

Portage County Community Health Needs Assessment

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Introduction

Kent State University's College of Public Health was contracted by Portage County, Ravenna City and Kent City health departments to conduct a comprehensive, county level community health needs assessment. This needs assessment was conducted to support decision-making by the three health departments as they seek to work together collaboratively to improve public health in Portage County. It also represents a means to support previous recommendations made by the Task Force to Improve Public Health in Portage County (Task Force). Among the four recommendations posed by the Task Force, recommendations two and three that relate to pursuing accreditation through the Public Health Accreditation Board (PHAB) within the next five years, serves as the focus of this report. Below are the four Task Force recommendations.

Task Force Recommendations, February 2012

The Task Force recommended that the leadership of the three boards of health in Portage County:

- 1. Adopt the 10 Essential Public Health Services model the framework for developing and implementing a plan to improve the public health system in the county, and that the Essential Services Matrix should be used to help develop the plan.*
 - 2. Commit to pursuing PHAB accreditation within the next five years.*
 - 3. Immediately begin discussions among themselves to determine which of the possible strategies to become accredited are most likely to lead to success by using the PHAB standards to assess current capacity to meet them and identify what actions are needed to meet them.*
 - 4. After determining the best strategies to become accredited, begin implementing the strategies as quickly as possible.*
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In order for local health departments to pursue accreditation, a pre-application process stipulates three criteria that must be met before an initial application can be submitted. The three criteria for pre-application set forth by the PHAB are as follows:

Public Health Accreditation Board Criteria:

- 1. Completion of a comprehensive community health needs assessment.*
 - 2. Development of a community health improvement plan.*
 - 3. Completion of a department strategic plan.*
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This community health needs assessment forms the basis upon which a community health improvement plan (CHIP) and health department strategic plans can be developed. The needs assessment will inform the three health districts and their governing bodies of the current health status of Portage County residents. Included in the report are both quantitative and qualitative data measures related to the health of the community. The quantitative data include 80 health indicators that can be tracked on an annual basis at the county level. These indicators include demographic information, birth and death measures, social and economic factors, health behaviors, access to health services and factors related to the physical environment.

To interpret the quantitative health measures for Portage County they were compared to peer counties in Ohio, as well as Ohio and U.S. averages. Furthermore, Healthy People 2020 objectives were included as a means to gauge how Portage County compares to health improvement targets that have been set by national experts and to serve as possible goals for the future. Considering the unique resources of health departments, the Kent State team also researched evidence-based practices to identify those indicators that are amenable to improvement through community level interventions that have been shown to be effective.

In addition to the quantitative data analyzed, qualitative data was collected through key informant interviews. Individuals that were interviewed included board of health members, city council members and township trustees.

The results of these analyses were compiled in order to assist the Portage County, Ravenna City and Kent City health departments in setting priorities that can be incorporated into a health improvement plan for the community and individual strategic plan for the three health departments. The needs assessment can also serve as a tool to educate decision makers and community stakeholders with regard to health issues within the community.

Methods

1.1 About the Data

The Portage County Community Health Needs Assessment utilized data from four sources. First, eighty (80) indicators were compiled from two independent sources: *The University of Wisconsin's County Health Rankings & Roadmaps* and *The U.S. Department of Health & Human Services' Community Health Status Indicators*. Each of these sources is easily accessible and is updated annually to allow for in-depth monitoring and trend analyses. Each source also includes state and national averages as a source of further comparison.

In addition to these two data sources, Healthy People 2020 health improvement targets were included, if available, for each of the indicators. These targets have been used by many communities and the nation as future goals to be achieved. Finally, key informant interviews were conducted to obtain opinions and perceptions of leaders within Kent, Ravenna and Portage County.

County Health Rankings

According to their website, the *County Health Rankings* report ranks the health of nearly every county in the nation and includes indicators that measure many of the factors that impact health status in the community. *The Rankings* confirm the critical role that factors such as education, jobs, income, and environment play in influencing the health of populations. (CHR, 2012).

The *Rankings*, published by the University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation, help counties understand the factors that influence people's health and longevity. The *Rankings* look at a variety of measures that affect health such as the rate of people dying before age 75, high school graduation rates, access to healthier foods, air pollution levels, income, and rates of smoking, obesity and teen births. The *Rankings* are based on the latest data publically available for each county and are unique in their ability to measure the overall health of each county in all 50 states based on the multiple factors that influence health. The County Health Rankings website also offers a set of resources for local health departments in the areas of accreditation, health policy and health equity. These resources can be found in Appendix 4.

Community Health Status Indicators

According to the Community Health Status Indicators (CHSI) website, the goal of this dataset is to provide an overview of key health indicators for local communities and to encourage dialogue about actions that can be taken to improve a community's health. The CHSI report was designed not only for public health professionals but also for members of the community who are interested in the health of their community.

The CHSI report provides a tool for community advocates to see, react, and act to create a healthier community. The report can serve as a starting point for community assessment of needs, quantification of vulnerable populations, and measurement of preventable diseases, disabilities, and deaths.

A distinctive aspect of this report is the ability to compare a county with its peers, or counties similar in population composition and selected demographics. The “peer counties” used in this report are matched comparisons that are statistically comparable to Portage County on the basis of population density, population size, race/ethnicity, age and poverty. The Community Health Status Indicators report provides peer counties within the State of Ohio as well as across the United States. For the purpose of this analysis, Greene and Wood Counties were selected to serve as comparison counties (CHSI, 2012).

Healthy People 2020

Healthy People 2020 provides science-based, 10-year national objectives for improving the health of all Americans. For three decades, Healthy People has established benchmarks and monitored progress over time in order to: encourage collaborations across communities and sectors, empower individuals toward making informed health decisions and measure the impact of prevention activities. Healthy People 2020 objectives were included in this analysis in order to provide health departments within Portage County with quantifiable goals for many of the indicators described in the data (Healthy People, 2020).

Key Informant Interviews

In addition to the data analyzed from the County Health Rankings and Community Health Status Indicators datasets, key informant interviews were conducted as means to gather further information and perceptions regarding health needs in Portage County, Ravenna and Kent. The interviews were conducted with four interviewees selected by each health department including board of health members, city council members and township trustees. The interviews were intended to supplement the quantitative data collected by providing insights from informed observers regarding perceived public health needs in Portage County. The interviewees were asked a series of questions regarding their opinions related to the health needs of Portage County residents and the extent to which they believe the local health departments are able to adequately address those needs. They also provided useful information regarding factors that act as barriers to the health departments and create challenges that make it difficult for them to address certain needs. The complete listing of the questions used can be found in Appendix 3.

1.2 Data Collection & Organization

Data were collected for Portage, Greene, and Wood counties, Ohio as a whole and the United States. Eighty (80) indicators were selected for the final analysis. The two data sources grouped the indicators into 16 different categories, as shown below.

<i>County Health Rankings Categories</i>	<i>Community Health Status Indicators Categories</i>
<i>Demographics</i>	<i>Mortality</i>
<i>Summary Measures of Health</i>	<i>Morbidity</i>
<i>Measures of Birth</i>	<i>Health Behaviors</i>
<i>Infant Mortality</i>	<i>Clinical & Related Conditions</i>
<i>Death Measures</i>	<i>Social & Economic Factors</i>
<i>Vulnerable Populations</i>	<i>Physical Environment</i>
<i>Environmental Health</i>	
<i>Preventative Service Use</i>	
<i>Risk Factors for Premature Death</i>	
<i>Access to Care</i>	

For this analysis, all of the indicators were reorganized into the six categories shown below for ease of comparison.

<i>Portage County Community Needs Assessment Data Categories</i>
<i>Demographics</i>
<i>Mortality & Morbidity</i>
<i>Health Behaviors/ Risk Factors</i>
<i>Social & Economic Factors</i>
<i>Access to Care/ Quality of Care</i>
<i>Physical Environment/ Environmental Health</i>

1.3 Data Analysis

The health status data were analyzed by the Kent State team, including one of the College of Public Health’s biostatisticians. The analytic process involved comparing Portage County rates to four comparison points: rates of two peer counties, the state of Ohio and the U.S. and then designating each indicator based on a measure of magnitude of need. The counties used to compare the Portage County data were selected by the U.S. department of Health and Human Services based on the fact that they had similar demographic characteristics. For example, they were similar in terms of population size, population density, ethnic makeup, and age distribution. The two peer counties used in this analysis were Greene and Wood counties, both located in Ohio.

Magnitude of need was determined by counting the number of times a Portage County indicator compared unfavorably to the four comparison jurisdictions (i.e., two peer counties, Ohio and U.S.). The indicators were grouped together into tiers based on how Portage County ranked against the comparison points. First tier indicators are those indicators in which Portage County had a rate that was unfavorable compared to all four comparison points. Second tier indicators are those that Portage County had rates that compared unfavorably to three of the comparison points. Finally, third tier indicators were those which Portage County’s rates compared unfavorably to two of the comparison points. The analysis also identified areas in which Portage County’s rates were better than the peer counties, state and national averages. Healthy People 2020 targets are also included for many of the indicators to show how Portage County rates compare with the national health improvement targets.

Results

2.1 First Tier Health Indicators

The following indicators are those where Portage County rates compared unfavorably to all four of the comparison points: Green County, Wood County, Ohio and U.S. averages. Healthy People 2020 targets are also included where applicable for illustrative purposes.

For each indicator the unit of analysis is given. For example, the stroke indicator of 59.3 per 100,000 means that for every 100,000 people living in Portage County, 59.3 of them suffered a stroke during the year the measure was taken. For adult smoking, 28% means that 28% of all adults living in the county at the time the measure was taken were smokers.

First Tier Indicators		
Category	Indicator	Portage County Rate
Morbidity & Mortality	Stroke (per 100,000)	59.3
	Colorectal Cancer (per 100,000)	21.1
Health Behaviors/ Risk Factors	Adult Smoking (% of adults)	28%
Access to Care/ Quality of Care	Preventable Hospital Stays (per 1,000 Medicare patients)	84
	Dentists (per 100,000)	29.5
	Primary Care Physicians (per 100,000)	41
	Access to recreational facilities (per 100,000)	7.6
Physical Environment/ Environmental Health	Fast food restaurants (% of all restaurants)	60%

Mortality & Morbidity

Stroke

	Portage	Greene	Wood	Ohio	U.S.	Healthy People 2020
Stroke (per 100,000)	59.3	57.7	50.5	42.2	42.2	33.8

Source: Community Health Status Indicators

The rate for stroke in Portage County was higher than the rate for all four of the comparison points, suggesting that this health condition represents a more serious health threat to county residents than it does in similar counties and the state and nation as a whole. Stroke is a leading cause of death in the United States. Over 800,000 people die in the U.S. each year from cardiovascular disease and strokes. A stroke, sometimes called a brain attack, occurs when a clot blocks the blood supply to the brain or when a blood vessel in the brain bursts. Risk factors for stroke include high blood pressure, high cholesterol, heart disease, diabetes, being overweight or obese, alcohol and tobacco use, and physical inactivity. The good news is that there are effective strategies for reducing stroke that can be implemented in Portage County (see Priority Setting Resources section below). Efforts to identify and reduce the prevalence of risk factors can reduce the incidence of stroke for individuals and communities (CDC, 2012).

Colorectal Cancer

	Portage	Greene	Wood	Ohio	U.S.	Healthy People 2020
Colon Cancer (per 100,000)	21.1	13.5	18	18.9	17.5	14.5

Source: Community Health Status Indicators

The rate for colorectal cancer in Portage County was higher than the rate for all four of the comparison points, suggesting that this health condition represents a more serious health threat to county residents than it does in similar counties and in the state and nation as a whole. Of cancers affecting both men and women, colorectal cancer is the second leading cancer killer in the United States. Risk factors for colorectal cancer include Inflammatory bowel disease, a family history of colorectal cancer, lack of physical activity, low fruit and vegetable intake, low fiber/high fat diet, overweight and obesity, alcohol consumption and tobacco use. Colorectal cancer can be prevented and the effects mitigated with regular screenings. There are effective strategies that have been shown to reduce colorectal cancer (see Priority Setting Resources section below). In fact, if everybody aged 50 years or older had regular screening tests, as many as 60% of deaths from colorectal cancer could be prevented (CDC, 2012).

Health Behaviors/ Risk Factors

Adult Smoking

	Portage	Greene	Wood	Ohio	U.S.	Healthy People 2020
Adult Smoking (%)	28%	19%	13%	22%	20%	12%

Source: County Health Rankings

The rate for adult smoking in Portage County was higher than the rate for all four of the comparison points, suggesting that this negative health behavior is more widespread among county residents than among residents of similar counties and in the state and nation as a whole. Smoking has been identified as a risk factor for many chronic diseases such as cancer, heart disease, stroke and chronic obstructive pulmonary disease. Additionally, secondhand smoke causes many health problems in infants and children such as severe asthma attacks, respiratory infections, ear infections and sudden infant death syndrome (SIDS). Secondhand smoke can also cause heart attacks in adults. A number of effective interventions exist (see Priority Setting Resources section below) to reduce adult smoking rates implemented at both individual and community levels to reduce the approximately 443,000 preventable deaths that occur in the U.S. each year (CDC, 2012).

Access to Care/ Quality of Care

Preventable Hospital Stay Rate per 1,000 Medicare Enrollees

	Portage	Greene	Wood	Ohio	U.S.
Preventable Hospital Stay Rate	84	52	81	78	49

Source: County Health Rankings

The preventable hospital stay rate for Portage County compared unfavorably to all four of the comparison points. Preventable hospital stays are measured as the hospital discharge rate for ambulatory care-sensitive conditions per 1,000 Medicare enrollees. These are conditions that could be treated in outpatient settings and should not require hospitalization. Hospitalization for diagnoses amenable to outpatient services suggests that the quality of care provided in the outpatient setting was less than ideal. The measure may also represent the population’s tendency to overuse the hospital as a main source of care (CHR, 2012).

Dentists per 100,000 Population

	Portage	Greene	Wood	Ohio	U.S.
Dentists	29.5	57.8	34.3	53	60

Source: Community Health Status Indicators

The number of dentist in Portage County per 100,000 population compared unfavorably to all four of the comparison points, suggesting that dental care services may be more difficult to obtain for county residents than in similar communities. Access to dental services is important for the health of every community. Oral diseases ranging from dental caries (cavities) to oral cancers cause pain and disability for millions of Americans. The impact of these diseases does not stop at the mouth and teeth. A growing body of evidence has linked oral health, particularly periodontal (gum) disease, to several chronic diseases, including diabetes, heart disease, and stroke. In pregnant women, poor oral health has also been associated with premature births and low birth weight. These conditions may be prevented in part with regular visits to the dentist. In 2007, however, only 44.5% of people age 2 years and older had a dental visit in the past 12 months, a rate that has remained essentially unchanged over the past decade (CDC, 2012).

Primary Care Physicians per 100,000 Population

	Portage	Greene	Wood	Ohio	U.S.
Primary Care Physicians	41	106.8	83.8	118.2	120

Source: Community Health Status Indicators

The number of primary care physicians in Portage County per 100,000 population compared unfavorably to all four comparison points, suggesting that primary care services may be more difficult to obtain for county residents than is the case in similar counties. Evidence suggests that access to effective and timely primary care has the potential to improve the overall quality of care and help reduce health care costs. Primary care physician supply is associated with improved health outcomes ranging from reduced all-cause, cancer, heart disease, stroke, and infant mortality; a lower prevalence of low birth weight; greater life expectancy; and improved self-rated health. Each increase of one primary care physician per 100,000 population is associated with a reduction in the average mortality by 5.3% (CHR, 2012).

Physical Environment/ Environmental Health

Access to Recreational Facilities per 100,000 Population

	Portage	Greene	Wood	Ohio	US
Rate of Recreational Facilities (per 100,000)	7.6	11	12	10	16

Source: County Health Rankings

The rate of recreational facilities per 100,000 population in Portage County compared unfavorably to all four of the comparison points. This rate is calculated using the most current County Business Patterns data set which is measured by the United States Department of Agriculture (USDA) Food Environment Atlas. Recent research demonstrates a strong relationship between access to recreational facilities and physical activity among adults and children. Studies have demonstrated that proximity to places with recreational opportunities is associated with higher physical activity and lower obesity levels. There are a number of effective strategies that could be implemented to increase access to recreational facilities (see Priority Setting Resources below). Access to recreational facilities can be improved by locating them closer to homes and schools, lowering costs to use the facilities, increasing hours of operation, and ensuring access to people with various ability levels and limitations (CHR, 2012).

Fast Food Restaurants

	Portage	Greene	Wood	Ohio	US
Fast food restaurants (% of all restaurants)	60%	55%	52%	55%	25%

Source: County Health Rankings

The percentage of restaurants in Portage County that are considered fast food establishments compared unfavorably to all four of the comparison points. Though research on the food environment is still in its early stages, there is strong evidence that access to fast food restaurants and residing in a food desert (i.e. lacking access to healthy foods) correlate with a high prevalence of overweight, obesity, and premature death. Literature indicates that the number of kilocalories consumed daily has been on an increasing trend over the past several decades. This problem can be partially attributed to the increasing trend of consuming more food prepared outside of the home, from restaurants and grocery stores. Among most child age-groups, fast food restaurants are the second highest energy provider, second only to grocery stores. According to one meta-analysis, obesity was associated with a fast food environment. Several studies saw an increase in obesity and diabetes prevalence with increased access to fast food outlets (CHR, 2012).

2.2 Second Tier Indicators

Although the first tier indicators may warrant attention due to the fact that the rates for Portage County compared unfavorably to all four of the comparison points, there are other indicators that may be appropriate to address as well. The list below highlights the indicators in which Portage County's rates are unfavorable compared to three of the comparison points, in any combination. These are referred to as Second Tier Health Indicators¹.

¹ Definitions of indicators and comparison county, state and national rates are located in Appendix 1

Second Tier Health Indicators		
Category	Indicator	Portage County Rate
Morbidity & Mortality	All causes of death (per 100,000)	872.5
Health Behaviors/ Risk Factors	Physical Inactivity (% of adults)	29%
Access to Care/ Quality of Care	Mammography screening (% of women aged 50+ yrs)	65.5%
Social & Economic Factors	Children in poverty (% of children)	18%
	Single parent households (% of all households)	29%
Physical Environment/ Environmental Health	Limited access to healthy food (% of zip codes with healthy food outlets)	14%

Source: Community Health Status Indicators, County Health Rankings

2.3 Third Tier Health Indicators

The Third Tier Health Indicators are those indicators in which Portage County had rates that were unfavorable compared to two of the benchmarks. These indicators are found in Appendix 2.

2.4 Portage County Positive Outcomes

Although the primary intent of this needs assessment is to highlight the potential priority health areas within Portage County, it is also important to identify health indicators in which Portage County fares well when compared to comparison counties, the state and the nation. These indicators are listed below. Since a number of these indicators are related to some of the Tier One or Tier Two health indicators, the question may arise as to why Portage County appears to be doing well in some areas but poorer in other, related areas. For example, obesity, high blood pressure and the lack of exercise are all known to be risk factors for stroke, yet the rates for the former indicators compared favorably to all four comparison points. One possible explanation is that although the Portage County rates compared favorably to the comparison points they may still fall short of the Healthy People 2020 targets, suggesting that there is still room for improvement in these areas.

Portage County Positive Outcomes	
Category	Indicators
Morbidity & Mortality	Average life expectancy
	Infant mortality
	Post neonatal mortality
	Homicide (per 100,000)
	Motor vehicle injuries (per 100,000)
	Hepatitis A reported cases
	Measles reported cases
	Congenital Rubella Syndrome reported cases
	Poor mental health days
	Health Behaviors/ Risk Factors
Obesity	
Adult obesity	
High blood pressure	
Very Low Birth Weight	
Premature births	
Births to women <18 (%)	
Births to women 40-54 (%)	
Chlamydia infections (per 100,000)	
Gonorrhea infections (per 100,000)	

	Syphilis infections
Social & Economic Factors	High School graduation (%)
	Inadequate social support (% without)
Physical Environment/ Environmental Health	E. Coli reported cases
	National Air Quality Standards
	Air pollution-particulate matter days
	Air pollution-ozone days

Source: Community Health Status Indicators, County Health Rankings

2.5 Key Informant Interview Analysis - Community Health Needs

As seen in the following table, the key informant interviews yielded a variety of results relating to public health needs and the social determinants of health within the county. Social determinants of health relate to factors within a community that influence public health, such as public education on health related issues and access to health care. The first column in the table identifies the jurisdiction the interviewees were referring to in relation to health needs. Therefore, the needs identified for Kent are in the Kent row, Ravenna needs in the Ravenna row, and Portage County needs, as identified from all jurisdictions, in the Portage County row. The second column of the table shows the interview responses that were consistent with the findings from the quantitative data analysis. The interviewees identified smoking, obesity, nutrition, access to recreational facilities and quality of life as issues that negatively impact the health status of Portage County residents. Several of these factors were also identified as first tier health indicators in the quantitative data analysis. The third column was created to identify any of the health needs that were mentioned in the interviews that were not highlighted in the quantitative data analysis. These additional health issues supplement the quantitative review by providing further insight into potential needs within the county.

Health Needs Identified by Jurisdiction		
Jurisdiction	Consistent with Quantitative Data	Not Identified by Quantitative Data Analysis
KENT	<ul style="list-style-type: none"> 1) More recreational facilities/ options 2) Expansion of nursing services 3) Services to those in need 4) Raise the quality of life for community 	<ul style="list-style-type: none"> 1) Public education 2) Stress management 3) Stronger sense of community 4) Urban infrastructure 5) Internal organization assessment (of KHD) 6) Closer knit health-care delivery system 7) Student health care 8) Student housing 9) Expansion of epidemiology services 10) Assessing city level needs 11) Doing community level research 12) Community involvement/support
RAVENNA	<ul style="list-style-type: none"> 1) Obesity (as risk factor) 2) Smoking 3) Diabetes (as risk factor) 4) Nutrition 	<ul style="list-style-type: none"> 1) Immunizations 2) Dog and animal issues (bites, waste) 3) Sanitation (in homes) 4) Prevention 5) Senior health 6) Providing the 10 Essential Services 7) Vital statistics

PORTAGE	<ul style="list-style-type: none"> 1) Smoking 2) Obesity (as risk factor) 	<ul style="list-style-type: none"> 1) Ability for health department to assess problems 2) Epidemiology services/ ability to do research 3) Public awareness of public health 4) Funding issues 5) Food inspections 6) Immunizations 7) Emergency Preparedness 8) Prevention 9) Catastrophic illnesses 10) Nutrition in schools 11) Mental health 12) Providing the 10 Essential Services
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2.6 Key Informant Interview Analysis - Community Resources

As a part of the interview process, respondents were asked to identify organizations or individuals that can help address the priority needs identified in the previous section. The following table describes the findings from this question:

Community Resources (Organizations & Individuals)		
Jurisdiction	Organizations/ Individuals that can help address priority needs	
KENT	Kent State University-College of Public Health; Community Health Center of Portage County; Non-profits;	211 Information and Referral Centers; Local Hospitals; Federal Funding Sources;
RAVENNA	Local Hospitals; Townhall II; Planned Parenthood; NEOMED; Kent State University; The Ohio State University extension;	Local Health Departments; City Departments; Religious Organizations; Emergency Management Agencies; Department of Homeland Security; Children’s Initiatives
PORTAGE	Schools, Daycares; Churches; Local Hospitals; 4H Groups; Rotary; Kent State University; NEOMED;	Hiram College; County Commissioners; Task Force for Improving Public Health in Portage County, Health Departments (HDs); Township Trustees; Private Industries

Respondents were also asked about what was currently being done to address the priority needs. The responses from this question are compiled below:

Current Functions to Address Identified Health Needs		
Jurisdiction	What is currently being done to address perceived priority Public Health needs	
KENT	KHD designing strategic plan; KHD and PCHD nursing services contract; Exploration of collaboration with public health agencies;	Collaborations with Kent State’s College of Public Health; Farmer’s Market; Urban development of downtown

RAVENNA	Public education (health education); Scaling down (providing minimal services); Nurse provides inoculations through PCHD and RHD contract; Task Force for Improving Public Health in Portage County; County drinking and driving program;	Education programs; Farmer’s Market; Senior Health Center (need more coordination); Environmental inspections (sewer, wells, food, swimming pools); Vital Statistics
PORTAGE	Health Education (of the general public); Nursing services: immunizations; Environmental: septic inspections, solid waste program, plumbing inspections;	Exploration of collaboration/consolidation; Vital Statistics (available to county residents through Ravenna and Kent health depts.)

In addition to identifying key organizations/ individuals and what is currently being done to address the health needs of the community, the interview also sought to identify what each individual health department did well and what could be done to sustain their current strengths.

LHD Successful Functions / Recommendations for Sustainability

Jurisdiction	What LHDs Do Well	Recommendations for Sustainability
KENT	Environmental health testing; Water treatment lab support; Commitment to quality housing for students; Day-to-day issues (within health department); Quality of life; Nuisance complaint issues; Landlord and trash issues (housing); Keeping BoH informed of HD activities; Good leadership / addressing internal organizational issues; Quality improvement (services); Improved partnership with Farmer’s Market; Immunizations; Community support; Strong staff	
RAVENNA	Vital statistics; Immunizations; Farmer’s Market Education Programs; Link people to resources	Increase funding; Increased collaboration or consolidation between health departments
PORTAGE	Runs efficiently; Environmental health and food services; Nursing services: immunizations and disease reporting; Newborn and early childhood programs; Containing outbreaks/ emergency response; Maintaining level of services without increase in funding; Creativity in contracting outside sources	Continue to be open to suggestions to make improvements / change; Public education /awareness (of the importance of Public Health and PH agencies); Continue to work with Task Force and explore consolidation and collaboration; Seek grant funding; Continued leadership within HD (staff and management)

Respondents were asked to identify areas in which their respective health departments do not perform well. These answers were also accompanied with suggestions for improvement. All of the suggestions in this particular sector mirrored the recommendations for sustainability in the previous section. Therefore, these suggestions were not reiterated in the following table.

LHD Unsuccessful Functions		
Jurisdiction	What HDs do not do well	
KENT	Cannot do 10 Essential Services; Internal paper records system; Public Relations (promoting the health department);	Duplication of services and lack of partnerships; College housing issues; Understaffed
RAVENNA	Not able to get out in the community as much as needed (nursing, education, other services provided outside of the department office); Education (health issues);	Poor image (stigma that health departments only provide services to indigents); Not enough services offered
PORTAGE COUNTY	Funding; Focus on mandated services; Collaboration between HD; Poor public Image (view that PCHD is punitive);	Public Relations (promoting the health department); Not enough preventative services; Lack of political support

2.7 Key Informant Interview Analysis- Challenges

The interviewees identified challenges that exist as barriers to addressing the community's health needs. These challenges exist at multiple levels and differ between health departments. The results are shown below:

Challenges/Barriers to Addressing Health Needs	
Jurisdiction	Barriers to addressing Public Health Needs
KENT	Jurisdictional restraints (relating to how health departments are funded); Funding; Education; Lack of Resources; Need to better understand the unique resources of other HDs; Inadequate state support; Increasing demands from state on HDs; Lack of political will and consensus related to collaboration between HDs
RAVENNA	Funding; Inability to provide resources to the community to address needs; Lack of sufficient cooperation between HDs; In a transition period: Unsure of where health system is heading
PORTAGE COUNTY	Lack of funding; Lack of public education (health issues); Poor public relations (need for department to promote itself and its mission); Negative image (view that PCHD is punitive in nature); HD access to rural areas; Lack of collaboration; Politics

Respondents were also asked to list potential ways to work through the barriers identified. Among the responses, the most popular included: (1) Collaboration/ Consolidation between local health departments (2) Public education (3) Collaboration with other agencies (other than the three local health departments) (4) Seek additional funding (5) Engage Kent State University and seek help from volunteers (6) Enlist a small group of people (a panel of three independent people) to discuss and facilitate collaboration/consolidation (7) Better public relations/communications.

Conclusion

Our review of the quantitative county level data suggests that Portage County may be experiencing health risks in the following areas that are greater than comparable counties, state and national averages:

- Stroke
- Colorectal Cancer
- Adult Smoking
- Preventable Hospital Stays
- Lack of Primary Care Physicians
- Lack of Dentists
- Access to Recreational Facilities
- Fast Food Restaurants

Other areas where Portage County indicators are unfavorable compared to the benchmarks include: All Causes of Death, Physical Inactivity, Mammography Screenings, Children in Poverty, Single-Parent Households and Limited Access to Healthy Food.

In addition, the key informant interviews of approximately a dozen individuals who work or have experiences in a number of sectors, suggested additional potential areas of need in a variety of categories including: Prevention and education efforts, expanded nursing and epidemiology services, nutrition, mental health, senior health, food inspections, immunizations and emergency preparedness.

These findings can contribute positively to discussions among Portage County health professionals about areas in which future public health improvement and/or collaborative efforts can be focused.

Priority Setting Resources

3.1 Evidence Based Practices

The Kent State team reviewed the *Community Guide to Preventive Services* and the Agency for Healthcare Research & Quality's *Guide to Clinical Preventative Service* to compile information on effective interventions to address the health needs identified as first tier health indicators. These two resources describe strategies that have been rigorously studied and shown to be effective in improving health status and/or reducing risk factors associated with poor health. Each source offers recommendations based on their systematic review of the literature to determine which interventions work and which do not. The Community Guide utilizes an approach that stipulates whether an intervention is recommended, not recommended, or whether insufficient evidence is available to prove an intervention works. The Clinical Guide utilizes a similar approach but differs in that it grades interventions A, B, C or D to demonstrate the effectiveness of the intervention. The following

interventions are recommended by one or both of the guides as scientifically supported interventions for communities and/or providers.

Below is a summary of the recommendations found in the two Guides. The Guides should be carefully reviewed to determine which of the recommended interventions should be included in the community health improvement plan (CHIP) and departmental strategic plans developed by the three health departments.

First Tier Indicator #1: Stroke

The Community Guide recommends team-based care to improve blood pressure control. “Team-based care to improve blood pressure control is a health systems-level, organizational intervention that incorporates a multidisciplinary team to improve the quality of hypertension care for patients. Team-based care is established by adding new staff or changing the roles of existing staff to work with a primary care provider” (The Community Guide, 2012).

Each team includes the patient, the patient's primary care provider, and other professionals such as nurses, pharmacists, dietitians, social workers, and community health workers. Team members provide process support and share responsibilities of hypertension care to complement the activities of the primary care provider. These responsibilities include medication management; patient follow-up; and adherence and self-management support.

The Guide to Clinical Preventative Services recommends that every adult age 18 and older gets screened for high blood pressure as a means to detect and identify any potential threats and implement treatment/lifestyle changes if necessary (The Guide to Clinical Preventative Services, 2012).

First Tier Indicator #2: Colon Cancer

The Community Guide recommends six actions to help prevent colon cancer. The first recommendation is a client oriented intervention and includes the use of client reminders to promote colon cancer screenings. These reminders can include written or spoken correspondence and can be enhanced when coupled with follow-up reminders, text or discussion regarding benefits of screenings, ways to overcome barriers to screenings and assistance with scheduling appointments. These interventions can target entire populations or can be tailored based on individual or cultural characteristics.

The second recommendation from The Community Guide includes the use of small media to encourage individuals to get screened for colon cancer. These materials are designed to help motivate and educate members of the community about the importance of colon cancer screenings. Like the first recommendation, this type of intervention can also be tailored to meet the needs of the targeted population.

As a means to support the previous recommendations, one-on-one education components can work in correspondence with other interventions such as small media and patient reminders. This format allows the patient to voice potential concerns/ barriers therefore letting the healthcare worker to tailor their message according to individual assessment or outcome of interest. This education component can be delivered in a variety of settings such as in the doctor’s office, over the phone, worksite locations and other healthcare facilities.

The fourth recommendation posed by The Community Guide is “reducing structural barriers.” Structural barriers are non-economic burdens or obstacles that make it difficult for people to access cancer screening (The Community Guide, 2012). Potential opportunities to reduce these structural barriers include: 1) Reducing time or distance between service delivery settings and target populations 2) Modifying hours of service to meet client needs 3) Offering services in alternative or non-clinical settings 4) Eliminating or simplifying administrative procedures and other obstacles (i.e., scheduling, transportation, limiting the number of clinic visits) (The Community Guide, 2012). Just like the other

interventions, this approach can be used successfully in coordination with one or more of the aforementioned interventions.

The fifth recommendation shifts the focus from the patient to the provider. Provider Assessment and Feedback initiatives allow providers to be evaluated on the basis of delivery and performance measures. These measures may be compared to a goal or standard and allow for quality of care initiatives to be assessed. This type of intervention allows providers to identify areas in which improvement of delivery methods could potentially improve patient outcomes.

The final recommendation from The Community Guide is Provider Reminder and Recall Systems. As patient reminders are successful in screening compliance, provider reminders can help inform a health care provider that it is time for a patient's screening, or that a patient is overdue for a screening. This contributes to the patient-provider relationship and ensures that both parties are operating consistently with the health of the patient at the center of practice.

The Guide to Clinical Preventative Services recommends that Colorectal Cancer be screened using the following methods: fecal occult blood testing, sigmoidoscopy or colonoscopy. The Guide also recommends that these screenings should begin at age 50 and generally continue until age 75 (The Guide to Clinical Preventative Services, 2012).

First Tier Indicator #3: Adult Smoking

To prevent adult smoking, The Community Guide has put forth several recommendations. The first recommendation is a policy level approach that suggests increasing the unit price of tobacco products as a means to increase tobacco use cessation. This intervention can be enacted through municipal, state or federal legislation that raises the excise tax on such products, thus making use of tobacco products less attractive. Furthermore, states that have enacted such policies have been able to use revenue to support further preventative efforts regarding tobacco use.

Another option recommended by The Community Guide is the use of mass media campaigns. These campaigns use "brief, recurring messages to inform and motivate tobacco users to quit" (The Community Guide, 2012). The Community Guide recommends that these mass media interventions be used in conjunction with other interventions such as an excise tax or other educational campaigns.

The third recommendation implements technological advances as a means to help increase tobacco use cessation. Mobile phone-based cessation interventions utilize interactive features, mostly from text messages, to provide participants with support in their efforts to quit smoking/using tobacco products. The information delivered in this type of intervention is evidence-based and can be adapted for specific populations or tailored to the needs of an individual. Once again, the success of this intervention can be increased when used in coordination with other types of evidence-based interventions or the provision of medications used to help deal with the symptoms of quitting.

A fourth recommendation posed by The Community Guide, is Provider Reminders. This entails health care providers tracking their patient's tobacco use and discussing and advising patients as necessary. This type of intervention is usually combined with other approaches but ensures that the health care provider is a participant in the patient's quitting efforts.

One of the interventions often paired with provider reminders is provider education. These types of interventions provide strategies to providers on how to identify and intervene with tobacco using patients. This strategy ensures that the provider uses the most up-to-date strategies and information when attempting to persuade or assist a patient with quitting.

The sixth recommendation posed by The Community Guide is to reduce out-of-pocket costs for evidence-based tobacco cessation treatments. These treatments could include counseling, medication or other evidence-based treatments. Reducing the cost of these treatments could help those individuals who once were deterred by financial restraints to implement a cessation strategy that fits their individual and unique needs.

Multicomponent interventions that include telephone support is another evidence-based strategy posed by The Community Guide. These multicomponent interventions provide people who use tobacco products with cessation counseling or assistance in initiating or maintaining abstinence via telephone. Telephone support can be reactive (tobacco user initiates contact) or proactive (provider initiates contact or user initiates contact with provider follow-up). Telephone support includes the use of trained counselors, health care providers, or taped messages in single or multiple sessions. Sessions usually follow a standardized protocol for providing advice and counseling, and the telephone support component is usually combined with other interventions, such as client education materials, individual or group cessation counseling, or nicotine-replacement therapies (The Community Guide, 2012).

Although smoking is harmful to the smoker, there are also many risks to those that reside in close proximity and breathe second-hand smoke on a regular basis. As a means to reduce the harmful effects to non-smokers, smoking bans and restrictions are effective tools that have and continue to be used as a means to negate negative health effects caused from second-hand smoke. An example of this type of intervention is any policy, regulation or law that limits smoking in public places such as the workplace and restaurants.

Because smoking and other tobacco use habits are often adopted in the adolescent years, efforts to reduce and restrict access to minors are an important strategy posed by The Community Guide to reduce overall tobacco use. These community wide interventions are aimed at focusing public attention on the issues of youth access to tobacco products and mobilizing community support for additional efforts to reduce that access (The Community Guide, 2012). By increasing overall disapproval for youth tobacco use, the hope is that community members will widely support efforts such as prohibiting the sale of such products to individuals under the age of eighteen, thus curbing the amount of individuals who have regular access to these products.

Decreasing tobacco use among workers by use of smoke-free policies is another evidence based intervention described by The Community Guide. Smoke-free policies include the public-sector regulations described above, as well as private-sector rules that may prohibit or strictly regulate the use of tobacco products in the workplace. For example, a private organization may ban all tobacco use products or just limit them to use only in a designated section outdoors. These types of regulations may make smoking on the job impracticable or less attractive and help motivate some workers to quit.

The final Community Guide strategy described to reduce tobacco use among workers is to provide incentives and conduct competitions among workers to increase smoking cessation. Work-site based incentives and competitions to reduce tobacco use among workers offer rewards to individuals and to teams as a motivation to participate in a cessation program or effort. Rewards can be provided for participation, for success in achieving specified behavior change, or for both. The types of rewards may include guaranteed financial payments, lottery changes for monetary or other prizes and return of self-imposed payroll withholdings (The Community Guide, 2012). Furthermore, when combined with additional interventions, such as counseling and strict smoking bans, the probability for success is increased.

The Guide to Clinical Preventative Services recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. These interventions include any of the aforementioned smoking cessation interventions.

First Tier Indicator #4: Preventable Hospital Stay Rate

No recommendations in The Community Guide or The Guide to Clinical Preventative Services.

First Tier Indicator #5: Dentists

No recommendations The Community Guide or The Guide to Clinical Preventative Services.

First Tier Indicator #6: Primary Care Physicians

No Recommendations in The Community Guide or The Guide to Clinical Preventative Services.

First Tier Indicator #7: Access to Recreational Facilities

The Community Guide recognizes that there are many aspects that influence whether an individual is physically active or not. Access to recreational facilities is merely one of these influences. Therefore, community-wide interventions to increase physical activity involve many community sectors, are highly visible, broad based, and utilize multi-component strategies. These strategies can include, but are not limited to, social support, risk factor screenings and health education campaigns. These interventions also address cardiovascular risk factors such as diet and smoking as a means to encourage physical activity.

Behavioral and social approaches to promote physical activity include the implementation of individually-adapted health behavior change programs. These programs seek to teach behavioral skills to help participants learn how to incorporate physical activity into daily routines. These programs are designed to meet the needs, specific interests, preferences and readiness to change of each individual. These programs might implement concepts such as goal-setting and self-monitoring, building social support, self-reward and positive self-talk, problem solving techniques and prevention of relapse into an inactive lifestyle.

The third recommendation posed by The Community Guide is social support in community settings. These interventions are focused on changing physical activity through building, strengthening, and maintain social networks that provide supportive relationships for behavior change (The Community Guide, 2012). Examples of these types of supportive relationships include: setting up a buddy system, making contracts with others to encourage physical activity compliance and exercise groups which provide friendship and support. These types of interventions require little monetary resources and have many positive effects.

This recommendation deals with school-based physical education as a means to improve physical activity levels and physical fitness among students. These recommendations specifically state that physical education classes should be longer and students should be more active during those classes by spending more time involved in moderate or vigorous activity.

Environmental and policy approaches to promoting physical activity include community-scale urban design land use policies and practices. This involves efforts from multiple disciplines and professionals to change the physical environment to promote physical activity. Some design elements include proximity of residential areas to stores, jobs schools and recreation areas, continuity and connectivity of sidewalks and streets and, aesthetic and safety aspects of the physical environment. Policy instruments such as zoning regulations, building codes, other governmental policies and builders' practices are other ways to ensure that the physical environment supports a physically active lifestyle (The Community Guide, 2012).

The sixth recommendation from The Community Guide is to create or enhance access to places for physical activity. This, combined with informational outreach activities is an appropriate community based intervention to increase physical activity. Creation of or enhancing access to places for physical activity involves the efforts of worksites, coalitions, agencies, and communities as they attempt to change the local environment to create opportunities for physical activity. Such changes include creating walking trails, building exercise facilities, or providing access to existing nearby facilities (The Community Guide, 2012).

The seventh and final recommendation from The Community Guide includes point-of-decision prompts to encourage the use of stairs. Point-of-decision prompts are motivational signs in or near stairwells or at the base of elevators to encourage individuals to increase stair use. A suggested additional component of this intervention includes music in stairwells to encourage use. The

motivational signs inform people of the health benefits of living a more active life and remind people to become more active.

First Tier Indicator #8: Fast Food Restaurants

No recommendations in The Community Guide or The Guide to Clinical Preventative Services.

Next Steps

This report is intended to be used in subsequent planning efforts by the three health departments in Portage County to continue the work of the Task Force to Improve Public Health with particular attention paid to the Task Force recommendations related to accreditation of the health departments. There are three prerequisites to obtaining accreditation by the Public Health Accreditation Board: 1) conduct a community health needs assessment; 2) prepare a community health improvement plan that addresses the needs identified in the assessment and; 3) prepare a strategic plan for the health department(s) that builds on the needs assessment and community health improvement plan (CHIP).

The next steps, therefore, should include the development of a plan to improve the health status of Portage County residents by prioritizing the needs described in this report and identifying strategies to effectively address those needs. The CHIP should also include measurable goals and objectives, along with a mechanism for ongoing measurement of priority indicators and activities to document progress made toward achieving the goals and objectives. The CHIP should also identify roles and responsibilities of the various organizations that will be working to improve the health of the community, the necessary resources to implement the strategies, and a clearly defined timetable to complete the various activities included in the plan.

The three health departments in Portage County and the Task Force members, with assistance where appropriate from the Kent State College of Public Health, have committed to moving forward to take these next steps over the next 18-24 months.

Appendix 1- Second Tier Health Indicator Data

Morbidity & Mortality

All Causes of Death

	Portage	Greene	Wood	Ohio
All Causes of Death (per 100,000)	872.5	843.5	783.5	844.1

Source: Community Health Status Indicators

Mammography Screening

	Portage	Wood	Ohio	U.S.	Healthy People 2020
Mammography Screening (%)	65.6%	68.8%	66.1%	74%	81.1%

Source: Community Health Status Indicators

Health Behaviors/ Risk Factors

Physical Inactivity (%)

	Portage	Wood	Ohio	U.S.	Healthy People 2020
Physical Inactivity (%)	29%	25%	27%	27%	33%

Source: County Health Rankings

Social & Economic Factors

Children in Poverty

	Portage	Greene	Wood	U.S.
Children in Poverty (%)	18%	17%	14%	13%

Source: County Health Rankings

Single Parent Households

	Portage	Greene	Wood	U.S.
Single Parent Households	29%	27%	23%	20%

Source: County Health Rankings

Physical Environment/ Environmental Health

Limited Access to Healthy Foods

	Portage	Greene	Wood	Ohio
Limited Access to Healthy Foods (%)	14%	8%	12%	7%

Source: County Health Rankings

Appendix 2- Third Tier Health Indicator Data

Morbidity & Mortality

No care in 1st trimester (%)

	Portage	Greene	Wood
No care in 1st trimester (%)	7.3%	7.0%	6.8%

Source: Community Health Status Indicators

Low Birth Weight

	Portage	Greene	Wood	Healthy People 2020
Low Birth Weight (%)	7.6%	6.7%	6.6%	7.8%

Source: Community Health Status Indicators

Births to Unmarried Women

	Portage	Greene	Wood
Births to unmarried women (%)	31.2%	29%	27.8%

Source: Community Health Status Indicators

Haemophilus Influenzae B

	Portage	Greene	Wood	Healthy People 2020
Haemophilus Influenzae B	3	2	0	10% Improvement

Source: Community Health Status Indicators

Hepatitis B

	Portage	Greene	Wood	Healthy People 2020
Hepatitis B	7	3	1	0

Source: Community Health Status Indicators

Salmonella reported cases

	Portage	Greene	Wood	Healthy People 2002
Salmonella reported cases	63	51	44	25% improvement

Source: Community Health Status Indicators

Poor Physical Health Days in Last Month

	Portage	Greene	Wood
Poor physical health days reported in last month (#)	3.1	2.9	2.8

Source: Community Health Status Indicators

Average # of Unhealthy Days in Past Month

	Portage	Wood	Ohio
Average # of Unhealthy days in past month	5.5	4.5	3.6

Source: Community Health Status Indicators

Self-reported health status

	Portage	Wood	U.S.
Self-reported health status (%)	10.8%	9.8%	9.5%

Source: Community Health Status Indicators

Social & Economic Factors

Percent below the poverty line (%)

	Portage	Greene	Wood
Percent below the poverty line (%)	12%	10.7%	10%

Source: Community Health Status Indicators

Medicaid Beneficiaries

	Portage	Greene	Wood
Medicaid Beneficiaries (%)	14.7%	12%	13.7%

Source: Community Health Status Indicators

Severe Work Disability (%)

	Portage	Greene	Wood
Severe Work Disability	3.9%	3.5%	3.2%

Source: Community Health Status Indicators

Violent Crime Rate

	Portage	Wood	U.S.	Healthy People 2020
Violent crime rate (per 100,000)	118	70	73	10% improvement

Source: Community Health Status Indicators

Access to Care/ Quality of Care

Could Not See Doctor Due to Cost

	Portage	Greene	Wood	Healthy People 2020
Could not see doctor due to cost (%)	13%	6%	10%	9%

Source: Community Health Status Indicators

Physical Environment/ Environmental Health

Access to Healthy Foods

	Portage	Greene	Ohio
Access to healthy foods (%)	53%	75%	64%

Source: County Health Rankings

Few fruits/ vegetables (%)

	Portage	Greene	U.S.
Few fruits/ vegetables (%)	77%	72.8%	76%

Source: County Health Rankings

% of Low income households with >1 mile to grocery store

	Portage	Greene	Wood
% low income households with >1 mile to grocery store	14%	7.9%	12%

Source: County Health Rankings

Grocery stores per 1,000 population

	Portage	Greene	Wood
Grocery stores per 1,000 population	.12	.14	.14

Source: County Health Rankings

Appendix 3- Key Informant Interview Questions

Q1. A) What do you believe are (Kent's/Ravenna's) priority public health needs? List 3-5 needs. B) What do you believe are Portage County's priority public health needs? List 2-5 priority needs?*

Q2. What key organizations or individuals can help address these priority needs?

Q3. What, if anything, is currently being done to address these perceived priority public health needs?

Q4. Are there any barriers to addressing these public health needs within the community? Can you think of any ways to work through these barriers?

Q5. A) What does (Kent's/Ravenna's) Public Health System do well? What can be done to ensure that these positive aspects of the health system are sustained? B) What does the Portage County Public Health System do well? What can be done to ensure that these positive aspects of the health system are sustained?*

Q6. A) What does (Kent's/Ravenna's) Public Health System not do well? What can be done to improve performance in these areas? B) What does the Portage County Public Health System not do well? What can be done to improve performance in these areas?*

Q7. Is there anything else we should know?

*Kent and Ravenna representatives were asked both about their individual health system and the county; Portage County representatives were asked about Portage County health in general

Appendix 4- Additional Resources

Accreditation, Assessment and Quality Improvement

- [Accreditation Preparation & Quality Improvement](#) (from [NACCHO](#)) provides tools and links to resources to enhance quality improvement and prepare local health departments for public health accreditation.
- [State Health Improvement Plan \(SHIP\) Guidance and Resources](#) (from [ASTHO](#)) provides step-by-step guidance, with examples from several states, for state leaders who are creating a SHIP.
- [Public Health Accreditation Board Standards Version 1.0](#) (from [PHAB](#)) provides the official standards, measures, and documentation for local, state, or tribal public health accreditation.
- [Resource Center for Community Health Assessments \(CHA\) and Community Health Improvement Plans \(CHIP\)](#) (from [NACCHO](#)) links users to a variety of tools, webinars, and sample CHAs and CHIPs.

Policy Tools

- [Health Impact Assessment](#) are analyses that systematically judge the potential and sometimes unintended effects of a policy, program or project on the health of a community.
 - [Health Impact Project](#), a collaboration of the [Robert Wood Johnson Foundation](#) and [The Pew Charitable Trusts](#), is a national initiative designed to promote the use of health impact assessments (HIAs) as a decision-making tool for policymakers.
 - [Health Impact Assessment Clearinghouse and Learning Information Center](#) (from the [UCLA School of Public Health](#)) collects and disseminates information on health impact assessment (HIA) in the U.S.
- [Action Communities for Health, Innovation, and EnVironmental ChangE](#) (ACHIEVE) fosters collaborative partnerships between city and county health officials, city and county government, tribal programs, parks and recreation departments, local YMCAs, local health-related coalitions, and other representatives from the school, business, health, and community sectors to implement improvements.
- [Healthy Community Design](#) (a toolkit from [NACCHO](#)) includes tools to help public health practitioners learn about or further their work on the connection between public health and the built environment.

Health Equity

- [Action Toolkit: To Advance Health Equity](#) (from the makers of the [Unnatural Causes](#) series) is a toolkit to assist organizations to use the series to educate, organize and advocate for changes that will make a difference to improve health equity.
- [Health Equity](#) (from [ASTHO](#)) contains sample slide presentations and examples of how states are leading health equity efforts.
- [Model Practices for Health Equity](#) (from [NACCHO](#)) provides examples of how local communities are working to achieve health equity.
- [THRIVE](#) (from the [Prevention Institute](#)) is a tool to build health and resilience in vulnerable environments.

Source: County Health Rankings & Roadmaps