs.¹

The benefits of conducting a Community Health Assessment include:

- Improved organizational and community coordination and collaboration;
- Increased knowledge about public health and the interconnectedness of activities;
- Strengthened partnerships within our local public health systems;
- Identified strengths and weaknesses to address in quality improvement efforts; and
- Benchmarks for public health practice improvements.²

Through this process, LCHD/CHC and the Live Well Lake County Steering Committee, engaged a diverse array of community members and broad representation from the local public health system to identify health issues affecting the residents of Lake County. These collaborations are intended to foster shared ownership for health among our stakeholders. Presented on the following pages are the results of analyses from multiple surveys, focus groups, facilitated discussions, and data sets.

For any questions on interpretation or for access to the included data, please contact the Health Department Assessment Team at HealthAssessment@lakecountyil.gov

¹ NACCHO, Definitions of Community Health Assessments (CHA) and Community Health Improvement Plans (CHIPs), 2016.

² CDC, Community Health Assessments & Health Improvement Plans, 2015.

INTRODUCTION

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INTRODUCTION

MOBILIZING FOR ACTION THROUGH PLANNING AND PARTNERSHIPS (MAPP)

The Lake County community health improvement process was developed within the **Mobilizing for Action through Planning and Partnerships**, or MAPP, framework.

MAPP follows seven guiding principles:

1. Systems Thinking
2. Dialogue
3. Shared Vision
4. Data
5. Partnerships and Collaboration
6. Strategic Thinking
7. Celebration of Successes



The National Association of County and City Health Officials (NACCHO) and the Centers for Disease Control and Prevention (CDC) created the MAPP framework as a strategic approach for community health improvement that creates a healthy community and better way of life, increases the visibility of public health within the community, anticipates and manages change, creates a stronger public health infrastructure, and engages the community and creates community ownership for public health issues. Since its completion in 2000, MAPP has become the leading tool that health departments and their partners use to guide public health planning processes. To begin Lake County's planning process, LCHD/CHC supported community efforts by conducting the four MAPP Assessments:

- Local Public Health System Assessment – Conducted on June 18, 2015, this assessment utilized the National Public Health Standards Program assessment of the components, activities, competencies and capacities of the local public health system and analyzed how well the Essential Public Health Services are delivered.
- Forces of Change Assessment – Conducted on October 23, 2015, the assessment identified the forces that affect or will be affecting the community and public health system, as well as the threats or opportunities that result.
- Community Themes and Strengths Assessment – Conducted from September to December of 2015, the assessment identified the community's interests, perceptions about quality of life in Lake County, and community assets.
- Community Health Status Assessment – Throughout 2015, primary and secondary data were gathered to describe the health status, quality of life, demographics, and behavioral risk factors in the community.^{3, 4}

³ <http://archived.naccho.org/topics/infrastructure/mapp/framework/upload/MAPP-Brochure-2.pdf>

⁴ <http://www.naccho.org/programs/public-health-infrastructure/mapp>

SELECTED COMMUNITY HEALTH PRIORITIES

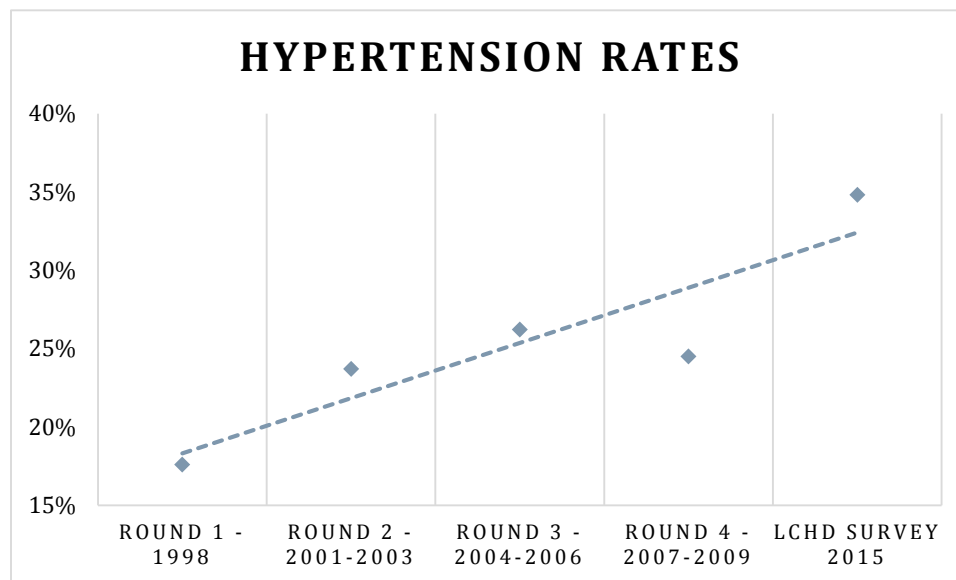
Selected Community Health Priorities

FOUR COMMUNITY HEALTH PRIORITIES

1. Cardiovascular disease and hypertension
2. Behavioral health
3. Obesity
4. Diabetes

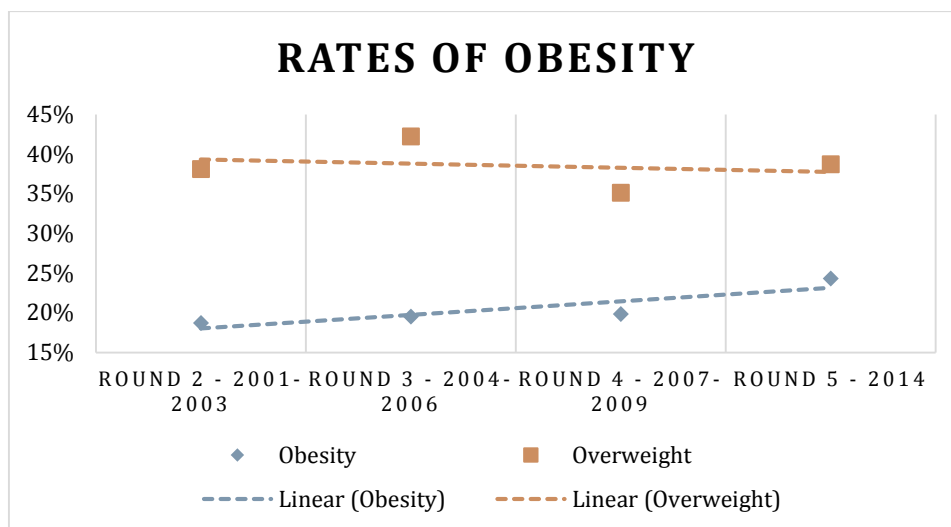
While the health improvement priorities were selected based on the most recent data available, the conditions have emerged as driving factors in resident health over longer time horizons. Lake County has experienced upward trends in the prevalence of these key chronic conditions. Historical data supports the growing magnitude of these health issues.

HISTORIC TRENDS

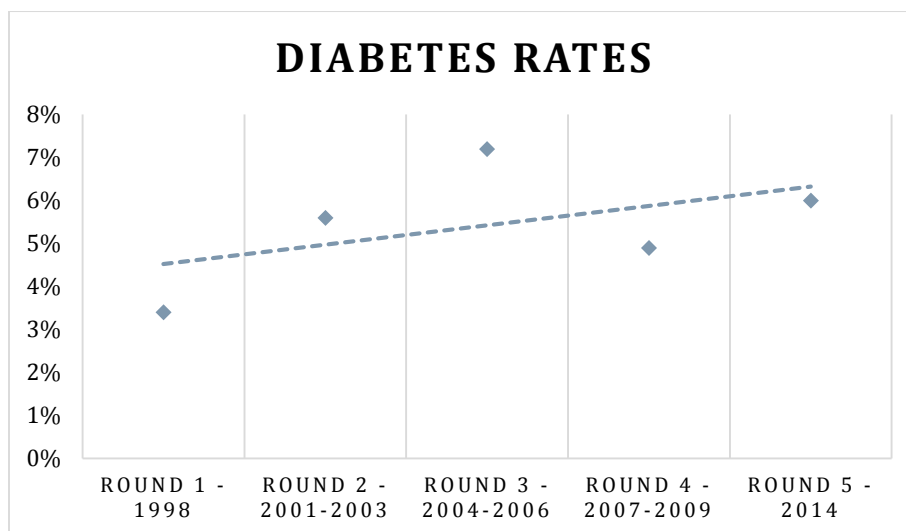


Hypertension rates have increased dramatically. Between the first round of the I-BRFSS in 1998 and the Lake County Community Health Survey in 2015, the percentage of adults reporting that they have hypertension has increased from 18% to 35%, nearly doubling over the interval. While some demographic shifts such as an aging population can help to explain some of the increase in disease, the burden of the condition is ultimately much higher now than in the past.

SELECTED COMMUNITY HEALTH PRIORITIES



Obesity contributes to an individual's risk of chronic conditions, osteoarthritis, and other health issues that disrupt quality of life. While obesity rates in the county remain slightly lower than the state, obesity has increased by 5% in the past 12 years. The percentage of adults who are overweight has remained relatively stable. 62% of adults in Lake County are overweight or obese. While complete or historical data sets do not exist in Lake County for children, childhood obesity is an emerging national and state priority.



Diabetes in adults has increased over time from 3.4% to 6%. An additional 14% have been diagnosed with prediabetes and are at greater risk of developing the disease.

SUMMARY ASSESSMENT RESULTS

Summary Assessment Results

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Lake County's Local Public Health System Assessment was convened by the Live Well Lake County Steering Committee on June 18th, 2015 at Rosalind Franklin University. The Local Public Health System Assessment (LPHSA) is one of the four assessments Lake County is working on as part of its Mobilizing for Action through Planning and Partnerships (MAPP) process. MAPP is a community-driven strategic planning framework utilized in community health improvement. This framework assists communities not only in the prioritization of public health issues, but in creating a platform to develop and implement efforts to address them, leading to action.

Assessment Instrument

The National Public Health Performance Standards Program (NPHPSP) is a collaborative effort of seven national partners to enhance the Nation's public health systems. This program has established a local assessment instrument to measure the performance of local public health systems (LPHS)--defined as the collective efforts of public, private and voluntary entities, as well as individuals and informal associations that contribute to the public's health within a jurisdiction (for a list of assessment participants, please see Appendix A on page 148). The purpose of the NPHPSP local instrument is to improve public health system performance. The instrument assists in doing the following:

- Complete the local public health system assessment with documented discussion and scores related to each performance measure.
- Enhance the understanding of the public health system.
- Build relationships within the public health system.
- Foster an interest and awareness in performance improvement.

The instrument is framed around the 10 Essential Public Health Services that are utilized in the field to describe the scope of public health. For each essential service in the local instrument, there are model standards that describe or correspond to the primary activities conducted at the local level. There are a total of 30 model standards in this instrument. For each model standard, there are a series of discussion questions that break down the standard into its component parts. After completing the discussion questions, participants vote on the performance measures of the model standard. A consensus of participant votes is required to finalize the score of each performance measure. The scores of the performance measures determine the final score of the corresponding essential service. The scoring system utilized for the essential services, model standards, and the performance measures is below:

SUMMARY ASSESSMENT RESULTS

LPHSA Scoring Chart

Optimal Activity	<i>(76-100%)</i>	Greater than 75% of the activity described within the question is met.
Significant Activity	<i>(51-75%)</i>	Greater than 50% but no more than 75% of the activity described within the question is met.
Moderate Activity	<i>(26-50%)</i>	Greater than 25% but no more than 50% of the activity described within the question is met.
Minimal Activity	<i>(1-25%)</i>	Greater than zero but no more than 25% of the activity described within the question is met.
No Activity	<i>(0%)</i>	0% or absolutely no activity.

Assessment Methodology

The assessment began with an opening 60-minute plenary session to welcome participants, provide an overview of the process, introduce the staff, and answer questions. The opening plenary session also consisted of activities to introduce participants to specific concepts of the assessment process and keep them engaged throughout the day. Participants were then broken into five groups; each breakout group was responsible for conducting the assessment for two essential public health services (EPHS). Throughout the day, participants helped build a connectedness diagram to map the Local Public Health System (Appendix B, page 151). Participants also provided a word to describe what makes them passionate about their work. Their responses were used to generate a Wordle (Appendix C, page 152).

Each group was professionally facilitated by a trained facilitator and discussion notes were captured by a recorder. The day ended with a plenary session where improvement opportunities of each essential service were reported by participants of each group. During this time, participants were also given an opportunity to provide feedback on the event through a written survey. The end-of-day dialogue outlined the next steps of the assessment process and encouraged participants to contact the Live Well Lake County Steering Committee for further involvement in MAPP activities.

SUMMARY ASSESSMENT RESULTS

Assessment Findings

1. Surveillance Capacity and Data Sharing

Surveillance is the continuous collection, analysis, and interpretation of health-related data needed for planning, implementation, and evaluation in public health practice. It is important for the local public health system to have the capacity for surveillance of a number of conditions, including chronic diseases, infectious disease outbreaks, mental health conditions, and reportable diseases. The data collected should be accessible and shared within the local public health system and with the general public.

2. Increasing Health Equity Education

Health inequities are differences in population health status and health conditions that are systemic, patterned, unfair, unjust, and actionable. These differences are avoidable, and arise from social and economic inequalities, including socio-economic status, race/ethnicity, age, and sex/gender. Health equity education helps in reducing health inequities in the community.

3. Public Health System Awareness- General Public

To navigate the local public health system competently, education and awareness of the system and its activities should be continuously disseminated to the general public.

4. Evaluating Population-Based Health Services

Effective evaluations of population-based health services are necessary for improving and guiding public health activities; ensuring evidence-based decision-making and action; making efforts outcome-oriented; and ensuring accountability.

5. Public Health System Awareness- Community Partners and Stakeholders

A well-functioning public health system has strong partnerships where partners recognize they are part of the public health system through continuous channels of communication, resource sharing, as well as data sharing.

6. Linkage Between Academia and Public Health Practice: Research Infrastructure

To improve public health practice, education and research, it is important to coordinate and collaborate with academic and research based institutions. Collaboration is important not only to ensure development of a well-trained, competent workforce, but to strengthen the use of evidence-base practices in public health.

7. Continuous Quality Improvement

Continuous Quality Improvement (CQI) is a process to ensure programs are systematically and intentionally improving services. CQI is a process-based, data-driven approach to improving the quality of product or service. The ongoing process involves the *Plan, Do, Study, Act* cycle.

8. Linkage to Personal Health Services

Personal health services include all services dealing with the promotion, maintenance, and restoration of health. Provision of services to the general public depends on the availability of key resources as well as effective care coordination.

SUMMARY ASSESSMENT RESULTS

FORCES OF CHANGE ASSESSMENT

The Forces of Change Assessment is designed to help key community stakeholders answer the questions: “What is occurring or might occur that affects the health of our community or the local public health system?” and “What specific threats or opportunities are generated by these occurrences?”

Assessment Instrument

The Live Well Lake County Steering Committee began the assessment by brainstorming potential forces of change across five broad categories: political, environmental, legal/ethical, social/economic, and technological/scientific. Within each category, the group was asked:

- *What forces are occurring or might occur that affects the health of our community or the local public health system?*
- *What specific threats or opportunities are generated by these occurrences?*

Assessment Methodology

Participants brainstormed potential forces and shared them with facilitators. Like-minded themes were grouped using an affinity diagram to identify overarching forces that shape or influence the public health system and community. The effects of these forces may have an impact on any part of the public health system, including resources, strategic issues, infrastructure, culture, or the environment.

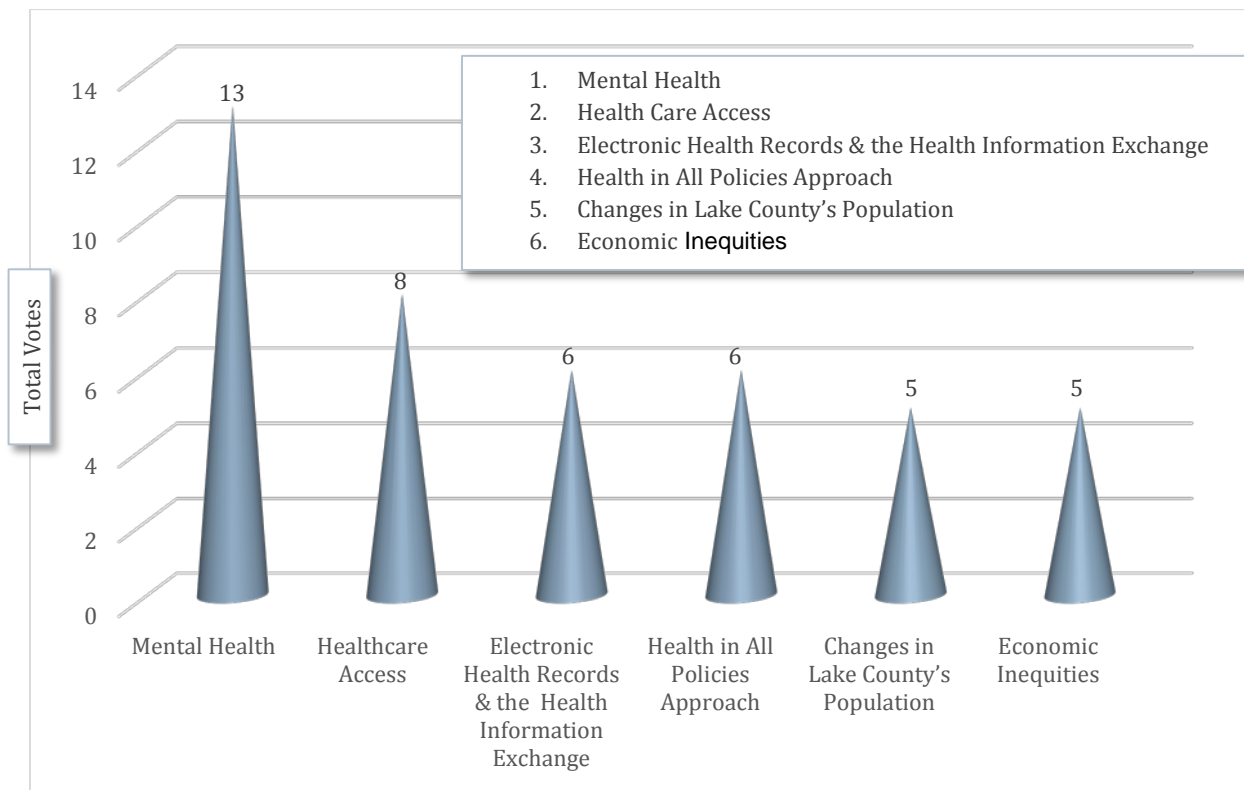
Forces	
<i>Trends</i>	Patterns over time
<i>Events</i>	One time occurrence
<i>Factors</i>	Discrete elements

To identify methods to enhance or mitigate the effects of these forces, participants then identified threats posed and opportunities created within each force. Participants also acknowledged additional information that was needed within the system to appropriately address specific forces as well as local organizations that were believed to have experience or knowledge to address barriers. Participants completed this process for each of the five categories and then thoughtfully considered what his/her top priorities were regarding the most influential forces of change for Lake County. The forces perceived to be most impactful can be found in the summary of results.

Assessment Results

Results of the FoCA shed light on potential forces that may affect the local public health system’s capacity to implement the Community Health Improvement Plan and thus improve the health status of those who live, work, play and pray in Lake County. Live Well Lake County will be proactive in leveraging collaborative partnerships to address expected forces through the identification of social, scientific, technological, organizational and institutional resources. While all identified forces should be considered, those six ranked (see table below) as having the most impact on the county should be given priority when identifying and building system capacity to address strategic issues. Several forces may be unique to the current assessment, while others may also appear during one of the other MAPP assessments.

SUMMARY ASSESSMENT RESULTS



SUMMARY ASSESSMENT RESULTS

COMMUNITY THEMES AND STRENGTHS ASSESSMENT

The Community Themes and Strengths Assessment (CTSA) was conducted by the Live Well Lake County Steering Committee with guidance from the LCHD/CHC between October 2015 and December 2015. The CTSA focuses on opinions and perceptions of residents regarding the quality of life and health in the community as well as community assets. It creates a portrait of the community seen through the eyes of the residents.

Assessment Instrument

The assessment was divided into three categories:

1. Community Strengths Survey
2. Focus Groups
3. Photovoice

Assessment Methodology

Community Strengths Survey

The Community Strengths Survey was conducted to understand the opinions and perceptions of Lake County residents regarding the quality of life and health in their community. The survey was developed through a CTSA workgroup that consisted of members of the Live Well Lake County Steering Committee and LCHD/CHC staff. A total of 14 survey questions were developed that focused on demographics, quality of life, health, and strengths in the community (Appendix D, page 153).

The survey was distributed online and through paper copies and was available in English and Spanish. The online survey link was distributed to community partners and organizations throughout Lake County through the Live Well Lake County Steering Committee and LCHD/CHC email list-serves, website posts, newsletters, flyers, and social media messages. The link was accompanied by a message that encouraged individuals to forward the link to others to increase the reach of the survey in the community.

The primary focus of distribution for the paper copies was organizations that are able to reach residents who may not have the opportunity to take the survey online. Paper copies were also distributed to organizations that normally have a large amount of residents who visit their location on a daily basis. The paper copies were given as a package, with a box for completed surveys, promotional material in English and Spanish, documents that explained how to distribute the survey, and answers to frequently asked questions.

SUMMARY ASSESSMENT RESULTS

Focus Groups

Using a health equity lens, focus groups were conducted to provide a voice to underserved and underrepresented populations. The results helped to provide further insight into the survey findings through intensive discussions with residents on their perceptions of quality of life and health in their communities. The in-depth questions that were developed for the focus groups were based off of the questions from the Community Strengths survey (Appendix E, page 159).

Groups were selected to provide an equitable representation of demographics, including race, ethnicity, language, and socioeconomic status. Four focus groups were conducted: (1) African Americans, (2) persons with physical disabilities and/or visual impairments, (3) Korean Americans conducted in Korean, and (4) recent Latino immigrants conducted in Spanish. The Live Well Lake County Steering Committee, along with the LCHD/CHC partnered with community-based organizations to help with participant recruitment and hosting the focus groups.

A total of 42 adults participated across the four focus groups. The group size for each ranged from 8-14 participants with discussions lasting between 60 and 90 minutes. One health department staff member facilitated the conversation while another took notes. The conversations were audio recorded to accurately capture all of the ideas and opinions of the participants. Two of the groups were conducted in languages other than English: Korean and Spanish. The organizations that hosted focus groups in Korean and Spanish provided a staff member to facilitate language translation between the focus group facilitator and the participants.

To promote consistency in data collection and reporting, a focus group facilitator guide, note-taker template, and focus group summary table were developed. The focus group facilitator guide included: recommendations on how to conduct and record a focus group session; logistics and materials; and a script for the facilitator to follow. In an effort to ensure the anonymity of the participants, names were not collected and all introductions were conducted prior to audio recording.

After the focus groups were conducted, the data was transcribed, analyzed, and interpreted. The results of each individual focus group were analyzed separately and then analyzed collectively with the other focus groups. The transcriptions were coded and categorized by question.

SUMMARY ASSESSMENT RESULTS

Photovoice

Photovoice is a research tool used to gain community-level perspectives from target populations using photography as a means of expression. The three main goals of Photovoice are to (1) enable people to record and reflect their community's strengths and concerns, (2) to promote critical dialogue and knowledge about important issues through group discussion of the photographs, and (3) to reach policymakers¹. The Live Well Lake County Steering committee utilized Photovoice to answer the following questions: (1) "How does your community positively and negatively affect your health?" and (2) "How does your community prevent or allow for behaviors which can lead to obesity?"

High school students in Lake County were selected as participants in this project to provide a platform for youth to voice their opinions on community health; to educate youth on public health concepts; and engage youth in the community health improvement process. Participants were purposefully recruited from schools and youth advocacy groups that were geographically and socioeconomically diverse. The following groups were recruited:

- Adlai E. Stevenson High School's HOSA group (Health Occupation Students of America). Seven students from HOSA participated. Adlai E. Stevenson High School is located in Lincolnshire (South Central Lake County) and provides representation of a middle upper class to upper class socioeconomic status.
- Zion-Benton Township High School's photography class. The photography teacher made Photovoice part of the coursework. Thirteen students from the class participated. Zion-Benton High School is located in northeast Lake County, representing diverse socioeconomics and racial/ethnic composition.
- REALITY Illinois and the Youth Advisory Board groups in the greater Gurnee area and the greater Lake Zurich area. REALITY Illinois and the Youth Advisory Board group are a tobacco and alcohol policy and advocacy group created by and for Illinois teens. It is funded by the Illinois Department of Public Health and the Lake County Underage Drinking and Drug Prevention Task Force. A total of fifteen students participated from REALITY Illinois across the two group locations. Both locations provide a broad representation of central and south western Lake County.

SUMMARY ASSESSMENT RESULTS

Assessment Results

The table below contains a summary of the overarching themes found throughout the CTSA. The categories indicate which assessment tool identified the themes as well as which themes were found as strengths, improvement opportunities, and health issues.

	Survey	Focus Group	Photovoice
<i>Community Strengths</i>			
Community Safety	X		X
Active Living	X	X	X
Access to Health Care	X	X	
Education	X	X	
Family Focus		X	
Spiritual Support	X	X	
Transportation	X	X	X
Food Environment		X	X
<i>Improvement Opportunities</i>			
Competent and Culturally Sensitive Workforce		X	
Financial Support	X	X	
Transportation	X	X	X
Family Focus		X	
Food Environment		X	X
Community Involvement		X	X
<i>Health Issues</i>			
Substance use	X		X
Chronic Disease	X	X	X
Poor diet and inactivity	X	X	X
Mental Health		X	
Older adult health and health care		X	
Health information and awareness		X	

SUMMARY ASSESSMENT RESULTS

The community-identified top 10 priorities were selected from overarching health issues found in the Community Strengths survey, focus groups, and Photovoice. The health issues were then ranked based on survey responses, topics that were heavily discussed in the focus groups, and photos taken by students.

Rank	Priority
<u>1</u>	Poor diet and inactivity
<u>2</u>	Chronic Disease (obesity, diabetes, heart disease, high blood pressure, stroke, cancer)
<u>3</u>	Substance use (tobacco, alcohol, and drug use)
<u>4</u>	Safe Affordable Housing
<u>5</u>	Older Adult Health (arthritis, hearing/vision, Alzheimer's disease/Dementia)
<u>6</u>	Community Safety (community violence and domestic violence)
<u>7</u>	Food Environment (Availability of affordable, healthy food)
<u>8</u>	Mental Health
<u>9</u>	Cultural Sensitivity and Linguistic Capacity
<u>10</u>	Health Literacy

SUMMARY ASSESSMENT RESULTS

COMMUNITY HEALTH STATUS ASSESSMENT

Lake County's Community Health Status Assessment was conducted from July 2015 through January 2016. During this time, LCHD/CHC collected, analyzed, and interpreted a variety of primary and secondary data from across sectors and sources. Data were used to develop a comprehensive understanding of the health of the community at large and the systems in which Lake County residents live, work, and play.

Assessment Instrument

Data were collected to provide a comprehensive understanding of the health conditions and behaviors of individuals within the community and systemic features in the community that can help or hinder a person's health or quality of life. The Community Health Status Assessment focuses on quantitative health information rather than the qualitative or interpretive information of system participants. Community health status measures can be compared against other county, state, and national measures to better understand a community's strengths and opportunities for improvement. It allows community members to see markers of health for residents and the community as they are at the time of the assessment.

Information was organized into 11 distinct categories that capture the defining features of a community: Demographic Characteristics, Socioeconomic Characteristics, Health Resources Availability (General Health and Access to Care), Quality of Life, Behavioral Risk Factors, Environmental Health Indicators, Social and Mental Health, Maternal and Child Health, Morbidity and Mortality (Death, Illness, and Injury), Infectious Disease, and Sentinel Events.

Assessment Methodology

The CHSA contains the essential quantitative indicators necessary for the community health improvement planning process. Because community health crosses so many sectors, the data collection strategy and sources must reflect a diverse set of conditions, contributors, and indicators. Indicators were selected to provide a robust assessment of the community as a whole.

Secondary data is any data set that is collected by another entity for purposes other than the immediate project at hand. The more complete, regular secondary data sets are fundamental resources for the planning process. While secondary data resources provide a solid foundation from which to assess community health, these do not provide a complete picture of health in Lake County. Priorities from community partners challenge LCHD/CHC to explore alternatives to capture information on areas not covered by other data sets. Data sets related to mental health and substance abuse (behavioral health) are rarely available at the local level. Primary data collected by LCHD/CHC is helping to fill the gap.

SUMMARY ASSESSMENT RESULTS

Assessment Results

Demographic Characteristics

Lake County is growing increasingly diverse:

Race or Ethnic Group	2000	2014
Hispanic or Latino (of any race)	13.4%	20.5%
White alone	68.2%	64.2%
Black or African American alone	6.4%	6.6%
Asian	3.6%	6.5%
Some other race or combination of races	8.4%	2.2%

Socioeconomic Characteristics

Poverty is an emerging issue among all groups in Lake County:

Percent of Population in Poverty by Race and Ethnicity	2010	2014
White	5.4%	8.0%
African American	18.9%	26.3%
Hispanic	13.8%	17.6%
Asian American	3.7%	5.5%
All Lake County	7.0%	9.4%

Health Resources Availability

The rate of health insurance has changed dramatically since 2010.

Percent of Population Without Health Insurance ⁵	2010	2014
White	9.8%	8.6%
African American	13.8%	10.4%
Hispanic	31.1%	23.0%
Asian American	12.8%	8.0%
All Lake County	12.4%	8.7%

⁵ American Community Survey 2014 1-year Average. American Community Survey 2010 1-year average

SUMMARY ASSESSMENT RESULTS

Quality of Life

13% of adults in Lake County describe their health as “Fair” or “Poor,” slightly better than the overall Illinois rate of 17% and nearly equivalent to the 90th percentile in the United States (12%).⁶

Behavioral Risk Factors

About 68% of adult residents exercise for 30 minutes or more for three or more days per week. 36% of adults exercise five or more days per week. On average, adults in Lake County exercise 3.5 days per week.⁷ Only 15% of adults in Lake County eat five or more fruits and vegetables per day. 49% of adults in the county have two or fewer fruits and vegetables per day. On average, adults in the county eat about 2.9 fruits and vegetables per day.

Environmental Health Indicators

An average of 18 new lead cases were opened annually from 2010-2015, resulting in a rate of about 2 cases per 1,000 blood draws. From 2010 to 2015, the proportion of “Good” days for air quality exceeded 86% for each individual year; from 2013 to 2015, “Good” days were 93% or more. In 2012, excessively hot and humid conditions are thought to have reduced air quality in Lake County, resulting in a total of 17 days that were considered “Unsafe for Sensitive Groups” and two days that were “Unhealthy Days.” This year was an outlier compared to the other years.

Social and Mental Health

36% of adults in Lake County had one or more days of “not good” mental health in the past month and 14% of adults had been unable to perform normal tasks because of poor mental health for a day or more in the past month. On average, mental health prevents usual activities for 0.9 days per adult.

Maternal and Child Health

From 2010-2013, 74.0% of births carried to term in Lake County received care during their first trimester. The average rate of adolescent births was 19.6 per 1,000 adolescent women, lower than the 2011 rate in Illinois (29.5) and the United States (31.3). 7.4% of births in Lake County were considered low birthweight (below 2500g), better than Illinois (8.2%) and United States (8.0%) rates. 9.4% of babies in Lake County were born premature, lower than the overall rates for Illinois (10.1%) and United States (11.4%).

⁶ County Health Rankings 2016

⁷ LCHD 2015 Community Health Status Survey

SUMMARY ASSESSMENT RESULTS

Death, Illness, and Injury

The LCHD 2015 Community Health Status Survey and Secretary of State records provided the timeliest rates of a variety of health conditions:

Chronic Disease	Percent of Lake County ⁸
Chronic Obstructive Pulmonary Disease	4%
Skin Cancer	8%
Some other type of Cancer	6%
Arthritis	21%
Kidney Disease	3%
Heart Attack	3%
Heart Disease (Any)	6%
High Blood Pressure/Hypertension	35%
Stroke	1%
Diabetes (Excluding Gestational)	6%
Pre-Diabetes	14%
Asthma	12%
Obesity ⁹	23%

⁸ LCHD 2015 Community Health Status Survey

⁹ Secretary of State, 2010-2014

SUMMARY ASSESSMENT RESULTS

These are the top ten causes of death in Lake County, from 2010-2014:

Cause of Death ¹⁰	Crude Rate per 100,000
Cancer	149.2
Diseases of the Heart	133.6
Chronic Lower Respiratory Diseases	30.2
Cerebrovascular Diseases (Stroke)	28.9
Accidents (Unintentional Injuries)	25.1
Diabetes Mellitus	18.5
Alzheimer's disease	16.2
Nephritis, nephrotic syndrome and nephrosis	13.7
Influenza and pneumonia	12.9
Intentional self-harm (suicide)	9.8

Infectious Disease

From 2012-2015, the overall rate of Chlamydia was 28.4 per 10,000 Lake County residents. Rates of gonorrhea across the county were 5.2 per 10,000 residents. Early syphilis was diagnosed in 0.2 per 10,000 residents over this window. This burden is highly dependent on geography, race and ethnicity, age, and sex.

Sentinel Events

Drug overdose deaths in 2014 (largely driven by opioids) for Illinois occurred at an age-adjusted rate of 13.1 per 100,000 residents.¹¹ In Lake County, deaths to all drugs in 2015 were 9.8 per 100,000 residents. Of those, 84% were caused by opiates.¹² Deaths do not capture the full burden of prescription and illicit opioid use. While county data are not available for rates of opioid abuse, an important risk factor begins with legal use of prescription opioids. In the past year, 15% of adults in Lake County reported that they had been prescribed an opioid drug in the past twelve months.¹³ If this medication is not managed properly and attentively by the prescribing doctor, individuals prescribed opioids or others in their household can develop dependence or abuse these drugs.

¹⁰ CDC WONDER 2010-2014.

¹¹ Rudd, R.A, Aleshire, N., Zibbell, J.E., & Gladden, M. (2016) "Increases in Drug and Opioid Overdose Deaths – United States, 2000-2014. MMWR.

¹² Lake County Coroner Drug Overdose Deaths for 2015.

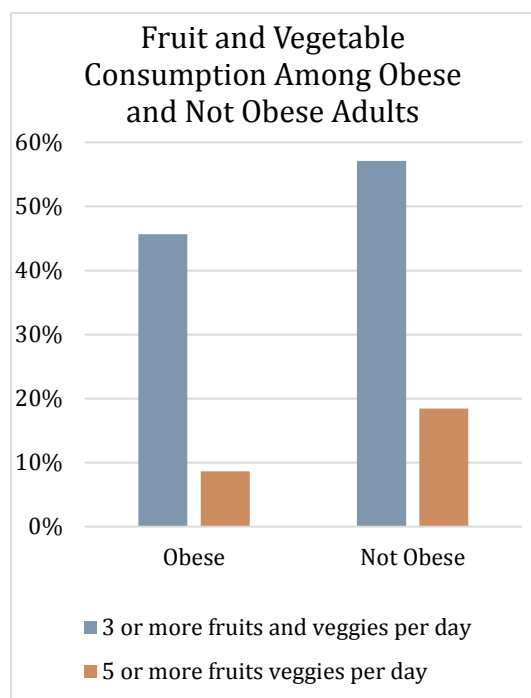
¹³ LCHD 2015 Community Health Status Survey.

CONTRIBUTING FACTORS

Contributing Factors

HEALTH BEHAVIORS AND CHRONIC CONDITIONS

When identifying gaps in health behaviors and systemic factors that might lead to adverse health outcomes, local data are especially important to understanding the challenges and opportunities that are unique to the Lake County community. For example, obese and not obese individuals were found to have different rates of certain health behaviors related to nutrition and physical activity. These gaps drive the prevention and management needs of Lake County.

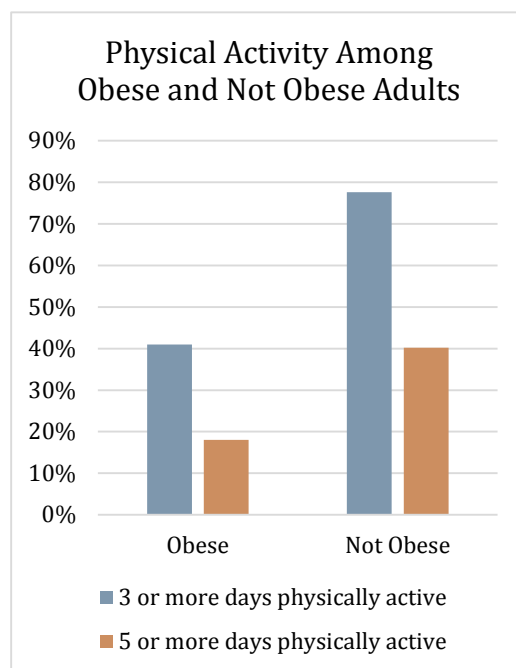


Nutrition

Through the Lake County Community Health Survey, we know that community members who are affected by obesity are participating in fewer health-promoting behaviors than those without the condition. Obese individuals were about 25% less likely than individuals who were not obese to have had three or more servings of fruits and vegetables per day and only half as likely to have had five or more servings of fruits and vegetables per day. Most adults, regardless of weight status, are not eating the recommended servings of fruits and vegetables per day, but those with obesity are even less likely to be getting enough.

Physical Activity

In a similar way, the survey revealed that obese individuals are only half as likely as their not obese peers to get at least three days of 30 minutes of exercise per week and less than half as likely to be active for 30 minutes for five or more days per week. Adults in both categories are not meeting weekly physical activity needs, but the gap is greater among individuals with the chronic condition.



CONTRIBUTING FACTORS

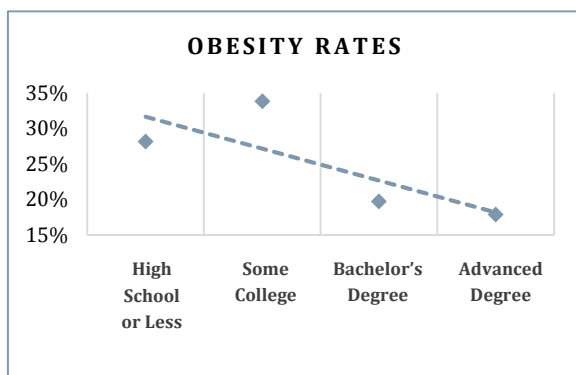
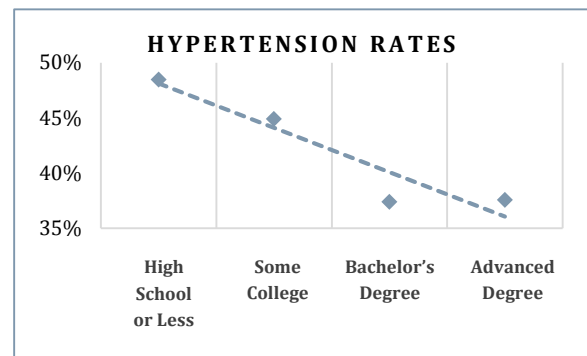
SOCIAL DRIVERS

Socioeconomic status greatly influences an individual's health status. Through the survey tool, educational attainment and income were found to be related to rates of the priority conditions. Improved educational attainment and increased household income reduced overall rates of hypertension, obesity, and diabetes. The trends identified here do not directly correspond to the overall rates in Lake County because stratifying by educational attainment created comparative populations with a higher average age; however, average age between groups is comparable.

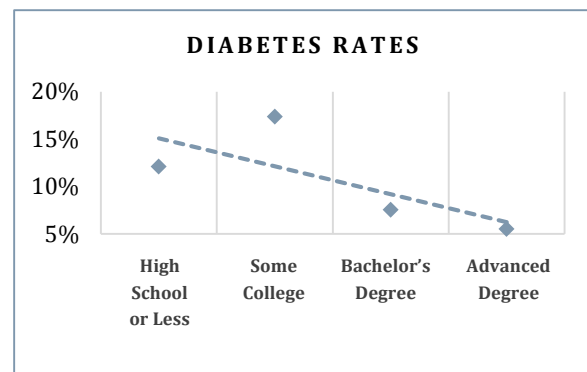
EDUCATIONAL ATTAINMENT

When community health surveys were stratified by educational attainment, disparities emerged between groups by highest level of education. Educational attainment has a protective effect that increases with dose, that is, the higher an individual's level of education, the less likely that person is to experience an adverse health outcome.

For **hypertension**, the condition remains common across all education levels. Individuals with bachelor's and advanced degrees are still affected by the condition, but at rates about 10% lower than their peers with high school or less as their highest level of education. Those with some college or technical degrees fell in the middle of the range.



Obesity was also found to be mediated by level of education. Those with less than a bachelor's degree had 8% higher rates of obesity, or nearly 50% more likely to be obese.

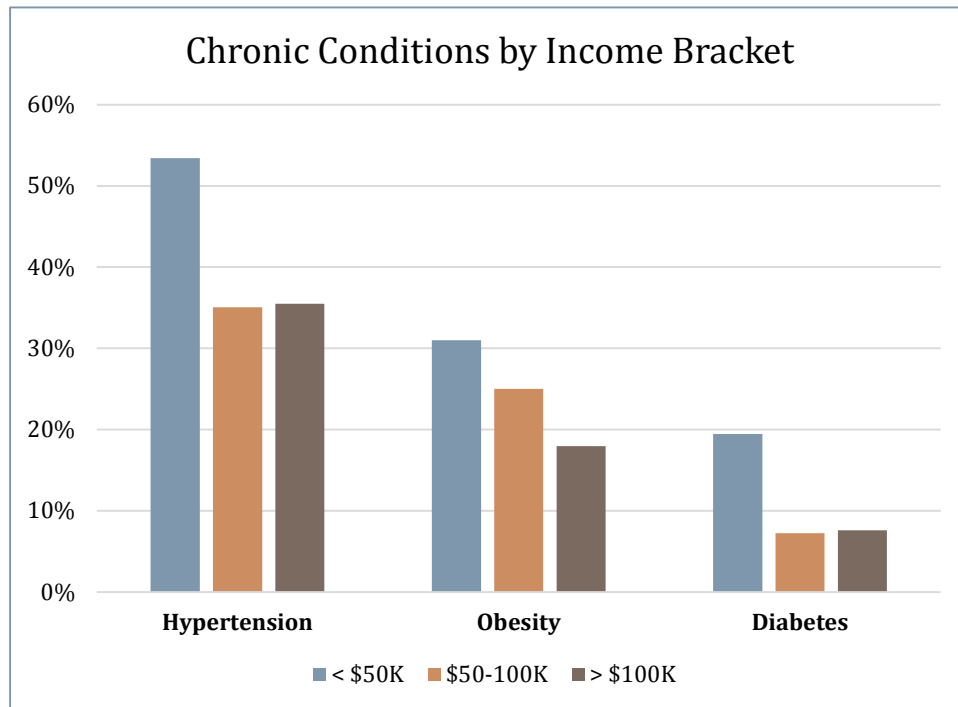


In a similar way, **diabetes** was highly mediated by education level, where those with a high school degree or less had 6% higher rates of diabetes, or about 40% more likely than those with a bachelor's to have been diagnosed with the condition.

CONTRIBUTING FACTORS

INCOME

Income represents resources that can support health and wellbeing. Lake County's income breaks relatively evenly into three groups: households making less than \$50,000 per year, households making between \$50,000 and \$100,000 per year, and households making more than \$100,000 per year. By comparing income brackets and relative rates for the priority conditions, patterns emerge for the prevalence of these conditions.



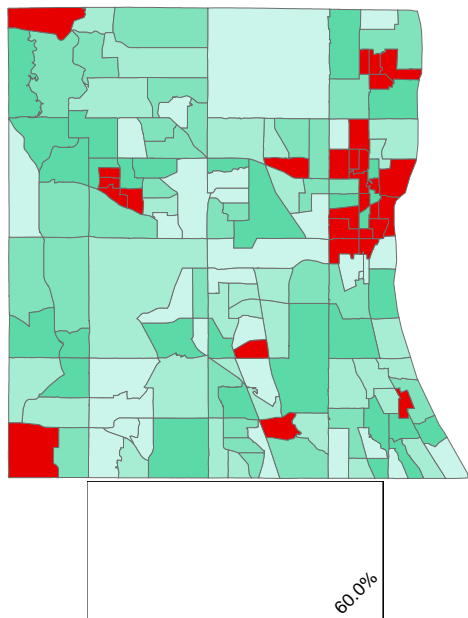
For **hypertension**, individuals from the lowest third of households responding reported rates of the condition at about 18% higher rates. These individuals were about 50% more likely than those in either of the other two brackets to experience hypertension. Individuals in the \$50,000-\$100,000 and > \$100,000 brackets are still affected by hypertension but with less frequency than those in the lowest income bracket.

Obesity follows a different, more linear pattern. Each of the three income brackets had different rates of obesity. A gap of 13% was found between those in the lowest third and those in the highest. The middle income bracket nearly split the difference between the two groups. For more information on how household income is related to obesity rates, refer to the "Obesity in Lake County: 2015 Status Report."

Diabetes followed a pattern similar to hypertension. The lowest income bracket faces the highest burden, with relative rates more than double those in the highest two brackets. The middle and high income groups have similar, lower rates.

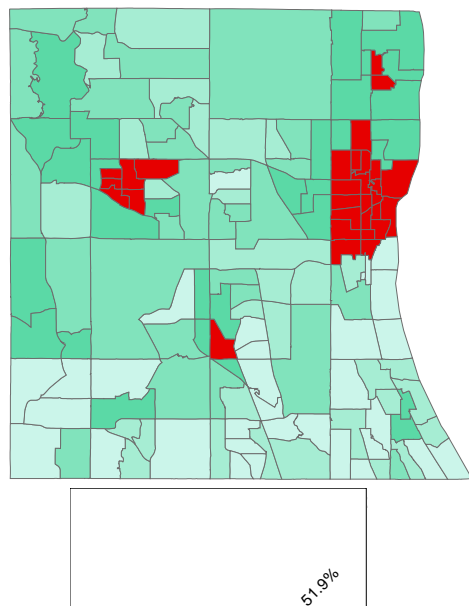
IDENTIFYING TARGET COMMUNITIES

Identifying Target Communities



HOUSING STRESS

Safe, affordable housing contributes to overall wellbeing. Housing stress identifies challenges related to the cost a household spends on housing (> 30% of income), overcrowding in households (more than 1.5 persons per room), or incomplete kitchen or plumbing facilities. Some communities in Lake County are faced with a disproportionate burden of housing stress. To get a sense of the housing burden in smaller areas, this map displays the percentage of residents of census tracts who pay more than 30% of their income towards housing costs making them financially housing stressed.¹⁴ Severe housing stress includes the physical limits of housing (incomplete facilities or overcrowding) or households that spend over 50% of their income on housing; 18% of Lake County residents face severe housing stress.¹⁵



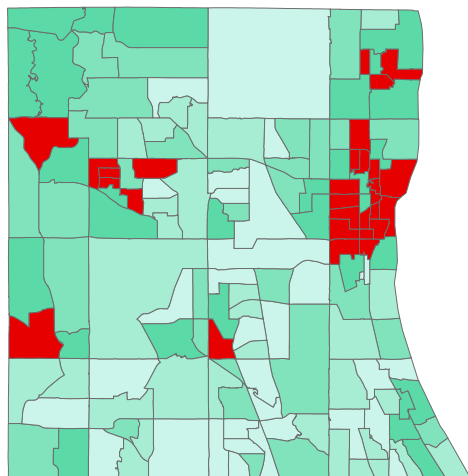
EDUCATIONAL ATTAINMENT

Education supports improved health outcomes. Higher levels of education are generally associated with better jobs, higher wages, improved likelihood of having insurance and access to healthcare services, and better literacy and comprehension of health information. Educational disparities perpetuate inequities. While much of Lake County enjoys high educational achievement, certain communities lag behind and are therefore more vulnerable to negative health outcomes.

¹⁴ American Community Survey 5-Year Average (2010-2014).

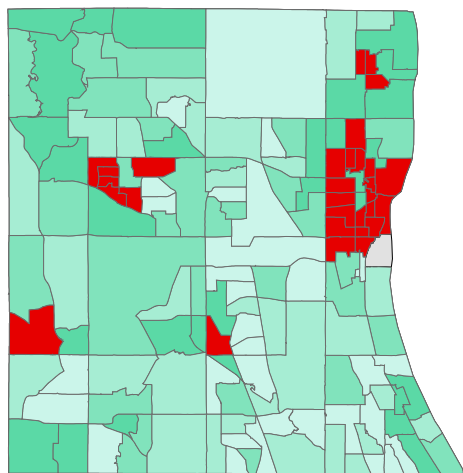
¹⁵ University of Wisconsin Population Health Institute. *County Health Rankings 2016*. Accessible at www.countyhealthrankings.org

IDENTIFYING TARGET COMMUNITIES



POVERTY

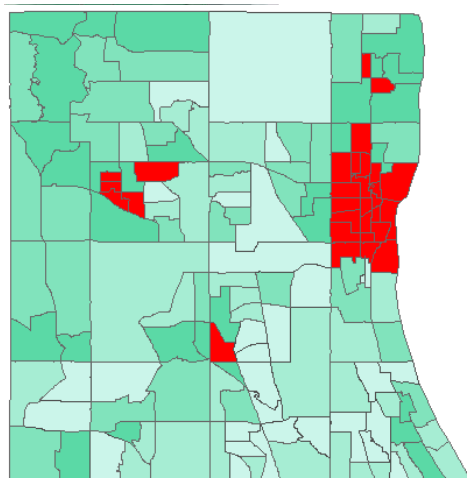
Poverty contributes to poor health outcomes. The most economically vulnerable in the community are disproportionately exposed to stressors and lack the resources to combat these challenges. The highlighted quintile of census tracts represent the highest rates of overall poverty, from 15.8-46.1% of residents in each census tract.



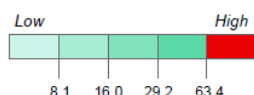
CHILDHOOD POVERTY

Childhood poverty is especially insidious. Childhood poverty is generally higher than the overall poverty rates. Contributing to chronic stress and limiting academic achievement, poverty in childhood has lasting social and health repercussions. Again, children in certain communities are more greatly burdened by poverty than others.

IDENTIFYING TARGET COMMUNITIES

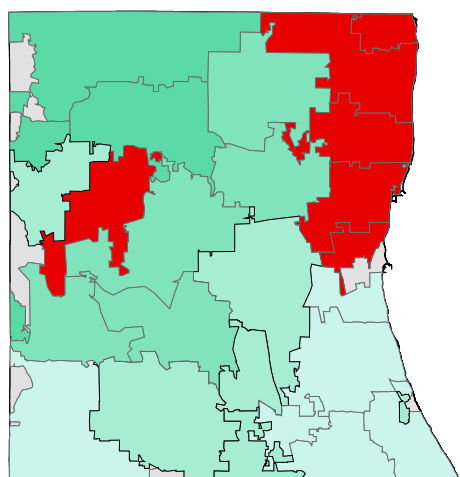


**Economic and Education
Composite Score**



ECONOMIC AND EDUCATION COMPOSITE BY CENSUS TRACT

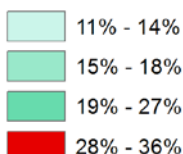
From the Social Drivers section, education and income were identified as key contributors to adverse health outcomes. Different communities bear different burdens of economic hardship and lack of educational attainment. Using data from the U.S. Census's American Community Survey's Five-Year Average (2010-2014), the bottom quartile of Census tracts (20% of Census tracts with the highest rates of these key factors) were identified and highlighted on this map. Composite score was determined by summing three driving factors of health outcomes: rate of overall poverty in the Census tract, rate of childhood poverty (poverty rate of individuals under 18) in the Census tract, and rate of adults 25 and older without high school, an equivalent credential, or higher. Scores were broken into quantiles to identify areas of greatest need. Concentrated poverty and low education levels suggest these communities are more vulnerable to health disparities than peers without these factors. Because these areas face the greatest challenges of determinants, it is expected that they will face the highest rates of health challenges and the priority chronic diseases.



PERCENT OF POPULATION THAT IS OBESE BY ZIP CODE

Obesity is the most robust data set available to LCHD/CHC and can be used here as a proxy for adverse health outcomes. Though data are available at the ZIP code level rather than by census tract, the burden of social drivers corresponds to the burden of obesity in the ZIP code. For a guide to identifying communities by ZIP code, please see Appendix F on pages 160.

% Obese



PRIORITIZATION PROCESS

Prioritization Process

PURPOSE

LC HD/CHC used data to guide decision-making during the 2016 community health improvement process. LC HD/CHC adapted the recommended Hanlon Method from materials available through the National Association of County and City Health Officials (NACCHO)¹⁶ to meet the needs of the Lake County assessment.

HANLON METHOD

The traditional Hanlon Method considers four criteria of individual health problems: size of the problem, seriousness of the problem, estimated effectiveness of the solution, and PEARL factors (propriety, economic feasibility, acceptability, resource availability, and legality). For the modified method, there is a focus only on the first two criteria (size and seriousness). Because of the variety of potential interventions for any health issue, it is more appropriate to allow participants in the planning process to select effective strategies after the driving health challenges in the community were selected so the priorities would be based on the highest areas of need. By initially utilizing size and seriousness, the data-driven process minimized bias during prioritization of the most impactful health issues in Lake County.

SIZE

Size is scored on a scale of 1 to 10 and taken directly from the guiding document provided by NACCHO. Percent of population afflicted was either a prevalence or an incidence measure, depending on the health issue.

Rating	Percent of Population Afflicted
9-10	> 25%
7-8	10-24%
5-6	1-10%
3-4	0.1-0.9%
1-2	0.01-0.09%
0	< 0.01%

¹⁶ "Tip Sheet: Prioritizing Issues in a Community Health Improvement Process." Community Health Assessments and Community Health Improvement Plans for Accreditation Preparation Demonstration Project. Accessed at: <http://archived.naccho.org/topics/infrastructure/CHAIP/upload/Final-Issue-Prioritization-Resource-Sheet.pdf>

PRIORITIZATION PROCESS

SERIOUSNESS

To remove as much subjectivity as possible from the “seriousness” criteria, specific values were enumerated. Morbidity, mortality, and health equity were deemed to be the values that drive seriousness. These designations allowed health equity to be incorporated into all future decisions throughout the process, assuring that vulnerable populations and communities receive the attention they need in order to be healthy. Each criteria is worth one point unless otherwise noted. The rubric is as follows:

Value	Criteria
Morbidity (3pts)	Does the condition reduce an individual's quality of life?
	Does the condition cost more than \$300 annually in medical expenses?
	Does the condition cost more than \$1000 annually in all related costs?
Mortality (3pts)	Does the condition contribute to early death in Lake County?
	Is it one of the identified top 15 rankable causes of death in Lake County? (1-5 rank = 2pts, 6-15 = 1pt)
Health Equity (3pts)	Is the condition more prevalent in disadvantaged populations?
	Is the morbidity burden greater in disadvantaged populations?
	Are disadvantaged populations more likely to die of this condition?
Comparability (1pt)	Relative to data available for other geographies (state or national), is Lake County better (0 pts), equivalent (0.5 pts), or worse (1pt)?

SCORING

LCHD/CHC developed a comprehensive list of potential health issues using the results of the four community health needs assessments conducted in 2015. Priorities were assessed through literature review to determine the extent to which each health issue met each of the criteria. From this literature review, subscores for both size and seriousness were determined. The values were combined to calculate a composite score and priorities were ranked based on the following formula, which matches the guidance from the NACCHO document but excludes the effectiveness and feasibility measures:

$$\text{Hanlon Score} = \text{Size} + (2 \times \text{Seriousness})$$

PRIORITIZATION PROCESS

TOP HEALTH ISSUES IN LAKE COUNTY

After assessing all identified potential priorities, LCHD/CHC identified the top eight health issues with their associated Hanlon Scores.

These health issues were presented as potential priorities for the Live Well Lake County Steering Committee to discuss and vote. At this point in the process, feasibility and the PEARL factors were taken into consideration. Each health issue was discussed in terms of feasibility (capacity, finances, and resources) and effectiveness (success and impact).

Hanlon Score	Top Eight Health Issues
27	Cardiovascular Disease and Hypertension
25	Obesity
23	Depression and Suicide
23	Diabetes
22	Asthma and COPD
22	Tobacco and Lung Cancer
21	Healthy Pregnancies
21	Kidney Disease

In order to assure an inclusive health issue, the Steering Committee selected to change “Depression and Suicide” to “Behavioral Health” to capture substance abuse issues. Using a prioritization matrix method, each Steering Committee member was given four votes to select their four top priorities. The Steering Committee members could only vote for each health issues once.

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Local Public Health System Assessment

INTRODUCTION

Lake County's Local Public Health System Assessment was convened by the Live Well Lake County Steering Committee on June 18th, 2015 at Rosalind Franklin University. The Local Public Health System Assessment (LPHSA) is one of four assessments Lake County is conducting as part of its Mobilizing for Action through Planning and Partnerships (MAPP) process. MAPP is a community-driven strategic planning framework utilized in community health improvement. This framework assists communities to prioritize public health issues and create a platform to develop and implement efforts to address them. The LPHSA assesses the capacity and the extent to which the local public health system implements the 10 Essential Public Health Services (EPHS).

ASSESSMENT INSTRUMENT

The National Public Health Performance Standards Program (NPHPSP) established a tool to measure the performance of local public health systems, defined as the collective efforts of public, private, and voluntary entities, as well as individuals and informal associations. This tool supports participants to:

- Complete the local public health system assessment
- Enhance the understanding of the public health system
- Build relationships within the public health system
- Foster an interest and awareness in performance improvement

The instrument is framed around the 10 Essential Public Health Services that are utilized in the field to describe the scope of public health. For each essential service, there are model standards that correspond to the primary activities conducted at the local level. A total of 30 model standards are assessed. Within each model standard, there are a series of discussion questions that break down the standard into its component parts. After discussing the standard, participants vote on the performance measures of the model standard. Consensus is required to finalize the score of each performance measure which is used to determine the score of each essential service. The scoring system is broken into five broad categories:

LPHSA Scoring Chart		
Optimal Activity	(76-100%)	Greater than 75% of the activity described is met.
Significant Activity	(51-75%)	Greater than 50% but no more than 75% of the activity described is met.
Moderate Activity	(26-50%)	Greater than 25% but no more than 50% of the activity described is met.
Minimal Activity	(1-25%)	Greater than 0% but no more than 25% of the activity described is met.
No Activity	(0%)	0% or absolutely no activity.

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

METHODOLOGY

The assessment began with an opening 60-minute plenary session to welcome participants, provide an overview of the process, introduce the staff, and answer questions. Participants were introduced to specific concepts of the assessment process through a presentation and activities (for a list of participants, please see appendix A, page 148). Participants were then broken into five groups; each breakout group was responsible for conducting the assessment for two EPHS. Each group was facilitated by a trained facilitator and discussion notes were captured by a recorder. The day ended with a plenary session where improvement opportunities for each essential service were reported by participants of each group. The end-of-day dialogue outlined the next steps of the assessment process and encouraged participants to contact the Live Well Lake County Steering Committee for further involvement in MAPP activities.

LPHSA Breakout Group Assignments	
Group	Responsibilities
A	EPHS 1 – Monitor health status to identify community health problems.
	EPHS 2 – Diagnose and investigate health problems and health hazards in the community.
B	EPHS 3 – Inform, educate, and empower people about health issues.
	EPHS 4 – Mobilize community partnerships to identify and solve health problems.
C	EPHS 5 – Develop policies and plans that support individual and community health efforts.
	EPHS 6 – Enforce laws and regulations that protect health and ensure safety.
D	EPHS 7 – Link people to needed personal health services and assure the provision of health services.
	EPHS 9 – Evaluate effectiveness, accessibility and quality of personal/population-based health services.
E	EPHS 8 – Assure a competent public and personal health care workforce.
	EPHS 10 – Research for new insights and innovative solutions to health problems.

PARTICIPANTS

The Live Well Lake County Steering Committee worked with the Lake County Health Department to invite public health system partners from public, private, and voluntary sectors to participate in the LPHSA. The participants were selected with careful consideration to ensure that diverse perspectives were represented in each breakout group as well as balanced participation across sectors and agencies. Forty-eight participants attended; the numbers of attendees by sector are listed below:

LPHSA Participants			
Sector	Attendees	Sector	Attendees
Academic Institution	6	Health Department	5
Armed Forces	1	Homeless Shelter	1
Community Coalitions	2	Hospitals/Health Care	9
Emergency Preparedness	1	Housing	2
Environmental Advocates	2	Latino Services	1
Faith-Based Organizations	1	Libraries	1
Foundations/Non-Profit Organizations	5	Public Safety	2
General Public	2	Transportation	1
Government - Local	2	Youth Services	2
Government - State	1	Workforce Development	1

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

RESULTS

Based upon the scores for the performance measures in each model standard, an average score was calculated for each of the 10 EPHS. The score of each EPHS can be interpreted as the degree to which the local public health system meets the performance standards for each Essential Service.

Summary of Essential Public Health Scores				
EPHS	EPHS Description	Score		Overall Ranking
1	Monitor Health Status to Identify Community Health Problems	Significant	51%	7 th
2	Diagnose and Investigate Health Problems and Health Hazards	Optimal	82%	1 st
3	Inform, Educate, and Empower People about Health Issues	Significant	63%	5 th
4	Mobilize Community Partnerships to Identify and Solve Health Problems	Significant	64%	4 th
5	Develop Policies and Plans that Support Individual and Community Health Efforts	Significant	71%	3 rd
6	Enforce Laws and Regulations that Protect Health and Ensure Safety	Optimal	80%	2 nd
7	Link People to Needed Personal Health Services and Assure the Provision of Healthcare When Otherwise Unavailable	Moderate	48%	9 th
8	Assure a Competent Public Health and Personal Healthcare Workforce	Moderate	47%	10 th
9	Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services	Significant	62%	6 th
10	Research for New Insights and Innovative Solutions to Health Problems	Moderate	50%	8 th
Overall LPHSA Performance Score is SIGNIFICANT (62%)				

The highest ranked of the Essential Public Health Services was EPHS 2 (Diagnose and Investigate Health Problems and Health Hazards) which was assessed as having optimal activity of 82%. The lowest ranked was EPHS 8 (Assure a Competent Public Health and Personal Healthcare Workforce), assessed as having moderate activity of 47%. The average of all Essential Public Health Service scores resulted in the overall LPHSA performance score which was significant activity (62%).

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

RESULTS - BY ESSENTIAL SERVICE

Essential Service 1: Monitor Health Status to Identify Community Health Problems

To meet the requirements of Essential Service 1, the Local Public Health System should:

- Assess accurately and continually, the community's health status
- Identify threats to health
- Determine health service needs
- Pay attention to the health needs of groups that are at higher risk than the total population
- Identify community health assets and resources that support the public health system in promoting health and improving quality of life
- Use appropriate methods and technology to interpret and communicate data to diverse audiences
- Collaborate with other stakeholders, including private providers and health benefit plans, to manage multi-sectoral integrated information systems

Sectors Represented

- | | | |
|--------------------------------|---------------------------|---------------------------|
| ✓ Community Coalitions | ✓ Health/Hospital Systems | ✓ General Public |
| ✓ Emergency Preparedness Teams | ✓ Local Health Department | ✓ State Health Department |
| ✓ Epidemiologist | ✓ Public Safety | |

Findings

Strengths:

- Awareness of some of the available data sets and how they can be used to influence policy and planning
- Health data available on local Health Department website
- Hazard vulnerability assessment is conducted yearly and organizations use this data to drive decisions
- Continuous GIS mapping for emergency preparedness
- Ebola prevention and preparedness was conducted very well
- Many registries available for use, examples are: I-Care, INEDSS, Crime registry, and Antiretroviral Pregnancy registry

Weaknesses:

- Lack of awareness of some critical data sets (e.g., Community Health Assessment)
- Data sets provided from the state level are not timely and of poor quality

Improvement Opportunities:

- Improve quality of data sets and sharing of data in general
- Increase the availability and awareness of the Community Health Assessment
- Increase in regular communicable disease updates
- Increase interconnectedness of data sets
- Use data sets for gap analysis and information sharing to strengthen system

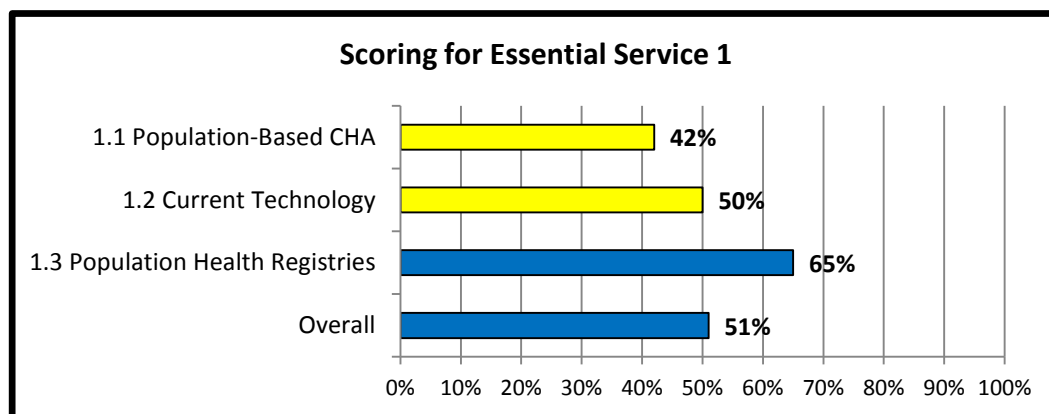
LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Scores by Performance Measure and Model Standard

1.1 Population-Based Community Health Assessment		
1.1.1 Community Health Assessment (CHA)	Significant	70%
1.1.2 Continuously update CHA with current information	Moderate	50%
1.1.3 Promote the use of CHA in the community	Minimal	5%
Overall Score for Model Standard	MODERATE	42%

1.2 Current Technology to Manage and Communicate Population Health Data		
1.2.1 Best available technology and methods to display data	Moderate	50%
1.2.2 Analyze health data to see where health problems exist	Moderate	50%
1.2.3 Use computer software to display complex public health data	Moderate	50%
Overall Score for Model Standard	MODERATE	50%

1.3 Maintain Population Health Registries		
1.3.1 Collect timely data consistent with current standards on health conditions	Significant	70%
1.3.2 Use information from population health registries in CHAs	Significant	60%
Overall Score for Model Standard	SIGNIFICANT	65%



Overall Score for Essential Service 1
SIGNIFICANT 51%

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Essential Service 2: Diagnose and Investigate Health Problems and Health Hazards

To meet the requirements of Essential Service 2, the Local Public Health System should:

- Have access to a public health laboratory capable of conducting rapid screening and high-volume testing
- Establish active infectious disease epidemiology programs
- Create technical capacity for epidemiologic investigation of disease outbreaks and patterns of the following: (a) infectious and chronic disease, (b) injuries, (c) and other adverse health behaviors and conditions

Sectors Represented

- | | |
|--------------------------------|---------------------------|
| ✓ Community Coalitions | ✓ Health/Hospital Systems |
| ✓ Emergency Preparedness Teams | ✓ Local Health Department |
| ✓ Epidemiologist | ✓ Public Safety |
| ✓ General Public | ✓ State Health Department |

Findings

Strengths:

- Rapid response, coordination, and communication during emergencies (e.g., Ebola, TB, etc.)
- A variety of surveillance systems are utilized
- There is a county environmental lab that is certified by IDPH and IEPA

Weaknesses:

- Chronic disease surveillance is not conducted
- Lack of knowledge regarding reportable conditions and lack of reporting on some key indicators (e.g., crime data, child abuse)
- The capacity of state labs is not enough and the turnaround time is too lengthy in event of outbreaks
- Lack of capacity to respond in mental health crises

Improvement Opportunities:

- Educate the community on reportable conditions
- Create a tool to provide the Health Department with clear lab information (e.g., lab addresses)
- Increase surveillance (e.g., *C. difficile* infection, nursing homes, etc.)
- Increased communication between the Health Department and the hospitals during nursing home outbreaks
- Have emergency response coordinators present at outpatient and other provider clinics, not just at hospitals

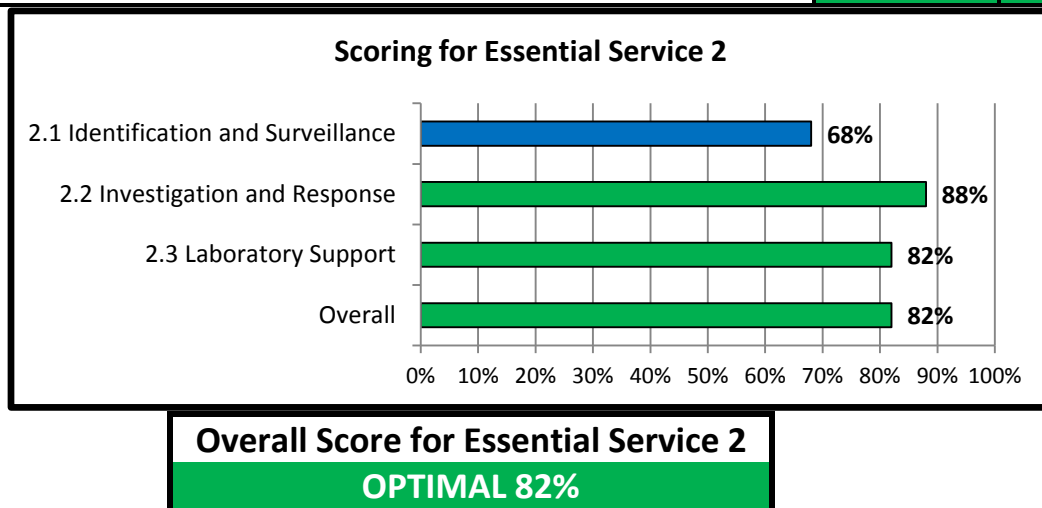
LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Scores by Performance Measure and Model Standard

2.1. Identifying and Monitoring Health Threats		
2.1.1 Comprehensive surveillance system to identify, monitor and share information	Significant	60%
2.1.2 Provide and collect information on reportable disease and potential disasters and threats	Significant	75%
2.1.3 Best available resources to support surveillance systems and activities	Significant	70%
Overall Score for Model Standard	SIGNIFICANT	68%

2.2 Investigating and Responding to Public Health Threats and Emergencies		
2.2.1 Maintain instructions on how to handle communicable disease outbreaks	Optimal	80%
2.2.2 Written protocols for investigation of public health threats	Optimal	85%
2.2.3 Designated emergency response coordinator	Optimal	100%
2.2.4 Rapid response of personnel in emergency/ disasters	Optimal	90%
2.2.5 Identification of technical expertise	Optimal	85%
2.2.6 Evaluation of public health emergency response	Optimal	90%
Overall Score for Model Standard	OPTIMAL	88%

2.3 Laboratory Support for Investigating Health Threats		
2.3.1 Ready access to laboratories for routine diagnostic and surveillance needs	Optimal	76%
2.3.2 Ready access to laboratories for public health threats, hazards, and emergencies	Optimal	80%
2.3.3 Licenses and/or credentialed laboratories	Optimal	100%
2.3.4 Written protocols for laboratories for handling samples	Significant	70%
Overall Score for Model Standard	OPTIMAL	82%



LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Essential Service 3: Inform, Educate, and Empower People about Health Issues

To meet the requirements of Essential Service 3, the Local Public Health System should:

- Create community development activities
- Establish social marketing and targeted media public communication
- Provide accessible health information resources at community levels
- Collaborate with personal healthcare providers to reinforce health promotion messages and programs
- Work with joint health education programs with schools, churches, worksites, and others

Sectors Represented

- | | |
|---------------------------|---------------------------|
| ✓ Academic Institutions | ✓ Foundations |
| ✓ Armed Forces | ✓ Libraries |
| ✓ Community Coalitions | ✓ Local Health Department |
| ✓ Environmental Advocates | ✓ Youth Services |

Findings

Strengths:

- Excellent communication during emergencies
- Invested partners are focused on the “right” issues, (e.g., discussing ecological perspectives)
- Health care services at schools

Weaknesses:

- Lack of awareness of public health
- Successes are in pocketed areas of the county, missing some populations (e.g., Latinos)
- Communications not focused on prevention
- Social marketing campaigns not utilized enough to impact social change

Improvement Opportunities:

- Develop calendar for common messaging/communications
- Replicate successful programs county-wide (including small organizations) and with all populations
- A common thread of health curriculum for middle school students extending to higher education. The curriculum could focus on healthy living: including tobacco and substance abuse; mental health; nutrition, and wellness
- Develop residential mailings about emergency preparedness

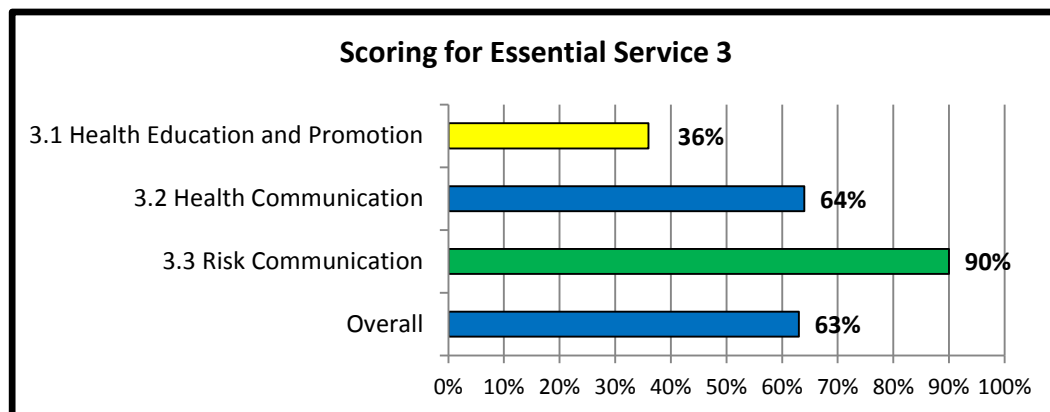
LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Scores by Performance Measure and Model Standard

3.1 Health Education and Promotion		
3.1.1 Provision of community health information	Moderate	33%
3.1.2 Health education and/or health promotion activities	Minimal	25%
3.1.3 Collaboration on health communication plans	Moderate	50%
Overall Score for Model Standard	MODERATE	36%

3.2 Health Communication		
3.2.1 Development of health communication plans	Significant	60%
3.2.2 Relationships with media	Significant	51%
3.2.3 Designation of public information officers	Optimal	80%
Overall Score for Model Standard	SIGNIFICANT	64%

3.3 Risk Communication		
3.3.1 Emergency communication plans	Optimal	90%
3.3.2 Resources for rapid communications response	Optimal	90%
3.3.3 Risk communication training	Optimal	90%
Overall Score for Model Standard	OPTIMAL	90%



Overall Score for Essential Service 3

SIGNIFICANT 63%

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Essential Service 4: Mobilize Community Partnerships to Identify and Solve Health Problems

To meet the requirements of Essential Service 4, the Local Public Health System should:

- Convene and facilitate partnerships among groups and associations (including those not typically considered to be health related)
- Undertake defined health improvement planning process and health projects, including preventive screening, rehabilitation, and support programs
- Build a coalition to draw on the full range of potential human and material resources to improve community health

Sectors Represented

- | | |
|---------------------------|---------------------------|
| ✓ Academic Institutions | ✓ Foundations |
| ✓ Armed Forces | ✓ Libraries |
| ✓ Community Coalitions | ✓ Local Health Department |
| ✓ Environmental Advocates | ✓ Youth Services |

Findings

Strengths:

- “Find Help” Lake County resource directory
- Large number of well-functioning collaborations (e.g., Live Well Lake County)

Weaknesses:

- “Find Help” should be better updated by all organizations
- Geography drives delivery of resources rather than needs
- Collaborations/partnerships are not regularly evaluated and not well coordinated

Improvement Opportunities:

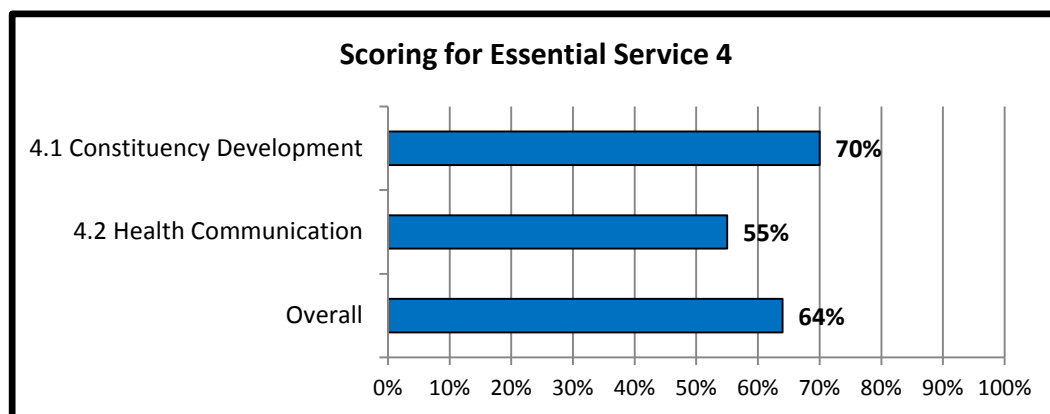
- Identify organizations by Essential Services
- Establish a strategy for identifying partners
- Identify indicators/benchmarks for marking the progress of outcomes through partnerships
- Create “311” info line for non-urgent community concerns
- Create an awards program to recognize initiatives surrounding health in community

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Scores by Performance Measure and Model Standard

4.1 Constituency Development		
4.1.1 Directory of organizations that comprise the LPHS	Optimal	80%
4.1.2 Identification of key constituents and stakeholders	Significant	60%
4.1.3 Participation of constituents in improving community health	Significant	65%
4.1.4 Communications strategies to build awareness of public health	Significant	75%
Overall Score for Model Standard	SIGNIFICANT	70%

4.2 Community Partnerships		
4.2.1 Partnerships for public health improvement activities	Significant	60%
4.2.2 Community health improvement committee	Significant	75%
4.2.3 Review of community partnerships and strategic alliances	Moderate	30%
Overall Score for Model Standard	SIGNIFICANT	55%



Overall Score for Essential Service 4
SIGNIFICANT 64%

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Essential Service 5: Develop Policies and Plans That Support Individual and Community Health Efforts

To meet the requirements of Essential Service 5, the Local Public Health System should:

- Ensure leadership development at all levels of public health
- Ensure systematic community-level and state-level planning for health improvement in all jurisdictions
- Develop and track measurable health objectives from the community health improvement plan (CHIP) as a part of a continuous quality improvement plan
- Establish joint evaluation with the medical healthcare system to define consistent policies regarding prevention and treatment services
- Develop policy and legislation to guide the practice of public health

Sectors Represented

- | | |
|---------------------------|--|
| ✓ Housing | ✓ Local Government |
| ✓ Public Safety | ✓ Volunteer Association of Elected Officials |
| ✓ Local Health Department | |

Findings

Strengths:

- Strong policies (e.g., mutual aid agreements, smoke-free housing, well water testing)
- Strong, diverse programs (e.g., LCHD services, emergency management, partnerships with GIS, electricity providers)
- “Find Help” Lake County resource directory

Weaknesses:

- Inconsistencies in/among county organizations in adopting and implementing policies
- Insufficient resources for implementing plans and policies
- Lack of access to care in the western portion of the county
- County-wide emergency communications
- Challenges between individual rights and benefit of community policies
- Lack of awareness of emergency preparedness

Improvement Opportunities:

- Creating and coordinating 211 services (health and human services information)
- Improving and enhancing access to transportation services
- Improve “Find Help” Lake County model so it can be utilized by other agencies
- Improve county-wide communication
- Interoperability of databases
- Public/private partnerships (e.g., closed PODs, potential open PODs)
- Alignment of LPHS strategies/activities with the Community Health Improvement Plan (CHIP)

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

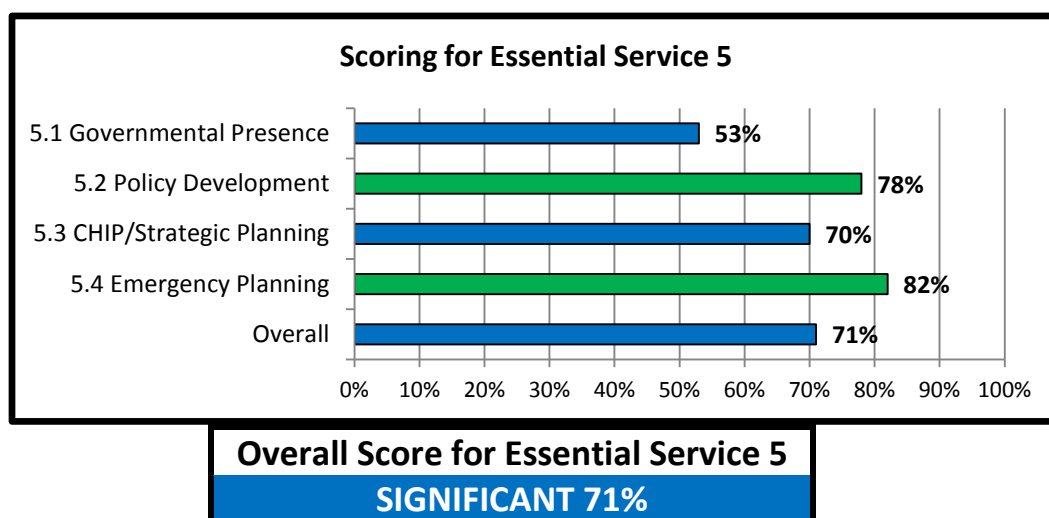
Scores by Performance Measure and Model Standard

5.1 Governmental Presence at the Local Level		
5.1.1 Governmental local public health presence	Significant	75%
5.1.2 Local health department accreditation	Moderate	50%
5.1.3 Resources for the local health department	Moderate	35%
Overall Score for Model Standard	SIGNIFICANT	53%

5.2 Public Health Policy Development		
5.2.1 Contribution to development of public health policies	Optimal	85%
5.2.2 Alert policymakers/public of public health impacts from policies	Optimal	90%
5.2.3 Review of public health policies	Significant	60%
Overall Score for Model Standard	OPTIMAL	78%

5.3 Community Health Improvement Process and Strategic Planning		
5.3.1 Community health improvement process	Optimal	80%
5.3.2 Strategies to address community health objectives	Optimal	80%
5.3.3 Organizational strategic planning alignment with community health improvement plan	Moderate	50%
Overall Score for Model Standard	SIGNIFICANT	70%

5.4 Planning for Public Health Emergencies		
5.4.1 Community task force or coalition for emergency preparedness and response plans	Optimal	85%
5.4.2 Emergency preparedness and response plan	Optimal	85%
5.4.3 Review and revision of the emergency preparedness and response plan	Optimal	76%
Overall Score for Model Standard	OPTIMAL	82%



LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Essential Service 6: Enforce Laws and Regulations that Protect Health and Ensure Safety

To meet the requirements of Essential Service 6, the Local Public Health System should:

- Enforce sanitary codes, especially in the food industry
- Protect drinking water supplies
- Monitor clean air standards
- Initiate animal control activities
- Follow-up with hazards, preventable injuries, and exposure-related diseases identified in occupational and community settings
- Monitor quality of medical services (e.g., laboratories, nursing homes, and home healthcare providers)
- Review new drug, biologic, and medical device applications

Sectors Represented

- | | |
|---------------------------|--|
| ✓ Housing | ✓ Local Government |
| ✓ Public Safety | ✓ Volunteer Association of Elected Officials |
| ✓ Local Health Department | |

Findings

Strengths:

- Ordinance requirements at county level are stricter than those at state level
- The Health Department ensures that codes are followed (e.g., schools, hospitals, food-related, isolation/quarantine, animal control)
- Digital/online system for finding county codes

Weaknesses:

- No authority to enforce clean air standards or to require testing of private wells' water quality. Also, no authority to control the amount of groundwater quantity utilized
- A search warrant is required to enter a home for environmental reasons, hoarding, animals, and mental health issues

Improvement Opportunities:

- Expanding Barrington Area Council of Governments (BACOG) model county-wide
- Agreements and/or ordinances to require groundwater (wells) or septic testing for trending, systematic monitoring throughout Lake County
- Analyze health impacts (e.g., fair housing)
- State law changes regarding consumption/withdrawal of groundwater and maintenance of well and septic testing

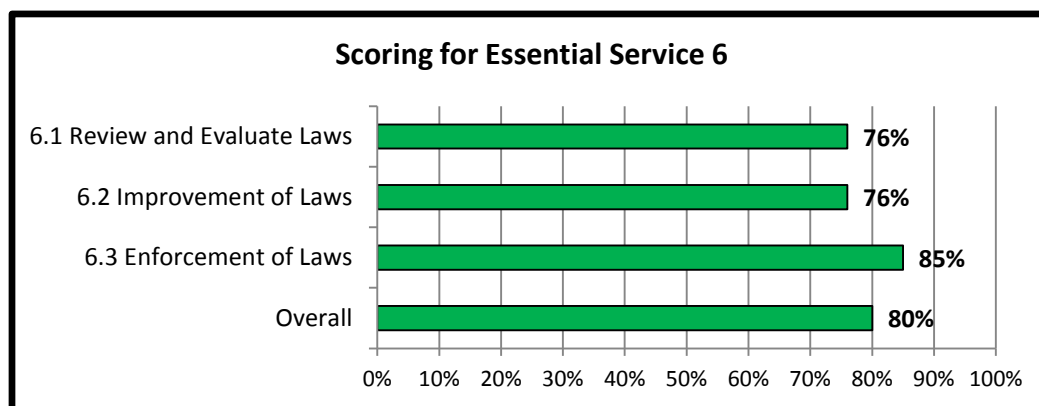
LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Scores by Performance Measure and Model Standard

6.1 Reviewing and Evaluating Laws, Regulations, and Ordinances		
6.1.1 Provision of community health information	Significant	70%
6.1.2 Knowledge of laws, regulations, and ordinances	Optimal	85%
6.1.3 Review of laws, regulations and ordinances	Significant	70%
6.1.4 Access to legal counsel	Optimal	80%
Overall Score for Model Standard	OPTIMAL	76%

6.2 Involvement in Improving Laws, Regulations, and Ordinances		
6.2.1 Identification of public health issues not addressed through existing laws	Significant	67%
6.2.2 Development or modification of laws or public health issues	Significant	75%
6.2.3 Technical assistance for drafting proposed legislation, regulations, or ordinances	Optimal	85%
Overall Score for Model Standard	OPTIMAL	76%

6.3 Enforcing Laws, Regulations, and Ordinances		
6.3.1 Authority to enforce laws, regulations, and ordinances	Optimal	90%
6.3.2 Public health emergency powers	Optimal	90%
6.3.3 Enforcement in accordance with applicable laws, regulations, and ordinances	Optimal	90%
6.3.4 Provision of information about compliance	Optimal	76%
6.3.5 Assessment of compliance	Optimal	80%
Overall Score for Model Standard	OPTIMAL	85%



Overall Score for Essential Service 6
OPTIMAL 80%

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Essential Service 7: Link People to Needed Personal Health Services and Assure the Provision of Healthcare When Otherwise Unavailable

To meet the requirements of Essential Service 7, the Local Public Health System should:

- Ensure effective entry for socially disadvantaged and other vulnerable persons into coordinated system of clinical care
- Provide culturally and linguistically appropriate materials and staff to ensure linkage to services for special population groups
- Ensure ongoing care management
- Ensure transportation services
- Orchestrate targeted health education/promotion/disease prevention to vulnerable population groups

Sectors Represented

- | | |
|-----------------------------|---------------------------|
| ✓ Armed Forces | ✓ Latino Services |
| ✓ Faith-based Organizations | ✓ Local Health Department |
| ✓ Foundations | ✓ Local Government |
| ✓ Health/Hospital Systems | ✓ Transportation |
| ✓ Homeless Shelters | ✓ Youth Services |

Findings

Strengths:

- Coordination and quality of care between hospitals and FQHCs (e.g., Enroll Lake County, behavioral health services)
- Can identify key populations/issues geographically and by topic (e.g., HIV, homeless)
- Strong alliance of community partners
- Community-based practices are being utilized

Weaknesses:

- Still some populations not addressed (e.g., undocumented individuals, ineligible individuals, some subpopulations)
- Insufficient number of providers, particularly for Medicaid population
- Coordination services are fragmented
- Not enough linkages to Managed Care Organizations

Improvement Opportunities:

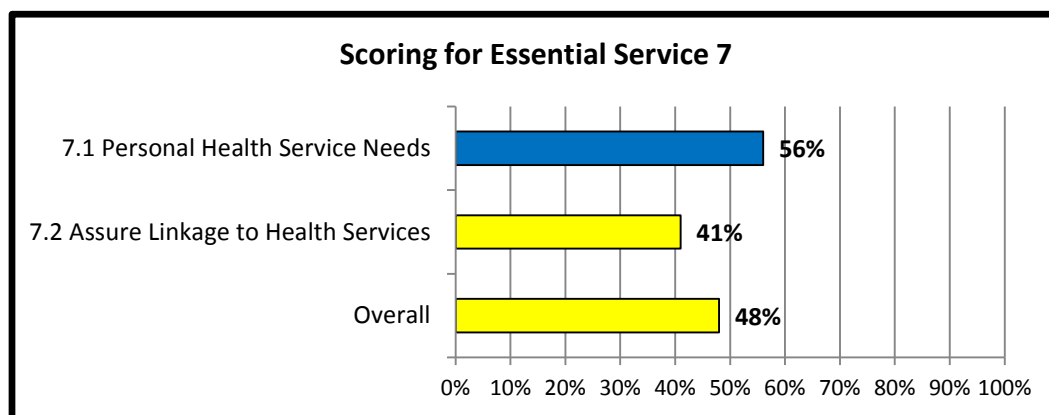
- Increase in overall coordination of care (e.g., between hospitals and FQHCs; between healthcare providers and social service agencies, etc.)
- Utilizing Service Point for increased electronic referrals
- Conduct more localized geographic assessments
- Identify sustainable mechanisms to manage healthcare and social subsidies

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Scores by Performance Measure and Model Standard

7.1 Identifying Personal Health Service Needs of Populations		
7.1.1 Identification of populations who experience barriers to care	Significant	75%
7.1.2 Identification of personal health service needs of populations	Moderate	50%
7.1.3 Develop partnerships to respond to unmet needs of the community	Moderate	36%
7.1.4 Understand barriers to care	Significant	60%
Overall Score for Model Standard	SIGNIFICANT	55%

7.2 Ensuring People are Linked to Personal Health Services		
7.2.1 Link populations to needed personal health services	Moderate	45%
7.2.2 Assistance to vulnerable populations in accessing needed health services	Minimal	24%
7.2.3 Initiatives for enrolling eligible individuals in public benefit programs	Significant	70%
7.2.4 Coordination of personal health and social service	Minimal	25%
Overall Score for Model Standard	Moderate	41%



Overall Score for Essential Service 7
MODERATE 48%

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Essential Service 8: Assure a Competent Public Health and Personal Healthcare Workforce

To meet the requirements of Essential Service 8, the Local Public Health System should:

- Educate, train, and assess personnel (including volunteers and other lay community health workers) to meet community needs for public health and personal health services
- Establish efficient processes for professionals to acquire licensure
- Adopt continuous quality improvement and lifelong learning programs
- Establish active partnerships with professional training programs to ensure community-relevant learning experiences for all students
- Provide education in the management and leadership development programs for those charged with administrative/executive roles

Sectors Represented

- | | |
|---------------------------|----------------------------|
| ✓ Academic Institutions | ✓ Local Health Department |
| ✓ Foundations | ✓ Non-Profit Organizations |
| ✓ General Public | ✓ Workforce Development |
| ✓ Health/Hospital Systems | |

Findings

Strengths:

- Collaboration with educational partners
- Hands-on learning opportunities for students

Weaknesses:

- Lack of lifelong learning opportunities
- Lack of cultural competency
- Gap in mental health workforce
- Lack of clinical training opportunities and workforce development training in hospitals
- No certification available for patient safety training

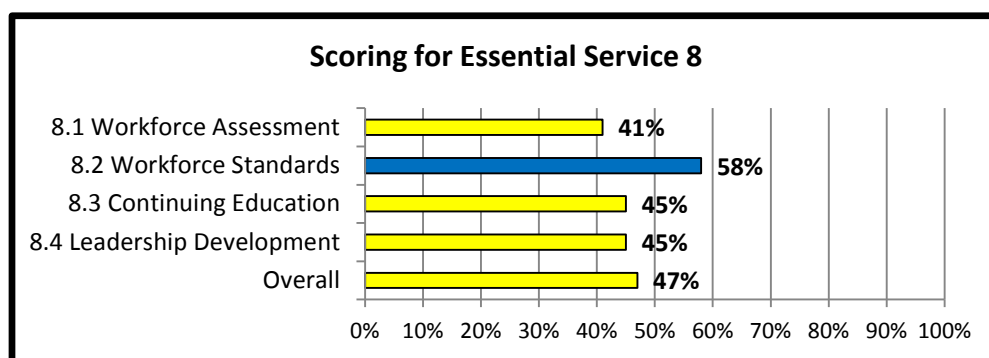
Improvement Opportunities:

- Conduct projected workforce needs assessment
- Increase number of clinical training locations in county
- Create shared vision for workforce development
- Increase training in cultural competency
- Sharing training resources between organizations
- Increase leadership development
- Develop training opportunities for veterans
- Certification for community health workers
- Leverage fee for service training opportunities

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Scores by Performance Measure and Model Standard

8.1 Workforce Assessment, Planning and Development		
8.1.1 Assessment of the LPHS workforce	Moderate	40%
8.1.2 Identification of shortfalls and/or gaps within the LPHS workforce	Moderate	28%
8.1.3 Dissemination of results of the workforce assessment/gap analysis	Significant	55%
Overall Score for Model Standard	MODERATE	41%
8.2 Public Health Workforce Standards		
8.2.1 Awareness of guidelines and/or licensure/certification requirements	Significant	65%
8.2.2 Written job standards and/or position descriptions	Significant	55%
8.2.3 Performance evaluations	Significant	55%
Overall Score for Model Standard	SIGNIFICANT	58%
8.3 Life-Long Learning through Continuing Education, Training, and Mentoring		
8.3.1 Identification of education and training needs for workforce development	Significant	55%
8.3.2 Opportunities for developing core public health competencies	Moderate	50%
8.3.3 Educational and training incentives	Moderate	50%
8.3.4 Collaboration between organizations and the LPHS for training and education	Moderate	45%
8.3.5 Education and training on cultural competency and social determinants of health	Minimal	25%
Overall Score for Model Standard	MODERATE	45%
8.4 Public Health Leadership Development		
8.4.1 Development of leadership skills	Moderate	50%
8.4.2 Collaborative leadership	Significant	51%
8.4.3 Leadership opportunities for individuals and/or organizations	Moderate	50%
8.4.4 Recruitment and retention of new and diverse leaders	Moderate	30%
Overall Score for Model Standard	MODERATE	45%



Overall Score for Essential Service 8
MODERATE 47%

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Essential Service 9: Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services

To meet the requirements of Essential Service 9, the Local Public Health System should:

- Assess program effectiveness through monitoring and evaluating implementation, outcomes, and effect
- Provide information necessary for allocating resources and reshaping programs

Sectors Represented

- | | |
|-----------------------------|---------------------------|
| ✓ Armed Forces | ✓ Latino Services |
| ✓ Faith-based Organizations | ✓ Local Health Department |
| ✓ Foundations | ✓ Local Government |
| ✓ Health/Hospital Systems | ✓ Transportation |
| ✓ Homeless Shelters | ✓ Youth Services |

Findings

Strengths:

- Many organizations in Lake County
- Existence of a regional health exchange (e.g., MCHC HIE)

Weaknesses:

- Challenge to track health outcomes (e.g., lots of Electronic Health Record (EHR) systems)
- Have not worked with foundations, companies, and small organizations for funding

Improvement Opportunities:

- Increase evaluation in Live Well Lake County action teams
- Increase quality and quantity of data in the health system and share results
- Connect/Share data sets among partners
- Evaluate LPHS and drive improvements (structurally and programmatically)
- Assess exchange of information across partnerships and coordinate improvements

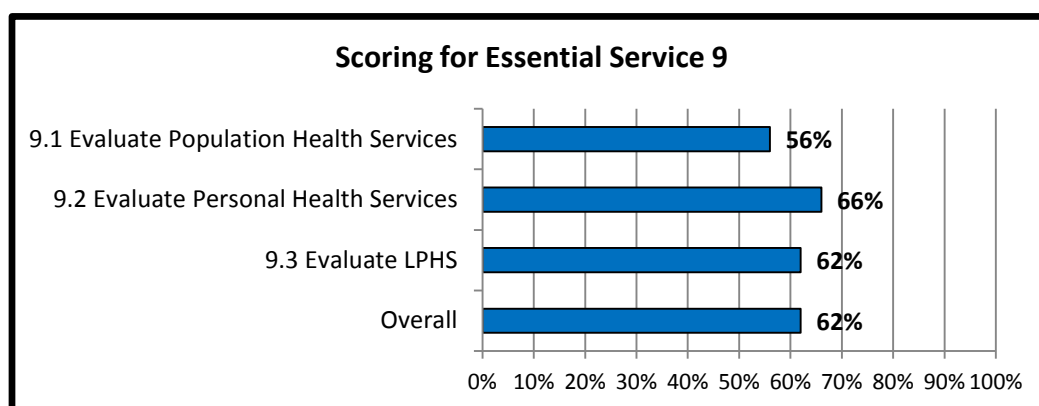
LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Scores by Performance Measure and Model Standard

9.1 Evaluating Population-Based Health Services		
9.1.1 Evaluation of population-based health services	Significant	70%
9.1.2 Assessment of community satisfaction with population-based health services	Minimal	25%
9.1.3 Identification of gaps in the provision of population-based health services	Significant	55%
9.1.4 Use of population-based health services evaluation	Significant	75%
Overall Score for Model Standard	SIGNIFICANT	56%

9.2 Evaluating Personal Health Services		
9.2.1 Personal health services evaluation	Moderate	50%
9.2.2 Evaluation of personal health services against established standards	Significant	75%
9.2.3 Assessment of client satisfaction with personal health services	Significant	65%
9.2.4 Information technology to assure quality of personal health services	Significant	70%
9.2.5 Use of personal health services evaluation	Significant	72%
Overall Score for Model Standard	SIGNIFICANT	66%

9.3 Evaluating the Local Public Health System		
9.3.1 Identification of community organizations or entities that contribute to the EPHS	Optimal	76%
9.3.2 Periodic evaluation of LPHS	Optimal	76%
9.3.3 Evaluation of partnership within the LPHS	Minimal	20%
9.3.4 Use of evaluation to guide improvements to the LPHS	Optimal	76%
Overall Score for Model Standard	SIGNIFICANT	62%



Overall Score for Essential Service 9
SIGNIFICANT 62%

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Essential Service 10: Research for New Insights and Innovative Solutions to Health Problems

To meet the requirements of Essential Service 10, the Local Public Health System should:

- Establish a full continuum of innovation, ranging from practical field-based efforts to fostering change in public health practice to more academic efforts that encourage new directions in scientific research
- Continue linking with institutions of higher learning and research
- Create internal capacity to mount timely epidemiologic and economic analyses and conduct health services research

Sectors Represented

- | | |
|---------------------------|----------------------------|
| ✓ Academic Institutions | ✓ Local Health Department |
| ✓ Foundations | ✓ Non-Profit Organizations |
| ✓ General Public | ✓ Workforce Development |
| ✓ Health/Hospital Systems | |

Findings

Strengths:

- Outstanding pharmaceutical/medical companies
- Opportunities to collaborate with many higher education institutions
- Readiness and interest to do research

Weaknesses:

- Lack of research infrastructure (no training, no expertise, no financial resources, no research culture)
- Lack of awareness or understanding of the terms population health and public health
- Lack of collaboration to develop continuing education
- Lack of field training for clinical training and research

Improvement Opportunities:

- Engage students as researchers
- Create opportunities for community-based participatory research
- Connect the needs of the community with researchers
- Engage academic institutions in population health research
- Collaborate with other organizations to enhance applications to receive funding
- Translate research findings to the general public

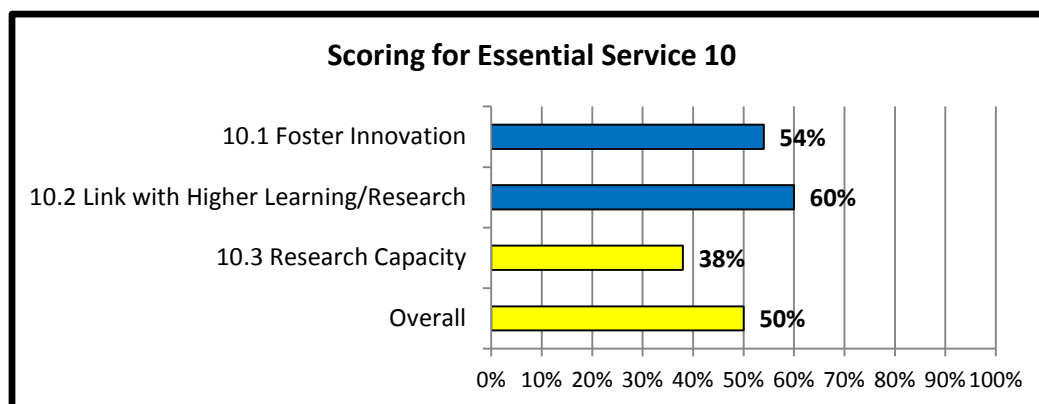
LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

Scores by Performance Measure and Model Standard

10.1 Fostering Innovation		
10.1.1 Encouragement of new solutions to health problems	Moderate	50%
10.1.2 Proposal of public health issues for inclusion in research agenda	Moderate	50%
10.1.3 Identification and monitoring of best practices	Significant	65%
10.1.4 Encouragement of community participation in research	Moderate	50%
Overall Score for Model Standard	SIGNIFICANT	54%

10.2 Linking with Institutions of Higher Learning and/or Research		
10.2.1 Relationships with institutions of higher learning and/or research organizations	Significant	75%
10.2.2 Partnerships to conduct research	Moderate	50%
10.2.3 Collaboration between the academic and practice communities	Significant	54%
Overall Score for Model Standard	SIGNIFICANT	60%

10.3 Capacity to Initiate or Participate in Research		
10.3.1 Collaboration with researchers	Moderate	50%
10.3.2 Access to resources to facilitate research	Minimal	25%
10.3.3 Dissemination of research findings	Significant	51%
10.3.4 Evaluation of research activities	Minimal	25%
Overall Score for Model Standard	MODERATE	38%



Overall Score for Essential Service 10
MODERATE 50%

LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT

NEXT STEPS

The LPHSA was the first assessment to be completed in Lake County's 2015-2016 MAPP process. The Live Well Lake County steering committee is guiding the completion of the remaining three assessments. Upon completion, the results of the assessments will be analyzed and prevailing health concerns will be identified and strategically prioritized. Following prioritization, goals and action plans to address priority issues will be developed, implemented, and aligned to improve the local public health system and ultimately the health of the community.

FORCES OF CHANGE ASSESSMENT

Forces of Change Assessment

INTRODUCTION

Lake County's Forces of Change Assessment (FoCA) was convened by the Live Well Lake County Steering Committee on October 23, 2015 at Rosalind Franklin University of Medicine and Science. The FoCA is one of four assessments Lake County conducted as part of its Mobilizing for Action through Planning and Partnerships (MAPP) process.¹⁷ This framework assists communities to prioritize public health issues and create a platform to develop and implement efforts to address them.

PURPOSE

The FoCA identifies potential forces or trends that either are currently affecting Lake County's public health system or are expected to impact the system in the next five years. The assessment highlights the specific effects these forces could have on the system; both those that threaten system functionality and those that open doors to new opportunities. The FoCA adds an element of foresight to the strategic planning process as key stakeholders document potential intended and unintended consequences of these forces on the public health system.

METHODOLOGY

The Live Well Lake County Steering Committee began the assessment by brainstorming potential forces of change across five broad categories: political, environmental, legal/ethical, social/economic, and technological/scientific. Within each category, the group was asked:

What forces are occurring or might occur that affects the health of our community or the local public health system?

What specific threats or opportunities are generated by these occurrences?

Forces were defined as being comprised of the following three components:

- **Trends** – patterns over time;
- **Events** – one time occurrence; and
- **Factors** – discrete elements.

¹⁷ "Mobilizing for Action through Planning and Partnerships (MAPP)". (2015). *National Association of County and City Health Officials (NACCHO)*. Retrieved from: <http://www.naccho.org/topics/infrastructure/mapp>.

FORCES OF CHANGE ASSESSMENT

Participants brainstormed potential forces and shared them with facilitators. Like-minded themes were grouped using an affinity diagram to identify overarching forces that shape or influence the public health system and community. The effects of these forces may have an impact on any part of the public health system, including resources, strategic issues, infrastructure, culture, or the environment.

To identify methods to enhance or mitigate the effects of these forces, participants then identified threats posed and opportunities created within each force. Participants also acknowledged additional information that was needed within the system to appropriately address specific forces as well as local organizations that were believed to have experience or knowledge to address barriers. Participants completed this process for each of the five categories and then thoughtfully considered what his/her top priorities were regarding the most influential forces of change for Lake County. The forces perceived to be most impactful can be found in the summary of results.

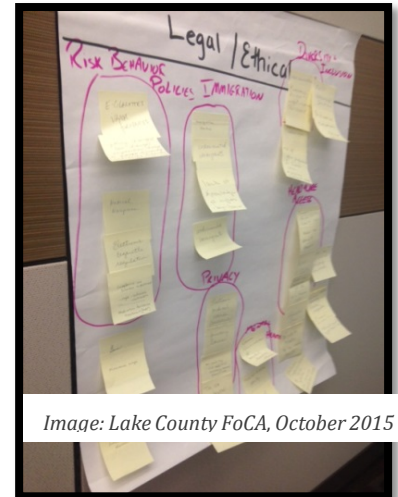


Image: Lake County FoCA, October 2015

FORCES OF CHANGE: SUMMARY

The Steering Committee identified sixteen Forces of Change that either currently affect Lake County's public health system or are expected to impact the system in the next five years. These are listed below. A summary of forces of change and corresponding threats posed and opportunities created are included in the following pages.

- Bioethics
- Built Environment
- Changes in Lake County's Population
- Collaborative Opportunities
- Electronic Health Records (EHR) & the Health Information Exchange (HIE)
- Economic Inequities
- Ethical Responsibility and Shared Community Values
- Government Impact on Operations
- Healthcare Access
- Health in All Policies Approach
- Impact of Climate Change
- Mental Health
- Practice of Innovation
- Political Coordination
- Shifts in Housing Infrastructure
- Traffic and Travel

FORCES OF CHANGE ASSESSMENT

RESULTS

THREATS POSED AND OPPORTUNITIES CREATED

LEGAL/ETHICAL

FORCE	THREATS POSED	OPPORTUNITIES CREATED
Ethical Responsibility and Shared Community Values	Social economic status Decision makers are not representative of community Increased division in the political narrative Little accountability across the system	Buy-in to a widespread vision of Lake County being a community of communities Leadership development Transfer of knowledge Community organizing Establish an endowment to address health equity Connect with big businesses to invest locally
Bioethics	Discrimination	Health literacy initiatives Advocating for medication at affordable costs Use knowledge to do no harm
Healthcare Access	Limited transportation Health literacy constraints Affordable Care Act coverage Lack of state budget Providers don't match population Medicaid Managed Care TORT Reform	Community Health Worker positions Improve clinical workflows Triple Aim methodology Affordable Care Act Navigators Increase collaboration between hospitals, providers and Federally Qualified Health Care Centers Integrate quality improvement process
Mental Health	Limited funding Liability Lack of providers Impact of incarceration Restrictive laws Lack of diagnoses	Regional Forensic Unit/jail/Lake County Health Department collaborative program to expedite services Jail diversion workgroup Integrated behavioral health program Mental health first aid program

FORCES OF CHANGE ASSESSMENT

SOCIAL/ECONOMIC

FORCE	THREATS POSED	OPPORTUNITIES CREATED
Changes in Lake County's Population	<ul style="list-style-type: none"> Aging population Elderly care Cultural competencies Shifting workloads Lack of language access 	<ul style="list-style-type: none"> Retirement give-back Immigration reform Return on investment (prevention ROI) Communities considering aging population needs Creation of bridges between community organizations to address needs
Economic Inequities	<ul style="list-style-type: none"> Organizations closing as a result of no state budget Biased federal funding toward urban areas Access to healthcare Educational and job disparities Long term determinants Increased disparities and certain communities are being left behind Cost of education Immigration status Undocumented people 	<ul style="list-style-type: none"> HEAL Act (Medicaid and prevention funding) New investment strategies Potential California model Federal funding Address minimum wage Bus stop shelters Bring in economic experts

FORCES OF CHANGE ASSESSMENT

POLITICAL

FORCE	THREATS POSED	OPPORTUNITIES CREATED
Political Coordination	Scarce resources in each municipality Increased variations in operation of public health system Fiefdoms Lack of facilitation and communication across local public health system	Shared services Consistent political effort Non-profit leadership Shared vision across Lake County Leverage scale in Lake County
Government Impact on Operations	Lack of long term strategies Lack of dealing with issues over time Voter apathy Limited access to education and opportunities Decreased likelihood in finding common ground	Identify and educate future leaders Involve youth Voter education Redistribution of funds (ex. education/schools) County cohesiveness
Health in All Policies Approach	Economic deficits	Coordinated Approach to Child Health curriculum Integrate into worksite wellness programs Framework with LWLC Advocacy with municipal leagues

FORCES OF CHANGE ASSESSMENT

ENVIRONMENTAL

FORCE	THREATS POSED	OPPORTUNITIES CREATED
Built Environment	Population growth Perception of community safety Obesity Stress Cost engineering Limited federal transportation funding Limited community investing in development	Complete trail system Find private investors/bonds Increase in agreements/ policies Equitable distribution Continuation of taxes (non-motor lanes) Recognize/celebrate communities' healthy choices
Shifts in Housing Infrastructure	Aging homes Lead exposure Vacant houses Infrastructure safety	Low interest loans Fix existing homes Investments (general)
Impact of Climate Change	Disease upsurges COPD and asthma Skin cancer Severe weather Sustainability of water	Changing behaviors (ex. recycling) Eating locally and sustainable foods CO2 awareness and education; policy, advocacy education in local institutions
Traffic and Travel	Air pollution Increases in texting while driving Safe spaces for bikes Business impact of inactivity	Web cam conferencing Connecting bike paths Clean emission policies Carpool lanes Community planning improvements Distracted driving education

FORCES OF CHANGE ASSESSMENT

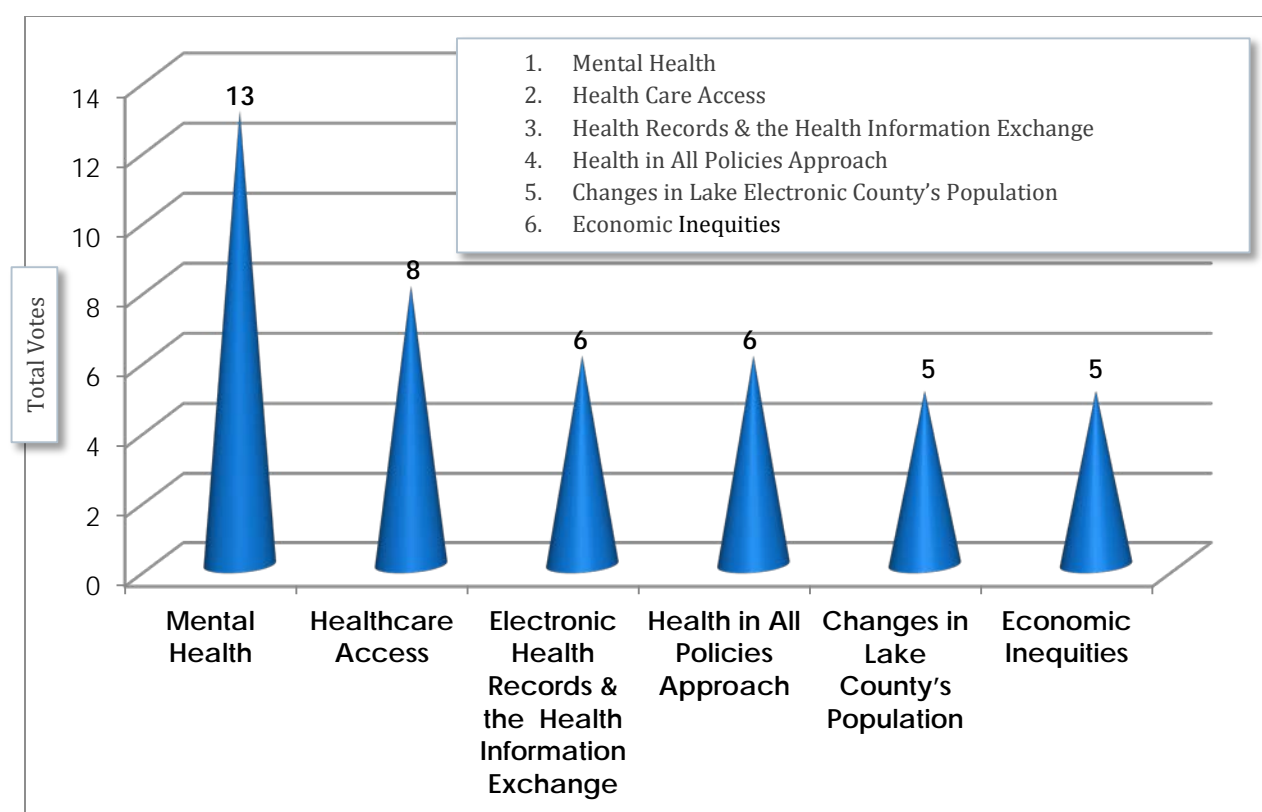
TECHNOLOGICAL/SCIENTIFIC

FORCE	THREATS POSED	OPPORTUNITIES CREATED
Practice of Innovation	High cost of drugs and technology resulting in negative outcomes Innovation definition changes rapidly	Innovative leadership and related impact in communities Profit for good Social accountability Corporate responsibility
Collaborative Opportunities	Investment in capacity results in loss of efficiency	Build coordinated inventory of data
Electronic Health Records & the Health Information Exchange	Private information may be compromised Decreased understanding of system Gaps in sharing information Limited communication between systems	Regional, population-based data Education on how to use portals Track over utilization and fraud Increased use of Prescription Drug Monitoring Program Accessibility of directives Increased patient safety Community based data can be used to increase collaboration among communities

FORCES OF CHANGE ASSESSMENT

SUMMARY RESULTS

Results of the FoCA ensure that the local public health system has the capacity to implement the Community Health Improvement Plan and thus improve the health status of those who live, work, play and pray in Lake County. Live Well Lake County will be proactive in leveraging collaborative partnerships to address expected forces through the identification of social, scientific, technological, organizational and institutional resources. While all identified forces should be considered, those six ranked (see table below) as having the most impact on the county should be given priority when identifying and building system capacity to address strategic issues. Several forces may be unique to the current assessment, while others may also appear during one of the other MAPP assessments.



Additionally, the relationship each force has with others should not be ignored. For example, mental health as a force has a connection to economic inequities, government impact on operations and other areas aside from mere increases in the mentally ill population. Through the process of identifying resources to address forces, Lake County will be proactive in positioning itself for the future, rather than reacting to foreseen trends, events and factors.

COMMUNITY THEMES & STRENGTHS ASSESSMENT

Community Themes & Strengths Assessment

INTRODUCTION

The Community Themes and Strengths Assessment was conducted by the Live Well Lake County Steering Committee with guidance from the Lake County Health Department between October 2015 and December 2015. The Community Themes and Strengths Assessment (CTSA) is one of four assessments Lake County is conducting as part of its Mobilizing for Action through Planning and Partnerships (MAPP) process. MAPP is a community-driven strategic planning framework utilized in community health improvement. This framework assists communities to prioritize public health issues and create a platform to develop and implement efforts to address them.

The CTSA focuses on opinions and perceptions of residents regarding the quality of life and health in the community as well as community assets. It creates a portrait of the community seen through the eyes of the residents. The assessment was divided into three categories:

1. Community Strengths Survey
2. Focus Groups
3. Photovoice

Overview of the MAPP Process



COMMUNITY THEMES & STRENGTHS ASSESSMENT

SUMMARY OF COMMUNITY THEMES AND STRENGTHS ASSESSMENT

The table below contains a summary of the overarching themes found throughout the CTSA. The categories indicate which assessment tool identified the themes as well as which themes were found as strengths, improvement opportunities, and health issues.

	Survey	Focus Group	Photovoice
Community Strengths			
Community Safety	X		X
Active Living	X	X	X
Access to Health Care	X	X	
Education	X	X	
Family Focus		X	
Spiritual Support	X	X	
Transportation	X	X	X
Food Environment		X	X
Improvement Opportunities			
Competent and Culturally Sensitive Workforce		X	
Financial Support	X	X	
Transportation	X	X	X
Family Focus		X	
Food Environment		X	X
Community Involvement		X	X
Health Issues			
Substance use	X		X
Chronic Disease	X	X	X
Poor diet and inactivity	X	X	X
Mental Health		X	
Older adult health and health care		X	
Health information and awareness		X	

COMMUNITY THEMES & STRENGTHS ASSESSMENT

COMMUNITY-IDENTIFIED TOP 10 PRIORITIES

The community-identified top 10 priorities were selected from overarching health issues found in the Community Strengths Survey, Focus Groups, and Photovoice. The health issues were then ranked based on survey responses, topics that were heavily discussed in the focus groups, and photos taken by students.

Rank	Priority
1	Poor diet and inactivity
2	Chronic Disease (obesity, diabetes, heart disease, high blood pressure, stroke, cancer)
3	Substance use (tobacco, alcohol, and drug use)
4	Safe Affordable Housing
5	Older Adult Health (arthritis, hearing/vision, Alzheimer's disease/Dementia)
6	Community Safety (community violence and domestic violence)
7	Food Environment (Availability of affordable, healthy food)
8	Mental Health
9	Cultural Sensitivity and Linguistic Capacity
10	Health Literacy

COMMUNITY THEMES & STRENGTHS ASSESSMENT

METHODOLOGY - SURVEY

The Community Strengths Survey was conducted to understand the opinions and perceptions of Lake County residents regarding the quality of life and health in their community. The survey was developed through a CTSA workgroup that consisted of members of the Live Well Lake County Steering Committee and Lake County Health Department staff. A total of 14 survey questions were developed that focused on demographics, quality of life, health, and strengths in the community (Appendix D, page 153).

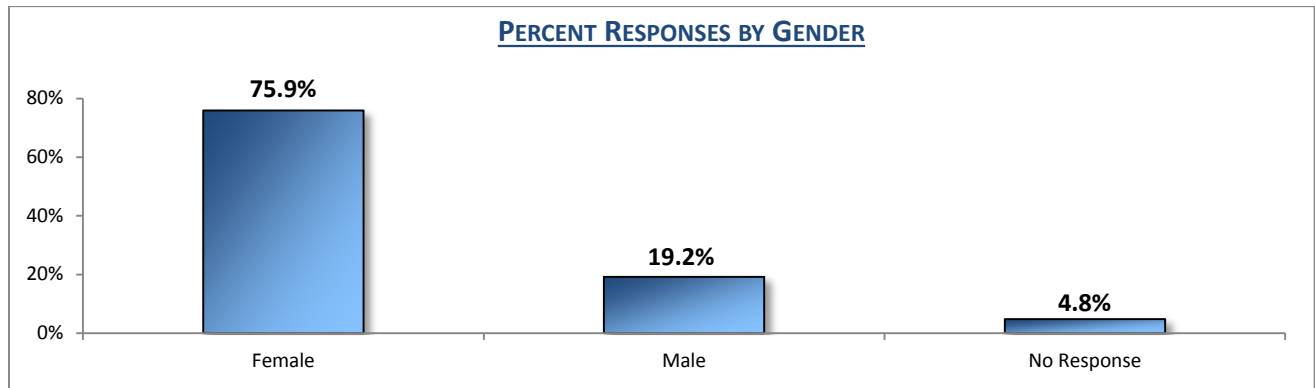
The survey was distributed online and through paper copies and was available in English and Spanish. The online survey link was distributed to community partners and organizations throughout Lake County through the Live Well Lake County Steering Committee and Lake County Health Department email list-serves, website posts, newsletters, flyers, and social media messages. The link was accompanied by a message that encouraged individuals to forward the link to others to increase the reach of the survey in the community.

The primary focus of distribution for the paper copies was organizations that are able to reach residents who may not have the opportunity to take the survey online. Paper copies were also distributed to organizations that normally have a large amount of residents who visit their location on a daily basis. The paper copies were given as a package, with a box for completed surveys, promotional material in English and Spanish, documents that explained how to distribute the survey, and answers to frequently asked questions. Paper surveys were distributed to all Lake County libraries, several coffee shops, and organizations with resident drop in points.

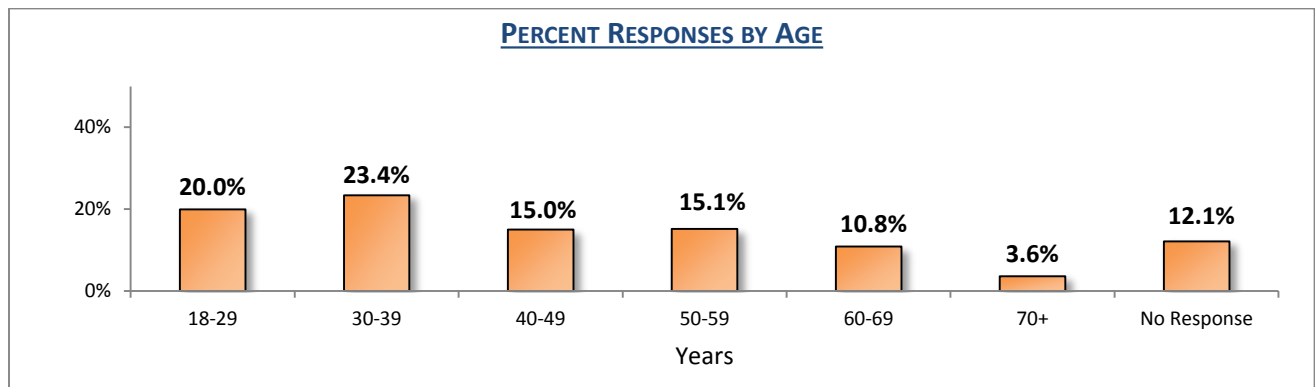
COMMUNITY THEMES & STRENGTHS ASSESSMENT

SURVEY- DEMOGRAPHICS

A total of **2,370** Lake County residents over the age of 18 years responded to the survey. The demographics of the respondents are displayed by gender, age, educational attainment, annual household income, race, ethnicity, and zip code.

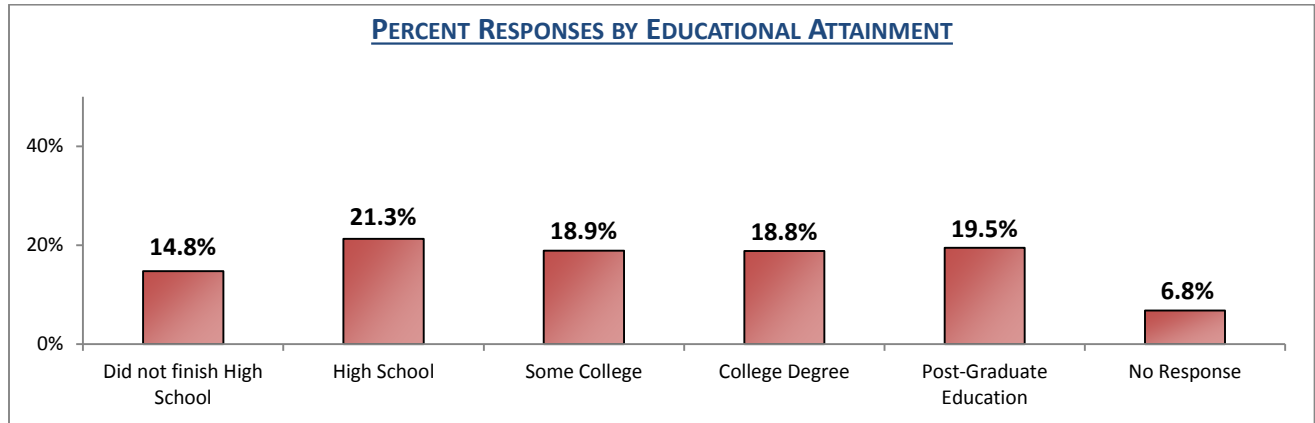


The highest percentage of respondents were female (75.9%).

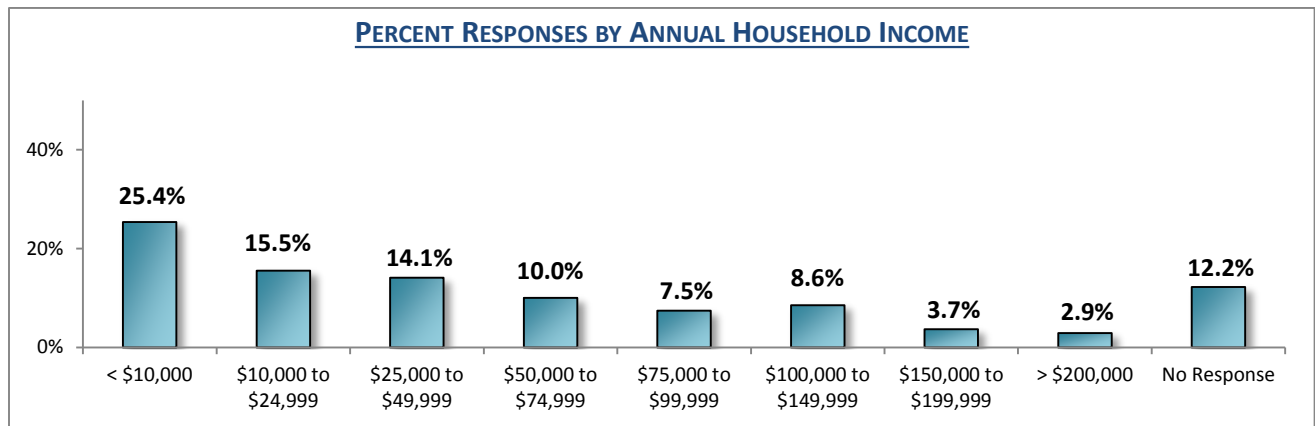


The highest percentage of respondents were in the 30-39 year age group (23.4%), followed by the 18-29 year age group (20%).

COMMUNITY THEMES & STRENGTHS ASSESSMENT

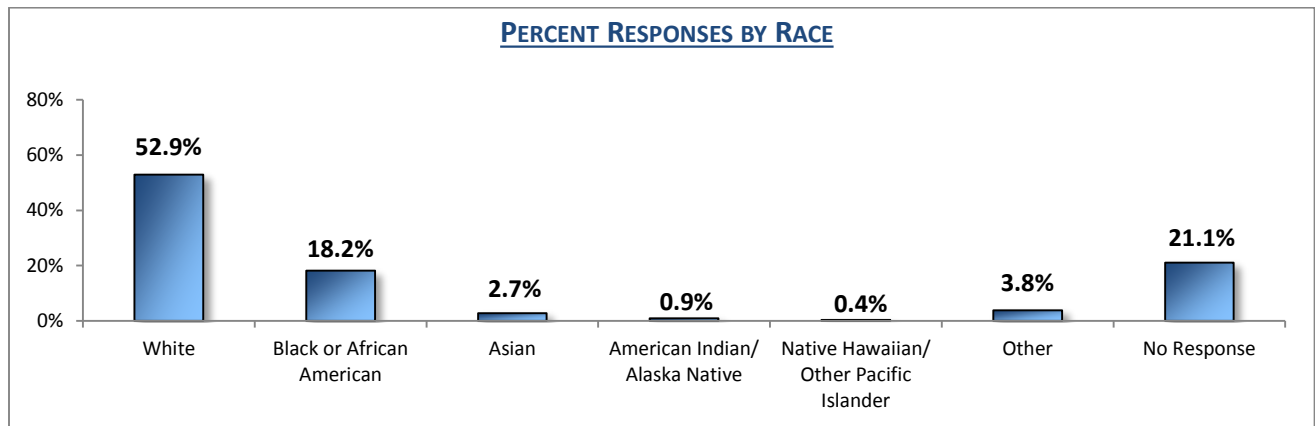


The highest percentage of respondents had completed some form of post-high school education (57.2%).

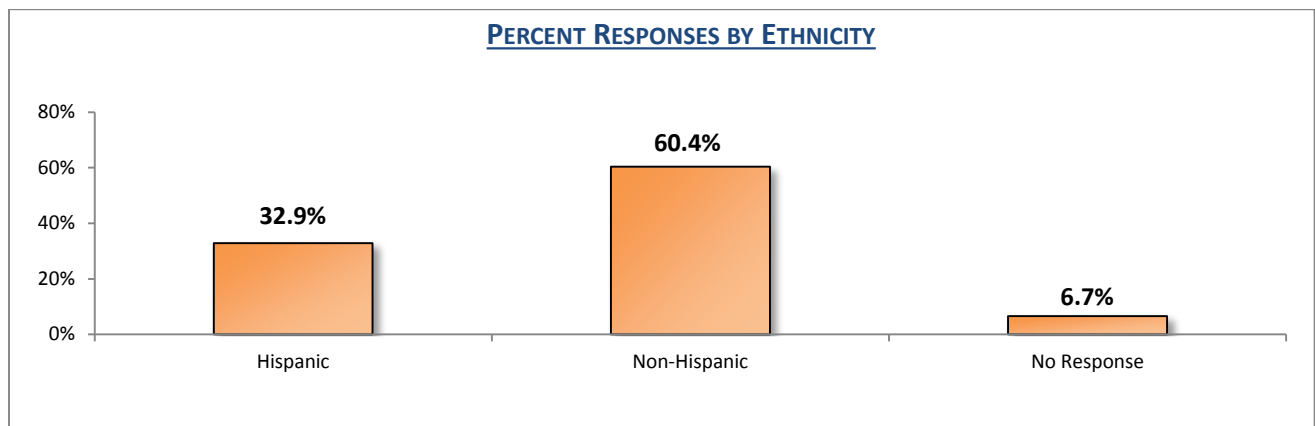


The highest percentage of respondents had an annual household income of less than \$10,000 (25.4%).

COMMUNITY THEMES & STRENGTHS ASSESSMENT

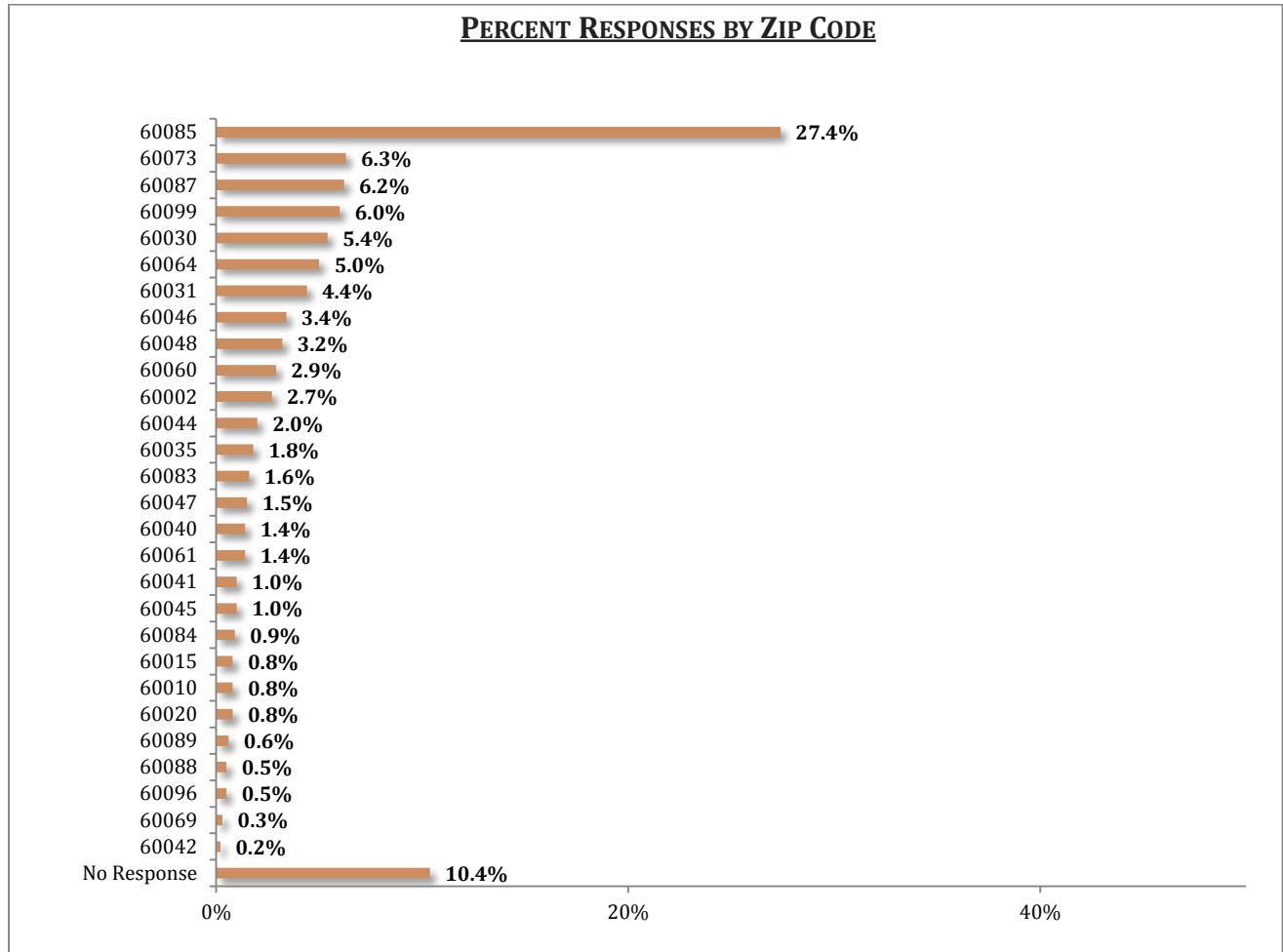


The highest percentage of respondents were White (52.9%), followed by Black/African American respondents (18.2%), and Asian respondents (2.7%). 21.1% of respondents chose not to reveal their race.



The highest percentage of respondents were Non-Hispanic (60.4%).

COMMUNITY THEMES & STRENGTHS ASSESSMENT



The highest percentage of respondents were from zip code 60085 (27.4%), followed by 60073 (6.3%), 60087 (6.2%), 60099 (6.0%), and 60030 (5.4%). 10.4% of respondents chose not to reveal their zip code.

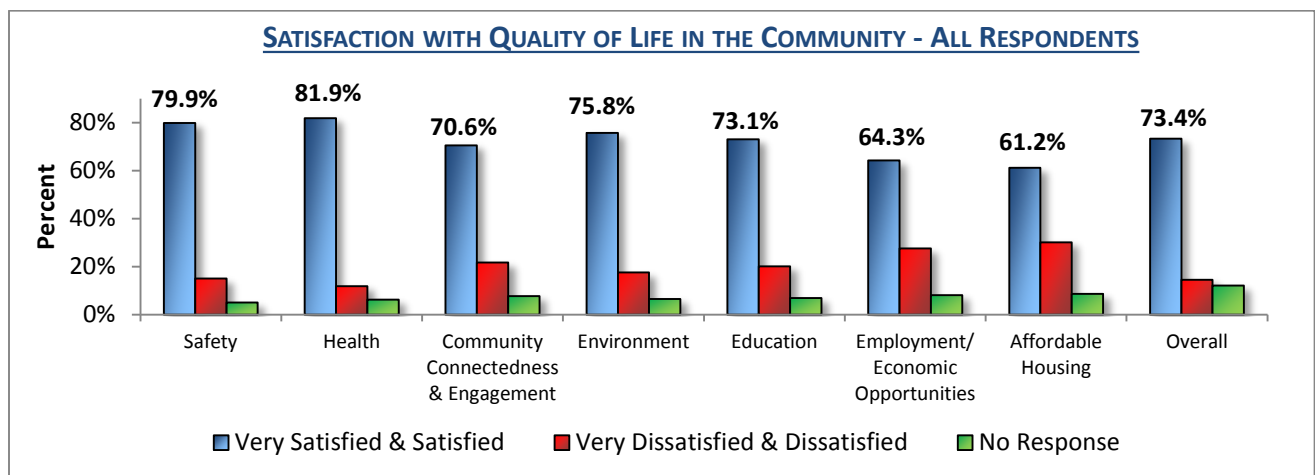
COMMUNITY THEMES & STRENGTHS ASSESSMENT

RESULTS - SURVEY

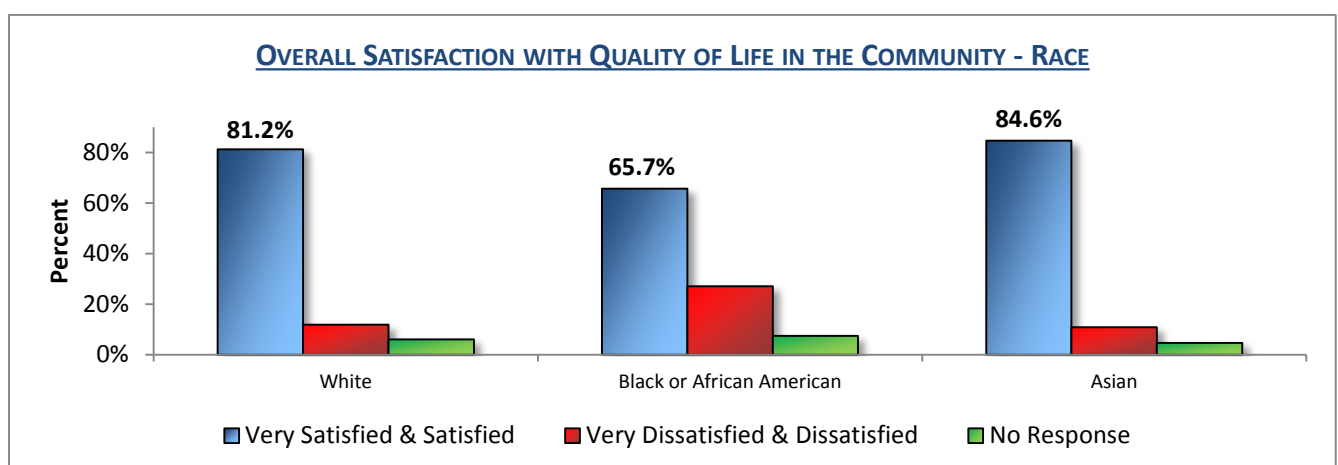
The overall results are displayed along with stratified results by zip code, race, ethnicity, and educational attainment. To focus these results, only the highest percentage of respondents for each demographic have been included.

SATISFACTION WITH QUALITY OF LIFE IN THE COMMUNITY

Respondents were asked to select their level of satisfaction for the following quality of life factors in the community: Safety; Health; Community Connectedness and Engagement; Environment; Education; Employment/Economic Opportunity; and Affordable Housing.

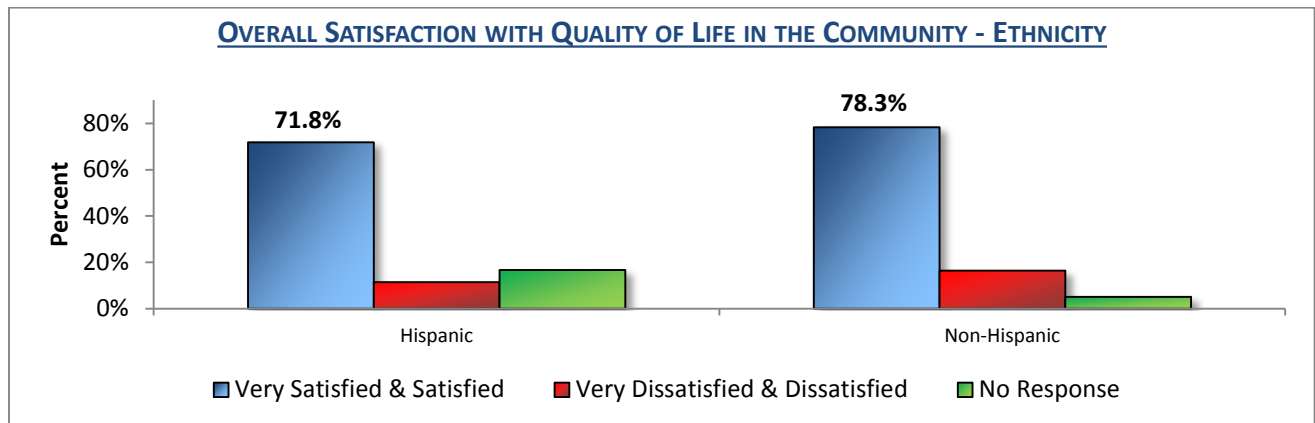


The majority of respondents selected “very satisfied” or “satisfied” for each of the individual quality of life factors and for the overall satisfaction with the quality of life in their community.

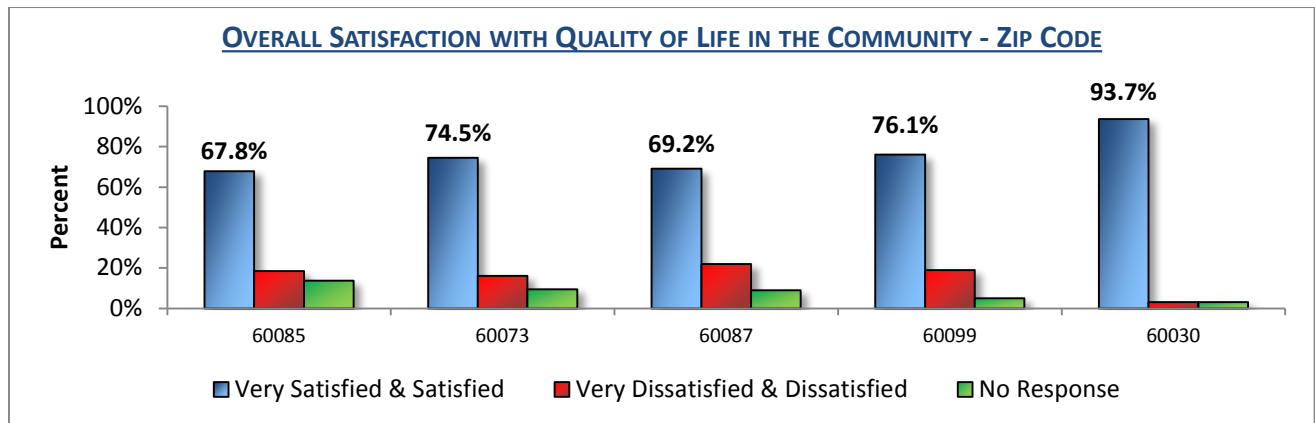


The majority of respondents from the three largest represented races selected “very satisfied” or “satisfied” for the overall quality of life in their community.

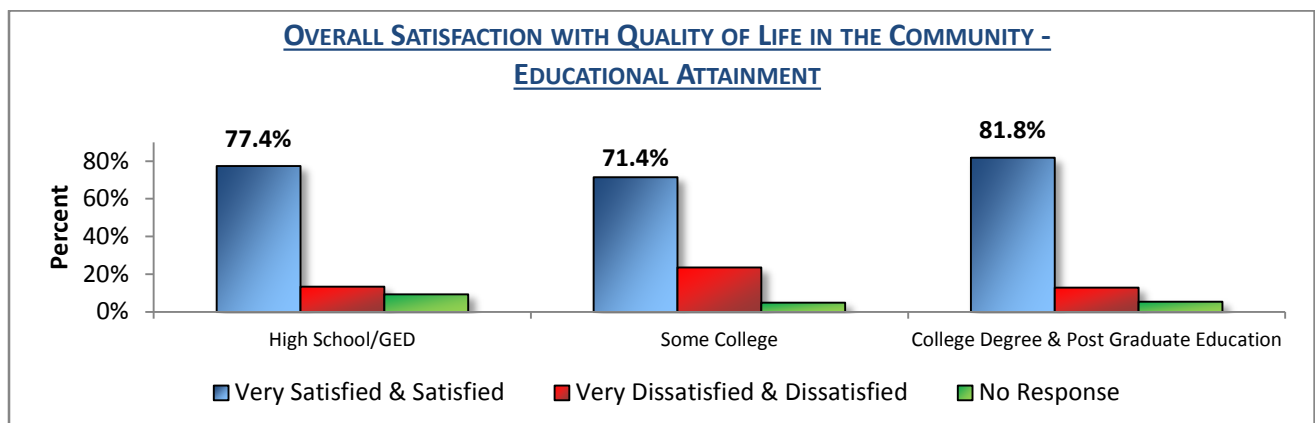
COMMUNITY THEMES & STRENGTHS ASSESSMENT



The majority of Hispanic and Non-Hispanic respondents selected “very satisfied” or “satisfied” for the overall quality of life in their community.



The majority of zip codes selected “very satisfied” or “satisfied” for the overall quality of life in their community.

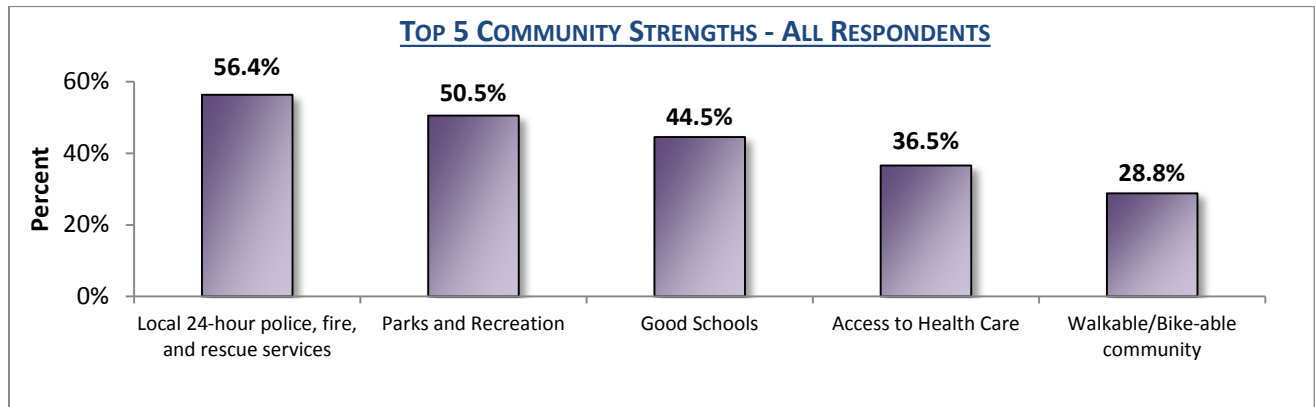


The majority of respondents who completed high school/GED and beyond selected “very satisfied” or “satisfied” as their level of overall satisfaction with the quality of life in the community.

COMMUNITY THEMES & STRENGTHS ASSESSMENT

TOP 5 COMMUNITY STRENGTHS

Respondents were asked to pick no more than 5 of their greatest community strengths from a comprehensive list (Appendix D, page 153). By limiting the number to 5, respondents selected their most significant strengths.



The top 5 community strengths selected by respondents were related to community safety, active living, health care, and education.

COMMUNITY THEMES & STRENGTHS ASSESSMENT

Top 5 Strengths by Race

Rank	White	Black or African American	Asian
1	Parks and recreation (61%)	Local 24-hour police, fire, and rescue services (48%)	Parks and recreation (62%)
2	Local 24-hour police, fire, and rescue services (60%)	Public transportation (45%)	Clean environment (55%)
3	Good Schools (51%)	Parks and recreation (39%)	Local 24-hour police, fire, and rescue services (54%)
4	Access to health care (36%)	Access to health care (38%)	Good Schools (49%)
5	Walkable/Bike-able community (32%)	Good Schools (34%)	Walkable/Bike-able community (38%)

The most common community strengths selected by all three races were: parks and recreation; local 24-hour police, fire, and rescue services; and good schools. Strengths that were specific only to one race were: public transportation (Black/African Americans respondents) and a clean environment (Asian respondents).

Top 5 Strengths by Ethnicity

Rank	Hispanic	Non-Hispanic
1	Local 24-hour police, fire, and rescue services (64%)	Parks and recreation (57%)
2	Good Schools (46%)	Local 24-hour police, fire, and rescue services (55%)
3	Parks and recreation (45%)	Good Schools (46%)
4	Access to health care (43%)	Access to health care (36%)
5	Public transportation (41%)	Walkable/Bike-able community (33%)

Hispanic and Non-Hispanic respondents selected similar top community strengths except for public transportation (Hispanic respondents) and Walkable/Bike-able community (Non-Hispanic respondents).

COMMUNITY THEMES & STRENGTHS ASSESSMENT

Top 5 Strengths by Zip Code

Rank	60085	60073	60087	60099	60030
1	Local 24-hour police, fire, and rescue services (56%)	Local 24-hour police, fire, and rescue services (64%)	Local 24-hour police, fire, and rescue services (55%)	Local 24-hour police, fire, and rescue services (60%)	Parks and recreation (70%)
2	Public transportation (50%)	Parks and recreation (61%)	Parks and recreation (53%)	Parks and recreation (55%)	Good Schools (69%)
3	Parks and recreation (45%)	Walkable/Bike-able community (33%)	Public transportation (39%)	Good Schools (47%)	Local 24-hour police, fire, and rescue services (61%)
4	Access to health care (43%)	Access to health care (31%)	Access to health care (38%)	Public transportation (35%)	Walkable/Bike-able community (47%)
5	Good Schools (29%)	Affordable housing (29%)	Good Schools (33%)	Access to health care (34%)	Clean environment (42%)

The five zip codes with the highest number of respondents (60085, 60073, 60087, 60099, and 60030) were selected for stratification. The most common top community strengths selected by zip code were: parks and recreation; local 24-hour police, fire, and rescue service; access to health care; and good schools. Clean environment was specifically selected by zip code 60030 and affordable housing was selected by zip code 60073.

Top 5 Strengths by Educational Attainment

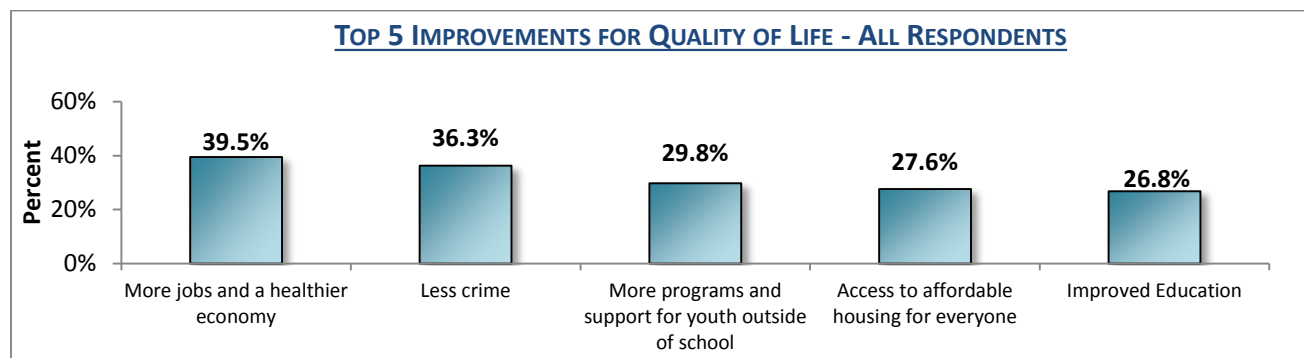
Rank	High School	Some College	College & Post-Graduate Degrees
1	Local 24-hour police, fire, and rescue services (57%)	Local 24-hour police, fire, and rescue services (56%)	Parks and recreation (64%)
2	Parks and recreation (46%)	Parks and recreation (50%)	Local 24-hour police, fire, and rescue services (55%)
3	Public transportation (44%)	Access to health care (40%)	Good Schools (54%)
4	Good Schools (43%)	Public transportation (35%)	Walkable/Bike-able community (35%)
5	Access to health care (42%)	Walkable/Bike-able community (34%)	Clean Environment (34%)

Educational attainment was selected for stratification as it is associated with socioeconomic status. The top community strengths by educational attainment were all very similar: parks and recreation; local 24-hour police, fire, and rescue service; and access to health care.

COMMUNITY THEMES & STRENGTHS ASSESSMENT

TOP 5 IMPROVEMENTS FOR QUALITY OF LIFE

Respondents were asked to pick no more than 5 opportunities for improvement from a comprehensive list (Appendix D, page 153). By limiting the number to 5, respondents selected their most significant improvements.



The top 5 community improvements selected by respondents were related to financial support, community safety, youth services, and education.

Top 5 Improvements by Race

Rank	White	Black or African American	Asian
1	More jobs and healthier economy (37%)	More jobs and healthier economy (52%)	More jobs and healthier economy (45%)
2	Access to affordable housing for everyone (31%)	Less crime (49%)	Access to health care for everyone (32%)
3	Less crime (29%)	More programs and support for youth outside of school (39%)	Access to affordable housing for everyone (28%)
4	Meet everyone's needs of food, shelter, and clothing (27%)	Less violence (36%)	Meet everyone's needs of food, shelter, and clothing (26%)
5	More programs and support for youth outside of school (26%)	Improved education (34%)	Access to mental health services for everyone (25%)

The most common top community improvement selected by all three races was: more jobs and healthier economy. Improvements that were specific only to one race were: less violence and improved education (Black/African Americans respondents); and access to health care and access to mental health services (Asian respondents).

COMMUNITY THEMES & STRENGTHS ASSESSMENT

Top 5 Improvements by Ethnicity

Rank	Hispanic	Non-Hispanic
1	Less crime (49%)	More jobs and healthier economy (41%)
2	More jobs and healthier economy (40%)	Less crime (31%)
3	Less violence (39%)	Access to affordable housing for everyone (30%)
4	More programs and support for youth outside of school (36%)	Meet everyone's needs of food, shelter, and clothing (29%)
5	Improved education (33%)	More programs and support for youth outside of school (28%)

The most common top community improvements selected by Hispanic and Non-Hispanic respondents were: less crime; more jobs and a healthier economy; and more programs for youth outside of school.

Top 5 Improvements by Zip Code

Rank	60085	60073	60087	60099	60030
1	Less crime (53%)	Less violence (73%)	Less crime (55%)	Less crime (61%)	More jobs and healthier economy (38%)
2	More jobs and healthier economy (45%)	More jobs and healthier economy (47%)	Less violence (41%)	More jobs and healthier economy (51%)	Meet everyone's needs of food, shelter, and clothing (37%)
3	Improved education (37%)	Improved education (40%)	More jobs and healthier economy (40%)	Less violence (49%)	Access to affordable housing for everyone (35%)
4	More programs and support for youth outside of school (33%)	Less crime (35%)	Improved education (38%)	More programs and support for youth outside of school (44%)	Access to health care for everyone (30%)
5	Access to affordable housing for everyone (29%)	More programs and support for youth outside of school (33%)	More programs and support for youth outside of school (36%)	Improved education (29%)	A more walkable, bike-able community (25%)

The most common top community improvements selected by zip code were: less crime; more jobs and a healthier economy; and more programs and support for youth outside of school. Zip code 60030 had two very different top community improvements: meet everyone's needs of food, shelter and clothing; and a more walkable, bike-able community.

COMMUNITY THEMES & STRENGTHS ASSESSMENT

Top 5 Improvements by Educational Attainment

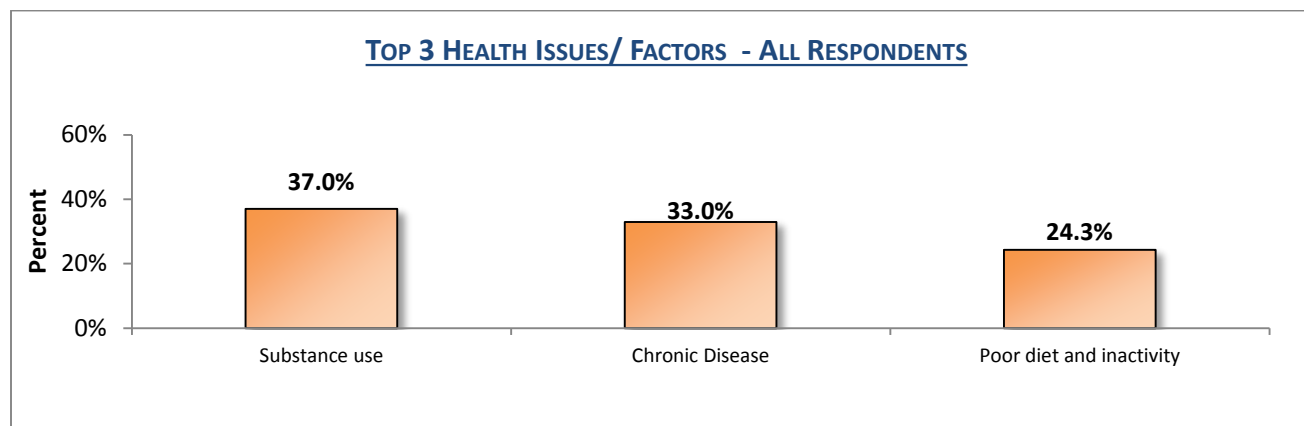
Rank	High School	Some College	College & Post-Graduate Degrees
1	Less crime (51%)	More jobs and healthier economy (45%)	More jobs and healthier economy (36%)
2	More jobs and healthier economy (44%)	Less crime (42%)	Access to affordable housing for everyone (29%)
3	Less violence (41%)	More programs and support for youth outside of school (37%)	Access to public transportation (27%)
4	More programs and support for youth outside of school (33%)	Access to affordable housing for everyone (34%)	More programs and support for youth outside of school (26%)
5	Improved education (32%)	Improved education (33%)	Meet everyone's needs of food, shelter, and clothing (25%)

The most common top community improvement selected by educational attainment was more jobs and a healthier economy and more programs and support for youth outside of school.

COMMUNITY THEMES & STRENGTHS ASSESSMENT

TOP 3 HEALTH ISSUES/FACTORS IN THE COMMUNITY

Respondents were asked to pick no more than 3 of their health issues/factors in the community from a comprehensive list (Appendix D, page 153). By limiting the number to 3, respondents selected their most significant health issues/factors.



The top health issue/factor selected by the majority of respondents was substance use (37%); followed by chronic disease (33%); and poor diet and inactivity (24.3%).

Top 3 Health Issues/Factors by Race

Rank	White	Black or African American	Asian
1	Substance Use (40%)	Homelessness (39%)	Chronic Disease (49%)
2	Chronic Disease (36%)	Substance Use (38%)	Safe affordable housing and adequate housing (39%)
3	Poor diet and inactivity (27%)	Community Violence (32%)	Aging problems (35%)

The top three health issues/factors that were selected differed greatly between different races. Commonalities were substance use (selected by White respondents and Black/African American respondents) and chronic disease (selected by White respondents and Asian respondents).

COMMUNITY THEMES & STRENGTHS ASSESSMENT

Top Health Issues/Factors by Ethnicity

Rank	Hispanic	Non-Hispanic
1	Substance Use (37%)	Substance Use (39%)
2	Community Violence (33%)	Chronic Disease (37%)
3	Chronic Disease (30%)	Aging problems (27%)

The top common health issues/factors that were selected between Hispanic and Non-Hispanic respondents were: substance use and chronic disease. Hispanic respondents selected community violence as the third top issue whereas Non-Hispanic respondents selected aging problems.

Top 3 Health Issues by Zip Code

Rank	60085	60073	60087	60099	60030
1	Homelessness (38%)	Substance Use (38%)	Substance Use (43%)	Community Violence (44%)	Chronic Disease (43%)
2	Substance Use (37%)	Chronic Disease (36%)	Homelessness (32%)	Substance Use (38%)	Substance Use (37%)
3	Community Violence (35%)	Poor diet and inactivity (28%)	Community Violence (30%)	Poor diet and inactivity (26%)	Safe affordable housing and adequate housing (36%)

The most common health issue/factor that was selected by all zip codes was substance use.

Top 3 Health Issues by Educational Attainment

Rank	High School	Some College	College & Post-Graduate Degrees
1	Substance Use (39%)	Homelessness (3%)	Chronic Disease (41%)
2	Community Violence (34%)	Domestic Violence (2%)	Substance Use (40%)
3	Homelessness (30%)	Teen pregnancy (2%)	Aging problems (28%)

The top three health issues/factors that were selected differed greatly between respondents who completed high school, college education, and post-graduate education. Commonalities were substance use (selected by respondents who completed high school and post-graduate education) and homelessness (selected by respondents who completed high school and respondents who completed some college).

COMMUNITY THEMES & STRENGTHS ASSESSMENT

METHODOLOGY - FOCUS GROUP

Using a health equity lens, focus groups were conducted to provide a voice to underserved and underrepresented populations. The results provide further insight into the survey findings through intensive discussions with residents on their perceptions of quality of life and health in their communities. The in-depth questions that were developed for the focus groups were based off of the questions from the Community Strengths Survey (Appendix E, page 159).

Groups were selected to provide an equitable representation of demographics, including race, ethnicity, language, and socioeconomic status. Four focus groups were conducted: (1) African Americans, (2) persons with physical disabilities and/or visual impairments, (3) Korean Americans conducted in Korean, and (4) recent Latino immigrants conducted in Spanish. The Live Well Lake County Steering Committee, along with the Lake County Health Department partnered with community-based organizations to help with participant recruitment and hosting the focus groups.

A total of 42 adults participated across the four focus groups. The group size for each ranged from 8-14 participants with discussions lasting between 60 and 90 minutes. One health department staff member facilitated the conversation while another took notes. The conversations were audio recorded to accurately capture all of the ideas and opinions of the participants. Two of the groups were conducted in languages other than English: Korean and Spanish. The organizations that hosted focus groups in Korean and Spanish provided a staff member to facilitate language translation between the focus group facilitator and the participants.

To promote consistency in data collection and reporting, a focus group facilitator guide, note-taker template, and focus group summary table were developed. The focus group facilitator guide included: recommendations on how to conduct and record a focus group session; logistics and materials; and a script for the facilitator to follow. In an effort to ensure the anonymity of the participants, names were not collected and all introductions were conducted prior to audio recording.

After the focus groups were conducted, the data was transcribed, analyzed, and interpreted. The results of each individual focus group were analyzed separately and then analyzed collectively with the other focus groups. The transcriptions were coded and categorized by question.

COMMUNITY THEMES & STRENGTHS ASSESSMENT

RESULTS - FOCUS GROUPS

The findings of the focus groups proved to be consistent with the overall results of the Community Strengths Survey. The in-depth discussions that occurred in the focus groups provided a greater level of detail on the most significant issues facing each population

AFRICAN AMERICAN RESIDENTS- FAMILY FIRST CENTER, WAUKEGAN

Strengths

Active Living

Parks, playgrounds, and fitness centers were brought up as examples of resources that provide opportunities for families to participate in active living. These places were also described as gathering spots that promote a feeling of community and safety for children and families.

Spiritual Support

Community churches were mentioned as incredible resources for individual, family, and community support. Individuals utilize their church for meeting and obtaining support from other community members. The church also serves as a hub for sharing community information and health education.

Public Transportation

Public transportation was praised for its safety. Parents feel comfortable sending their children on public buses and this provision helps busy parents get their children to school.

Opportunities for Improvement

Family-Focus

Participants expressed family connectedness as a very important area of improvement. Youth and family-focused programs were suggested as ways to bring families together and potentially prevent broken homes.

Public Transportation

Public transportation was mentioned as an area for improvement. Increased availability and locations of public transportation are required in North Chicago, Waukegan, and Zion areas.

Poverty

Generational poverty was mentioned as a long standing issue that could potentially be improved by increasing education and awareness throughout the community on the harms of inequities.

Cultural Sensitivity in the Workforce

Participants discussed the lack of cultural sensitivity of many professionals in the community. Professionals, who provide services such as education, safety, health care, etc., are not familiar with the culture of their customers or passionate about the community they work in.

"... A lot boils back down to the finances. They don't want to pay the teachers what they were worth to teach the kids growing up...We have great ideas, and we know how to serve our community, believe me. We need funds to serve our community."

COMMUNITY THEMES & STRENGTHS ASSESSMENT

HEALTH ISSUES

Mental Health

Participants expressed the need for more mental health services in the community and providing more connections between youth and counsellors. Churches and social service agencies were mentioned as examples of organizations that can be utilized to reach out to individuals who have mental health issues. Increased collaboration between community organizations was suggested as a way to increase mental health services and availability.

Trauma

It was revealed that an increased number of children and young adults in Waukegan and North Chicago have suffered psychological trauma from being exposed to community violence, abusive homes, and homes with substance abuse. Trauma is highly prevalent in the community, but it is ignored.

Older Adult Health

Quality care for older adults was mentioned as a health issue as well as a need for more caring medical providers.

"It's being aggravated (trauma) by the fact that they ship people into our community to be over us that are not from our community. They do not understand our community. Most of our police department is Caucasian and from way-out of the community. Most of the people who teach our children are from other areas, and they have the grants, they get forgiveness for student loans for coming into our community, teaching our children..."

COMMUNITY THEMES & STRENGTHS ASSESSMENT

PHYSICALLY DISABLED AND VISUALLY-IMPAIRED RESIDENTS- LAKE COUNTY CENTER FOR INDEPENDENT LIVING, MUNDELEIN

Strengths

Community Support Networks

Participants listed a variety of community organizations that provide support and services for disabled individuals, including the Lake County Center for Independent Living, Park Place, and the College of Lake County. Examples of services that were mentioned were: college education; workforce training; disability advocacy; and cross-disability assistance.

Educational support

The College of Lake County was discussed as a significant educational resource. The college offers a variety of educational opportunities and has classrooms that are accessible for people with disabilities. It also has a health center available on campus and childcare services are offered for parents who are enrolled in classes.

Opportunities for Improvement

Public Transportation

Public transportation was revealed to be a major barrier for employment, medical health care, and daily living. There is a need for more accessible transportation, longer hours of operation, and more locations of operation.

Financial Assistance

Participants voiced a need for increased financial assistance and health insurance coverage for medical devices, software, and assisted devices.

Health Issues

Health Literacy

A lack of health literacy among disabled individuals was brought up as an important health issue. Improving health education, awareness, and availability of resources for regardless of functional status were suggested ways for improvement.

Disability Awareness

Participants expressed their concern and frustration with the lack of disability awareness in the community. Increased disability awareness is vital, especially among employers, health care providers, local elected officials, and policy makers.

"I use a Hoyer lift. It is at my house for people to lift me, and they cost like \$3,000-\$4,000; and right now mine is broken. And I have only Medicaid, and they only pay for certain things. So if Medicaid denies me then there is nothing I can do. I have to figure out another way to come up with the money to purchase a Hoyer. And same with my chair. If my chair needs repairs, I have to go through Medicaid, and they don't want to pay for diddly. So it's like, if they say no, I'm stuck."

"Businesses are not open to hiring people with disabilities, I have interviewed for several jobs, and once they see that I'm in a wheel chair or have a disability they automatically count me out. I feel like I'm perfectly qualified to do the job."

COMMUNITY THEMES & STRENGTHS ASSESSMENT

KOREAN AMERICAN RESIDENTS- HANUL FAMILY ALLIANCE, MUNDELEIN

Strengths

Family-Focus

Participants discussed a variety of strengths in the community that promote family involvement and connectedness. Examples of resources mentioned were: good schools; parks and areas for outdoor activities; and safe neighborhoods.

Spiritual Support

Community churches were praised as vital community resources that provide areas for community gatherings and support connections to other non-profit organizations in the community.

Opportunities for Improvement

Community Support Networks

Participants touched on the need to improve financial, educational, and social support for parents, families and children. They also mentioned a lack of community resources that provide cultural support in the community.

Culturally-Sensitive Workforce

A major area for improvement that was discussed was the lack of Korean-speaking health care facilities and services in the community. Participants expressed frustration regarding lack of cultural sensitivity and language barriers locally. This issue has resulted in difficulty in obtaining quality health care, social services, and health insurance.

Health Issues

Childhood Obesity

Participants voiced concern regarding unhealthy foods served in school cafeterias and the lack of alternative/nutritious options available for children.

Food Availability

The lack of healthy food markets and Asian food markets was discussed as a significant health issue. Participants recommended an increase in farmers markets; affordable grocery stores that sell healthy organic food; and grocery stores that sell Asian produce.

Older Adult Health

Winter depression was mentioned as a common problem in older adults. Increased activities/programs for older adults in the winter were recommended as a way to alleviate the issue.

"A lot of parents are first generation, and they want to educate and create opportunities for their children, so they can be more successful as second generation Korean Americans. However, there is a lack of parenting support options. Parents have difficulty teaching the Korean culture to their children as there are not many external resources in the community outside of the homes."

"I try to provide my children with healthy, nutritious food at home. I am worried because the food offered for school lunches is not healthy, and there is a lack of options, especially since my family is vegetarian. One time, my kids asked for a vegetarian meal, and the lunch lady just told them to pick the pepperonis off of the pizza."

COMMUNITY THEMES & STRENGTHS ASSESSMENT

LATINO RESIDENTS (SPANISH SPEAKING)-MANO A MANO FAMILY RESOURCE CENTER, ROUND LAKE

Strengths

Community Support Networks

Mano a Mano was praised as a major community resource that provides a variety of services for the Latino community. Examples of services mentioned were: preventative medicine; health education; family support; and educational support.

Active Living

Participants discussed the benefits of active living resources in the community, especially Zumba classes. Zumba classes are free and provide a support group for the women who participate. In addition to promoting friendship and bonding, the classes have assisted in increasing self-esteem and decreasing stress.

Food Environment

Participants were proud of local community gardening efforts. The local community garden activities provide fresh fruits and vegetables to the community, as well as assist in educating individuals on healthy living and eating.

Opportunities for Improvement

Public Transportation

Public transportation was brought up as a significant area of improvement. Increased availability and locations of public transportation are required. It was brought up that children in Round Lake have to walk to school or car pool as there is no school transportation.

Family-Focus

Participants voiced their concern over the lack of community resources for parenting and childcare.

Financial Support

Participants discussed the lack of financial support in the community, especially a lack of pension and social security. Many participants mentioned that they have to work 2-3 jobs for financial security. Programs to counsel people with finances and improve financial literacy were suggested as a method of improvement.

Culturally-Sensitive Workforce

A significant area of improvement that was mentioned was the lack of cultural sensitivity among health care professionals in the community. Examples mentioned were: rude and disrespectful health care staff and consistent delays in appointments.

"I worked at a health clinic; I noticed a lot of my former peers were very disrespectful towards the patients. One thing that needs to be looked into is the treatment towards them. How would you like to be admitted and then talked down to? There needs to be more respect, and to take into consideration that these people are hurting. I think for the amount of time that is spent on a patient... they deserve much more respect."

COMMUNITY THEMES & STRENGTHS ASSESSMENT

Health Issues

Teenage Pregnancy

Increased teenage pregnancy in the Latino population was discussed. Participants attributed it to a lack of health education and health awareness among youth and adults.

Mental Health

Participants expressed the need for mental health services and support for individuals with depression, stress, suicidal thoughts, and victims of domestic violence.

Health Literacy

Participants discussed the need for quality health information, health education, and health awareness in the community. Many individuals are not aware of the resources available or how to prevent certain health conditions.

"The problem with parents; they are working the whole day and they don't have time, or don't want to attend to their children. There are many services in the community (e.g. library, Mano a Mano), but parents don't want to utilize these services because they are too busy working."

COMMUNITY THEMES & STRENGTHS ASSESSMENT

FOCUS GROUP- OVERALL THEMES

Listed are the overarching themes that were brought up across the four focus groups. The themes were selected from the strengths, improvement opportunities, and health issues discussed.

	African American Group	Physically Disabled/ Visually Impaired Group	Korean American Group	Latino (Spanish Speaking) Group
<i>Community Strengths</i>				
Public Transportation	x			
Family Focus			x	
Spiritual Support	x		x	
<i>Improvement Opportunities</i>				
Public Transportation	x	x		x
Family Focus	x			x
Competent and Culturally Sensitive Workforce	x	x	x	x
Financial Support and Workforce Development		x		x
<i>Health Issues</i>				
Mental Health	x			x
Older adult health and health care	x		x	
Health Literacy		x		x

COMMUNITY THEMES & STRENGTHS ASSESSMENT

METHODOLOGY - PHOTOVOICE

Photovoice is a research tool used to gain community-level perspectives from target populations using photography as a means of expression. The three main goals of Photovoice are to (1) enable people to record and reflect their community's strengths and concerns, (2) to promote critical dialogue and knowledge about important issues through group discussion of the photographs, and (3) to reach policymakers¹. The Live Well Lake County Steering committee utilized Photovoice to answer the following questions: (1) "How does your community positively and negatively affect your health?" and (2) "How does your community prevent or allow for behaviors which can lead to obesity?"

High school students in Lake County were selected as participants in this project to provide a platform for youth to voice their opinions on community health; to educate youth on public health concepts; and engage youth in the community health improvement process. Participants were purposefully recruited from schools and youth advocacy groups that were geographically and socioeconomically diverse. The following groups were recruited:

- Adlai E. Stevenson High School's HOSA group (Health Occupation Students of America). Seven students from HOSA participated. Adlai E. Stevenson High School is located in Lincolnshire (South Central Lake County) and provides representation of a middle upper class to upper class socioeconomic status.
- Zion-Benton Township High School's photography class. The photography teacher made Photovoice part of the coursework. Thirteen students from the class participated. Zion-Benton High School is located in northeast Lake County, representing diverse socioeconomics and racial/ethnic composition.
- REALITY Illinois and the Youth Advisory Board groups in the greater Gurnee area and the greater Lake Zurich area. REALITY Illinois and the Youth Advisory Board group are a tobacco and alcohol policy and advocacy group created by and for Illinois teens. It is funded by the Illinois Department of Public Health and the Lake County Underage Drinking and Drug Prevention Task Force. A total of fifteen students participated from REALITY Illinois across the two group locations. Both locations provide a broad representation of central and south western Lake County.

1. Wang, C., & Burris, M. (1997). Photovoice: Concept, Methodology, and Use for Participatory Needs Assessment. *Health Education & Behavior*, 24(3), 369-387.

COMMUNITY THEMES & STRENGTHS ASSESSMENT

ORIENTATION

The Photovoice facilitators were Lake County Health Department staff along with school instructors and student group sponsors. These facilitators conducted an orientation where participants learned about the goals of Photovoice; how to critically look at their communities through a public health lens; and the ethics involved when capturing photographs in the community. The participants were also given an introduction to public health; social determinants of health and health equity.

PHOTOS IN COMMUNITY

The participants explored their communities and took photographs using their own phones with cameras or professional cameras to capture health-related aspects of their environments. The photographs that were taken were uploaded to FLICKR (a photo-sharing website) that was accessible to all participants and facilitators. The FLICKR link is available here:

<https://www.flickr.com/photos/lakecountyphotovoice/albums>.

DISCUSSION SECTIONS

After the photos were captured, Photovoice facilitators set up group discussions to provide participants an opportunity to elaborate on the meaning behind their photos and what aspects of public health they captured. Using their new knowledge of the social determinants of health and health equity, the participants were able to draw connections between built and natural environments; neighborhood conditions; healthy choices; and community health improvement.

COMMUNITY THEMES & STRENGTHS ASSESSMENT

RESULTS - PHOTOVOICE

Overarching themes were identified by participants with guidance from the Photovoice facilitators. The participants were successful in making associations between community and social determinants of health.

OVERARCHING PHOTOVOICE THEMES

- Community Safety
- Food Environment and Resources
- Active Living
- Improvement through Community Involvement

COMMUNITY SAFETY



On a Busy Road Filled with Cars, When will We Care about Pedestrians?

"I took this picture to represent a negative aspect of our community. This man had to run across the road when there was a gap in the cars because there was nowhere for him to cross. As a society, we should make it easier for pedestrians to get to places by creating crosswalks and stop signs so we can avoid accidents."

– Priya R.,
Adlai E. Stevenson High School
HOSA

COMMUNITY THEMES & STRENGTHS ASSESSMENT



Destruction Starts Here

“I picked this picture because it contains a closed nuclear power plant right on the side of the lake. This could be a great danger to this community, because the gases it inserts into the air. But also the waste it dumps into the fresh lake water. This could make people not come to our lake and do outdoor activities like go for a run, camping or just play in the sand.”

– Brian G.,
Zion-Benton Township High
School

COMMUNITY THEMES & STRENGTHS ASSESSMENT



The Unapparent Dangers that Affect our Children

"I took this photo because it showcases a negative aspect of our community where a children's park is right next to several electricity poles. These poles are known to be harmful and possibly increase the risk of cancer. Therefore, we should find safer locations to place parks that are accessible by the people."

– Priya R.,
Adlai E. Stevenson High School
HOSA

COMMUNITY THEMES & STRENGTHS ASSESSMENT

FOOD ENVIRONMENT AND RESOURCES



Candy Store vs. Smoothie Bar

"I found it so interesting to compare the set-up of the smoothie bar versus the candy store. The candy store was so much more appealing, even if it is the more unhealthy option."

- Sarah P.,
Adlai E. Stevenson High School
HOSA



Growing a Healthy Community

"I chose this picture because it's unusual for suburbs to include farmland; I think our community is unique in that regard. Local farms like Didier's grow local vegetables such as corn, tomatoes, and pumpkin that aren't processed in factories, allowing for a healthier and more organic diet for our community."

- Natalie S.,
Adlai E. Stevenson High School
HOSA

COMMUNITY THEMES & STRENGTHS ASSESSMENT



Is Bulk-Stocking Cheap Candy in your House the Healthiest way to satisfy your Craving?

“This display advertises very low prices for a large bag of candy. This gives out the wrong image because people are more willing to spend less for more so this compels the general public to turn to unhealthy, sugary foods instead of looking for quality, organic products as snacks. This, thus, adds the America's increasing obesity problem because more people are spending money buying cheap candy like this because they get more for less.”

- Kelly Z. and Joyce C.,
Adlai E. Stevenson High School
HOSA

COMMUNITY THEMES & STRENGTHS ASSESSMENT



Broken Trails

“Due to a lack of funding, this trail is unmaintained. This is a barrier for people who want to exercise, but can’t because of the broken path.”

– Brittany O., REALITY ILLINOIS

ACTIVE LIVING



Empty Grounds Equal More Pounds

“I took this picture at a park in my community. As long as this park has been built there has been barely any children play here. I know this because it is in my neighborhood. Children would much rather be inside than playing in their local park. This picture connects to obesity because the less exercise children have in their daily life equals more pounds they are going to gain. Potentially leading for a life of obesity.”

– Livia M.,
Zion-Benton Township High School

COMMUNITY THEMES & STRENGTHS ASSESSMENT



#RoomForPlay

"Parks and open space are great attributes to my community. The vast open fields and basketball courts give members of my community a space to workout. Therefore, this is a resource that can promote healthy living and prevent obesity."

– Daryl F, REALITY ILLINOIS

COMMUNITY THEMES & STRENGTHS ASSESSMENT

IMPROVEMENT THROUGH COMMUNITY INVOLVEMENT



Do Something to Help Many

“My friends and I participated in a scholarship opportunity to collect cigarette butts around our community. I joined this cause to better my community, and clean up this waste. We tried to encourage those around us to do the same even after the scholarship closed.”

– Emily H., REALITY ILLINOIS



Who Cares?

“This man is smoking right next to a non-smoking sign. Even with a push in the community for reducing unhealthy behaviors, what more can be done?”

– Shreya S.,
Adlai E. Stevenson High School
HOSA

COMMUNITY THEMES & STRENGTHS ASSESSMENT



Water Bottle in Watery Waste

“In this picture a water bottle is found littered in a lake. This is dangerous to humans’ health because littering is bad in any case, but also this contaminates the water, leading to many problems with the ecosystem in the lake. This is a disadvantage to the animals that might think it is food and also to humans because it shows that the community is not taking care of its environment. I took this photo because I thought littering is still a big issue today and the effect of this could be devastating to nature and to humans.”

– Katie A., REALITY ILLINOIS

COMMUNITY THEMES & STRENGTHS ASSESSMENT



Renovating the Old

“This picture was taken in Vernon Hills, and it shows an old building that was torn down and will be replaced by a park. This goes with our theme of renovating the old and recycling.”

– Joyce C.,
Adlai E. Stevenson High School
HOSA



From an Old Rusty Building to a Thriving Farmers Market

“I took this photo because it is a positive aspect of our community. The renovation of an old broken down building into a new Farmer's Market shows the positive changes that we can all make.”

– Priya R.,
Adlai E. Stevenson High School
HOSA

COMMUNITY HEALTH STATUS ASSESSMENT

Community Health Status Assessment

MATERIALS AND METHODS

The CHSA contains the quantitative indicators necessary for the community health improvement planning process. Because community health crosses so many sectors, the data collection strategy and sources must reflect a diverse set of sectors and indicators.

SECONDARY DATA

Secondary data is any data used by an entity that did not generate or collect that data, oftentimes for purposes other than the original purpose. The more complete, timely secondary data sets are fundamental resources for the planning process. For example, the American Community Survey from the United States Census tracks demographic, economic, education, and other social characteristics of communities at different geographic scales from census blocks to national figures. For this Assessment, data from the American Community Survey 5-Year Average for 2010-2014 were used unless otherwise noted. These represent the most complete, timely estimates available on the residents of Lake County. The Illinois State Police publish annual rates of crimes as required by the Uniform Crime Reports system. Illinois's Department of Children and Family Services reports investigations and cases of child abuse and neglect. Social factors provide context for health outcomes.

The most comprehensive health information comes from the Illinois Department of Public Health (IDPH). IDPH shares records of birth, death, and hospital discharges that can be used to understand adverse pregnancy outcomes, mortality, and hospital usage patterns. IDPH also administers the Illinois Behavioral Risk Factors Surveillance System (I-BRFSS) survey, a questionnaire created by the Centers for Disease Control and Prevention to assess health conditions and behaviors, typically to describe state-level prevalence rates. In Illinois, the data are available for counties. The results from the I-BRFSS are published intermittently and reflect the priorities of CDC and IDPH but do not capture all the topic areas that would be most useful for Lake County.

For other local data, models from major national organizations can be used to assess the relative condition of the county. Oftentimes, the County Health Rankings (a program of the University of Wisconsin Public Health Institute) will acquire and process other data sets to provide comparative data for individual counties. Feeding America publishes an annual report that estimates the prevalence of food insecurity by county. These data account for demographic and economic characteristics of the community and estimate the prevalence of health factors and the general burden of a determinant or health condition.

Oftentimes, data are collected for other uses and public health information can only be determined through secondary modelling. For example, data acquired from the Illinois Secretary of State was cleaned, corrected, and transformed to determine relative rates and distribution of obesity for communities in Lake County.

COMMUNITY HEALTH STATUS ASSESSMENT

PRIMARY DATA

While secondary data resources provide a solid foundation for a community health assessment, these do not provide a complete picture of health in Lake County. Community partners challenge LCHD/CHC to explore alternatives options and capture information on areas not covered by other data sets. Most prevalence data, especially for mental health and substance abuse, are only available at the state or national level. Primary data collected by LCHD/CHC can help to fill the gap. To achieve this, LCHD/CHC conducted a survey to collect health data directly from county residents.

Questions were modeled after the Behavioral Risk Factors Surveillance System (BRFSS) survey. Most questions were taken directly from current or previous surveys and were selected because of their importance to LCHD/CHC and its community partners. For new topic areas, questions were written to match language style and reading level of the borrowed questions. Questions were tested internally in both English and Spanish by LCHD/CHC staff. Questions were then externally tested for clarity, length, and neutrality by volunteers recruited from the Lake County Health Department and Community Health Center Belvidere Medical Building and Mid-Lakes clinics. Each new question was reviewed at least ten times both internally and externally in both languages to ensure that questions would be understood by community members. Staff at the community partner Mano a Mano Family Resource Center volunteered time to review the Spanish language material to ensure that grammar and phonetics were appropriate.

LCHD/CHC utilized a mixed-methods survey to collect responses from the community. Invitations were sent to 5,000 randomly-selected households from a near-complete list of occupied residences made available by a query of records from the Lake County GIS Program. Recipients were invited to participate through their method of choice. Participants were able to complete the survey through either an online option or a toll-free, call-in option where individuals would respond to a pre-recorded survey and use the phone's number pad to indicate responses. Both versions of the survey were available in English and Spanish. Households received two reminder postcards at two and four weeks after receipt of the invitation. The survey accepted responses for ten weeks.

The raw results were compiled into a single spreadsheet and reviewed. Responses were categorized by demographic information provided by the respondents – age and gender – to produce a county figure for responses to each question. The values reported out in this document reflect this weighting strategy and not crude values. Weighting allows for a representative picture of the population to be produced from the responses received.

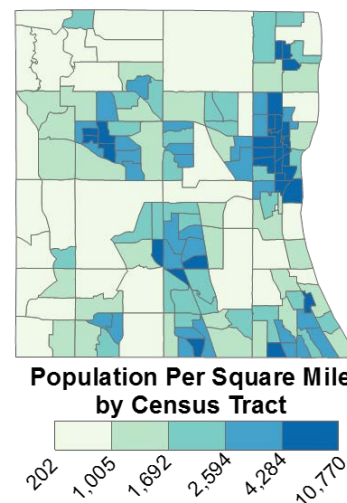
*For more information on the methodology development or results, please contact the
Lake County Health Department Assessment Team at HealthAssessment@lakecountyil.gov*

COMMUNITY HEALTH STATUS ASSESSMENT

RESULTS

DEMOGRAPHIC CHARACTERISTICS

Lake County is an increasingly diverse community. While the population has remained relatively stable since the 2010 (with 703,462 in 2010 the 2010 Census an estimated 703,170 from the American Community Survey 5-year Estimate from 2010-2014), many of the demographic trends that defined the first decade of the twenty-first century have continued to shape Lake County's population characteristics.¹⁸ Overall, Lake County has a population density of 1,462 residents per square mile but varies considerably. Urban areas in eastern Lake County have census tracts with more than 5,000 persons per square mile while much of northern and western Lake County have fewer than 1,000 residents per square mile.



DEMOGRAPHICS

About 64.2% of residents are non-Hispanic white. Residents identifying as Hispanic or Latino represent about 20.5% of all residents in Lake County. 6.6% of residents are African American. Asian Americans include 6.4% of Lake County residents.¹⁹

The total number of Latino residents has increased by 55.1% since 2000, from 92,716 to 143,841 in 2014. The number of African Americans in the county has increased slightly, by about 4.3%, from 44,741 to 46,644. Over the same interval, the total number of Asian American residents has increased by 81% between 2000 and 2014, from 25,105 to 45,556. The non-Hispanic white population has contracted by about 4.5%, from 472,968 in 2000 to 451,700 in 2014.²⁰ Changes in population are not uniform across the county and potentially represent pockets of culturally-specific health needs.

Race or Ethnic Group	2000 Census	Percent of Population 2000	2014 ACS Estimates	Percent of Population 2014	Percent Change
Hispanic or Latino (of any race)	92716	13.4%	143841	20.5%	55.1%
Black or African American alone	44741	6.4%	46644	6.6%	4.3%
Asian	25105	3.6%	45556	6.5%	81.5%
White alone	472968	68.2%	451700	64.2%	-4.5%

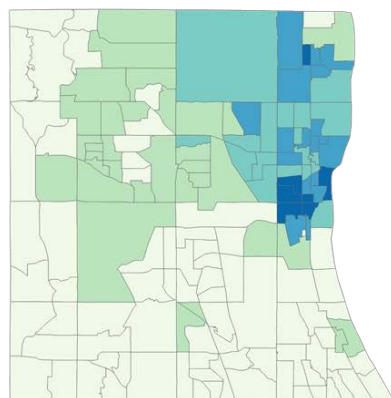
¹⁸ American Community Survey 5-Year Average 2010-2014

¹⁹ American Community Survey 5-Year Average 2010-2014

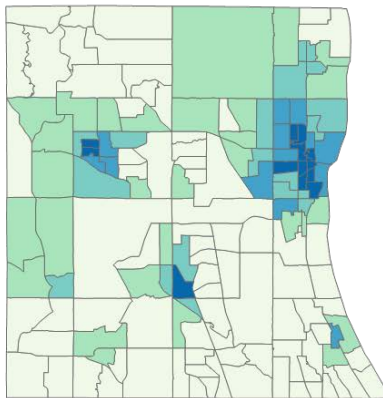
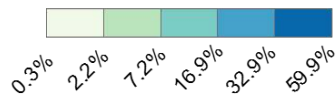
²⁰ American Community Survey 5-Year Average 2010-2014

COMMUNITY HEALTH STATUS ASSESSMENT

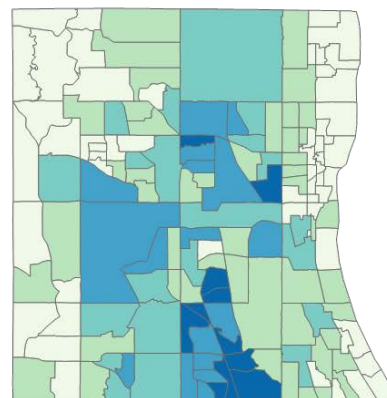
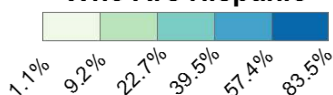
Race and Ethnicity Distribution in Lake County by Census Tracts



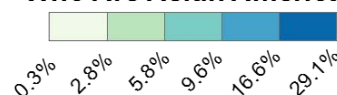
Percent of Residents Who Are African American



Percent of Residents Who Are Hispanic

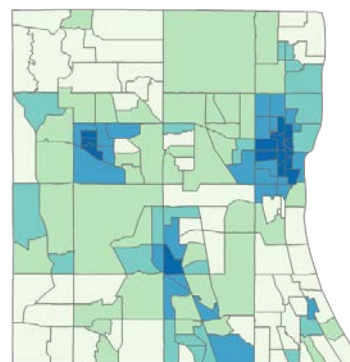


Percent of Residents Who Are Asian American

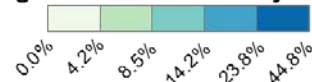


LANGUAGE

Increasing linguistic diversity reflects changes in the social and cultural landscape of Lake County. 184,729 residents, about 28% of people over the age of five, speak a language other than English at home. 112,961 residents, about 17% of the population, speak Spanish or a Spanish Creole. The number of Spanish-speaking individuals has grown by about 5%, an additional 4,888 Spanish-speaking persons in 2014 than 2010. Speakers of other Indo-European languages represent 6% of Lake County and increased by 1,081 since 2010. Asian language speakers also increased to 4% of Lake County's population, growing by 2,203 speakers since 2010. These figures indicate cultural shifts. While 28% of residents speak a language other than English at home, 10.5% speak English "less than very well."²¹ Certain communities have higher proportions of individuals who speak English less than very well and might face linguistic barriers to health resources if these resources are only available through English language avenues.



Percent of Population That Speaks English Less Than "Very Well"



²¹ American Community Survey 5-Year Average 2010-2014

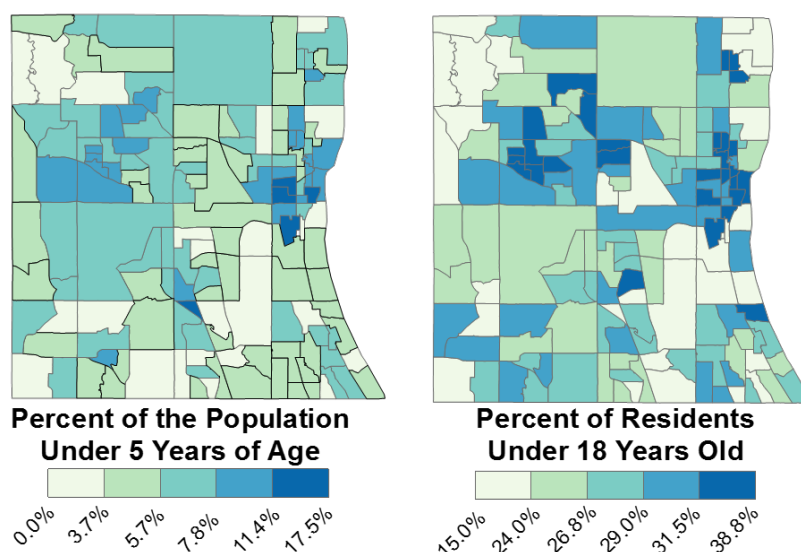
COMMUNITY HEALTH STATUS ASSESSMENT

Language Spoken at Home	2014 Count	2010 Count	Change	Percent 2014	Percent 2010	Percent Change
Population 5 years and over	659,159	648,261	10,898	-	-	1.7%
Speak only English	474,430	472,210	2,220	72.0%	72.8%	0.5%
Speak a language other than English	184,729	176,051	8,678	28.0%	27.2%	4.9%
• Spanish or Spanish Creole	112,961	108,073	4,888	17.1%	16.7%	4.5%
• Other Indo-European languages	40,781	39,700	1,081	6.2%	6.1%	2.7%
• Asian and Pacific Island languages	27,710	25,507	2,203	4.2%	3.9%	8.6%
• Other languages	3,277	2,771	506	0.5%	0.4%	18.3%

AGE

Changes to Lake County's racial and ethnic composition have also been accompanied by shifts in age in the county. Between 2000 and 2014, the median age in the county increased from 33.8 to 37.2. The total number of births annually has declined since 2010. There are almost 9,000 fewer young children (under the age of 5) in Lake County than in 2000, dropping from 52,978 (8.2% of the population in 2000) to 44,011 (about 6.3% in 2014).²² The changes seen in the county totals are not evenly distributed.

Childhood Age Distribution in Lake County by Census Tracts

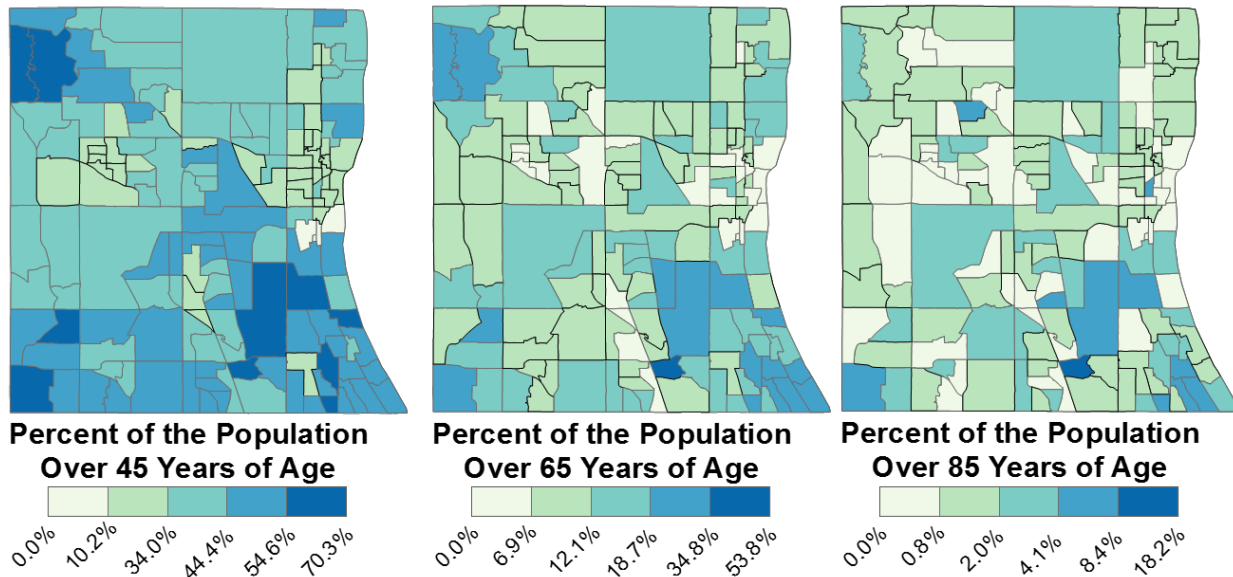


²² American Community Survey 5-Year Average 2010-2014

COMMUNITY HEALTH STATUS ASSESSMENT

Conversely, the proportion of the population in older age groups have seen the largest increases and all groups over 45 years of age experiencing growth. 197,390 residents were between 45 and 64 years of age in 2014, representing 28% of the county's total population. The number of individuals over 65 in Lake County has increased by 24,410 people since 2000 and now totals 79,399 residents or 11.3% of Lake County's population.²³

Adult Age Distribution in Lake County by Census Tracts



²³ American Community Survey 5-Year Average 2010-2014

COMMUNITY HEALTH STATUS ASSESSMENT

SOCIOECONOMIC CHARACTERISTICS

Although Lake County is one of the wealthiest in the state by median household income (\$77,873),²⁴ economic disparities in the County are dramatic. A metric of income inequality compares the ratio of income of the 80th percentile of households to the 20th. By this measure, Lake County is the most economically unequal of the collar counties.²⁵ Some of the wealthiest communities abut areas that are economically disadvantaged. Because economic factors can drive health outcomes, understanding today's economic landscape and changes over time are vital to understanding the current state of Lake County.

County	Income Inequality
McHenry	3.7
Will	3.7
DuPage	4.1
Kane	4.2
Lake	4.6

EMPLOYMENT²⁶

Comparing the American Community Survey's 5-year Average rates from 2010 and 2014 for indicators like unemployment and poverty indicate growing hardship for many of the County's residents. Five-year averages were used to better understand chronic economic challenges in the community. Since the 2010 survey, the rate of unemployment in the county has declined, from 7.7% to 6.1%.²⁷

POVERTY

Employment among working-age adults is improving; however, rates of poverty are not following the same trajectory and many of Lake County's residents are struggling. The rate of poverty in the county has risen from 7.0% in 2010 to 9.4% in 2014. This change translates to an additional 16,889 persons in poverty over four years and a total of 64,432 residents in poverty. This increase burdens some groups in Lake County more than others. Between 2010 and 2014, youth poverty (for individuals under 18) has increased from 9.6% of children to 13.3%.²⁸

Poverty By Age	2010	2014
Under 18	9.6%	13.3%
18 to 64	6.0%	8.3%
65 and over	5.6%	6.0%

²⁴ American Community Survey 5-Year Average 2010-2014

²⁵ University of Wisconsin Population Health Institute. *County Health Rankings 2016*. Accessible at www.countyhealthrankings.org

²⁶ U.S. Census American Community Survey 5-Year Average, 2006-2010 and 2010-2014

²⁷ American Community Survey 5-Year Average 2010-2014

²⁸ American Community Survey 5-Year Average 2010-2014

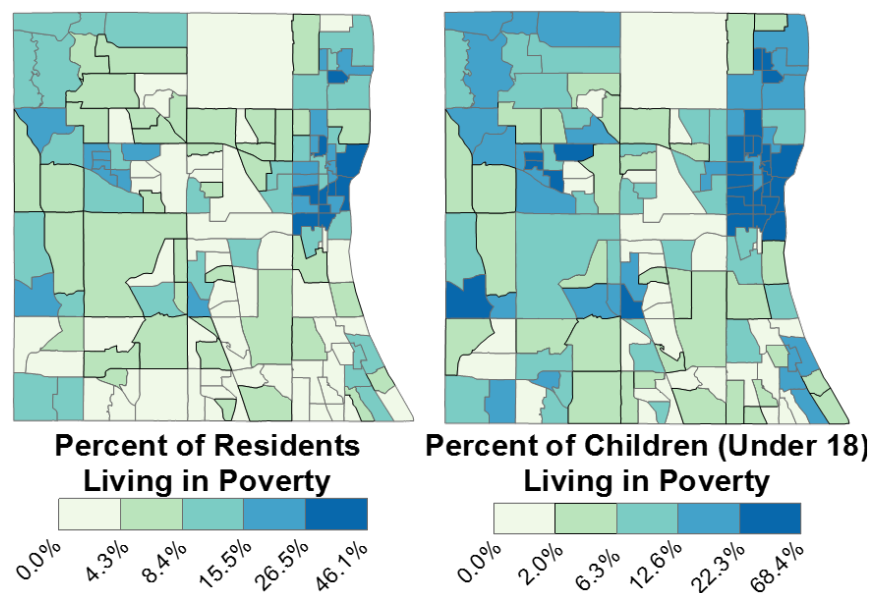
COMMUNITY HEALTH STATUS ASSESSMENT

Poverty among non-Hispanic whites has risen from 5.4% to 8.0%. For Hispanics, poverty has increased from 13.8% to 17.6%. Rates of Asian Americans in poverty has increased from 3.7% to 5.5%. African Americans face the highest levels of economic hardship. Poverty among African

Poverty by Race and Ethnicity	2010	2014
Hispanic	13.8%	17.6%
Asian American	3.7%	5.5%
African American	18.9%	26.3%
White	5.4%	8.0%

Americans in Lake County increased from 18.9% to 26.3%.²⁹ Increasing poverty rates represent an important burden to the health of residents. Poverty is one of the main *social determinants of health*, or social factors that can hinder an individual's ability to live a healthy life. Poverty is one of the great challenges in public health. Like many social conditions in Lake County, poverty is more concentrated in some areas than others and representing greater economic and health burden in specific communities.

Poverty Distribution in Lake County by Census Tracts



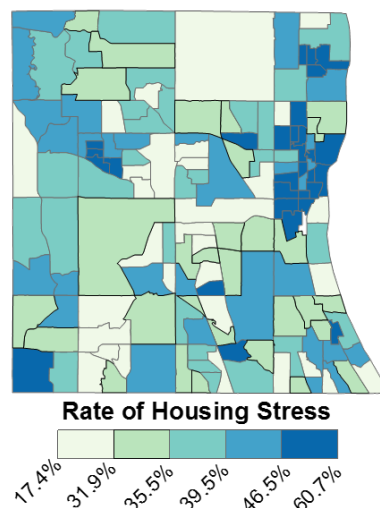
²⁹ American Community Survey 5-Year Average 2010-2014

COMMUNITY HEALTH STATUS ASSESSMENT

HOUSING

A healthy community needs safe, affordable housing. Unfortunately, many things create barriers to adequate housing. Incomplete kitchens, lack of plumbing facilities, overcrowding, and cost of rent can make it difficult to find quality housing. In Lake County, housing problems are primarily related to housing cost.

A household is “housing stressed” when more than 30% of household income is spent on housing costs. Economic housing stress affects 38% of households in Lake County, a slightly higher rate than either Illinois or the United States. Rates of housing stress are slightly higher than the state and nation for both homeowners with a mortgage and those without. Over half of all renters in Lake County face housing stress, placing an exceptional burden on communities where homeownership is less common.³⁰ Housing problems are considered severe in households paying 50% or more of their income on housing, units experiencing overcrowding (averaging more than 1.5 persons per room), or units lacking complete kitchen or plumbing facilities. The Comprehensive Housing Affordability Strategy data from the U.S. Department of Housing and Urban Development indicates that nearly one in five (18%) of households in Lake County fall into this more extreme category of housing stress.³¹ By census tract, the burden of housing stress clearly impacts some communities more than others.



Household Type	Lake County	Illinois	United States
All Households with Housing stress	38%	36%	36%
Housing stress rates for Homeowners with a Mortgage	38%	36%	34%
Housing stress rates for Homeowners without a Mortgage	21%	17%	15%
Housing stress for Renters	51%	51%	52%
Severe Housing Problems	18%	19%	

³⁰ American Community Survey 5-Year Average 2010-2014

³¹ University of Wisconsin Population Health Institute. *County Health Rankings 2016*. Accessible at www.countyhealthrankings.org

COMMUNITY HEALTH STATUS ASSESSMENT

SINGLE-PARENT HOUSEHOLDS

Other social characteristics in Lake County include the structure of households within Lake County. About 37.8% of households in Lake County have children under 18 present; of these, about 5.7% have a single male householder and 16.7% have a single female householder. 21.4% of households with children have only one parent present.³²

EDUCATION

As a social determinant of health, education influences health outcomes in Lake County. Educational attainment can impact the jobs available to an individual, his or her earnings, and the level of literacy he or she can apply to health information. For Lake County, the educational influence on an individual's economic situation is summarized in the following chart, demonstrating the difference in median annual income for men and women with different levels of educational attainment. A high school degree, for example, is worth an additional \$10,000 in annual income. Inequalities between men and women persist across all education levels but the trend for both genders remains that higher educational attainment results in higher income.³³ High levels of educational attainment are therefore important to ensuring prosperity among residents.

Level of Education and Median Earnings	All Residents	Men	Women
Less than high school	\$20,992	\$23,752	\$17,720
High school or Equivalent	\$30,768	\$36,573	\$23,928
Some college or associate's degree	\$38,441	\$46,001	\$32,375
Bachelor's degree	\$61,418	\$80,159	\$43,910
Graduate or professional degree	\$87,618	\$109,512	\$65,766
Overall	\$44,463	\$54,749	\$35,435

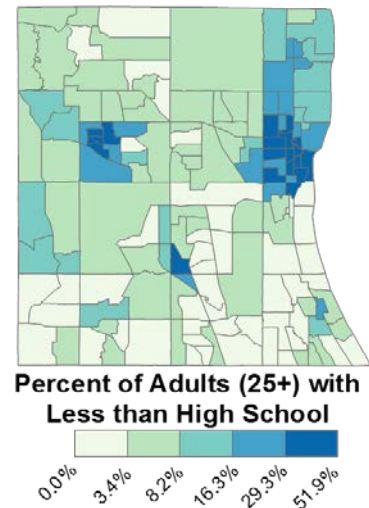
³² American Community Survey 5-Year Average 2010-2014

³³ American Community Survey 5-Year Average 2010-2014

COMMUNITY HEALTH STATUS ASSESSMENT

Educational levels vary geographically. Certain communities, frequently those facing other barriers to health and social services like language or poverty status, tend to have the lowest rates of high school completion. A map summarizes rates of adults over the age of 25 who do not have a high school diploma or equivalent credential.

Across Lake County 10.8% of adults age 25 and older have less than a high school level of education while 42.6% have a Bachelor's degree or higher. Disparities persist across racial and ethnic groups. Hispanic adults in Lake County having the lowest rates of high school completion (40.9%). Hispanic adults are nearly ten times more likely to have not graduated from high school than non-Hispanic whites (4.3%). African Americans in the county (12.6%) are three times more likely to have not graduated from high school as non-Hispanic Whites. Asians in the county are only slightly more likely to have not completed high school (5.6%). Major gaps persist in graduating from college, with non-Hispanic whites (49.1%) about twice as likely to have a bachelor's degree as African Americans (25.0%) and five times as likely as Hispanics (10.9%) in Lake County. Asian Americans in Lake County have the highest rates of college completion, with 68.7% of Asian American adults holding a bachelor's degree or higher.³⁴

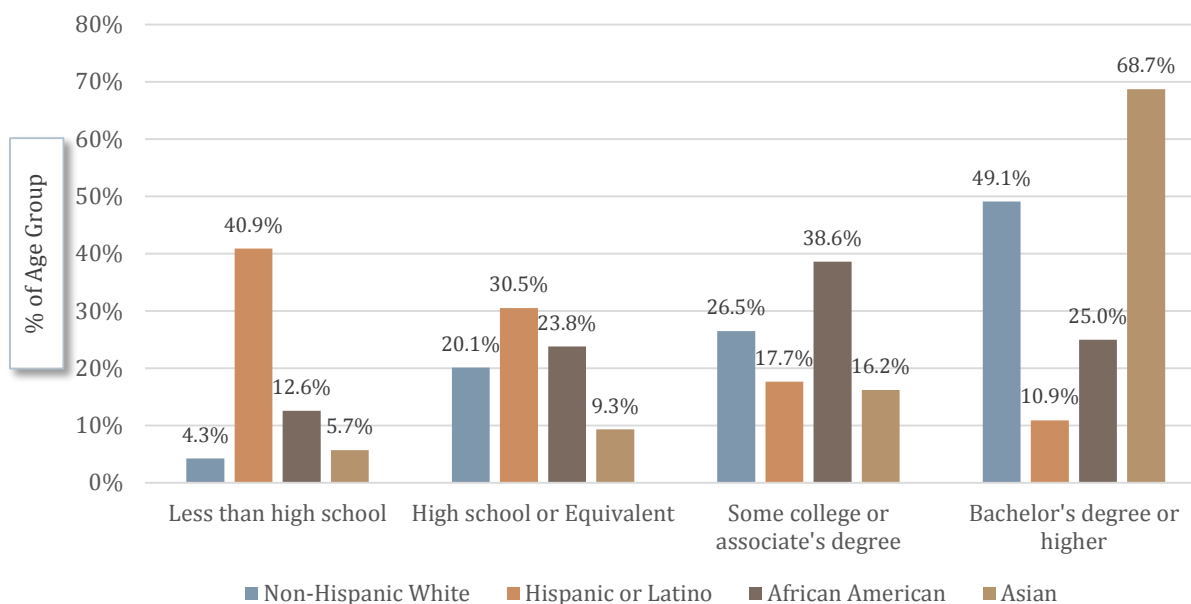


% of Adults

³⁴ American Community Survey 5-year Averages, 2010-2014

COMMUNITY HEALTH STATUS ASSESSMENT

Adult Educational Attainment by Race and Ethnicity



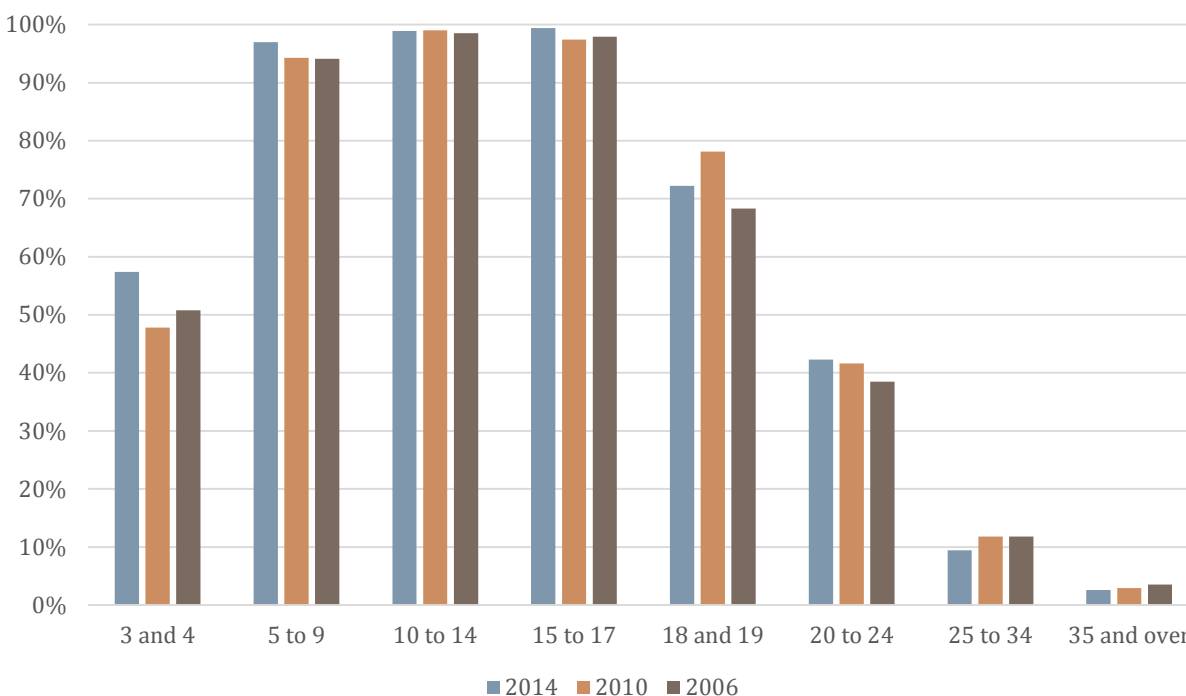
School Enrollment

Academic achievement relies on school enrollment. Increasing the rate of children who continue their education through high school and beyond can promote higher levels of educational attainment that, in turn, support better economic and health outcomes. School enrollment by age group has remained relatively stable between the 2006 and 2014 American Community Surveys. Nearly all children ages 5-17 are enrolled in school (roughly elementary through high school aged-children). Potential gaps in enrollment exist for children ages 3 and 4, where pre-kindergarten is an option that could potentially promote early learning and better prepare these individuals for kindergarten and beyond. About 57.4% of these early childhood learners are enrolled in school, an increase from 2010 (47.8%) and 2006 (50.8%). Educational enrollment drops for ages 18 and 19 as these individuals transition out of high school. Only 72.2% of these persons were enrolled in school in 2014.³⁵ Because of the considerable economic benefit of each additional level of education, efforts to keep these students engaged in school or training represents a potential opportunity to improve the health and wellbeing of residents of the county.

³⁵ American Community Survey 5-Year Averages, 2010-2014, 2006-2010, 2002-2006.

COMMUNITY HEALTH STATUS ASSESSMENT

School Enrollment by Age and Year



HEALTH RESOURCE AVAILABILITY

Healthcare resources are the tools that individuals can use to treat health problems. The ability to see a doctor when a medical intervention is needed is a basic requirement of being able to live a healthy life. Many factors will impact whether or not an individual will be able to access a doctor in a timely manner, including the total number of doctors available to see patients in an area, the insurance status of an individual, an individual's knowledge of what an insurance plan might cover, the cost of an appointment, and the ability to secure transportation to an office or hospital. These factors and more will influence how an individual utilizes the available healthcare system.

INSURANCE STATUS

One of the most important factors determining whether or not an individual will have access to the healthcare system is insurance status. Lack of insurance makes even minor medical issues difficult to treat. The rate of individuals with health insurance has increased, in large part due to the Affordable Care Act that requires individuals to carry some type of health insurance or face financial penalties. In 2014, 8.7% of residents lacked health insurance (about a 30% reduction from 2010). Coverage has improved across all groups, yet Hispanics and Latinos still have the highest rates of uninsured individuals at 23%, down from 2010's 31.1%. 10.4% of African Americans in Lake County do not have insurance, an improvement from 13.8% in 2010. Coverage among Asian Americans has improved from 12.3% uninsured in 2010 to

COMMUNITY HEALTH STATUS ASSESSMENT

8.0%.³⁶ Insurance rates vary by age. 2.6% of children under 18 are uninsured while only 1.4% of seniors over 65 lack insurance. The proportion of adults age 18-64 have improved from 17.2% in 2010 to 12.7% in 2014. Nearly one in five (18.5%) of the individuals ages 19-25 are uninsured.³⁷

Percent Uninsured by Race and Ethnicity	2010	2014
Hispanic or Latino	31.1%	23.0%
African American	13.8%	10.4%
Asian Americans	12.3%	8.0%
White, Non-Hispanic	6.4%	3.9%
All Lake County	12.4%	8.7%

Percent Uninsured by Age	2010	2014
Under 18	5.1%	2.6%
18 to 64	17.2%	12.7%
• 19 to 25	--	18.5%
65 and Over	2.8%	1.4%

RATES OF PROVIDERS

In order to deliver services to all individuals who need primary, behavioral health, or dental services, communities need to have enough providers to support the population. Lake County has relatively high rates of residents to primary care physicians, with a ratio of 940 residents per primary care physician. Comparatively, the ratio across Illinois is 1,240:1. Lake County is among the top counties nationally and exceeds the 90th percentile mark for national values at 1,040:1. The population to provider ratio for dentists is also exceptional. In Lake County, the ratio of population to dentists is 940:1, while overall Illinois is 1,410:1. The 90th percentile in the United States is 1,340:1. For mental health providers (including psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, advanced practice nurses specializing in mental health care, and mental health providers that treat alcohol and other drug abuse), Lake County has 429 residents per provider, a better ratio than Illinois's 560:1. Unlike the other provider ratios, Lake County falls short of the national 90th percentile of 370:1.³⁸

CARE UTILIZATION

While insurance status and rates of providers provide the scaffolding of healthcare, when and how residents use the system also plays an important role. By investigating usage, barriers, and general

³⁶ American Community Survey 2014 1-year Average & American Community Survey 2010 1-year average.

³⁷ American Community Survey 2014 1-year Average & American Community Survey 2010 1-year average.

³⁸ University of Wisconsin Population Health Institute. *County Health Rankings 2016*. Accessible at www.countyhealthrankings.org

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healthcare habits, system strengths and limitations can be identified. To maintain good health, individuals should have their primary care physician evaluate them for an annual physical. Overall, 69% of adults had seen a doctor for a physical exam in the past year; however, rates vary by insurance status. Only 44% of individuals without health insurance had seen a doctor for a physical in the past year while 78% of individuals with health insurance had seen a doctor for a physical in the past year.³⁹ As a determinant of access to the healthcare system, health insurance status remains an important factor of health.

ORAL HEALTH

Oral health services are typically not covered by regular health insurance and dental insurance can be acquired separately. Because this type of insurance is not a requirement, coverage rates are lower. In Lake County, 74% of adults have some type of dental insurance coverage. 83% of Lake County adults had seen a dentist in the past year. 86% of adults with dental insurance had seen a dentist within the past twelve months, compared to 77% of adults without dental insurance. Residents were more likely to have seen a dentist in the past year than a primary care physician.⁴⁰

³⁹ Lake County Community Health Survey 2015

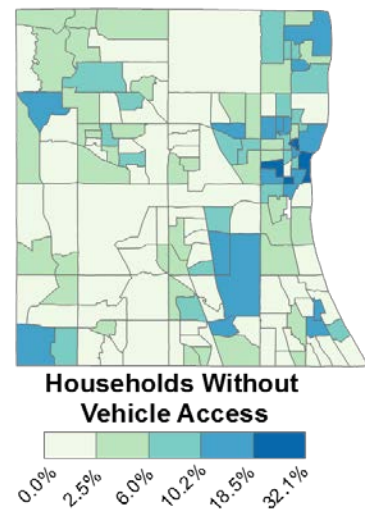
⁴⁰ LCHD 2015 Community Health Status Survey

COMMUNITY HEALTH STATUS ASSESSMENT

BARRIERS TO CARE

Individuals can face many barriers to accessing the care they need. Cost can make it difficult for residents to see a doctor. In the past year, 10% of Lake County adults did not seek medical attention they needed because of the cost. Individuals without health insurance were more than twice as likely to report cost as a barrier to care in the past year (25%) than those individuals with health insurance (9%).⁴¹

Transportation resources can also be a barrier to accessing medical services. Because Lake is a suburban county, transportation oftentimes requires a personal vehicle. A doctor's office might be far away or located in a section of the county that does not have adequate public transportation services. In the past year, 4% of residents reported that transportation kept them from seeing a doctor when they needed one.⁴² Of the 241,846 households in the county, 12,000 had no vehicle available (about 5% of households).⁴³ Household access to a vehicle varies across the county. The transportation barrier might be described by the map of households without access to a vehicle. 89% of residents can identify a regular doctor for their care. Having a regular doctor indicates that an individual is engaged in the healthcare system and their own health.⁴⁴



HEALTH LITERACY

Basic knowledge of an individual's health insurance plan can help him or her to navigate a complicated health system and ensure that his or her individual needs are met. After the promulgation of the Affordable Care Act, almost all health insurance plans should cover mental health, substance abuse, and preventive services at no cost if the services are received within network. Of adults with health insurance in Lake County, 72% believed that their plans covered mental health services. 54% believed that their insurance plan covered substance abuse services. 67% believed that their health insurance covered prevention services.⁴⁵

Appropriate use of medical services leads to better, less costly health outcomes. When managed correctly, chronic conditions should rarely result in hospitalizations. Assessing preventable hospital stays can indicate how well these conditions are being managed. One of the available metrics is an annual rate of preventable hospital stays per 1,000 Medicare enrollees. Lake County averages 50 preventable stays per 1,000 enrollees, better than the Illinois rate of 59 per 1,000 but not as well as 38 per 1,000 of the 90th percentile of counties in the United States.⁴⁶

⁴¹ LCHD 2015 Community Health Status Survey

⁴² LCHD 2015 Community Health Status Survey

⁴³ American Community Survey 5-Year Average (2010-2014)

⁴⁴ LCHD 2015 Community Health Status Survey

⁴⁵ LCHD 2015 Community Health Status Survey

⁴⁶ County Health Rankings 2016

COMMUNITY HEALTH STATUS ASSESSMENT

QUALITY OF LIFE

The World Health Organization defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” As such, metrics assessing more holistic quality of life measures are necessary to understand health in Lake County. 13% of adults in Lake County describe their health as “Fair” or “Poor,” slightly better than the overall Illinois rate of 17% and nearly equivalent to the 90th percentile in the United States (12%).⁴⁷

PHYSICAL HEALTH LIMITATIONS

Days where a person’s health problem kept that individual from performing normal activities can be used to measure quality of life. 36% of residents reported that their physical health was “not good” for one or more days within the past month. 12% reported that their physical health was not good for eight or more days. On average, adults in Lake County had 3.2 days of “not good” physical health in the past 30 days. 27% of adults reported that physical health had prevented them from carrying out normal activities for at least one day in the past 30 days. 6% said that physical health kept them from normal activities for 8 or more days. On average, physical health prevented normal activity for 1.6 days in the past month.⁴⁸

MENTAL HEALTH LIMITATIONS

Mental health was also assessed. 36% of residents reported that their mental health was not good for one or more days in the past month. 8% said that their mental health was not good for eight or more days. On average, adults in Lake County had 2.6 days of not good mental health in the past month. Mental health prevented 14% of adults from completing normal activities for one or more days. Mental health kept 4% of adults from completing normal activities for eight or more days. On average, adults in Lake County reported 0.9 days in the past month where they could not perform normal activities due to their mental health.⁴⁹

PAIN LIMITATIONS

Pain can indicate overall quality of health as well. 39% of adults in Lake County reported that pain had kept them from performing normal activities for one or more days in the past month. 10% of adults were prevented from performing normal activities for eight or more days. On average, pain prevented normal activities for 2.7 days in the past month, costing residents more days than poor physical health alone.⁵⁰

⁴⁷ County Health Rankings 2016

⁴⁸ LCHD 2015 Community Health Status Survey

⁴⁹ LCHD 2015 Community Health Status Survey

⁵⁰ LCHD 2015 Community Health Status Survey

COMMUNITY HEALTH STATUS ASSESSMENT

BUILT ENVIRONMENT

Resources in the built environment can signal opportunities for better quality of life. Features of the built environment can improve access to healthy foods, exercise, and recreation.

Food environment

Feeding America's Food Environment Index assesses two measures of the food environment. First, it assesses those with limited access to healthy foods using the proportion of the population that is low income (less than 200% of the federal poverty threshold) and not living close to a grocery store (in a non-rural county like Lake, this means less than 1 mile). Second, food insecurity is measured as the percentage of the population who did not have access to a reliable source of food during the past year according to a model using data from the Community Population Survey, the Bureau of Labor Statistics, and the American Community Survey. Because this metric looks at county rates, local needs might be overlooked. Lake County food environment performs well with this measure, scoring 8.5 out of a possible 10. Illinois scores 7.8. The 90th Percentile of counties in the United States score 8.3.⁵¹

The US Department of Agriculture defines food insecurity as "lack of access, at times, to enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods." In 2014, Feeding America reported that the overall food insecurity in Lake County is 8.0%. About 62% of these individuals qualify for SNAP benefits. 4% of food insecure individuals are at about the 165% federal poverty level and might qualify for some nutrition assistance programs. The remaining 34% are above 185% of the poverty threshold but are still food insecure. 15.5% of children are food insecure. Of these, 65% are in households that would be income eligible for food assistance (below 185% of the federal poverty threshold). 35% of these children come from homes that would not qualify. Food insecurity is, therefore, a broader issue than poverty and affects more residents than the poverty rates would indicate.⁵²

⁵¹ County Health Rankings

⁵² Feeding America 2014 County Report

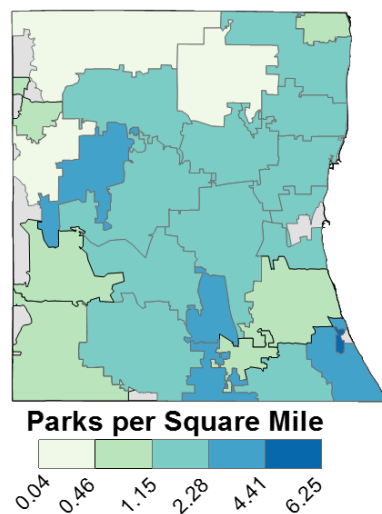
COMMUNITY HEALTH STATUS ASSESSMENT

Parks and recreation

Parks provide opportunities for exercise. Park density in an area can be an indicator of access to outdoor spaces for recreational use. Overall, there are 1.8 parks per square mile. Park density in Lake County varies considerably, from 6.25 per square mile in ZIP code 60040 to 0.04 in 60083.⁵³ For a guide to identifying communities by ZIP code, please see Appendix F on page 160.

The County Health Rankings uses a model to estimate the percent of the population with adequate access to locations for physical activity. To determine this metric, researchers map parks, gyms, community centers, YMCAs, dance studios, and pools and then calculates the proportion of individuals who reside in a census block within a half mile of a park or within one mile of a recreational facility. By this metric, 97% of Lake County residents have access to exercise opportunities.

This measure of access to exercise opportunities positions Lake County as better than the state rate (89%) and the 90th percentile of counties across the United States (91%).⁵⁴



⁵³ Lake County GIS

⁵⁴ University of Wisconsin Population Health Institute. *County Health Rankings 2016*. Accessible at countyhealthrankings.org

COMMUNITY HEALTH STATUS ASSESSMENT

BEHAVIORAL RISK FACTORS

An individual's behaviors affect his or her health. Whether quitting tobacco, eating fruits and vegetables, or getting regular exercise, adopting healthful behaviors can help residents to live healthier lives.

TOBACCO, ALCOHOL, AND OTHER DRUGS

As the leading cause of preventable death in the world, tobacco remains a top public health concern. 38.0% of Lake County adults reported having ever been a smoker. 14.4% of adults are current smokers. 23.6% are former smokers.⁵⁵ 53% of adults who had ever been smokers in Lake County started smoking regularly before the age of 18.⁵⁶

Although legal, alcohol is an important drug. 80% of adults in Lake County reported having alcohol at least once in the past month. Of the individuals who had consumed alcohol, the average number of drinking events was 10.0 per month. Per event, the average number of drinks consumed was 1.8. About 5% of drinkers' normal drinking events would be classified as binge drinking; that is, four or more drinks for a woman and five or more drinks for a man. 28% of adults who had consumed alcohol had at least one binge drinking event in the past 30 days.⁵⁷

3% of Lake County adults reported that they had used marijuana in the past 30 days. This rate is lower than the national rate of past month use (8.3% for individuals over 18).⁵⁸ 15% of adults had been prescribed opioids in the past twelve months. 3% of respondents reported that some type of drug had prevented normal activities for one or more days in the past 30 days.⁵⁹

Preventing initiation of substance use is an important strategy for preventing abuse. Alcohol is the most popular drug among adolescents in Lake County, used more frequently across all grade levels than either cigarettes or marijuana. Users of alcohol also include most of the users of other substances, only 1-3% of individuals who had not used alcohol in the past year but did report some type of substance use. Past year use of all substances increases with grade level.⁶⁰

Reported Past Year Use	6th Grade	8th Grade	10th Grade	12th Grade
Alcohol	10%	23%	43%	64%
Cigarettes	1%	3%	6%	12%
Marijuana	1%	7%	21%	37%
Any Substance	13%	25%	46%	65%

⁵⁵ Illinois Behavioral Risk Factors Survey, Round 5.

⁵⁶ Illinois Behavioral Risk Factors Survey, Round 4.

⁵⁷ LCHD 2015 Community Health Status Survey

⁵⁸ Center for Behavioral Health Statistics and Quality. (2015). *Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and Health* (HHS Publication No. SMA 15-4927, NSDUH Series H-50). Retrieved from <http://www.samhsa.gov/data/>

⁵⁹ LCHD 2015 Community Health Status Survey

⁶⁰ Illinois Youth Survey 2014

COMMUNITY HEALTH STATUS ASSESSMENT

PHYSICAL ACTIVITY

Physical activity helps to prevent and relieve chronic conditions. In Lake County, 91% of adults reported that they engaged in some type of physical activity outside of work in the past 30 days. About 68% of adult residents exercise for 30 minutes or more for three or more days per week. 36% of adults exercise five or more days per week. On average, adults in Lake County exercise 3.5 days per week.⁶¹

For youth in Lake County, 3% of sixth graders, 5% of eighth graders, 7% of tenth graders, and 8% of twelfth graders report that they did not participate in any physical activity in the past week. Conversely, 35% of sixth graders, 29% of eighth graders, 24% of tenth graders, and 21% of twelfth graders reported that they exercised at least sixty minutes per day every day for the past week. Physical activity decreases as the students' grade level increases.⁶²

Screen time can distract children from getting the physical activity they need. About one in five students (18% of sixth, 22% of eighth, 19% of tenth, and 21% of twelfth graders) spent an average of three or more hours watching television on a school day. Additionally, about one in four eighth (28%), tenth (25%), and twelfth (24%) grade students spent an average of three or more hours using a screen that was not a television (including computers and videogames not related to school work) on school days. 15% of sixth graders reported spending three or more hours of non-television screen time on school days.⁶³

SLEEP

Sufficient, quality sleep is essential to physical health. Sleep deficiency increases the risk of heart disease, kidney disease, high blood pressure, diabetes, stroke, and obesity. It is necessary for proper endocrine and immune system function. In children and adolescents, sleep is necessary for proper growth and development.⁶⁴ The National Institutes of Health recommends 7-8 hours of sleep per day for adults. In Lake County, 30% of adults sleep fewer than seven hours on average, while the average hours of sleep per night for all adults is 7.0 hours.⁶⁵

⁶¹ LCHD 2015 Community Health Status Survey

⁶² Illinois Youth Survey 2014

⁶³ Illinois Youth Survey 2014

⁶⁴ National Institutes of Health. (February 2012) "Why is Sleep Important?" Accessible at: <http://www.nhlbi.nih.gov/health/health-topics/topics/sdd/why>

⁶⁵ LCHD 2015 Community Health Status Survey

COMMUNITY HEALTH STATUS ASSESSMENT

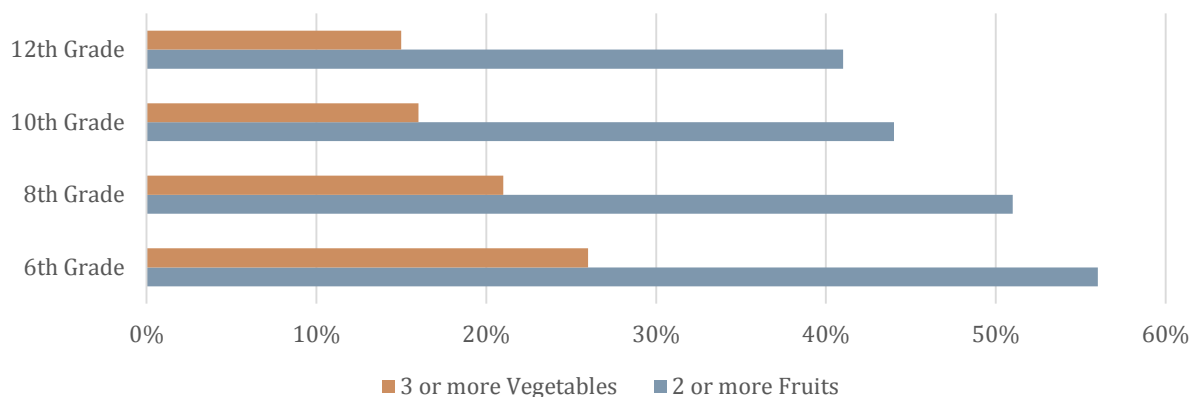
NUTRITION

An individual's diet has an important impact on his or her wellbeing. Fruits and vegetables provide vitamins and fiber. Despite their importance, only 15% of adults in Lake County eat five or more fruits and vegetables per day. 49% of adults in the county have two or fewer fruits and vegetables per day. On average, adults in the county eat about 2.9 fruits and vegetables per day.⁶⁶

Potential barriers to a healthy diet might involve the cost of produce. 6% of residents report being unable to purchase produce within the last six months because of cost. Transportation might also make it difficult to get to a store that sells fresh fruits and vegetables. 2% of adults reported that they had been unable to purchase produce at some point in the past six months because they were unable to get to a place that sold these items.⁶⁷

Youth in Lake County are not eating enough fruits and vegetables. In sixth grade, 56% of students eat two or more fruits per day and 26% of students eat three or more vegetables per day. Produce consumption drops as grade level increases, with 51% of eighth graders and 44% of tenth graders eating two or more fruits per day and 21% of eighth graders and 16% of tenth graders getting enough vegetables. Only 41% of high school seniors eat two or more fruits per day and 15% eat three or more vegetables per day.⁶⁸

Fruit and Vegetable Consumption, 2014



⁶⁶ LCHD 2015 Community Health Status Survey

⁶⁷ LCHD 2015 Community Health Status Survey

⁶⁸ Illinois Youth Survey 2014

COMMUNITY HEALTH STATUS ASSESSMENT

Beverage choices have an influence on health. Sugar-sweetened beverages like soda have been implicated as key contributors to the rise in obesity. Consumption of these beverages varies greatly. Just over one in three (34%) of adults in Lake County drink at least one sugar-sweetened beverage per day. Just under one in three (28%) do not drink sugar sweetened beverages. On average, adults in Lake County consume 5.5 sugar-sweetened beverages per week or about 0.8 sugar-sweetened beverages per day. Conversely, higher consumption of water as a beverage is a positive health behavior. 19% of adults in Lake County drink less than a glass of water per day, while 37% of adults drink four or more glasses of water per day. On average, adults in Lake County drink 18.2 glasses of water per week, or about 2.6 glasses of water per day.⁶⁹

SEATBELT USE

98% of adults in Lake County use seatbelts “always” or “nearly always” when they ride in cars.⁷⁰

⁶⁹ LCHD 2015 Community Health Status Survey

⁷⁰ LCHD 2015 Community Health Status Survey

COMMUNITY HEALTH STATUS ASSESSMENT

ENVIRONMENTAL HEALTH INDICATORS

Where individuals in the community live, eat, work, and play can affect the toxins and pathogens they encounter on a daily basis. Monitoring environmental exposures like blood lead levels in a sensitive population of children or preventing exposures through active monitoring of food service facilities, water resources like wells and beaches, and wastewater treatment systems all help to protect and promote the health of all Lake County residents.

LEAD

Because of its potent neurological effects on children, lead remains an important contaminant. Screening and mitigation help to reduce the burden of toxicity. To identify children who might be exposed to lead, all kids between the ages of 6 months and six years of age who are enrolled in a public school or licensed day care or receive public assistance are assessed for potential exposure through a Lead Risk Questionnaire included in their Child Health Exams. Children who are identified as being at risk and any siblings they have are then screened through a blood test to measure blood lead levels. Action is taken when blood lead levels exceed 10 µg/dL. From 2010-2015, an average of 8972 blood draws were tested for lead concentrations.⁷¹ An average of 18 new cases were opened annually, a rate of about 2 cases per 1,000 blood draws.⁷²

Lead	2010	2011	2012	2013	2014	2015	Average
Total Blood Draws⁷³	10,230	10,368	9,112	8,600	8,109	7,412	8,972
New Lead Cases⁷⁴	26	18	14	22	14	16	18
Rate per 1,000 Blood Draws	2.5	1.7	1.5	2.6	1.7	2.2	2.0

FOOD

With Americans eating more meals outside the home than ever before,⁷⁵ food safety in restaurants is an increasingly important potential source of foodborne illness. Regular inspections of restaurants for foodborne illness factors helps to assure that these facilities are operating in a manner that protects public safety. The Environmental Health program at LCHD/CHC reports that fewer than 25% of facilities inspected have any foodborne illness factors. From 2011-2015, the LCHD/CHC conducted an average of 7,372 foodservice inspections and educational visits annually. The program has also conducted an average of an additional 1,235 inspections for temporary events. Over the same time period, the program has averaged 109 foodborne illness investigations per year, ensuring that if an issue emerges, the outbreak can be contained.⁷⁶

⁷¹ Illinois Department of Public Health, Childhood Lead Poisoning Surveillance System (2010-2015).

⁷² Lake County Health Department and Community Health Center, Childhood Lead Poisoning Prevention Program.

⁷³ Illinois Department of Public Health, Childhood Lead Poisoning Surveillance System (2010-2015).

⁷⁴ Lake County Health Department and Community Health Center, Childhood Lead Poisoning Prevention Program.

⁷⁵ United States Department of Agriculture Economic Research Service. Food-Away-From-Home. October 2014. Accessed at: <http://www.ers.usda.gov/topics/food-choices-health/food-consumption-demand/food-away-from-home.aspx>

⁷⁶ LCHD/CHC Internal Data 2011-2015

COMMUNITY HEALTH STATUS ASSESSMENT

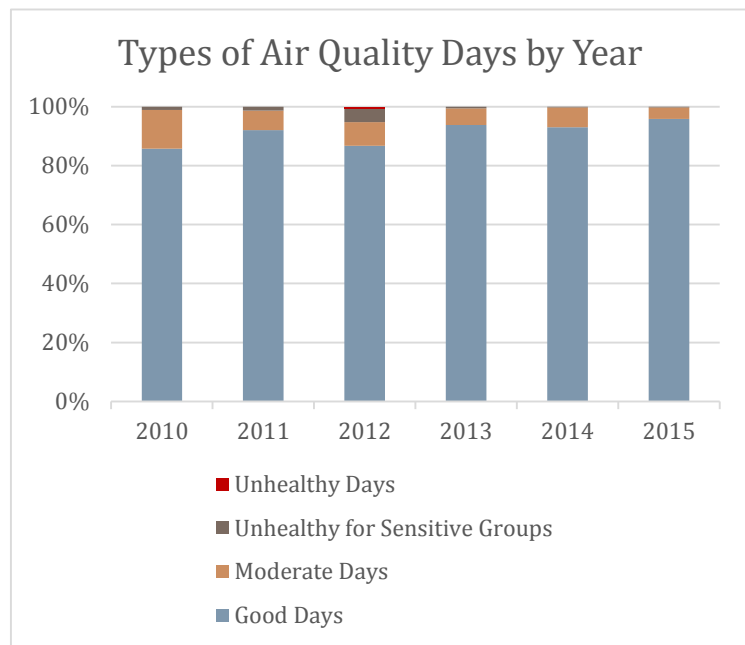
WATER

Safe drinking water is one of the most important public health advances. From community utilities and non-community water systems providing safe drinking water to public sewers and properly maintained on-site wastewater treatment systems to protect the environment from effluent, care must be taken to ensure public health. LCHD/CHC supports safe drinking water and the environment by managing the construction and permitting of well and septic systems. LCHD/CHC conducted an annual average of 249 Non-Community Water System surveys from 2011 to 2015. The program also provided 1493 consultations each year. On average, LCHD/CHC performs 2,688 septic consultations per year. From 2011 to 2015, the total number of permits issued for the construction of new septic tanks has increased from 22 to 71, averaging 46 new permits annually.⁷⁷

LCHD/CHC also inspects and evaluates recreational swimming facilities (including beaches and pools), protecting swimmers from exposure to potentially harmful pathogens. From 2011 to 2015, an average of 432 pools, spas, and beaches were inspected annually. On average, an additional 9,442 samples of lakes and technical assistance activities were provided each year.⁷⁸

AIR

Poor air quality disproportionately burdens sensitive groups. The Air Quality Index Report from the United States Environmental Protection Agency provides nearly daily measurements of ozone levels in the County. From 2010 to 2015, the proportion of “Good Days” for air quality exceeded 86% for each individual year; from 2013 to 2015, “Good” days were 93% or more. In 2012, excessively hot and humid conditions are thought to have reduced air quality in Lake County, resulting in a total of 17 days that were considered “Unsafe for Sensitive Groups” and two days that were “Unhealthy” days. This year was an outlier compared to the others.⁷⁹



⁷⁷ LCHD/CHC Internal Data 2011-2015

⁷⁸ LCHD/CHC Internal Data 2011-2015

⁷⁹ United States Environmental Protection Agency Air Quality Index Report (2010-2015). Accessed at: https://www3.epa.gov/airdata/ad_rep_aqi.html

COMMUNITY HEALTH STATUS ASSESSMENT

SOCIAL AND MENTAL HEALTH

Mental health is a burden on an individual's quality of life. 36% of adults in Lake County had one or more days of "not good" mental health in the past month and 14% of adults had been unable to perform normal tasks because of poor mental health for a day or more in the past month. On average, mental health prevents usual activities for 0.9 days per adult.

DIAGNOSED MENTAL ILLNESS

Diagnosed mental illness can provide some insight into the mental health burden in Lake County. 18% of adults in Lake County report that they have been diagnosed with depression. 10% of adults have been diagnosed with some other mental illness besides depression. In total, 23% of adults in Lake County have been diagnosed with some mental illness.⁸⁰ On average, there were 28,016 total hospital discharges related to mental health conditions in Lake County per year from 2011-2014.⁸¹

SUICIDE

Suicide the tenth leading cause of death in Lake County, with 9.8 suicides per 100,000 Lake County residents per year.⁸² 12% of adults in Lake County have experienced suicidal thoughts, while 2% of adults in Lake County have attempted suicide at some point in their lives. Lake County adults who have been diagnosed with depression are about ten times more likely to have considered suicide (53%) than individuals who have not been diagnosed with depression (5%).⁸³

ADOLESCENT MENTAL HEALTH

Mental health presents unique, acute challenges for adolescents in the county. Over one in four of the students surveyed in the 2014 Illinois Youth Survey reported having a depressive episode within the past twelve months – 27% of eighth, 28% of tenth, and 26% of twelfth graders. Nearly one in six tenth graders (16%) and one in seven twelfth graders (13%) had seriously considered suicide within the past twelve months.⁸⁴ Social stresses weigh heavily on adolescents. Almost half of middle schoolers (42% of sixth graders and 46% of eighth graders) have experienced some type of bullying in the past year. In high school, one in three tenth graders (32%) and one in four twelfth graders (25%) experienced some type of bullying. When asked about their social support systems, 12% of sixth, 19% of eighth, 19% of tenth, and 14% of twelfth graders reported that they did not have a non-parent adult that they could talk to about important things.⁸⁵

⁸⁰ LCHD 2015 Community Health Status Survey

⁸¹ Illinois Department of Public Health. Hospital Discharge Data 2010-2014.

⁸² CDC WONDER 2010-2014.

⁸³ LCHD 2015 Community Health Status Survey.

⁸⁴ Illinois Youth Survey 2014.

⁸⁵ Illinois Youth Survey 2014.

COMMUNITY HEALTH STATUS ASSESSMENT

COMMUNITY SAFETY

Community safety contributes to overall social health. Lack of safety, whether real or perceived, can cause stress and reduce mental health of individuals in the community. Annual crime rates, both violent and nonviolent, have been declining since 2011 for both the Lake County and the State of Illinois. In 2014, the rate of violent crime in Lake County was 146.3 offenses per 100,000 residents. For Illinois, there were 361.8 offenses per 100,000 residents.⁸⁶

Deaths that result from violence are overall low in Lake County, with assault or homicide being responsible for 2.8 deaths per 100,000 residents. However, not all communities within Lake County bear the same burden of violence. African Americans in Lake County experience much higher rates of homicide annually, with 15.0 deaths per 100,000 African American residents, or 38 total deaths from 2010-2014.⁸⁷

CHILD ABUSE AND NEGLECT

Child abuse and neglect are negative markers of social health. On average, Lake County has a rate of 1,533 abuse investigations per 100,000 minors annually from 2010 to 2015. The state of Illinois has a rate of 2,173 per 100,000 minors. Cases where child abuse is indicated averages 378 per 100,000 minors annually for Lake County, while the figure is 455 for the State of Illinois over the same time period.⁸⁸

⁸⁶ Illinois State Police. Crime in Illinois. Reports from years 2011-2014.

⁸⁷ CDC WONDER, 2010-2014.

⁸⁸ Illinois Department of Children and Family Services, Office of Child and Family Policy. Family Reports FY 2010-2015.

COMMUNITY HEALTH STATUS ASSESSMENT

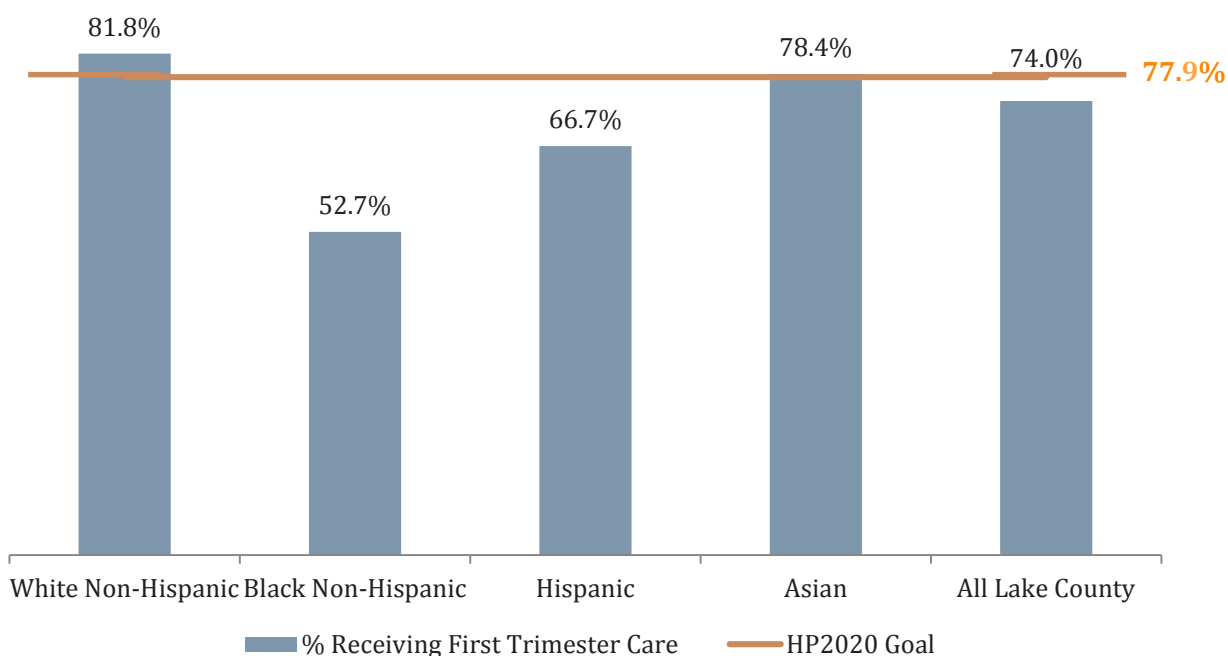
MATERNAL AND CHILD HEALTH

Pregnancy and early childhood have lifelong repercussions for mothers and babies. Ensuring that mothers are healthy before, during, and after pregnancy can support better pregnancy outcomes.

FIRST TRIMESTER PRENATAL CARE

Pregnant women entering care earlier in their pregnancies generally have healthier pregnancies and babies. Rates of women entering care during the first trimester of their pregnancy remained stable from 2010 to 2013. 74.0% of pregnancies in Lake County receive care during the first trimester. This is below the Healthy People 2020 target of 77.9%. Highest rates of first trimester care are among non-Hispanic whites (81.8%) and Asian American (78.4%) women. Rates are lower among Hispanic (66.7%) and African American (52.7%) women.⁸⁹

Prenatal Care Initiated During First Trimester

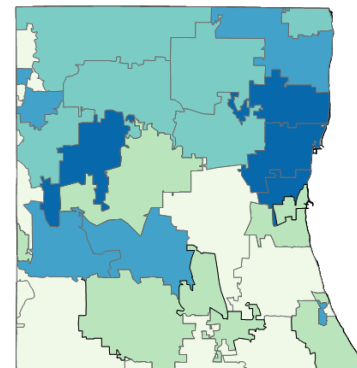


⁸⁹ Illinois Department of Public Health. Vital Statistics Birth Records. 2010-2013.

COMMUNITY HEALTH STATUS ASSESSMENT

ADOLESCENT BIRTH RATES

Following national trends, the rate of births to adolescent mothers (age 15-19) has dropped. In Lake County, rates have fallen from 23.1 per 1,000 adolescent girls in 2010 to 16.7 per 1,000 in 2013. On average, the rate over these four years is 19.6 per 1,000, lower than the 2011 rate in Illinois (29.5) and the United States (31.3). Despite progress, disparities remain between racial and ethnic groups. Based on the same years of data, Latina adolescents are the most likely to experience a pregnancy as a teenager (47.0 per 1,000 per year). African American adolescents have the second highest rates with 41.5 per 1,000 per year. Non-Hispanic white adolescents and Asian adolescents are less likely to give birth as teenagers (6.5 and 3.0 per 1,000 per year, respectively).⁹⁰

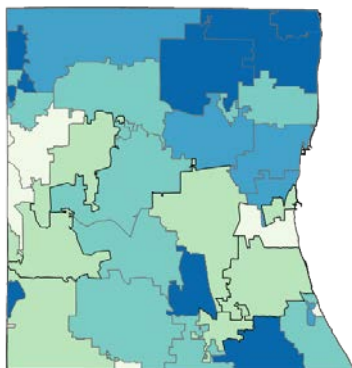


Births to Adolescent Women per 1,000 Women Ages 15-19

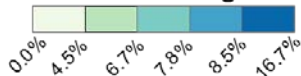


Geography matters for the rates of teen birth as well. Disparities across communities range from 52.7 per 1,000 adolescent girls in ZIP code 60087 to 2.2 births per 1,000 in 60048. In total, 5 ZIP codes exceed the national rate of 31.3 (60064 (48.3), 60073 (42.9), 60085 (52.5), 60087 (52.7), 60099 (35.1)). An additional ZIP code (60020 (29.9)) exceeds the state rate of 29.5.⁹¹

LOW BIRTH WEIGHT



Percent of Infants Born with a Low Birth Weight



Low birth weight puts infants at risk of developmental challenges that persist later in life. From 2010 to 2013, 7.4% of births in Lake County were below 2500g, better than Illinois (8.2%) and United States (8.0%) rates. Overall, Lake County is also below the Healthy People 2020 target of 7.8% of births that are low birth weight. Within the county, disparities persist between racial and ethnic groups. 12.2% of African American babies in Lake County are low birth weight, compared to 8.4% of Asian American babies. Non-Hispanic white and Hispanic babies had the lowest rates of low birth weight, at 6.9% and 6.7%, respectively.⁹²

⁹⁰ Illinois Department of Public Health. Vital Statistics Birth Records. 2010-2013.

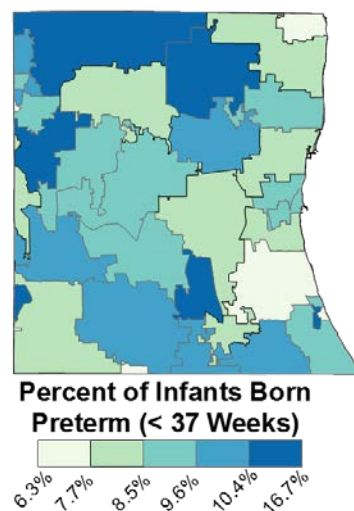
⁹¹ Illinois Department of Public Health. Vital Statistics Birth Records. 2010-2013.

⁹² Illinois Department of Public Health. Vital Statistics Birth Records. 2010-2013.

COMMUNITY HEALTH STATUS ASSESSMENT

PREMATURE BIRTH

Premature birth, or births at less than 37 weeks gestational age, also place babies at greater risk for long-term health issues. From 2010 to 2013, 9.4% of babies in Lake County were born premature, lower than the overall rates for Illinois (10.1%) and United States (11.4%). It is also lower than the Healthy People 2020 target of 11.4%. African American babies were the most likely to be born premature (11.1%). Non-Hispanic whites had the second highest rates at 9.5%. Asian American and Hispanic babies were the least likely to be born premature (8.8% and 8.5%, respectively).⁹³



INFANT MORTALITY

Infant mortality in Lake County averages 5.9 infants per 1,000 births from 2010 to 2013. Overall, this rate matches the Healthy People 2020 target of 6.0 infant deaths per 1,000 births. Dramatic disparities exist between groups in Lake County. African American infants are almost two and a half times more likely to die before their first birthday than the county average, with a rate of 14.6 per 1,000 births. Hispanic infants experience rates slightly better than the county average, with 5.7 deaths per 1,000 births. Non-Hispanic white infants have the lowest rates of infant mortality, averaging 3.9 deaths per 1,000 births.⁹⁴

⁹³ Illinois Department of Public Health. Vital Statistics Birth Records. 2010-2013.

⁹⁴ Illinois Department of Public Health. Vital Statistics Birth Records. 2010-2013.

COMMUNITY HEALTH STATUS ASSESSMENT

DEATH, ILLNESS, AND INJURY

Chronic conditions affect residents' quality of life every day. Understanding the underlying health issues that impact the wellbeing of Lake County residents or contribute to early death can help LCHD/CHC and its partners to address the systems, policies, and environments that can impact the prevalence or progression of these diseases. Action on these items will help ensure that the residents of Lake County live their healthiest lives.

CHRONIC DISEASES

From the Lake County 2015 Community Health Status Survey, rates of diagnosis for key chronic conditions were calculated for adults. Rates for these conditions were compared to Illinois rates from the Round 5 Behavioral Risk Factors Surveillance System survey when available. Lake County faces many of the same chronic disease challenges as the state. Cardiovascular diseases, in particular hypertension, affect over a third of adults in the county. Lake County adults are more likely to have been diagnosed with pre-diabetes than Illinois (14% vs. 6.9%) but adults are less likely to have been diagnosed with diabetes (7% vs 10.2% having ever been diagnosed with diabetes). Additionally, about one in six households with children has at least one child who has asthma.⁹⁵ African Americans in Lake County utilize the emergency room for asthma at rates about four times higher than the overall county rate.⁹⁶

Chronic Disease	Lake County ⁹⁷	Illinois ⁹⁸
Chronic Obstructive Pulmonary Disease	4%	5.8%
Skin Cancer	8%	4.2%
Some other type of Cancer	6%	5.4%
Arthritis	21%	25.1%
Kidney Disease	3%	2.6%
Heart Attack	3%	3.8%
Heart Disease (Any)	6%	3.6%
High Blood Pressure/Hypertension	35%	N/A
Stroke	1%	2.9%
Ever had Diabetes	7%	10.2%
Diabetes (Excluding Gestational)	6%	N/A
Pre-Diabetes	14%	6.9%
Asthma	12%	13.8%

⁹⁵ LCHD 2015 Community Health Status Survey

⁹⁶ Illinois Department of Public Health. Hospital Discharge Data 2010-2014.

⁹⁷ LCHD 2015 Community Health Status Survey

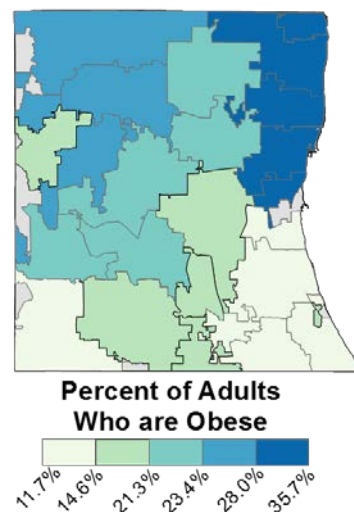
⁹⁸ Illinois Department of Public Health. Illinois Behavioral Risk Factors Survey: Round 5. Accessible at: <http://app.idph.state.il.us/brfss/>

COMMUNITY HEALTH STATUS ASSESSMENT

OBESITY

People are healthiest when they are at a healthy weight – not too much or too little body fat. Obesity is a condition where a person's body fat is too high. Individuals struggling with obesity face greater health challenges and tend to die younger than those with normal weights. People who are obese have a higher risk for many chronic conditions like diabetes, heart disease, stroke, high blood pressure, liver and gallbladder disease, respiratory problems, osteoarthritis, and certain types of cancer⁹⁹ that can reduce an obese person's quality of life. Obesity-related diseases are leading causes of premature death in the United States. Because obesity creates major challenges to living a long and healthy life, addressing obesity is vital to protecting and promoting public health.

To better understand local burdens of obesity within Lake County, the Lake County Health Department acquired data from the Illinois Secretary of State to calculate community rates of obesity. The overall rate for Lake County was calculated to be 22.5%, less than Illinois (29.4%)¹⁰⁰ and the national rate (34.9%).¹⁰¹ Another 34.4% of adults are overweight, bringing the total of adults who are overweight or obese and at higher risk for chronic diseases up to 56.9%. Weight status represents a health challenge for the majority of adults in Lake County. While the overall obesity rate in Lake County is lower than state and national values, communities experience dramatic disparities in obesity rates. The Health Department calculated obesity rates for individual ZIP codes and identified high- and low-burdened areas. For example, only 11.7% of adults in Lake Forest (60045) are obese, about half of the county rate. The rate in North Chicago (60064) is over three times higher with 35.7% obese adults. In Lake County, the obesity rates in four ZIP codes (60064, 60099, 60085, and 60087) exceed 30% of adults.



Adolescent weight status can persist into adulthood. Through the Illinois Youth Survey, students in the county reported fairly steady body mass index across grade levels. When the self-reported height and weight values were calculated against the Centers for Disease Control Guidelines for youth BMI, 11% of sixth, 13% of eighth, 13% of tenth, and 12% of twelfth graders were determined to be overweight, with an additional 5% of sixth, 6% of eighth, 8% of tenth, and 6% of twelfth graders were determined to be obese. When asked to describe their weight status, 20% of sixth, 27% of eighth, 28% of tenth, and 28% of

⁹⁹ "The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity." Office of the Surgeon General (US) (2001).

¹⁰⁰ Trust for America's Health. *The State of Obesity: Better Policies for a Healthier America*. September 2014. Accessed March 2015 at <http://healthyamericans.org/report/115/>

¹⁰¹ Ogden et al, 2014.

COMMUNITY HEALTH STATUS ASSESSMENT

twelfth graders described themselves as being “slightly overweight” or “very overweight,” in excess of the rates of overweight and obesity.¹⁰²

CANCER

The lifetime incidence of developing some type of cancer is fairly high – 39.7% of Americans develop some sort of cancer over the course of their lifetimes¹⁰³ and risk increases with age. Annual rates of cancer diagnoses can indicate which particular cancers might be more problematic for residents. The following table expresses the age adjusted rates per 100,000 residents for Lake County. From 2008-2012, breast, prostate, lung, colorectal, and bladder cancers were the most diagnosed in the County.

Cancer Site	Men’s Age-Adjusted Diagnosis Rate	Women’s Age-Adjusted Diagnosis Rate
Breast	1.5	136.1
Prostate	126.4	0.0
Lung	65.8	54.6
Colorectal	48.3	34.6
Bladder	43.7	11.7
Skin	28.2	19.3
Non-Hodgkins Lymphoma	26.2	17.6
Kidney	24.4	10.6
Corpus & Uterus	0.0	30.0
Leukemia	17.0	11.4
Pancreas	15.9	12.8
All Other Cancers	116.3	101.4
Total Cancers	513.7	440.1

¹⁰² Illinois Youth Survey: Lake County Report 2014.

¹⁰³ SEER Cancer Statistics Review 1975-2012. Table 1.15. “Lifetime Risk (Percent) of Being Diagnosed with Cancer by Site and Race/Ethnicity Both Sexes, 18 SEER Areas, 2010-2012.” August 2014, National Cancer Institute. Accessed at http://seer.cancer.gov/archive/csr/1975_2012/results_merged/topic_lifetime_risk.pdf

¹⁰⁴ Illinois Department of Public Health. “Cancer in Illinois: County Report.” Selected Years: 2008-2012. Accessible at: <http://www.idph.state.il.us/cancer/statistics.htm>

COMMUNITY HEALTH STATUS ASSESSMENT

While the overall diagnosis rate gives an incidence rate of specific cancers, the metric does not paint the full picture of the cancer burden in the County. Death from all cancers is the leading combined cause of death in Lake County, with an annual crude death rate of 149.2 per 100,000 residents or 155.4 per 100,000 age-adjusted death rate. Certain cancers are more deadly than others. For example, lung cancer is the third most commonly diagnosed cancer in Lake County. However, it remains the leading cause of cancer deaths in the county. Lung cancer causes nearly one in four cancer deaths but represents about 12-13% of all diagnosed cancers. Pancreatic cancer ranks eleventh in the most commonly diagnosed types of cancer, but is the second leading cause of cancer deaths. The following table provides an age-adjusted summary of death by cancer site for comparison between both cancer tables.

Age Adjusted Death Rate per 100,000 by Cancer Site	Men	Women
Lung	44.1	34.2
Pancreas	13.0	11.0
Colorectal	13.9	9.9
Breast	**	20.2
Prostate	17.9	0.0
Leukemia	7.8	4.1
Liver	7.0	3.3
Bladder	7.1	2.7
Non-Hodgkin's Lymphoma	6.2	3.1
Esophagus	7.1	1.6
Brain	4.5	2.6
All Other Sites	56.0	50.0
Total	184.6	142.7

¹⁰⁵ CDC WONDER 2010-2014.

COMMUNITY HEALTH STATUS ASSESSMENT

DEATH

Information on leading causes of mortality can help to identify key health challenges. Nationally, chronic diseases account for seven of the top ten causes of death. The two leading causes of death in the United States – heart disease and cancer – account for nearly 48% of all deaths.¹⁰⁶ Lake County's mortality burden follows a similar profile. The crude annual death rate in Lake County is 601.7 per 100,000 individuals from all causes. 47% of deaths are to heart disease and cancer. Seven of the top ten causes of death in Lake County are also chronic conditions. The top ten causes of death account for about 73% of deaths in Lake County.

Cause of Death	Crude Rate per 100,000
Cancer	149.2
Diseases of the Heart	133.6
Chronic Lower Respiratory Diseases	30.2
Cerebrovascular Diseases (Stroke)	28.9
Accidents (Unintentional Injuries)	25.1
Diabetes Mellitus	18.5
Alzheimer's disease	16.2
Nephritis, nephrotic syndrome and nephrosis	13.7
Influenza and pneumonia	12.9
Intentional self-harm (suicide)	9.8
All Other Causes	163.6
Total	601.7

Deaths are not equally distributed across all populations in the county. While the crude values are an important starting point, different groups within the county have different burdens of death. Some of these are to be expected. Life stage has a strong influence on an individual's likelihood of death. Early in life, complications associated with birth or that contribute to infant mortality mean that the first year of life has a high level of mortality, but drops and generally remains low through middle age, where it then begins to climb as individuals get older. Individuals 85 years of age and older have the highest rates of death. The following table summarizes death rates by age group.

¹⁰⁶ Centers for Disease Control and Prevention. Death and Mortality. NCHS FastStats Web site. <http://www.cdc.gov/nchs/faststats/deaths.htm>.

¹⁰⁷ CDC WONDER 2010-2014.

COMMUNITY HEALTH STATUS ASSESSMENT

Age-adjusted death rates allow for an even comparison across geographies and racial and ethnic groups that standardizes the rates to account for differences in age distribution. In Lake County, the death rates between groups can be age-adjusted to compare the mortality burden between groups. Lake County's age-adjusted death rate is 632.4 per 100,000. When all populations are adjusted to a standard population, distinct inequalities emerge. African Americans in Lake County face a much higher burden of death, with a rate of 882.5 per 100,000. Non-Hispanic whites in the County have a death rate of 650.5 per 100,000. Hispanics and Asian Americans have considerably lower rates of death, with 426.0 and 317.8 per 100,000, respectively. Across all groups, rates of death are lower in Lake County than in Illinois or the United States.¹⁰⁸

Age-Adjusted Death Rate by Race per 100,000	Lake	Illinois	US
African American	882.5	933.9	892.2
White	650.5	730.1	748.8
Hispanic	426.0	460.7	538.4
Asian American	317.8	387.1	408.1
Total	632.4	748.6	735.2

¹⁰⁸ CDC WONDER 2010-2014.

COMMUNITY HEALTH STATUS ASSESSMENT

EARLY DEATH

Poor health can determine whether or not someone dies prematurely. The Centers for Disease Control and Prevention considers deaths before age 75 to be premature. About 44% of all deaths in Lake County occur prior to the individual's 75th birthday. Certain causes of early death are preventable, so better understanding this subset of deaths can extend lives of community members. The ten most common causes of early death are highlighted in the following table. Many are the same causes as overall mortality.¹⁰⁹

Cause of Early Death	Death Rate per 100,000 Under 75
Cancer	85.3
Diseases of the Heart	46.5
Accidents (Unintentional Injuries)	20.9
Diabetes mellitus	10.8
Chronic lower respiratory diseases	9.5
Intentional self-harm (suicide)	9.4
Cerebrovascular diseases	7.8
Chronic liver disease and cirrhosis	7.1
Nephritis, nephrotic syndrome and nephrosis	4.3
Septicemia	4.1

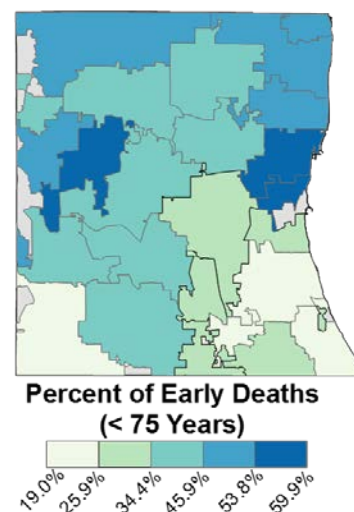
To quantify how early in life a death occurs, a metric called Years of Potential Life Lost (YPLL) was used to calculate an extra dimension of the mortality burden. Each early death contributes a value of some number of years equal to the age of the individual subtracted from 75. The total number of years for each collection of causes was summed and then adjusted as an annual rate of years of potential life lost per 100,000 Lake County residents under the age of 75. A table of the top ten YPLL follows. Depending on how early a death is likely to occur, even less common causes of death can contribute significantly to YPLL. For example, suicide death counts may only be a small proportion of the total number of deaths in the County, but because suicide typically occurs at a much younger age than 75, the burden of suicide in years of life lost ranks fourth. Early childhood conditions, such as congenital malformations and conditions originating during the perinatal period, are not common enough to make the top ten causes of death for all or under 75; however, because the deaths from these causes are so early, they are quantified and presented in the following table:

¹⁰⁹ Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2014 on CDC WONDER Online Database, released 2015. Data are from the Multiple Cause of Death Files, 1999-2014, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10.htm>

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Cause of Early Death	Annual YPLL per 100,000 Under 75
Cancer (Malignant neoplasms)	1,124.9
Diseases of the heart	642.7
Accidents (unintentional injuries)	641.2
Intentional self-harm (suicide)	275.1
Certain conditions originating in the perinatal period	268.2
Diabetes mellitus	156.6
Chronic liver disease and cirrhosis	122.3
Congenital Malformations, deformations, and chromosomal abnormalities	115.2
Cerebrovascular diseases (stroke)	112.4
Assault (homicide)	107.7

Burdens of premature death can be compared across communities as well. Overall, about 42% of deaths in Lake County occur before the age of 75. Seven ZIP codes in Lake County (60064, 60073, 60085, 60042, 60051, 60002, and 60096) have over 50% early deaths. Eleven ZIP codes (60069, 60045, 60035, 60010, 60048, 60044, 60040, 60015, 60069, 60089, and 60047) have fewer than 40% of deaths occurring before the age of 75.¹¹⁰



¹¹⁰ Illinois Department of Public Health. Vital Statistics 2010-2014.

COMMUNITY HEALTH STATUS ASSESSMENT

INFECTIOUS DISEASE

Communicable and infectious diseases can create a substantial burden on the community's health. Proper prevention through healthy practices including immunization compliance and handwashing can reduce the likelihood of many outbreaks. Effective surveillance and management of disease can promote health for infected persons and prevent the spread of disease to others.

CHILDHOOD VACCINATIONS AND PHYSICALS

Of the 252 schools reporting to the Illinois State Board of Education on their immunization and school physical compliance rates, eleven have rates of protection from measles lower than 90%. Twelve schools have lower than 90% protection rates for Hepatitis B. 14 schools have rates of protection against chicken pox of less than 90%. 8 schools reported less than 90% of students were protected against polio. Noncompliance for required immunizations or physicals does not reach 90% for 28 schools in the county. Of these, 15 schools are in Waukegan CUSD 60, four are in Round Lake CUSD 116, five are in North Chicago SD 187, one is in Fox Lake GSD 114, and three are nonpublic schools in Gurnee, Waukegan, and Highland Park. Physical and immunization compliance rates across the county remain high but students in a subset of schools are not receiving necessary medical attention.¹¹¹

School District	Schools with < 90% Compliance
Waukegan CUSD 60	15
North Chicago SD 187	5
Round Lake CUSD 116	4
Fox Lake GSD 114	1
Nonpublic School (Gurnee)	1
Nonpublic School (Highland Park)	1
Nonpublic School (Waukegan)	1
Total Schools	28

ADULT IMMUNIZATIONS

Although regular immunizations support health throughout a person's lifetime, adults might not receive the immunizations that are recommended for them. For example, while the tetanus and diphtheria vaccine is recommended every ten years, only 60% of adults reported that they had received the vaccination in the past decade. Of those, only 40% responded that the vaccine included protection against pertussis. 68% of adults reported having had a flu shot in the past year. Older adults (age 65 and older) were the most likely to have had vaccinations against influenza.¹¹²

¹¹¹ Illinois State Board of Education. Student Health Data: Immunization/Health Examination for School Year 2014-2015.

¹¹² LCHD 2015 Community Health Status Survey

COMMUNITY HEALTH STATUS ASSESSMENT

REPORTABLE AND VACCINE-PREVENTABLE DISEASES

The top vaccine-preventable diseases from 2011 to 2015 include many that are compulsory vaccinations for school-aged children. Varicella, rubella, and pertussis have a confirmed incidence of over one case per 100,000 residents annually in Lake County.¹¹³

Vaccine Preventable Diseases per 100,000 Residents	2008-2011	2012-2015
Varicella (chickenpox)	18.1	16.9
Rubella	5.2	2.1
Pertussis	1.1	1.0

An additional vaccine-preventable disease, pneumonia, occurs in Lake County as well.¹¹⁴ Young children are especially vulnerable to streptococcus pneumoniae and as a subpopulation have much higher rates of infection.

Streptococcus Pneumoniae per 100,000	2011-2015
Not drug resistant invasive, Patient < 5 Years Old	125.5
Drug resistant invasive	3.9

The top reportable diseases have remained relatively stable since 2008.¹¹⁵

Reportable Disease per 100,000 Residents	2008-2011	2012-2015
Hepatitis C Infection	40.0	35.3
Salmonellosis	14.8	15.6
Lyme Disease	1.4	3.5
Shigellosis	3.3	2.5
Giardiasis	4.5	1.8
Streptococcal Disease Invasive Group A	2.2	1.8
Legionellosis - Legionnaires Disease	1.2	1.7
Shiga toxin-producing E. coli (STEC)- Shiga toxin positive, non-O157 serotype	0.7	1.2

¹¹³ Illinois National Electronic Disease Surveillance System, 2008-2015.

¹¹⁴ Illinois National Electronic Disease Surveillance System, 2011-2015.

¹¹⁵ Illinois National Electronic Disease Surveillance System, 2008-2015.

COMMUNITY HEALTH STATUS ASSESSMENT

Tuberculosis rates fluctuated from 2010-2015, ranging from 0.99 per 100,000 residents in 2012 to 2.67 per 100,000 residents in 2010. Tuberculosis in Lake County remained below the rates for both Illinois and United States throughout the interval.¹¹⁶

Rate of Tuberculosis per 100,000 by Year	Lake County	Illinois	United States
2010	2.67	2.88	3.62
2011	1.00	2.80	3.38
2012	0.99	2.70	3.17
2013	1.42	2.54	3.03
2014	1.72	2.49	3.00
2015	2.28	2.67	2.98

SEXUALLY TRANSMITTED INFECTIONS

From 2012-2015, the overall rate of Chlamydia was 28.4 per 10,000 Lake County residents. Rates of gonorrhea across the county were 5.2 per 10,000 residents. Early syphilis was diagnosed in 0.2 per 10,000 residents over this window. This burden is highly dependent on geography, race and ethnicity, age, and sex.¹¹⁷

For example, Chlamydia rates vary by nearly an order of magnitude. Rates of diagnosis are highest in ZIP code 60064, with a rate of 85.2 per 10,000 residents. Other areas with high burdens of Chlamydia include 60085 (70.5), 60099 (67.5), 60087 (50.2), and 60073 (33.7). In 60089, 60069, 60042, and 60010, the rates of Chlamydia are fewer than ten per 10,000 residents. Similar trends can be seen with gonorrhea. Though the county rate is 5.2, the 60064 area is nearly six times higher with a rate of 29.9 per 10,000 residents. Gonorrhea is especially localized, with only five ZIP codes having rates higher than the county rate: 60064 (29.9), 60099 (21.2), 60085 (16.5), 60087 (9.2), and 60083 (6.3). For early syphilis, 60064 has a rate of 1.4 per 10,000 residents, seven times higher than the county average.¹¹⁸

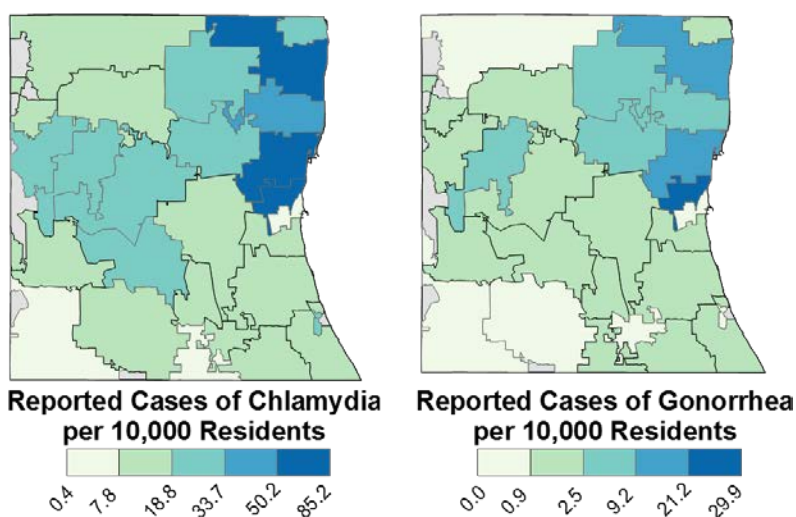
¹¹⁶ Illinois Department of Public Health Tuberculosis Maps of Illinois Case Rates, 2010-2015. Accessed at: <http://dph.illinois.gov/topics-services/diseases-and-conditions/diseases-a-z-list/tuberculosis>

¹¹⁷ Illinois Department of Public Health. Reported Sexually Transmitted Infections 2012-2015.

¹¹⁸ Illinois Department of Public Health. Reported Sexually Transmitted Infections 2012-2015.

COMMUNITY HEALTH STATUS ASSESSMENT

Sexually Transmitted Infection Rates by ZIP Code



Rates of Chlamydia were exceptionally varied between racial and ethnic groups. African Americans were especially burdened with rates of 53.2 per 10,000. Hispanic individuals also had higher rates of infection, with 32.3 per 10,000 residents. Non-Hispanic whites had rates of 12.1 per 10,000 individuals. Asian Americans and Pacific Islanders had the lowest rates with only 6.7 per 10,000 residents diagnosed with Chlamydia annually. Rates of gonorrhea excessively burden the African American community. Rates average 43.6 per 10,000 African American residents. African Americans are between 16 and 62 times more likely to be diagnosed with gonorrhea than Hispanics (2.8), non-Hispanic whites (1.3), and Asian American and Pacific Islanders (0.7).¹¹⁹

STI by Race and Ethnicity	Annual Rate per 10,000
Chlamydia	28.4
<i>African American</i>	53.2
<i>Hispanic</i>	32.3
<i>White</i>	12.1
<i>Asian</i>	6.7
Gonorrhea	5.2
<i>African American</i>	43.6
<i>Hispanic</i>	2.8
<i>White</i>	1.3
<i>Asian</i>	0.7

¹¹⁹ Illinois Department of Public Health. Reported Sexually Transmitted Infections 2012-2015.

COMMUNITY HEALTH STATUS ASSESSMENT

Adolescents and young adults are most likely to be diagnosed with a sexually transmitted infection. Youth ages 15 to 19 have rates of Chlamydia of 93.3 per 10,000. Young adults from 20 to 24 have rates of 191.7 per 10,000. The rate of diagnoses drops for individuals ages 25 to 35 (58.0) and 35 to 44 (10.8). For gonorrhea, youth age 15 to 19 are diagnosed at rates of 18.1 per 10,000. Infection rates peak from 20 to 24 (29.6) and drop for 25 to 34 (10.9) and 35 to 44 (2.5).¹²⁰

STI by Age Group	Annual Rate per 10,000
Chlamydia	28.4
15 to 19 Years	93.9
20 to 24 Years	191.7
25 to 34 Years	58.0
35 to 44 Years	10.8
Gonorrhea	5.2
15 to 19 Years	18.1
20 to 24 Years	29.6
25 to 34 Years	10.9
35 to 44 Years	2.5

Women (41.8) are nearly three times more likely to be diagnosed with chlamydia than men (14.7). Men (5.3) are slightly more likely than women (5.0) to be diagnosed with gonorrhea. Although a relatively rare diagnosis, men (0.43) are about fifteen times more likely to be diagnosed with early syphilis than women (0.03).¹²¹

STI by Gender	Annual Rate per 10,000
Chlamydia	28.4
Men	14.7
Women	41.8
Gonorrhea	5.2
Men	5.3
Women	5.0
Early Syphilis	0.2
Men	0.43
Women	0.03

¹²⁰ Illinois Department of Public Health. Reported Sexually Transmitted Infections 2012-2015.

¹²¹ Illinois Department of Public Health. Reported Sexually Transmitted Infections 2012-2015.

COMMUNITY HEALTH STATUS ASSESSMENT

HIV AND AIDS

HIV in Lake County was diagnosed at a rate of 7.1 per 100,000 from 2008 to 2015. AIDS was diagnosed at a rate of 3.3 per 100,000 residents across the same time period. In total, there are 401 persons in Lake County living with HIV and an additional 431 persons living with AIDS. The HIV diagnosis rate is slightly higher in Lake County than for the overall collar county rate (including DuPage, Grundy, Kane, Kendall, Lake, McHenry, and Will Counties) of 5.0 per 100,000 and AIDS diagnosis rate of 2.4 per 100,000.¹²²

To prevent the spread of HIV and other sexually transmitted infections, appropriate testing can be used to identify new cases of infection and properly manage treatment. About 41% of all adults in Lake County have ever been tested for HIV. Young women (women ages 18-44) were the most likely to be tested with 66% reporting that they had been tested, followed by young men (men ages 18-44) who had been tested at rates of 45%.¹²³

¹²² Illinois Department of Public Health. HIV/AIDS Monthly Surveillance Update: December 2015. Accessible at: <http://www.dph.illinois.gov/sites/default/files/publications/publications-ohp-hiv-update-report-dec2015-041516.pdf>

¹²³ LCHD 2015 Community Health Status Survey

COMMUNITY HEALTH STATUS ASSESSMENT

SENTINEL EVENTS

The public health system assesses and adapts to emerging issues in the community. Outbreaks of vaccine-preventable diseases, novel pathogens, and other health challenges might require new or additional resources to address. Sentinel events include diseases and deaths that could be prevented with appropriate care or services and might represent areas for improvement in the health system.

OPIOIDS

Drug overdose deaths in 2014 (largely driven by opioids) for Illinois occurred at an age-adjusted rate of 13.1 per 100,000 residents.¹²⁴ In Lake County, deaths to all drugs in 2015 were 9.8 per 100,000 residents. Of those, 84% were caused by opiates.¹²⁵ Deaths do not capture the full burden of prescription and illicit opioid use. While County data are not available for rates of opioid abuse, an important risk factor begins with legal use of prescription opioids. In the past year, 15% of adults in Lake County reported that they had been prescribed an opioid drug in the past twelve months.¹²⁶ If this medication is not managed properly and attentively by the prescribing doctor, individuals prescribed opioids or others in their household can develop dependence or abuse these drugs.

With a rate of 68 opioid prescriptions per 100 residents in 2012, Illinois is in the bottom quartile of states for opioid prescriptions per person. States range from 52 per 100 people in Hawaii to 148 prescriptions per 100 persons in Tennessee.¹²⁷ Although the data do not align temporally, if last year's prescriptions in Lake County are similar to the opioid prescriptions per 100 residents in Illinois, a considerable number of individuals being prescribed opioids are being prescribed either multiple opioid prescriptions, are chronically prescribed opioids, or both. These conditions place individuals taking legal medication at greater risk for developing dependency. For individuals taking opioid medications for chronic pain, rates of misuse average between average between 21% and 29%, while rates of addiction range from 8% and 12%.¹²⁸ From a public health perspective, the challenge related to opioids is much broader than the tragic early deaths it causes. Legal prescription use is common and misuse is an important concern for healthcare and public health.

¹²⁴ Rudd, R.A, Aleshire, N., Zibbell, J.E., & Gladden, M. (2016) "Increases in Drug and Opioid Overdose Deaths – United States, 2000-2014. MMWR.

¹²⁵ Lake County Coroner Drug Overdose Deaths for 2015.

¹²⁶ LCHD 2015 Community Health Status Survey.

¹²⁷ IMS, National Prescription Audit, 2012.

¹²⁸ Kevin E. Vowles, Mindy L. McEntee, Peter Siyahhan Julnes, Tessa Frohe, John P. Ney, David N. van der Goes. Rates of opioid misuse, abuse, and addiction in chronic pain. *PAIN*, 2015; 156 (4): 569 DOI: 10.1097/01.j.pain.0000460357.01998.f1

COMMUNITY HEALTH STATUS ASSESSMENT

SUMMARY RESULTS

The Community Health Status Assessment reviewed a variety of data sources to quantitatively describe health and wellbeing of people in Lake County. The 703,170 residents are more racially, ethnically, and linguistically diverse than ever before.¹²⁹ 35.8% of the county are people of color and 28.0% of people over the age of five speak a language other than English at home.¹³⁰ Lake County is aging. The median age in the county increased from 33.8 in 2000 to 37.2 in 2014.¹³¹ Lake County remains one of the wealthiest counties in the State of Illinois with a median household income of \$77,837, yet 9.4% of residents and 13.3% of children are in poverty.¹³² Minority groups have higher rates of poverty than non-Hispanic whites in the county. Housing stress impacts 38% of all households in Lake County and 51% of households that rent. Educational attainment in the county is generally high and 89.2% of adults over the age of 25 have a high school degree or higher, yet only 40.9% of Hispanic adults have completed high school. Health insurance coverage is generally high. 91.3% of residents have some sort of health insurance coverage, yet lack of insurance still burdens 23% of Hispanics and Latinos and 10.4% of African Americans in Lake County. Residents generally report good health at rates nearly equivalent to the 90th percentile of counties across the United States.¹³³ 14.4% of adults in Lake County are smokers.¹³⁴ 49% of adults in Lake County eat two or fewer fruits or vegetables per day.¹³⁵ 23% of adults in Lake County have been diagnosed with some type of mental illness.¹³⁶ Generally, Lake County enjoys relatively low rates of adverse pregnancy outcomes, yet African Americans in Lake County experience these outcomes at higher rates.¹³⁷ Chronic diseases afflict many of the adults in Lake County (22.5% of adults are obese,¹³⁸ 6% have been diagnosed with diabetes, and 35% have been told they have hypertension¹³⁹) and chronic diseases comprise four of the top five causes of death.¹⁴⁰ Opioids represent an emerging health issue beyond the overdose death rate.

¹²⁹ American Community Survey 5-Year Average 2010-2014

¹³⁰ Ibid.

¹³¹ Ibid.

¹³² Ibid.

¹³³ University of Wisconsin Population Health Institute. County Health Rankings 2016. Accessible at www.countyhealthrankings.org

¹³⁴ Illinois Behavioral Risk Factors Surveillance System Round 5

¹³⁵ LCHD 2015 Community Health Status Survey

¹³⁶ Ibid.

¹³⁷ Illinois Department of Public Health Vital Statistics

¹³⁸ LCHD Obesity Report 2015

¹³⁹ LCHD 2015 Community Health Status Survey

¹⁴⁰ CDC WONDER 2010-2014

Closing

The four assessments created the base of knowledge that Live Well Lake County used to plan the next five years of improving community health. Public health system representatives, community leaders, community members, and LCHD/CHC all contributed their knowledge, values, and expertise to determine the current state of health in Lake County and the challenges, opportunities, and goals for the future. The Local Public Health System Assessment gathered representatives of the entire public health system. These individuals were tasked with assessing how well each of the ten essential public health services are currently being delivered in Lake County and identify actions to improve how well the public health system functions. The Forces of Change Assessment gathered community leaders to identify trends and emerging issues for the local public health system and plan for ways that the system can proactively prepare for the future. The Community Themes and Strengths Assessment actively engaged the community at large and solicited opinions and priorities from the people served by the Lake County public health system. Lake County residents identified poor diet and inactivity and chronic diseases (including obesity, diabetes, and hypertension) as the two most important areas for improvement. Mental health needs arose frequently in focus groups that engaged historically underrepresented populations. The Community Health Status Assessment (CHSA) confirmed the importance of chronic diseases like obesity, diabetes, and hypertension (affecting 22.5%, 6%, and 35% of adults in Lake County, respectively) as well as mental health issues (affecting 23% of adults in Lake County). The CHSA also identified communities facing greater burdens of health conditions like obesity. In the 60064 ZIP code, 35.7% of adults are obese, while in the 60045 ZIP code, only 11.7% of adults are obese. Disparities in conditions that affect health, social determinants like poverty and educational attainment, are evident between census tracts and identify the greatest areas of need in Lake County. Taken together, these four assessments informed the prioritization process that lead to the four community priorities for the Lake County Community Health Improvement Plan of 2016-2021: hypertension and cardiovascular disease, obesity, behavioral health, and diabetes.

APPENDIX

Appendix

APPENDIX A: LOCAL PUBLIC HEALTH SYSTEMS ASSESSMENT PARTICIPANTS

Janet L. Agnoletti

Executive Director

Barrington Area Council of Governments

Mary Dominiak

Village Trustee

Village of Antioch

Yvette Alexander-Maxie

Manager, External Relations

American Red Cross

Hania Fuschetto

Community Relations Manager

NorthShore University HealthSystem

Tatiana Alonso

Promotoras/Ambassador Coordinator

Waukegan Public Library

Keeley Gallagher

Community Relations Coordinator

Advocate Good Shepherd Hospital

Frank Ardito

Department Chair and Professor

Health and Wellness Promotion, College of Lake County

Paul Geiselhart

Treasurer

Lake County Audubon Society

Grace Barajas

Infection Preventionist

Northwestern Memorial Healthcare

Barbara Gilothe

Community Health Consultant

Advocate Health Care

Tony Beltran

Executive Director

Lake County Health Department and Community Health Center

Tiffany A. Gonzalez

Deputy Director

Lake County Housing Authority

Joel Brumlik

Police Chief

Winthrop Police Department

Bob Grum

Emergency Response Coordinator

Lake County Health Department and Community Health Center

Nan Buckardt

Director of Environmental Education and Public Affairs

Lake County Forest Preserves

Dave Hare

Police Chief

Round Lake Beach Police Department

Barbara Cornew

CEO

The Alliance for Human Services

Buddy Hargett

Organizational Development Coordinator

Lake County Health Department and Community Health Center

APPENDIX

Stacey Hoferka

Epidemiologist

Illinois Department of Public Health

Sam Johnson-Maurello

Associate Director, Behavioral Health Services

Lake County Health Department and Community Health Center

Jeff Kalicki

Libertyville Resident

Sg2

Emily Karry

Director of Planning and Programming

Lake County Division of Transportation

Christine Lopez

*Executive Director of Community Relations and
Stewardship/INSPIRE Program Director*

Rosalind Franklin University of Medicine and Science

Kusuma Madamala, PhD, MPH

Lake County Resident

University of Wisconsin, Madison

Holly Maniprisio

Program Manager, External Affairs-Community Services

Northwestern Memorial HealthCare

Noelle Mauer

Social Worker

*Case Management/Social Service, Northwestern Lake Forest
Hospital/Grayslake Cancer Center*

Megan McKenna Mejia

Executive Director

Mano a Mano Family Resource Center

Dr. Carmella Mikol

Professor, Associate Degree Program in Nursing

College of Lake County

Janelle Miller Moravek

Executive Director

Youth and Family Counselling

Maggie Morales

Manager of Community Engagement

Lake County Community Foundation

Mike Munda

Principal

ROE Regional Safe School

Maureen Murphy

Division Manager

Catholic Charities

Brenda O'Connell

Continuum of Care Program Coordinator

Lake County Community Development

Carmen Patlan

Community Engagement Manager

Waukegan Public Library

Mark Pfister

Director of Population Health Services

Lake County Health Department and Community Health Center

Gary Pickens

Assistant Superintendent/ Director

Lake County Regional Office of Education

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Barbara Prusila

*Economic Development Manager
Lake County Partners*

David Reid

*Health Promotion Coordinator
Lovell Federal Healthcare Center*

Cheryl Schutte

*Director, Health Center Operations
Erie Family Health Care Center*

Jennifer Serino

*Director
Lake County Workforce Development*

Lynn Skelton

*Infection Control
Advocate Good Shepherd Hospital*

Anne Statton

*Executive Director
Pediatric AIDS Chicago Prevention Initiative*

Dr. Mary Faith Terkildsen

*OB/GYN
NorthShore University HealthSystem*

Laurel Tustison

*Executive Director,
YouthBuild Lake County*

Sophie Twichell

*Executive Director
National Recreation Foundation*

Ernest Vasseur

*Executive Director
Healthcare Foundation of Northern Lake County*

Joel Williams

*Executive Director
PADS Lake County*

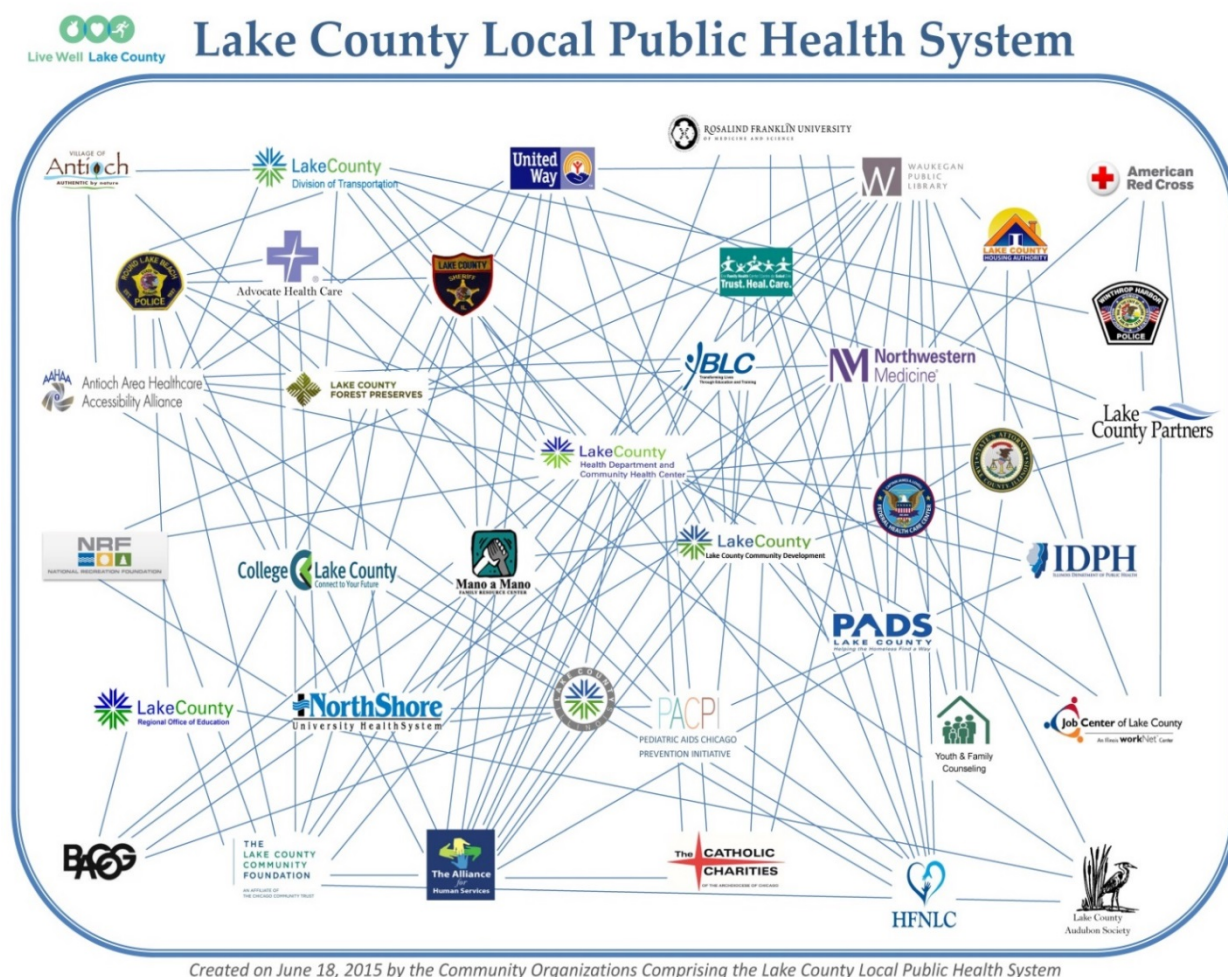
Jim Zimmerman

*Senior Associate Dean for Administration, Accreditation and
Finance at The Chicago
Rosalind Franklin University of Medicine and Science*

APPENDIX

APPENDIX B: LAKE COUNTY'S SYSTEM CONNECTEDNESS DIAGRAM

The System Connectedness Diagram (or jelly bean diagram) depicts the interconnectedness of community agencies within the local public health system. Participants created the diagram by using string to connect logos from their organizations with other organizations they work with. The results were digitized and developed into the diagram below:



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APPENDIX C: LAKE COUNTY'S WORDLE

A *Wordle* is a creative cloud of words that is utilized to convey a message. Every participant at Lake County's LPHSA contributed to the *Wordle* by using one word to answer the question "What excites you most about the work you do?" The larger the word in the *Wordle*, the more often it was mentioned.



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APPENDIX D: COMMUNITY STRENGTHS SURVEY QUESTIONS - English

Community Strengths Survey <i>This anonymous survey is being administered to assess the quality of life and health of our diverse community. The survey is being administered by the Live Well Lake County Steering Committee, with the assistance of the Lake County Health Department.</i>				
1. Gender: <input type="checkbox"/> M <input type="checkbox"/> F	2. Marital status: <input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Divorced <input type="checkbox"/> Widowed	3. Zip Code: _____	4. Age: _____	
5. Annual Household Income:	<input type="checkbox"/> Less than \$10,000 (\$850/month) <input type="checkbox"/> \$10,000 to \$24,999 (\$850-\$2,000/month) <input type="checkbox"/> \$25,000 to \$49,999 (\$2,001-\$4,150/month) <input type="checkbox"/> \$50,000 to \$74,999 (\$4,151-\$6,250/month)	<input type="checkbox"/> \$75,000 to \$99,999 (\$6,251-\$8,300/month) <input type="checkbox"/> \$100,000 to \$149,999 (\$8,301-\$12,500/month) <input type="checkbox"/> \$150,000 to \$199,999 (\$12,501-\$16,600/month) <input type="checkbox"/> Greater than \$200,000 (\$16,666/month)		
6. What is your highest level of education attained? <input type="checkbox"/> Did not finish High School <input type="checkbox"/> High School/GED <input type="checkbox"/> Some College <input type="checkbox"/> College Degree <input type="checkbox"/> Post-Graduate Education				
7. Are you Hispanic or Latino? <input type="checkbox"/> Yes <input type="checkbox"/> No	8. Race: <input type="checkbox"/> White <input type="checkbox"/> Black or African American <input type="checkbox"/> American Indian/Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Native Hawaiian/Other Pacific Islander <input type="checkbox"/> Other _____			
QUALITY OF LIFE				
9. How satisfied are you with the following factors that affect the quality of life in the community where you live?				
	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community Connectedness & Engagement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environment (<i>consider air, water, trash</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employment/ Economic Opportunity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Affordable Housing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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10. What are the 5 greatest strengths in the community where you live? (please select up to 5)

- | | |
|---|---|
| <input type="checkbox"/> Local 24-hour police, fire, and rescue services | <input type="checkbox"/> Good jobs and healthy economy |
| <input type="checkbox"/> Public transportation | <input type="checkbox"/> Affordable housing |
| <input type="checkbox"/> Services and support during times of stress and crisis | <input type="checkbox"/> Good Schools |
| <input type="checkbox"/> Access to health care | <input type="checkbox"/> Parks and recreation |
| <input type="checkbox"/> Access to mental health services | <input type="checkbox"/> Clean environment |
| <input type="checkbox"/> Access to health education | <input type="checkbox"/> Walkable/Bike-able community |
| <input type="checkbox"/> Programs for youth outside of school | <input type="checkbox"/> Arts and cultural events |
| <input type="checkbox"/> Senior services | <input type="checkbox"/> Respect towards different cultures and races |
| <input type="checkbox"/> Homeless services | <input type="checkbox"/> Access to affordable, healthy food |
| <input type="checkbox"/> Child care services | <input type="checkbox"/> Other _____ |

11. How would you rate the support networks in the community where you live for people and their families during times of need?

	Excellent	Very Good	Fair	Poor
Emotional support (<i>counselling, mentoring, etc.</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial support (<i>loan services, credit management services, etc.</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social support (<i>community clubs/activities</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spiritual support (<i>faith-based organizations</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. What would improve the quality of life in the community where you live? (Please select up to 5)

- | | |
|---|---|
| <input type="checkbox"/> Improved local 24-hour police, fire, and rescue services | <input type="checkbox"/> More programs and support for the senior community |
| <input type="checkbox"/> Better preparedness for emergencies | <input type="checkbox"/> Improved education |
| <input type="checkbox"/> Less crime | <input type="checkbox"/> More jobs and a healthier economy |
| <input type="checkbox"/> Less violence (domestic, elder, and child) | <input type="checkbox"/> Meet everyone's needs of food, shelter, and clothing |
| <input type="checkbox"/> Access to health care for everyone | <input type="checkbox"/> Access to affordable housing for everyone |

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- | | |
|--|--|
| <input type="checkbox"/> Access to mental health services for everyone | <input type="checkbox"/> Living in a cleaner and healthier environment |
| <input type="checkbox"/> Access to health education for everyone | <input type="checkbox"/> A more walkable, bike-able community |
| <input type="checkbox"/> More programs and support for youth outside of school | <input type="checkbox"/> More arts and cultural events |
| <input type="checkbox"/> Access to child care services for everyone | <input type="checkbox"/> More respect towards different cultures and races |
| <input type="checkbox"/> Services and support during times of stress and crisis for everyone | <input type="checkbox"/> Access to public transportation |
| | <input type="checkbox"/> Other _____ |

13. In the following list, what do you think are the 3 most important health issues/factors that affect the community where you live? (Please select up to 3)

- | | |
|---|---|
| <input type="checkbox"/> Aging problems (e.g. arthritis, hearing/vision loss, Alzheimer's Disease/dementia) | <input type="checkbox"/> Chronic Disease (e.g. Obesity, Diabetes, Heart Disease, High Blood Pressure, Stroke, Cancer) |
| <input type="checkbox"/> Community Violence (e.g. Homicides, Rape/Sexual Assault, Motor vehicle crashes) | <input type="checkbox"/> Domestic Violence (Child abuse and neglect, Domestic violence) |
| <input type="checkbox"/> Homelessness | <input type="checkbox"/> Infant mortality/death |
| <input type="checkbox"/> Infectious disease (e.g. Hepatitis, TB, STDs, HIV) | <input type="checkbox"/> Mental health issues and Suicide |
| <input type="checkbox"/> Poor diet and Inactivity | <input type="checkbox"/> Safe affordable and adequate housing |
| <input type="checkbox"/> Substance Use (e.g. Tobacco Use, Alcohol and Drug Abuse) | <input type="checkbox"/> Teen pregnancy |
| <input type="checkbox"/> Hunger | <input type="checkbox"/> Other _____ |

14. Do you believe that you can help make your community a better place to live?

- | | | | |
|---|--------------------------------|-----------------------------------|--|
| <input type="checkbox"/> Strongly Agree | <input type="checkbox"/> Agree | <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly Disagree |
|---|--------------------------------|-----------------------------------|--|

APPENDIX

COMMUNITY STRENGTHS SURVEY QUESTIONS - Spanish

Encuesta Sobre Fortalezas de la Comunidad <i>Esta encuesta anónima está siendo administrada para evaluar la calidad de vida y la salud de nuestra diversa comunidad. La encuesta es administrada por el Comité Directivo de Live Well Lake County, con la asistencia del Departamento de Salud del Condado de Lake.</i>				
1. Sexo: <input type="checkbox"/> M <input type="checkbox"/> F	2. Estado Civil : <input type="checkbox"/> Soltero <input type="checkbox"/> Casado <input type="checkbox"/> Divorciado <input type="checkbox"/> Viudo	3. Código Postal: _____	4. Edad: _____	
5. Ingreso Anual: <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Menos de \$10,000 (\$850/mes) <input type="checkbox"/> \$10,000 a \$24,999 (\$850-\$2,000/mes) <input type="checkbox"/> \$25,000 a \$49,999 (\$2,001-\$4,150/mes) <input type="checkbox"/> \$50,000 a \$74,999 (\$4,151-\$6,250/mes) </div> <div style="width: 50%;"> <input type="checkbox"/> \$75,000 a \$99,999 (\$6,251-\$8,300/mes) <input type="checkbox"/> \$100,000 a \$149,999 (\$8,301-\$12,500/mes) <input type="checkbox"/> \$150,000 a \$199,999 (\$12,501-\$16,600/mes) <input type="checkbox"/> Mas de \$200,000 (\$16,666/mes) </div> </div>				
6. ¿Cuál es el nivel más alto de educación completada? <input type="checkbox"/> No termine Preparatori <input type="checkbox"/> Preparatoria/GED <input type="checkbox"/> Clases Universitarias <input type="checkbox"/> Graduado de la Universidad <input type="checkbox"/> Educación Post-Graduado				
7. ¿Es usted Hispano or Latino? <input type="checkbox"/> Sí <input type="checkbox"/> No	8. Raza: <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Blanco <input type="checkbox"/> Negro o Afro-Americano <input type="checkbox"/> Indio Americano/Nativo de Alaska </div> <div style="width: 50%;"> <input type="checkbox"/> Asiático <input type="checkbox"/> Native Hawaiian/Isleño del Pacifico <input type="checkbox"/> Otro _____ </div> </div>			
CUALIDAD DE VIDA				
9. ¿Qué tan satisfecho esta con los siguientes factores que afectan la calidad de vida en la comunidad donde vive?				
	Muy Satisfecho	Satisfecho	Insatisfecho	Muy Insatisfecho
Seguridad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conectividad de la Comunidad & Participación	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medio Ambiente (considere aire, agua, basura)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Educación	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Empleo/Oportunidad Económica	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vivienda Asequible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
En Total	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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10. ¿Cuáles son las mayores fortalezas en la comunidad donde vive? (Seleccione hasta 5)

- | | |
|---|---|
| <input type="checkbox"/> Servicios locales de policía, bomberos, y rescates de 24 horas | <input type="checkbox"/> Buenos trabajos y economía saludable |
| <input type="checkbox"/> Transportación publica | <input type="checkbox"/> Vivienda accesible o no tan cara |
| <input type="checkbox"/> Servicios y apoyo en tiempos de estrés y crisis | <input type="checkbox"/> Buenas escuelas |
| <input type="checkbox"/> Acceso a cuidado de salud | <input type="checkbox"/> Parques y recreación |
| <input type="checkbox"/> Acceso a servicios de salud mental | <input type="checkbox"/> Medio ambiente limpio |
| <input type="checkbox"/> Acceso a educación de salud | <input type="checkbox"/> Comunidad transitable (a pie o en bicicleta) |
| <input type="checkbox"/> Programas para jóvenes fuera de la escuela | <input type="checkbox"/> Artes y eventos culturales |
| <input type="checkbox"/> Servicios para personas de mayor edad | <input type="checkbox"/> Respeto hacia diferentes culturas y razas |
| <input type="checkbox"/> Servicios para personas sin hogar | <input type="checkbox"/> Acceso a comida no cara y saludable |
| <input type="checkbox"/> Servicios de cuidado de niños | <input type="checkbox"/> Otro _____ |

11. ¿Cómo calificaría las redes de apoyo en la comunidad donde vive para las personas y sus familias durante tiempos de necesidad?

	Excelente	Muy Bueno	Mas o Menos	Pobre
Apoyo emocional (<i>consejería, tutoría, etc.</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Apoyo financiero (<i>servicios de préstamo, servicios de manejo de crédito, etc.</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Apoyo social (<i>comunitarios/actividades</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Apoyo Espiritual (<i>organizaciones basadas en la fe</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. ¿Que mejoraría la calidad de vida en la comunidad donde vive? (Seleccione hasta 5)

- | | |
|---|--|
| <input type="checkbox"/> Mejor servicios locales de policía, bomberos, y rescates de 24 horas | <input type="checkbox"/> Mejor educación |
| <input type="checkbox"/> Mejor preparación para emergencias | <input type="checkbox"/> Mejores trabajos y una economía más saludable |
| <input type="checkbox"/> Menos crimen | <input type="checkbox"/> Conocer la necesidad de comida, vivienda y ropa |
| <input type="checkbox"/> Menos violencia (domestica, ancianos y niños) | <input type="checkbox"/> Acceso a viviendas asequibles para todos |
| <input type="checkbox"/> Acceso a cuidado de salud para todos | <input type="checkbox"/> Vivir en un ambiente más limpio y saludable |

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- | | |
|--|---|
| <input type="checkbox"/> Acceso a servicios de salud mental para todos | <input type="checkbox"/> Una comunidad más transitable |
| <input type="checkbox"/> Acceso a educación de salud para todos | <input type="checkbox"/> Mas eventos culturales y artisticos |
| <input type="checkbox"/> Más programas y apoyo para jovenes fuera de la escuela | <input type="checkbox"/> Mas respecto hacia culturas y razas diferentes |
| <input type="checkbox"/> Acceso a servicios de cuidado de niños para todos | <input type="checkbox"/> Acceso a transportación publica |
| <input type="checkbox"/> Servicios y apoyo durante tiempos de estrés y crisis para todos | <input type="checkbox"/> Otro _____ |
| <input type="checkbox"/> Mas programas y apoyo para los mayores de edad | |

13. En la siguiente lista, ¿cuáles cree que son las 3 problemas/factores de salud más importantes que afectan a la comunidad donde vive? (Seleccione hasta 3)

- | | |
|--|--|
| <input type="checkbox"/> Problemas de envejecimiento (p.e. artritis, pérdida de visión/audición, enfermedad de Alzheimer/demencia) | <input type="checkbox"/> Enfermedad es crónica (e.g. Obesidad, Diabetes, enfermedad del corazón, alta presión, cáncer) |
| <input type="checkbox"/> Violencia en la Comunidad (p.e. Homicidio, violación/asalto sexual, accidentes automovilísticos) | <input type="checkbox"/> Violencia Domestica (Abuso y negligencia de niños) |
| <input type="checkbox"/> Sin vivienda | <input type="checkbox"/> Mortandad infantil/muerte |
| <input type="checkbox"/> Enfermedades infecciosas (p.e. Hepatitis, tuberculosis, enfermedades transmitidas sexualmente, VIH) | <input type="checkbox"/> Problemas de salud mental y suicidio |
| <input type="checkbox"/> Dieta pobre e inactividad | <input type="checkbox"/> Viviendas segura, no tan cara y adecuada |
| <input type="checkbox"/> Uso de sustancias (p.e. Tabaco, Abuso de Alcohol y Drogas) | <input type="checkbox"/> Embarazo de adolescentes |
| <input type="checkbox"/> Hambre | <input type="checkbox"/> Otro _____ |

14. ¿Cree usted que usted puede hacer su comunidad un mejor lugar para vivir?

- | | | | |
|---|-------------------------------------|--|--|
| <input type="checkbox"/> Muy de Acuerdo | <input type="checkbox"/> De Acuerdo | <input type="checkbox"/> En Desacuerdo | <input type="checkbox"/> Muy en desacuerdo |
|---|-------------------------------------|--|--|

APPENDIX

APPENDIX E: FOCUS GROUP QUESTIONS

Community Strengths

1. What are the greatest strengths of your community?
 - What makes it a strength?
2. What are areas of improvement you would like to see in your community?
 - What do you think would make an impact or difference?

Quality of Life and Health Satisfaction/ Dissatisfaction

3. What about your community improves the quality of life and health for residents?
4. What needs to be improved in order to increase the quality of life and health for residents?
 - Consider items such as your resources available, things you wish you had in your community, barriers, well-being, and participation in community life.
 - What makes you feel this particular way? What is it about your community that you feel this way about the Quality of Life/ Health?

Community Support Networks

5. Which groups provide support for people in your community?
 - Financial, Emotional, Educational, Spiritual
6. Are there gaps in any of the key support areas?
 - How might these gaps be addressed?

Health Issues/Factors in the Community

7. What are the most important health issues in your community?
 - What makes it a problem?
 - Examples of health issues: obesity, heart disease, mental health
8. Is there anything else that is important to your community or that you want to bring up, that you weren't able to discuss during this conversation?

APPENDIX

APPENDIX F: LAKE COUNTY ZIP CODES

APPENDIX

LAKE COUNTY ZIP CODES

ZIP	City
60002	Antioch
60010	Barrington
60015	Deerfield
60020	Fox Lake
60030	Grayslake
60031	Gurnee
60035	Highland Park
60037	Fort Sheridan
60040	Highwood
60041	Ingleside
60044	Lake Bluff
60045	Lake Forest
60046	Lake Villa
60047	Lake Zurich
60048	Libertyville
60060	Mundelein
60061	Vernon Hills
60064	North Chicago
60069	Lincolnshire
60073	Round Lake
60083	Wadsworth
60084	Wauconda
60085	Waukegan
60087	Waukegan
60088	Great Lakes
60089	Buffalo Grove
60096	Winthrop Harbor
60099	Zion