SUMMIT COUNTY
ENVIRONMENTAL HEALTH ASSESSMENT

Using the Protocol for Assessing Community Excellence in Environmental Health (PACE-EH)

2016
October
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgments</td>
<td>4</td>
</tr>
<tr>
<td>Background</td>
<td>5</td>
</tr>
<tr>
<td>Process</td>
<td>6</td>
</tr>
<tr>
<td>Community Survey</td>
<td>10</td>
</tr>
<tr>
<td>Results</td>
<td>13</td>
</tr>
<tr>
<td>Air Quality</td>
<td>14</td>
</tr>
<tr>
<td>Water Quality</td>
<td>17</td>
</tr>
<tr>
<td>Food Safety and Access</td>
<td>19</td>
</tr>
<tr>
<td>Occupational Safety</td>
<td>25</td>
</tr>
<tr>
<td>Healthy Homes and Neighborhoods</td>
<td>27</td>
</tr>
<tr>
<td>Built Environment and Land Use</td>
<td>29</td>
</tr>
<tr>
<td>Climate Change</td>
<td>32</td>
</tr>
<tr>
<td>Community Priority Issues</td>
<td>36</td>
</tr>
<tr>
<td>Next Steps</td>
<td>37</td>
</tr>
<tr>
<td>References</td>
<td>38</td>
</tr>
</tbody>
</table>
Acknowledgments

Summit County and several community partners at the local, state, and federal level across multiple sectors worked together to identify the issues outlined in this report and developed plans for future collaborations to address the identified issues for the purpose of improving quality of life for residents. Summit County Public Health would like to thank the following organizations, municipalities and members of the Summit County Environmental Council for their work on this project:

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In 2011, Summit County Public Health (SCPH) began the first phase of a community-based environmental health assessment (CEHA) using the Protocol for Assessing Community Excellence in Environmental Health (PACE-EH), a community engagement tool designed by the Centers for Disease Control and Prevention (CDC) and the National Association of County and City Health Officials (NACCHO). The assessment set out to identify key environmental health barriers that negatively impact quality of life for Summit County residents. Environmental health is defined as the interrelationship between human health and the overall environment. The "environment" is thought of in two streams: the natural environment (e.g., water sources, air, and land) and the built environment (e.g., highways, communities, housing).

Over the next three years as the definition of public health continued to expand and SCPH evolved to remain responsive to the residents of Summit County, the need to reassess the environment’s impact on health and the quality of life for individuals and communities became apparent. In 2014, SCPH relaunched the PACE-EH assessment to identify the needs of Summit residents and the environmental factors shaping those needs.

As part of the PACE-EH process, SCPH reconvened the Summit County Environmental Council (SCEC), a collaborative of environmental health stakeholders at the local, state, and federal level, to begin defining the scope of the assessment. The SCEC began working on developing a survey of community-specific environmental health issues to identify potential environmental health barriers throughout Summit County. The survey would become the foundation for the process and would provide SCPH and its partners context for the environmental health concerns that community residents perceive as having a negative impact to their quality life.

"At its core, the issue of a clean environment is a matter of public health."

-Gina McCarthy
Process

PACE Model
Using community responses as a catalyst for determining public health priorities, the PACE process employed a 13-part task list to determine community needs. The process outlines how key stakeholders engage communities to identify the environmental health barriers and collaborate to set priorities for action.

Community Capacity
In October 2014, SCPH determined their capacity to undertake the final phases of the assessment. As the PACE assessment was beginning, the 2015 Community Health Improvement Plan (CHIP) update was completed. One of the key conclusions of the CHIP was the need to focus on the intersection of the physical environment and overall population health.

Once the agency capacity was defined, it became important to characterize the community to set the framework for the assessment while providing context for the different populations within Summit County. The initial community survey focused on all 31 municipalities within Summit County. The SCEC served as the environmental health assessment team to guide the process and collaborate on setting priorities for action.

Once the environmental health assessment team convened, they began identifying the goals, objective, and scope. In an effort to create a sustainable, but responsive mechanism to track and measure environmental health issues, SCPH planned to use the community feedback collected from the PACE project to create an annual environmental health report. This second report would take a more comprehensive, programmatic look at important environmental health principles and how they impact the health of Summit County residents annually. Based on this plan, the assessment team determined the following:

Goal
Conduct Phases II and III of Summit County’s PACE Assessment

Objectives
Engage community residents in identifying key environmental health issues that impact quality of life through the Protocol for Assessing Community Excellence in Environmental Health (PACE-EH) model.
Promote collaboration with key stakeholders in addressing these issues
Streamline the issues identified in the PACE Assessment to shape the Environmental Health Report.

Scope
The PACE Assessment will survey residents that live and/or work in the 31 municipalities within Summit County.
Community Survey & Community Action

Using both the emerging issues from the 2015 CHIP update and the issues identified in the first phase of the PACE assessment in 2011, the SCEC began developing a comprehensive list of issues that addressed key environmental health components that impact Summit County residents. The issues presented a robust snapshot of environmental health concerns. To ensure that the issues fell within the definition of environmental health, the SCEC analyzed the initial list to ensure they were truly related to environmental health. The SCEC assessed:

- Were the issues locally appropriate? Would it be a concern to local residents?
- Do the issues fall within the scope of the assessment?
- Does the issue truly represent a relationship between the environment and human health?

Once the issues were compared against these key factors, the SCEC developed a comprehensive community survey. The survey assessed major components of the natural and built environments and assessed perceived quality, quantity, and impact on health.

In an effort to be representative of Summit County, the survey implementation period relied on community partnerships and accessibility in all parts of the county. The survey was shared with over 70 community organizations and 20 community-wide events over a six-month period. Accessibility was a key part of administering the survey and ensuring it reached residents across the county. The assessment team ensured accessibility the following ways:

- **Language**: The survey was published in five different languages; English, Spanish, Karen, Nepali, and Burmese in an effort to be reflective of the languages most spoken in communities across the county.

- **Survey Accessibility**: Making the survey accessible to residents across several platforms allowed for the assessment to reach residents who may not traditionally engage in some public health practices. The survey was administered on several platforms including; websites, email distribution, social media, Quick Response (QR) codes, mobile links, and traditional paper surveys.
Community Survey

The PACE community survey collected a total of 2,210 community surveys from residents in all 31 municipalities. Although an informal assessment structure, the survey goal was set at 1,800 surveys to ensure a representative sample of the county's total population of 541,000 residents.

DEMOGRAPHICS

Understanding the demographics of Summit County and capturing the feedback from residents representative of the county was important in obtaining insight on the issues that matter to residents. The community survey collected key demographic information from residents and planned to stratify the results to identify any disparities that exist between key demographic groups:

- Age
- Gender
- Housing Status
- Household Population
- Race/Ethnicity
- Zip Code

Age

To get a better understanding of the residents taking the survey and to identify potential trends in age groups, residents were asked to record their age group. Residents between the ages of 18 and 20 accounted for 2% of survey respondents who live in Summit County. Residents between the ages of 21 and 29 made up 10% of the total responses and residents between 30 and 39 accounted for 13%. Residents between the ages of 40 and 49 represented 15% of the total survey population while residents between ages 50 and 59 made up about 20% of the total survey population. Residents 60 and older were the largest represented group in the survey responses, representing 23% of the total responses. The graphic below illustrates the age breakdown:
**Gender**

Survey respondents who reported they were Summit County residents were asked to identify their gender to assess if men or women were disproportionately impacted by any environmental health risks and approximately 90% of the respondents indicated a gender. Women made up about 57% of the total resident responses while men made up about 34% of the total resident responses.

**Housing Status & Population**

Housing status is defined as whether a resident owns or rents their primary residence. The results uncovered the importance of quality housing to overall public health. Assessing housing status allowed for comparison to issues related to housing and the environment. About 70% of residents surveyed owned their home while 22% rented their primary residence and about 8% noted they lived in specialty housing (e.g., veteran’s housing, mentor homes).

Residents were also asked how long they lived in Summit County. About 65% of residents surveyed lived in Summit County for 20 or more years. Nearly 15% of residents surveyed lived in Summit County between 10-19 years and about 7% of residents indicated they lived in the county between 5 and 9 years. The remaining 12% lived in Summit County less than 4 years.
Race & Ethnicity
Residents were asked to provide the race and ethnicity they identify with to help understand differences that may exist among certain racial or ethnic groups in terms of environmental health disparities. The graphic below illustrates the race and ethnicity breakdown of Summit County residents in comparison with Summit County demographics according to the 2010 US Census.

Zip Codes
Not every neighborhood, community, or municipality is the same. Summit County has a very diverse landscape from the northern part of the county to the southern portion of the county. There are rural, suburban, and urban communities with different experiences and issues. Residents were asked to indicate their zip code to identify trends in the county. Zip codes, although helpful, do not always tell the complete story of one community. Often some zip codes are shared across municipalities. For example, 44320 is a zip code used in both Copley Township and the western part of Akron which have differences in geographic landscape and demographics. To remedy this, the county was broken into four clusters. The clusters not only categorized like municipalities, but mitigated instances where multiple municipalities shared zip codes. The northern corridor of the county or "North Cluster" primarily includes: Sagamore Hills, Northfield Village, Peninsula, Macedonia, City of Twinsburg, Reminderville, Northfield Center Township, Twinsburg Township, Richfield Township, Richfield Village, Boston Township, Boston Heights Village, and Hudson. The northeast and northwest corners of Akron or "Central Cluster" primarily includes: Bath, Cuyahoga Falls, Stow, Silver Lake, Munroe Falls, Fairlawn, Copley, and Tallmadge. The City of Akron primarily represents "Akron". The southern part of the county
and the Portage Lakes areas make up the "Southern Cluster" and this includes: Norton, Barberton, Coventry, Springfield, Lakemore, Mogadore, Clinton, New Franklin, and Green. In the future, PACE-EH projects may be conducted at the municipality or neighborhood level. The map on the right illustrates the breakdown.

Results

The community survey intended to capture environmental health barriers that exist regarding air, water, and food safety as well as access issues, occupational safety, risk agents, built environment, and climate change. The survey respondents identified the issues that they perceived as key barriers affecting health. The assessment team took the issues and assessed the following in an analytic framework:

Q1: What are the links among health status for the population?
Q2: Which populations are most at risk?
Q3: What health risk(s) are apparent in these issues?

Using this framework, the issues were transformed into indicators. The indicators allowed for the measurement of the issues to track progress or regress.
"The health effects of air pollution imperil human lives. This fact is well documented."

-Representative Eddie Bernice Johnson (D-TX)
Air quality is an important component of human health and when the quality is negatively impacted, it creates negative implications to human health in the form of severe respiratory issues.

**INDOOR AIR QUALITY**

According to the US Surgeon General, poor indoor air quality negatively impacts the nose, throat, and lungs and can lead to chronic health conditions. Clean and healthy air is vital to for everyone. Indoor air quality can be negatively impacted by known sources such as smoking and radon.

*Second Hand Smoke*

Secondhand smoke can drastically affect indoor air quality. Inhaling secondhand smoke can irritate the ear, nose, and throat. Research has shown that secondhand smoke is especially detrimental to pregnant women as it leads to low-birth weight in infants. Approximately 7% of Summit County residents indicated that they believe that indoor quality issues like smoking pose a serious problem to their health. Under Smoke-Free Ohio, SCPH investigates complaints of smoking indoors in commercial facilities. In 2015, SCPH investigated a total of 141 smoking complaints, a 12% increase from 2014.

*Radon*

Radon is a naturally occurring radioactive substance known to be a carcinogen. It can accumulate in the indoor air as it seeps through foundation cracks from the earth below a home. Approximately 6% of residents surveyed, indicated radon was a serious problem. Radon testing data shows that approximately 50% of the homes tested in Summit County exceed the recommended safe limit of radon gas. The Ohio Department of Health (ODH) offers radon testing information on their website at www.odh.ohio.gov/ohprograms/rp/radlic/radout/radonedu.aspx.
OUTDOOR AIR QUALITY

While indoor air quality is confined to fewer individuals at one given time, outdoor air quality is an important component of protecting quality of life. The Clean Air Act is a central component to protecting outdoor air quality.

Within the Clean Air Act, air quality is measured by tracking major air pollutants that are known to be harmful to human health and the environment overall. These pollutants are known as National Ambient Air Quality Standards (NAAQS) and they are correlated to common air quality concerns such as dust and pollution. Each NAAQS has a unique measurement and threshold to protect human health and the environment. Using testing equipment, SCPH utilizes the measurements to determine compliance to the standards set within the Clean Air Act through the United State Environmental Protection Agency (EPA). Regulatory requirements are determined at the state or federal level, based in part on our local air quality data. The NAAQS used to measure outdoor air quality are:

- Carbon Monoxide (CO)
- Lead (Pb)
- Nitrogen Dioxide (NOx)
- Fine Particulate Matter (PM2.5)
- Ozone (O3)
- Sulfur Dioxide (SO2)

Summit County is only required to measure CO, PM2.5, SO2, and Ozone. The community surveyed resident concerns on air pollution which encapsulates most NAAQS and dust in the air, which is measured by fine particulate matter. Approximately 13% of residents surveyed indicated air pollution was a serious problem while 8% indicated odors as a serious problem. Based on the measurements of the NAAQS, Summit County’s air quality has steadily improved with the county in attainment for three out of the four NAAQS. For detailed information on Summit County’s Air Quality, visit the 2015 Annual Report for SCPH’s Akron Regional Air Quality Management District on the ARAQMD website at www.araqmd.org.

Open Burning

Open burning can negatively impact both indoor and outdoor air quality. Approximately 6% of Summit County residents believe that open burning poses a serious threat to their health. In 2015, SCPH received 30 open burning complaints, a 30% increase from 2014.
WATER QUALITY
Water is a basic necessity for life and clean water is vital to sustaining a healthy life and maintaining healthy communities. The community survey assessed resident perceptions on the quality of drinking water, public sewer systems, individual septic systems, groundwater, surface water, natural water, and flooding. The quality of the water we consume is an important component to quality of life and when not treated properly, it can have negative impacts on the health of the public in the form of outbreaks ranging from E.coli to cholera. The water used in modern infrastructure for drinking, bathing, and cooking comes from two major sources:

**Private Water Systems** - As many as 40,000 Summit County households and small businesses rely on private water systems. Private water systems are systems that usually serve fewer than 25 individuals and have fewer than 15 service connections, apartment units and/or business units. Most private water systems in Summit County serve single family homes in the suburban and more rural areas of the county. Private water systems most commonly consist of wells, but can also be a spring, cistern, hauled water storage tank or the least common, pond.

**Public Water Systems** - comprised of two systems; community and non-community. A community water system supplies water to the same population year-round. It serves at least 25 people at their primary residences or at least 15 homes that are primary residences (for example; municipalities, mobile home parks or sub-divisions). Non-community water systems are composed of transient and non-transient water systems. Transient non-community water systems provide water to 25 or more people for at least 60 days/year, but not to the same people on a daily basis (for example, gas stations, campgrounds). Non-transient non-community water systems regularly supply water to at least 25 of the same people at least six month per year, but not year-round (for example, schools, factories, office buildings). In Summit County, community public water systems come from seven major sources: the City of Akron, Aqua Ohio, the City of Barberton, the City of Cuyahoga Falls, the City of Hudson, the Village of Lakemore and the City of Cleveland. These sources serve multiple municipalities within the county.

Approximately 8% of the residents surveyed indicated they perceive the quality of their drinking water to be poor, while 19% noted their drinking water is fair. About 4% of residents indicated a poor quality rating for natural water sources. Residents can have their drinking water tested for bacteria and any substances that can jeopardize the safety of their water. To learn more about how to test drinking water, visit the Water Quality pages of the SCPH website at [www.scphoh.org](http://www.scphoh.org).

To learn more about the quality of drinking water for public water sources for specific municipalities, visit the website of the municipality or call their administrative offices.

"The truly healthy environment is not merely safe but stimulating."
- William Stewart
FOOD SAFETY & ACCESS
**FOOD SAFETY**

Food safety is a core function of protecting the health of the public. The community survey assessed if residents viewed food safety as a serious problem and approximately 6% of Summit County residents surveyed indicated they viewed it as such. Within Summit County, food safety is regulated through the routine inspections of retail food establishments (RFE) which include local grocery stores, and food service operations (FSO) which include restaurants where food is cooked to order and prepared for public consumption.

There are currently 2,055 licensed FSO facilities (.5% increase from 2015) and 760 licensed RFE facilities (a 3% increase from 2015). These facilities are inspected between one to four times per year based on their risk level. In addition to the inspections, facilities are investigated if there is a complaint related to food safety or foodborne illness. In 2015, SCPH investigated 315 complaints, a 31% increase from 2014.

**FOOD ACCESS**

Based on the findings of the 2015 Community Health Improvement Plan (CHIP) update, it became clear that Summit County needed to gain a greater understanding of food access. To understand food access in Summit County, the community survey assessed the availability of locally grown food in stores where residents primarily get their food, any secondary sources of food, the quality of the food they purchase, how long it takes to get to their primary food source, and their usual mode of transportation.

**Primary Food Source**

Residents were asked where they frequently purchase food for their families with the most common options* as follows:

- Convenience Store (e.g.: Dollar General, Family Dollar)
- Gas Station or Food Mart (e.g.: Circle K, Get Go)
- Corner Store (e.g.: local mini-mart)
- Small Grocery Store (e.g.: Aldi)
- Major Grocery Store (e.g.: Acme, Giant Eagle, Marcs)
- Super Grocery Store (e.g.: Target, Walmart)
- Wholesale Club Store (e.g.: BJ’s, Costco, Sam’s Club)

*These food categories were adopted from the Summit Food Coalition
The chart below illustrates the most frequently used food sources by Summit County residents. The survey results showed that Akron residents frequently shop for food for their family in convenience stores, gas stations, local corner stores, and small grocery stores more than the other areas of the county. The northern, central, and southern cluster purchase the majority of their groceries from a major grocery store. Of the 760 licensed retail food establishments in Summit County, 388 of the establishments are classified as primary food sources. The northern cluster of the county accounts for 12% of the primary food sources, the central cluster has 26% of the primary food sources, Akron has 36% of the primary food sources, and the southern cluster has 26% of the primary food sources.

**Primary Food Sources by Cluster**

*Based on the retail food licenses issued by SCPH in 2016*
Secondary Food Source

Food sources can be diverse and often accessibility and geographic landscape can determine secondary sources of food. Residents were asked to identify any secondary sources of food. The secondary food sources were:

- Farmer’s Market
- Home Garden
- Community Garden
- School Cafeteria
- Food Bank or Pantry
- Senior Cafeteria
- Church or Community Organization
- Home-Delivered Service
- Self Sourced (e.g. hunting, fishing)
- Fast Food Restaurant

The following chart illustrates the overall county responses for secondary food sources. The survey results showed that the northern cluster utilized farmer’s markets and cafeterias more than any other clusters in the county for their secondary food source. The southern cluster utilizes home gardens more frequently than the other clusters in the county. The central cluster gets food from fast food companies and restaurants as their secondary food source, and Akron uses community gardens, food banks, and community organizations more frequently than any other cluster in the county for their secondary food source.
While identifying food sources is important, understanding the quality of foods can help decision makers understand why healthier food options are not utilized for meals. Residents were asked to rate the quality of the major food groups sold in their primary food source. Overall, across the county residents rated the quality of fruits, vegetables, proteins, breads, and dairy as “good” quality. The chart below illustrates the county wide ratings of quality based on the community survey. Akron had a higher “poor” rating for their food quality than any other area in the county.
Food Commute

Determining the source and quality tells the story of the food consumed by residents, but a major component of the food access definition is food insecurity. The US Department of Agriculture (USDA) defines food insecurity as a lack of reliable access to healthy and nutritious foods. Reliable can be defined as how one gets to their primary grocery source and how long it takes to get to their food source. Residents were asked how long it takes to get to their primary food source and what mode of transportation they frequently use to get to the primary source. The majority of Summit County residents reported that it takes between five and nineteen minutes to travel to their primary food source and they use their own car to get to there.
“No one should have to sacrifice their life for their livelihood, because a nation built on the dignity of work must provide safe working conditions for its people.”

- Secretary of Labor Thomas E. Perez
Occupational safety is an important component to quality life. Quality of life encompasses not only where one lives, but also where one works. We spend a majority of our waking hours at work and our health and safety at work is very important. For this reason, respondents who work in Summit County but live outside of the county were included in the survey. Approximately 17% of the respondents who work in Summit County indicated they believe there was something where they work that negatively impacts their health. Residents were given the opportunity to provide comments on factors within their workplace they believe are impacting their health. Many of the comments received were related to the air quality of the facilities and the ergonomics of their work space.

**Environmental Risk Agents**

External factors that may be seen as an environmental health risk are important to quality of life and residents were asked if there were things that exist in their neighborhood that they believe may cause illness or adverse health impact. Residents were asked about cancer concerns and chemicals that may be used throughout their neighborhood.

![Environmental Health Risk Agents](image)

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>North Cluster</th>
<th>Central Cluster</th>
<th>Akron</th>
<th>South Cluster</th>
<th>County Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of pesticides or fertilizer a serious problem</td>
<td>17%</td>
<td>14%</td>
<td>12%</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>Industrial pollution a serious problem</td>
<td>6%</td>
<td>8%</td>
<td>14%</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>Prevalence of pests a serious problem</td>
<td>3%</td>
<td>5%</td>
<td>7%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Believes something in their home or neighborhood is causing illness</td>
<td>6%</td>
<td>7%</td>
<td>9%</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Believes something in their neighborhood causes cancer</td>
<td>14%</td>
<td>17%</td>
<td>15%</td>
<td>16%</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Vector**

Vector control within public health is defined as the management and control of mosquitoes, rodents, rabies, and ticks. In northeast Ohio, the common diseases found in mosquitoes are West Nile Virus, St. Louis encephalitis, and LaCrosse encephalitis. In Summit County, the most common disease carrying mosquito is Culex pipiens (commonly known as the Northern House mosquito). Approximately 10.7% of residents surveyed indicated pests like bed bugs and rodents are a serious problem. While bed bugs do not pose a significant public health risk, the associated discomfort can significantly impact quality of life. The control of mosquitoes and pests are tracked throughout the county and the survey revealed that some residents believe that mosquito spraying should expand to other areas of the county. To learn more about the mosquito control in Summit County, visit the Vector/Mosquito Control pages on the Summit County Public Health website at [www.scphoh.org](http://www.scphoh.org).

**Cancer and Illness**

Residents were asked if they believe anything in their home contributes to an illness. Approximately 7% of residents indicated that they believe something in their home does negatively impact their health. The top five comments noted in the survey were related to indoor air quality, industrial pollution, outdoor air quality, mold, and drinking water quality.

Approximately 15% of residents surveyed indicated they believed something in their neighborhood may cause cancer. In 2015, SCPH released the Summit County Cancer Report which tracked certain cancers and their occurrences throughout the county. This report can serve as a resource for residents who have concerns about occurrences of specific types of cancers by specific demographic groups. To learn more, view the 2015 Summit County Cancer Report on the Summit County Public Health webpage at [www.scphoh.org](http://www.scphoh.org).
"When you feel safe in your own community, you are more willing to go outside and engage with your neighbors and be an active community member."
**Neighborhood Appearance**

Public health continues to expand to consider the external and social factors that impact health. Within that idea, the concept of social determinants of health was born. Public health researchers can project not only one’s life expectancy, but their quality of life based on where they live. Factors like prevalence of lead hazards, neighborhood appearance, and abandoned homes in a neighborhood can have a lasting impact on the health of the community and the individual.

According to ODH, lead, which is a neurotoxin, can be extremely toxic to children and can negatively impact the development of virtually every system in the human body. Lead can be found in common household features like paint, soil, water. Lead paint, although banned in the United States in 1978, is still used in toys, jewelry, and cosmetics manufactured overseas. Residents were surveyed and 7% indicated they believed that lead hazards were a serious problem. In 2014, SCPH along with the County of Summit was successfully awarded a grant from the US Department and Housing and Urban Development (HUD) to aide in the abatement and remediation of properties in Summit County built before 1978 with significant lead risk where children younger than the age of six reside. Summit County has over 100,000 homes built before 1980. The program provides subsidized renovations across the county. In 2015, the program completed 84 lead renovations, a 45% increase from 2014.

Although there are no specific indicators that exist for measuring the overall appearance of a neighborhood, 6% of residents surveyed indicate their neighborhood has a "poor" appearance. The top issues noted by residents in the survey that they believe contribute to the poor appearance are property maintenance, abandoned buildings, flooding, traffic safety, and road maintenance. Residents were surveyed on the prevalence of abandoned homes and its perceived impact on their health and 34% of residents surveyed believed it had a significant impact on their health.

**Neighborhood Safety**

Feeling safe in your neighborhood is important for maintaining a healthy lifestyle. Perceived safety can determine if someone will engage in physical activity in their neighborhood and can be a factor that determines how much a community thrives. Neighborhood safety also impacts stress levels for an individual which is a key factor in staying healthy. Social factors like crime, blighted properties, and unsightly structures can cause a negative impact on any neighborhood. Residents were asked how safe they felt walking through their neighborhood during different times of the day. Approximately 6% of residents surveyed felt unsafe in their neighborhood during the daytime. Conversely, 14% of residents felt unsafe during the evening and 26% of residents felt unsafe during the nighttime. Residents noted that the lack of sidewalks, lack of street lights or lights in disrepair, traffic safety, and crime as the top five issues that influenced their perception of neighborhood safety.
BUILT ENVIRONMENT & LAND USE
The Built Environment & Land Use

The built environment falls within the traditional definition of environmental health but this definition continues to expand as we see the landscape of where one lives and works influencing their behaviors and quality of life. Key structural features like sidewalks, trees, parks, and roads that are pedestrian friendly tend to influence a healthier and more physically active lifestyle. The community survey assessed resident perception on land development, abandoned commercial sites, green space, and access to public transportation, sidewalk conditions, and sidewalk availability.

Land development, although positive for economic development and vibrancy throughout a neighborhood, can have an adverse impact on the amount of green space. About 21% of residents surveyed indicated that land development had a major effect on their health while 19% of residents indicated there was too much land development.

Approximately 26.9% residents indicated that abandoned commercial properties had a major impact on their health. The Akron cluster exhibited higher rates of impact with 42.3% of residents in Akron indicating that abandoned commercial properties have a negative impact on their health.

The Akron Metro Regional Transit Authority (RTA) services most of Summit County and provides residents transportation access to resources like grocery stores, medical facilities, educational institutions, and different areas throughout the county. Not all areas have easy access to public transportation. Approximately 7% of residents surveyed indicated that not having public transportation near them was a serious problem. Approximately 19% of residents in the northern cluster showed a higher percentage of lack of public transportation being a serious problem. Because this section borders the greater Cleveland metropolitan area, we can deduce that those residents could mean both in-county and out-of-county public transportation.

Sidewalks not only act as a piece of infrastructure for safety, but also promote physical activity and encourage a pedestrian-friendly community. The concept of built environment looks at sidewalks within the lens of safety and community culture as it relates to physical activity. The survey assessed both the availability of sidewalks and the conditions of sidewalks. While not all communities have or desire sidewalks, in communities where there is a pedestrian-friendly landscape the conditions of the sidewalk are important for safety. Approximately 23% of residents surveyed indicated that the availability of sidewalks is a serious problem while 14% indicated the conditions of the sidewalks are a serious problem. Many of the comments throughout the survey indicated sidewalk conditions and the lack thereof as an issue and safety being a major concern.

Recreation

Physical activity is important to not only improving, but maintaining optimal quality of life. Recreational structures, both indoors and outdoors, provide opportunity for people to engage in physical activity. The survey assessed the quantity of indoor recreation facilities (e.g., gyms, community centers, pools) and outdoor recreation facilities (e.g., parks, trails, pools). Approximately 9% of residents surveyed noted that there were too few indoor recreation facilities and that it was a serious problem. There are approximately 97 indoor fitness clubs in Summit County and 122 indoor swimming pools. Outdoor recreation facilities encompass many different types of facilities. In Summit County there are
11 golf courses, 12 public beaches, 168 outdoor pools, 4 RV park facilities, and 6 resident camps. In addition to these specialty outdoor recreation facilities, there are traditional parks which may include bike paths and trails within each. In Summit County there are four types of parks: municipal, metro, state, and national. Summit County has 229 municipal parks with the majority of them being in larger cities like Akron, Barberton, Cuyahoga Falls, and Hudson. Summit County is home to Summit Metro Parks which is a 14,100 acre area with 16 parks. Summit Metro has approximately 125 miles of trails, 34 miles of the Bike and Hike Trail and approximately 22.4 miles of the Ohio and Erie Canal Towpath Trail. According to the American Community Survey, there are approximately eight state parks, forests, nature preserves, and wildlife areas totaling over 2,600 acres. Cuyahoga Valley National Park is the only national park with portions of its land in Summit County.

**Solid Waste & Sustainability**

Reducing waste through recycling is vital to sustaining a healthy environment. When waste is reused and recycled, the burdens on the landfills are reduced. Residents were asked about the quantity of recycling facilities. Approximately 35% of residents indicated there are not enough recycling facilities. While most municipalities offer some form of recycling, residents that live in multi-unit housing may not have access to recycling. Approximately 9% of residents surveyed indicated not having recycling available to them is a serious problem.
CLIMATE CHANGE
"The environmental consequences of climate change are happening now and are expected to increase in the future."
-Centers for Disease Control & Prevention

Climate Change

According to the CDC, climate change can impact human health in several ways including the impacts from increased occurrences of extreme weather conditions such as wildfire and even a significant decrease in air quality and the increase in prevalence of illnesses transmitted by disease carriers such as mosquitoes and ticks. While climate change impacts the entire population, it can greatly impact subsets of the population including the elderly, young children and those with chronic health conditions. In northeast Ohio, climate change poses great risks to the algae blooms in surface drinking water supplies and expected extremes in weather events.

Approximately 57% of residents surveyed indicated they agree that the world's climate is indeed changing while 34% believe climate change can pose a serious problem to their health and the health of their family. Many residents indicated they can reduce the impacts of climate change through reducing their carbon footprint.
Community Priority Issues
Understanding the Issues

While it would be ideal to mitigate every issue identified through the community survey, the PACE model urges setting realistic goals to develop sustainable solutions. To ensure the solutions developed were sustainable and effective, each issue needed an evidence-based context. This context would ensure everything could be measured. The assessment had to answer the following questions about the issues identified to begin measuring:

What do we need to know and track about the issue?
What are the key indicators that describe the issue?

Based on the survey results and their impact on both human health and environmental health, the following issues were ranked with priority:

- Lack of locally grown food
- Lack of recycling facilities
- Too many abandoned homes
- Too many abandoned commercial properties
- Lack of "green space"
- Implications of climate change

**Lack of Locally Grown Food**

Approximately 53% of survey respondents throughout the county indicated that there was a lack of locally grown food. To measure food access, we used a food environment index score to determine if there are individuals living in poverty with limited access to a grocery store or those without access to a reliable food source. Based on the 2015 CHIP Update, SCPH identified that the food index score for Summit County fell from 7.1 to 6.8 which indicates there are more Summit County residents without reliable food access. Food access has emerged as a key barrier for quality of life across the nation. Lack of access to food has shown to be a detriment to the proper development of children and can also lead to obesity when adequate access to quality food is limited creating a food insecurity which the USDA defines as lack of reliable access to healthy and nutritious foods.

Lack of locally grown food can be compared to the primary and secondary food sources. In addition to identifying what sources are utilized and mapping where these sources are located throughout the county, perception on quality and gathering a greater understanding for what it takes to access healthy and nutritious food tells a greater story of what food access includes. SCPH along with many community partners through the Summit County Community Health Improvement (SCCHI) Coalition have begun developing programs, policies, and initiatives that take a more comprehensive look at food access in Summit County.
Lack of Recycling Facilities
Recycling is vital to sustaining the health of our environment because it reduces our waste production and subsequently decreases our carbon footprint. Approximately 35% of residents surveyed believed there is a lack of recycling facilities throughout the county. Based on data from Summit ReWorks, 30 out of the 31 municipalities in Summit County offer curbside recycling programs and approximately 12 out of 31 have drop-off recycling facilities. Because recycling is available in most parts of the county, recycling education and awareness may be an area of opportunity.

Abandoned Homes
Abandoned and dilapidated homes create an eyesore in communities which in turn can diminish a sense of pride in community. Conversely, abandoned homes create safety and health hazards as they potentially pose risk for lead poisoning, rodent infestation, and safety concerns with broken materials. Approximately 34% of residents surveyed indicated that abandoned homes in their neighborhood have a significant impact on their health.

Abandoned Commercial Properties
Similar to abandoned homes, abandoned commercial properties can create adverse effects on communities. They can impact the economic growth and development of a particular community. About 31% of residents surveyed indicated that abandoned commercial properties have a significant impact on health. Several initiatives exist in Summit County to revitalize communities including the Better Block Initiatives and Complete Streets.

Lack of Green Space
Trees, parks, and gardens or "green space" are important not only for beautification of a community but they offer a space for physical activity and create an added sense of community. When asked about the amount of green space in their neighborhood, 28% indicated there was not enough green space.

Impacts of Climate Change
There is a wide understanding that our climate is changing and that these changes may pose new threats to our health. While this is a global problem which cannot be solved by a lone community, it is an area of concern that needs further examination.

Next Steps
The 2017 Summit County Environmental Health Report (SCEHR) will detail the development of priorities for action and plans to leverage existing county initiatives to improve the quality of life for people living and working in Summit County.
## References

### Data Sources

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* Requires a subscription