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BACKGROUND

In 2012, in order to comply with the new IRS requirement for non-profit hospitals, Lake Health began and completed a Community Health Needs Assessment (CHNA) by end of their fiscal year ending in 2013. Three years later, in 2016, Lake Health began the process to update that CHNA. This report contains the results of that update and provides information on the hospital itself as well as the community that it services. Existing services, current health needs, perceived barriers and implementation strategies lie within this report and serve to provide an overview on the current health needs of Lake Health’s community.

Lake Health (“LHS”) is a private, not-for-profit healthcare system located in northeast Ohio. Founded in 1902 by the New Connecticut Chapter of the Daughters of the American Revolution, Lake Health is committed to providing high-quality health care to residents in and around Lake County, Ohio through a comprehensive network that includes 600 physicians, 2,600 health care professionals, almost 1,000 volunteers, and 16 facilities including two hospital campuses – West Medical Center in Willoughby, Ohio and its TriPoint Medical Center in Concord, Ohio. Lake Health is the largest private employer in Lake County. Although the services offered and the facilities available have changes dramatically over the years, Lake Health’s mission has remained the same.

MISSION STATEMENT

To provide comprehensive health care services to the residents of Lake County and neighboring communities in partnership with those who share a commitment to local access, healing with compassion and superior quality.

VISION STATEMENT

LHS, in partnership with its medical staff, will be the first choice for superior care close to home. Together, we will coordinate a lifetime of health which patients and families experience as warm, responsive and state-of-the-art. Our organization and culture will produce the best opportunities to practice and work.
COMMUNITY SERVED

Lake Health’s service area is defined as Lake County for this assessment. Using a county definition as the service area is crucial for the analysis as many of the secondary data sources are county specific and serve as a comparison tool to other counties, the state of Ohio, and the United States. Also, many of the community input sources consider these counties as their primary service area. These include public health officials, as well as many different community advocacy groups with whom LHS has relationships. A majority of Lake Health’s patient origin for both the TriPoint Medical Center and the West Medical Center is encompassed within this geographical area.

Source: Nielsen Claritas
PROCESS AND METHODOLOGY

LHS identified community health needs by undergoing an assessment process. This process incorporated a comprehensive review by the hospital’s Community Needs Assessment Steering Committee along with secondary and primary data input using the expertise of DHG Healthcare, the national Healthcare Practice of Dixon Hughes Goodman. The team used several sources of quantitative health, social and demographic data specific to Lake County provided by local public health agencies, health care associations and other data sources. This kind of collaboration is not only allowed for the CHNA process, but encouraged. LHS took advantage of this opportunity to interact with several local organizations, including large employers, schools, healthcare providers and health-related agencies.

DHG provided data, organized community input, facilitated priority sessions, and supported the report drafting process.

Additionally, LHS was able to utilize the 2013 CHNA for process and data comparison. One of the values of this CHNA process is ability to see how the community’s needs are changing over time and how the hospital may be able to impact those needs.

The assessment process consists of 5 steps pictured below:
DATA ASSESSMENT FINDINGS - SECONDARY DATA

In order to present the data in a way that would tell a story of the community and also identify needs, the framework of Healthy People 2020 was selected to guide secondary data gathering and also community input. This framework was selected based on its national recognition as well as its mission listed below:

- Identify nationwide health improvement priorities.
- Increase public awareness and understanding of the determinants of health, disease, and disability and the opportunities for progress.
- Provide measurable objectives and goals that are applicable at the national, state, and local levels.
- Engage multiple sectors to take actions to strengthen policies and improve practices that are driven by the best available evidence and knowledge.
- Identify critical research, evaluation, and data collection needs.

Within this framework, 12 Topics were chosen as “Leading Health Indicators.” These topics

- Access to Health Services
- Clinical Preventive Services
- Environmental Quality
- Injury and Violence
- Maternal, Infant Child Health
- Mental Health
- Nutritional, Physical Activity and Obesity
- Oral Health
- Reproduction and Sexual Health
- Social Determinants
- Substance Abuse
- Tobacco

guide discussion and research related to this CHNA.

*Data sources and dates of data that were used in this CHNA can be found in Appendix A*
The data assessment piece of the CHNA process included data tables, graphs, and maps from various sources widely available. These data elements were used to identify at-risk populations, underserved populations, health need areas, and professional shortage areas. A summary of findings was then created to highlight areas of need within the service area.

ACCESS TO CARE:

Access to care in Lake County, especially with regard to health insurance coverage, is slightly worse than the State of Ohio. According to the U.S. Census Bureau, Lake County had 11.5% of the population under 65 uninsured, while 13.0% of Ohio residents under 65 were uninsured. This did improve from the 13.6% that were uninsured 3 years prior but is still a concern within the community.

Outmigration is strong within Lake County; approximately 49.1% of the care provided to residents of the county is done so outside of the county. Additionally, the number of primary care physicians to serve the community of Lake County is significantly lower, 47.5 per 100,000 compared to the state of Ohio with 77.1 per 100,000.

CLINICAL PREVENTIVE SERVICES:

Clinical preventive services are very effective in preventing and/or detecting chronic conditions early. In Lake County, 85.0% of diabetic Medicare beneficiaries receive HbA1c screening, a slight improvement from 84% previously, and in line with the Ohio and national performance (84.9% and 85% respectively). This is particularly important as the percentage of Medicare Beneficiaries with diabetes remained at 25% for Lake County and 27% for the state. However, overall, adults with diabetes in Lake County is lower (10.5%) than the state (11.4%).

Additionally, the number of Medicare Beneficiaries with hypertension was at 53% in 2014, based on 10,000+ beneficiaries. The high blood pressure death rate decreased slightly from the previous CHNA (928.8 per 100,000) to 859.4 per 100,000 and remained below the state rate of 940.8 per 100,000. Additionally, the heart disease death rate for Lake County (230.6 per 100,000) is in line with the state (232.3 per 100,000) and lower than the previous assessment (251.8 per 100,000). This correlates with the percentage of Medicare beneficiaries with heart failure 14.8%, compared to the state of Ohio with 15.2%.

Additional screenings for adults, such as Sigmoidoscopy or Colonoscopy, are provided less often for those in Lake County (60.6%) compared to the state (63.3%). Additionally, the incidence of colon and rectal cancer for Lake County has decreased slightly from 44.2 to 41.4, but still remains higher than the state (37.3). Correlated to the incidence rate, the colon cancer death rate is 16.6 for Lake County. However, screening for women are more prevalent. Mammography screenings have decreased since the last CHNA from 69.7% of women screened to 65.0%, but is higher than the state average of 60.0%; an important point as the incidence of breast cancer has increased from 123.5 to 137.6 for Lake County while the death rate has decreased from 28.3 in the previous CHNA to 24.5 in 2016. Moreover, the percentage of women receiving Pap tests is 74.7% compared to the state average of 77.4%. The overall
cancer incidence rate for Lake County is 485.9 per 100,000, higher than both the previous CHNA (463.2 per 100,000) and the state (457.4 per 100,000). Screenings are particularly important since the population of those older than 65 is expected to increase by approximately 13.12% within the next 5 years.

**ENVIRONMENTAL QUALITY:**

The environment in which we live directly affects our quality and duration of life. Premature death, cancer, and respiratory damage are linked to poor air quality. According to the CDC WONDER Environmental Data, Lake County has 13.5 average daily density of fine particulate matter, compared to 13.6 for Ohio and 11.1 for the country.

**INJURY AND VIOLENCE:**

According to CDC, injuries are the leading cause of death for Americans ages 1 to 44, and a leading cause of disability for all ages, regardless of sex, race/ethnicity, or socioeconomic status. More than 136,000 people die from injuries each year. The effects of injuries and violence extend beyond the injured person or victim of violence to family members, friends, coworkers, employers, and communities. In addition, beyond their immediate health consequences, injuries and violence have a significant impact on the well-being of Americans by contributing to premature death, disability, poor mental health, high medical costs, and lost productivity. The Healthy People 2020 initiative has set a target of 12.4 deaths per 100,000 population for motor vehicle deaths. Additionally, the Healthy People 2020 target for unintentional injury deaths at 36.0 deaths per 100,000 population.

Lake County exceeds the motor vehicle death rate of Ohio at 10.0 deaths per 100,000 versus the state’s 7.2. While the county’s numbers have increased the state’s numbers have decreased since the last CHNA (7.0 and 12.2 respectively).

In addition, the violent crime rate (per 100,000) is 203 for Lake County vs. 307 for Ohio, but the homicide rate (per 100,000) has increased from 1.2 to 1.9 for Lake County vs. 5.1 to 5.4 for the state and the unintentional injury deaths (per 100,000) is 56.3 in the county vs. 62.6 in the state, almost doubled from the previous assessment (25.3). Unintentional injury deaths include deaths due to all accidents not related to motor vehicle accidents.

**MATERNAL, INFANT, CHILD HEALTH:**

According to Healthy People 2020, improving the well-being of mothers, infants, and children is an important public health goal for the United States. Their well-being determines the health of the next generation and can help predict future public health challenges for families, communities, and the health care system. In addition, during a pregnancy, there is opportunity to identify health risks in women and their unborn children. This can surface problems at an early stage that can also prevent additional health issues postpartum and beyond.
Remaining relatively constant from the last CHNA, Lake County has much less births to teen mothers (21.0 per 1,000 vs. 21.6 in 2013) as the state of Ohio (34.4 per 1,000) in 2016 and country (36.6 per 1,000). In general, infants born to teenage mothers can be at risk from factors of their physical and sociodemographic environments such as family income, maternal education, and health insurance coverage.

The percentage of babies born with low birth rates (7.6% for county vs. 8.6% for the state) has increased slightly from the previous CHNA (7.2% and 8.6% respectively) and remains below the Healthy People 2020 target set at 7.8%. Overall, child mortality rate, under age 18, has shown significant improvement from the previous CHNA, decreasing from 43.1 per 100,000 to 27.6 per 100,000 for Lake County and remaining below the state of Ohio rate (58.2 per 100,000).

**MENTAL HEALTH:**

Mental and physical health are closely connected. According to the Healthy People website, mental illnesses, such as depression and anxiety, affect people’s ability to participate in health-promoting activities. In turn, chronic conditions and diseases can have a serious impact on mental health and decrease a person’s ability to participate in treatment and recovery. Millions of Americans have a seriously debilitating mental illness. Mental health disorders are the leading cause of disability in the US and suicide is the 10th leading cause of death in the US, up from 11 in 2011 and claiming approximately 43,000 lives each year (up from 30,000).

Unfortunately, Lake County is not immune to challenging mental health issues. The number of mentally unhealthy days (30 day average) is lower than the state (3.7% of days for the county vs. 4.3% for the state) but higher than it was for the previous CHNA assessment (3.7% vs. 3.0%). However, the number of mental health providers per 100,000 is 128.2 for the county and 155.7 for the state, significant improvement from the 20.8 per 100,000 in the previous CHNA. The percent of Medicare Beneficiaries who suffer from depression is 16%, based on 10,000+ beneficiaries, in line with the state (17%).

**NUTRITION, PHYSICAL ACTIVITY, AND OBESITY:**

Maintaining a healthy weight, eating nutritiously, and engaging in physical activity is imperative in achieving good health. Doing so can decrease the chances of developing high blood pressure, high cholesterol, diabetes, heart disease, stroke, and cancer. Unfortunately, according to Healthy People 2020 less than 1 in 3 adults eat the recommended servings of fruits and vegetables daily, and over 80% do not engage in the recommended physical activity.

Lake County and the state of Ohio have seen a slight decrease in the population with limited access to healthy food, dropping from 7.9% and 7.0% in 2012 to 7.4% and 5.9% in 2016, respectively. In the past 3 years, Lake County has seen obesity rates drop to 26.4% in Lake County and 20.4% in the state. Both of which are below the Healthy People 2020 target of 30.6%. Even with the drop in obesity rates, the % of adults with no physical activity has remained relatively constant from 25.5% in 2012 to 25.4% in 2016 for Lake County. This is compounded when combined with the percent of adults that have access to exercise.
opportunities within the county (83.8%) versus the state (83.2%) or country (85%). Hopefully the number of obese adults continues to decrease and helps to improve the health of the LHS community.

**ORAL HEALTH:**

Oral health is essential to overall health. Good oral health improves a person’s ability to speak, smile, smell, taste, touch, chew, swallow, and make facial expressions to show feelings and emotions. Lack of access to dental care for all ages remains a public health challenge.

Lake County has 64.1 dentists per 100,000 population, up from the previous year (59.8) and higher than the state at 58.3 per 100,000.

**REPRODUCTION AND SEXUAL HEALTH:**

According to Healthy People 2020, an estimated 20 million new sexually transmitted diseases (STDs) are diagnosed each year in the US (up from 19 in 2011). Untreated STDs have serious consequences and can lead to reproductive health problems, infertility, cancer, and fetal and perinatal health problems.

Lake County continues to rank well in this category with significantly less than Ohio’s chlamydia rate in 2013 (292.2 per 100,000 vs. 460.1 per 100,000). Also, compared to Ohio, Lake County has a significantly lower prevalence of HIV with a rate of 65.5 per 100,000, lower than the state at 192.7 per 100,000. Unfortunately, these numbers have increased from 61.1 and 169.7 for Lake County and Ohio, respectively, in 2012.

**SOCIAL AND ECONOMIC DETERMINANTS:**

According to Healthy People 2020, health starts in our homes, schools, workplaces, neighborhoods, and communities. We know that taking care of ourselves by eating well and staying active, not smoking, getting the recommended immunizations and screening tests, and seeing a doctor when we are sick all influence our health. Our health is also determined in part by access to social and economic opportunities; the resources and supports available in our homes, neighborhoods, and communities; the quality of our schooling; the safety of our workplaces; the cleanliness of our water, food, and air; and the nature of our social interactions and relationships. The conditions in which we live explain in part why some Americans are healthier than others and why Americans more generally are not as healthy as they could be.

Relative to the country and state’s averages, Lake County shows higher median household income ($59,521), lower percentage of families below the poverty (6.7%), and lower percentage of adults, 25 and older, with no high school diploma (8%), all of which show improvement from the previous CHNA. This improvement is also reflected in an unemployment rate of 5.6% compared to the 5.7% of the state, both down from previous years (8.4% and 10.1%, respectively). Finally, the number of children in poverty in Lake County (13.4%) remains below the state of Ohio (22.7%).
**SUBSTANCE ABUSE/TOBACCO USE:**

We know that it is impossible to protect our health and the health and safety of our children without first reducing substance abuse and tobacco use in our culture. Tobacco use is the single most preventable cause of death and disease in the US and claims more than 480,000 lives each year (up from 440,000 in 2011). More than 16 million Americans live with a smoking-related disease. In addition, tobacco use costs the US $170 billion annually (down from $193 billion in 2011) in direct medical expenses and lost productivity.

Similar to the rest of the country, the percentage of adults that smoke tobacco has decreased from 26.3% to 17.6%. The Healthy People 2020 has set a target of 12% of people that smoke tobacco.

According to the CDC, drinking alcohol provides additional health concerns and excessive alcohol use has led to approximately 88,000 deaths and 2.5 million years of potential life lost each year in the country from 2006-2010. Lake County actually decreased the percentage of adults that excessively drink from 24.6% in 2012 to 19.8% in 2016. That is still slightly above the state average at 19.1% in 2016. However, the percentage of driving deaths with alcohol involvement from 2010 to 2012 is higher in Lake County (37.7%) than in both the state and the country (approximately 35.4% and 31% respectively). Additionally, the drug overdose mortality rate for Lake County (22.2 per 100,000) was higher than the state (20.7 per 100,000).
SUMMARY OF DATA ASSESSMENT

The data assessment phase identified areas where indicators met or exceeded national, state, and/or local standards, and in contrast, areas of particular concern.

The analysis contains approximately 50 indicators in 12 topic areas from various sources. These indicators are expressed in rates, percentages, and other metrics. In order for us to analyze each metric, it is necessary for these different values to be standardized to a common value. The data is presented at a county level as it relates to other counties within that specific state. The “standard value” in this case is the mean value of the counties in that state.

This mean value of the counties (standard score of 0) is used within a particular state to arrive at an estimate of standard deviation (measure of spread). Counties that score within 1 standard deviation of the mean of the county scores are said to have a moderate score for that indicator. Those that exceed +1 are said to have a strong score in the indicator and in contrast, those that score below -1 are said to have a weak score for that indicator.

As illustrated in the graphic, the majority of counties will fall in the middle section, while those weak and strong performers will fall within the tails of the bell curve.
COMMUNITY INPUT FINDINGS

Subsequent to the secondary data assessment using Healthy People 2020 framework, the Community Needs Assessment DHG Healthcare facilitated interviews with key community partners, including representatives of local health organizations, local employers and community organizations. The interviews were between 30 – 45 minutes each and consisted of at least 6 questions that asked for input around community health issues such as the most important health concern and biggest barriers in the community, Lake Health’s performance and possible improvement and collaboration opportunities, and a few questions to help identify the organization or individual interviewed.

Key questions are highlighted below with the key summary points:

- The most important health issue facing Lake County include substance abuse (opioids, heroin), aging and chronic conditions (diabetes, obesity) and the severity of mental and behavioral health and available resources to treat.
- Specialty Care and mental health services and partner organizations were identified as significant needs in the community.
- The underserved groups in Lake County continued to be underinsured, those seeking behavioral health services and drug users.
- The top barriers identified were access to transportation, limited insurance coverage for “at-risk” groups combined with an unwillingness to seek care and the cost and administrative burden.
- Moving forward, the critical success factors identified were increased knowledge around community offerings, optimization of organizational networks and coordination of a county culture of population health to assign accountability for growing gaps.

The interviews and community input revealed three key themes:

- Optimization of Organizational Partnerships
- Double-Down on Prevention
- Access to Care
PRIORITIZATION OF NEEDS:
IDENTIFIED BY DATA AND INPUT

By analyzing and combining perceived (by community) and reported (secondary) data, a number of community health issues surfaced. There were three types of issues identified as the community input was overlaid with the secondary data assessment.

- **Reported and Perceived**: Data assessment showed a need for improvement and the need was also mentioned as a concern during community input.
- **Not Reported, Perceived**: Data assessment did not uncover an issue, however, the community “perceived” this issue as a health priority.
- **Reported, Not Perceived**: Data assessment showed a need for improvement, however, those interviewed did not “perceive” an area of concern.

| Perceived and Reported | • Mentally Unhealthy Days  
|                        | • Drug usage/overdose (including Opioid)  
|                        | • Access to dentists  
|                        | • Cancer  
|                        | • Obesity*  
|                        | • Aging Population  
|                        | • Chronic Conditions |
| Perceived but Not Reported | • Smoking  
|                                | • Neurological Diseases  
|                                | • Undocumented Immigrants’ Access to Care  
|                                | • Pediatric specialists  
|                                | • Cardiology specialists |
| Reported but Not Perceived | • Violent crime  
|                                | • Alcohol (excessive drinking and impaired driving)  
|                                | • Sexually Transmitted Infections  
|                                | • % of Live Births with Low Birthweight  
|                                | • % of 50+ with colonoscopy  
|                                | • % of women receiving pap test  
|                                | • % of Mammography screening  
|                                | • Motor vehicle deaths/100,000 |

*Data Assessment showed that Lake County is improving in obesity rates and better than the rest of Ohio, but still <26.4% of the population.
Once needs were identified, they were then organized and grouped together in categories. The below categories helped in the prioritization of needs. A prioritization session was held with members of the CHNA Steering Committee. This session resulted in the development of a “Prioritization Grid.” The axes of the grid measured both significance of the community need and LHS’s ability to impact that need. This process identified priority health issues for Lake County that LHS feels it has an ability to impact at certain levels.

<table>
<thead>
<tr>
<th>Community Health Need</th>
<th>Community Health Need</th>
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<tbody>
<tr>
<td>A Diabetes</td>
<td>G Access to Specialists</td>
</tr>
<tr>
<td>B High Blood Pressure</td>
<td>H Access to Preventative Screenings</td>
</tr>
<tr>
<td>C Congestive Heart Failure</td>
<td>I Obesity</td>
</tr>
<tr>
<td>D Heart Disease</td>
<td>J Hunger</td>
</tr>
<tr>
<td>E Cancer</td>
<td>K Opioid Usage</td>
</tr>
<tr>
<td>F Mental/Behavioral Health</td>
<td></td>
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</tbody>
</table>

![2016 Prioritization Grid](image)

Significance of the Community Need
From this prioritization grid, the team was able to identify those needs that would be included in the implementation strategy. In accordance with Treasury Regulation 1.501(r)-3(c) (3), the team also identified which needs would not be addressed in the implementation strategy and why. Those needs that are important but will not be addressed by LHS due to limited ability to impact and/or impact driven by Access to Preventative Screening include:

- Cancer
- Mental/Behavioral Health
- Access to Specialists
- Obesity
- Hunger
- Opioid Usage

Based on the secondary quantitative data, community input, the needs evaluation process, and the prioritization of these needs, the following issues have been chosen for implementation.

- Diabetes
- Congestive Heart Failure
- Heart Disease
- Access to Preventative Screening
- High Blood Pressure

LHS’s Community Needs Assessment Steering Committee will initiate the development of implementation strategies for each health priority identified above. This Implementation Plan will be rolled out over the next three years. The team will work with community partners and health issue experts on the following for each of the approaches to addressing health needs listed:

- Identify what other local organizations are doing to address the health priority
- Develop support and participation for these approaches to address health needs
- Develop specific and measurable goals so that the effectiveness of these approaches can be measured
- Develop detailed work plans
- Communicate with the assessment team and ensure appropriate coordination with other efforts to address the issue
- Develop a monitoring method at the conclusion of the Implementation Plan to provide status and results of these efforts to improve community health.

LHS is committed to conducting another health needs assessment in three years.

The LHS Board of Trustees approved the contents of the report on August 29th, 2016.