Community Health Needs Assessment for:

Spectrum Health Hospitals d/b/a Spectrum Health Grand Rapids

Spectrum Health Medical Center, including
- Spectrum Health Butterworth Hospital
- Helen DeVos Children's Hospital
- Fred and Lena Meijer Heart Center
- Lemmen-Holton Cancer Pavilion

Spectrum Health Blodgett Hospital

Outpatient and Ambulatory Sites, including
- Ambulatory Surgery Centers
- South Pavilion and West Pavilion

And

Spectrum Health Kent Community Campus d/b/a Spectrum Health Special Care Hospital

The "hospital facilities" listed above are part of Spectrum Health System. Spectrum Health is a not-for-profit health system in West Michigan offering a full continuum of care through the Spectrum Health Hospital Group, which is comprised of 11 hospitals; the Spectrum Health Medical Group which employs more than 1,200 physicians and advanced practice providers; and Priority Health, a health plan with 590,000 members. Spectrum Health System is West Michigan's largest employer with more than 21,700 employees. The organization provided $294.6 million in community benefit during its 2014 fiscal year. Spectrum Health was named one of the nation's Top Health Systems in 2014 by Truven Health Analytics.

Community Health Needs Assessment – Exhibit A

The focus of this Community Health Needs Assessment attached in Exhibit A is to identify the community needs as they exist during the assessment period (late 2014-early 2015), understanding fully that they will be continually changing in the months and years to come. For purposes of this assessment, "community" is defined as the county in which the hospital facility is located. This definition of community based upon county lines, is similar to the market definition of Primary Service Area (PSA). The target population of the assessment reflects an overall representation of the community served by this hospital facility. The information contained in this report is current as of the date of the CHNA, with updates to the assessment anticipated every three (3) years in accordance with the Patient Protection and Affordable Care Act and Internal Revenue Code 501(r). This CHNA report complies with the requirements of the Internal Revenue Code 501(r) regulations either implicitly or explicitly.

Evaluation of Impact of Actions Taken to Address Health Needs in Previous CHNA – Exhibit B

Attached in Exhibit B is an evaluation of the impact of any actions that were taken, since the hospital facility finished conducting its immediately preceding CHNA, to address the significant health needs identified in the hospital facility's prior CHNA.

KENT COUNTY
COMMUNITY HEALTH NEEDS ASSESSMENT
2014

2014 COMMUNITY HEALTH NEEDS ASSESSMENT

THANK YOU TO OUR FUNDING PARTNERS

Healthy Kent

SPECTRUM HEALTH

COUNTY OF KENT MICHIGAN HEALTH DEPARTMENT
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PINE REST Christian Mental Health Services

the YMCA

MetroHealth

Restoring Hope and Freedom
Mary Free Bed Rehabilitation Hospital

network180
Lives Redirected.

2014 COMMUNITY HEALTH NEEDS ASSESSMENT
TABLE OF CONTENTS

2014 COMMUNITY HEALTH NEEDS ASSESSMENT
EXECUTIVE SUMMARY

OVERVIEW

Community Health Needs Assessments (CHNA) provide information for problem and asset identification, as well as for policy and program development, implementation and evaluation. Though the CHNA is extensive and encompasses data collection and community input processes, it is important to recognize that this is just one piece of a broader community health improvement process. The CHNA provides the quantitative data and qualititative community perceptions necessary for driving priority selection and decision-making within the community.

This is the second iteration of Kent County's community health improvement efforts. The first countywide CHNA was published in 2011, followed the next year by a Community Health Improvement Plan (CHIP), which outlined community priorities as well as goals, objectives, and strategies aimed at impacting those key priorities. Many lessons were learned from the first iteration of the CHNA/CHIP process within our community. As a result, significant improvements have been made to the health improvement process in Kent County. Some of these improvements include a stronger focus on community input, enhanced data collection and reporting, as well as an expanded breadth of involvement in various phases of the process by key community agencies and organizations. Additionally, the responsibility for coordinating the CHNA/CHIP process in our community has shifted *from Kent County Working Together for a Healthier Tomorrow* to Healthy Kent.

Healthy Kent has existed in our community for more than 20 years and has successfully engaged a wide array of community partner organizations to address data-driven priority areas, ranging from infant mortality to violence. The vision of Healthy Kent is a "*high quality of life, health, and wellbeing for all people in Kent County*". To achieve this vision, Healthy Kent has completed a lengthy CHNA process, wherein thousands of Kent County residents were asked for input on priority health issues and community concerns, and data has been mined numerous sources. All of this information, collated in the following report, describes the health status of Kent County and has led to the selection of four health issues deemed priority by those who live, work, learn, and play in Kent County.

PRIORITY HEALTH ISSUES

1. Mental health issues (Stress, Depression)
2. Obesity
3. Substance abuse (Alcohol abuse, Drug use)
4. Poor nutrition
5. Violence and safety

*Due to the similarity and connectedness of **obesity** and **poor nutrition** these priority health issues were combined.*

KEY FINDINGS IN MENTAL HEALTH ISSUES

- Kent County residents who fall between 45 and 64 years of age are most likely to be affected by poor mental health days, as well as, females, African Americans and Hispanics, and individuals with a household income of less than $20,000.
- More than 12% of Kent County residents reported feeling so depressed within the last 30 days that they believed nothing could cheer them up and almost 12% said they felt worthless at some time within the last 30 days. Only about 15% of Kent County residents reported that they are currently receiving some variation of treatment for their mental health condition.
- More than 90% of Kent County residents agree that treatment for mental illness can help people achieve normal lives.
- More than 35% of middle schoolers and 26.4% high schoolers report being bullied on school property within the past year, while nearly 20% of middle schoolers and 17.9% of high schoolers report being bullied electronically within the past year.
- In 2013, suicides were most common Hispanics, Asian/Pacific Islanders, and Whites.
- More than 20% of middle schoolers and 18.3% of high schoolers reported that they considered attempting suicide within the past 12 months. Even more concerning, 17.7% of middle schoolers and 14.2% of high schoolers made a plan of how they would attempt suicide, and 9.3% of middle schoolers and 7.6% of high schoolers actually attempted suicide one or more times in the past 12 months.

KEY FINDINGS IN OBESITY AND POOR NUTRITION

- In Kent County, 14% of middle school-aged youth and 14.8% of high school-aged youth are considered overweight, while 9.7% of middle school-aged youth and 11.4% of high school-aged youth are considered obese.
- Mirroring the trends observed both statewide and nationally, the rate of obesity in Kent County has continued to increase since 1993, showing an almost 11-point lift (from 17% in 1993 to 27.6% at present).
- Less than one-third of Kent County middle school-aged youth and about 25% of high school-aged youth report eating the recommended number of servings of fruits and vegetables regularly.

KEY FINDINGS IN SUBSTANCE ABUSE

- 12.8% of Kent County residents report having smoked at least 100 cigarettes in their lifetime and currently continue to smoke.
- 10.1% of Kent County residents use electronic cigarettes or E-Cigs.
- Among Kent County youth, less than 20% report ever having smoked a cigarette.
- Kent County males and individuals of Hispanic/Latino ethnicity are more likely to partake in binge drinking.
- Alcohol use among Kent County youth is moderate, with 21.1% of high school students and 4.3% of middle school students having drank alcohol at least once within the past 30 days.
- The most used types of drugs by Kent County residents are marijuana (8.5%) and prescription painkillers (5.3%).
- Drug use is most common among Hispanic youth at both the high school and middle school levels.

KEY FINDINGS IN VIOLENCE AND SAFETY

- More than 50% of Kent County male youth reported texting or emailing while driving, while 48.8% of Kent County female youth reported this behavior.
- Two-thirds of Kent County's reported domestic violence cases were non-aggravated assaults. The remaining cases involved intimidation/stalking and negligent/non-violent family abuse.
- About 11% of Kent County youth report having been forced to do something sexual that they did not want to do by someone they were dating within the past 12 months.
- The highest rates of arrest in Kent County are recorded for retail-fraud, forced-entry burglary, and larceny or theft of property from a motor vehicle.

2014 COMMUNITY HEALTH NEEDS ASSESSMENT
RECORD OF REVIEW AND REVISIONS

Date	Activity	Recorded By Whom

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2014 COMMUNITY HEALTH NEEDS ASSESSMENT
INTRODUCTION AND PROCESS OVERVIEW

ABOUT HEALTHY KENT

In the early 1990s, a publication of the U.S. Public Health Service, *Healthy People 2000*, was released. Healthy People 2000 contained more than 300 specific objectives in a variety of categories that communities across the U.S. could use as a guide in developing community-specific health goals. Healthy Kent 2000 was conceived as a mechanism to identify which Healthy People 2000 goals were priorities for Kent County, and to develop strategies to meet them.

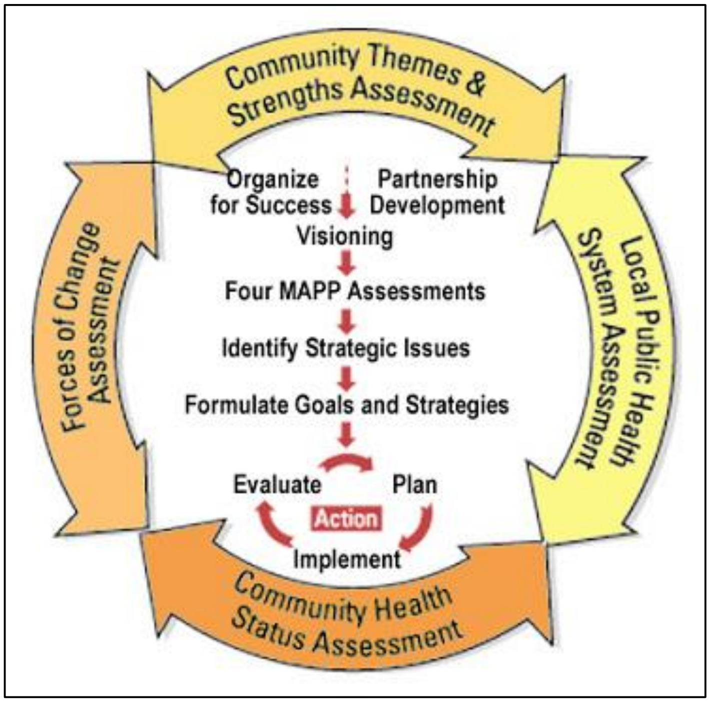
For more than 20 years, Healthy Kent has engaged a broad array of community partner organizations to address data-driven priority areas, ranging from infant mortality to violence. During its tenure, Healthy Kent has yielded many noteworthy community-based successes, and continues to achieve results through its successful community collaborations on topics ranging from maternal and child health to suicide prevention. In 2013, Healthy Kent also took on the role of convener for the 2014 Community Health Needs Assessment (CHNA) process.

OVERVIEW OF 2014 HEALTHY KENT COMMUNITY HEALTH NEEDS ASSESSMENT

The 2014 Healthy Kent CHNA is a comprehensive compilation of data that explains the current state of health, wellbeing, and factors affecting health of those who live, learn, and work in Kent County, Michigan. The 2014 Healthy Kent CHNA process was modeled after the Mobilizing for Action through Planning and Partnerships[1] (MAPP) framework. MAPP is a nationally-recognized, best-practice framework for community health needs assessment and improvement planning processes that was developed by the the National Association of County and City Health Officials (NACCHO). There are six key phases of the MAPP process, including:

1. Organizing for Success and Partnership Development.
2. Visioning.
3. The Four MAPP Assessments.
4. Identifying Strategic Issues.
5. Formulate Goals and Strategies.
6. Take Action (Action Cycle).

The 2014 Healthy Kent CHNA report includes a summary and description of how Kent County has implemented the first four MAPP phases. Phases five and six will be discussed and reported as the 2015 Community Health Improvement Planning process gets underway and yeilds a final report.


Community Themes & Strengths Assessment
Local Public Health System Assessment
Community Health Status Assessment
Forces of Change Assessment
Organize for Success
Partnership Development
Visioning
Four MAPP Assessments
Identify Strategic Issues
Formulate Goals and Strategies
Evaluate
Plan
Action
Implement

ORGANIZING FOR SUCCESS AND PARTNERSHIP DEVELOPMENT

The purpose of the organizing for success and partnership development phase of the MAPP process is to ensure the community puts into place a process that builds commitment, engages participants as active members of the process, uses participants' time appropriately and well, and results in a plan is supported by the community and will actually be implemented[2]. The 2014 Healthy Kent CHNA process began with the formation of a Core Team of Kent County Health Department (KCHD) staff who worked to develop a list of key community partners. The list of partners included both organizations, agencies, and individuals who participated in the 2011 CHNA process, as well as numerous additions that included nontraditional partners and community sectors that were missing from the previous iteration of the CHNA process in Kent County.

The organizing for success and partnership development efforts instituted during the current iteration of the CHNA process expanded involvement by community partner organizations, agencies, and individuals by gathering input from thousands of people, and by engaging partners who were either missing from the table during the 2011 process, or who are seen as "nontraditional" partners in public health. The increased engagement recorded for the 2014 CHNA process has led to a more comprehensive view of community need because there is more comprehensive data available for review and more community sectors are involved and are able to advocate for their service recipients and constituents. A list of contributors and participants involved with the 2014 Healthy Kent CHNA can be located in Appendix A.

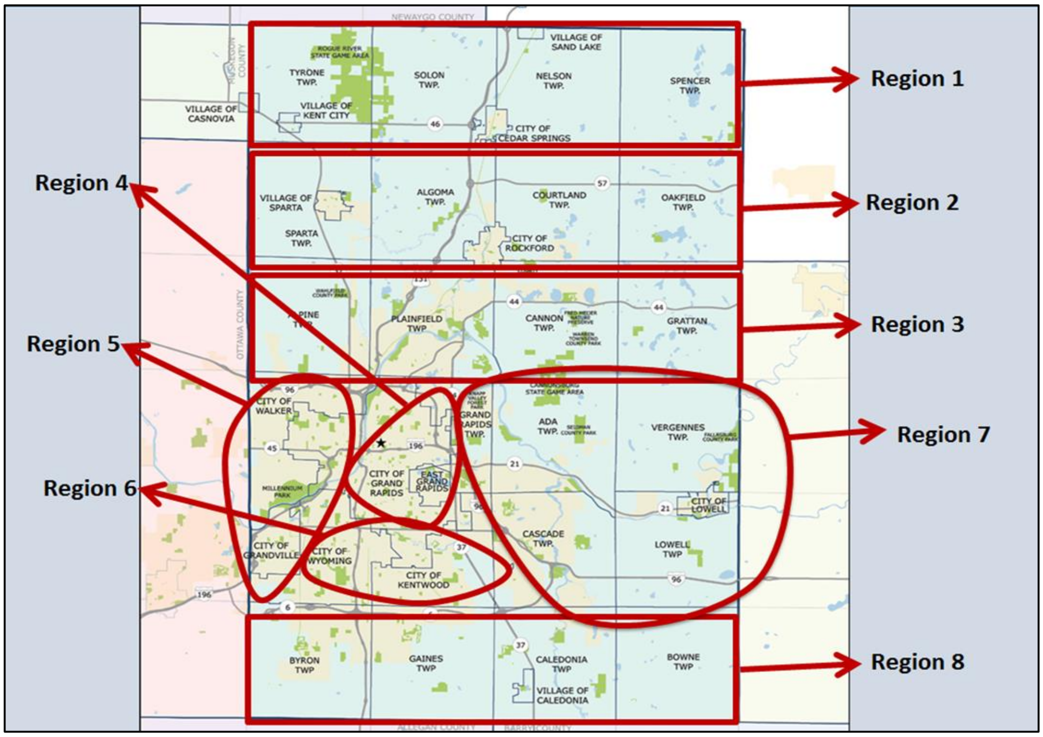
VISIONING

For the 2014 Healthy Kent CHNA process, the MAPP Core Team opted to adopt a slightly modified version of the vision and mission that were utilized during the 2011 CHNA process in Kent County. The vision statement remained "*High quality of life, health, and wellbeing for all people in Kent County*." The slight modification came in the mission statement, where the bullet points that originally accompanied the statement were removed. The new mission statement is "*The people of Kent County are empowered to achieve lifelong physical, mental, and social wellbeing*."

MAPP ASSESSMENTS AND DATA

Community Themes and Strengths

Community Health Forums



In order to better understand the perceptions of health and community concerns held by Kent County residents, Healthy Kent conducted a series of Community Health Forums during the months of February 2014 to April 2014. These Forums were strategically located in city centers throughout Kent County, ranging as far north as Kent City, as far south as Caledonia, and spanning east to west from Walker to Lowell.

The objective of the Community Health Forums was to gather input from community residents on three key questions: (1) What are the strengths of your community?, (2) What are the weaknesses of your community?, and (3) What are the major health concerns in your community? At the conclusion of this community input process, a total of 28 Community Health Forums were completed with over 231 Kent County citizens participating.

Community Health Survey

The initial version of the Community Health Survey was developed using questions taken from a series of existing question banks and community surveys used in other communities. Once a near-final draft was completed, it was shared with community partner organizations for input and feedback during the 2014 Healthy Kent Spring Summit (May 2014). Several organization representatives provided valuable feedback and comments, which were incorporated into the final version of the survey.

The survey was administered in an online and paper-based format beginning June 1, 2014 through September 1, 2014. It was translated professionally and made available in Spanish for both the paper-based and online versions. An English copy of the survey questions can be found in Appendix B.

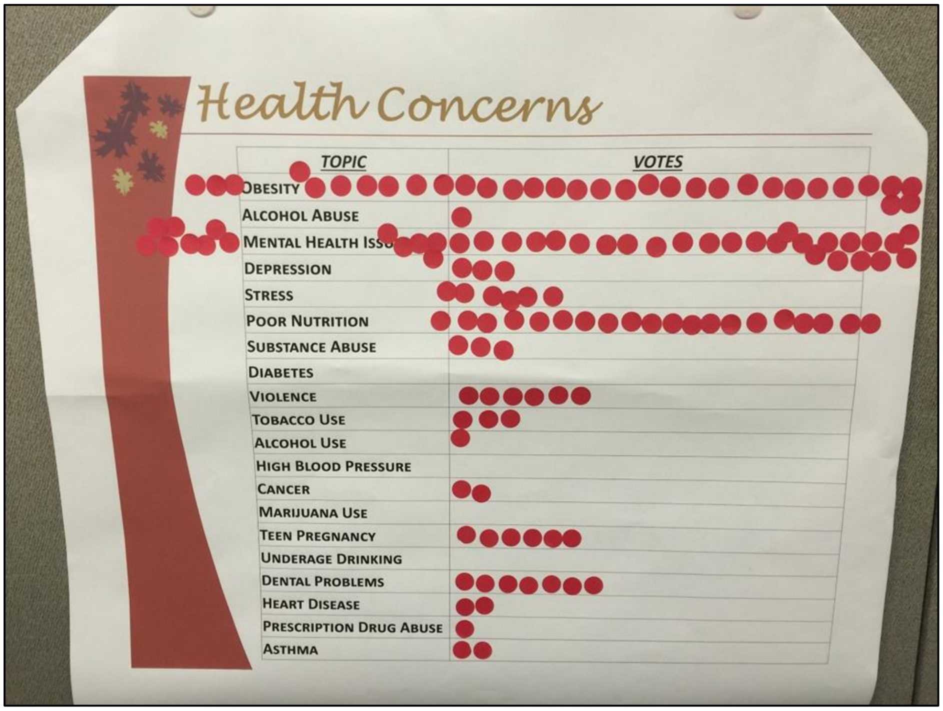
Many community partner organizations played an instrumental role in the success of the Community Health Survey as they collected hundreds of responses through targeted outreach amongst service recipients. Because of the collaborative efforts of partner organizations, the survey yeilded responses from more than 2,600 people who live or work in Kent County.

Community Health Status

Data included in the 2014 Healthy Kent CHNA report was collected from a number of local, state, and national information sources. It offers an in-depth examination of health outcomes, as well as the many social, economic, environmental, and other factors that contribute to overall health outcomes or status. A significant majority of data included in the 2014 Healthy Kent CHNA was collected, organized, and analyzed by an epidemiologist employed by the Kent County Health Department. Additional data collection, organization, and analysis was completed by community partner organizations. A list of contributing authors and the role they played in the development of this report can be found in Appendix A.

IDENTIFYING STRATEGIC ISSUES

The process for identifying strategic issues in Kent County began with the review of findings from the Community Health Survey. At the 2014 Healthy Kent Fall Summit (October 2014), data from the Community Health Survey was shared with community partners. Meeting attendees were asked to participate in a dot-voting exercise to reduce the number of proposed priority health issues from the top 20 to the top 10.



At the conclusion of the Healthy Kent Fall Summit, a priority selection survey listing the top 10 priority health issues was developed using Survey Monkey and launched on December 15, 2014. It was sent electronically through partner networks, and a press release was issued to local media in order to promote participation among community residents. When the survey closed on January 15, 2015, over 250 responses had been collected.

The priority health issues selected by the community for focus in the 2015 Community Health Improvement Planning (CHIP) process include:

- Mental Health Issues.
- Poor Nutrition and Obesity.
- Substance Abuse.
- Violence and Safety.

The 2015 CHIP will be developed based on the results of the Community Themes and Strengths and Health Status Assessments. This plan will offer a long-term, systematic strategy for collaboratively addressing each of the four priority health issues identified above. The purpose of the CHIP is to foster shared ownership and responsibility for the plan's implementation, as it should serve as a strategic plan for addressing the community's most pressing issues in a manner that promotes collaboration and partnership, and avoids duplication and territorialism.

REFERENCES

1. National Association of County and City Health Officials. (2014). *MAPP Framework*. Retrieved 13 November 2014 from http://naccho.org/topics/infrastructure/mapp/framework/index.cfm
2. National Association of County and City Health Officials. (2014). *Organize for Success*. Retrieved 13 November 2014 from http://www.naccho.org/topics/infrastructure/mapp/framework/phase1.cfm

Chapter 1

HEALTHY KENT

2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY THEMES AND STRENGTHS ASSESSMENT

Key Questions

- WHAT IS IMPORTANT TO OUR COMMUNITY?
- HOW IS QUALITY OF LIFE PERCEIVED IN OUR COMMUNITY?
- WHAT ASSETS DO WE HAVE THAT CAN BE USED TO IMPROVE COMMUNITY HEALTH?

COMMUNITY THEMES AND STRENGTHS ASSESSMENT: PROCESS OVERVIEW

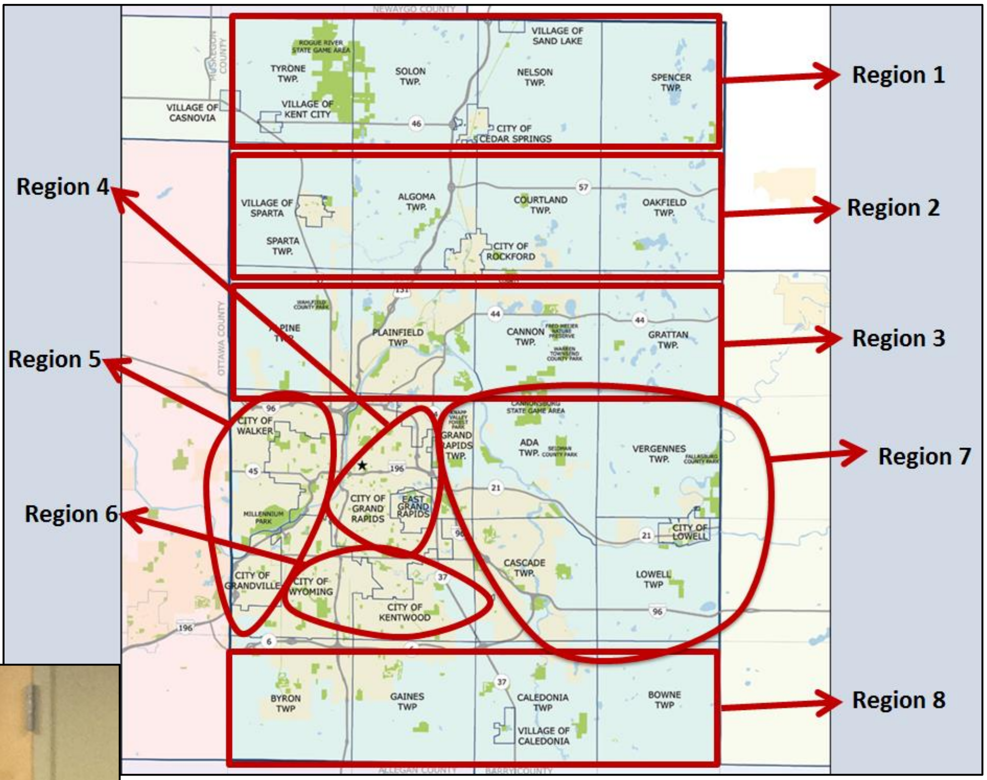
INTRODUCTION

The Community Themes and Strengths Assessment (CTSA) is one of the four Mobilizing for Action through Planning and Partnership (MAPP) assessments. The intent of this assessment is to gather information from community residents to answer key questions about community priorities, quality of life, and key community assets and resources that can be mobilized to address key health concerns. When successfully completed, the CTSA yields important information about the community, builds community ownership and responsibility, and can support and offer further insight into data collected through the other three MAPP assessments[1].

METHODS

Community Health Forums

In Kent County, the CTSA included data collection through community health forums and a community health survey. The community health forums were the first phase of data collection, and occurred during the months of February, March, and April 2014. Kent County was divided into eight geographic regions, and at least two forums were scheduled in each region. The regions are illustrated in the map provided on this page of the report. Due to population density, region four, which consisted of the City of Grand Rapids and the City of East Grand Rapids, held four forums.



Photos: (left) Two Healthy Kent Fall Summit attendees discuss key health concerns. (above) Map of Kent County depicting the eight geographic regions used for locating community health forums.

The community health forums were facilitated discussions, led by Healthy Kent representatives, which asked participants for input on three key questions: (1) what are the strengths of your community? (2) What are the weaknesses of your community? and (3) What are the top health concerns of your community? Participants offered their input and it was recorded by Healthy Kent volunteers.

As the community input process continued, Healthy Kent representatives also met with existing stakeholder groups throughout Kent County, such as the Association for the Blind and Visually Impaired, Deaf and Hard of Hearing Services, the Healthy Kent Infant Health Implementation Team, Kent County Health Connect, and the Kent County Health Department's Food Council to facilitate additional input. In total, more than 230 individuals participated in the community health forum phase of data collection. Data collected through the community health forum process was aggregated and shared with community partners at the Healthy Kent Spring Summit in May 2014.

Community Health Survey

The most frequently recorded community strengths, weaknesses, and health concerns from the community health forums were utilized to develop questions and answer options for the community health survey, which was the method of data collection used by Healthy Kent for the second phase of the CTSA process in Kent County.

The community health survey was created using question banks, sample community surveys published by other communities, and data from the community health forums. Once a near-final draft was completed, the survey was shared with community stakeholders for input during the Healthy Kent Spring Summit in May 2014. Feedback was collected and incorporated into the final version of the survey. Healthy Kent had the survey translated into Spanish, and offered it in a paper-based and electronic format via Survey Monkey. The survey was open for data collection beginning on June 1, 2014 and closed September 1, 2014.

Photo: (above) Paige Birkelbach, an epidemiologist with the Kent County Health Department, discusses the community input process at the Healthy Kent Fall Summit.

Many community partner organizations played an instrumental role in the success of the Community Health Survey as they collected hundreds of responses through targeted outreach amongst service recipients. Because of the collaborative efforts of partner organizations, the survey yeilded responses from more than 2,600 people who live or work in Kent County.

FINDINGS AND CONSIDERATIONS

Despite considerable community participation in each of the two phases of the CTSA process, it is important to note that the data presented in the following pages was collected from a very specific population and is a convenience sample. This means that, though the data collected through the community health forums and community health survey are valuable, they cannot be generalized to the entire population of Kent County. However, the data from the CTSA will be instrumental in the selection of strategic priorities as Healthy Kent works with community partners to develop a community health improvement plan.

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1. NACCHO. (2014). *Community themes and strengths assessment (CTSA).* Retrieved from http://naccho.org/topics/infrastructure/mapp/framework/phase3ctsa.cfm

COMMUNITY HEALTH FORUMS: SUMMARY OF FINDINGS

OVERVIEW

During the months of February, March, and April 2014, a total of 28 Community Health Forums were held in various locations across Kent County. Valuable input regarding strengths, weaknesses, and health concerns was collected from 231 agency representatives and community residents who participated in these conversations. Meeting location sites were selected using the following criteria:

- Can accommodate 50 or more participants.
- Can provide or hold 6 round tables and chairs.
- Have connections for audio/visual equipment.
- Allow food service.
- Consideration of waiving or discounting facility use fee (if one exists).

Those in attendance at each Community Health Forum received a brief data presentation prior to an open format discussion about the quality of life in their communities. Perception data was recorded on flipchart paper by volunteers during each community forum and then aggregated by an epidemiologist. Keywords and phrases were categorized and responses were organized in a way to highlight strengths, weaknesses, and health concerns of most importance to the community. Meeting participants mentioned a wide variety of topics during the community forums, some of which did not align with the 'top ten' provided in this report. However, common themes were apparent throughout.

The data tables provided on the next page list the top ten perceptions regarding the strengths, weaknesses, and health concerns of Kent County. This information was gathered during the 28 Community Health Forums and the rankings were determined based on the total number of times the strength, weakness, or health issue was mentioned during each of the forums. The tables on the next page contain the number of times each particular strength, weakness, or health concern was mentioned, as well as the associated percentage of the total.

Meeting Locations
Mercy Health Saint Mary's Campus
Kentwood Branch (Richard L. Root) KDL
Kent County Health Department
East Grand Rapids Branch KDL
Kroc Center
3 Mile Community Center
Plainfield Township Branch KDL
Straight School Building
Wyoming Branch KDL
Grandville Branch KDL
Hope Network
Sparta Civic Center
Caledonia Township KDL
Metro Health
Krause Memorial Branch KDL
Tyrone Township Offices
Byron Township Branch KDL
Englehardt Branch KDL
Cascade Township Branch KDL
Grandville High School

ACCESSTOPUBLICTRANSPORTATION
ACCESSTOHEALTHYFOODS
ACCESSTOMENTALHEALTHCARE
NUTRITIONEDUCATION
RESOURCEEDUCATION
VIOLENCE
SAFETY
POORSTREETQUALITY
POORHEALTHEDUCATION
LIFESKILLSEDUCATION
CARACCIDENTS
LanguageBarriers
RACISM
SEGREGATION
POVERTY
DISPARITIES
Inequity
POORHOUSINGQUALITY
LACKOFAFFORDABLECARE
Violence

Photo: (above) A 'Community Weaknesses' word cloud features all mentioned weaknesses from the community health forums. Weakness were defined as those aspects of a community that need improvement.

Kent County Community Health Forum: Preliminary Feedback	
Top Ten Strengths	
Availability of Quality Parks and Recreation Opportunities	54 (12.50%)
Easy Access to Healthy Food Availability of Healthy Food Availability of Farmers Markets	38 (8.80%)
Resource Rich Community Philanthropic Community	38 (8.80%)
Easy Access to Healthcare Availability of Healthcare	37 (8.56%)
Quality Education (K-12)	28 (6.48%)
Engaged and Involved Community	27 (5.09%)
Availability of Arts, Culture, and Entertainment	22 (4.63%)
Strong Religious Faith and Faith Based Community	20 (4.63%)
Active Community Health-Focused Community	19 (4.40%)
Increasing Access to Transportation	13 (3.01%)

Kent County Community Health Forum: Preliminary Feedback	
Top Ten Weaknesses	
Violence and Safety	44 (6.14%)
Lack of Access to Affordable Healthy Foods	34 (4.74%)
Lack of Access to Public Transportation	31 (4.32%)
Lack of Education on Available Community Resources	28 (3.91%)
Lack of Access to Healthcare	23 (3.21%)
Poor Housing Quality	23 (3.21%)
Lack of Access to Mental Healthcare	22 (3.07%)
Poor Street Quality Street Repair Needed	20 (2.79%)
Lack of Health Education	20 (2.79%)
Lack of Affordable Healthcare and Treatment	18 (2.51%)

Kent County Community Health Forum: Preliminary Feedback	
Top Ten Health Concerns	
Substance Abuse	31 (8.96%)
Obesity	25 (7.23%)
Diabetes	16 (4.62%)
Alcohol Abuse	15 (4.34%)
Violence	15 (4.34%)
Mental Health	14 (4.05%)
Teen Pregnancy	13 (3.76%)
Marijuana Use	11 (3.18%)
Tobacco Use	11 (3.18%)
Stress	11 (3.18%)

HEALTHY KENT COMMUNITY HEALTH SURVEY: DEMOGRAPHICS

OVERVIEW

Demographics refer to the characteristics of a population of interest[1]. Examples of demographic information include age, race, gender, ethnicity, religion, income, education, home ownership, sexual orientation, marital status, family size, health and disability status, and psychiatric diagnosis. Data for many of these important indicators was collected through the 2014 Community Health Survey.

Demographic information is typically collected to help those working with a given population understand key characteristics of that population and to determine how representative the sample of respondents is when compared with the general population. If it is representative, findings derived from that sample, or subset, of the population can be generalized to the broader population[1].

Healthy Kent Community Health Survey Data
Demographics

Indicator	Percent (%)
Gender	
Male	22.8%
Female	77.2%
Race	
White/Caucasian	59.9%
Black/African American	20.2%
Asian	1.4%
Hispanic/Latino	14.6%
American Indian or Alaskan Native	0.6%
Native Hawaiian or Pacific Islander	0.1%
Multi-Racial	3.2%
Age	
18 – 24 Years	11.0%
25 – 34 Years	25.2%
35 – 44 Years	21.7%
45 – 54 Years	20.0%
55 – 64 Years	15.7%
65 – 74 Years	4.8%
75 + Years	1.7%
Relationship Status	
Single	38.5%
Married	42.1%
Separated	2.8%
Divorced	10.7%
Widowed	2.8%
Domestic Partnership	3.0%

Healthy Kent Community Health Survey Data
Demographics

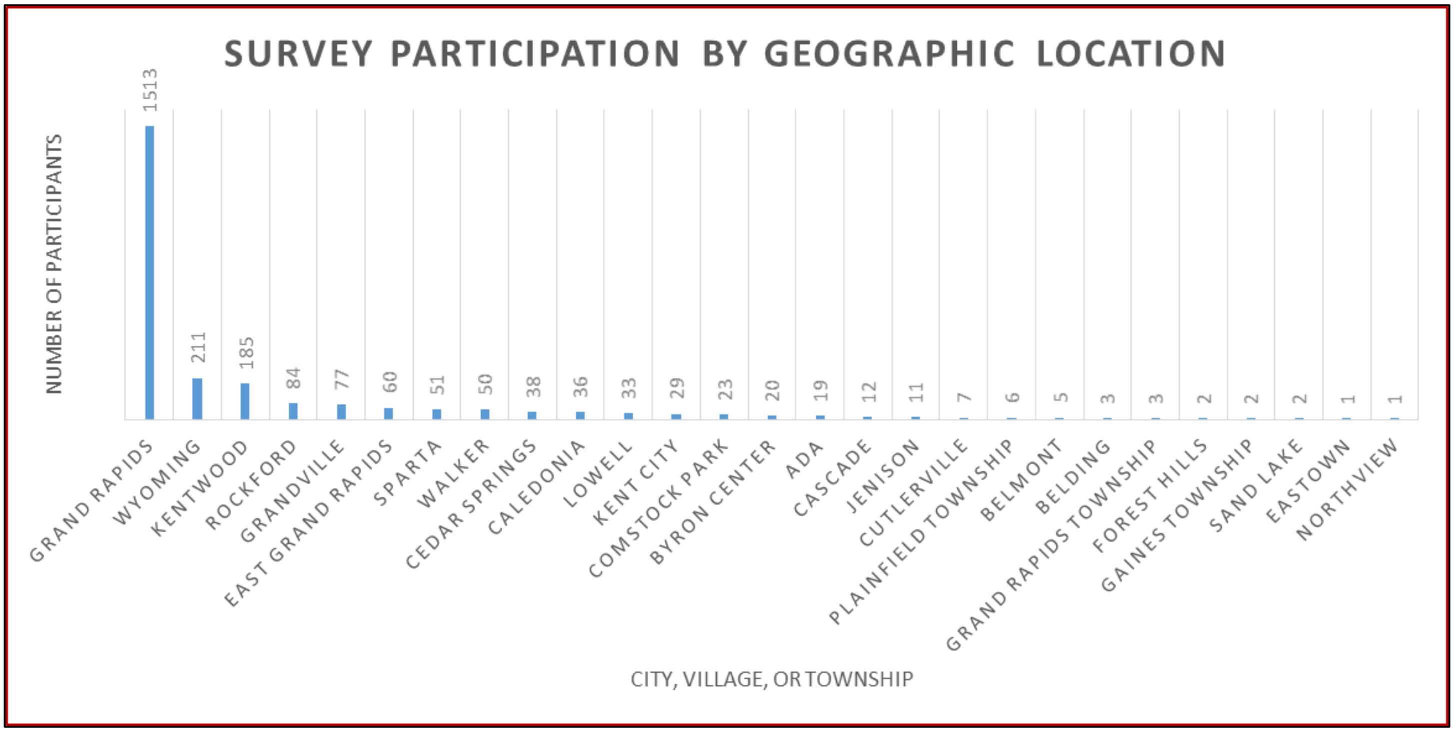
Indicator	Percent (%)
Home Ownership Status	
Rent	47.2%
Own	52.8%
Employment Status	
Unemployed	29.5%
Self-Employed	4.7%
Employed Part-Time	17.2%
Employed Full-Time	39.1%
Retired	9.4%
Educational Attainment	
Less Than High School	9.5%
High School Diploma	17.4%
GED	6.7%
Some College	21.2%
Associate Or Technical Degree	10.7%
Bachelor's Degree	22.3%
Master's Degree Or Higher	12.1%
Household Income	
Less Than $20,000	43.8%
$20,000 to $40,000	21.3%
$40,000 to $60,000	11.9%
$60,000 to $80,000	8.5%
$80,000 to $100,000	6.1%
$100,000 to $120,000	3.5%
More Than $120,000	4.8%
BMI	
Underweight	1.7%
Normal Weight	33.6%
Overweight	29.2%
Obese	35.5%

SURVEY SUMMARY

The 2014 Community Health Survey asked respondents to provide data on a number of demographic topics, including gender, race, age, relationship status, home ownership, employment status, educational attainment, household income, geographic location of residence, and BMI. The majority of survey respondents were female (77.2%), white (59.9%), and reported a household income of less than $20,000 per year (43.8%).

Most survey respondents fell within the age categories of 25 to 34 years (25.2%), 35 to 44 years (21.7%), and 45 to 54 years (20.0%). Just over half of the survey participants reported owning their own home (52.8%) and over 66% reported that they had an educational attainment level of at least some college. Sixty-one percent of survey participants reported some variation of employment, whether self-employed (4.7%), employed part-time (17.2%), or employed full-time (39.1%).

More than half of survey respondents had a BMI that is indicative of overweight (29.2%) or obesity (35.5%).



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1. Lee, M. & Schuele, C. M. (2010). Demographics. In *Encyclopedia of Research Design*. Thousand Oaks, CA: SAGE Publications, Inc.

HEALTHY KENT COMMUNITY HEALTH SURVEY: SELF-REPORTED HEALTH STATUS

OVERVIEW: SELF-REPORTED HEALTH STATUS

Assessing the health of a population through collection of physical and biometric data can be demanding, expensive, and takes a long time[1]. Often, self-reported health data is collected to help communities to understand population health issues. Self-reported health status has been shown to be a good predictor of mortality and functional abilities[1].

The 2014 Community Health Survey asked respondents to select all of the health conditions for which the respondent was diagnosed at any point in his or her lifetime from the provided list. The table provided on this page of the report lists health conditions in numerical order based on the total percentage of responses recorded for each response option. The variety of response options for this question in the 2014 Community Health Survey were derived from lists of commonly diagnosed health conditions.

SURVEY SUMMARY

The most commonly reported health conditions among survey respondents were allergies, stress, and high blood pressure. Each of these health conditions received a vote from more than 20% of survey respondents. Mental health issues, obesity, high cholesterol, asthma, arthritis, and sinus issues were also some of the more commonly reported health issues among this population.

Data collected through the 2014 Community Health Survey indicates the least frequently reported health conditions among this population included HIV/AIDS, memory loss conditions, infectious diseases, and stroke.

Healthy Kent Community Health Survey Data: Health Status

Has a doctor, nurse, or other health professional EVER told you that you have any of the following?

Health Status	Percent (%)
Allergies	24.6%
Stress	23.9%
High Blood Pressure	23.5%
Mental Health Issues (Depression, Bipolar Disorder, Schizophrenia)	18.7%
Obesity	17.1%
High Cholesterol	15.3%
Asthma	13.9%
Arthritis	13.4%
Sinus Issues	13.2%
Chronic Pain	11%
Diabetes	9.6%
Vision Loss	8.9%
Hearing Loss	4.6%
Alcohol Abuse/Addiction	4.3%
Drug Abuse/Addiction	4.1%
Cancer	3.6%
Heart Disease	3.5%
Concussion or Brain Injury	3.4%
Sexually Transmitted Infections (Chlamydia, Herpes, Syphilis)	3.1%
Stroke	1.4%
Infectious Disease (Hepatitis, Tuberculosis)	1.2%
Memory Loss (Alzheimer's, Dementia)	1.1%
HIV/AIDS	0.3%

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2014 HEALTHY KENT COMMUNITY HEALTH SURVEY:
ACCESS TO HEALTH SERVICES SUMMARY

INTRODUCTION

The 2014 Healthy Kent Community Health Survey collected data from Kent County residents on a number of different health concerns and topics. The first of those topics covered in this section of the 2014 Community Health Needs Assessment (CHNA) include a variety of indicators related to access to health services. Data provided in the next several pages consist of community responses to questions about the following health service access issues or topics:

- Primary source of healthcare services.
- Primary method of payment for healthcare services.
- Perceived barriers to healthcare services.
- Primary source of health-related information.

It is important to note that all data collected through the 2014 Healthy Kent Community Survey depicts the thoughts, views, and perceptions of a very specific segment of the overall Kent County, Michigan population. To understand the characteristics of this population, readers should view the "Demographics" pages of 2014 Healthy Kent Community Health Survey.

OVERVIEW: ACCESS TO HEALTH SERVICES

The phrase *access to health services* often refers to the ease with which an individual can obtain needed health services in a timely manner[1]. There are several factors that impact access to health services within a community, ranging from health insurance coverage, availability and accessibility of services, timeliness of access to services, and health resource availability[1]. Gaining timely access to comprehensive, quality health services is crucial for improving health status, wellbeing, and quality of life. Equitable access to quality health services is also an important factor in helping communities achieve health equity.

An individual's access to health services can be influenced by a number of issues, ranging from type or quality of insurance coverage (or lack thereof) to an insufficient number of providers in a given geographical location. Even without these systems-level issues, other factors like cost, racism, discrimination, and other social determinants of health prevent people from obtaining health services when they are needed.

IMPACT ON HEALTH

When people are unable to access necessary health services in a timely manner they have a difficult time reaching their full potential. This negatively influences their lives and affects their ability to make meaningful contributions to society. The inability to overcome barriers to health services often leads to unmet health needs for individuals, families, and entire communities. Costs of health services increase because of delays in diagnosis, later stages of disease, more expensive and invasive treatment, lack of preventive services, and preventable hospitalizations. All of these things further perpetuate access to health services issues in our communities.

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HEALTHY KENT COMMUNITY HEALTH SURVEY: PRIMARY SOURCE OF HEALTH SERVICES

OVERVIEW: PRIMARY SOURCE OF HEALTH SERVICES

There are many options for accessing health services in the community, and the choice of where to receive health services often depends on a number of factors. Some of these factors include, but are not limited to:

- Type of insurance coverage and whether a given provider or facility accepts that type of insurance.
- Type of health condition and time of day symptoms begin to present.
- Geographic proximity of a health services facility.
- An individual's skill in navigating the healthcare system.

The most frequently visited sources of health services include primary care physicians' (doctors'), urgent care facilities, hospital emergency departments, community health centers and clinics, and health department clinics.

Primary Sources of Health Services	Definition
Primary Care Physician	Primary care providers are those physicians or qualified allied health professionals who deliver comprehensive health services in the clinic setting. They take care of a wide variety of problems and work with specialists in other fields of health and medicine to keep patients healthy[2].
Urgent Care Facility	Urgent care medicine is the provision of immediate medical service offering outpatient care for the treatment of acute and chronic illness and injury. Urgent care does not replace a primary care provider – instead it is a convenient option when a patient's regular provider is on vacation or unable to offer a timely appointment and serves as an alternative to visiting a hospital emergency room[3].
Hospital Emergency Department	Emergency medicine focuses on the immediate decision-making and action necessary to prevent death or any further disability. The emergency care provider provides immediate recognition, evaluation, care, stabilization, and disposition of a generally diversified population of patients in response to acute illness or injury[4].
Community Health Centers and Clinics	Community health centers are community-based and patient-directed organizations that serve populations with limited access to healthcare[5].
Health Departments	Health departments develop, implement, and administer programs and services that are aimed at maintaining a healthy community. They are responsible for the provision of the Essential Public Health Services[6].

While each of these types of facilities fill a necessary and important role in a community's healthcare system, not all of them are created equally. Of these options, only doctors' offices and sometimes community health centers, are able to provide continuity of care that patients truly need to achieve their greatest health potential. That is why in recent years, experts and researchers have begun to promote the importance of a medical home and the influence it can have on the overall health of an individual. The term *medical home* is used in today's healthcare world to describe a type of healthcare relationship between patients and their providers, whereby the patient is the focal point of the healthcare experience and the medical home is built around this center[1]. Participating in a medical home is an important way patients can unite the many different pieces of their overall healthcare experience to ensure coordinated, integrated care that promotes quality.

IMPACT ON HEALTH

Where an individual receives his or her healthcare can influence health status and health outcomes. Although hospital emergency departments are the one place in the U.S. healthcare system where patients have access to a full range of health services at any time regardless of their ability to pay or the severity of their condition, it is not the best place for patients to receive health services for non-urgent conditions[7]. When using the emergency room, or even an urgent care facility for that matter, patients do not receive the same continuity of care they would receive from a primary care provider. This is especially an issue for Americans suffering from long-term, chronic conditions. The benefits of having a primary care provider, whether through a doctor's office or community health center, include regular care, preventive screenings, assistance with medication management, and timely, continuous care for common illnesses, chronic conditions, and minor injuries[8].

Healthy Kent Community Health Survey Data
Primary Source of Health Services

	Doctor's Office	Health Department	Urgent Care Facility	Hospital Emergency Department	Community Health Center/Clinic
Total	**72.7%**	**2.2%**	**5.0%**	**9.1%**	**7.6%**
Age					
18 – 24 Years	67.7%	1.6%	8.3%	13.4%	5.1%
25-34 Years	71.2%	2.4%	8.1%	8.9%	7.0%
35-44 Years	75.3%	2.6%	4.5%	7.7%	7.9%
45 – 54 Years	69.8%	2.4%	3.8%	11.1%	8.4%
55 – 64 Years	75.5%	1.7%	1.7%	6.7%	10.0%
65 – 74 Years	84.3%	0.9%	--	6.5%	5.6%
75+ Years	83.8%	2.7%	2.7%	2.7%	5.4%
Gender					
Male	61.1%	2.8%	3.9%	12.2%	14.5%
Female	76.3%	1.9%	5.3%	8.2%	5.6%
Race					
White/Caucasian	82.6%	0.4%	5.4%	3.9%	5.0%
Black/African American	58.6%	3.4%	4.1%	21.2%	7.0%
Asian	70.6%	5.9%	--	14.7%	8.8%
Hispanic/Latino	52.3%	8.3%	4.0%	12.2%	20.8%
American Indian or Alaskan Native	54.5%	--	9.1%	27.3%	--
Native Hawaiian or Pacific Islander	33.3%	--	33.3%	33.3%	--
Multi-Racial	67.6%	1.5%	8.8%	14.7%	4.4%
Education					
Less Than High School	53.2%	7.5%	3.0%	18.4%	14.9%
High School Diploma	64.3%	3.1%	4.4%	15.2%	9.3%
GED	51.0%	4.1%	3.4%	25.9%	10.9%
Some College	67.1%	2.9%	5.8%	10.5%	8.5%
Associate Or Technical Degree	79.4%	0.4%	7.9%	2.8%	6.0%
Bachelor's Degree	86.3%	0.4%	5.1%	1.3%	4.5%
Master's Degree Or Higher	90.5%	--	4.2%	1.4%	3.2%
Household Income					
Less Than $20,000	56.0%	3.6%	6.2%	17.2%	12.3%
$20,000 to $40,000	72.9%	2.7%	6.7%	6.1%	7.7%
$40,000 to $60,000	89.0%	--	3.3%	1.8%	4.0%
$60,000 to $80,000	91.4%	--	6.1%	0.5%	--
$80,000 to $100,000	97.1%	--	0.7%	0.7%	0.7%
$100,000 to $120,000	93.9%	--	3.7%	--	1.2%
More Than $120,000	96.3%	--	1.9%	0.9%	--

SURVEY SUMMARY

Data from the 2014 Community Health Survey shows that most patients report either a doctor's office (72.7%) or community health center (7.6%) as their primary source of health services. However, among the population that responded to this survey, there are still more than 9% that use the emergency room as their primary source of health services. Many of those who use the emergency room for health services report an annual household income of less than $20,000 (17.2%) and have a high school education (15.2%), GED (25.9%), or less than a high school education (18.4%). Racial and ethnic minority groups also appear to be more likely to use the emergency room for health services than their white counterparts.

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HEALTHY KENT COMMUNITY HEALTH SURVEY: METHOD OF PAYMENT FOR HEALTHCARE SERVICES

OVERVIEW: METHOD OF PAYMENT FOR HEALTHCARE SERVICES

In the United States, methods of payment for individual healthcare services vary widely. Insurance coverage can be either private or public. Private insurance coverage is either paid solely by the individual or it is paid through an employer. Individuals pay their insurance premiums and when they need to access healthcare services, the insurance company helps to pay for the services used by the patient. Individuals with private insurance are often responsible for paying a copay.

Public insurance coverage includes Medicaid, Medicare, TRICARE, and Indian Health Services/Tribal Health Services. Medicaid is a public insurance program available for Americans who belong to certain special population groups (children, pregnant women, people with certain disabilities, etc.), as well as those who meet specific income eligibility criteria[1]. Medicare is a federal program established primarily for individuals 65 years and older and for those with disabilities. TRICARE is a health insurance program for military personnel, retirees, and their dependents. For individuals with TRICARE, they must first seek care in a military facility. If a military treatment facility is not available, or necessary services are not available, a referral will be given to a civilian physician who can meet the patient's healthcare needs. Indian Health Services is an agency within the Department of Health and Human Services. It provides federal health services to members of American Indian and Alaska Native tribes. Tribal governments and the United States government work together to promote the physical, mental, social, and spiritual health of American Indians and Alaska Natives[2]. Individuals without public or private insurance are left to pay all costs out of pocket.

IMPACT ON HEALTH

Merely the presence of insurance coverage generally improves health outcomes for individuals. For instance, individuals with health insurance are more likely to have a primary care provider, seek care early for acute illnesses, have preventive health screenings, and have better access to quality care[3]. However, the type of insurance that an individual has can also influence health outcomes. Often, timely access and the quality of care provided for those covered by Medicaid is lower when compared with those with private insurance. Medicaid recipients tend to have more difficulty accessing care due to lower reimbursement rates for physicians as compared to private insurance.

Healthy Kent Community Health Survey Data
Method of Payment for Healthcare Services

	Cash	Health Insurance (Self-Paid)	Health Insurance Through Employer	Medicaid	Medicare	Veteran's Administration, TRICARE	Indian Health Services, Tribal Health Services
Total	**13.3%**	**10.0%**	**39.4%**	**24.8%**	**6.7%**	**1.0%**	**0.1%**
Age							
18 – 24 Years	14.6%	14.6%	27.1%	33.6%	2.4%	2.4%	--
25-34 Years	13.6%	10.4%	42.8%	27.5%	1.9%	0.5%	0.2%
35-44 Years	16.8%	9.6%	41.8%	23.9%	2.1%	1.0%	--
45 – 54 Years	13.6%	7.6%	41.6%	25.6%	3.9%	1.2%	--
55 – 64 Years	9.5%	10.4%	44.5%	21.4%	7.4%	0.9%	0.3%
65 – 74 Years	4.2%	7.4%	23.2%	3.2%	56.8%	1.1%	--
75+ Years	3.3%	3.3%	16.7%	--	76.7%	--	--
Gender							
Male	18.7%	10.9%	30.4%	22.2%	9.2%	2.1%	--
Female	11.7%	9.7%	42.1%	25.4%	6.0%	0.7%	0.1%
Race							
White/Caucasian	9.4%	10.1%	49.7%	18.2%	6.6%	1.1%	--
Black/African American	12.7%	8.9%	19.4%	45.3%	8.4%	1.0%	--
Asian	20.0%	13.3%	50.0%	6.7%	--	--	--
Hispanic/Latino	31.7%	11.1%	23.9%	22.2%	6.9%	--	--
American Indian or Alaskan Native	8.3%	--	8.3%	75.0%	--	--	8.3%
Native Hawaiian or Pacific Islander	--	33.3%	33.3%	33.3%	--	--	--
Multi-Racial	9.9%	7.0%	31.0%	35.2%	5.6%	4.2%	1.4%

Healthy Kent Community Health Survey Data
Method of Payment for Healthcare Services

	Cash	Health Insurance (Self-Paid)	Health Insurance Through Employer	Medicaid	Medicare	Veteran's Administration, TRICARE	Indian Health Services, Tribal Health Services
Education							
Less Than High School	26.5%	8.5%	5.8%	47.1%	6.9%	--	--
High School Diploma	21.4%	7.4%	17.8%	39.7%	8.8%	0.3%	--
GED	21.2%	3.8%	5.3%	56.1%	7.6%	--	0.8%
Some College	12.5%	11.6%	26.3%	35.2%	7.0%	2.2%	--
Associate Or Technical Degree	8.9%	8.9%	54.7%	16.2%	5.7%	1.6%	--
Bachelor's Degree	5.9%	12.5%	63.5%	5.3%	5.5%	1.1%	0.2%
Master's Degree Or Higher	4.9%	10.5%	73.4%	2.1%	6.3%	0.7%	--
Household Income							
Less Than $20,000	19.5%	8.5%	6.1%	49.8%	8.3%	0.6%	0.1%
$20,000 to $40,000	15.1%	13.0%	38.2%	18.3%	8.3%	1.9%	--
$40,000 to $60,000	5.7%	11.7%	68.6%	5.3%	4.9%	1.5%	0.4%
$60,000 to $80,000	3.1%	9.2%	83.6%	--	2.1%	1.5%	--
$80,000 to $100,000	2.9%	9.4%	85.5%	0.7%	--	--	--
$100,000 to $120,000	6.0%	8.4%	75.9%	1.2%	1.2%	2.4%	--
More Than $120,000	3.8%	4.8%	85.7%	1.0%	1.9%	--	--

SURVEY SUMMARY

Of the Kent County residents who participated in the 2014 Community Health Survey, most reported having health insurance coverage through their employer (39.4%) or Medicaid (24.8%). More whites (49.7%) and Asians (50.0%) reported having health insurance through their employer than other race and ethnic groups. More African Americans (45.3%) and American Indian/Alaskan Natives (75.0%) reported their primary method of healthcare payment to be Medicaid than any other racial/ethnic group. Higher educational attainment among survey respondents correlated with having insurance through an employer, while lower educational attainment correlated with having Medicaid as the primary source of healthcare coverage.

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HEALTHY KENT COMMUNITY HEALTH SURVEY: BARRIERS TO HEALTHCARE SERVICES

OVERVIEW: BARRIERS TO HEALTHCARE SERVICES

Accessing healthcare services is not always a simple feat. For some patients - those with *and* without insurance - numerous factors can contribute to the difficulty they experience when trying to obtain necessary healthcare services. These factors are often viewed as barriers that are hard, or maybe even impossible, to overcome. Some key challenges include, but are not limited to:

- Cost of services.
- Cost of prescription medications.
- Too much paperwork and health literacy issues.
- Geographic location of healthcare facilities and transportation issues.
- Language barriers.
- Fear or distrust of the healthcare system by patients.

Cost is a common barrier to accessing healthcare services. As costs continue to rise, more people struggle to obtain the healthcare services they need. Even with insurance coverage, patients are beginning to find it difficult to afford the rising rates of copayments, premiums, and deductibles. Additionally, the costs of prescription medications continue to rise at an alarming rate, which poses a significant concern for those suffering from one or more chronic conditions. Many of these chronic illnesses require one or more medications to manage symptoms and cannot be controlled properly without the prescribed pharmaceutical intervention.

As the healthcare system and industry in the United States becomes more regulatory, the amount of required paperwork and forms increases for the providers and the patients. Many patients are asked to complete a series of forms before they even see a healthcare provider[1]. This can be overwhelming and frustrating for even the most informed patient, but it is even more so for those with limited literacy and health literacy concerns. Being bombarded with forms and paperwork can be a deterrent to seeking healthcare services, and can decrease patient satisfaction, as well.

Language barriers are another concern for a large subset of patients who are trying to access healthcare services. Communication is an essential feature of a typical patient-provider interaction. The interaction between patient and provider becomes more complicated when there is a language barrier. As a result, a complete medical history may not be given and necessary questions may not be asked. Medication dosage, instructions, and side effects may not be explained adequately when there is a language barrier[2].

Other frequently cited challenges to accessing healthcare services include geographic location of healthcare facilities, transportation issues, and distrust or fear of the healthcare system and those providing healthcare services. For people who live in rural areas or in areas without reliable transportation, getting to health care facilities can be a challenge. When a health condition requires regular monitoring, with multiple appointments, it may be difficult to find transportation that often. Distrust of the health care system in the United States is common and is associated with poorer self-reported health[3].

IMPACT ON HEALTH

All of the barriers described above influence a patient's ability to access necessary healthcare services, and therefore have the potential to negatively influence that patient's ability to achieve their highest health potential. With cost as a barrier, patients delay care until the illness has developed to a point that interrupts their lives. When a health condition reaches that point, it is likely to be more expensive to treat than if it had been treated in an earlier stage.

This logic applies to prescription drug usage, as well. When costs for needed prescription drugs are too high, patients may choose to not take their medication at all. If they do continue to take the medication, they may choose to take it only as they perceive the need, not as directed, in order to make the pills last longer. When this occurs, the medication is not achieving the intended effect in managing the condition for which it was prescribed, and can impact the health of the patient taking it.

The vast amount of required paperwork can deter patients from seeking care in the first place, especially if they have limited literacy or health literacy issues. Language and communication barriers can also prevent patients from seeking care, and if they do make it to their doctor's office, they often experience situations that contribute to low patient satisfaction and poorer health outcomes.

Geographic location and lack of transportation are important barriers to healthcare because of their influence on access. These issues contribute to missed appointments, as well as missed or delayed medication use. As a result, patients experience poorer health outcomes and are unable to adequately manage chronic and acute illnesses[4].

Healthy Kent Community Health Survey Data
Barriers to Healthcare Services

	No Barriers	Cost	Prescription Medication Cost	Too Much Paper Work	Location Of Health Care, No Transportation	Doctor's/Staff Do Not Speak My Language	Fear Or Distrust Of The Health Care System
Total	**17.3%**	**51.9%**	**31.0%**	**13.3%**	**13.6%**	**4.6%**	**12.9%**
Age							
18 – 24 Years	18.2%	58.5%	31.3%	12.7%	10.5%	5.1%	11.6%
25-34 Years	18.6%	57.2%	28.3%	12.2%	13.0%	4.9%	15.2%
35-44 Years	17.5%	54.0%	29.8%	11.2%	13.4%	4.1%	11.2%
45 – 54 Years	15.4%	53.9%	35.1%	15.4%	14.4%	5.4%	13.8%
55 – 64 Years	17.0%	46.1%	35.1%	15.8%	19.1%	4.3%	15.5%
65 – 74 Years	22.5%	47.5%	40.8%	20.8%	14.2%	4.2%	12.5%
75+ Years	23.8%	50.0%	28.6%	11.9%	4.8%	2.4%	4.8%
Gender							
Male	17.6%	50.1%	31.3%	15.5%	10.4%	4.5%	11.6%
Female	18.0%	54.5%	31.7%	13.0%	15.2%	4.8%	13.9%
Race							
White/Caucasian	18.1%	56.2%	33.1%	14.4%	14.4%	3.5%	15.3%
Black/African American	19.8%	49.2%	32.4%	14.1%	15.3%	3.7%	10.2%
Asian	5.6%	80.6%	33.3%	25.0%	16.7%	27.8%	11.1%
Hispanic/Latino	16.8%	45.9%	27.4%	9.0%	8.4%	9.8%	7.6%
American Indian or Alaskan Native	21.4%	50.0%	35.7%	7.1%	14.3%	--	7.1%
Native Hawaiian or Pacific Islander	33.3%	66.7%	--	--	33.3%	--	--
Multi-Racial	11.3%	58.8%	31. 3%	12.5%	22.5%	1.3%	21.3%
Education							
Less Than High School	19.2%	40.6%	25.9%	13.0%	15.1%	8.4%	8.4%
High School Diploma	19.9%	49.0%	26.5%	15.1%	13.5%	4.3%	6.6%
GED	20.1%	39.1%	27.2%	8.3%	13.0%	3.6%	11.8%
Some College	19.3%	55.1%	31.1%	13.5%	12.7%	3.6%	10.7%
Associate Or Technical Degree	17.5%	57.5%	38.4%	13.1%	10.8%	2.6%	13.4%
Bachelor's Degree	14.8%	61.9%	36.9%	14.6%	13.9%	5.2%	19.4%
Master's Degree Or Higher	16.4%	57.0%	35.7%	14.4%	20.0%	6.2%	21.0%
Household Income							
Less Than $20,000	18.4%	46.8%	27.9%	13.1%	14.5%	4.1%	10.1%
$20,000 to $40,000	14.8%	64.6%	39.9%	13.6%	11.5%	4.3%	14.0%
$40,000 to $60,000	16.7%	58.3%	32.6%	14.9%	15.3%	5.2%	16.0%
$60,000 to $80,000	15.5%	58.3%	38.3%	17.5%	15.0%	7.3%	20.9%
$80,000 to $100,000	21.8%	59.9%	36.1%	12.9%	14.3%	4.1%	17.7%
$100,000 to $120,000	24.7%	54.1%	23.5%	7.1%	18.8%	5.9%	18.8%
More Than $120,000	27.6%	44.8%	27.6%	16.4%	11.2%	3.4%	15.5%

SURVEY SUMMARY

The most frequently reported barriers to healthcare services in the 2014 Community Health Survey were general healthcare cost (51.9%) and prescription medication cost (31.0%). Cost was the biggest barrier to healthcare services across all racial/ethnic groups, all levels of educational attainment, and all levels of annual household income. While language barriers were the least frequently reported barrier (4.6%) overall, one racial/ethnic group – Asians (27.8%) – appeared to disproportionately encounter language barriers in the healthcare system when compared with other racial/ethnic groups.

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HEALTHY KENT COMMUNITY HEALTH SURVEY:
PRIMARY SOURCE OF HEALTH-RELATED INFORMATION

OVERVIEW: PRIMARY SOURCE OF HEALTH-RELATED INFORMATION

Individuals receive a wide range of health information through various forms of communication and sources. People are bombarded daily with hundreds of health-related messages from family, friends, the media, and more. Concern over how individuals obtain and use health information is increasing as new healthcare policies and procedures push patients to take more responsibility for their own health[1].

Historically, the most trusted and most used source of health-related information for patients and consumers has been physicians or other health professionals. However, as technology and the internet have become more widely available and accessible to people of all ages and all walks of life, patients are beginning to seek out health information on their own. People living with chronic conditions often tap into every available source of health information available to them[2].

IMPACT ON HEALTH

Having health-related information available through numerous sources may make patients better informed, leading to better health outcomes, more appropriate use of health services and resources, and possibly a stronger patient-provider relationship[3]. According to Healthy People 2020, strategically combining health information technology tools and communication processes, there is the potential to improve healthcare quality and safety, increase efficiency of healthcare and public health service delivery, improve the public health information infrastructure, support care in the community and at home, facilitate clinical and consumer decision-making, and build health skills and knowledge[4]

Healthy Kent Community Health Survey Data

Primary Source of Health-Related Information

	Health Professional	Social Media	The Internet	E-Newsletters	Church	Family And Friends	School	TV And Radio	Newspaper And Magazines	Community Service Organizations
Total	**44.6%**	**4.5%**	**13.0%**	**35.2%**	**12.0%**	**39.9%**	**6.6%**	**14.8%**	**10.7%**	**10.5%**
Age										
18 – 24 Years	38.5%	2.5%	16.7%	44.4%	9.1%	47.6%	10.2%	10.5%	6.9%	6.5%
25-34 Years	43.8%	3.3%	18.8%	44.1%	10.0%	43.6%	7.0%	11.2%	6.2%	10.4%
35-44 Years	41.6%	6.6%	15.1%	33.1%	13.8%	40.5%	10.1%	14.9%	12.2%	10.9%
45 – 54 Years	48.5%	6.4%	10.0%	32.1%	15.6%	39.7%	6.4%	17.0%	12.0%	12.0%
55 – 64 Years	52.4%	2.8%	7.9%	32.1%	11.2%	39.2%	2.3%	22.6%	15.5%	13.2%
65 – 74 Years	63.3%	6.7%	4.2%	28.3%	12.5%	29.2%	--	14.2%	17.5%	10.0%
75+ Years	50.0%	7.1%	9.5%	21.4%	21.4%	31.0%	2.4%	23.8%	26.2%	4.8%
Gender										
Male	41.1%	2.1%	11.2%	28.3%	13.3%	33.5%	4.5%	15.4%	5.4%	6.7%
Female	47.3%	5.4%	14.0%	38.5%	12.0%	43.3%	7.4%	14.8%	12.6%	11.9%

Healthy Kent Community Health Survey Data

Primary Source of Health-Related Information

	Health Professional	Social Media	The Internet	E-Newsletters	Church	Family And Friends	School	TV And Radio	Newspaper And Magazines	Community Service Organizations
Race										
White/Caucasian	51.1%	4.8%	14.0%	44.8%	9.3%	42.6%	6.2%	15.7%	14.0%	11.8%
Black/African American	40.0%	5.1%	12.4%	23.1%	19.8%	39.8%	7.6%	20.4%	6.9%	10.4%
Asian	50.0%	--	8.3%	33.3%	19.4%	58.3%	2.8%	8.3%	11.1%	8.3%
Hispanic/Latino	34.8%	4.6%	12.8%	20.9%	13.0%	35.3%	9.0%	8.4%	5.7%	8.4%
American Indian or Alaskan Native	21.4%	--	--	14.3%	14.3%	35.7%	--	14.3%	--	--
Native Hawaiian or Pacific Islander	66.7%	--	--	66.7%	--	--	--	--	--	--
Multi-Racial	48.8%	--	15.0%	33.8%	13.8%	46.3%	6.3%	8.8%	8.8%	7.5%
Education										
Less Than High School	32.2%	2.9%	9.2%	14.6%	14.2%	38.5%	5.9%	13.8%	5.0%	5.4%
High School Diploma	39.4%	2.3%	11.9%	22.7%	13.0%	36.6%	6.4%	14.2%	6.6%	6.9%
GED	33.7%	3.6%	14.2%	18.9%	22.5%	39.6%	6.5%	13.0%	1.2%	3.6%
Some College	44.2%	4.5%	10.9%	34.1%	13.5%	40.3%	6.9%	14.8%	7.7%	9.0%
Associate Or Technical Degree	47.8%	4.5%	14.6%	45.1%	9.3%	39.9%	8.2%	16.8%	14.9%	10.1%
Bachelor's Degree	54.5%	5.5%	16.4%	49.9%	8.4%	47.2%	6.8%	16.2%	14.6%	15.9%
Master's Degree Or Higher	61.6%	9.2%	16.4%	54.4%	10.8%	43.3%	5.6%	16.1%	23.0%	19.3%
Household Income										
Less Than $20,000	37.6%	2.7%	12.6%	27.1%	14.7%	39.0%	5.8%	14.4%	6.3%	8.1%
$20,000 to $40,000	44.4%	5.3%	12.6%	38.1%	12.5%	42.6%	9.1%	14.8%	7.8%	12.5%
$40,000 to $60,000	55.2%	7.3%	16.7%	45.5%	12.8%	44.8%	9.4%	16.0%	14.9%	12.2%
$60,000 to $80,000	55.8%	6.3%	14.6%	51.5%	9.7%	48.1%	6.3%	18.0%	23.8%	16.5%
$80,000 to $100,000	61.2%	8.2%	13.6%	47.6%	7.5%	44.9%	6.8%	17.0%	21.8%	12.2%
$100,000 to $120,000	62.4%	9.4%	21.2%	49.4%	10.6%	40.0%	7.1%	16.5%	15.3%	22.4%
More Than $120,000	59.5%	3.4%	12.9%	52.6%	3.4%	42.2%	3.4%	12.9%	19.0%	8.6%

SURVEY SUMMARY

The most popular sources of health-related information, according to the 2014 Community Health Survey were health professionals (44.6%) and family and friends (39.9%). Younger adults (age groups 18-24; 25-34) were more likely than other age groups to gather health-related information from e-newsletters, while older adults (age groups 55-64; 65-74; 75+) were more likely than other age groups to gather health-related information from newspapers, magazines, television, and radio. The least popular sources of health-related information, per the 2014 Community Health Survey, were social media (4.5%) and school (6.6%), respectively.

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HEALTHY KENT COMMUNITY HEALTH SURVEY: REGULAR EXAMINATION AND INFLUENZA VACCINATION

OVERVIEW: REGULAR EXAMINATION

Regular physical examinations are important for ensuring individual health and wellbeing. A full patient and family health history and information about lifestyle choices are collected through regular medical exams. This gives healthcare providers the opportunity to identify patient health risks[1]. Visiting a primary care physician regularly can also promote preventive strategies, like health screenings, as well as health promotion strategies to mediate health conditions before they begin or become serious.

Vision and oral health exams conducted regularly can also have a positive impact on a patient's overall health and wellbeing. Vision exams should be done in order to diagnose eye conditions and disease at an early stage so treatment can be initiated. Many eye exams involve dilation, allowing the ophthalmologist to look at the back of the eye, where many diseases begin. Patients with diabetes are one group that should pay even more attention to the importance of annual eye exams, as diabetes can affect the retina and cause blindness. Macular degeneration, cataracts, and glaucoma are other common eye diseases that can cause blindness if left undiagnosed and untreated.

Poor oral health is an indicator of poor overall health. Many oral diseases are preventable. Regular oral examinations give dental providers the opportunity to educate patients on proper oral healthcare and find oral health problems in the beginning stages, which allows for corrective action to be taken[2].

IMPACT ON HEALTH: REGULAR EXAMINATION

Regular physical, vision, and oral health exams can promote better health outcomes by identifying, diagnosing, and treating troublesome conditions at earlier stages, or by preventing their development altogether. Typically, the earlier a condition is identified, the greater chances of successful treatment and cure. This also promotes better health outcomes, overall.

OVERVIEW: INFLUENZA VACCINATION

Influenza is a contagious illness that can lead to hospitalization and sometimes death. Everyone is at-risk for developing influenza, but populations with compromised immune systems are at greatest risk. Vaccination provides protection against influenza, and can be given as a shot or nasal spray. The average person takes about two weeks to build up sufficient immunity to the influenza virus after the flu shot is given[3]. Because of this, it is important to get vaccinated before the flu season begins, which is usually early October.

IMPACT ON HEALTH: INFLUENZA VACCINATION

Receiving the flu vaccine can keep you from getting sick from the flu, and also protects the people around you who are more vulnerable to contracting serious flu illness[3]. Though the vaccine is not 100% effective and individuals can still get sick from the flu after a flu shot, they are less likely to experience severe flu illness. Research has shown the vaccine to reduce the risk of serious flu outcomes, like hospitalization and death[3].

Healthy Kent Community Health Survey Data
Regular Examination and Influenza Vaccination

	Physical	Vision	Dental	Immunization
Total	**79.1%**	**56.3%**	**63.8%**	**61.0%**
Age				
18 – 24 Years	73.5%	48.8%	60.2%	64.0%
25-34 Years	76.7%	47.6%	58.6%	53.1%
35-44 Years	77.3%	52.3%	64.1%	60.9%
45 – 54 Years	77.5%	62.2%	63.2%	57.6%
55 – 64 Years	87.1%	63.2%	70.5%	69.3%
65 – 74 Years	90.0%	82.1%	79.3%	80.0%
75+ Years	85.3%	74.3%	62.9%	73.5%
Gender				
Male	70.4%	51.5%	58.2%	51.4%
Female	81.7%	57.8%	57.8%	65.5%

Healthy Kent Community Health Survey Data Regular Examination and Influenza Vaccination	Physical	Vision	Dental	Immunization
Race				
White/Caucasian	81.8%	58.3%	70.2%	63.8%
Black/African American	81.0%	57.7%	54.1%	57.8%
Asian	64.5%	40.6%	61.3%	50.0%
Hispanic/Latino	69.6%	48.2%	52.8%	54.4%
American Indian or Alaskan Native	75.0%	63.6%	58.3%	66.7%
Native Hawaiian or Pacific Islander	66.7%	33.3%	66.7%	--
Multi-Racial	64.8%	50.0%	48.0%	56.3%
Education				
Less Than High School	65.4%	45.2%	36.9%	47.6%
High School Diploma	74.4%	52.0%	50.8%	55.8%
GED	74.8%	49.3%	44.1%	45.9%
Some College	77.6%	54.9%	57.0%	59.6%
Associate Or Technical Degree	85.7%	62.7%	71.7%	65.7%
Bachelor's Degree	83.3%	59.4%	79.0%	64.4%
Master's Degree Or Higher	86.8%	67.8%	88.9%	77.2%
Household Income				
Less Than $20,000	69.2%	50.4%	45.3%	48.6%
$20,000 to $40,000	81.5%	51.3%	61.7%	60.1%
$40,000 to $60,000	84.6%	63.4%	78.8%	71.5%
$60,000 to $80,000	88.8%	62.1%	86.7%	73.0%
$80,000 to $100,000	92.6%	65.5%	89.9%	75.4%
$100,000 to $120,000	90.2%	66.7%	90.2%	72.0%
More Than $120,000	**89.4%**	**75.2%**	**94.3%**	**82.7%**

SURVEY SUMMARY

Nearly 80.0% of 2014 Community Health Survey respondents reported having had a physical health exam within the past year. Subsequently, 63.8% of respondents reported an oral health exam within the past year and 56.3% of respondents reported a vision exam within the past year, respectively. The data showed a positive correlation between both vision and oral examinations and household income levels. Older adults (age groups 55-64; 65-74; and 75+) were more likely to receive all three types of examination than younger adults (age groups 18-24; 25-34).

The overall flu immunization rate for this population was 61.0%. Older adults (age groups 55-64; 65-74, and 75+ were more likely to report having received the flu vaccine than other population age groups. American Indian/Alaskan Natives (66.7%) and Whites (63.8%) more frequently reported having received the flu vaccine than other racial and ethnic groups. The lowest rate of influenza vaccination in this population was among those with a household income of $20,000 or less. The rate of immunization increased as income increased.

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HEALTHY KENT COMMUNITY HEALTH SURVEY: DISABILITIES

OVERVIEW: DISABILITIES

There are many types of disabilities. They can affect vision, movement, thinking, remembering, learning, communicating, hearing, mental health, and social relationships[1]. Anyone can have a disability. They can range from mild to severe, and can occur at any point in a person's life. In fact, there are between 37 and 57 million Americans living with a disability today. The highest rates of disability in persons older than 18 years old is observed among American Indian or Alaskan Native populations (29.9%), followed by non-Hispanic African Americans (21.2%) and non-Hispanic whites (20.3%), respectively[1].

IMPACT ON HEALTH

People with disabilities have the same general health care needs, but may also require some additional accommodations to access health services. Because of the need for special accommodations, people with disabilities may not receive needed health services, or may have delayed access to said services. For example, the Centers for Disease Control and Prevention indicate that significantly fewer women with disabilities receive Pap tests and mammograms than women without disability[1]. Disability has also been shown to have a negative impact on health-related quality of life, in both physical and mental dimensions[2].

Healthy Kent Community Health Survey Data

	Disability	Type Of Disability			
		Mobility	Medical	Visual	Hearing
Total	**20.4%**	**3.6%**	**8.8%**	**2.5%**	**1.9%**
Age					
18 – 24 Years	5.8%	1.1%	3.6%	1.8%	0.4%
25-34 Years	10.0%	0.9%	3.9%	1.3%	0.5%
35-44 Years	18.5%	2.6%	8.1%	1.8%	1.7%
45 – 54 Years	31.9%	5.0%	15.6%	4.0%	2.0%
55 – 64 Years	32.3%	6.9%	12.2%	4.3%	3.3%
65 – 74 Years	28.4%	12.5%	11.7%	3.3%	7.5%
75+ Years	33.3%	2.4%	16.7%	2.4%	9.5%
Gender					
Male	29.2%	4.3%	10.2%	5.0%	3.1%
Female	17.9%	3.5%	8.6%	1.9%	1.6%
Race					
White/Caucasian	17.2%	3.5%	8.1%	1.5%	2.6%
Black/African American	36.7%	4.5%	14.7%	5.5%	0.8%
Asian	6.3%	--	2.8%	--	--
Hispanic/Latino	9.2%	3.0%	3.0%	2.4%	1.1%
American Indian or Alaskan Native	75.0%	7.1%	42.9%	--	--
Native Hawaiian or Pacific Islander	--	--	--	--	--
Multi-Racial	28.2%	7.5%	13.8%	7.5%	2.5%
Education					
Less Than High School	35.9%	6.3%	14.2%	6.7%	2.9%
High School Diploma	30.9%	6.6%	12.8%	3.7%	3.0%
GED	42.3%	3.6%	19.5%	5.9%	1.8%
Some College	25.2%	4.5%	12.2%	2.6%	1.7%
Associate Or Technical Degree	16.0%	2.6%	6.0%	2.6%	3.0%
Bachelor's Degree	8.0%	2.0%	3.7%	0.7%	1.1%
Master's Degree Or Higher	3.9%	--	1.0%	--	1.3%

Healthy Kent Community Health Survey Data					
	Disability	Type Of Disability			
		Mobility	Medical	Visual	Hearing
Household Income					
Less Than $20,000	36.7%	6.5%	16.9%	4.6%	2.7%
$20,000 to $40,000	13.7%	2.5%	5.1%	1.8%	1.6%
$40,000 to $60,000	7.4%	1.4%	3.1%	0.7%	1.4%
$60,000 to $80,000	4.6%	0.5%	1.9%	0.5%	1.5%
$80,000 to $100,000	2.9%	--	2.7%	0.7%	1.4%
$100,000 to $120,000	6.2%	1.2%	1.2%	--	1.2%
More Than $120,000	4.8%	0.9%	1.7%	0.9%	0.9%

SURVEY SUMMARY

About 20% of all people participating in the 2014 Community Health Survey reported having some type of disability. Rates of disability were highest amongst populations 35 years or older. More males (29.2%) reported having a disability than females (17.9%) in this sample, and higher rates of disability were observed in individuals reporting educational attainment of GED (42.3%), high school diploma (30.9%), or less than a high school education (35.9%). Higher rates of disability were also reported in lower income groups as compared to higher income groups in this population.

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HEALTHY KENT COMMUNITY HEALTH SURVEY: HELMET USE AND BASIC EMERGENCY READINESS

OVERVIEW: HELMET USE

Helmets are a key piece of protective equipment necessary for preventing injury when a person is participating in activities like riding a motorcycle, bicycle, scooter, skateboard, or rollerblades.

Though wearing a helmet is an easy way to prevent serious injury, many people do not choose to wear one when participating in potentially dangerous activities. The Michigan State Police estimates that helmets prevent fatal injuries to motorcyclists 37% of the time and that an unhelmeted motorcyclist is 40% more likely to suffer a fatal head injury and 15% more likely to incur a nonfatal head injury than a helmeted rider[1]. As a result, more than 2,200 people are killed in motorcycle crashes each year and more than 55,000 are injured[2].

Currently, 19 states have enacted mandatory helmet laws for those using motorized vehicles on the road. Another 28 states have a partial law in place that requires some motorists to wear a helmet[3]. Michigan has a partial law in place.

IMPACT ON HEALTH

Failure to wear a helmet can result in trauma to the brain, which can cause concussions and open skull fractures. Even head injuries that do not cause a loss of consciousness can result in permanent damage to the brain. This damage can lead to behavioral problems, cognitive issues, permanent disability, and sometimes even death[4]. Many of these injuries and deaths are preventable.

Healthy Kent Community Health Survey Data

Helmet Use

	Always	Nearly Always	Sometimes	Rarely	Never
Total	**18.9%**	**7.9%**	**7.4%**	**6.0%**	**18.1%**
Age					
18 – 24 Years	16.5%	9.6%	11.9%	10.3%	22.2%
25-34 Years	19.7%	7.6%	9.6%	9.4%	21.2%
35-44 Years	18.6%	8.8%	7.6%	4.7%	21.1%
45 – 54 Years	17.8%	8.7%	6.5%	3.9%	18.3%
55 – 64 Years	24.2%	6.6%	3.2%	3.5%	10.1%
65 – 74 Years	17.4%	5.5%	0.9%	1.8%	3.7%
75+ Years	5.6%	5.6%	2.8%	--	2.8%
Gender					
Male	17.2%	6.6%	7.8%	7.2%	24.0%
Female	19.4%	8.4%	7.3%	5.6%	16.3%
Race					
White/Caucasian	24.1%	11.5%	7.8%	6.0%	14.6%
Black/African American	8.3%	0.9%	5.7%	6.6%	23.1%
Asian	18.8%	6.3%	6.3%	6.3%	9.4%
Hispanic/Latino	12.3%	2.9%	7.7%	6.1%	24.8%
American Indian or Alaskan Native	8.3%	--	--	8.3%	33.3%
Native Hawaiian or Pacific Islander	33.3%	33.3%	--	--	--
Multi-Racial	15.1%	5.5%	9.6%	4.1%	24.7%
Education					
Less Than High School	12.1%	2.0%	5.5%	2.0%	28.1%
High School Diploma	15.1%	2.0%	6.5%	5.0%	20.9%
GED	11.6%	3.4%	5.5%	7.5%	20.5%
Some College	15.1%	5.3%	6.5%	6.9%	20.6%
Associate Or Technical Degree	20.1%	7.5%	8.3%	7.9%	24.0%
Bachelor's Degree	23.8%	15.6%	8.6%	7.8%	10.1%
Master's Degree Or Higher	30.2%	14.2%	8.7%	2.8%	9.4%
Household Income					
Less Than $20,000	13.3%	4.3%	5.3%	5.6%	22.3%
$20,000 to $40,000	18.6%	5.4%	8.7%	6.4%	18.2%
$40,000 to $60,000	19.5%	11.8%	11.4%	7.7%	12.9%
$60,000 to $80,000	20.9%	15.8%	10.2%	5.1%	15.8%
$80,000 to $100,000	33.1%	13.7%	9.4%	7.2%	9.4%
$100,000 to $120,000	28.4%	18.5%	3.7%	7.4%	17.3%
More Than $120,000	37.1%	16.2%	7.6%	4.8%	11.4%

SURVEY SUMMARY

According to the 2014 Community Health Survey, 18.9% of respondents reported always wearing a helmet when riding bicycles, motorcycles, rollerblades, scooters, and skateboards. The highest reported rate of helmet use was among those aged 55-64 years of age. Regular helmet use was more frequently reported among women, and among those with higher educational attainment (associate or technical degree or higher). Respondents reporting higher incomes were also more likely to report always using helmets.

Healthy Kent Community Health Survey Data
Basic Emergency Supply Kit

Total	**36.9%**
Age	
18 – 24 Years	38.8%
25-34 Years	33.8%
35-44 Years	37.4%
45 – 54 Years	36.8%
55 – 64 Years	40.4%
65 – 74 Years	36.0%
75+ Years	45.9%
Gender	
Male	37.3%
Female	36.8%
Race	
White/Caucasian	40.2%
Black/African American	34.3%
Asian	32.3%
Hispanic/Latino	28.3%
American Indian or Alaskan Native	8.3%
Native Hawaiian or Pacific Islander	66.7%
Multi-Racial	31.1%
Education	
Less Than High School	29.6%
High School Diploma	34.7%
GED	25.7%
Some College	40.8%
Associate Or Technical Degree	42.5%
Bachelor's Degree	38.5%
Master's Degree Or Higher	38.2%
Household Income	
Less Than $20,000	31.1%
$20,000 to $40,000	38.4%
$40,000 to $60,000	37.4%
$60,000 to $80,000	41.8%
$80,000 to $100,000	42.4%
$100,000 to $120,000	43.2%
More Than $120,000	46.2%

OVERVIEW: BASIC EMERGENCY SUPPLY KIT

A disaster supplies kit, or basic emergency supply kit, is simply a collection of basic items a household may need in the event of an emergency[5]. In an emergency, electric, gas, and water resources may be shut off or inaccessible. The basic emergency supplies kit can include items such as: water, non-perishable foods, necessary medications, first-aid kits, flashlights and extra batteries, manual can-opener, and blankets.

The kit should contain enough supplies to sustain the entire household for at least three days. It should be regularly examined throughout the year to ensure it is fully stocked and ready for use if an emergency does occur[6].

IMPACT ON HEALTH

When a household is prepared to support and sustain itself during an emergency situation, that household will have a more positive experience and likely better outcomes than a household that was not prepared. Families with basic emergency supply kits are equipped with resources necessary to treat injuries, sustain energy and hydration, and to keep warm and dry as they await needed assistance from first responders.

SURVEY SUMMARY

Nearly 37% of 2014 Community Health Survey respondents reported having a basic emergency supply kit prepared for their family or household. The percent of people who reported having a basic emergency supply kit in their home was fairly consistent across age groups and gender. White (40.2%) respondents in this population were more likely than most other racial/ethnic groups to report having a basic emergency supply kit prepared in their home. There was a positive correlation between income and having a basic emergency supply kit, meaning that as income went up, so did the percent of people who reported having a kit prepared in their home. A similar finding was observed with educational attainment. The higher the respondent's educational attainment, the higher likelihood of having a basic emergency supply kit.

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HEALTHY KENT COMMUNITY HEALTH SURVEY: HEALTHY HOUSING

OVERVIEW: HEALTHY HOUSING

Homes have an important and unique influence in the lives of people. Individuals and families start and end their days within their homes. Homes are where children live and play, friends and families gather, and where people seek safety and refuge. However, if a home does not meet safety and sanitary standards, it can cause great detriment to the health of those who dwell within it. Currently in the United States, there are millions of homes that have moderate to severe physical housing problems. The table below describes some common housing issues, including: secondhand smoke exposure, lead contamination, pest infestation, mold, and carbon monoxide.

Housing Issue	Description
Secondhand Smoke	Smoking inside the home is the number one way that children are exposed to secondhand smoke and a major place that nonsmoking adults are exposed. Secondhand smoke is a mixture of gasses and fine particles that includes: (1) smoke from a burning tobacco product such as a cigarette, cigar, or pipe, (2) smoke that has been exhaled or breathed out by the person or people smoking, (3) more than 7,000 chemicals, including hundreds that are toxic and about 70 that can cause cancer[1].
Lead Contamination	A home with peeling paint is an indication of the presence of lead. Peeling paint is hazardous, therefore it is important for deteriorating paint to be repaired properly[2]. In 1978, the use of lead-based paint was banned in the United States. However, homes built before that year may still have lead-based paint in them. In fact, about 24 million apartments and homes throughout the United States report peeling lead-based paint.
Pest Infestation	Rodents and cockroaches are two key household pests that can negatively impact the health of the inhabitants of an affected house. Rodents carry and spread over 35 diseases. These diseases are spread directly through touching rodents, their feces, urine or saliva, or their bites. Disease can also be spread indirectly through the ticks, mites, and fleas that infect the rodents[3]. Cockroaches are one of the most common allergenic pests and can be found in any type of neighborhood or home - even clean ones. The saliva and droppings of cockroaches contain allergy-causing proteins[4].
Mold	Molds are fungi that can be found both indoors and outdoors[5]. It grows best in warm, damp, and humid conditions and spreads by making spores. Kitchens, bathrooms, and basements are rooms that commonly have mold due to their damp and warm climates.
Carbon Monoxide	Carbon monoxide is a colorless and odorless gas that can cause illness and death. Gas and oil burning furnaces, charcoal grills, and generators produce carbon monoxide. Without a carbon monoxide detector, families will be unaware of this gas until they are sick[6].

IMPACT ON HEALTH

Each of the housing issues described in the previous section are important to health and wellbeing. People who reside in homes afflicted with these types of housing issues (and others) are exposed to a number of health conditions including unintentional injuries, respiratory illness, asthma, lead poisoning, and cancer[7]. The table below describes some of the major health impacts that each housing issue can have on an individual or family's health.

Housing Issue	Impact on Health
Secondhand Smoke	There is no risk-free level of secondhand smoke exposure. Even brief periods of exposure can be harmful to health[1]. Exposure to secondhand smoke in the home is related to increased risk of heart disease, lung cancer, asthma complications, respiratory symptoms and infections, and stroke. Since 1964, 2.5 million nonsmokers have died from secondhand smoke exposure[1].
Lead Contamination	Lead exposure poses many health risks, especially to children. It can affect the kidneys, nervous system, reproductive system, and can cause high blood pressure. Lead also poses a special risk to pregnant women. Heightened lead levels in children can cause learning disabilities and behavioral problems. Extremely high levels of lead exposure, or lead poisoning can cause seizures, comas, and even death[2].
Pest Infestation	Exposure to rodents can trigger asthma attacks[8]. Rodents are also known vectors for serious illness, such as hantavirus, which can lead to severe health issues. Cockroaches are known to cause respiratory and gastrointestinal illness. The debris left behind by cockroaches, such as their shells, saliva, droppings, and body parts, can trigger asthma attacks in people who are prone to asthma or who are sensitive to the allergy-causing protein present in these debris[9].

Housing Issue	Impact on Health
Mold	The presence of mold can cause many health problems for healthy people, as well as people with preexisting health conditions and/or sensitivity to mold. Nasal stuffiness, eye irritation, wheezing, and skin irritation are some of the symptoms that may be experienced by people with a sensitivity. Severe reactions include fever and shortness of breath. People with an existing lung disease may develop mold infections in their lungs. Other potential health issues associated with mold exposure may include upper respiratory tract infections, coughing and wheezing, and asthmatic symptoms[5].
Carbon Monoxide	All levels of carbon monoxide exposure pose health risks to humans, especially unborn babies, children, the elderly, and people with respiratory problems or heart disease[10]. Low levels of carbon monoxide exposure can cause flu-like symptoms, headaches, dizziness, and fogginess. The longer the exposure to carbon monoxide, the more damage that occurs. People who are exposed to high levels of carbon monoxide can experience visual impairment, reduced work capacity, poor learning ability, difficulty in performing complex tasks, and even death[10]. More than 200 Americans die each year from accidental carbon monoxide poisoning in the home.

Healthy Kent Community Health Survey Data
Frequency of Secondhand Smoke Exposure in the Home

	Daily	Weekly	Monthly	A Few Times	Never
Total	**12.3%**	**3.3%**	**1.0%**	**12.0%**	**71.4%**
Age					
18 – 24 Years	13.8%	3.1%	2.0%	11.8%	69.3%
25 - 34 Years	9.8%	3.0%	1.2%	12.8%	73.2%
35 - 44 Years	9.3%	3.3%	1.0%	8.7%	77.6%
45 – 54 Years	17.1%	3.6%	0.9%	13.3%	65.1%
55 – 64 Years	16.3%	2.9%	0.3%	14.5%	66.0%
65 – 74 Years	3.9%	5.9%	2.0%	10.8%	77.5%
75+ Years	5.3%	2.6%	--	5.3%	86.8%
Gender					
Male	17.3%	6.3%	0.8%	13.3%	62.3%
Female	11.0%	2.5%	1.1%	11.7%	73.7%
Race					
White/Caucasian	11.0%	2.7%	0.8%	10.9%	74.6%
Black/African American	20.5%	4.6%	1.6%	16.6%	56.7%
Asian	6.1%	18.2%	--	6.1%	69.7%
Hispanic/Latino	4.1%	3.2%	1.6%	10.2%	80.9%
American Indian or Alaskan Native	36.4%	45.5%	--	18.2%	36.4%
Native Hawaiian or Pacific Islander	--	--	--	--	100.0%
Multi-Racial	21.7%	1.4%	1.4%	15.9%	59.4%
Education					
Less Than High School	22.2%	4.6%	0.5%	11.3%	61.3%
High School Diploma	18.2%	3.6%	1.8%	14.3%	62.0%
GED	23.7%	1.4%	1.4%	16.5%	56.8%
Some College	16.8%	5.0%	0.8%	15.1%	62.3%
Associate Or Technical Degree	9.2%	3.6%	--	12.0%	75.1%
Bachelor's Degree	4.8%	2.3%	1.1%	9.6%	82.2%
Master's Degree Or Higher	1.4%	1.7%	0.7%	7.7%	88.5%
Household Income					
Less Than $20,000	22.0%	5.6%	1.6%	14.5%	56.3%
$20,000 to $40,000	9.6%	2.3%	0.4%	14.2%	73.5%
$40,000 to $60,000	6.0%	0.7%	1.5%	11.6%	80.1%
$60,000 to $80,000	3.6%	3.1%	0.5%	9.7%	83.1%
$80,000 to $100,000	2.2%	0.7%	--	8.2%	88.8%
$100,000 to $120,000	1.3%	--	--	2.5%	96.3%
More Than $120,000	1.9%	1.9%	1.0%	3.8%	91.3%

SURVEY SUMMARY

Secondhand Smoke

The 2014 Community Health Survey asked respondents three questions regarding secondhand smoke in the home. The first question asked respondents whether anyone living in their household smoked in the home. The second question asked whether visitors were allowed to smoke in the home. The final question asked how frequently secondhand smoke is entering the respondents' homes.

Data collected indicates that more than 70% of survey respondents are not allowing secondhand smoke to enter their home at all. About 12% of respondents reported that secondhand smoke enters their home daily, while another 12% of respondents reported that secondhand smoke has entered their home a few times.

Daily exposure to secondhand smoke in the home was reported more frequently among those persons with lower educational attainment (GED, high school diploma, or less than a high school diploma) and among those with a household income of less than $20,000 (22.0%). Daily exposure to secondhand smoke in the home was also reported more frequently among African Americans (20.5%), multi-racial individuals (21.7%), and American Indian or Alaskan Native (36.4%) persons. Among those responding to the other secondhand smoke questions on the 2014 Community Health Survey, 19% reported that household residents smoked within the home, and another 14.3% reported that they allow visitors to smoke in their home. Smoking in the home by a member of the household was more frequently reported among multi-racial (26.1%) individuals, African Americans (32.8%), and American Indian or Alaskan Natives (45.5%).

Those reporting a household resident who smokes in the home were also more likely to have lower educational attainment (GED, high school diploma, or less than a high school diploma) and report a household income of $20,000 or less.

Those who reported that visitors were allowed to smoke in their home were also more likely to have lower educational attainment (GED, high school diploma, or less than a high school diploma) and report a household income of $20,000 or less. Multi-racial (21.1%) individuals, African Americans (28.5%), and American Indian and Alaskan Natives (36.4%) were also more likely to report that visitors are allowed to smoke in their home.

Healthy Kent Community Health Survey Data
Secondhand Smoke

	Resident	Visitor
Total	**19.0 %**	**14.3 %**
Age		
18 – 24 Years	20.5%	15.2%
25-34 Years	14.1%	9.3%
35-44 Years	15.2%	11.7%
45 – 54 Years	25.6%	20.6%
55 – 64 Years	25.9%	19.8%
65 – 74 Years	13.3%	9.9%
75+ Years	5.3%	5.1%
Gender		
Male	27.6%	23.0%
Female	16.6%	11.9%
Race		
White/Caucasian	15.7%	10.9%
Black/African American	32.8%	28.5%
Asian	15.2%	14.7%
Hispanic/Latino	12.6%	7.3%
American Indian or Alaskan Native	45.5%	36.4%
Native Hawaiian or Pacific Islander	--	--
Multi-Racial	26.1%	21.1%
Education		
Less Than High School	31.3%	25.1%
High School Diploma	29.3%	19.6%
GED	30.1%	26.6%
Some College	24.6%	20.1%
Associate Or Technical Degree	15.4%	10.6%
Bachelor's Degree	8.4%	5.4%
Master's Degree Or Higher	3.5%	2.5%
Household Income		
Less Than $20,000	32.0%	25.2%
$20,000 to $40,000	15.8%	10.0%
$40,000 to $60,000	8.9%	6.7%
$60,000 to $80,000	9.3%	4.7%
$80,000 to $100,000	5.8%	2.2%
$100,000 to $120,000	1.3%	--
More Than $120,000	1.9%	6.9%

Lead Contamination

The 2014 Community Health Survey asked respondents two questions pertaining to potential lead contamination within the home. The first question asked whether the home has peeling paint, while the second question asked whether the home was built before 1978. This was asked because the use of lead-based paint in residential homes was banned after 1978.

It appears that almost 50% of survey respondents live in homes that were built before 1978. People from all walks of life seem to live in these older homes, with no specific demographic group significantly more likely to live in these homes. Just over 15% of respondents report that their homes have peeling paint. Again, there does not seem to be one demographic group that experiences peeling paint significantly more than others.

Pest Infestation

Respondents to the 2014 Community Health Survey were asked to report whether they had observed signs of cockroaches and/or rodents in their homes during the past 12 months. Over 18% of survey participants reported signs of rodents, while 7.5% of survey participants reported signs of cockroaches. Reports of rodents and cockroaches in the home were more frequently reported among those with lower household incomes, particularly those with a household income of less than $20,000 (21.5% for rodents, 13.4% for cockroaches).

Mold

Twenty-three percent of 2014 Community Health Survey respondents noted that they had observed mold within their home during the past 12 months. Mold in the home appears to transcend most demographic groups, as the presence of mold in the home seems to affect most age groups, genders, and races similarly. There are not significant differences among educational attainment levels or household income brackets, either.

According to the data provided, the most common sites mold was observed within the home were bathrooms (12.3%) and basements (7.9%).

Carbon Monoxide

More than half of the 2014 Community Health Survey participants reported that they have a working carbon monoxide detector in their home. Presence of a carbon monoxide detector in the home was more frequently reported amongst those with a household income of $60,000 or more and with an educational attainment of at least some college. Having a working carbon monoxide detector in the home was fairly consistent across age groups, genders, and race/ethnicity.

Healthy Kent Community Health Survey Data

	Carbon Monoxide Detector
Total	**56.8 %**
Age	
18 – 24 Years	57.3%
25-34 Years	56.7%
35-44 Years	56.7%
45 – 54 Years	54.3%
55 – 64 Years	58.5%
65 – 74 Years	61.6%
75+ Years	64.7%
Gender	
Male	57.8%
Female	56.6%
Race	
White/Caucasian	59.3%
Black/African American	53.7%
Asian	52.9%
Hispanic/Latino	53.1%
American Indian or Alaskan Native	33.3%
Native Hawaiian or Pacific Islander	66.7%
Multi-Racial	51.5%
Education	
Less Than High School	53.7%
High School Diploma	50.9%
GED	48.9%
Some College	56.2%
Associate Or Technical Degree	55.8%
Bachelor's Degree	61.2%
Master's Degree Or Higher	65.7%
Household Income	
Less Than $20,000	49.5%
$20,000 to $40,000	55.9%
$40,000 to $60,000	59.4%
$60,000 to $80,000	66.0%
$80,000 to $100,000	70.6%
$100,000 to $120,000	63.3%
More Than $120,000	68.6%

Healthy Kent Community Health Survey Data

	Lead Contamination		Pest Infestation	
	Peeling Paint	House Built Before 1978	Rodent	Cockroach
Total	**15.3 %**	**46.8 %**	**18.5 %**	**7.5 %**
Age				
18 – 24 Years	15.6%	30.9%	17.1%	8.0%
25-34 Years	17.4%	43.9%	19.2%	7.5%
35-44 Years	16.6%	46.2%	21.9%	8.7%
45 – 54 Years	13.2%	53.8%	17.0%	8.7%
55 – 64 Years	14.0%	54.4%	15.6%	5.6%
65 – 74 Years	11.2%	51.6%	23.6%	2.9%
75+ Years	5.7%	39.4%	10.3%	5.1%
Gender				
Male	14.5%	49.5%	15.3%	7.6%
Female	15.5%	46.2%	19.4%	7.6%
Race				
White/Caucasian	15.7%	50.8%	18.1%	4.8%
Black/African American	11.9%	40.8%	18.9%	9.2%
Asian	22.9%	33.3%	--	5.9%
Hispanic/Latino	17.3%	40.5%	20.8%	16.3%
American Indian or Alaskan Native	--	50.0%	--	27.3%
Native Hawaiian or Pacific Islander	--	33.3%	--	--
Multi-Racial	18.1%	36.1%	26.8%	11.1%
Education				
Less Than High School	14.8%	40.4%	26.8%	18.4%
High School Diploma	13.8%	44.4%	19.4%	11.3%
GED	15.3%	40.9%	21.8%	14.8%
Some College	15.1%	44.2%	19.8%	6.9%
Associate Or Technical Degree	14.6%	45.8%	12.3%	6.3%
Bachelor's Degree	17.6%	54.3%	16.6%	2.5%
Master's Degree Or Higher	14.1%	47.9%	17.4%	2.4%
Household Income				
Less Than $20,000	15.8%	45.0%	21.5%	13.4%
$20,000 to $40,000	18.2%	52.2%	19.9%	6.1%
$40,000 to $60,000	19.0%	55.6%	17.2%	2.6%
$60,000 to $80,000	15.5%	48.2%	17.3%	1.5%
$80,000 to $100,000	9.4%	45.9%	10.2%	0.7%
$100,000 to $120,000	6.3%	38.0%	8.9%	--
More Than $120,000	5.7%	30.4%	13.3%	1.0%

Healthy Kent Community Health Survey Data

	Presence of Mold	Location Of Mold				
		Kitchen	Bathroom(s)	Bedroom(s)	Living Room	Basement
Total	**23.0 %**	**3.2 %**	**12.3 %**	**3.1 %**	**1.2 %**	**7.9 %**
Age						
18 – 24 Years	23.2%	5.8%	14.9%	4.7%	1.8%	7.3%
25-34 Years	22.4%	3.2%	13.3%	3.3%	1.4%	7.4%
35-44 Years	25.8%	2.6%	14.2%	4.6%	0.9%	8.8%
45 – 54 Years	24.0%	3.6%	12.8%	2.6%	1.2%	9.4%
55 – 64 Years	18.0%	2.5%	9.2%	0.8%	0.5%	5.9%
65 – 74 Years	25.5%	1.7%	10.8%	1.7%	--	12.5%
75+ Years	15.4%	2.4%	9.5%	4.8%	2.4%	4.8%
Gender						
Male	20.3%	2.1%	10.0%	3.1%	0.5%	6.0%
Female	23.8%	3.7%	13.4%	3.3%	1.4%	8.7%
Race						
White/Caucasian	24.2%	3.2%	13.6%	3.2%	0.9%	9.0%
Black/African American	19.7%	3.9%	9.2%	2.7%	2.4%	6.5%
Asian	25.7%	--	11.1%	5.6%	2.8%	5.6%
Hispanic/Latino	21.2%	2.2%	12.2%	3.5%	0.8%	7.1%
Multi-Racial	35.7%	6.3%	23.8%	5.0%	2.5%	11.3%
Education						
Less Than High School	17.7%	3.3%	8.4%	2.9%	2.1%	4.6%
High School Diploma	20.0%	4.8%	11.0%	3.9%	0.9%	6.6%
GED	15.1%	3.0%	8.9%	1.8%	2.4%	3.6%
Some College	23.7%	3.9%	12.9%	3.4%	1.3%	9.2%
Associate Or Technical Degree	24.9%	1.9%	13.4%	3.4%	0.7%	10.8%
Bachelor's Degree	27.9%	3.4%	16.8%	3.4%	1.2%	10.5%
Master's Degree Or Higher	23.5%	1.3%	11.8%	2.6%	0.7%	8.2%
Household Income						
Less Than $20,000	22.7%	4.5%	12.3%	3.7%	1.3%	6.3%
$20,000 to $40,000	26.6%	3.3%	15.2%	4.7%	1.9%	11.9%
$40,000 to $60,000	22.1%	3.5%	12.2%	2.4%	1.0%	9.7%
$60,000 to $80,000	27.2%	2.4%	17.0%	2.4%	1.0%	10.7%
$80,000 to $100,000	20.1%	0.7%	14.3%	2.0%	1.4%	4.8%
$100,000 to $120,000	22.5%	1.2%	10.6%	2.4%	--	10.6%
More Than $120,000	10.7%	--	3.4%	--	--	6.0%

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Healthy Kent Community Health Survey: Septic Systems

Overview: Septic Systems

Septic systems play an important role in sanitation and disease prevention. They are most simply defined as a sewage treatment and disposal system that is buried underground[1]. Homes that are connected to municipal sewer systems do not usually have septic systems, so therefore not all homes have their own septic system. However, homeowners that do have their own septic system have the responsibility to ensure that the system does not get too full or leak. A leaking septic system can negatively affect drinking water wells, as well as nearby lakes, streams, and other water sources. A septic system should be pumped regularly and before an overflow occurs. By maintaining the system properly, a septic system will last 20 to 30 years.

Impact on Health

A leaking or failing septic system can have serious health consequences. Infection and disease can spread into nearby water resources due to bacteria, viruses, and parasites contained in household waste. Household pollutants like phosphorus and nitrogen can further pollute the environment surrounding a septic system[2]. Some of the wastewater-related bacterial diseases that could be caused as a result of a failing or overflowing septic system are typhoid, paratyphoid, dysentery, gastroenteritis, and cholera[3]. In addition to bacterial diseases, wastewater is responsible for viral infections in humans, as well. In fact, there may be as many as 100 different types of viruses in raw sewage, some of which include hepatitis A and viral gastroenteritis. Children and the elderly are most vulnerable to the types of conditions caused by failing or overflowing septic systems[3].

Survey Summary

Data from the 2014 Community Health Survey shows that about 27.4% of respondents reported that their home had a septic system. Only 12.0% reported that their septic system had been inspected or pumped by a professional within the past three years. Those with a household income of $100,000 or higher were more likely to have had their septic system pumped or inspected by a professional within the past three years.

Healthy Kent Community Health Survey Data: Septic Systems

	Home Has Septic System	Inspection And Pump		
		3 Years Or Less	Between 3 – 5 Years Ago	More Than 6 Years Ago
Total	**27.4%**	**12.0%**	**3.5%**	**2.1%**
Age				
18 – 24 Years	37.7%	11.1%	0.9%	0.9%
25-34 Years	26.5%	9.8%	4.2%	0.4%
35-44 Years	25.7%	12.9%	2.3%	1.4%
45 – 54 Years	26.4%	13.9%	2.8%	3.9%
55 – 64 Years	27.4%	13.1%	6.7%	3.2%
65 – 74 Years	21.6%	7.9%	5.6%	4.5%
75+ Years	20.0%	10.5%	--	7.9%
Gender				
Male	25.7%	11.1%	3.9%	1.9%
Female	27.9%	12.1%	3.3%	2.2%
Race				
White/Caucasian	29.7%	12.9%	4.5%	2.7%
Black/African American	20.7%	11.5%	1.7%	1.7%
Asian	53.1%	15.6%	6.3%	--
Hispanic/Latino	18.6%	9.1%	0.8%	0.4%
American Indian or Alaskan Native	44.4%	--	--	--
Native Hawaiian or Pacific Islander	--	--	33.3%	--
Multi-Racial	40.0%	11.5%	3.3%	--
Education				
Less Than High School	21.5%	12.0%	3.0%	1.2%
High School Diploma	26.6%	13.2%	3.0%	1.8%
GED	26.8%	10.8%	2.5%	1.7%
Some College	30.2%	12.1%	3.8%	1.1%
Associate Or Technical Degree	26.1%	12.2%	4.1%	0.9%
Bachelor's Degree	29.0%	11.0%	3.8%	2.9%
Master's Degree Or Higher	26.9%	13.9%	3.6%	4.8%
Household Income				
Less Than $20,000	27.0%	10.2%	2.5%	1.4%
$20,000 to $40,000	26.6%	9.7%	2.5%	2.1%
$40,000 to $60,000	25.4%	13.3%	2.5%	1.7%
$60,000 to $80,000	26.5%	12.8%	5.6%	3.3%
$80,000 to $100,000	24.4%	13.8%	5.2%	4.3%
$100,000 to $120,000	37.7%	25.3%	4.0%	2.7%
More Than $120,000	37.6%	21.1%	9.5%	4.2%

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HEALTHY KENT COMMUNITY HEALTH SURVEY:
HEALTH LITERACY

OVERVIEW: HEALTH LITERACY

Health literacy is the "degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate health decisions."[1] Because health literacy includes the word "literacy", many assume that it is only a concern for those who cannot read, which is not the case. In fact, people have difficulty understanding health information for a number of reasons including literacy level, age, disability, language barriers, cultural differences, and emotion[2].

There are various skills and levels of skill required to become health literate. For patients to accomplish healthcare-related tasks, they may need to be able to be visually literate, computer literate, information literate, and/or numerically or computationally literate[3]. Visual literacy includes the ability to read and understand graphs and charts, or other visual information. Computer literacy includes the ability to operate a computer. Information literacy refers to the ability to obtain and apply relevant information. Lastly, numerical or computational literacy refers to the ability to calculate or reason using numbers.

IMPACT ON HEALTH

Health-related information can be difficult to understand and remember. As our healthcare system evolves, patients are increasingly seen as active consumers of care rather than passive recipients of treatment[2]. Because of this added patient responsibility, patients who do not understand the information they are given about their medical conditions are less likely to access timely care. As a result, low health literacy has been linked to less health-related knowledge, less preventive care, poorer control of chronic illnesses, worse overall health status, lower adherence to medical regimens, and increased rates of hospitalization[4].

Healthy Kent Community Health Survey Data: Health Literacy

	Medical Terms	Health Information Memory	Written Medical Information			
			Very Often	Somewhat Often	Rarely	Never
Total	**23.9%**	**20.8%**	**5.5%**	**9.5%**	**26.0%**	**58.9%**
Age						
18 – 24 Years	31.9%	20.8%	3.1%	11.6%	30.6%	54.7%
25-34 Years	20.0%	17.2%	3.3%	9.0%	23.1%	64.7%
35-44 Years	21.6%	17.8%	6.7%	8.7%	20.6%	64.0%
45 – 54 Years	24.4%	23.2%	7.0%	9.6%	26.1%	57.2%
55 – 64 Years	25.7%	24.9%	7.0%	9.6%	30.9%	52.5%
65 – 74 Years	20.8%	28.3%	3.7%	9.3%	36.4%	50.5%
75+ Years	43.6%	30.8%	12.8%	17.9%	30.8%	38.5%
Gender						
Male	32.4%	27.2%	10.3%	12.1%	24.0%	53.6%
Female	21.3%	18.8%	4.0%	8.7%	26.7%	60.5%
Race						
White/Caucasian	18.0%	16.2%	2.6%	6.6%	27.0%	63.8%
Black/African American	31.2%	26.5%	11.3%	11.9%	21.9%	54.9%
Asian	45.5%	48.5%	20.6%	14.7%	35.3%	29.4%
Hispanic/Latino	36.7%	28.7%	7.8%	18.8%	26.0%	47.4%
American Indian or Alaskan Native	25.0%	16.7%	18.2%	--	45.5%	36.4%
Native Hawaiian or Pacific Islander	--	--	--	--	33.3%	66.7%
Multi-Racial	31.0%	32.4%	4.2%	8.5%	31.0%	56.3%
Education						
Less Than High School	48.0%	42.1%	15.1%	23.6%	24.6%	36.7%
High School Diploma	35.7%	31.5%	12.9%	13.9%	26.3%	46.8%
GED	30.0%	25.0%	10.5%	11.2%	25.2%	53.1%
Some College	26.4%	20.9%	3.3%	13.9%	26.2%	56.6%
Associate Or Technical Degree	11.3%	12.9%	2.8%	5.2%	24.3%	67.7%
Bachelor's Degree	13.9%	12.7%	1.0%	2.9%	27.1%	69.1%
Master's Degree Or Higher	10.5%	10.1%	--	1.7%	27.2%	71.0%

Healthy Kent Community Health Survey Data: Health Literacy						
	Medical Terms	Health Information Memory	Written Medical Information			
			Very Often	Somewhat Often	Rarely	Never
Household Income						
Less Than $20,000	33.3%	29.4%	9.5%	15.3%	27.0%	48.2%
$20,000 to $40,000	23.5%	19.2%	3.9%	9.1%	27.5%	59.5%
$40,000 to $60,000	15.1%	12.5%	1.5%	4.8%	25.5%	68.3%
$60,000 to $80,000	12.8%	10.8%	1.5%	2.1%	29.7%	66.7%
$80,000 to $100,000	10.9%	12.4%	1.4%	2.2%	22.5%	73.9%
$100,000 to $120,000	7.4%	7.4%	2.5%	1.3%	18.8%	77.5%
More Than $120,000	11.5%	7.8%	--	1.0%	23.1%	76.0%

SURVEY SUMMARY

The 2014 Community Health Survey indicates that nearly 24% of respondents require help from others to read and complete health-related or insurance-related forms. This group of individuals also struggles to read and understand prescription labels and medical instructions. The highest rates of health literacy issues related to completing forms and understanding medical instructions were reported among young adults (18-24 year olds) and older adults (75+ years old). These types of issues were reported more frequently among male (32.4%) respondents than female (21.3%) respondents, and among those with an educational attainment of GED (30.0%), high school diploma (35.7%), or less than a high school education (48.0%).

Almost 21% of survey respondents reported having trouble reading and remembering health information. This type of health literacy issue was reported most frequently amongst adults 65 to 74 years old (28.3%) and adults 75 years or older (30.8%). More male (27.2%) respondents than female (18.8%) respondents reported challenges with reading and remembering health information. This type of health literacy issue also appeared to be influenced by level of educational attainment. People with higher educational attainment were less likely to report problems with reading and remembering health information when compared with people with lower educational attainment.

Surprisingly, nearly 60% of survey respondents said that they never have problems learning about their medical conditions due to difficulty understanding written information. Older adults (75+ years old) were most likely to report having this problem “very often” (12.8%) or “somewhat often” (17.9%). Educational attainment and household income appeared to influence the likelihood a person would report having problems learning about their medical condition due to difficulty understanding written information. Those with lower educational attainment and lower household incomes were more likely to answer “very often” or “somewhat often” when compared to people with higher educational attainment and household income.

REFERENCES

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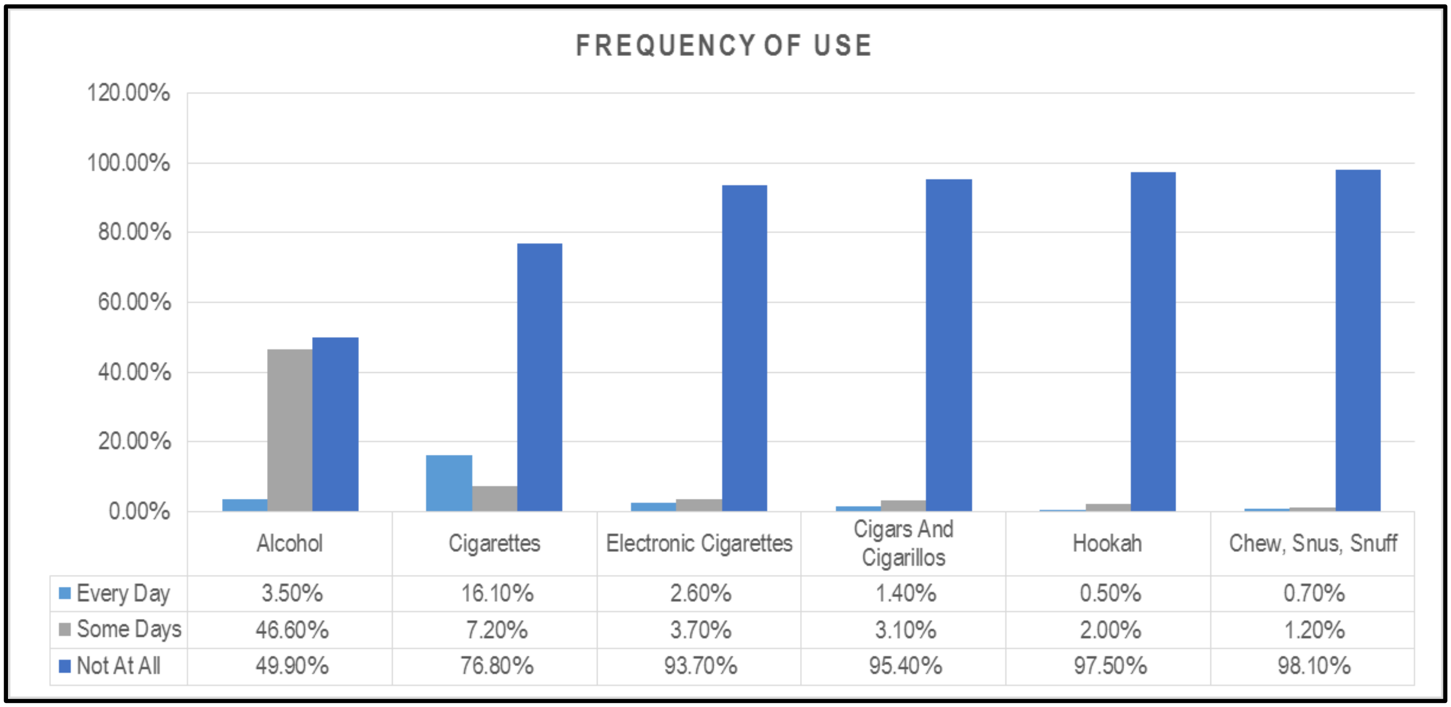
HEALTHY KENT COMMUNITY HEALTH SURVEY: SUBSTANCE USE AND ABUSE

OVERVIEW: SUBSTANCE USE AND ABUSE

Abuse of alcohol and other drugs is common, costly and can destroy families, lives, and communities. Substance abuse refers to the hazardous use of psychoactive substances, including legal and illicit drugs[1]. In recent years, it is estimated that more than 22 million people in the United States have a substance use or abuse problem, though many do not recognize it as a problem[2].

IMPACT ON HEALTH

Addiction is a disease. Though people who begin using drugs typically do so voluntarily, brain circuitry and chemistry change over time and addictions develop. This means that people have an impaired ability to make a voluntary decision about drug use and usually develop compulsive cravings, drug seeking behavior, and regular use and abuse[3]. Some of the consequences of drug use and abuse are present after only one use, while others occur after prolonged use. The effects of substance abuse are cumulative, significantly contributing to social, physical, mental, and public health problems[2]. Some of these problems include teen pregnancy, hepatitis, lung disease, transmission of HIV/AIDS and other sexually transmitted diseases, domestic violence, child abuse, motor vehicle crashes, crime, homicide, and suicide.



	Alcohol	Cigarettes	Electronic Cigarettes	Cigars And Cigarillos	Hookah	Chew, Snus, Snuff
Every Day	3.50%	16.10%	2.60%	1.40%	0.50%	0.70%
Some Days	46.60%	7.20%	3.70%	3.10%	2.00%	1.20%
Not At All	49.90%	76.80%	93.70%	95.40%	97.50%	98.10%

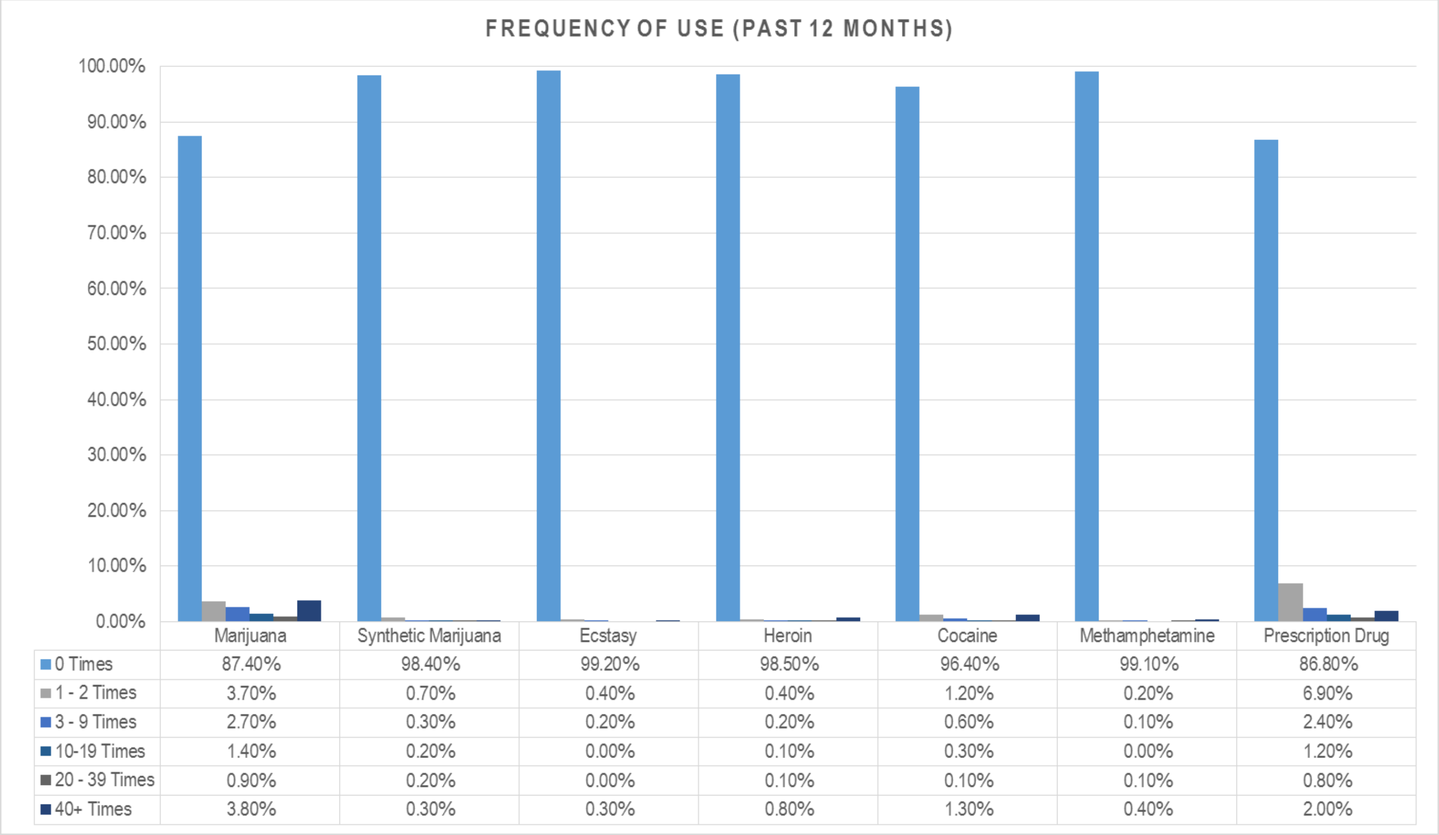
SURVEY SUMMARY

The 2014 Community Health Survey asked respondents to report frequency of alcohol and tobacco use by selecting one of three frequency options (*not at all, some days, every day*).

Survey data shown in the table above outlines the frequency of alcohol and tobacco use. Among survey respondents, use of tobacco products and alcohol was quite low, overall. Cigarettes and alcohol were identified most frequently as the substances used some days or every day by survey respondents. Just under 47% of respondents reported using alcohol on some days, while 3.50% reported using alcohol every day. Sixteen percent of survey respondents reported using cigarettes every day, while about 7% reported using cigarettes some days. There were very low rates of use for other tobacco-related products, such as e-cigarettes, cigars, cigarillos, hookah, and chewing tobacco. In fact, more than 90% of respondents reported not using these products at all.

The 2014 Community Health Survey also asked respondents to report frequency of illicit and prescription drug abuse. This data was captured by having respondents identify the number of times in the past year that they had used one or more of the types of substances listed within the survey. The table below outlines responses collected for the illicit and prescription drug abuse survey questions.

Most respondents reported non-use of most illicit substances and prescription drugs. However, about 13% of respondents reported having used marijuana at least once during the past year, and almost 14% of respondents reported having used prescription drugs not prescribed by a physician during the past year.



	Marijuana	Synthetic Marijuana	Ecstasy	Heroin	Cocaine	Methamphetamine	Prescription Drug
0 Times	87.40%	98.40%	99.20%	98.50%	96.40%	99.10%	86.80%
1 - 2 Times	3.70%	0.70%	0.40%	0.40%	1.20%	0.20%	6.90%
3 - 9 Times	2.70%	0.30%	0.20%	0.20%	0.60%	0.10%	2.40%
10-19 Times	1.40%	0.20%	0.00%	0.10%	0.30%	0.00%	1.20%
20 - 39 Times	0.90%	0.20%	0.00%	0.10%	0.10%	0.10%	0.80%
40+ Times	3.80%	0.30%	0.30%	0.80%	1.30%	0.40%	2.00%

REFERENCES

1. World Health Organization. (2014). *Substance abuse*. Retrieved from http://www.who.int/topics/substance_abuse/en/
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HEALTHY KENT COMMUNITY HEALTH SURVEY: KEY COMMUNITY STRENGTHS

OVERVIEW

Identifying key community strengths and resources is a critical component of the overall community health needs assessment process. This information helps community residents and local organizations identify possible resources that can be leveraged to address key health concerns, and can assist a community in recognizing and valuing the positive aspects of the place in which they reside.

The 2014 Community Health Survey asked respondents to select the top five (5) strengths for their respective communities. The table provided on this page of the report lists resident-identified community strengths in numerical order based on the total percentage of responses recorded for each response option. The variety of response options for this question in the 2014 Community Health Survey were derived from community forums held throughout Kent County during the months of February and April 2014.

SURVEY SUMMARY

The 2014 Community Health Survey identified farmers markets, availability of healthcare, and the level of physical activity within the community as key strengths. Additionally, the beauty of the area and the perception that Kent County is a great place to live round out the top five community strengths for Kent County. Availability of arts, culture, and entertainment and the quality of K-12 education also received a vote from more than 20% of survey respondents.

The least frequently identified community strengths within Kent County included the increasing availability of community gardens, health focus of the community, low poverty levels, easy access to mental healthcare, easy access to affordable healthy food, and the resource richness of the Kent County community.

Healthy Kent Community Health Survey Data: Community Strengths

What do you believe are the current STRENGTHS of your community? Strengths can be defined as those characteristics that make your community an ideal place to live, raise a family, and visit.

Strengths	Percent (%)
Farmers Markets	26.3%
Availability of Healthcare	25.0%
Active Community	24.6%
Beautiful Area	24.4%
Great Place To Live	23.6%
Availability of Arts, Culture, and Entertainment Opportunities	22.9%
Education K-12	20.8%
Availability of Quality Parks and Recreation Opportunities	19.7%
Clean And Safe Streets	17.7%
Safe Community	17.4%
Lots Of Diversity And Culture	17.2%
Family Focused Community	17.0%
Growing And Evolving Community	14.3%
Easy Access To Healthcare	13.7%
Business Development	13.6%
Availability of Dental Care	13.4%
Availability of Healthy Food	13.2%
Increasing Access To Transportation	12.7%
Increasingly Walkable Community	12.2%
Availability of Affordable Healthy Food	11.7%
Engaged And Involved Community	10.7%
Philanthropic Community	10.4%
Availability of Youth After School Programs, Activities, Clubs, Etc.	10.0%
Easy Access To Healthy Food	10.0%
Availability of Mental Healthcare	9.4%
Easy Access Top Dental Care	9.2%
Easy Access To Secondary Education	9.0%
Resource Rich Community	7.7%
Easy Access To Affordable Healthy Food	7.3%
Easy Access To Mental Healthcare	6.9%
Low Poverty	6.5%
Health Focused Community	5.7%
Increasing Community Garden Availability	3.3%

HEALTHY KENT COMMUNITY HEALTH SURVEY: KEY COMMUNITY WEAKNESSES

OVERVIEW

Resident-identified community weaknesses are another important data point in the overall community health needs assessment process. This data can help community organizations recognize the most prevalent concerns of those living in a given community. Many of the weaknesses discussed throughout the community health needs assessment process refer to root causes. Many of these factors, or weaknesses, when addressed in a systematic way can improve the health and wellbeing of entire communities.

The 2014 Community Health Survey asked respondents to select the top five (5) weaknesses for their respective communities. The table provided on this page of the report lists resident-identified community weaknesses in numerical order based on the total percentage of responses recorded for each response option. The variety of response options for this question in the 2014 Community Health Survey were derived from community forums held throughout Kent County during the months of February and April 2014.

SURVEY SUMMARY

The 2014 Community Health Survey identified the need for street repair, lack of affordable housing, poverty, violence and safety, and poor street quality as the top five (5) key community weaknesses. The need for bus route expansion and racism, as well as lack of access to dental care also received votes from more than 14% of survey respondents.

The least frequently cited community weaknesses were lack of health education, poor nutrition education, poor communication and community collaboration, and motor vehicle accidents.

Healthy Kent Community Health Survey Data: Community Weaknesses

What do you believe are the current WEAKNESSES of your community? Weaknesses can be defined as those aspects of you community that need improvement.

Weaknesses	Percent (%)
Streets Need Repair	33.4%
Lack Of Affordable Housing	24.1%
Poverty	23.1%
Violence And Safety	21.2%
Poor Street Quality	20.9%
Need Bus Route Expansion	18.4%
Racism	16.5%
Lack Of Access To Dental Care	14.8%
Lack Of Access To Affordable Healthy Foods	13.6%
Disparities and Inequity	13.4%
Poor Housing Quality	12.6%
Low Graduation Rates	12.0%
Lack Of Access To Mental Healthcare	11.5%
Lack Of Access To Public Transportation	11.3%
Poor Education Standards K-12	11.3%
Need Additional Bus Stops	10.0%
Segregation	10.0%
Language Barriers To Care	9.6%
Poor Life Skills Education, Cooking, Cleaning, Budgeting, Etc.	9.6%
Lack Of Education On Available Community Resources	8.8%
Need Sidewalks And Crosswalks	8.0%
Lack Of Education On How To Navigate The Healthcare System	7.9%
Sidewalks and Crosswalks Need Repair	7.8%
Lack Of Access To Healthcare	7.6%
Lack Of Affordable Healthcare And Treatment	7.5%
Motor Vehicle Accidents	6.7%
Poor Communication And Community Collaboration	6.1%
Poor Nutrition Education	6.0%
Lack Of Health Education	5.1%

HEALTHY KENT COMMUNITY HEALTH SURVEY: TOP HEALTH CONCERNS

OVERVIEW

While there are many sources of data that identify and list the top health issues within Kent County, the 2014 Community Health Survey asked respondents for community perceptions related to health issues. This was done in part to ensure that community concerns are reflected in the overall assessment process. However, the more important role for this information is to help drive priority selection. As a community, it is important to consider resident concerns in conjunction with data collected through more scientific means to certify priorities are community-driven.

The 2014 Community Health Survey asked respondents to select the top five (5) health concerns observed within their respective communities. The table provided on this page of the report lists resident-identified community health concerns in numerical order based on the total percentage of responses recorded for each response option. The variety of response options for this question in the 2014 Community Health Survey were derived from community forums held throughout Kent County during the months of February and April 2014.

Healthy Kent Community Health Survey Data: Health Concerns

What do you believe are the HEALTH PROBLEMS that most affect your community?

Health Concerns	Percent (%)
Obesity	45.8%
Alcohol Abuse	30.4%
Mental Health Issues	27.1%
Depression	26.6%
Stress	26.1%
Poor Nutrition	23.5%
Substance Abuse	23.1%
Diabetes	22.5%
Violence	20.3%
Tobacco Use	18.9%
Alcohol Use	18.7%
High Blood Pressure	18.3%
Cancer	16.1%
Marijuana Use	15.6%
Teen Pregnancy	15.4%
Underage Drinking	14.6%
Dental Problems	13.7%
Heart Disease	11.3%
Prescription Drug Abuse	11.0%
Asthma	8.1%
Sexually Transmitted Infections	7.1%
Air Quality	6.1%
Suicide	5.9%
Environmental Quality	4.5%
Water Quality	3.1%
Prenatal Health	3.0%
Infant Mortality	2.4%

SURVEY SUMMARY

The top health concerns identified by community residents through the 2014 Community Health Survey were obesity, alcohol abuse, mental health issues, depression, and stress, respectively. Poor nutrition, substance abuse, diabetes, and violence also received a vote from more than 20% of survey respondents.

Data provided shows that the health concerns of least interest to those participating in the 2014 Community Health Survey are infant mortality, prenatal health, water quality, environmental quality, suicide, and air quality.

Chapter 2

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

Key Questions

- HOW HEALTHY ARE OUR RESIDENTS?
- WHAT DOES THE HEALTH STATUS OF OUR COMMUNITY LOOK LIKE?

Section 1: Demographics and Assets

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

Key Topics

- DEMOGRAPHIC DATA
- SOCIOECONOMIC DATA
- HEALTH RESOURCE AVAILABILITY

DEMOGRAPHICS

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT
COMMUNITY HEALTH STATUS ASSESSMENT

DEFINITION OF CATEGORY

Demographic characteristics include measures of total population as well as percent of total population by age group, gender, race, and ethnicity where these populations and subpopulations are located, and the rate of change in population density over time, due to births, deaths, and migration patterns.

Key Topics

- GEOGRAPHIC CHARACTERISTICS
- TOTAL POPULATION
- POPULATION BY AGE, GENDER, RACE/ETHNICITY
- POPULATION BY ANCESTRY AND ORIGIN OF BIRTH
- REFUGEE POPULATION CHARACTERISTICS
- DISABILITY

GEOGRAPHIC CHARACTERISTICS: KENT COUNTY
OVERVIEW OF THE COMMUNITY

OVERVIEW

Kent County is located in West Michigan, about 30 miles east of Lake Michigan. It is comprised of 21 townships, five villages, and nine cities[1]. The City of Grand Rapids is the County seat, and is the second largest city in Michigan. The table below lists all recognized and/or incorporated townships, villages, and cities located within Kent County.

Listing of Townships, Villages, and Cities in Kent County, MI[2]	
Townships	
Tyrone Twp. Solon Twp. Nelson Twp. Spencer Twp. Sparta Twp. Algoma Twp. Courtland Twp. Oakfield Twp. Alpine Twp. Boyne Twp. Caledonia Twp.	Plainfield Twp. Cannon Twp. Grattan Twp. Grand Rapids Twp. Ada Twp. Vergennes Twp. Lowell Twp. Cascade Twp. Byron Twp. Gaines Twp.
Villages	
Village of Kent City Village of Sand Lake Village of Sparta	Village of Caledonia Village of Casnovia
Cities	
City of Cedar Springs City of Rockford City of Walker City of Grand Rapids City of Grandville	City of Wyoming City of Kentwood City of Lowell City of East Grand Rapids

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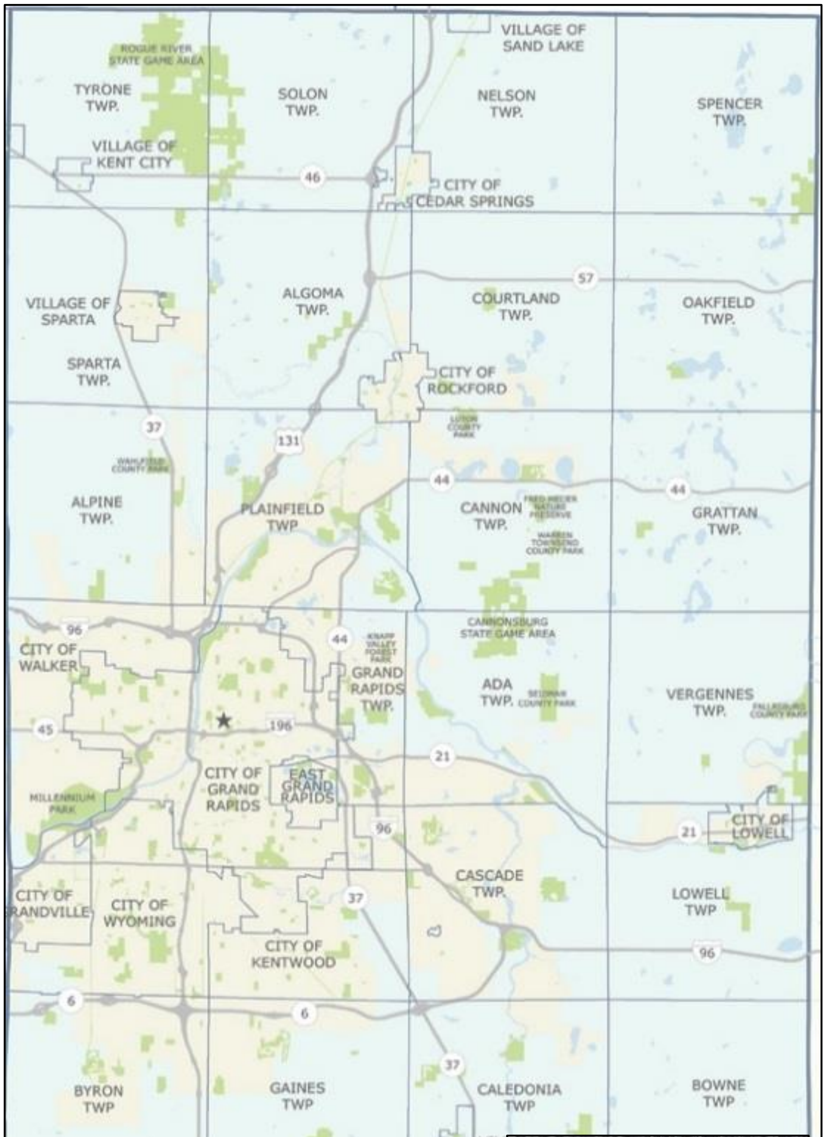
1. County of Kent. (2014). *About Kent County: County profile.* Retrieved from https://www.accesskent.com/about.htm. Accessed 16 December 2014.
2. County of Kent. (2014). *City, township, and village directory*. Retrieved from https://www.accesskent.com/ctvdirectory.htm. Accessed 17 December 2014.



Photos: (top) Map of Kent County with townships, villages, and cities identified. (left) City of Grand Rapids, the second largest city in Michigan. (right) Steel Water monument in downtown Grand Rapids represents fluoridation of water. Grand Rapids was the first city in the United States to fluoridate its water supply.

DEMOGRAPHIC CHARACTERISTICS: KENT COUNTY
RURAL POPULATION

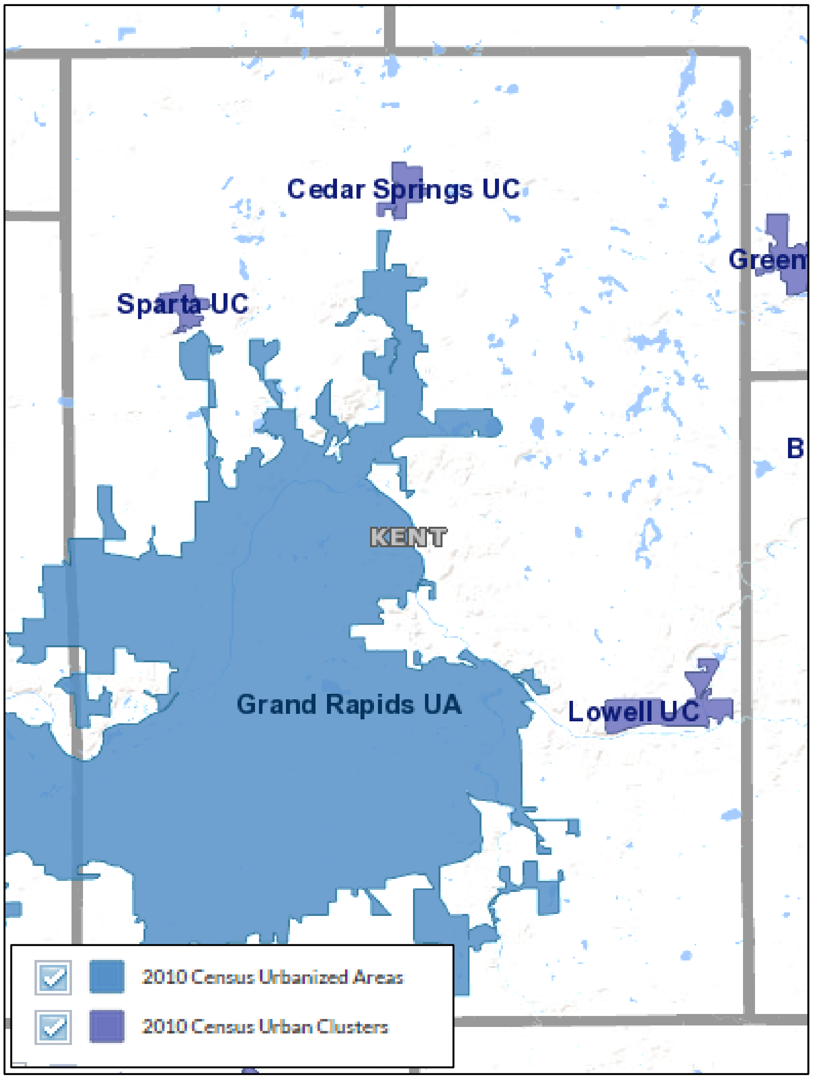
OVERVIEW: RURAL POPULATION

A rural community is defined by the US Census Bureau as all population, housing, and territory not included in an urban area or urban cluster[1]. Residents of rural communities experience many unique risk factors when compared to urban and suburban-dwelling individuals. These risk factors are known to contribute to health issues. Specifically, people who live in rural communities are faced with isolation, lower socioeconomic status, higher rates of health risk behaviors, and limited job opportunities. Rural residents also tend to be older and have reduced access to needed healthcare[3].

SUMMARY

Overall, Kent County has a lower percentage of its population residing in rural communities than the state and nation. In fact, just 15.7% of Kent County residents live in rural communities, per the US Census Bureau's definition, while one in four Michigan residents and nearly 20% of all United States residents live in rural communities.

The white space on the provided map illustrates the rural areas within Kent County. Though a good portion of the geographic area within Kent County is considered rural, a smaller proportion of the population lives in these areas, as compared to the urbanized areas (blue) and urban clusters (purple).


Cedar Springs UC
Green
Sparta UC
B
KENT
Grand Rapids UA
Lowell UC
☑ 🟦 2010 Census Urbanized Areas
☑ 🟪 2010 Census Urban Clusters

Urbanized areas and urban clusters per the 2010 US Census (photo courtesy of US Census Bureau TIGERweb, 2015)[2].

Kent County Demographic Characteristics: Rural Population					
Indicator	Time Period	Measure	Kent County[1]	Michigan[1]	United States[1]
Rural Population	2010	Percent	15.7%	25.4%	19.3%

REFERENCES

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DEMOGRAPHIC CHARACTERISTICS: KENT COUNTY
TOTAL POPULATION, GENDER, AND AGE

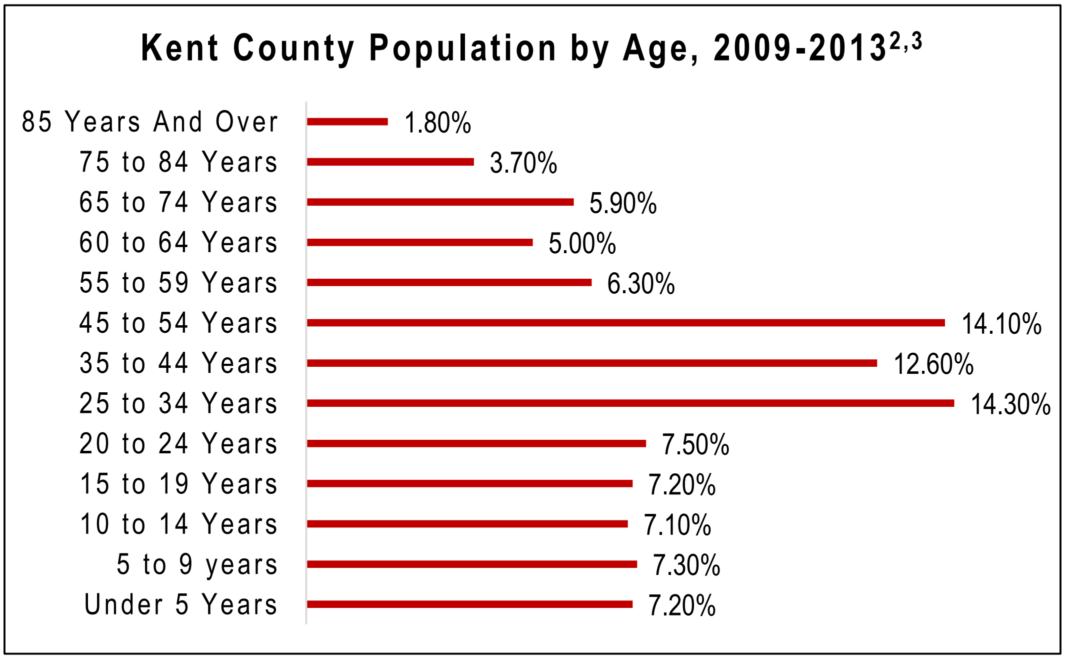
OVERVIEW: TOTAL POPULATION, GENDER, AGE

Demographic characteristics include measures of total population. Some key demographic measures are percent of total population by age group, gender, race and ethnicity, and the rate of change in population density over time due to births, deaths, and migration patterns[1]. Total population consists of all usual residents of a particular geographic area[3]. For the purposes of this report, total population refers to the total number of usual residents residing within Kent County, Michigan. Gender statistics are defined as statistics that reflect differences in the situation of men and women in all areas of life[4].

Kent County Demographic Characteristics: Gender and Disability

Indicator	Time Period	Measure	Kent County[2,3]
Total Population	2009-2013	Number	609,544
Gender			
Male	2009-2013	Percent	49.0%
Female	2009-2013	Percent	51.0%
Veteran Population	2009-2013	Percent	7.6%
Disabled Population	2009-2013	Percent	10.7%
Under 18 Years	2009-2013	Percent	4.3%
18 – 64 Years	2009-2013	Percent	9.2%
65 Years And Over	2009-2013	Percent	34.8%

[NOTE: *Throughout the 2014 Community Health Needs Assessment, differences in health status and health behaviors are described by age and gender to highlight disparities and inequities, where possible.*]


Kent County Population by Age, 2009-2013[2,3]

SUMMARY

Kent County is one of the most populous single counties in the State of Michigan, with more than 609,000 residents. Based on data from the U.S. Census Bureau, Kent County's gender distribution is relatively evenly split between males and females, with females (51.0%) comprising a slightly larger proportion of residents.

The majority of Kent County residents are between the ages of 25 and 54 years old (41.2%). The smallest proportion of the population is recorded among older adults aged 65 and older (11.4%).

REFERENCES

1. National Association of County and City Health Officials. (2014). *Mobilizing for Action through Planning and Partnerships (MAPP): Community Health Status Assessment, List of Core Indicators*. Retrieved from www.naccho.org/topics/infrastructure/mapp. Accessed on August 12, 2014.
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4. OECD. (n.d.). *Glossary of statistical terms: Total population*. Retrieved from http://stats.oecd.org/glossary/detail.asp?ID=2090. Accessed on 16 December 2014.
5. United Nations. (2013). *Production of gender statistics*. Retrieved from http://unstats.un.org/unsd/genderstatmanual/Print.aspx?Page=Production-of-gender-statistics. Accessed 16 December 2014.

DEMOGRAPHIC CHARACTERISTICS: KENT COUNTY
RACE/ETHNICITY

OVERVIEW: RACE/ETHNICITY

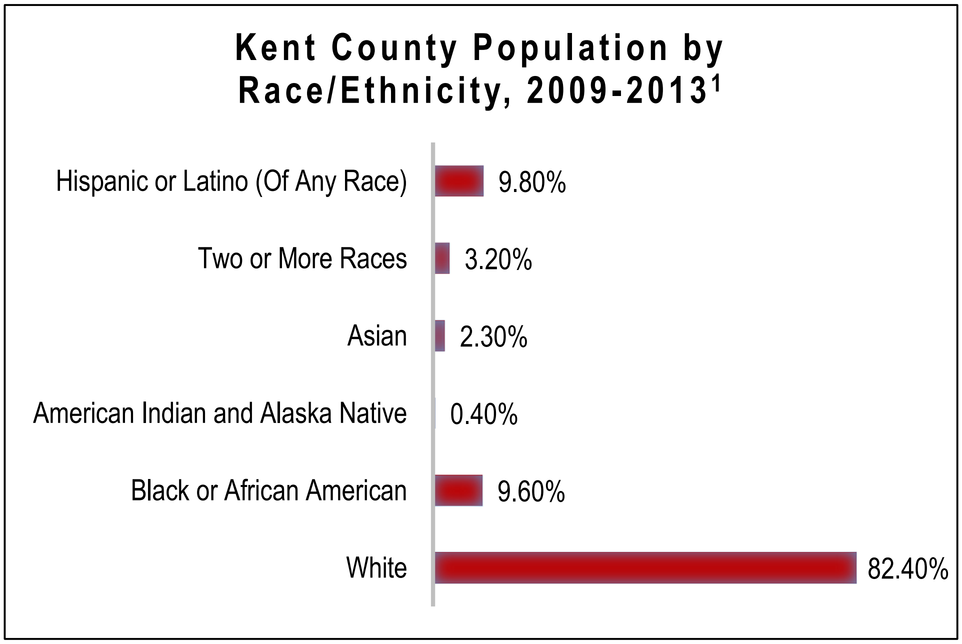
Race and ethnicity are demographic data that have been commonly collected since the early 20th century. Though related, race and ethnicity do not explain the same concept and should not be used interchangeably. The term "*race*" is defined as a socially constructed category of identification or classification that is usually based on physical characteristics, ancestry, historical affiliation, or shared culture[1]. "*Ethnicity*" refers to a social group that shares a common and distinctive culture, religion, language, or something similar[2].

While the current system for defining, collecting, and maintaining population race and ethnicity data is not perfect, the information gathered is important and widely used. Federal, state, and local agencies compile this type of data from clients and consumers to obtain useful information about health and healthcare within given communities.

Race and ethnicity data can be used in a variety of ways. Often, it is used to identify the most at-risk population groups in relation to different health issues and risk factors for disease, as well as to target interventions. This approach assists in an effort to most effectively and efficiently use available resources to improve population health and to identify and address health disparities[1].

Kent County Demographic Characteristics: Race and Ethnicity

Indicator	Time Period	Measure	Kent County[4]
Race/Ethnicity			
White	2009-2013	Percent	82.4%
Black or African American	2009-2013	Percent	9.6%
American Indian and Alaska Native	2009-2013	Percent	0.4%
Chippewa tribal grouping	2009-2013	Percent	0.1%
Asian	2009-2013	Percent	2.3%
Asian Indian	2009-2013	Percent	0.4%
Chinese	2009-2013	Percent	0.4%
Filipino	2009-2013	Percent	0.1%
Korean	2009-2013	Percent	0.3%
Vietnamese	2009-2013	Percent	0.8%
Other Asian	2009-2013	Percent	0.4%
Two or More Races	2009-2013	Percent	3.2%
White and Black or African American	2009-2013	Percent	1.2%
White and American Indian and Alaska Native	2009-2013	Percent	0.5%
White and Asian	2009-2013	Percent	0.4%
Black or African American and American Indian and Alaska Native	2009-2013	Percent	0.1%
Hispanic or Latino (Of Any Race)	2009-2013	Percent	9.8%
Mexican	2009-2013	Percent	6.4%
Puerto Rican	2009-2013	Percent	1.1%
Cuban	2009-2013	Percent	0.3%
Other Hispanic or Latino	2009-2013	Percent	2.0%


Kent County Population by Race/Ethnicity, 2009-2013[1]

SUMMARY

When observing the racial/ethnic population distributions within Kent County, it is apparent that the vast majority of residents are white (82.4%). However, racial diversity in Kent County is notable. Nearly 10% of the county population identifies their race as Black or African American. Slightly more than two percent of the population identify Asian as their race, while more than three percent identify their race as biracial or multiracial.

There is also ethnic diversity observable in Kent County. Almost 10% of the county population identify their ethnicity as Hispanic/Latino. Of Hispanic/Latinos, the most common subgroups are Mexican (6.4%), other (2.0%), and Puerto Rican (1.1%).

Kent County Demographic Characteristics: Reactions To Race

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
How do other people usually classify you in this country? Would you say: White, Black or African American, Hispanic or Latino, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, or some other group?							
White	--	2014*	Percent	79.8%	--	--	**NA**
Black Or African American	--	2014*	Percent	8.5%	--	--	
Hispanic Or Latino	--	2014*	Percent	7.5%	--	--	
Asian	--	2014*	Percent	1.2%	--	--	
Native Hawaiian Or Other Pacific Islander	--	2014*	Percent	0.2%	--	--	
American Indian Or Alaska Native	--	2014*	Percent	0.1%	--	--	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

☺ When compared, for this health indicator, Kent County is better than the United States.

☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

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1. Dictionary.com Unabridged. (2015). *Race*. Retrieved from http://dictionary.reference.com/ browse/race
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3. US Department of Health and Human Services, Agency for Healthcare Research and Quality. (2014). *Defining categorization needs for race and ethnicity data*. Retrieved from http://www.ahrq.gov/research/findings/ final-reports/iomracereport/reldata3.html
4. United States Census Bureau/American FactFinder. (2015). *DP05: ACS Demographic and Housing Estimates, 2009 – 2013 American Community Survey.* Retrieved from http://factfinder2.census.gov. Accessed on 08 January 2015.

DEMOGRAPHIC CHARACTERISTICS: KENT COUNTY
ANCESTRY AND ORIGIN OF BIRTH

OVERVIEW: ANCESTRY AND ORIGIN OF BIRTH

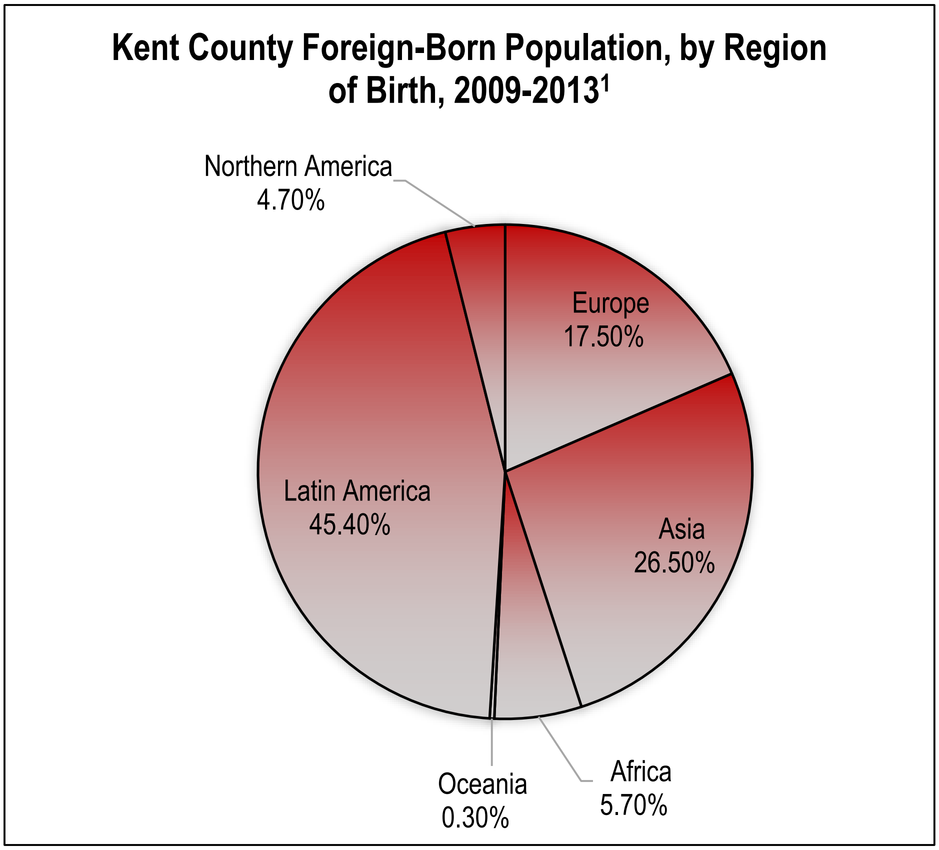
According to the US Census Bureau, "*ancestry*" refers to a person's origin or descent, "roots", heritage, or the place of birth of the person or the person's parents or ancestors before their arrival in the United States[1]. An individual's place of birth may not be the same as their ancestry. In fact, in most cases it is not.

When it comes to health, a person's heritage does matter. For certain diseases, ancestry can increase the risk an individual has for developing that disease. For example, African Americans have an increased risk for developing sickle cell anemia, while whites are predisposed to cystic fibrosis[2]. Ancestry can also affect how certain groups respond to medications.

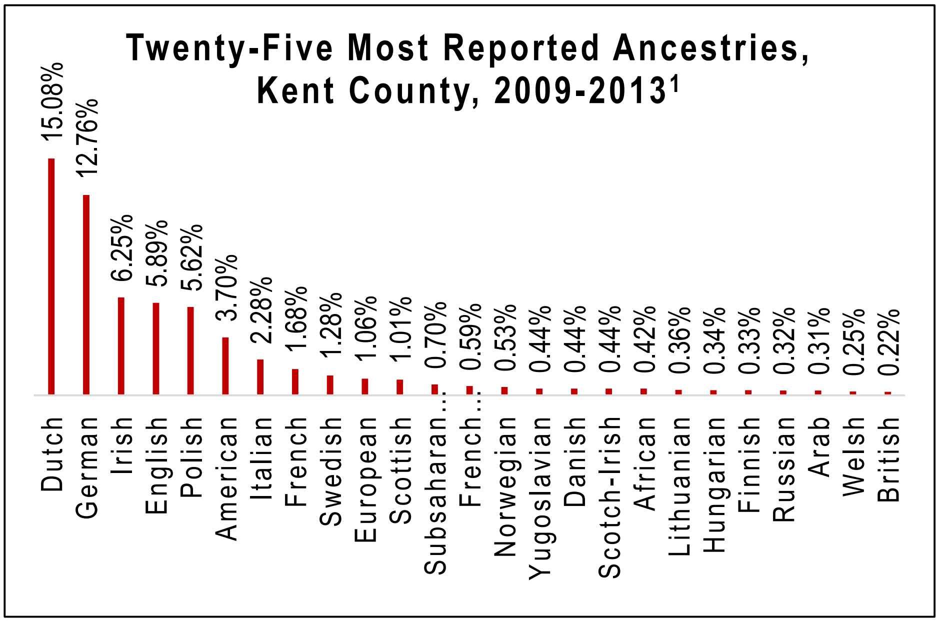
SUMMARY

Among Kent County residents, the majority of foreign-born residents were born in Latin American countries (45.4%) or Asian countries (26.5%). There are a smaller percentage of foreign-born residents that came to Kent County from Africa (5.7%) and Northern America (4.7%).

The bar chart illustrates the most frequently reported ancestries in Kent County. The most commonly reported ancestries include Dutch (15.1%), German (12.8%), and Irish (6.3%). The least frequently reported ancestries in Kent County are British (0.22%), Welsh (0.25%), Arab (0.31%), and Russian (0.32%).



Data shown in graphs: United States Census Bureau/American FactFinder. (2015). *DP05: ACS Demographic and Housing Estimates, 2009 – 2013 American Community Survey.* Retrieved from http://factfinder2.census.gov. Accessed on 08 January 2015.



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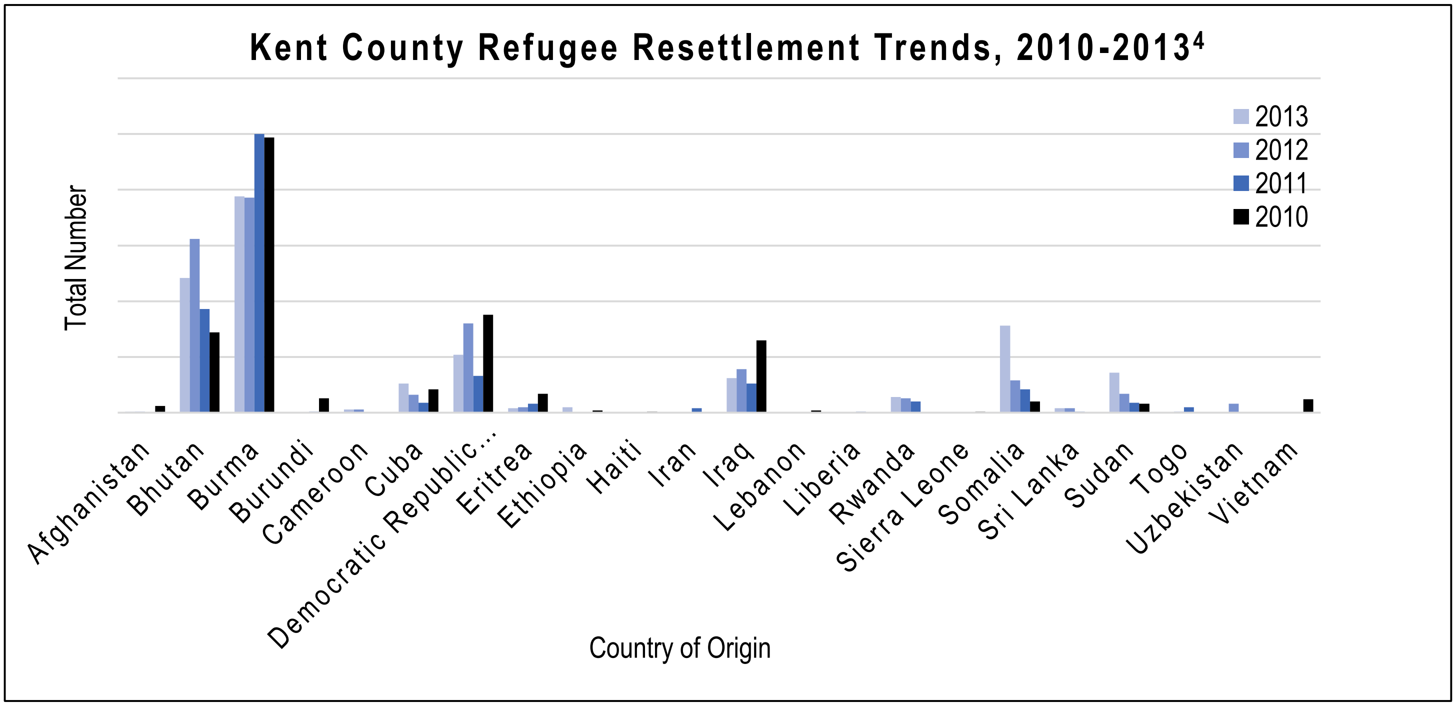
1. US Census Bureau. (2012). *Ancestry*. Retrieved from http://www.census.gov/population/ancestry/
2. Cleveland Clinic. (2014). *How your ancestry and ethnicity affect your health*. Retrieved from http://health.clevelandclinic.org/2014/03/how-your-ancestry-and-ethnicity-affect-your-health/

DEMOGRAPHIC CHARACTERISTICS: KENT COUNTY REFUGEE POPULATION

OVERVIEW: REFUGEE POPULATION

The definition of the term "*refugee*" has varied across time and place. Currently, refugees are described as people who are forced to flee their home country due to persecution, whether on an individual basis or as part of a mass exodus due to racial, political, religious, military, or other problems[1]. Refugee assistance and protection organizations generally promote three possible solutions for these people, including voluntary repatriation, local integration, or resettlement in a third country. Repatriation means that refugees are able to return to their home country because their lives and liberty are no longer threatened. Local integration means that host governments allow the refugees to integrate into the country where they first seek asylum. Resettlement in a third country occurs when repatriation is unsafe and the first asylum country refuses to apply local integration.



The top ten countries of refugee origin are Afghanistan, Iraq, Somalia, Democratic Republic of the Congo, Myanmar, Colombia, Sudan, Vietnam, Eritrea, and China[2]. The top ten countries of refuges asylum are Pakistan, Iran, Syria, Germany, Jordan, Kenya, Chad, China, the United States, and the United Kingdom[2].

Refugees can face a wide variety of acute and chronic health issues. Some common examples of diseases diagnosed upon arrival in asylum country are tuberculosis, intestinal parasites, diabetes, hypertension, and mental health issues like post-traumatic stress disorder or depression[3].

SUMMARY

In 2013, a total of 570 refugees from 14 different countries were resettled in Kent County. The majority of these persons came from Burma (194) and Bhutan (121). These two countries have consistently been among the top countries of origin for Kent County refugees for the past four years. A significant increase in the number of refugees from Somalia was recorded between 2012 and 2013, with 29 and 78 refugees, respectively.

REFERENCES

1. Human Rights Education Associates. (2002). *Refugees and displaced persons*. Retrieved from http://www.hrea.org/index.php?base_id=153
2. Centers for Disease Control and Prevention. (2012). *Immigrant and refugee health: About refugees*. Retrieved from http://www.cdc.gov/immigrantrefugeehealth/about-refugees.html
3. US Department of Health and Human Services, Office of Refugee Resettlement. (n.d.). *Refugee health*. Retrieved from http://www.acf.hhs.gov/programs/orr/programs/refugee-health
4. Kent County Health Department. (2014). *Refugee health program statistics*.

DEMOGRAPHIC CHARACTERISTICS: KENT COUNTY
DISABILITY

OVERVIEW: DISABILITY

There are many ways in which disability can be defined, ranging from experiencing difficulty in participating in certain activities (such as lifting and carrying objects, seeing, hearing, talking, walking or climbing stairs)to having more severe disabilities that require assistance in personal care needs (i.e. bathing) or routine care needs (i.e. housework). In this report, disability is defined as being limited in any activities because of physical, mental, or emotional problems.

Kent County Demographic Characteristics: Disability
Percentage Of Respondents Limited In Activities Because Of Physical, Mental Or Emotional Problems

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	👍 ☺	2014*	Percent	18.6%	25.5%	19.6%	**DH-9: (Developmental) Reduce the proportion of people with disabilities who encounter barriers to participating in home, school, work, or community activities.[a]**
Age							
18 – 24 Years	👎 ☹	2014*	Percent	24.8%	11.2%	9.1%	
25-34 Years	👎 ☹	2014*	Percent	15.8%	15.1%	12.8%	
35-44 Years	👍 ☹	2014*	Percent	19.1%	20.5%	15.5%	
45 – 54 Years	👍 ☺	2014*	Percent	17.7%	26.5%	22.0%	
55 – 64 Years	👍 ☺	2014*	Percent	17.7%	35.1%	27.9%	
65+ Years	☺	2014*	Percent	18.4%	--	29.3%	
Gender							
Male	👍 ☺	2014*	Percent	16.1%	25.8%	18.5%	
Female	👍 ☹	2014*	Percent	21.0%	25.2%	20.8%	
Race							
White/Caucasian	👍 ☺	2014*	Percent	18.7%	25.0%	20.6%	
Black/African American	👍 ☹	2014*	Percent	22.3%	30.0%	20.6%	
Hispanic/Latino	👍 ☹	2014*	Percent	17.1%	18.9%	14.7%	
Non-Hispanic	👍	2014*	Percent	18.6%	21.9%	--	
Education							
Less Than High School	👍 ☺	2014*	Percent	16.2%	41.1%	28.7%	
High School Diploma	👍 ☺	2014*	Percent	16.7%	27.1%	20.3%	
Some College	👍 ☹	2014*	Percent	22.7%	24.3%	20.4%	
College Graduate	👎 ☹	2014*	Percent	17.3%	17.2%	14.5%	
Household Income							
Less Than $20,000	👍	2014*	Percent	33.2%	44.7%	--	
$20,000 to $34,999	👍	2014*	Percent	18.7%	30.3%	--	
$35,000 to $49,999	👍	2014*	Percent	24.3%	24.9%	--	
$50,000 to $74,999	👎	2014*	Percent	19.4%	18.4%	--	
$75,000 Or More	👍	2014*	Percent	9.9%	12.2%	--	

👍	When compared, for this health indicator, Kent County is better than the State of Michigan.
👎	When compared, for this health indicator, Kent County is worse than the State of Michigan.
☺	When compared, for this health indicator, Kent County is better than the United States.
☹	When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

Nearly 19% of the Kent County adult population live with a disability, compared to roughly one-fourth (25.5%) of the Michigan population and almost 20% of the U.S. population. While the results noted for the state of Michigan show an increase in the percentage of respondents with disabilities, the Kent County figures are generally at par with the previous survey iteration, mirroring the nationwide trends.

Unlike the statewide results, the prevalence of disability in Kent County is not significantly different when comparing age and ethnic segments. However, just as in Michigan overall, Kent County respondents representing the highest income bracket are least likely to report disabilities.

REFERENCES

1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

SOCIOECONOMIC CHARACTERISTICS

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

DEFINITION OF CATEGORY

Socioeconomic characteristics include measures that have been shown to affect health status, such as income, education, and employment, and the proportion of the population represented by various levels of these variables.

Key Topics

- WORKFORCE AND EMPLOYMENT
- EDUCATION
- RELATIONSHIP STATUS AND HOUSEHOLD CHARACTERISTICS
- POVERTY
- HEALTHCARE INSURANCE STATUS
- HEALTHCARE ACCESS

SOCIOECONOMIC CHARACTERISTICS: KENT COUNTY
WORK FORCE AND EMPLOYMENT

OVERVIEW: WORKFORCE AND EMPLOYMENT

Employment means more than just a paycheck to most Americans. Employment is often the means through which people are able to obtain an income, benefits, and other necessities that contribute to positive health outcomes and a sense of wellbeing. Individuals who deal with unemployment frequently experience socioeconomic-related challenges and ultimately report poorer health outcomes[1]. In fact, unemployed or laid-off workers are 54% more likely to have fair or poor health and 83% more likely to develop a stress-related heart condition when compared with their continuously employed counterparts[2].

If a person is lacking employment or becomes laid-off, he or she will likely lose health insurance coverage. The loss of health insurance coverage further exacerbates the ill health effects unemployment can have on individuals and families. The table below provides some key statistics related to the workforce in Kent County. These statistics cover unemployment and employment rates, method of transportation to work, and types of workers.

Kent County Socioeconomic Characteristics: Workforce and Employment

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[2]	United States[2]
Population In Labor Force						
Employed	👍 ☺	2009-2013	Percent	61.8%	53.9%	57.6%
Unemployed	👍 ☹	2009-2013	Percent	7.0%	7.8%	6.2%
Armed Forces	--	2009-2013	Percent	0.0%	0.1%	0.4%
Transportation To Work						
Drive Alone	👍 ☹	2009-2013	Percent	82.4%	82.7%	76.3%
Carpool	👎 ☹	2009-2013	Percent	8.8%	8.9%	9.8%
Public Transportation (No TaxiCab)	👍 ☹	2009-2013	Percent	1.7%	1.4%	5.0%
Walk To Work	👎 ☹	2009-2013	Percent	1.7%	2.2%	2.8%
Class Of Worker						
Private Wage And Salary Workers	--	2009-2013	Percent	86.7%	82.6%	78.8%
Government Workers	--	2009-2013	Percent	8.2%	12.0%	14.9%
Self-Employed In Own Not Incorporated Business Workers	--	2009-2013	Percent	5.0%	5.2%	6.2%
Unpaid Family Workers	--	2009-2013	Percent	0.1%	0.2%	0.1%

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
☺ When compared, for this health indicator, Kent County is better than the United States.
☹ When compared, for this health indicator, Kent County is worse than the United States.

SUMMARY

In 2013, the unemployment rate in Kent County was 7.0%, which is lower than the unemployment rate reported for the State of Michigan (7.8%), but higher than the national unemployment rate, which was 6.2%. Among classes of workers, 86.7% of Kent County residents were salary workers, which is comparable to the proportion of salary workers at the state (82.6%) and national levels (78.8%). The percentage of government workers in Kent County (8.2%) appears to be low compared with the state (12.0%) and national (14.9%) numbers.

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1. Robert Wood Johnson Foundation. (2013). *How does employment, or unemployment, affect health?* Retrieved from http://www.rwjf.org/en/research-publications/find-rwjf-research/2012/12/how-does-employment--or-unemployment--affect-health-.html
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SOCIOECONOMIC CHARACTERISTICS: KENT COUNTY
EDUCATION

OVERVIEW: EDUCATION

A strong association between education and health has been documented across many countries, time periods, and health conditions. Research shows that better educated people tend to have better health outcomes, independent of basic demographic and labor market factors. These better health outcomes are observed in both morbidity rates for acute and chronic diseases, as well as in mortality rates[1]. Life expectancy is also affected by education level, with a gap in life expectancy between highly educated and lower educated persons expanding consistently.

Kent County Socioeconomic Characteristics: Education

Indicator	Status	Time Period	Measure	Kent County[2,3]	Michigan[2,3]	United States[2]
Percent High School Graduate Or Higher	👍 ☺	2009-2013	Percent	89.4%	88.9%	86.0%
Percent Bachelor's Degree Or Higher	👍 ☺	2009-2013	Percent	31.7%	25.9%	28.8%
School Enrollment						
Nursery School, Preschool	--	2009-2013	Percent	6.5%	5.5%	6.1%
Children Enrolled In GSRP[3]	--	2012	Percent	16.8%		--
Kindergarten	--	2009-2013	Percent	5.7%	4.8%	5.1%
Elementary School (Grades 1-8)	--	2009-2013	Percent	39.7%	38.5%	39.7%
High School (Grades 9-12)	--	2009-2013	Percent	20.6%	21.2%	20.8%
College Or Graduate School	--	2009-2013	Percent	27.5%	30.0%	28.4%
Special Education						
Eligible Children Ages 0 – 5[3]	--	2012	Percent	4.9%	5.5%	--
Eligible Children Ages 0 – 12[3]	--	2012	Percent	3.9%	4.0%	--
Educational Attainment						
Less Than 9th Grade	👎 ☺	2009-2013	Percent	4.0%	3.4%	5.9%
High School Dropouts[3]	👎	2009	Percent	12.3%	11.3%	
9th To 12th Grade, No Diploma	👎 ☹	2009-2013	Percent	6.6%	7.7%	8.0%
Students Not Graduating On-Time[3]	👎	2010	Percent	25.5%	24.0%	--
On-Time High School Graduates[3]	👎	2010	Percent	74.5%	76.0%	--
High School Graduate (Includes Equivalency)	👎 ☹	2009-2013	Percent	26.4%	30.4%	28.1%
Some College, No Degree	👎 ☺	2009-2013	Percent	22.6%	24.0%	21.2%
Associate's Degree	☺	2009-2013	Percent	8.6%	8.6%	7.8%
Bachelor's Degree	👍 ☺	2009-2013	Percent	21.0%	15.9%	18.0%
Graduate Or Professional Degree	👍 ☹	2009-2013	Percent	10.7%	10.0%	10.8%
Educational Testing						
MEAP						
Students Proficient In Grade 3 Reading[3]	👍	2012	Percent	68.9%	66.5%	--
Student Not Proficient In Grade 4 Reading[3]	👍	2012	Percent	27.0%	31.9%	--
Students Not Proficient In Grade 8 Math[3]	👍	2012	Percent	62.5%	67.5%	--
Michigan Merit Exam						
Students Not Proficient In Grade 11 Math[3]	👍	2012	Percent	64.5%	70.9%	--
Students Not Proficient In Grade 11 Reading[3]	👍	2012	Percent	39.1%	44.1%	--

👍	When compared, for this health indicator, Kent County is better than the State of Michigan.
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SUMMARY

The percentage Kent County residents who completed high school and at least some post-secondary education was 89.4%, which is higher than the State of Michigan and national numbers. However, there are some statistics related to educational attainment that illustrate potential issues with high school completion. For example, Kent County's percentage of students with less than a 9th grade education (4.0%) exceed that of the State of Michigan (3.4%), and a higher percentage of high school dropouts are reported for Kent County (12.3%) than the state (11.3%). Kent also has a lower percentage of students who complete high school requirements within four consecutive years (74.5%).

Many of Kent County's residents have completed a bachelor's degree or higher (31.7%). This is a higher rate than both the state and the nation.

REFERENCES

1. The University of Michigan, National Poverty Center. (2007). *Policy brief #9: Education and health*. Retrieved from http://www.npc.umich.edu/publications/policy_briefs/brief9/
2. United States Census Bureau / American FactFinder. "DP02: Selected Social Characteristics In The United States" *2009 – 2013 American Community Survey*. Web. 08 January 2015 http://factfinder2.census.gov
3. Annie E. Casey Foundation | KIDS COUNT Data Center. Web. 09 January 2015 http://datacenter.kidscount.org/data#MI/5/0

SOCIOECONOMIC CHARACTERISTICS: KENT COUNTY
RELATIONSHIP STATUS AND HOUSEHOLDS

OVERVIEW: RELATIONSHIP STATUS AND HOUSEHOLDS

Terms like family and household are familiar terms to most people, but in data collection, analysis, and reporting they are used in particular ways. The US Census Bureau defines households as an occupied housing unit, and a householder as a person in whose name the housing unit is rented or owned[1]. The table below describes some key relationship and housing characteristics for Kent County.

Kent County Socioeconomic Characteristics: Relationship Status and Households

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[2]	United States[2]
Households With One Or More People Under 18 Years	--	2009-2013	Percent	34.5%	31.0%	32.9%
Households With One Or More People 65 Years And Over	--	2009-2013	Percent	21.2%	26.1%	25.5%
Households						
Family Households (Families)	--	2009-2013	Percent	67.1%	65.7%	66.4%
With Own Children Under 18 Years	--	2009-2013	Percent	32.0%	28.2%	29.6%
Married-Couple Family	👍 ☺	2009-2013	Percent	50.4%	48.5%	48.7%
With Own Children Under 18 Years	👍 ☺	2009-2013	Percent	21.8%	18.7%	20.0%
Male Householder, No Wife Present, Family	👍 ☺	2009-2013	Percent	4.2%	4.4%	4.7%
With Own Children Under 18 Years	☺	2009-2013	Percent	2.2%	2.2%	2.3%
Female Householder, No Husband Present, Family	👍 ☺	2009-2013	Percent	12.5%	12.8%	13.0%
With Own Children Under 18 Years	👎 ☹	2009-2013	Percent	7.9%	7.3%	7.3%
Non-Family Households	--	2009-2013	Percent	32.9%	34.3%	33.6%
Householder Living Alone	--	2009-2013	Percent	26.2%	28.7%	27.5%
65 Years And Over	--	2009-2013	Percent	8.5%	10.5%	9.8%
Relationship Status						
Never Married	--	2009-2013	Percent	32.9%	32.0%	32.2%
Now Married, Except Separated	--	2009-2013	Percent	50.6%	48.8%	48.8%
Separated	--	2009-2013	Percent	1.5%	1.5%	2.2%
Widowed	--	2009-2013	Percent	4.8%	6.2%	6.0%
Divorced	--	2009-2013	Percent	10.3%	11.5%	10.8%

👍	When compared, for this health indicator, Kent County is better than the State of Michigan.
👎	When compared, for this health indicator, Kent County is worse than the State of Michigan.
☺	When compared, for this health indicator, Kent County is better than the United States.
☹	When compared, for this health indicator, Kent County is worse than the United States.

SUMMARY

Relationship status data for Kent County is very comparable to the percentages reported for both the State of Michigan and the United States. About one-third of the Kent County population has never been married, about half of the population is currently married, and about 10% is divorced.

A higher percentage of Kent County family households report having children under the age of 18 years (32.0%), as compared to Michigan (28.2%) and the United States (29.6%). Kent County also has a higher percentage of married couple families (50.4%) and married couple families with children under the age of 18 years (21.8%). Kent County has the lowest percentage of single parent households for both male householders (4.2%) and female householders (12.5%), though these numbers are comparable to the state and national numbers.

REFERENCES

1. United States Census Bureau. (2012). *About families and living arrangements*. Retrieved from http://www.census.gov/hhes/families/about/
2. United States Census Bureau / American FactFinder. “DP02: Selected Social Characteristics In The United States” *2009 – 2013 American Community Survey*. Web. 08 January 2015 <http://factfinder2.census.gov>

SOCIOECONOMIC CHARACTERISTICS: KENT COUNTY
INCOME

OVERVIEW: INCOME

Income is an important determinant of health, as people who earn higher incomes often have better health behaviors and health outcomes when compared with people who earn lower incomes. Research has shown that an increase in income equates to an increase in health and decrease in mortality within various populations[2]. This type of relationship is present even when education, age, sex, race, and family size are controlled for.

Income is often measured in one of three ways. Individual income refers to the income earned by an individual. Family income is the sum of all incomes earned by people residing under one roof that are all related, while household income refers to the income earned by all persons living within a home, whether or not they are related. Family and household income typically are the better measures for understanding the financial situation of a household.

Kent County Socioeconomic Characteristics: Household and Family Income

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States[1]
Households						
Mean Household Income	👍 ☹	2009-2013	Average Total Income (Dollars)	$67,629.00	$64,753.00	$73,487.00
Less than $10,000	--	2009-2013	Percent	6.3%	8.2%	7.2%
$10,000 to $14,999	--	2009-2013	Percent	5.2%	5.6%	5.4%
$15,000 to $24,999	--	2009-2013	Percent	10.9%	11.8%	10.8%
$25,000 to $34,999	--	2009-2013	Percent	11.2%	11.2%	10.3%
$35,000 to $49,999	--	2009-2013	Percent	14.8%	14.6%	13.6%
$50,000 to $74,999	--	2009-2013	Percent	19.9%	18.4%	17.9%
$75,000 to $99,999	--	2009-2013	Percent	13.0%	11.9%	12.2%
$100,000 to $149,999	--	2009-2013	Percent	11.9%	11.4%	12.9%
$150,000 to $199,999	--	2009-2013	Percent	3.4%	3.8%	4.9%
$200,000 or more	--	2009-2013	Percent	3.4%	3.1%	4.8%
Families						
Mean Family Income	👍 ☹	2009-2013	Average Total Income (Dollars)	$79,883.00	$77,082.00	$85,588.00
Less than $10,000	--	2009-2013	Percent	4.3%	5.3%	4.7%
$10,000 to $14,999	--	2009-2013	Percent	3.1%	3.4%	3.2%
$15,000 to $24,999	--	2009-2013	Percent	7.8%	8.3%	8.1%
$25,000 to $34,999	--	2009-2013	Percent	9.2%	9.3%	9.0%
$35,000 to $49,999	--	2009-2013	Percent	13.3%	14.1%	13.1%
$50,000 to $74,999	--	2009-2013	Percent	22.0%	20.4%	19.0%
$75,000 to $99,999	--	2009-2013	Percent	15.6%	14.7%	14.3%
$100,000 to $149,999	--	2009-2013	Percent	15.5%	15.1%	16.0%
$150,000 to $199,999	--	2009-2013	Percent	4.4%	5.2%	6.3%
$200,000 or more	--	2009-2013	Percent	4.7%	4.2%	6.2%

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SUMMARY

Kent County's mean household income is $67,629 per year, which is higher than the state average but lower than the United States average. A similar finding is observed among mean family incomes when comparing Kent County to the state and United States.

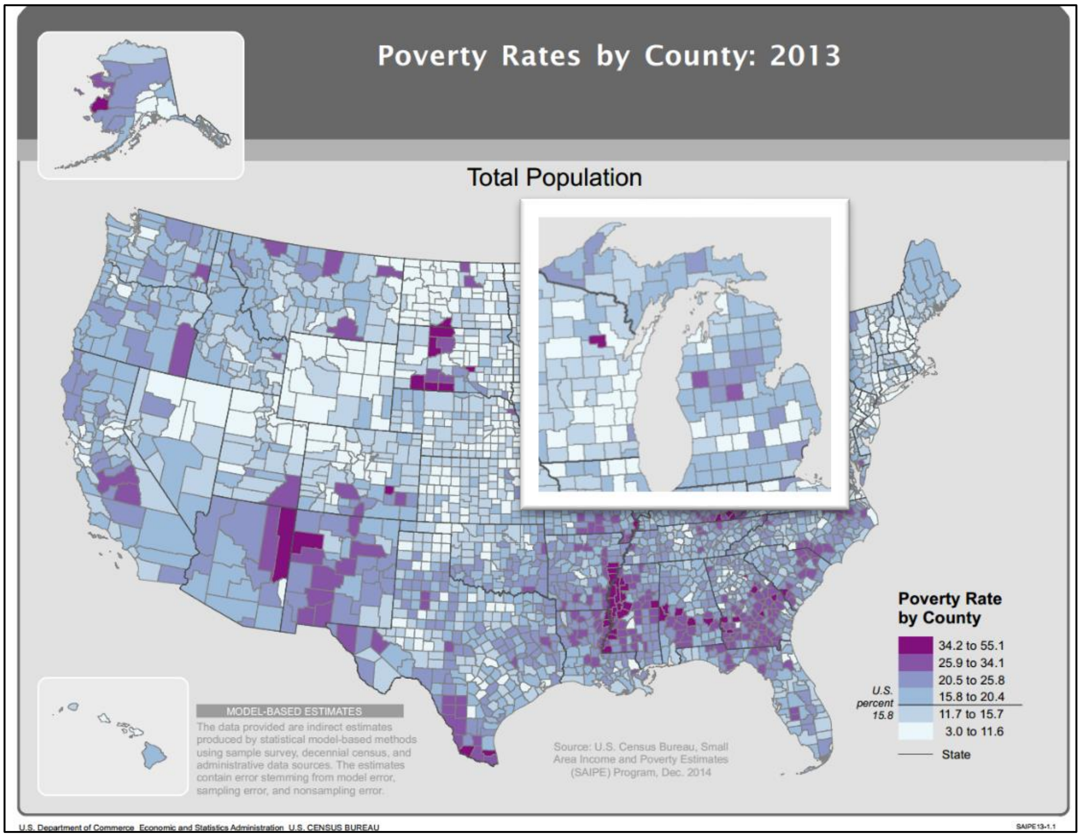
REFERENCES

1. United States Census Bureau / American FactFinder. (2015). *DP03: Selected Economic Characteristics" 2009 – 2013 American Community Survey.* Retrieved from http://factfinder2.census.gov
2. Marmot, M. (2002). The influence of income on health: Views of an epidemiologist. *Health Affairs, 21*(2), 31-46.

SOCIOECONOMIC CHARACTERISTICS: KENT COUNTY
POVERTY

OVERVIEW: POVERTY

Poverty is defined as the condition where basic needs for food, clothing, and shelter are not adequately met[3]. There are two types of poverty – absolute and relative. Absolute poverty is the situation where an individual or family is unable to attain adequate resources to support a minimum level of physical health. This measure of poverty means the same thing just about everywhere, and can be more easily addressed than relative poverty[3]. Relative poverty occurs when people do not enjoy a certain minimum level of living standards, as defined by a government. This measure of poverty varies from country to county[3].


Poverty Rates by County: 2013
Total Population
Poverty Rate by County
34.2 to 55.1
25.9 to 34.1
20.5 to 25.8
15.8 to 20.4
11.7 to 15.7
3.0 to 11.6
U.S. percent 15.8
State
MODEL-BASED ESTIMATES
The data provided are indirect estimates produced by statistical model-based methods using sample survey, decennial census, and administrative data sources. The estimates contain error stemming from model error, sampling error, and nonsampling error.
Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE) Program, Dec. 2014
U.S. Department of Commerce Economic and Statistics Administration U.S. CENSUS BUREAU
SAIPE13-1.1

In the United States, poverty is often measured as relative poverty. The Federal Government sets a poverty threshold, which is currently $23,850.00 for a family of four. This means that families making this amount or less are considered to be living in poverty in the United States. Poverty affects demographic groups differently, with females, single-parent families, rural areas, and people living with disabilities disproportionately affected[4]. The map above shows the distribution of poverty in the United States at the county level.

Kent County Socioeconomic Characteristics: Poverty						
Indicator	**Status**	**Time Period**	**Measure**	**Kent County[1,2]**	**Michigan[1,2]**	**United States[1]**
Income And Benefits						
Households With Social Security	--	2009-2013	Percent	26.5%	32.3%	28.9%
Households With Retirement Income	--	2009-2013	Percent	15.9%	22.7%	17.7%
Households With Supplemental Security Income	--	2009-2013	Percent	4.8%	5.5%	4.9%
Households With Cash Public Assistance Income	--	2009-2013	Percent	5.9%	3.9%	2.8%
Households With Food Stamp/SNAP Benefits (Past 12 mo)	--	2009-2013	Percent	15.5%	16.7%	12.4%
Food Assistance Program (FAP)[2]						
Children Ages 0 – 5[2]	--	2012	Percent	32.5%	36.7%	--
Children Ages 0 – 8[2]	--	2012	Percent	32.1%	35.4%	--
Children Ages 0 – 18[2]	--	2012	Percent	26.6%	29.1%	--
Family Independence Program (FIP)[2]						
Children Ages 0 – 5 Receiving FIP[2]	--	2012	Percent	4.9%	6.9%	--
Children Ages 0 – 8 Receiving FIP[2]	--	2012	Percent	4.8%	6.3%	--
Children Ages 0 – 18 Receiving FIP[2]	--	2012	Percent	3.6%	4.5%	--
Subsidized Care[2]						
Eligible Children Ages 0 – 5[2]	--	2012	Percent	4.9%	5.5%	--
Eligible Children Ages 0 – 12[2]	--	2012	Percent	3.9%	4.0%	--

Kent County Socioeconomic Characteristics: Poverty						
Indicator	**Status**	**Time Period**	**Measure**	**Kent County[1,2]**	**Michigan[1,2]**	**United States[1]**
Child Support[2]						
Ages 0 – 19 Owed Child Support[2]	👍	2012	Percent	18.3%	20.7%	--
Child Support Owed But None Received[2]	👍	2012	Percent	22.3%	30.0%	--
Received Less Than 70% Of Child Support Owed[2]	👍	2012	Percent	57.8%	61.6%	--
Income Below The Poverty Level (Past 12 Months)						
Children Living In Poverty						
Ages 0 – 17[2]	👍	2012	Percent	20.2%	24.6%	--
Ages 5 – 17[2]	👍	2012	Percent	18.2%	22.4%	--
All Families	👍 ☺	2009-2013	Percent	11.0%	12.0%	11.3%
With Related Children Under 18 Years	👍 ☹	2009-2013	Percent	18.3%	20.0%	17.8%
With Related Children Under 5 Years Only	👍 ☺	2009-2013	Percent	17.2%	23.6%	18.6%
Married Couple Families	👍 ☺	2009-2013	Percent	4.3%	5.4%	5.6%
With Related Children Under 18 Years	👍 ☺	2009-2013	Percent	6.9%	8.5%	8.3%
With Related Children Under 5 Years Only	👍 ☺	2009-2013	Percent	6.3%	8.5%	7.1%
Families With Female Householder, No Husband Present	👎 ☹	2009-2013	Percent	35.2%	34.3%	30.6%
With Related Children Under 18 Years	👍 ☹	2009-2013	Percent	44.7%	45.2%	40.0%
With Related Children Under 5 years only	👍 ☺	2009-2013	Percent	45.7%	54.7%	46.9%
All People	👍 ☹	2009-2013	Percent	15.5%	16.8%	15.4%
Under 18 Years	👍 ☹	2009-2013	Percent	21.8%	23.6%	21.6%
Related Children Under 18 Years	👍 ☹	2009-2013	Percent	21.4%	23.2%	21.3%
Related Children Under 5 Years	👍 ☹	2009-2013	Percent	25.4%	28.3%	24.7%
Related Children 5 To 17 Years	👍 ☺	2009-2013	Percent	19.8%	21.5%	20.0%
18 Years And Over	👍 ☺	2009-2013	Percent	13.3%	14.7%	13.4%
18 To 64 Years	👍 ☹	2009-2013	Percent	14.5%	16.2%	14.3%
65 Years And Over	👍 ☺	2009-2013	Percent	7.0%	8.2%	9.4%

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Kent County Socioeconomic Characteristics: WIC Demographics[5]									
	2013			**2012**			**2011**		
	Kent County	**Michigan**	**United States**	**Kent County**	**Michigan**	**United States**	**Kent County**	**Michigan**	**United States**
Racial And Ethnic Distribution									
White, Not Hispanic	44.8%	55.5%	56.6%	45.3%	56.2%	58.4%	45.3%	57.0%	41.6%
Black, Not Hispanic	22.4%	28.3%	22.1%	20.8%	27.5%	22.6%	20.8%	27.3%	22.7%
Hispanic	23.9%	9.9%	13.0%	25.2%	10.0%	13.0%	26.6%	10.0%	29.2%
American Indian/Alaska Native	0.3%	0.4%	1.1%	0.3%	0.4%	0.6%	0.4%	0.4%	1.1%
Asian/Pacific Islander	3.6%	2.0%	3.8%	3.3%	1.9%	2.5%	2.4%	1.7%	3.4%
Multiple Races	4.4%	3.5%	2.7%	4.5%	3.4%	2.3%	3.8%	2.9%	1.3%
Age Distribution									
Less Than 15 Years	0.1%	0.2%	0.2%	0.4%	0.2%	0.2%	0.2%	0.2%	0.3%
15 – 17 Years	4.2%	3.9%	4.4%	4.8%	4.5%	4.9%	4.8%	4.9%	5.3%
18 – 19 Years	9.7%	9.8%	10.8%	9.4%	10.7%	12.1%	11.2%	11.5%	11.5%
20 – 29 Years	61.4%	63.1%	62.3%	59.9%	62.2%	61.9%	59.7%	61.7%	59.4%
30 – 39 Years	22.3%	21.2%	20.8%	21.9%	20.5%	19.4%	20.9%	19.9%	21.7%
40 + Years	1.4%	1.6%	1.4%	1.4%	1.5%	1.4%	1.5%	1.5%	1.7%

SUMMARY

Poverty data is collected primarily through the US Census Bureau, though additional statistics are available from other sources. The overall poverty rate for Kent County is 15.5%, which is lower than the poverty rate for the State of Michigan (16.8%) and on par with that of the United States (15.4%). Kent County (20.2%) has a lower percentage of children living in poverty when compared with the State of Michigan (24.6%). Both Kent County (18.3%) and the State of Michigan (20.0%) have higher rates of families with children under 18 years living in poverty than the national average (17.8%). Kent County (35.2%) and Michigan (34.3%) both have higher rates of single parent families with a female head of household living in poverty than the national average (30.6%, as well.

REFERENCES

1. United States Census Bureau / American FactFinder. (2015). *DP03: Selected Economic Characteristics" 2009 – 2013 American Community Survey.* Retrieved from http://factfinder2.census.gov
2. Annie E. Casey Foundation (2015). *KIDS COUNT Data Center*. Retrieved from http://datacenter.kidscount.org/data#MI/5/0
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4. Poverty USA. (n.d.). *Poverty facts*. Retrieved from http://www.povertyusa.org/the-state-of-poverty/poverty-facts/
5. Centers for Disease Control and Prevention. (2014). *Pediatric and pregnancy surveillance system.* Retrieved from http://www.cdc.gov/pednss/what_is/pnss/

SOCIOECONOMIC CHARACTERISTICS: KENT COUNTY
SOCIAL CONTEXT

Overview

The risk for developing many different health conditions increases when people worry about their financial situation. The daily stress of living in a position of low social status can have a great impact on the morbidity and mortality of an individual. In fact, when comparing people with high stress levels over debt and financial issues with people with low stress over debt and financial issues, the people with high stress are twice as likely to have a heart attack as those with low stress[4]. This is just one example of how this type of social issue can affect the health and wellbeing of individuals, families, and communities.

Kent County Socioeconomic Characteristics: Social Context

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
How often, in the past 12 months, would you say you were worried or stressed about having enough money to pay your rent/mortgage?							**NA**
Always	--	2014*	Percent	7.0%	--	--	
Usually	--	2014*	Percent	4.2%	--	--	
Sometimes	--	2014*	Percent	13.5%	--	--	
Rarely	--	2014*	Percent	16.1%	--	--	
Never	--	2014*	Percent	58.1%	--	--	
How often, in the past 12 months, would you say you were worried or stressed about having enough money to buy nutritious meals?							
Always	--	2014*	Percent	4.4%	--	--	
Usually	--	2014*	Percent	2.9%	--	--	
Sometimes	--	2014*	Percent	10.0%	--	--	
Rarely	--	2014*	Percent	9.5%	--	--	

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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

Overall, the majority of Kent County (74.2%) residents report rarely or never experiencing stress associated with paying for housing-related costs. However, more than 10% did report experiencing this type of stress within the past year. More than 17% of Kent County residents reported that they experienced stress or worry at least sometimes during the past 12 months in relation to having enough money to buy nutritious foods.

REFERENCES

1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.
4. Mielach, D. (2012). *How Worrying About Money Affects Your Health*. Retrieved from http://news.yahoo.com/worrying-money-affects-health-195204528.html

SOCIOECONOMIC CHARACTERISTICS: KENT COUNTY
HEALTHCARE INSURANCE

OVERVIEW: HEALTHCARE INSURANCE

Adults who do not have healthcare coverage are less likely to access healthcare services, including preventive care, primary care, and tertiary care, and delay getting needed medical attention[1]. Utilization of preventive healthcare services, such as mammography, Pap tests, prostate exams, influenza vaccinations, and cholesterol tests, could reduce the prevalence and severity of diseases and chronic conditions in the United States.

Kent County Socioeconomic Characteristics: Healthcare Insurance

Indicator	Status	Time Period	Measure	Kent County[2,3]	Michigan[2,3]	United States[2]
Healthcare Insurance						
Population With Health Insurance Coverage	👍 ☺	2009-2013	Percent	89.4%	88.4%	85.1%
Population With Private Health Insurance	--	2009-2013	Percent	72.2%	69.3%	66.0%
Population With Public Coverage	--	2009-2013	Percent	28.7%	33.3%	30.2%
No Health Insurance Coverage	👍 ☺	2009-2013	Percent	10.6%	11.6%	14.9%
Population Under 18 Years						
No Health Insurance Coverage	👍 ☺	2009-2013	Percent	3.4%	4.1%	7.6%
Children Insured By MI Child[3]	--	2012	Percent	1.3%	--	--
Children Insured By Medicaid[3]	--	2012	Percent	39.7%	--	--
Children With Health Insurance[3]	👍	2011	Percent	95.7%	95.6%	--
Labor Force						
Employed						
With Health Insurance Coverage	👍 ☺	2009-2013	Percent	86.9%	85.7%	82.5%
With Private Health Insurance	--	2009-2013	Percent	82.7%	80.4%	77.9%
With Public Coverage	--	2009-2013	Percent	6.0%	7.4%	6.6%
No Health Insurance Coverage	👍 ☺	2009-2013	Percent	13.1%	14.3%	17.5%
Unemployed						
With Health Insurance Coverage	👍 ☺	2009-2013	Percent	60.6%	59.2%	54.1%
With Private Health Insurance	--	2009-2013	Percent	40.1%	36.0%	35.1%
With Public Coverage	--	2009-2013	Percent	24.1%	25.6%	21.2%
No Health Insurance Coverage	👍 ☺	2009-2013	Percent	39.4%	40.8%	45.9%
Not In Labor Force						
With Health Insurance Coverage	☺	2009-2013	Percent	85.3%	85.3%	78.2%
With Private Health Insurance	--	2009-2013	Percent	58.3%	56.2%	51.4%
With Public Coverage	--	2009-2013	Percent	35.4%	38.3%	33.4%
No Health Insurance Coverage	☺	2009-2013	Percent	14.7%	14.7%	21.8%

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SUMMARY

Kent County has a high rate of health insurance coverage for the total population (89.4%), which is higher than the rates of health insurance coverage for the state (88.4%) and the United States (85.1%). Kent also has the lowest percentage of residents with public health insurance coverage (28.7%). Most people in Kent County who are employed have health insurance (86.9%), and the majority of those individuals have private health insurance (82.7%).

REFERENCES

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3. Annie E. Casey Foundation. (2015). *KIDS COUNT Data Center*. Retrieved from http://datacenter.kidscount.org/data#MI/5/0 on 09 January 2015

HEALTHCARE ACCESS

OVERVIEW: HEALTHCARE ACCESS

Two indicators that address issues related to healthcare access include not having a personal doctor or healthcare provider and having had a time during the past 12 months when healthcare was needed but could not be obtained because of cost. Access to health services is important at every age. Having both a primary care provider (PCP) and medical insurance can prevent illness by improving access to a range of recommended preventive services across the lifespan, from childhood vaccinations to screening tests for cancer and chronic diseases, such as diabetes and heart disease. Having a PCP and medical insurance also plays a vital role in finding health problems in their earliest, most treatable stages, and managing a person through the course of the disease.

Lacking access to health services—even for just a short period—can lead to poor health outcomes over time. The ability to access health services is associated with a number of social, economic, and environmental factors. One of the primary factors is the high cost of medical insurance, which makes it unavailable to many people. A lack of medical services in some communities, coupled with a shortage of PCPs nationwide, also negatively affects people's ability to access health services. These barriers are compounded by other determinants—such as age, gender, race and ethnicity, and origin of birth—that may affect a person's ability to access health services. The systematic removal of these barriers is key to improving the health of all Americans[5].

Kent County Socioeconomic Characteristics: PCP and Cost

Percentage of Respondents With No Personal Healthcare Provider And Percentage of Respondents Who Reported an Instance of Not Obtaining Care Due to Cost

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]		United States[3]		National Benchmark[a,b]
	PCP	Cost			PCP	Cost	PCP	Cost	PCP	Cost	
Total	👍 😊	👍 😊	2014*	Percent	14.3%	11.7%	17.0%	15.5%	22.9%	15.3%	**AHS-3: Increase The Proportion Of Persons With a Usual Primary Care Provider**
Age											
18 – 24 Years	👍 😊	👍 😊	2014*	Percent	28.2%	11.2%	32.4%	13.5%	41.6%	15.3%	
25-34 Years	👍 😊	👍 😊	2014*	Percent	27.7%	17.2%	32.3%	24.1%	39.3%	20.5%	
35-44 Years	👍 😊	👍 😊	2014*	Percent	13.2%	8.2%	21.2%	18.2%	26.1%	18.7%	
45 – 54 Years	👍 😊	👍 ☹	2014*	Percent	6.1%	18.0%	12.7%	18.9%	18.1%	17.5%	
55 – 64 Years	👍 😊	👍 😊	2014*	Percent	8.2%	10.4%	8.3%	13.6%	11.5%	13.6%	
65+ Years	😊	😊	2014*	Percent	3.1%	3.4%	--	--	9.3%	4.6%	
Gender											
Male	👍 😊	👍 😊	2014*	Percent	17.8%	10.0%	22.9%	15.1%	29.0%	13.5%	
Female	👍 😊	👍 😊	2014*	Percent	11.0%	13.3%	11.4%	15.9%	17.0%	17.2%	
Race											
White/Caucasian	👍 😊	👍 😊	2014*	Percent	12.1%	10.4%	14.8%	13.7%	20.3%	12.4%	
Black/African American	👍 😊	👎 ☹	2014*	Percent	9.6%	22.9%	23.2%	22.5%	27.8%	22.1%	
Hispanic/Latino	👎 😊	👍 😊	2014*	Percent	34.6%	20.1%	22.4%	22.8%	40.3%	27.0%	
Non-Hispanic	😊	😊	2014*	Percent	12.1%	10.9%	25.9%	15.7%	--	--	
Education											
Less Than High School	👎 ☹	👍 😊	2014*	Percent	28.7%	16.2%	22.6%	25.2%	32.1%	26.8%	
High School Diploma	👎 😊	👍 😊	2014*	Percent	18.8%	13.5%	17.9%	15.9%	25.2%	16.1%	
Some College	👍 😊	👍	2014*	Percent	12.1%	15.2%	17.6%	16.9%	21.7%	15.2%	
College Graduate	👍 😊	👍 😊	2014*	Percent	9.8%	6.7%	11.9%	7.5%	17.0%	7.9%	
Household Income											
Less Than $20,000	👍	👍	2014*	Percent	23.5%	31.7%	28.4%	33.0%	--	--	
$20,000 to $34,999	👍	👍	2014*	Percent	15.6%	17.6%	19.5%	21.6%	--	--	
$35,000 to $49,999	👍	👍	2014*	Percent	12.6%	8.5%	15.5%	16.6%	--	--	
$50,000 to $74,999	👍	👍	2014*	Percent	8.7%	2.0%	12.3%	7.4%	--	--	
$75,000 Or More	👍	👎	2014*	Percent	6.1%	4.5%	9.9%	4.2%	--	--	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
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[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.
**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

Kent County Healthcare Resource Availability: Healthcare Access

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Do you have Medicare?							AHS-1.1: Increase The Proportion Of Persons With Medical Insurance AHS-6: Reduce The Proportion Of Persons Who Are Unable To Obtain Or Delay In Obtaining Necessary Medical Care, Dental Care, Or Prescription Medicines
Yes	--	2014*	Percent	49.2%	--	--	
No	--	2014*	Percent	49.7%	--	--	
What is the primary source of your healthcare coverage?							
A Plan Through An Employer Or Union	--	2014*	Percent	43.0%	--	--	
A Plan That You Or Another Family Member Buys On You Own	--	2014*	Percent	13.8%	--	--	
Medicare	--	2014*	Percent	30.0%	--	--	
Medicaid Or Other State Program	--	2014*	Percent	6.3%	--	--	
TRICARE	--	2014*	Percent	1.3%	--	--	
Other than cost, there are many other reasons people delay getting needed medical care. Have you delayed getting needed medical care for any of the following reasons in the past 12 months?							
You Couldn't Get Through On The Phone	--	2014*	Percent	1.4%	--	--	
You Couldn't Get An Appointment Soon Enough	--	2014*	Percent	4.4%	--	--	
Once You Got There, You Had To Wait Too Long To See The Doctor	--	2014*	Percent	1.5%	--	--	
The Clinic/Doctor's Office Wasn't Open When You Got There	--	2014*	Percent	0.6%	--	--	
You Didn't Have Transportation	--	2014*	Percent	4.9%	--	--	
In the past 12 months, was there any time when you did not have any health insurance or coverage?							
Yes	--	2014*	Percent	6.0%	--	--	
No	--	2014*	Percent	93.8%	--	--	
How long has it been since you last had healthcare coverage?							
6 Months Or Less	--	2014*	Percent	17.1%	--	--	
More Than 6 Months, But Not More Than 1 Year Ago	--	2014*	Percent	10.5%	--	--	
More Than 1 Year, But Not More Than 3 Years Ago	--	2014*	Percent	13.2%	--	--	
More Than 3 Years	--	2014*	Percent	25.0%	--	--	
Was there a time, in the past 12 months, when you did not take your medication as prescribed because of cost?							
Yes	--	2014*	Percent	7.0%	--	--	
No	--	2014*	Percent	73.9%	--	--	
In general, how satisfied are you with the healthcare you receive?							
Very Satisfied	--	2014*	Percent	70.5%	--	--	
Somewhat Satisfied	--	2014*	Percent	24.3%	--	--	
Not At All Satisfied	--	2014*	Percent	2.1%	--	--	
Do you currently have any healthcare bills that are being paid off over time?							
Yes	--	2014*	Percent	17.0%	--	--	
No	--	2014*	Percent	82.1%	--	--	

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[a] Benchmark is based on Healthy People 2020 Goal.
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NA -- National Benchmark was not identified.
**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

An estimated 14.3% of Kent County adults do not have a personal doctor or healthcare provider, a rate which is notably lower than the statewide (17.0%) and nationwide rates (22.9%). Hispanics (34.6%) are the most likely cohort to report having no personal healthcare provider. The likelihood of having a personal provider is lowest among respondents under the age of 35.

A total of 11.7% of Kent County residents reported inability to see a doctor because of the cost. Cost appears to be a more significant factor for accessing healthcare among women (13.3%), African Americans (22.9%), and Hispanic/Latinos (22.1%) in Kent County. Access to a personal provider and cost barriers continue to be cited more often among less educated and less affluent population segments.

Around 49.2% of Kent County adults are on Medicare and those who are not have healthcare coverage through an employer or union (43.0%). Of all the reasons respondents provided for delaying needed medical care in the past twelve months, the most common reason was a lack of transportation to and from care (4.9%). Roughly, 25.0% of Kent County adults have not had healthcare for over three years and 7.0% did not take a prescribed medication due to the cost.

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1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
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3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.
4. Healthy People 2020. (2014). *Access to Health Services*. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services
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HEALTH RESOURCE AVAILABILITY

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

DEFINITION OF CATEGORY

This domain represents factors associated with health system capacity, which may include both the number of licensed and credentialed health professionals and the physical capacity of facilities. The category of health resource availability includes measures of access, utilization, cost, and quality of healthcare and preventive services.

Key Topics

- HEALTHCARE FACILITIES
- CAPACITY OF HEALTHCARE FACILITIES
- CAPACITY OF HEALTHCARE PROFESSIONALS
- UTILIZATION

HEALTH RESOURCE AVAILABILITY: KENT COUNTY
FACILITIES AND CAPACITY

OVERVIEW: FACILITIES AND CAPACITY

When describing health system capacity, important factors to consider are the number of facilities, physical capacity of the facilities, and the number of licensed health personnel working within the community.

The tables on this page and the following page describe the capacity of the health system operating within Kent County. These tables offer the number of healthcare facilities within the community, as well as the capacity of those facilities, and the number and type of healthcare professionals employed by Kent County facilities.

Kent County Health Resource Availability: Number Facilities

Indicator	Year	Measure	Kent County[1]	Michigan[1]
Non-Hospital Facilities				
Ambulatory Surgery Centers	2013	Total Number	7	89
Community Health Centers	2013	Total Number	21	216
Community Mental Health Centers	2013	Total Number	1	7
Federally Qualified Health Centers	2013	Total Number	16	173
Home Health Agencies	2013	Total Number	18	712
Hospices	2013	Total Number	7	109
Rural Health Clinics	2013	Total Number	1	179
Skilled Nursing Facilities	2013	Total Number	25	423
Hospital Facilities				
Hospitals	2011	Total Number	7	174
Community Hospitals	2011	Total Number	4	135
General Hospitals	2011	Total Number	3	133
Non-General Hospitals	2011	Total Number	4	35
Acute Long-Term Care Hospitals	2011	Total Number	1	18
Psychiatric Hospitals	2011	Total Number	2	8
Rehabilitation Hospitals	2011	Total Number	1	4

Kent County Health Resource Availability: Capacity (Resources)

Indicator	Year	Measure	Kent County[1]	Michigan[1]
Hospitals				
Beds	2011	Total Number	2,266	28,356
Licensed Beds	2011	Total Number	2,011	27,556
Short-Term Hospitals				
Beds	2011	Total Number	1,698	24,490
General Hospitals				
Beds	2011	Total Number	1,618	24,154
Licensed Beds	2011	Total Number	1,663	25,504
Non-General Hospitals				
Beds	2011	Total Number	648	3,395
Licensed Beds	2011	Total Number	348	1,740
Short-Term Non-General / Long-Term Hospitals				
Beds	2011	Total Number	648	3,395
Licensed Beds	2011	Total Number	348	1,740
Skilled Nursing Facilities				
Beds	2011	Total Number	2,567	46,447

SUMMARY

Kent County is a healthcare resource-rich community. There are several hospitals, as well as over 20 community health centers, 16 federally qualified health centers, and one rural health clinic within the jurisdiction.

In addition to these types of facilities, Kent County also has two psychiatric hospitals, a rehabilitation hospital, and numerous skilled nursing and home health agencies.

As a result of the numerous healthcare facilities, there are also numerous beds available throughout the county, which means Kent's capacity to meet healthcare needs is quite good. Despite this, challenges for certain subspecialties, particularly related to behavioral health, continue to be an issue.

Kent County medical facilities employ thousands of staff, ranging from registered nurses, nursing assistants, and allied health professionals like pharmacists, radiology technicians, and laboratory technicians. When it comes to medical doctors, there is certainly availability to a wide array of specialties, like pediatrics, obstetrics and gynecology, and primary practitioners. Though there is variety among the types of specialties available in Kent County, there are some specialties that are limited in accessibility due to the low numbers of available providers. Some examples of these tough-to-access specialties include psychiatry and child psychology.

Kent County Health Resource Availability: Capacity (Number Hospital Employees)

Indicator	Year	Measure	Kent County[1]	Michigan[1]
Short Term Hospitals ***General Hospitals***				
Registered Nurses	2011	Total Number	3,944	54,993
Advanced Practice Nurses	2011	Total Number	197	2,439
Licensed Practical Nurses / Licensed Vocational Nurses	2011	Total Number	113	2,086
Nursing Assistive Persons	2011	Total Number	1,549	14,795
Laboratory Technicians	2011	Total Number	118	5,137
Pharmacists	2011	Total Number	178	2,164
Pharmacy Technicians	2011	Total Number	206	2,954
Radiology Technicians	2011	Total Number	336	5,502
Respiratory Therapists	2011	Total Number	280	3,132
Short Term Non-General / Long-Term Hospitals				
Registered Nurses	2011	Total Number	335	3,355
Licensed Practical Nurses / Licensed Vocational Nurses	2011	Total Number	19	451
Nursing Assistive Persons	2011	Total Number	61	1,689
Laboratory Technicians	2011	Total Number	5	120
Pharmacists	2011	Total Number	2	157
Pharmacy Technicians	2011	Total Number	2	131
Radiology Technicians	2011	Total Number	7	249
Respiratory Therapists	2011	Total Number	3	249

Kent County Health Resource Availability: Capacity (Number Medical and Nursing Specialties)

Indicator	Year	Measure	Kent County[1]	Michigan[1]	National Benchmark[2]
Medical Specialty					
Medical Doctors	2012	Total Number	2,103	30,430	**AHS-4.1 Increase The Number Of Practicing Medical Doctors**
Allergy & Immunology	2012	Total Number	10	140	
Anesthesiology	2012	Total Number	93	1,061	
Cardiovascular Disease Specialty	2012	Total Number	33	638	
Child Psychology	2012	Total Number	7	194	
Colorectal Surgery	2012	Total Number	9	64	
Dermatology	2012	Total Number	17	311	
Diagnostic Radiology	2012	Total Number	71	875	
Emergency Medicine	2012	Total Number	136	1,380	
General Family Medicine	2012	Total Number	200	2,771	
Forensic Pathology	2012	Total Number	1	18	
Gastroenterology	2012	Total Number	22	324	
General Practice	2012	Total Number	3	142	
Preventive Medicine	2012	Total Number	1	26	
Surgery	2012	Total Number	107	1,227	
General Internal Medicine	2012	Total Number	229	3,804	
Neurological Surgery	2012	Total Number	17	174	
Neurology	2012	Total Number	28	481	
OB/GYN	2012	Total Number	109	1,231	
Occupational Medicine	2012	Total Number	5	74	
Ophthalmology	2012	Total Number	31	615	
Orthopedic Surgery	2012	Total Number	72	678	
Otolaryngology	2012	Total Number	16	273	
Pathology	2012	Total Number	33	565	
General Pediatrics	2012	Total Number	135	1,566	
Pediatric Cardiology	2012	Total Number	4	94	
Physical / Medical Rehabilitation	2012	Total Number	16	347	

Kent County Health Resource Availability: Capacity (Number Medical and Nursing Specialties)

Indicator	Year	Measure	Kent County[1]	Michigan[1]	National Benchmark[2]
Plastic Surgery	2012	Total Number	35	217	
Psychiatry	2012	Total Number	43	963	
Pulmonary Disease Specialty	2012	Total Number	18	292	
Radiation Oncology	2012	Total Number	9	157	
Radiology	2012	Total Number	23	308	
Thoracic Surgery	2012	Total Number	9	124	
Urology	2012	Total Number	26	299	
Doctors of Osteopathic Medicine	2012	Total Number	367	5,565	**AHS-4.2 Increase The Number Of Practicing Doctors Of Osteopathy**
Anesthesiology	2012	Total Number	27	200	
Emergency Medicine	2012	Total Number	22	355	
General Family Medicine	2012	Total Number	60	1,012	
General Practice	2012	Total Number	13	245	
General Surgery	2012	Total Number	10	120	
General Internal Medicine	2012	Total Number	26	384	
OB/GYN	2012	Total Number	18	184	
Orthopedic Surgery	2012	Total Number	11	152	
General Pediatrics	2012	Total Number	13	134	
Physical/Medical Rehabilitation	2012	Total Number	3	91	
Psychiatry	2012	Total Number	6	114	
Nursing Specialty					
Nurse Practitioners (NPI)	2013	Total Number	319	3,862	**AHS-4.4 Increase The Number Of Practicing Nurse Practitioners**
Advanced Practice Nurse Midwives(NPI)	2013	Total Number	5	193	
Advanced Practice Registered Nurses (NPI)	2013	Total Number	396	6,212	
Certified Registered Nurse Anesthetists	2013	Total Number	68	2,190	
Certified Registered Nurse Anesthetists (NPI)	2013	Total Number	65	2,087	
Certified Nurse Midwives	2013	Total Number	15	321	
Clinical Nurse Specialists (NPI)	2013	Total Number	7	70	

**NPI – National Provider Identifier Number

REFERENCES

1. United States Department of Health and Human Services, Health Resources and Services Administration. (2014). *2013-2014 Area Health Resources Files.*
2. Healthy People 2020. (2014). *Access to Health Services*. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services

HEALTH RESOURCE AVAILABILITY: KENT COUNTY UTILIZATION

OVERVIEW: UTILIZATION

People use healthcare services for many reasons: to cure illnesses and health conditions, to mend breaks and tears, to prevent or delay future healthcare problems, to reduce pain and increase quality of life, and sometimes merely to obtain information about their health status and prognosis. Healthcare utilization can be appropriate or inappropriate, of high or low quality, expensive or inexpensive.

The healthcare delivery system of today has undergone tremendous change, even over the relatively short period of the past decade. New and emerging technologies, including drugs, devices, procedures, tests, and imaging machinery, have changed patterns of care and sites where care is provided. Procedures that formerly required a few weeks of recovery now require only a few days. New drugs can cure or improve the prognosis for numerous diseases, although often at increased cost or increased utilization of medical practitioners needed to prescribe and monitor the effects of the medications.

Kent County Health Resource Availability: Utilization

Indicator	Year	Measure	Kent County[1]	Michigan[1]
Hospitals				
Inpatient Days	2011	Total Number	506,848	6,916,128
Outpatient Days	2010	Total Number	2,287,007	32,639,898
Admissions	2011	Total Number	96,096	1,235,322
Short-Term Hospitals				
Inpatient Days	2011	Total Number	421,507	5,950,681
Admissions	2011	Total Number	87,986	1,177,249
General Hospitals				
Inpatient Days	2011	Total Number	405,652	5,853,204
Medicaid Inpatient Days	2011	Total Number	84,056	1,104,356
Medicare Inpatient Days	2011	Total Number	178,054	3,052,964
Medicaid Inpatient Discharges	2011	Total Number	14,575	206,505
Medicare Inpatient Discharges	2011	Total Number	35,921	569,097
Surgical Operations	2011	Total Number	81,428	992,785
Outpatient Visits	2011	Total Number	2,352,308	31,432,679
Emergency Department Visits	2011	Total Number	87,123	1,171,915
Admissions	2011	Total Number	87,123	1,171,915
Non-General Hospitals				
Outpatient Visits	2011	Total Number	325,051	1,662,044
Short-Term Non-General / Long-Term Hospitals				
Inpatient Days	2011	Total Number	101,196	1,062,924
Medicaid Inpatient Days	2011	Total Number	10,993	197,735
Medicare Inpatient Days	2011	Total Number	13,965	219,168
Medicaid Inpatient Discharges	2011	Total Number	939	18,297
Medicare Inpatient Discharges	2011	Total Number	935	12,983
Surgical Operations	2010	Total Number	372	33,184
Outpatient Visits	2011	Total Number	325,051	1,662,044
Admissions	2011	Total Number	8,973	63,407
Acute Long-Term Care Hospitals				
Inpatient Days	2011	Total Number	9,386	210,194
Psychiatric Hospitals				
Inpatient Days	2011	Total Number	75,955	316,146
Rehabilitation Hospitals				
Inpatient Days	2011	Total Number	15,855	47,126

Healthcare utilization has also evolved as the population's need for care has changed over time. Some factors that influence need include aging, socio-demographic population shifts, and changes in the prevalence and incidence of different diseases. As the prevalence of chronic conditions increases, for example, residential and community-based health-related services have emerged that are designed to minimize loss of function and to keep people out of institutional settings. The growth of managed care and payment mechanisms employed by insurers and other payers in an attempt to control the rate of healthcare spending has also had a major impact on healthcare utilization.[2]

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1. United States Department of Health and Human Services, Health Resources and Services Administration. (2014). *2013-2014 Area Health Resources Files.*
2. Bernstein, A.B., Hing, E., Moss, A.J., Allen, K.F., Siller, A.B., Tiggle, R.B. (2003). *Healthcare in America: Trends in utilization*. Hyattsville, Maryland: National Center for Health Statistics.

Section 2: Factors Influencing Health

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

Key Topics

- QUALITY OF LIFE DATA
- BEHAVIORAL RISK FACTORS DATA
- ENVIRONMENTAL HEALTH DATA

QUALITY OF LIFE

HEALTHY KENT

2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

DEFINITION OF CATEGORY

Quality of life (QOL) is a construct that “connotes an overall sense of well-being when applied to an individual” and a “supportive environment when applied to a community”. While some dimensions of QOL can be quantified using indicators research has shown it to be related to determinants of health and community well-being. Other valid dimensions of QOL include perceptions of community residents about aspects of their neighborhoods and communities that either enhance or diminish their quality of life.

Key Topics

- VACANT PROPERTY
- HOUSING QUALITY
- VOTER PARTICIPATION
- RACIAL SEGREGATION AND RACISM
- ACCESS TO RECREATIONAL FACILITIES, PARKS, AND HEALTHY FOOD

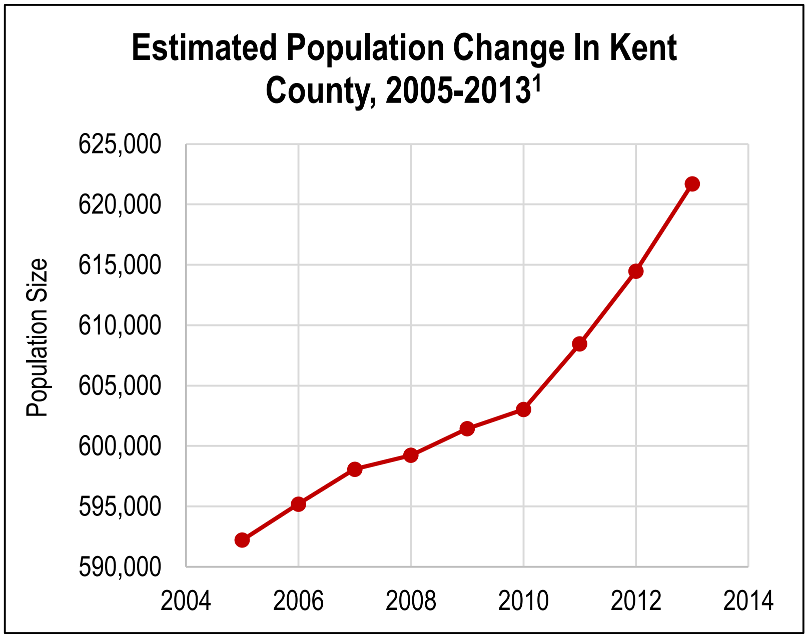
QUALITY OF LIFE: KENT COUNTY
POPULATION GROWTH AND STABILITY

OVERVIEW: POPULATION GROWTH AND STABILITY

Population statistics come from decennial censuses, annual surveys like the American Community Survey and the Current Population Survey, and other periodic assessments of the United States population like the Survey of Income and Program Participation that are conducted by the federal government. The US Census Bureau also produces population estimates and projections regularly.

SUMMARY

Over the past several years, Kent County has experienced a steady increase in population. US Census Bureau estimates indicate that the population of Kent County in 2013 was about 621,700 people. The City of Grand Rapids has seen similar trends in growth, with a population increase from 188,051 in 2010 to an estimated 192,294 in 2013. This represents more than a two percent increase in population for the City of Grand Rapids in just over three years' time. The county's population increase during the same time period was more than three percent.


Estimated Population Change In Kent County, 2005-2013[1]

The majority of Kent County residents have an established long-term residence, with 84.0% living in the same house. Even among those who moved from the house they lived in the previous year, more than 11% still remained a resident of Kent County.

Kent County Quality Of Life: Resident One Year Ago

Indicator	Status	Time Period	Measure	Grand Rapids[2]	Kent County[2]	Michigan[2]	United States[2]	National Benchmark[a,b]
Same House	--	2009-2013	Percent	77.6%	84.0%	85.3%	84.9%	**NA**
Different House, Same County	--	2009-2013	Percent	15.7%	11.1%	9.2%	9.1%	**NA**

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[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

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1. US Census Bureau. (2014). *Population and housing unit estimates*. Retrieved from http://www.census.gov/popest/
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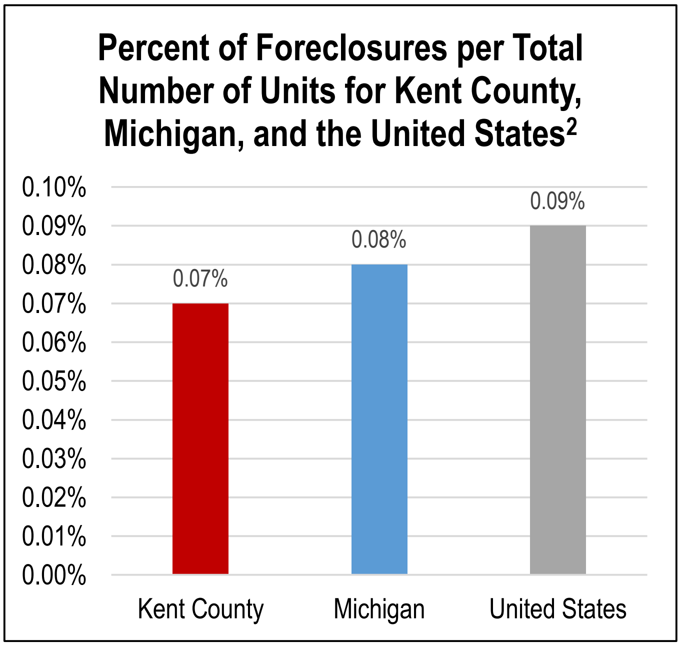
QUALITY OF LIFE: KENT COUNTY
FORECLOSURES AND VACANT HOUSING

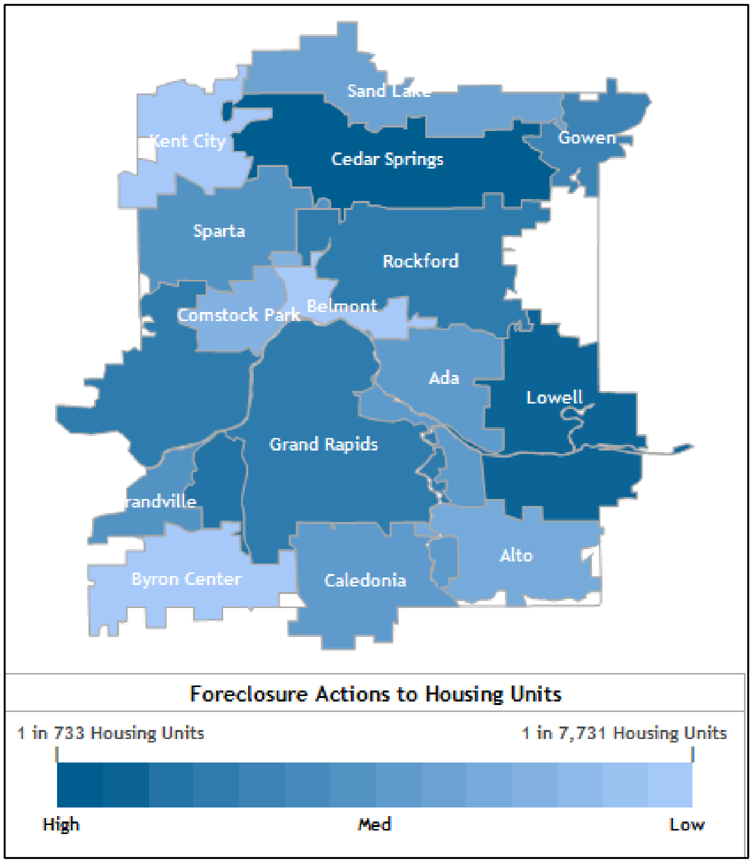
OVERVIEW: FORECLOSURES AND VACANT HOUSING

Foreclosures can have a drastic impact on families and communities, often leading to an increased number of vacant properties. When family homes are foreclosed, the people living there are almost always obligated to move. When this happens, it causes personal displacement, housing instability, financial insecurity, economic hardship, personal and family stress, disrupted relationships, and ill health[1]. In addition to the individual hardships caused by foreclosures, the communities and neighborhoods disproportionately blighted by these newly vacant properties also suffer. For example, communities with numerous foreclosed and vacant homes experience a decrease in property value, physical deterioration of the properties, increased crime, social disorder, population turnover, local government fiscal stress, and deterioration of services[1].

Cities With The Highest Foreclosure Rates Within Kent County[2]

City	Foreclosure Rate
Cedar Springs	1 In Every 733 Homes
Lowell	1 In Every 951 Homes
Wyoming	1 In Every 1,166 Homes
Grand Rapids	1 In Every 1,323 Homes
Rockford	1 In Every 1,363 Homes





Ratio of foreclosure actions to number of housing units in Kent County, MI. (photo courtesy of RealtyTrac, 2015)[2].

Kent County Quality Of Life: Vacant Housing

Indicator	Status	Time Period	Measure	Grand Rapids[3]	Kent County[3]	Michigan[3]	United States[3]	National Benchmark[a,b]
Vacant Housing Units	👍 ☺	2009-2013	Percent	9.6%	7.1%	15.6%	12.5%	**NA**
Homeowner Vacancy Rate	👍 ☺	2009-2013	Rate Per 100,000	3.2	2.0	2.4	2.2	**NA**
Rental Vacancy Rate	👍 ☺	2009-2013	Rate Per 100,000	7.6	6.2	7.8	7.3	**NA**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

SUMMARY

Kent County's foreclosure rate is lower than the rates reported for the State of Michigan and the United States. The communities within Kent County that are most affected by foreclosures are Cedar Springs, Lowell, Wyoming, Grand Rapids and Rockford. Many of these communities are in rural parts of the county. When considering vacant properties overall, Kent County overall has a lower percentage of vacant housing units when compared with the state and nation, as well as a lower percentage than the City of Grand Rapids.

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QUALITY OF LIFE: KENT COUNTY
HOUSING QUALITY

OVERVIEW: HOUSING QUALITY

Good, quality housing is a key element for ensuring a healthy community. Poor-quality housing can lead to many health problems, ranging from infectious diseases to stress and depression. Some key challenges associated with poor housing include air quality, safety, noise, humidity and mold growth, indoor temperatures, asbestos, lead, radon, volatile organic compounds, lack of hygiene, and mental distress due to living conditions[1]. Many health problems experienced by people living in poor housing arrangements are directly or indirectly related to the building or structure, itself[1].

Kent County Quality Of Life: Housing Quality

Indicator	Status	Time Period	Measure	Grand Rapids[2]	Kent County[2]	Michigan[2]	United States[2]	National Benchmark[a,b]
Year Structure Built[2]								
2010 Or Later	--	2009-2013	Percent	0.2%	0.3%	0.2%	0.6%	**NA**
2000 – 2009	--	2009-2013	Percent	4.8%	12.2%	10.2%	14.7%	
1990 – 1999	--	2009-2013	Percent	6.3%	14.5%	12.8%	13.9%	
1980 – 1989	--	2009-2013	Percent	6.7%	12.1%	9.9%	13.9%	
1970 – 1979	--	2009-2013	Percent	8.0%	13.8%	15.6%	15.9%	
1960 – 1969	--	2009-2013	Percent	11.1%	10.8%	12.2%	11.1%	
1950 – 1959	--	2009-2013	Percent	17.0%	12.9%	15.5%	11.0%	
1940 – 1949	--	2009-2013	Percent	9.0%	5.7%	8.2%	5.5%	
1939 Or Earlier	--	2009-2013	Percent	36.9%	17.7%	15.4%	13.5%	
Value Of Owner Occupied Units[2]								
Less Than $50,000	--	2009-2013	Percent	10.0%	8.5%	14.8%	9.0%	**NA**
$50,000 - $99,999	--	2009-2013	Percent	32.3%	19.6%	24.8%	15.5%	
$100,000 - $149,999	--	2009-2013	Percent	35.7%	28.4%	20.7%	16.1%	
$150,000 - $199,999	--	2009-2013	Percent	13.1%	19.0%	16.5%	15.2%	
$200,000 - $299,999	--	2009-2013	Percent	6.4%	14.9%	13.7%	18.3%	
$300,000 - $499,999	--	2009-2013	Percent	2.0%	7.2%	6.7%	15.6%	
$500,000 - $999,999	--	2009-2013	Percent	0.3%	1.8%	2.1%	8.2%	
$1,000,000 Or More	--	2009-2013	Percent	0.2%	0.6%	0.6%	2.1%	
Selected Home Characteristics[2]								
More Than 1.51 Occupants Per Room	-- ☺	2009-2013	Percent	0.7%	0.3%	0.3%	1.0%	**NA**
Households With Inadequate Kitchen Facilities	👎 ☹	2009-2013	Percent	1.8%	1.1%	0.8%	0.9%	
Households With Inadequate Plumbing	👎 ☹	2009-2013	Percent	1.1%	2.8%	0.4%	0.5%	

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[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

SUMMARY

Much of the housing in Kent County is relatively new construction, with nearly 40% of homes built in 1980 or later. More than 70% of these homes are worth at least $100,000. In contrast, homes within the City of Grand Rapids are older, with almost 80% of them built in 1979 or earlier. Additionally, the value of homes in Grand Rapids is not as high as Kent County as a whole. More than 40% of the homes in Grand Rapids are worth less than $100,000.

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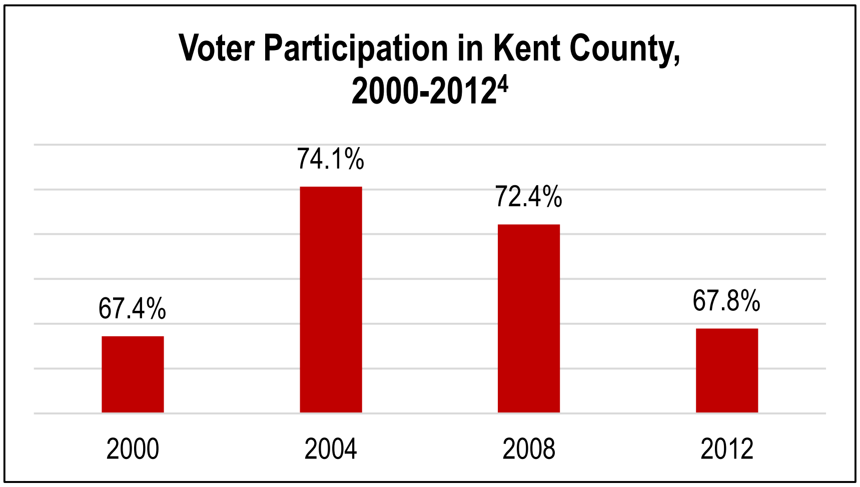
QUALITY OF LIFE: KENT COUNTY
VOTER PARTICIPATION

OVERVIEW: VOTER PARTICIPATION

Voting is arguably the most important civic opportunity given to citizens in the United States. In order to vote in the United States, an individual must be 18 years or age or older and a US citizen[5].

A number of different factors can influence voter turnout rates. Some of these factors include competitiveness of the election, type of election, voting laws, and demographic characteristics. For example, there is lower turnout for primary elections, off-year elections for state legislators, and local elections when compared to presidential and gubernatorial elections[6].


Voter Participation in Kent County, 2000-2012[4]

Age, race/ethnicity, gender, and socioeconomic status are influential factors in elections. Young people are less likely to vote than older adults, and White and African American individuals are more likely to vote than Latinos and Asian Americans. Since 1980, more women have turned out to vote than men in every presidential election, and wealthy Americans vote at a much higher rate than those of lower socioeconomic status[6].

Kent County Quality Of Life: Voter Participation, 2012 Presidential Election

Indicator	Status	Time Period	Measure	Grand Rapids[2]	Kent County[2,3]	Michigan[2,3]
Total Registered Voters	--	2012	Total Number	130,668	426,767	7,309,761
Total Ballots Cast	--	2012	Total Number	--	295,537	4,780,701
Voter Turnout	👍	2012	Percent	--	69.3%	65.4%

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SUMMARY

Nearly 70% of Kent County registered voters turned out to vote in the 2012 elections, as compared with 65.4% of registered voters across the state. Since the 2000 elections, Kent County has had at least 67% of registered voters participate in major presidential or gubernatorial elections.

REFERENCES

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QUALITY OF LIFE: KENT COUNTY
REACTIONS TO RACE AND RACISM

OVERVIEW: REACTIONS TO RACE AND RACISM

Racism is common. Research from around the world supports the notion that there is an association between racism, morbidity, and mortality[2]. Many people of color experience a wide range of serious health issues at higher rates than Whites, ranging from heart disease and breast cancer to pain-related problems. One key risk factor that researchers have focused on in recent years is related to the stress levels that occur as a result of experiencing racism and how these chronic levels of stress hormones can influence health outcomes among people of color[3]. Whether it takes the form of overt racism and discrimination or structural disadvantages that result from racist views that are engrained in society, racism continues to influence how people are treated, what resources are available, where they live, how people perceive the world they live in, what environmental toxins they are exposed to, and the opportunities they are afforded for achieving full potential in the United States[3].

Kent County Quality Of Life: Reactions to Race

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan	United States
How often do you think about your race? Would you say never, once a year, once a month, once a week, once a day, once an hour, or constantly?						
Never	--	2014*	Percent	63.3%	--	--
Once A Year	--	2014*	Percent	12.1%	--	--
Once A Month	--	2014*	Percent	8.0%	--	--
Once A Week	--	2014*	Percent	4.9%	--	--
Once A Day	--	2014*	Percent	2.9%	--	--
Once An Hour	--	2014*	Percent	0.1%	--	--
Constantly	--	2014*	Percent	5.3%	--	--
Within the past 12 months at work, do you feel you were treated worse than, the same as, or better than people of other races?						
Worse Than Other Races	--	2014*	Percent	4.2%	--	--
The Same As Other Races	--	2014*	Percent	85.0%	--	--
Better Than Other Races	--	2014*	Percent	3.7%	--	--
Within the past 12 months, when seeking health care, do you feel your experiences were worse than, the same as, or better than for people of other races?						
Worse Than Other Races	--	2014*	Percent	1.9%	--	--
The Same As Other Races	--	2014*	Percent	76.3%	--	--
Better Than Other Races	--	2014*	Percent	10.0%	--	--
Within the past 30 days, have you experienced any physical symptoms, for example, a headache, an upset stomach, tensing of your muscles, or a pounding heart, as a result of how you were treated based on your race?						
Yes	--	2014*	Percent	3.6%	--	--
No	--	2014*	Percent	95.1%	--	--
Within the past 30 days, have you felt emotionally upset, for example angry, sad, or frustrated, as a result of how you were treated based on your race?						
Yes	--	2014*	Percent	4.5%	--	--
No	--	2014*	Percent	94.7%	--	--

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SUMMARY

Among Kent County residents, about 8.3% of adults think about their race once per day or more frequently. While the majority of residents report feeling that they are treated the same as others at work, more than 4% report that they perceive being treated worse. In regard to seeking healthcare, more than 76% of individuals felt that their experience was the same as that of people of other races, however 10% reported that they perceived their experience to be better than that of other races.

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QUALITY OF LIFE: KENT COUNTY
RACIAL/ETHNIC SEGREGATION

OVERVIEW: RACIAL/ETHNIC SEGREGATION

The dissimilarity index is the most commonly used measure of segregation between two groups, reflecting relative distributions across neighborhoods within a city or metropolitan area. It can range in value from 0, indicating complete integration, to 100, indicating complete segregation. In most cities and metro areas, however, the values are somewhere between those two extremes. Although it is possible to average the data and to identify some regional trends, it is important to note that there is no single way that residential segregation functions in America. One can find instances of both high and low levels of segregation for every combination of racial groups[1].

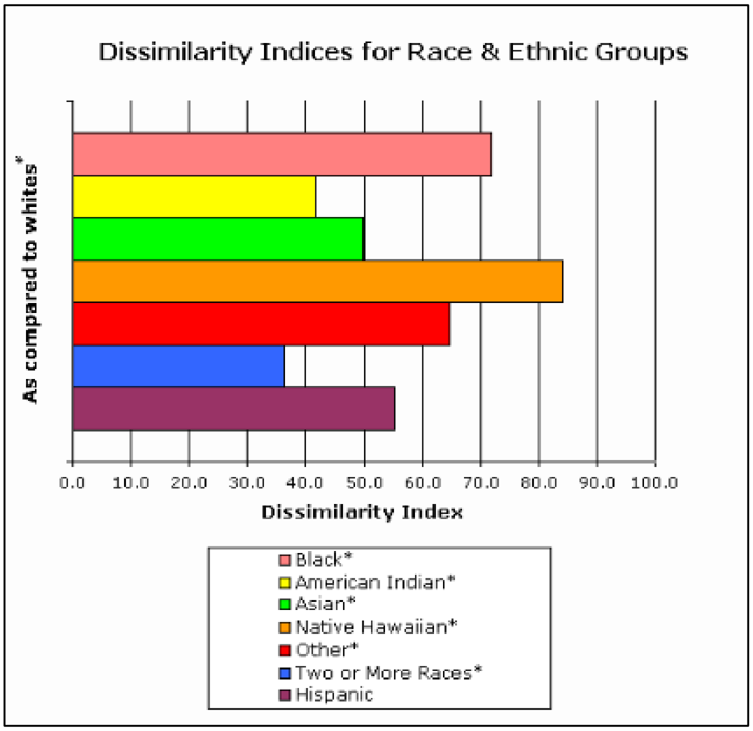
The dissimilarity index measures the relative separation or integration of groups across all neighborhoods of a city or metropolitan area. To more clearly explain what this means, consider the following: if a city's white-black dissimilarity index were 65, that would mean that 65% of white people would need to move to another neighborhood to make whites and blacks evenly distributed across all neighborhoods[1]. Typically, whites are used as the comparison group for this measure because they comprise the majority population in the United States.

SUMMARY

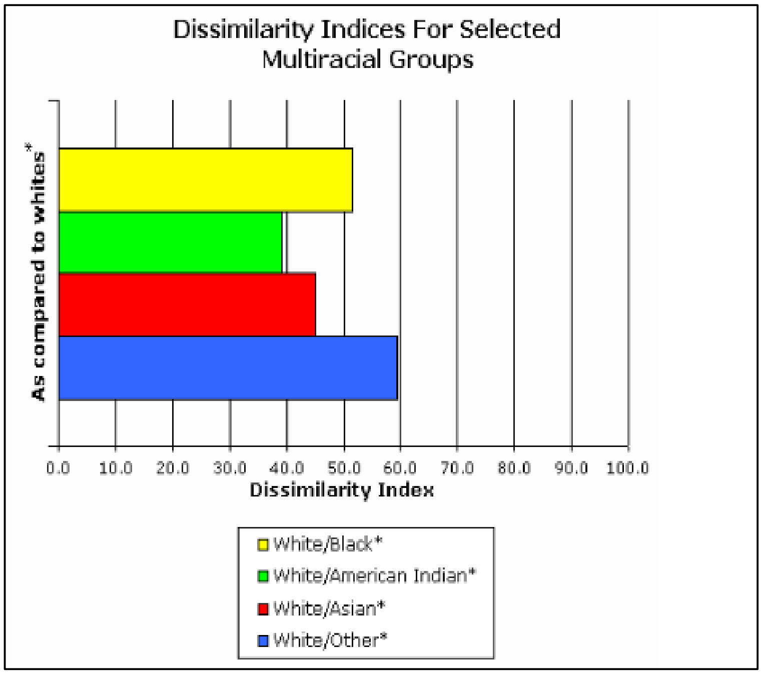
Community segregation in the Grand Rapids metropolitan area appears to be highest between whites and blacks (71.9) and whites and Hispanics (55.2). Though the dissimilarity index for white-Native Hawaiian is the highest of all, it is not significant in this case because the population size for this racial group is so small. Therefore, the data illustrates a skewed picture for this particular index.

The highest dissimilarity index among multiracial groups is between white and white/other (59.5), though the index between white and white/black is also quite high (51.6).

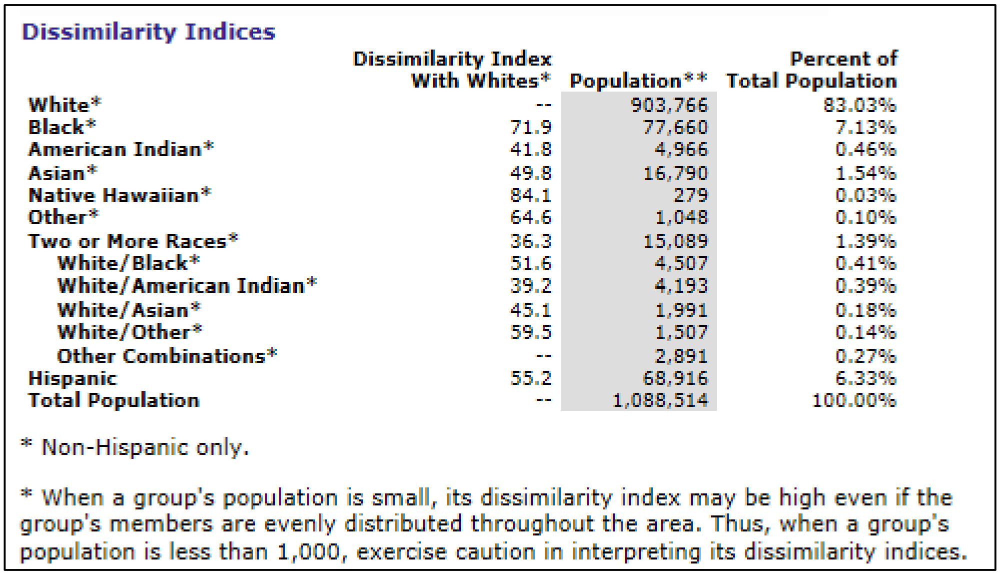
What this means is that 71.9% of all white people in the Grand Rapids metropolitan area would need to relocate to different communities in order to create an even distribution of white and black individuals within this geographic area. Similarly, 55.2% of white people would need to relocate to create an even distribution of white and Hispanic individuals within this geographic area.



***Above**: Dissimilarity Indices for race and ethnic groups in the Grand Rapids metropolitan area; **Below**: Dissimilarity Indices for multiracial groups in the Grand Rapids metropolitan area. (Note: includes Grand Rapids, Muskegon, and Holland). (courtesy of CensusScope, 2015)[1].*



A chart describing more in-depth information related to dissimilarity indices for the Grand Rapids metropolitan area can be found on the following page.



Dissimilarity Indices

	Dissimilarity Index With Whites*	Population**	Percent of Total Population
White*	--	903,766	83.03%
Black*	71.9	77,660	7.13%
American Indian*	41.8	4,966	0.46%
Asian*	49.8	16,790	1.54%
Native Hawaiian*	84.1	279	0.03%
Other*	64.6	1,048	0.10%
Two or More Races*	36.3	15,089	1.39%
White/Black*	51.6	4,507	0.41%
White/American Indian*	39.2	4,193	0.39%
White/Asian*	45.1	1,991	0.18%
White/Other*	59.5	1,507	0.14%
Other Combinations*	--	2,891	0.27%
Hispanic	55.2	68,916	6.33%
Total Population	--	1,088,514	100.00%

* Non-Hispanic only.

* When a group's population is small, its dissimilarity index may be high even if the group's members are evenly distributed throughout the area. Thus, when a group's population is less than 1,000, exercise caution in interpreting its dissimilarity indices.

REFERENCE

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QUALITY OF LIFE: KENT COUNTY
ACCESS TO RECREATIONAL FACILITIES

OVERVIEW: ACCESS TO RECREATIONAL FACILITIES

The availability of recreational facilities can influence individuals' and communities' choices to engage in physical activity. Proximity to places with recreational opportunities is associated with higher physical activity levels, which in turn is associated with lower rates of adverse health outcomes associated with poor diet, lack of physical activity, and obesity[1,2]. This measure represents the number of recreational facilities per 100,000 population in a given county. Recreational facilities are defined as establishments primarily engaged in operating fitness and recreational sports facilities, featuring exercise and other active physical fitness conditioning or recreational sports activities such as swimming, skating, or racquet sports. The evidence for the effectiveness of improving access to recreational facilities is so strong that the Centers for Disease Control and Prevention (CDC) recommend it as one of the 24 environmental- and policy-level strategies to reduce obesity in its Common Community Measures for Obesity Prevention Project[3].

Kent County Quality Of Life: Access To Recreational Facilities							
Indicator	**Status**	**Time Period**	**Measure**	**Kent County[4,5]**	**Michigan[4,5]**	**United States**	**National Benchmark[a,b]**
Access To Recreational Facilities	👍	2010*	Rate Per 100,000	10.0	9.0	--	**16.0[b]**

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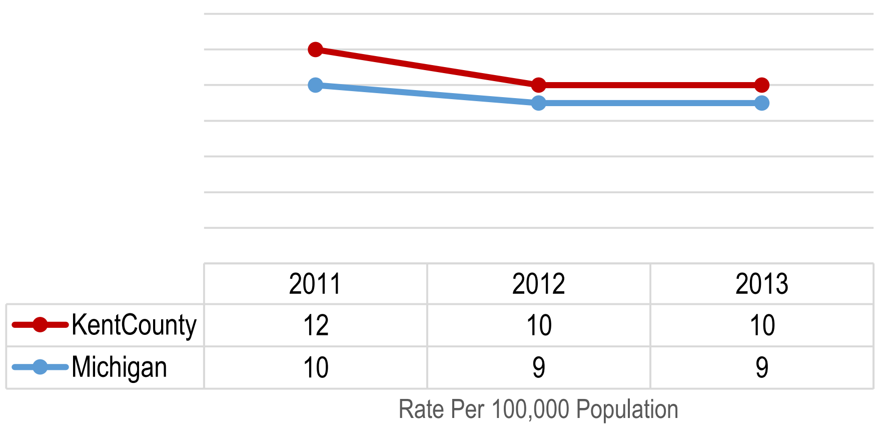
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

**Note: Data used for the 2013 County Health Rankings on this measure was derived from US Census Bureau County Business Patterns Data from 2010; after 2013, this measure is no longer included in the County Health Rankings calculations for "Health Factors".*

SUMMARY

Kent County's availability of recreational facilities per 100,000 population is 10.0, which is better than the rate reported for the State of Michigan (9.0 per 100,000). This trend has continued for the past three years, although both the state and Kent County saw a decline in the rate of access to recreational facilities per 100,000 between 2011 and 2012. Despite having increased availability of recreational facilities when compared to the state overall, Kent County still has significant improvements to make on this measure in order to meet the County Health Rankings national benchmark of 16.0 recreational facilities per 100,000 population.

Trends in Access to Recreational Facilities in Kent County and Michigan, 2011-2013[4,5]



	2011	2012	2013
KentCounty	12	10	10
Michigan	10	9	9

Rate Per 100,000 Population

REFERENCES

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QUALITY OF LIFE: KENT COUNTY
ACCESS TO PARKS

OVERVIEW: ACCESS TO PARKS

Parks, playgrounds, greenways, trails, and community open spaces help keep Americans and their communities fit and healthy. Having access to these types of recreation spaces increases the likelihood that individuals will exercise and be active within their communities. Despite the importance of parks and other recreational open spaces, many Americans do not have adequate access. This is particularly true in urban communities, where green space is inequitably distributed, putting certain populations at increased risk for health problems associated with inactivity[3].

Not only do parks improve physical health through promoting an active lifestyle, they have also been shown to have a positive impact on psychological and social health. Additionally, parks provide children with safe places to play and develop, build healthy communities by stabilizing neighborhoods and strengthening community development, and increases social capital[3].

The measure commonly used to determine access to parks considers the percentage of people living within ½ mile of the boundary of a park[4].

SUMMARY

Kent County is home to 36 parks that are scattered throughout the county, and 74 parks that fall within the city limits of Grand Rapids[5]. About 44.0% of Kent County residents reside within half a mile of a park. Higher proportions of African Americans and Hispanics reside within this half mile radius of parks than do whites.

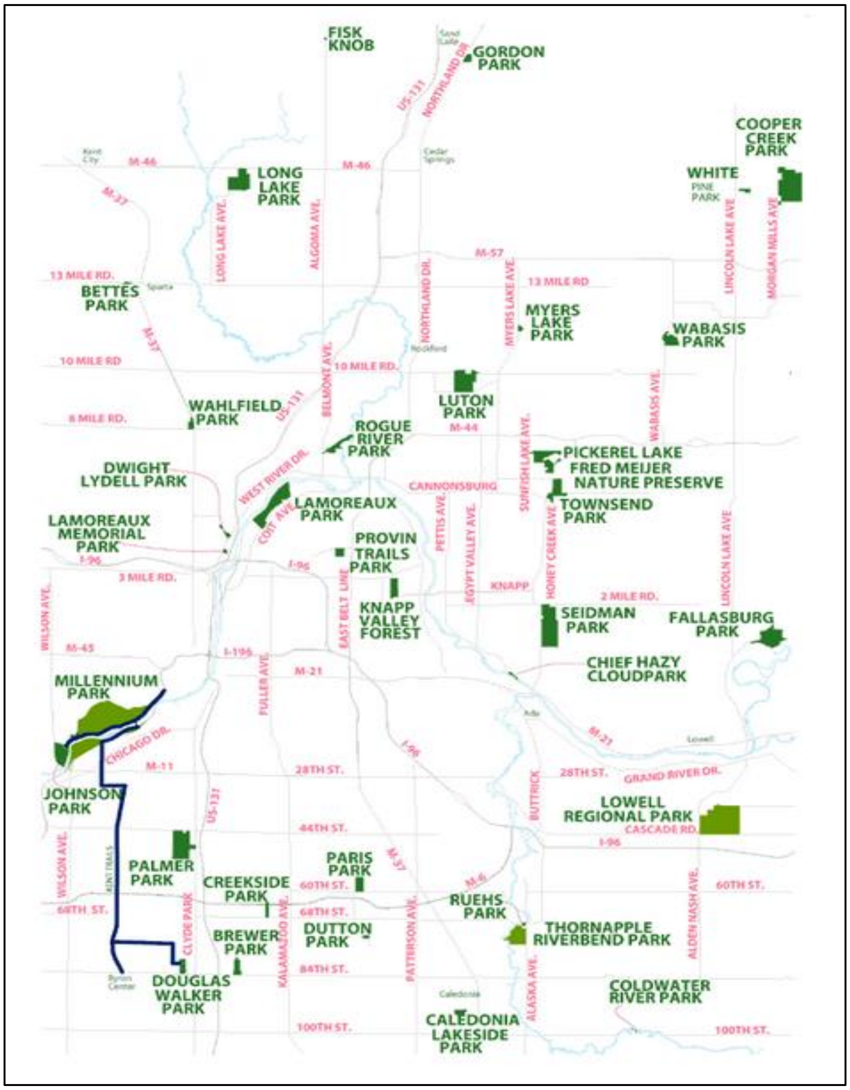

Photo: *Parks and trails in Kent County. (courtesy of Kent County, MI, 2015)[1].*

Additionally, about three in every four children aged five to nine years live within walking distance of a public elementary school. This provides additional access to recreational activities, as most elementary schools have playgrounds with maintained and safe equipment.

Kent County Quality Of Life: Access to Parks
Percentage Of Population Living Within Half A Mile Of Park

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[2]	National Benchmark[a,b]
Total Population	👍	2010	Percent	44.0%	37.0%	**NA**
Total Population by Race/Ethnicity						
White	👍	2010	Percent	39.0%	33.0%	
African American	👍	2010	Percent	56.0%	55.0%	
Hispanic/Latino	👍	2010	Percent	67.0%	46.0%	

Kent County Quality of Life: Access to Public Elementary School

Percentage Of Population Aged 5 - 9 Years Living Within Half A Mile Of A Public Elementary School

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[2]	National Benchmark[a,b]
Total Population Aged 5-9	👍	2010	Percent	74.0%	75.0%	NA
Total Population by Race/Ethnicity						
White	👍	2010	Percent	83.0%	79.0%	
African American	👍	2010	Percent	82.0%	81.0%	
Hispanic/Latino	👍	2010	Percent	85.0%	80.0%	

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NA -- National Benchmark was not identified

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QUALITY OF LIFE: KENT COUNTY
LIMITED ACCESS TO HEALTHY FOODS

OVERVIEW: LIMITED ACCESS TO HEALTHY FOODS

Limited access to healthy foods makes it difficult for individuals, families, and communities to establish healthy eating habits and is seen as a contributing factor to the obesity epidemic in the United States. There is strong evidence that residing in a food desert is correlated with a high prevalence of overweight, obesity, and premature death[1-3]. Food deserts are defined as urban neighborhoods and rural towns without ready access to fresh, healthy and affordable foods. These communities lack grocery stores and either have no food access or are limited to fast food establishments and convenience stores that have limited healthy choices available[4].

The measure for limited access to healthy foods captures the proportion of the population who are low income and do not live close to a grocery store. Living close to a grocery store is defined differently in rural and non-rural areas. In rural areas, it means living less than 10 miles from a grocery store, whereas in non-rural areas, it means living less than one mile from a grocery store. Low income, in relation to this measure, is defined as having an annual family income of less than or equal to 200 percent of the federal poverty threshold according to family size.

SUMMARY

The proportion of persons in Kent County who have limited access to healthy foods is 5.0%, as compared to 6.0% for the State of Michigan. The map provided illustrates that most of the communities that meet food desert designation criteria are concentrated within the City of Grand Rapids or the Grand Rapids metro-area and Sparta Township in the northern part of Kent County.

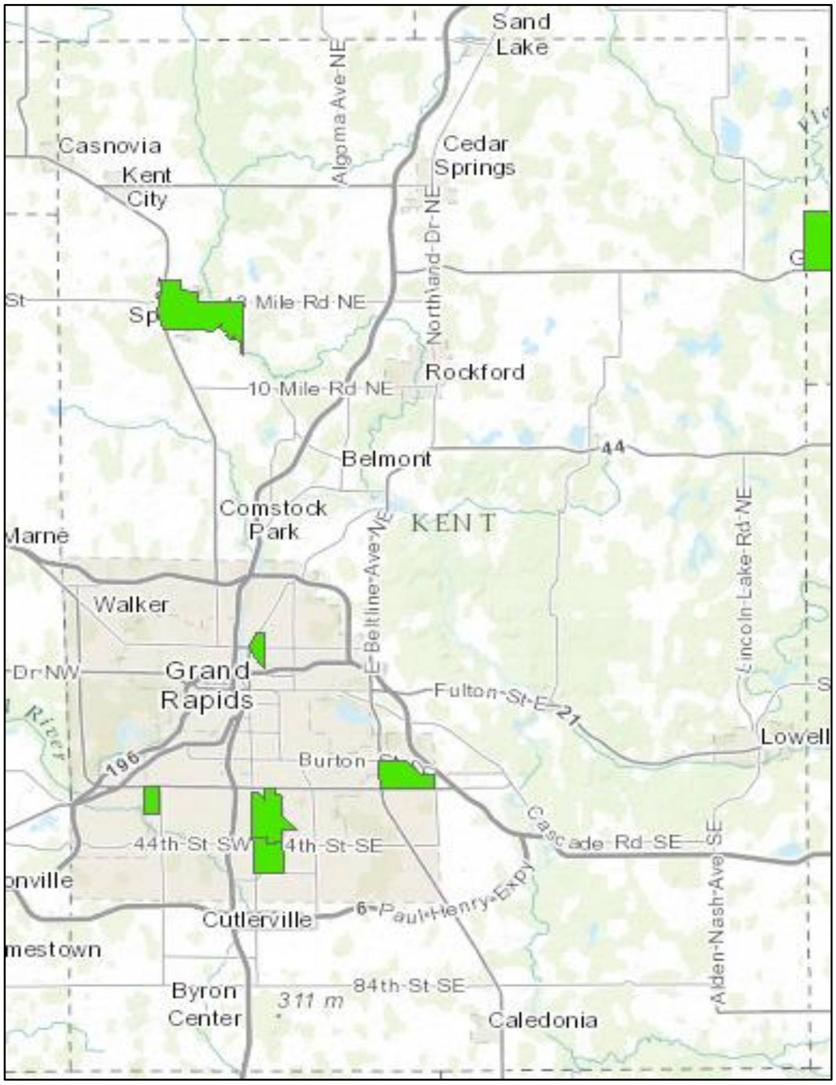

Photo: Food deserts in Kent County using the original food desert measure of low income and living one mile from grocery store for urban areas and 10 miles for rural. (courtesy of USDA, 2014)[6].

Kent County Quality Of Life: Limited Access To Healthy Foods

Indicator	Status	Time Period	Measure	Kent County[5,6]	Michigan[5,6]	United States	National Benchmark[a,b]
Limited Access To Healthy Foods	👍	2014	Percent	5.0%	6.0%	--	**1.0%[b]**

- 👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
- 👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
- ☺ When compared, for this health indicator, Kent County is better than the United States.
- ☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

REFERENCES

1. Ahern, M., Brown, C., & Dukas, S. (2011). A national study of the association between food environments and county-level health outcomes. *The Journal of Rural Health, 27*, 367-379.
2. Taggart, K. (2005). Fast foot joints bad for the neighborhood. *Medical Post, 41*, 21-23.
3. Schafft, K.A., Jensen, E.B., & Hinrichs, C.C. (2009). Food deserts and overweight schoolchildren: Evidence from Pennsylvania. *Rural Sociology, 74*, 153-277.
4. United States Department of Agriculture. (2014). *Food deserts*. Retrieved from http://apps.ams.usda.gov/fooddeserts/fooddeserts.aspx
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QUALITY OF LIFE: KENT COUNTY
FAST FOOD RESTAURANTS

OVERVIEW: FAST FOOD RESTAURANTS

Consumption of fast food has increased in the United States over the past four decades. Access to fast food restaurants, and subsequent consumption of fast food products, is correlated with a high prevalence of overweight, obesity, and premature death[1]. Individuals who eat fast food more than twice per week are at an increased risk for weight gain and development of chronic conditions like diabetes and heart disease, when compared to those who do not eat fast food more than once per week[2]. One possible reason for these negative health consequences is that one meal from a fast food restaurant often contains enough calories to satisfy a person's caloric requirements for an entire day[2].

The measure used to look at fast food availability in communities examines the proportion of restaurants in a county that are fast food establishments.

Kent County Quality of Life: Fast Food Restaurants[2,3]

Indicator	Status	Time Period	Measure	Kent County[3,4]	Michigan[3,4]	United States	National Benchmark[a,b]
Fast Food Restaurants	👎	2010	Percent	51.0%	49.0%	--	**27.0%[b]**

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[a] Benchmark is based on Healthy People 2020 Goal.
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NA -- National Benchmark was not identified

**Note: Data used for the 2013 County Health Rankings on this measure was derived from US Census Bureau County Business Patterns Data from 2010; after 2013, this measure is no longer included in the County Health Rankings calculations for "Health Factors".*

SUMMARY

The percentage of restaurants in Kent County that are classified as fast food establishments is 51.0%. This is higher than the percentage for the state overall, and is nearly double that of the national benchmark set by County Health Rankings for this measure.

REFERENCES

1. Taggart, K. (2005). Fast food joints bad for the neighborhood. *Medical Post, 41*, 21-23.
2. US Department of Health and Human Services, National Institutes of Health. (2004). *Eating at fast food restaurants more than twice per week is associated with more weight gain and insulin resistance in otherwise healthy young adults*. Retrieved from http://www.nih.gov/news/pr/dec2004/nhlbi-30.htm
3. County Health Rankings. (2014). *County health rankings, Michigan*. Retrieved from http://www.countyhealthrankings.org/app/michigan/2014/overview
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BEHAVIORAL RISK FACTORS

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

DEFINITION OF CATEGORY

This category represents risk factors which are believed to cause, or significantly contribute to injuries, disease, and death during youth and adolescence and significant morbidity and mortality later in life.

Key Topics

- TOBACCO, ALCOHOL AND SUBSTANCE USE AND ABUSE
- NUTRITION AND OBESITY
- PHYSICAL ACTIVITY
- SAFETY (SEATBELT USE, BICYCLE HELMET USE, CONDOM USE)
- AGE AND POPULATION APPROPRIATE SCREENING

BEHAVIORAL RISK FACTORS: KENT COUNTY
ADULT TOBACCO USE

OVERVIEW: ADULT TOBACCO USE

Smoking tobacco contributes to the development of many kinds of chronic conditions, including cancers, respiratory diseases, and cardiovascular diseases, and "is the single most preventable cause of disease, disability, and death in the United States."[1] It has been estimated that smoking costs the United States $96 billion in annual medical costs and another $97 billion in health-related economic losses[1], as well as over 5 million years of potential life lost each year[2]. Current smoking status is defined as ever having smoked 100 cigarettes (five packs) and smoking cigarettes now, either every day or on some days.

Kent County Behavioral Risk Factors: Cigarette and Electronic Cigarette Usage

Percentage Of Respondents Who Had Ever Smoked At Least 100 Cigarettes In Their Life *AND* Who Smoke Cigarettes Now

Indicator	Status	Time Period	Measure	Kent County[3]	Michigan[4]	United States[5]	National Benchmark[a,b]
Total	👍 ☺	2014*	Percent	12.8%	21.4%	19.0%	**12.0%[a]**
Age							
18 – 24 Years	👍 ☺	2014*	Percent	13.9%	19.7%	19.7%	**TU-1: Reduce cigarette smoking by adults.**
25-34 Years	👍 ☺	2014*	Percent	14.5%	33.2%	25.5%	
35-44 Years	👍 ☺	2014*	Percent	16.9%	24.5%	21.2%	
45 – 54 Years	👍 ☺	2014*	Percent	9.2%	24.0%	22.4%	
55 – 64 Years	👍 ☺	2014*	Percent	16.0%	20.4%	17.9%	
65+ Years	👍 ☺	2014*	Percent	7.7%	9.4%	8.7%	
Gender							
Male	👍 ☺	2014*	Percent	15.0%	24.7%	21.6%	
Female	👍 ☺	2014*	Percent	10.6%	18.3%	17.2%	
Race							
White/Caucasian	👍 ☺	2014*	Percent	12.6%	20.6%	18.6%	
Black/African American	👍 ☺	2014*	Percent	19.6%	25.9%	22.2%	
Hispanic/Latino	👍 ☺	2014*	Percent	11.3%	20.0%	17.5%	
Non-Hispanic	👍	2014*	Percent	13.0%	22.7%	--	
Education							
Less Than High School	👍 ☺	2014*	Percent	31.7%	39.3%	33.4%	
High School Diploma	👍 ☺	2014*	Percent	19.9%	25.5%	24.3%	
Some College	👍 ☺	2014*	Percent	11.3%	20.7%	19.1%	
College Graduate	👍 ☺	2014*	Percent	4.8%	8.1%	7.8%	
Household Income							
Less Than $20,000	👍	2014*	Percent	21.3%	37.5%	--	
$20,000 to $34,999	👍	2014*	Percent	25.0%	25.7%	--	
$35,000 to $49,999	👍	2014*	Percent	11.1%	21.6%	--	
$50,000 to $74,999	👍	2014*	Percent	10.5%	17.1%	--	
$75,000 Or More	👍	2014*	Percent	3.6%	10.9%	--	
Electronic Cigarette Usage							
Total	--	2014*	Percent	10.1%	--	--	

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NA -- National Benchmark was not identified.

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

Approximately 13% of Kent County adult residents are current smokers, which is a much lower rate of tobacco smoking than reported for the State of Michigan and the United States as a whole. Kent County is on track to meet or exceed the target for tobacco smoking set by Healthy People 2020. Prevalence of smoking in Kent County appears to be least common among respondents over the age of 65, females, Caucasians and Hispanics, as well as those with at least some college education and a household income of at least $35,000 per year.

REFERENCES

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3. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
4. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
5. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

BEHAVIORAL RISK FACTORS: KENT COUNTY
YOUTH TOBACCO USE

OVERVIEW: YOUTH TOBACCO USE

Use of tobacco among youth is a considerable issue that causes significant health problems among young people. Some of these health issues include an increase in the number and severity of respiratory illnesses, decreased physical fitness, and potential negative effects on the rate of lung growth and function[3]. In addition to these negative consequences, addiction to smoking and use of other tobacco products that begins in adolescence can persist throughout adulthood.

Kent County Behavioral Risk Factors: Youth Tobacco Use

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who ever smoked a whole cigarette	--	👍 ☺	2013-2014	Percent	--	19.3%	35.8%**	40.4%**	**NA**
Percentage of students who smoked cigarettes during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	2.2%	8.4%	11.8%**	13.8%**	**16.0[a] TU-2.2: Reduce use of cigarettes by adolescents.**
Percentage of students who smoked cigarettes on 20 or more of the past 30 days (Frequent use)	👍 ☺	👍 ☺	2013-2014	Percent	0.2%	2.4%	4.3%**	4.6%**	
Percentage of students who smoked cigarettes on school property during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	0.6%	1.9%	2.8%**	3.4%**	**NA**
Among students who are current smokers, the percentage who tried to quit smoking during the past 12 months	--	👎 ☺	2013-2014	Percent	--	49.8%	51.9%**	48.0%**	**64.0[a] TU-7: Increase smoking cessation attempts by adolescent smokers.**
Percentage of students who used chewing tobacco, snuff, or dip during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	0.8%	3.6%	6.9%**	8.3%**	**6.9[a] TU-2.3: Reduce use of smokeless tobacco products by adolescents.**
Percentage of students who used chewing tobacco, snuff, or dip on school property during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	0.4%	1.3%	6.9%**	8.8%**	
Percentage of students who smoked cigars, cigarillos, or little cigars during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	1.0%	5.9%	10.7%**	12.4%**	**8.0[a] TU-2.4: Reduce use of cigars by adolescents.**

Kent County Behavioral Risk Factors: Youth Tobacco Use

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who used any tobacco (smoked cigarettes or cigars or used chewing tobacco, snuff, or dip) during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	2.6%	12.0%	17.9%**	19.6%**	**21.0[a] TU-2.1: Reduce use of tobacco products by adolescents.**
Average age of first tobacco use (Note: Not a percentage)	--	--	2013-2014	Age (years)	10.6	13.3	--	--	**NA**

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[a] Benchmark is based on Healthy People 2020 Goal.
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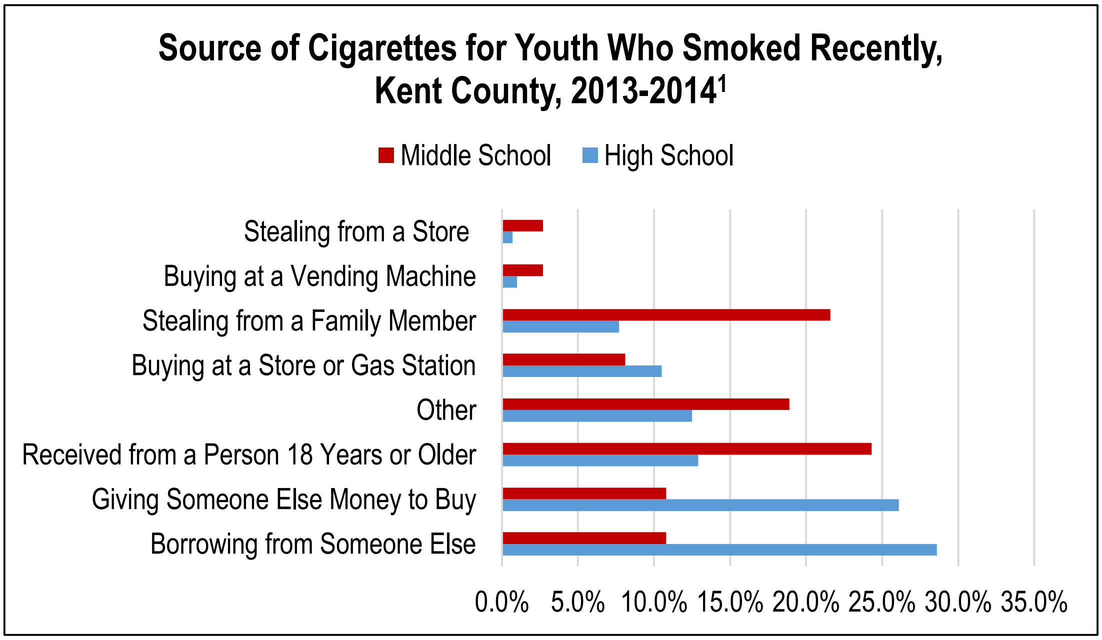
NA -- National Benchmark was not identified.
** Median range values used for United States. Data used from CDC YRBS 2013 Report.

SUMMARY

Among Kent County youth, less than 20% report ever having smoked a cigarette, which is significantly less than the overall state and national rates. Current smoking rates among Kent County youth are also quite a bit lower than the national rates, with only about 8.4% of high school students and 2.2% of middle school students in Kent County reporting use of cigarettes within the past 30 days.


Source of Cigarettes for Youth Who Smoked Recently, Kent County, 2013-2014[1]

The chart provided illustrates the methods that Kent County youth are using to obtain cigarettes. Middle school students appear to rely on stealing cigarettes from family members or people over the age of 18 for obtaining cigarettes, while high school students borrow them or give another individual money to purchase them.

Use of chewing tobacco, snuff, or dip among Kent County youth is low, as well, with only 3.6% of high school students and 0.8% of middle school students reporting use of these products within the past 30 days.

REFERENCES

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2. Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system, United States and Michigan 2013 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx
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BEHAVIORAL RISK FACTORS: KENT COUNTY
ADULT ALCOHOL ABUSE

OVERVIEW: ADULT ALCOHOL ABUSE

Alcohol abuse has been associated with serious health problems such as cirrhosis of the liver, high blood pressure, stroke, and some types of cancer, and can increase the risk for motor vehicle accidents, injuries, violence, and suicide. In Michigan, the percent of fatal motor vehicle crashes that involved any alcohol was 22% in 2013[1]. Binge drinking is defined as consuming five or more drinks per occasion (for men) or 4 or more drinks per occasion (for women) at least once in the past month, while heavy drinking is defined as consuming more than two alcoholic drinks per day (for men) or more than one drink per day (for women) in the past month.

Kent County Behavioral Risk Factors: Alcohol Abuse

Percentage Of Respondents Reporting Heavy Drinking And Percentage Of Respondents Reporting Binge Drinking

Indicator	Status		Time Period	Measure	Kent County[2]		Michigan[3]		United States[4]		National Benchmark[a,b]	
	Heavy	Binge			Heavy	Binge	Heavy	Binge	Heavy	Binge	Heavy	Binge
Total	👍 ☺	👍 ☹	2014*	Percent	0.5%	17.1%	6.2%	18.9%	6.2%	16.8%	**25.4%[a]**	**24.4%[a]**
Age											**SA-14.3: Reduce the proportion of persons engaging in binge drinking during the past 30 days – adults aged 18 years and older.** **SA-15: Reduce the proportion of adults who drank excessively in the previous 30 days.**	
18 – 24 Years	--	👎 ☹	2014*	Percent	--	28.8%	7.0%	27.9%	7.7%	26.1%		
25-34 Years	--	👎 ☹	2014*	Percent	--	29.3%	7.2%	29.2%	7.3%	26.5%		
35-44 Years	👍 ☺	👍 ☺	2014*	Percent	0.9%	14.4%	6.7%	20.6%	6.0%	19.7%		
45 – 54 Years	👍 ☺	👍 ☺	2014*	Percent	1.4%	14.1%	7.3%	21.1%	6.2%	15.7%		
55 – 64 Years	👍 ☺	👍 ☹	2014*	Percent	0.8%	12.3%	5.6%	13.2%	5.6%	10.5%		
65+ Years	--	☹	2014*	Percent	--	4.5%	4.3%	--	3.9%	4.4%		
Gender												
Male	👍 ☺	👍 ☹	2014*	Percent	1.0%	23.2%	6.9%	24.1%	6.6%	22.3%		
Female	👍 ☺	👍	2014*	Percent	0.1%	11.3%	5.6%	13.9%	5.1%	11.3%		
Race												
White/Caucasian	👍 ☺	👍 ☹	2014*	Percent	0.7%	18.3%	7.2%	19.5%	6.9%	17.2%		
Black/African American	--	👍 ☺	2014*	Percent	--	6.6%	2.6%	14.9%	3.9%	12.5%		
Hispanic/Latino	--	👍 ☹	2014*	Percent	--	22.0%	--	23.3%	5.0%	18.7%		
Non-Hispanic	👍 ☺	👍	2014*	Percent	0.6%	16.7%	3.7%	17.0%	--	--		
Education												
Less Than High School	👍 ☺	👎 ☹	2014*	Percent	1.7%	17.9%	4.8%	14.3%	5.2%	14.3%		
High School Diploma	👍 ☺	👎 ☹	2014*	Percent	1.0%	20.1%	6.8%	18.8%	5.9%	16.1%		
Some College	--	👍 ☺	2014*	Percent	--	14.7%	6.7%	19.8%	6.6%	17.9%		
College Graduate	👍 ☺	👍 ☹	2014*	Percent	0.4%	16.9%	5.6%	20.2%	6.0%	16.6%		
Household Income												
Less Than $20,000	--	👍	2014*	Percent	--	15.5%	6.4%	18.5%	--	--		
$20,000 to $34,999	--	👎	2014*	Percent	--	19.2%	5.8%	16.6%	--	--		
$35,000 to $49,999	--	👍	2014*	Percent	--	11.9%	6.2%	16.4%	--	--		
$50,000 to $74,999	👍	👍	2014*	Percent	0.8%	14.7%	6.8%	20.4%	--	--		
$75,000 Or More	👍	👍	2014*	Percent	1.7%	20.1%	6.9%	24.2%	--	--		

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**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

Kent County's heavy drinking rate is significantly lower than the state and national rates for the same indicator, while binge drinking rates for Kent County are slightly higher than the United States rate, but still lower than Michigan's rate. Kent County has successfully achieved and exceeded the Healthy People 2020 targets for both heavy drinking and binge drinking. Despite this accomplishment, heavy drinking in Kent County most often affects persons aged 45-54 years, while binge drinking in Kent County disproportionately affects residents between the ages of 18 and 34 years. Kent County males and individuals of Hispanic/Latino ethnicity are more likely to partake in binge drinking.

REFERENCES

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2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

BEHAVIORAL RISK FACTORS: KENT COUNTY
YOUTH ALCOHOL USE

OVERVIEW: YOUTH ALCOHOL USE

Alcohol use and abuse by persons under the legal drinking age of 21 is a major public health problem. Alcohol is the most commonly used and abused drug among youth in the United States and is known to cause many adverse health effects. Though illegal for youth to purchase and use alcohol, research shows that, on average, underage drinkers consume more drinks per drinking occasion than do adult drinkers. This has become an issue of public health concern due to the effects it has on both an individual's body and to society as a whole. Beyond immediate effects, use and abuse of alcohol is associated with unintended pregnancies, STI's, violence, and various illness and diseases[3,4].

Kent County Behavioral Risk Factors: Youth Alcohol Use

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who ever drank alcohol	--	👍 ☺	2013-2014	Percent	--	43.1%	60.2%**	63.2%**	**NA**
Average age of first alcohol use (Note: Not a percentage)	--	--	2013-2014	Age (years)	10.7	13.6	--	--	**NA**
Percentage of students who had at least one drink of alcohol during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	4.3%	21.1%	28.3%**	32.7%**	**NA**
Percentage of students who have ever been drunk	--	--	2013-2014	Percent	--	27.6%	--	--	**NA**
Average age of first time being drunk (Note: Not a percentage)	--	--	2013-2014	Age (years)	11.4	14.4	--	--	**NA**
Percentage of students who had five or more drinks of alcohol in a row, that is, within a couple of hours, during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	1.4%	11.1%	16.7%**	18.3%**	**8.6[a] SA-14.4: Reduce the proportion of adolescents engaging in binge drinking in the past month.**
Percentage of students who had at least one drink of alcohol on school property during the past 30 days	--	--	2013-2014	Percent	0.6%	1.6%	--	--	**NA**

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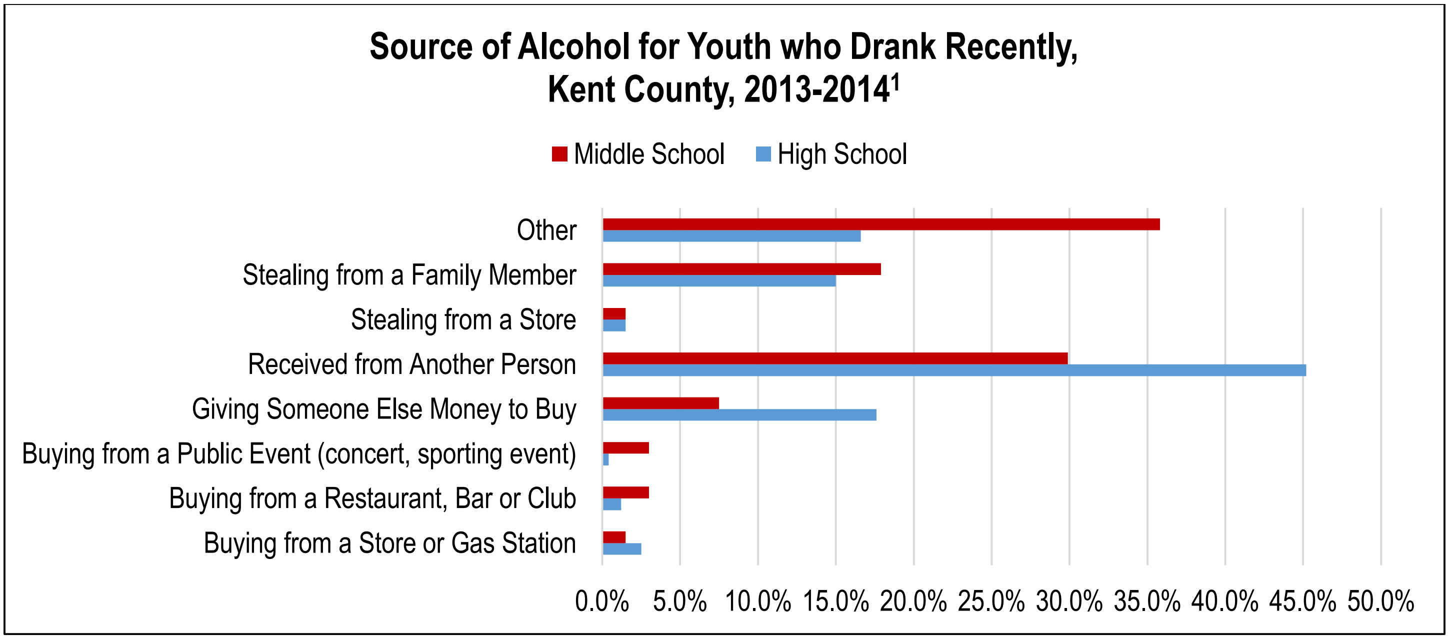

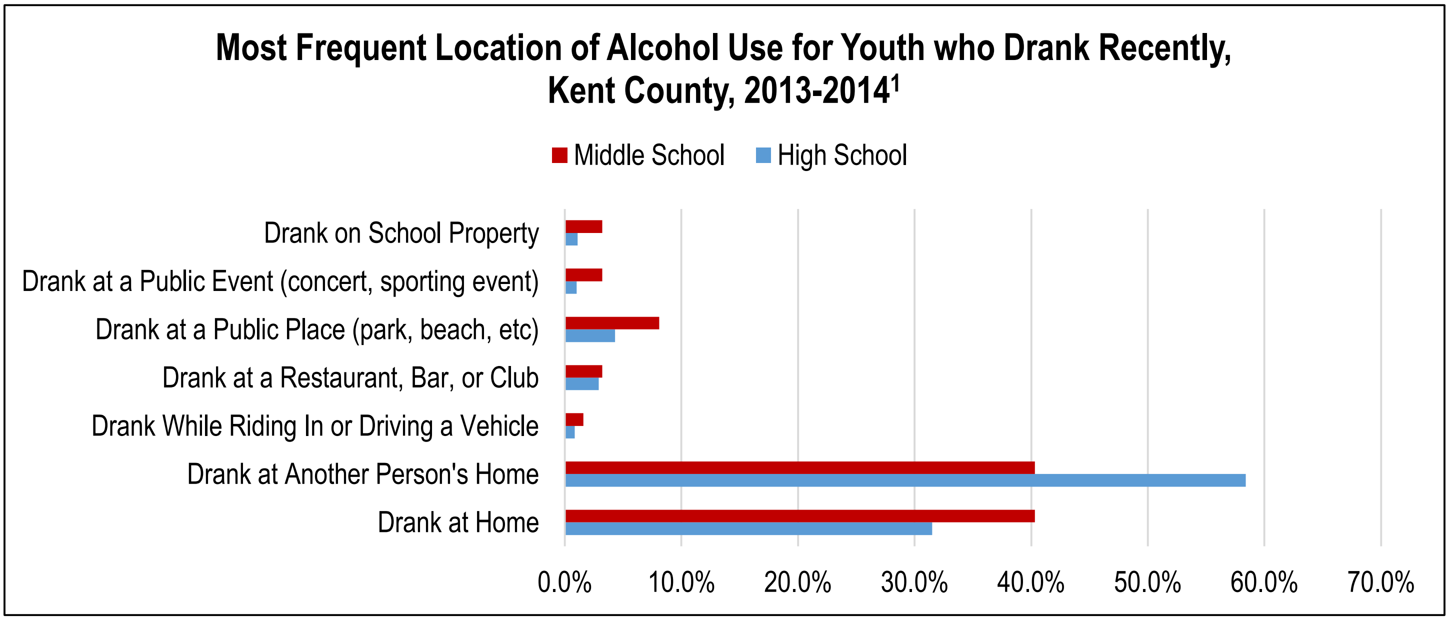

SUMMARY

Alcohol use among Kent County youth is moderate, with 21.1% of high school students and 4.3% of middle school students having drank alcohol at least once during the past 30 days. Binge drinking among middle school and high school students in Kent County is significantly lower than the levels reported at the state and national level, however nearly 28% of Kent County high school students report having been drunk at least once.

Among students who use alcohol, the most common sources for obtaining alcohol for middle school students were other people and stealing alcohol from family members. Similarly, high school students reported obtaining alcohol from other people, giving others money to purchase alcohol, and stealing from family members as their key methods of obtaining alcohol. Drinking at home and at the homes of others are the most common locations for youth to participate in alcohol use.

REFERENCES

1. Michigan Department of Education. (2014). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx
2. Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system, United States and Michigan 2013 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx
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4. Centers for Disease Control and Prevention. (2014). *Fact sheets: Underage drinking*. Retrieved from http://www.cdc.gov/alcohol/fact-sheets/underage-drinking.htm

BEHAVIORAL RISK FACTORS: KENT COUNTY
ADULT DRUG USE AND ABUSE

OVERVIEW: ADULT DRUG USE AND ABUSE

Drug use, abuse, and addiction have negative consequences for individuals and for society. In recent years, drug use and abuse has become a serious public health problem that causes millions of serious illnesses or injuries among Americans each year[4]. In addition to causing many physical, behavioral, and mental issues, drug use and abuse also contributes to major social problems, like drugged driving, violence, stress, and child abuse[4]. Drug use and abuse can cause individuals to lose their jobs, become homeless, participate in criminal activity, and destroys families. Some of the most commonly used and abused drugs include amphetamines, cocaine, heroin, inhalants, marijuana, and prescription drugs[4].

Illicit drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type therapeutics used non-medically[5].

Dependency is based on the definition found in the 4th edition of the Diagnostic Statistical Manual of Mental Disorders (DSM-IV)[6].

Nonmedical use of pain killers, otherwise referred to as prescription drug abuse, is defined as the intentional use of a medication without a prescription, in a way other than as prescribed, or for the experience or feeling that it causes[7].

Behavioral Risk Factors: Illicit Drug Use

Illicit Drug Use in the Past Month

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	👍	2012	Percent	10.2%	10.8%	--	**7.1%[a]**
Age							**SA-13.3: Reduce the proportion of adults reporting use of any illicit drug during the past 30 days**
12-17 years	👎 ☹	2012	Percent	11.4%	11.3%	9.9%	
18-25 years	👍 ☹	2012	Percent	21.8%	23.1%	21.4%	
26 years and older	👍 ☹	2012	Percent	7.9%	8.6%	6.6%	

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NA -- National Benchmark was not identified.

Behavioral Risk Factors: Illicit Drug Dependence or Abuse

Illicit Drug Dependence or Abuse in the Past Year

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	👎	2012	Percent	2.1%	1.9%	--	**NA**
Age							
12-17 years	👎 ☹	2012	Percent	5.3%	4.7%	4.5%	
18-25 years	👍 ☺	2012	Percent	6.4%	6.8%	7.7%	
26 years and older	👍 ☹	2012	Percent	1.7%	1.8%	1.6%	

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Behavioral Risk Factors: Drug Use Excluding Marijuana

Illicit Drug Use Other than Marijuana in the Past Month

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	👎	2012	Percent	3.8%	3.6%	--	**NA**
Age							
12-17 years	👎 ☹	2012	Percent	4.7%	4.5%	4.1%	
18-25 years	👎 ☹	2012	Percent	7.4%	7.3%	7.3%	
26 years and older	👎 ☹	2012	Percent	3.0%	2.8%	2.6%	

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Behavioral Risk Factors: Marijuana Use

Marijuana Use in the Past Month

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	👍	2012	Percent	8.5%	13.6%	--	**NA**
Age							
12-17 years	👍 ☹	2012	Percent	14.5%	14.7%	13.9%	
18-25 years	👍 ☹	2012	Percent	32.2%	33.4%	30.7%	
26 years and older	👍 ☹	2012	Percent	9.6%	10.1%	8.1%	

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Behavioral Risk Factors: Cocaine Use

Cocaine Use in the Past Year

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	👎	2012	Percent	1.4%	1.3%	--	**NA**
Age							
12-17 years	☺	2012	Percent	0.8%	0.8%	0.9%	
18-25 years	👎 ☺	2012	Percent	3.8%	3.6%	4.6%	
26 years and older	👎 ☹	2012	Percent	1.1%	1.0%	1.3%	

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Behavioral Risk Factors: Nonmedical Use of Pain Relievers

Nonmedical Use of Pain Relievers in the Past Year

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	👎	2012	Percent	5.3%	5.1%	--	**--**
Age							
12-17 years	👎 ☹	2012	Percent	7.0%	6.5%	5.6%	**SA-19.1: Reduce the past-year nonmedical use of pain relievers.**
18-25 years	👎 ☹	2012	Percent	11.9%	11.1%	10.3%	
26 years and older	☹	2012	Percent	3.9%	3.9%	3.5%	

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SUMMARY

Overall illicit drug use affects more than 10% of Kent County residents. The highest rates of illicit drug use occur in residents aged 12 to 25 years. There is significant improvement needed in the area of illicit drug use in order for Kent County to achieve the Healthy People target of 7.1%. The most used types of drugs by Kent County residents are marijuana (8.5%) and prescription painkillers (5.3%).

REFERENCES

1. Substance Abuse and Mental Health Services Administration. (2014). *Population data/NSDUH.* Retrieved from http://www.samhsa.gov/data/population-data-nsduh/reports?tab=34
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7. American College of Obstetricians and Gynecologists. (2012). *Nonmedical use of prescription drugs*. Retrieved from http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Health-Care-for-Underserved-Women/Nonmedical-Use-of-Prescription-Drugs

BEHAVIORAL RISK FACTORS: KENT COUNTY
YOUTH DRUG USE AND ABUSE

OVERVIEW: YOUTH DRUG USE AND ABUSE

Substance abuse among youth can lead to problems at school, cause or aggravate physical and mental health-related issues, promote poor peer relationships, cause motor-vehicle accidents, and place stress on families. Using and abusing substances at early ages can lead to lifelong issues with substance dependence, addiction, chronic health issues, and social and financial problems[3]. Though youth experience direct negative consequences from substance use and abuse, families, communities, and society as a whole are greatly affected, as well.

Kent County Behavioral Risk Factors: Youth Marijuana Use

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who ever tried marijuana	--	👍 ☺	2013-2014	Percent	--	27.7%	33.0%**	36.6%**	**6.0[a] SA-13.2: Reduce the proportion of adolescents reporting use of marijuana during the past 30 days.**
Percentage of students who tried marijuana before age 13 years	--	👍 ☺	2013-2014	Percent	--	5.3%	6.1%**	8.1%**	
Average age of first marijuana use (Note: Not a percentage)	--	--	2013-2014	Age (years)	11.2	13.9	--	--	
Percentage of students who used marijuana during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	3.5%	15.8%	18.2%**	19.7%**	
Percentage of students who used marijuana on school property during the past 30 days	--	--	2013-2014	Percent	0.8%	1.6%	--	--	

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Kent County Behavioral Risk Factors: Youth Illicit Drug Use

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who used any form of cocaine during the past 30 days	--	👍 ☺	2013-2014	Percent	--	1.3%	4.0%**	5.4%**	**SA-13: Reduce past-month use of illicit substances.**
Percentage of students who used heroin one or more times during the past 30 days	--	👍 ☺	2013-2014	Percent	--	0.8%	2.8%**	3.3%**	

Kent County Behavioral Risk Factors: Youth Illicit Drug Use									
Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who sniffed glue, or breathed the contents of spray cans, or inhaled any paints or sprays to get high during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	2.2%	2.0%	7.4%**	9.2%**	**SA-21: Reduce the proportion of adolescents who use inhalants.**
Percentage of students who used methamphetamines one or more times during the past 30 days	--	👍 ☺	2013-2014	Percent	--	0.9%	2.7%**	3.7%**	**SA-13: Reduce past-month use of illicit substances.**
Percentage of students who used a needle to inject any illegal drug into their body one or more times during the past 30 days	--	👍 ☺	2013-2014	Percent	--	0.8%	2.1%**	2.5%**	
Percentage of students who were offered, sold, or given an illegal drug on school property by someone during the past 12 months	👍 ☺	👍 ☺	2013-2014	Percent	3.8%	16.1%	23.8%**	22.7%**	**20.4[a] AH-7: Reduce the proportion of adolescents who have been offered, sold, or given an illegal drug on school property.**

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Kent County Behavioral Risk Factors: Youth Nonmedical Use of Prescription Drugs									
Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who took a prescription drug such as Ritalin, Adderall, or Xanax without a doctor's prescription during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	1.1%	5.7%	16.2%**	16.2%**	**SA-19: Reduce the past year nonmedical use of prescription drugs.**
Percentage of students who took painkillers such as OxyContin, Codeine, Vicodin, or Percocet without a doctor's prescription during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	2.7%	5.7%	16.2%**	16.2%**	

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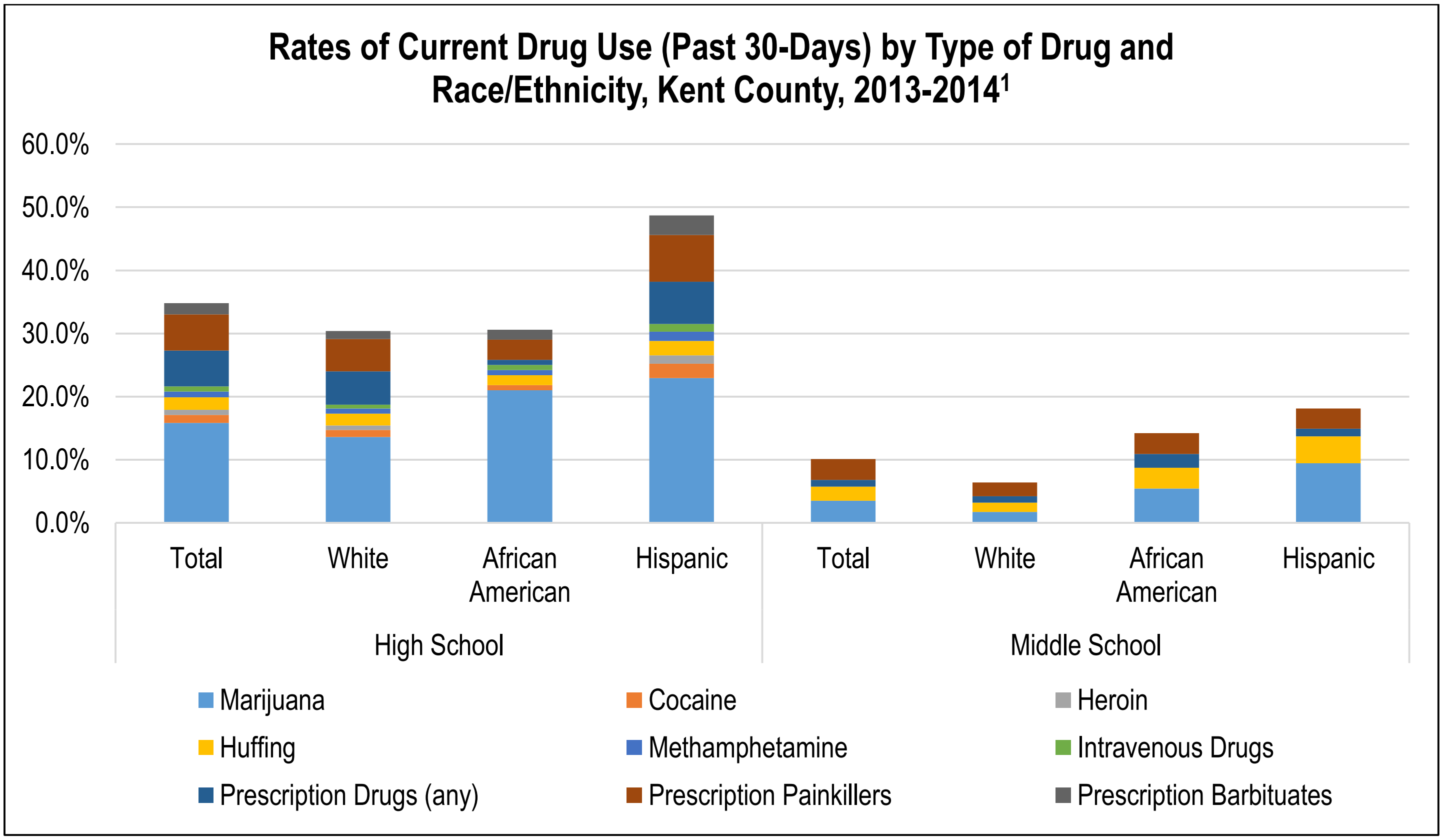
Rates of Current Drug Use (Past 30-Days) by Type of Drug and Race/Ethnicity, Kent County, 2013-2014[1]

SUMMARY

Overall, youth drug use and abuse in Kent County appears to be lower than the rates of use and abuse at the state and national levels. Based on the chart above, the drugs most commonly used among Kent County youth are marijuana, prescription drugs (any), prescription painkillers, and huffing the contents of spray cans and other inhalants. Drug use is most common among Hispanic youth at both the high school and middle school levels. At the high school level, use among white and African American students appears to be about even, while African American use is higher than that of whites at the middle school level.

REFERENCES

1. Michigan Department of Education. (2014). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx
2. Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system, United States and Michigan 2013 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx
3. Find Youth Info. (2014). *Substance abuse*. Retrieved from http://findyouthinfo.gov/youth-topics/substance-abuse

BEHAVIORAL RISK FACTORS: KENT COUNTY
ADULT NUTRITION

OVERVIEW: ADULT NUTRITION

There is strong scientific evidence that supports the health benefits of eating a healthful diet. Americans with a healthful diet consume a variety of nutrient-dense foods within and across food groups, especially whole grains, fruits, vegetables, low-fat or fat-free dairy products, and lean meats and other protein sources[3]. They also limit their intake of saturated and trans-fats, cholesterol, added sugars, sodium, alcohol, and limit caloric intake to meet caloric needs. Diet contributes to health status and a healthful diet can help Americans reduce their risk for numerous health conditions[4].

Kent County Behavioral Risk Factors: Fruit Consumption

Percentage of Respondents Who Reported Consuming Fruit One or More Times Per Day.

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	--	2014*	Percent	--	62.3%	60.8%	**NA**
Age							
18 – 24 Years	--	2014*	Percent	--	54.5%	54.8%	
25-34 Years	--	2014*	Percent	--	60.2%	59.8%	
35-44 Years	--	2014*	Percent	--	61.0%	59.5%	
45 – 54 Years	--	2014*	Percent	--	62.1%	58.9%	
55 – 64 Years	--	2014*	Percent	--	62.3%	62.3%	
65+ Years	--	2014*	Percent	--	70.5%	69.6%	
Gender							
Male	--	2014*	Percent	--	57.6%	55.5%	
Female	--	2014*	Percent	--	66.6%	66.0%	
Race							
White/Caucasian	--	2014*	Percent	--	62.6%	61.4%	
Black/African American	--	2014*	Percent	--	62.3%	57.0%	
Hispanic/Latino	--	2014*	Percent	--	60.1%	61.6%	
Non-Hispanic	--	2014*	Percent	--	--	--	
Education							
Less Than High School	--	2014*	Percent	--	51.8%	53.6%	
High School Diploma	--	2014*	Percent	--	59.9%	55.9%	
Some College	--	2014*	Percent	--	61.9%	60.9%	
College Graduate	--	2014*	Percent	--	70.9%	69.2%	
Household Income							
Less Than $20,000	--	2014*	Percent	--	--	--	
$20,000 to $34,999	--	2014*	Percent	--	--	--	
$35,000 to $49,999	--	2014*	Percent	--	--	--	
$50,000 to $74,999	--	2014*	Percent	--	--	--	
$75,000 Or More	--	2014*	Percent	--	--	--	

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**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

Kent County Behavioral Risk Factors: Vegetable Consumption

Percentage of Respondents Who Reported Consuming Vegetables One or More Times Per Day.

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	--	2014*	Percent	--	75.3%	76.9%	**NA**
Age							
18 – 24 Years	--	2014*	Percent	--	63.8%	69.4%	
25-34 Years	--	2014*	Percent	--	72.1%	78.1%	
35-44 Years	--	2014*	Percent	--	76.4%	77.8%	
45 – 54 Years	--	2014*	Percent	--	77.3%	77.2%	
55 – 64 Years	--	2014*	Percent	--	78.8%	79.1%	
65+ Years	--	2014*	Percent	--	79.1%	79.1%	
Gender							
Male	--	2014*	Percent	--	71.4%	74.2%	
Female	--	2014*	Percent	--	78.9%	80.4%	
Race							
White/Caucasian	--	2014*	Percent	--	77.4%	79.5%	
Black/African American	--	2014*	Percent	--	63.5%	63.5%	
Hispanic/Latino	--	2014*	Percent	--	70.5%	76.1%	
Non-Hispanic	--	2014*	Percent	--	--	--	
Education							
Less Than High School	--	2014*	Percent	--	61.3%	66.8%	
High School Diploma	--	2014*	Percent	--	71.6%	72.0%	
Some College	--	2014*	Percent	--	76.4%	78.4%	
College Graduate	--	2014*	Percent	--	84.5%	85.4%	
Household Income							
Less Than $20,000	--	2014*	Percent	--	--	--	
$20,000 to $34,999	--	2014*	Percent	--	--	--	
$35,000 to $49,999	--	2014*	Percent	--	--	--	
$50,000 to $74,999	--	2014*	Percent	--	--	--	
$75,000 Or More	--	2014*	Percent	--	--	--	

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SUMMARY

Data for Kent County on measures related to consumption of fruits and vegetables are unavailable through the 2014 Kent County BRFSS. These indicators are not collected through the State of Michigan's annual BRFSS and are only available through the national system.

REFERENCES

1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
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BEHAVIORAL RISK FACTORS: KENT COUNTY
YOUTH NUTRITION

OVERVIEW: YOUTH NUTRITION

Addressing nutrition and promoting health eating habits during childhood and adolescence is vital in establishing healthy long-term habits. Poor nutrition can have many harmful effects on an adolescent's body including energy imbalance, as well as increased risk for different types of cancers, overweight, obesity, high blood pressure, high cholesterol, breathing problems, and diabetes[3]. Proper nutrition promotes optimal growth and development among youth and can help protect them against many long-term, serious chronic conditions associated with unhealthy eating habits.

Kent County Behavioral Risk Factors: Youth Weight And Nutrition

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who ate five or more servings per day of fruits and vegetables during the past seven days	--	--	2013-2014	Percent	32.0%	25.6%	--	--	**NA**
Percentage of students who drank three or more glasses per day of milk during the past seven days	👍 ☺	👍 ☺	2013-2014	Percent	18.9%	16.8%	11.9%**	10.5%**	**NA**
Percentage of students who drank a can, bottle, or glass of soda or pop one or more times per day during the past seven days	👎 ☺	👎 ☹	2013-2014	Percent	20.1%	21.9%	19.6%**	21.8%**	**NA**
Percentage of students who had breakfast every day in the past seven days	👍 ☺	👍 ☺	2013-2014	Percent	50.1%	40.0%	37.1%**	37.1%**	**NA**
Percentage of students who did not eat breakfast in the past seven days	👍 ☺	👍 ☺	2013-2014	Percent	7.1%	11.1%	13.1%**	13.3%**	**NA**

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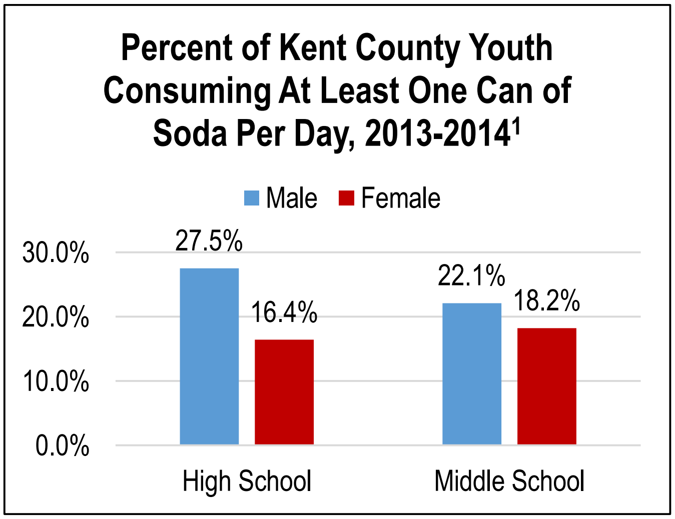
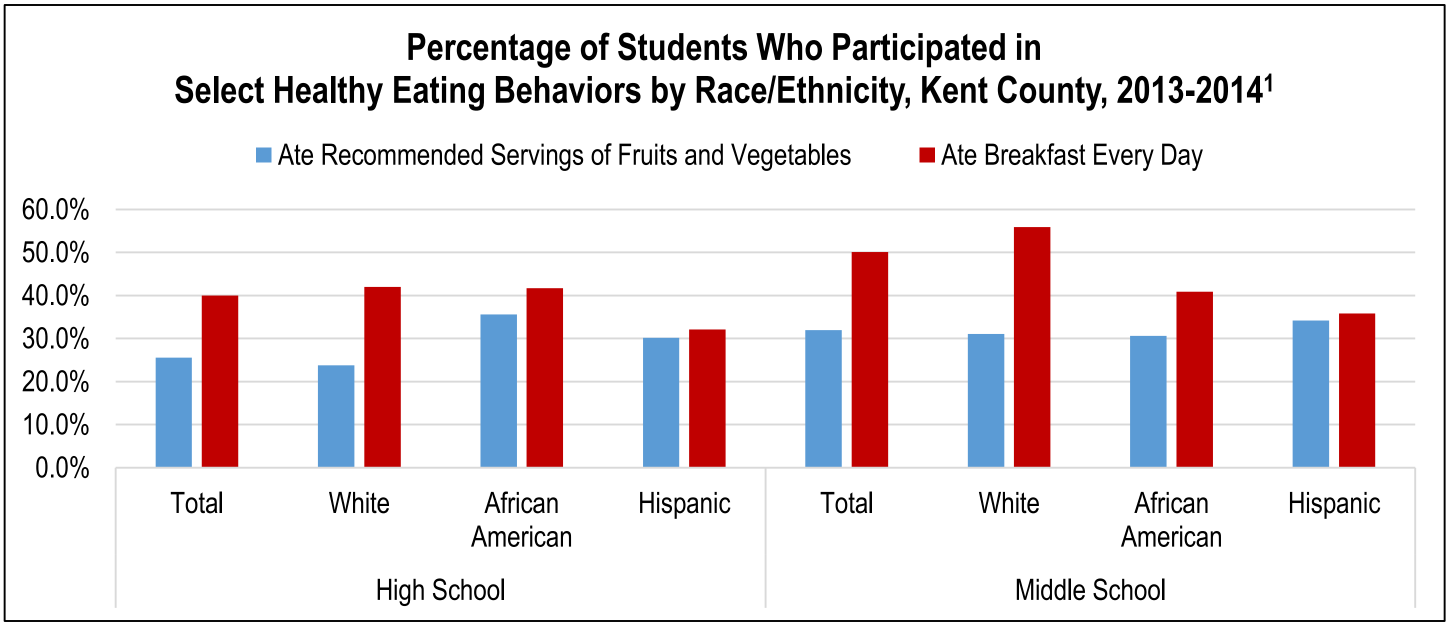
** Median range values used for United States. Data used from CDC YRBS 2013 Report.

SUMMARY

Less than one-third of Kent County middle school-aged youth and about 25% of high school-aged youth report eating the recommended number of servings of fruits and vegetables regularly. Middle school-aged students are more likely than high school-aged students to eat the recommended number of servings of fruits and vegetables.

Consumption of soda or pop in Kent County is higher among both middle school and high school students when compared with the state.


Percent of Kent County Youth Consuming At Least One Can of Soda Per Day, 2013-2014[1]


Percentage of Students Who Participated in Select Healthy Eating Behaviors by Race/Ethnicity, Kent County, 2013-2014[1]

About 50% of Kent County middle schoolers eat breakfast every day, as compared with about 40% of high school students. While both of these statistics exceed the rates reported for the state and nation, there is room for improvement, as breakfast is an important meal for students attending school.

REFERENCES

1. Michigan Department of Education. (2014). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx
2. Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system, United States and Michigan 2013 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx
3. Centers for Disease Control and Prevention. (2013). *2012 Overweight and Obesity – Basics about Childhood Obesity.* Retrieved from http://www.cdc.gov/obesity/childhood/basics.html

BEHAVIORAL RISK FACTORS: KENT COUNTY
ADULT OBESITY

OVERVIEW: ADULT OBESITY

Obese and overweight adults are at a higher risk than adults who are at a healthy weight to develop chronic conditions such as high blood pressure, diabetes, gallbladder disease, osteoarthritis, and high cholesterol[1]. In Michigan, obesity-related medical expenditures have been estimated to be $4.2 billion in 2009 dollars[2]. Overweight is defined as having a body mass index (BMI) between 25.0 and 29.9; an obese weight status is a BMI greater than or equal to 30.0. BMI is defined as weight in kilograms divided by height in meters squared (w/h^2) and was calculated from the self-reported height and weight measurements of Kent County residents participating in the survey.

Kent County Behavioral Risk Factors: Obesity

Body Mass Index (BMI) Is Defined As Weight Divided By Height Squared. A BMI Of 30 Or Greater Is Considered Obese.

Indicator	Status	Time Period	Measure	Kent County[3]	Michigan[4]	United States[5]	National Benchmark[a,b]
Total	👍 ☺	2014*	Percent	27.6%	31.5%	28.9%	**30.5%[a]**
Age							**NWS-8: Increase the proportion of adults who are at a healthy weight.** **NWS-9: Reduce the proportion of adults who are obese.**
18 – 24 Years	👎 ☹	2014*	Percent	18.9%	16.5%	15.7	
25-34 Years	👍 ☺	2014*	Percent	24.1%	30.4%	27.5	
35-44 Years	👍 ☺	2014*	Percent	30.4%	33.6%	32.8	
45 – 54 Years	👍 ☹	2014*	Percent	34.2%	37.3%	34.1	
55 – 64 Years	👍 ☺	2014*	Percent	33.3%	37.7%	33.5	
65+ Years	👍 ☺	2014*	Percent	24.4%	29.8%	26.7	
Gender							
Male	👍 ☺	2014*	Percent	27.0%	31.1%	28.7%	
Female	👍 ☹	2014*	Percent	28.1%	31.9%	28.0%	
Race							
White/Caucasian	👍 ☺	2014*	Percent	26.2%	30.6%	27.3%	
Black/African American	👎 ☹	2014*	Percent	46.0%	39.2%	37.9%	
Hispanic/Latino	👍 ☺	2014*	Percent	27.6%	32.7%	31.2%	
Non-Hispanic	👎	2014*	Percent	27.5%	20.0%	--	
Education							
Less Than High School	👍 ☺	2014*	Percent	23.6%	31.5%	33.5%	
High School Diploma	👎 ☹	2014*	Percent	34.3%	32.7%	31.0%	
Some College	👍 ☺	2014*	Percent	27.4%	34.5%	29.8%	
College Graduate	👍 ☹	2014*	Percent	23.9%	25.4%	22.3%	
Household Income							
Less Than $20,000	--	2014*	Percent	36.5%	36.5%	--	
$20,000 to $34,999	👍	2014*	Percent	33.6%	35.2%	--	
$35,000 to $49,999	👍	2014*	Percent	29.0%	34.4%	--	
$50,000 to $74,999	👎	2014*	Percent	33.7%	31.0%	--	
$75,000 Or More	👍	2014*	Percent	22.5%	27.8%	--	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

Mirroring the trends observed both statewide and nationally, the rate of obesity in Kent County has continued to increase since 1993, showing an almost 11-point lift (from 17% in 1993 to 27.6% at present). However, obesity in Kent County is still less prevalent than it is in Michigan or the U.S. overall. Considering that the Healthy People 2020 target for obesity among adults is set at 30.5%, Kent County has met and exceeded this target. In Kent County, the population subgroups most afflicted with obesity are people age 35 years or older and African Americans.

REFERENCES

1. Centers for Disease Control and Prevention. (2014). *2012 Overweight and Obesity -Causes and Consequences*. Retrieved from http://www.cdc.gov/obesity/adult/causes/index.html
2. Institute for America's Health. (2014). *The Obesity Index: The Cost of Obesity by State*. Retrieved from http://healthy-america.org/wp-content/uploads/The-Obesity-Index-The-Cost-of-Obesity-by-State.pdf
3. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
4. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
5. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

BEHAVIORAL RISK FACTORS: KENT COUNTY
YOUTH OBESITY

OVERVIEW: YOUTH OBESITY

Obesity among youth in the United States has become one of the most profound public health issues in recent years, with rates quadrupling among adolescents in the past 30 years. There are short-term and long-term effects attributed to obesity in youth. Immediate health effects include increased risk for serious conditions like cardiovascular disease, prediabetes and diabetes, bone and joint problems, sleep apnea, and social and psychological problems such as stigmatization and poor self-esteem. Effects of obesity during childhood and adolescence often persist into adulthood. Adults who were obese in their younger years have increased risk for numerous chronic health conditions, ranging from osteoarthritis to various types of cancers[3].

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Kent County Behavioral Risk Factors: Youth Obesity

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who are obese (at or above the 95th percentile for BMI by age and sex)	👍 ☺	👍 ☺	2013-2014	Percent	9.7%	11.4%	13.0%**	12.4%**	**16.1[a] NWS-10.3: Reduce the proportion of adolescents who are considered obese.**
Percentage of students who are overweight (at or above the 85th percentile and below the 95th percentile for BMI by age and sex)	👍 ☺	👍 ☺	2013-2014	Percent	14.0%	14.8%	15.5%**	14.9%**	
Percentage of students who were trying to lose weight	--	--	2013-2014	Percent	41.1%	42.9%	45.0%**	45.2%**	**NA**
Percentage of students who went without eating for 24 hours or more to lose weight or to keep from gaining weight during the past 30 days	👎 ☹	👍 ☺	2013-2014	Percent	15.5%	12.4%	12.8%**	12.8%**	**12.9[a] MHMD-3: Reduce the proportion of adolescents who engage in disordered eating behaviors in order to control their weight.**
Percentage of students who took diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	2.3%	4.7%	5.7%**	6.0%**	
Percentage of students who vomited or took laxatives to lose weight or to keep from gaining weight during the past 30 days	👍 ☺	👍 ☺	2013-2014	Percent	3.3%	4.8%	4.9%**	5.2%**	

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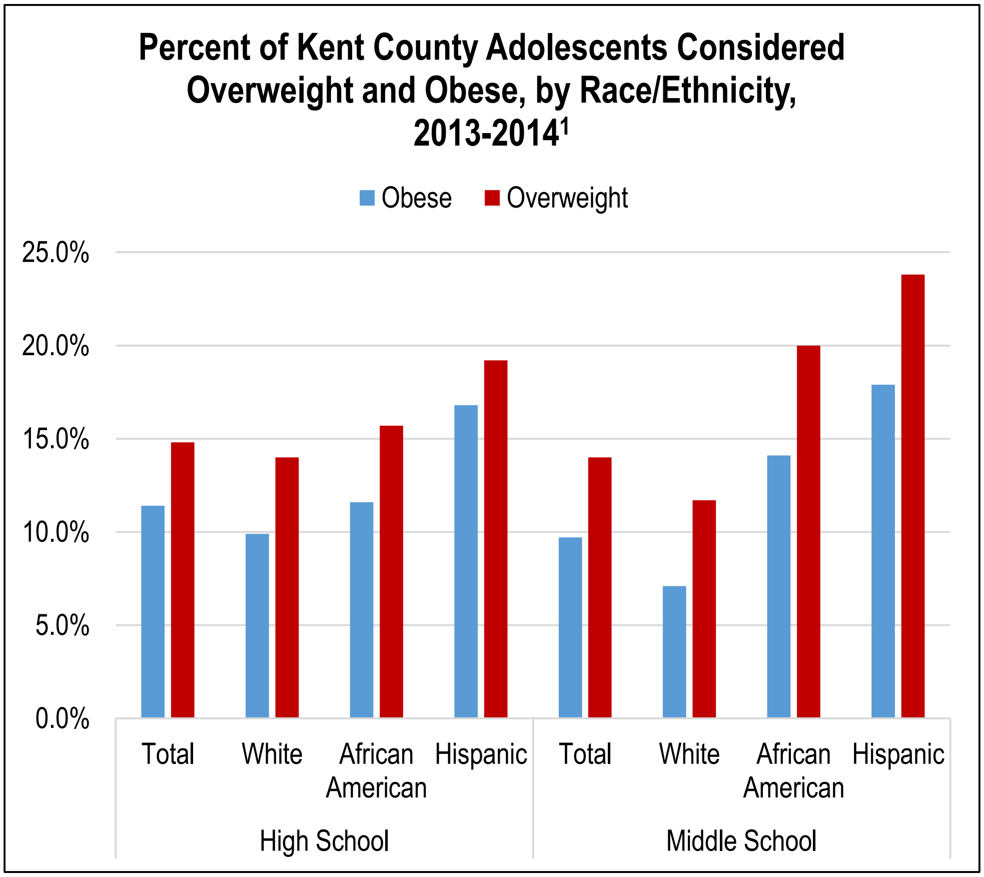

Percent of Kent County Adolescents Considered Overweight and Obese, by Race/Ethnicity, 2013-2014[1]

SUMMARY

In Kent County, 14% of middle school-aged youth and 14.8% of high school-aged youth are considered overweight, while 9.7% of middle school-aged youth and 11.4% of high school-aged youth are considered obese. The statistics associated with each of these measures in Kent County are better than state and national numbers, and Kent County has achieved the Healthy People 2020 target, youth obesity is still an issue of concern. As previously noted, obesity in adolescence can lead to significant issues in adulthood, and the table above shows there are troubling behaviors associated with obesity in our community. For example, more than 15% of middle school-aged youth and 12.4% of high school-aged youth reported that they went without eating for 24 hours or more in an effort to lose weight, and 2.3% of middle school-aged youth and nearly 5% of high school-aged youth took diet pills without the supervision of a doctor in an attempt to lose weight.

REFERENCES

1. Michigan Department of Education. (2014). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx
2. Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system, United States and Michigan 2013 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx
3. Centers for Disease Control and Prevention. (2014). *Childhood obesity facts*. Retrieved from http://www.cdc.gov/healthyyouth/obesity/facts.htm

BEHAVIORAL RISK FACTORS: KENT COUNTY
ADULT PHYSICAL ACTIVITY

OVERVIEW: ADULT PHYSICAL ACTIVITY

Regular physical activity includes participation in moderate and vigorous physical activities, and muscle-strengthening exercises. Regular physical activity can improve the health status and quality of life for people of all ages, regardless of the presence of chronic disease or disability[4]. For people who are inactive, even small increases in physical activity can be linked to positive health benefits and improvements. Personal, social, economic, and environmental factors all play a role in the level of physical activity reported for youth, adults, and older adults. Understanding the barriers to and facilitators of physical activity is important[4].

Kent County Behavioral Risk Factors: Physical Activity
Percentage Of Respondents Who Participated in 150 Minutes or More of Aerobic Physical Activity Per Week

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	--	2014*	Percent	--	53.1%	50.5%	**47.9%[a]**
Age							**PA-2.1: Increase the proportion of adults who engage in aerobic physical activity of at least moderate intensity for at least 150 minutes/week or 75 minutes/week of vigorous intensity, or an equivalent combination.**
18 – 24 Years	--	2014*	Percent	--	57.2%	54.4%	
25-34 Years	--	2014*	Percent	--	51.3%	49.5%	
35-44 Years	--	2014*	Percent	--	54.2%	49.2%	
45 – 54 Years	--	2014*	Percent	--	51.9%	49.6%	
55 – 64 Years	--	2014*	Percent	--	50.4%	50.4%	
65+ Years	--	2014*	Percent	--	54.5%	52.2%	
Gender							
Male	--	2014*	Percent	--	54.7%	52.3%	
Female	--	2014*	Percent	--	51.5%	49.5%	
Race							
White/Caucasian	--	2014*	Percent	--	54.7%	53.6%	
Black/African American	--	2014*	Percent	--	45.0%	43.8%	
Hispanic/Latino	--	2014*	Percent	--	51.8%	43.7%	
Non-Hispanic	--	2014*	Percent	--	--	--	
Education							
Less Than High School	--	2014*	Percent	--	43.5%	37.9%	
High School Diploma	--	2014*	Percent	--	49.3%	47.6%	
Some College	--	2014*	Percent	--	54.7%	51.4%	
College Graduate	--	2014*	Percent	--	60.1%	59.2%	
Household Income							
Less Than $20,000	--	2014*	Percent	--	--	--	
$20,000 to $34,999	--	2014*	Percent	--	--	--	
$35,000 to $49,999	--	2014*	Percent	--	--	--	
$50,000 to $74,999	--	2014*	Percent	--	--	--	
$75,000 Or More	--	2014*	Percent	--	--	--	

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Kent County Behavioral Risk Factors: Physical Activity
Percentage Of Respondents Who Participated in Muscle Strengthening Exercises More than Twice Per Week

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	--	2014*	Percent	--	28.8%	29.8%	**24.1%[a]**
Age							**PA-2.3: Increase the proportion of adults who perform muscle-strengthening activities on two or more days of the week.**
18 – 24 Years	--	2014*	Percent	--	42.7%	44.9%	
25-34 Years	--	2014*	Percent	--	30.5%	35.2%	
35-44 Years	--	2014*	Percent	--	33.0%	29.5%	
45 – 54 Years	--	2014*	Percent	--	25.8%	26.6%	
55 – 64 Years	--	2014*	Percent	--	23.6%	23.9%	
65+ Years	--	2014*	Percent	--	22.8%	22.6%	
Gender							
Male	--	2014*	Percent	--	33.1%	33.2%	
Female	--	2014*	Percent	--	24.8%	25.6%	
Race							
White/Caucasian	--	2014*	Percent	--	27.9%	29.8%	
Black/African American	--	2014*	Percent	--	32.3%	30.7%	
Hispanic/Latino	--	2014*	Percent	--	33.3%	28.6%	
Non-Hispanic	--	2014*	Percent	--	--	--	
Education							
Less Than High School	--	2014*	Percent	--	24.5%	20.0%	
High School Diploma	--	2014*	Percent	--	25.3%	25.3%	
Some College	--	2014*	Percent	--	28.9%	31.9%	
College Graduate	--	2014*	Percent	--	35.3%	36.5%	
Household Income							
Less Than $20,000	--	2014*	Percent	--	--	--	
$20,000 to $34,999	--	2014*	Percent	--	--	--	
$35,000 to $49,999	--	2014*	Percent	--	--	--	
$50,000 to $74,999	--	2014*	Percent	--	--	--	
$75,000 Or More	--	2014*	Percent	--	--	--	

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**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

Data for Kent County on measures related to physical activity specific to aerobic exercise and muscle strengthening are unavailable through the 2014 Kent County BRFSS. These indicators are not collected through the State of Michigan's annual BRFSS and are only available through the national system.

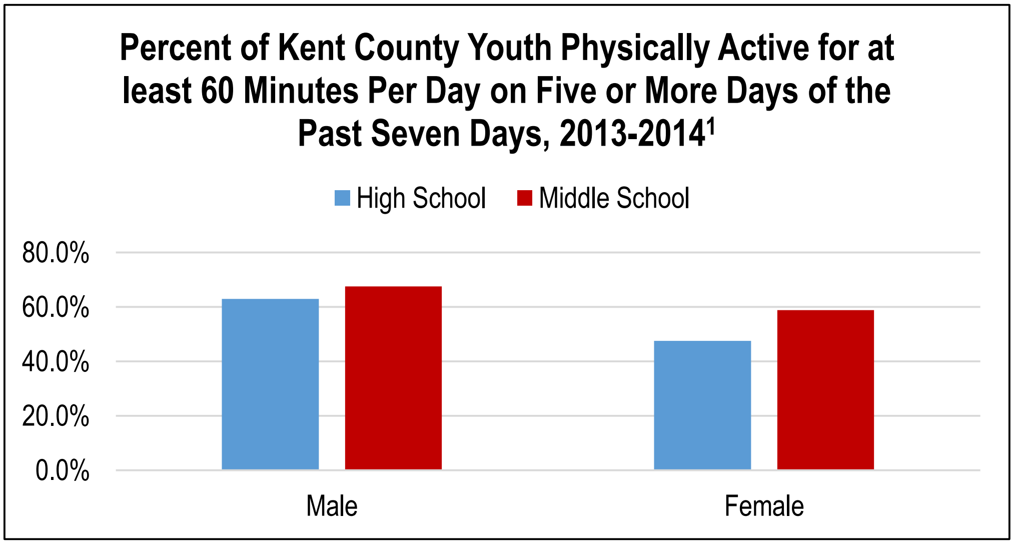
REFERENCES

1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.
4. Healthy People 2020. (2014). *Physical activity overview*. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/physical-activity

Behavioral Risk Factors: Kent County
Youth Physical Activity

Overview: Youth Physical Activity

Regular physical activity in childhood and adolescence improves strength and endurance, helps build healthy bones and muscles, helps control weight, reduces anxiety and stress, increases self-esteem, and may improve blood pressure and cholesterol measures. Physical activity may also help students achieve better academic performance, including better grades, improved focus and task-orientation, concentration, and attentiveness in the classroom[3].


Percent of Kent County Youth Physically Active for at least 60 Minutes Per Day on Five or More Days of the Past Seven Days, 2013-2014[1]

Kent County Behavioral Risk Factors: Youth Physical Activity									
Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who were physically active for a total of at least 60 minutes per day on five or more of the past seven days	👍 ☺	👍 ☺	2013-2014	Percent	63.0%	55.1%	49.7%**	46.5%**	**PA-3: Increase the proportion of adolescents who meet current Federal physical activity guidelines.**
Percentage of students who watched three or more hours per day of TV on an average school day	👍 ☺	👍 ☺	2013-2014	Percent	23.9%	21.3%	27.0%**	27.8%**	**73.9%[a]** **PA-8.2.3: Increase the proportion of adolescents who view television, videos, or play video games for no more than 2 hours per day.**
Percentage of students who played video or computer games or use a computer for something that is not school work three or more hours per day on an average school day	👍 ☺	👍 ☺	2013-2014	Percent	28.7%	27.2%	34.1%**	36.6%**	**82.6%[a]** **PA-8.3.3: Increase the proportion of adolescents who use a computer or play video games outside of school for no more than 2 hours per day.**
Percentage of students who attended physical education (PE) classes on one or more days in an average week when they were in school	👍 ☺	👍 ☹	2013-2014	Percent	75.6%	36.1%	35.9%**	47.3%**	**36.6%[a]** **PA-5: Increase the proportion of adolescents who participate in daily**

Kent County Behavioral Risk Factors: Youth Physical Activity									
Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who attended physical education (PE) classes daily in an average week when they were in school	--	👍 ☺	2013-2014	Percent	--	28.9%	26.8%**	24.2%**	**school physical education.**
Percentage of students who play on any sports team	☺	☺	2013-2014	Percent	71.4%	60.7%	--	55.7%**	**NA**

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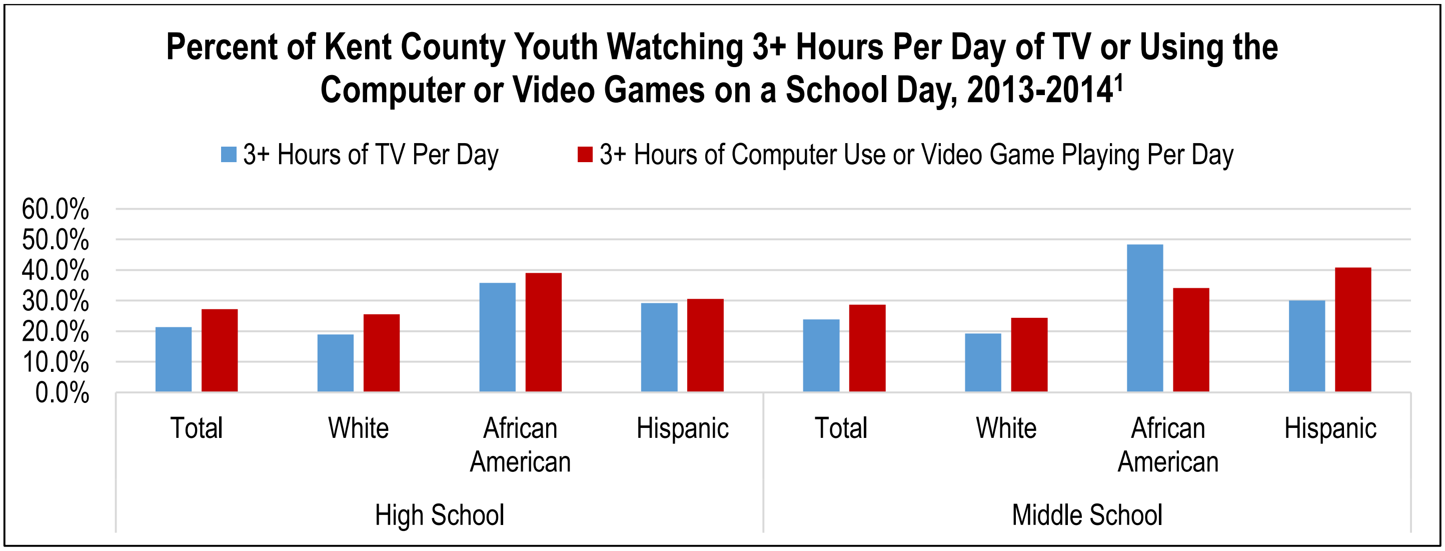

Percent of Kent County Youth Watching 3+ Hours Per Day of TV or Using the Computer or Video Games on a School Day, 2013-2014[1]

SUMMARY

For most measures of physical activity among adolescents, Kent County outperforms the state and the United States. A higher percentage of Kent County youth report being physically active for 60 minutes or more on five or more days per week than youth at the state and national levels. Among these youth, males are more likely than females to be physically active. Kent County youth overall spend less time in front of the television, computer, and video games than do youth at the state and national level. Excessive use of the television appears to be most prevalent among African American students, while computer use and video game playing appears highest among Hispanic middle school students and African American high school students.

REFERENCES

1. Michigan Department of Education. (2014). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx
2. Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system, United States and Michigan 2013 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx
3. Centers for Disease Control and Prevention. (2014). *Adolescent and school health, physical activity facts.* Retrieved from http://www.cdc.gov/healthyyouth/physicalactivity/facts.htm

BEHAVIORAL RISK FACTORS: KENT COUNTY
ADULT SEDENTARY LIFESTYLE

OVERVIEW: SEDENTARY LIFESTYLE

Regular physical activity has been shown to reduce the risk of premature mortality and a number of chronic diseases, such as colon cancer, hypertension, cardiovascular disease, and diabetes. Keeping physically active not only helps maintain a healthy body weight and normal muscle strength, bone mass, and joint function, but it can also relieve symptoms of depression[1].

Kent County Behavioral Risk Factors: Sedentary Lifestyle
Percentage Of Respondents Who Reported No Leisure-Time Physical Activity

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[3]	United States[4]	National Benchmark[a,b]
Total	👍 ☺	2014*	Percent	19.6%	24.4%	25.5%	**32.6%[a]**
Age							**PA-1: Reduce the proportion of adults who engage in no leisure-time physical activity.**
18 – 24 Years	👍 ☺	2014*	Percent	15.1%	15.9%	17.4%	
25-34 Years	👎 ☹	2014*	Percent	24.4%	22.1%	21.4%	
35-44 Years	👍 ☺	2014*	Percent	14.7%	22.6%	25.8%	
45 – 54 Years	👍 ☺	2014*	Percent	17.6%	24.5%	26.4%	
55 – 64 Years	👍 ☺	2014*	Percent	19.3%	27.2%	28.1%	
65+ Years	👍 ☺	2014*	Percent	24.7%	30.8%	33.5%	
Gender							
Male	👍 ☺	2014*	Percent	20.1%	23.8%	24.3%	
Female	👍 ☺	2014*	Percent	19.0%	25.0%	27.2%	
Race							
White/Caucasian	👍 ☺	2014*	Percent	17.3%	23.2%	24.0%	
Black/African American	👍 ☺	2014*	Percent	28.5%	30.7%	30.6%	
Hispanic/Latino	👎 ☺	2014*	Percent	30.9%	26.1%	31.1%	
Non-Hispanic	👍	2014*	Percent	18.2%	24.2%	--	
Education							
Less Than High School	👎 ☺	2014*	Percent	38.6%	36.2%	41.3%	
High School Diploma	👎 ☹	2014*	Percent	32.6%	29.2%	31.3%	
Some College	👍 ☺	2014*	Percent	15.3%	22.1%	24.3%	
College Graduate	👍 ☺	2014*	Percent	9.1%	16.0%	14.9%	
Household Income							
Less Than $20,000	👍	2014*	Percent	29.9%	33.6%	--	
$20,000 to $34,999	👍	2014*	Percent	27.3%	29.7%	--	
$35,000 to $49,999	👍	2014*	Percent	19.1%	24.1%	--	
$50,000 to $74,999	👍	2014*	Percent	11.9%	20.9%	--	
$75,000 Or More	👍	2014*	Percent	7.7%	16.1%	--	

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**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

The percentage of Kent County residents who report at least some leisure-time physical activity stands at approximately 80%, which is slightly above the statewide rate. The population subgroups in Kent County that are the least likely to participate in some leisure-time activity include African Americans and Hispanic/Latinos, people with a high school diploma or less than a high school education, and individuals with a household income of $34,999 or less. Kent County has successfully achieved and exceeded the Healthy People 2020 target of 32.6% for individuals reporting no leisure-time physical activity.

REFERENCES

1. Centers for Disease Control and Prevention. (2014). *Physical Activity and Health -The Benefits of Physical Activity*. Retrieved from http://www.cdc.gov/physicalactivity/everyone/health
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

BEHAVIORAL RISK FACTORS: KENT COUNTY
ADULT SEATBELT USE

OVERVIEW: SEATBELT USE

In 2013, 951 people died in automobile accidents in Michigan, with an additional 71,031 people injured[1]. Seatbelt use has been proven to save lives and prevent injuries. Statewide, forty-six percent (46%) of passenger vehicle occupants who died were unrestrained[2]. Nationwide, it has been estimated that seatbelt use saves $50 billion in medical care, productivity, and other injury-related costs.

Kent County Behavioral Risk Factors: Seatbelt Use
Percentage Of Respondents Who Do Not Always Use Seatbelts When Driving/Riding In The Car

Indicator	Status	Time Period	Measure	Kent County[3]	Michigan[4]	United States[5]	National Benchmark[a,b]
Total	👎 ☹	2014*	Percent	8.4%	4.8%	5.9%	**8.0%[a]**
Age							**IVP-15: Increase use of safety belts.**
18 – 24 Years	👎 ☹	2014*	Percent	19.2%	3.0%	4.8%	
25-34 Years	👎 ☹	2014*	Percent	10.2%	3.9%	4.9%	
35-44 Years	👍 ☺	2014*	Percent	2.8%	3.8%	4.5%	
45 – 54 Years	--	2014*	Percent	6.9%	--	--	
55 – 64 Years	--	2014*	Percent	6.2%	--	--	
65+ Years	--	2014*	Percent	6.8%	--	--	
Gender							
Male	👎 ☹	2014*	Percent	10.4%	6.4%	8.2%	
Female	👎 ☹	2014*	Percent	6.5%	3.4%	4.1%	
Race							
White/Caucasian	👎 ☹	2014*	Percent	7.8%	4.2%	5.7%	
Black/African American	👎 ☹	2014*	Percent	11.5%	5.7%	7.9%	
Hispanic/Latino	👎 ☹	2014*	Percent	13.0%	8.8%	8.2%	
Non-Hispanic	--	2014*	Percent	8.0%	--	--	
Education							
Less Than High School	👎 ☹	2014*	Percent	10.7%	9.8%	10.4%	
High School Diploma	👎 ☹	2014*	Percent	9.1%	5.6%	7.8%	
Some College	👎 ☹	2014*	Percent	9.8%	4.2%	5.3%	
College Graduate	👎 ☹	2014*	Percent	6.3%	2.4%	3.1%	
Household Income							
Less Than $20,000	--	2014*	Percent	9.4%	--	--	
$20,000 to $34,999	--	2014*	Percent	13.6%	--	--	
$35,000 to $49,999	--	2014*	Percent	7.5%	--	--	
$50,000 to $74,999	--	2014*	Percent	4.2%	--	--	
$75,000 Or More	--	2014*	Percent	3.4%	--	--	

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NA -- National Benchmark was not identified

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

In Kent County, more than 8% of residents report not always wearing a seatbelt when driving or riding in the car, which is nearly double the rate reported for the state and is also higher than the national numbers. This risky behavior appears most prevalent among young adults, with nearly 20% of people aged 18 to 24 years reporting that they do not always wear a seatbelt, and 10.2% of people aged 25 to 34 years reporting the same type of behavior. Non-white and male individuals are also less likely to always wear a seatbelt.

REFERENCES

1. 2013 Michigan Annual Drunk Driving Audit, Michigan Department of State Police, Criminal Justice Information Center https://www.michigan.gov/documents/msp/2013_Drunk_Driving_Audit_461795_7.pdf
2. 2013 Crash Statistics, Michigan State Police Traffic Crash Reporting System http://www.michigan.gov/documents/msp/2013_Year_End_for_WEB_459459_7.pdf
3. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
4. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
5. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

BEHAVIORAL RISK FACTORS: KENT COUNTY
YOUTH SEATBELT AND HELMET USE

OVERVIEW: YOUTH SEATBELT AND HELMET USE

Motor vehicle crashes are a leading cause of death among people aged one to 54 years in the United States, and are ***the*** leading cause of death among teens. Data from the Centers for Disease Control and Prevention notes that 55% of teens who died in motor vehicle-related crashes in 2012 were not wearing their seatbelt at the time of the crash. Wearing a seatbelt as a passenger in a vehicle is an important strategy for reducing the risk of injury and death. The use of seatbelts can help cut the mortality rate associated with crash-related injuries by half[3].

Children and adolescents have the highest rate of nonfatal bicycle related injuries and adolescents have the highest bicycle-related death rates[4]. The use of bicycle helmets can reduce the risk of head and brain injury in the event of a crash or fall. Though there are no federal laws or regulations regarding bicycle helmet use for children, some states and localities have implemented these types of laws and ordinances, which have been shown effective in increasing the use of helmets among this vulnerable population. In Kent County, the only community with a bicycle helmet law is East Grand Rapids, which requires youth under the age of 18 to wear a bicycle helmet[5].

Kent County Behavioral Risk Factors: Youth Seatbelt and Helmet Use

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark a,b
	Middle School	High School			Middle School	High School			
Percentage of students who never or rarely wore a seat belt when riding in a car driven by someone else	👍 ☺	👎 ☺	2013-2014	Percent	5.5%	6.9%	6.5%**	7.6%**	**NA**
Among students who rode a bicycle during the past 12 months, the percentage who never or rarely wore a bicycle helmet	👍 ☺	👍 ☺	2013-2014	Percent	62.7%	83.7%	87.4%**	87.4%**	**NA**

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NA -- National Benchmark was not identified.
** Median range values used for United States. Data used from CDC YRBS 2013 Report.

SUMMARY

Overall, Kent County youth tend to always wear a seatbelt when riding in a vehicle being driven by someone else, with only 5.5% of middle school-aged youth and 6.9% of high school-aged youth saying they never or rarely wear a seat belt. Additionally, use of bicycle helmets is higher among Kent County youth when compared with the state and US numbers.

REFERENCES

1. Michigan Department of Education. (2014). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx
2. Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system, United States and Michigan 2013 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx
3. Centers for Disease Control and Prevention. (2014). *Seat belts: Get the facts*. Retrieved from http://www.cdc.gov/motorvehiclesafety/seatbelts/facts.html
4. Centers for Disease Control and Prevention. (2014). *Bicycle-related injuries*. Retrieved from http://www.cdc.gov/HomeandRecreationalSafety/Bicycle/index.html
5. Bicycle Helmet Safety Institute. (2015). *Helmet laws for bicycle riders*. Retrieved from http://www.helmets.org/mandator.htm

BEHAVIORAL RISK FACTORS: KENT COUNTY
DRIVING WHILE IMPAIRED, ADULTS

OVERVIEW: DRIVING WHILE IMPAIRED, ADULTS

Driving while impaired is an offense committed by an individual who operates a motor vehicle while under the influence of alcohol or drugs[1]. Laws against drunk or drugged driving vary from state to state, but the majority of states require automatic drivers' license suspension following a conviction of this offense. There is strong evidence to suggest that the consumption of alcohol is a major factor in the most serious motor vehicle crashes that end in severe injuries and fatalities.

Kent County Alcohol and Drug-Involved Motor Vehicle Crashes, Injuries, and Fatalities

Indicator	Time Period	Measure	Kent County[2]		Michigan[2]	
			Alcohol	Drug	Alcohol	Drug
Total Crashes	2013	Total Number	780	88	9,828	2,002
Fatal Crashes	2013	Total Number	16	2	257	142
Injury-Causing Crashes	2013	Total Number	278	37	3,765	873
Number of Persons Killed						
Total	2013	Total Number	19	2	284	165
Gender						
Male	2013	Total Number			210	123
Female	2013	Total Number			74	42
Number of Persons Injured						
Total	2013	Total Number	384	52	5,242	1,376
Gender						
Male	2013	Total Number			3,310	822
Female	2013	Total Number			1,924	553
Unknown	2013	Total Number			8	1

SUMMARY

The proportion of Kent County adults who had driven when they had too much to drink at least once in the previous month is 2.4%. Men are somewhat more likely than women to drive after drinking, and African Americans are somewhat more likely to do so than their counterparts representing other ethnic backgrounds. Similarly, younger respondents (age 25-34) are somewhat more inclined than others to engage in this type of a behavior. Another important variation across groups occurs in terms of income levels, with those in the bottom and top brackets (under $20,000 per year and at least $75,000 per year) being substantially more likely than others to drive after drinking too much.

Kent County Behavioral Risk Factors: Driving While Impaired
Percentage of Respondents Who Have Driven After Drinking Too Much At Least Once in the Past Month

Indicator	Time Period	Measure	Kent County[3]
Total	2014*	Percent	2.4%
Age			
18 – 24 Years	2014*	Percent	1.7%
25-34 Years	2014*	Percent	4.5%
35-44 Years	2014*	Percent	2.6%
45 – 54 Years	2014*	Percent	2.6%
55 – 64 Years	2014*	Percent	1.4%
65+ Years	2014*	Percent	1.0%
Gender			
Male	2014*	Percent	3.4%
Female	2014*	Percent	1.4%
Race			
White/Caucasian	2014*	Percent	2.5%
Black/African American	2014*	Percent	4.1%
Hispanic/Latino	2014*	Percent	2.3%
Non-Hispanic	2014*	Percent	2.4%
Education			
Less Than High School	2014*	Percent	1.7%
High School Diploma	2014*	Percent	3.3%
Some College	2014*	Percent	2.3%
College Graduate	2014*	Percent	1.9%
Household Income			
Less Than $20,000	2014*	Percent	3.3%
$20,000 to $34,999	2014*	Percent	3.1%
$35,000 to $49,999	2014*	Percent	1.3%
$50,000 to $74,999	2014*	Percent	0.5%
$75,000 Or More	2014*	Percent	4.6%

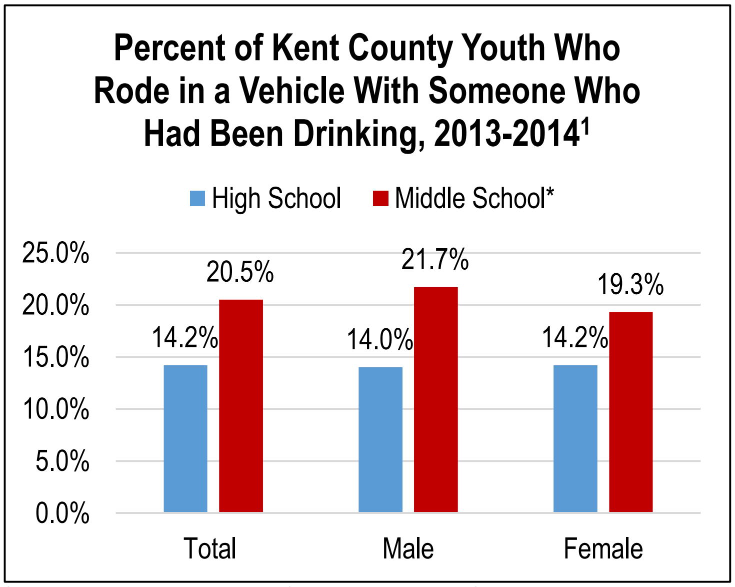
REFERENCES

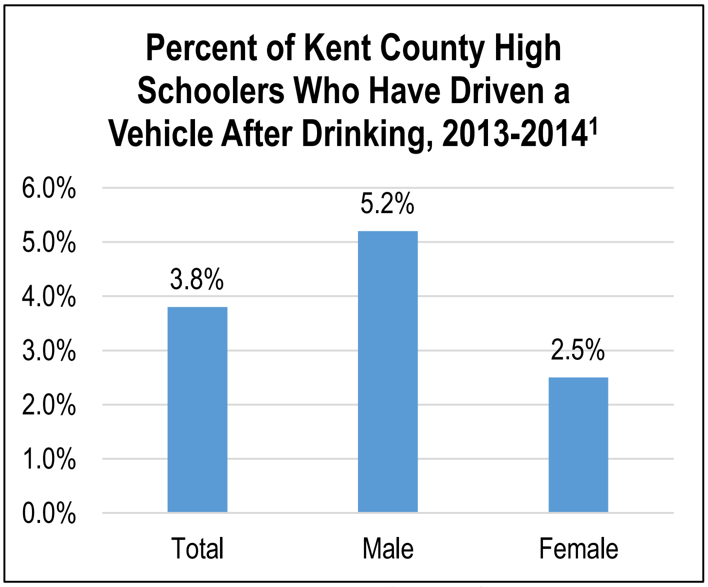
1. The Free Dictionary. (2015). *DWI*. Retrieved from http://legal-dictionary.thefreedictionary.com/DWI
2. 2013 Crash Statistics, Michigan State Police Traffic Crash Reporting System http://www.michigan.gov/documents/msp/2013_Year_End_for_WEB_459459_7.pdf
3. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.

BEHAVIORAL RISK FACTORS: KENT COUNTY
DRIVING WHILE IMPAIRED OR DISTRACTED, YOUTH

OVERVIEW: DRIVING WHILE IMPAIRED, YOUTH

Young drivers between the ages of 16 and 20 years are typically the least experienced on the road. Adding alcohol to the inexperience of these drivers can have deadly consequences. In Michigan, any involvement with alcohol can lead to the loss of drivers' licenses for teens[3]. Distracted driving is another source of injury and mortality among Americans, particularly among younger drivers. Distracted driving is defined as driving while doing another activity that takes your attention away from driving.


Percent of Kent County Youth Who Rode in a Vehicle With Someone Who Had Been Drinking, 2013-2014[1]


Percent of Kent County High Schoolers Who Have Driven a Vehicle After Drinking, 2013-2014[1]

** Note: Middle school data reflects the number of students who have* ***ever*** *ridden in a car with someone under the influence of alcohol, while the high school data reflects the percentage of students who have ridden in a car with someone under the influence of alcohol within the* ***past 30 days****.*

Kent County Behavioral Risk Factors: Driving While Impaired, Youth

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[2]	National Benchmark[a,b]
Percentage of students who rode in a car or other vehicle driven by someone who had been drinking alcohol one or more times during the past 30 days	👍 ☺	2013-2014	Percent	14.2%	20.3%**	20.5%**	**25.5[a] SA-1: Reduce the proportion of adolescents who report they rode with a driver who had been drinking alcohol within the past 30 days.**
Percentage of students who drove a car or other vehicle when they had been drinking alcohol one or more times during the past 30 days	👍 ☺	2013-2014	Percent	3.8%	6.3%**	8.6%**	**NA**

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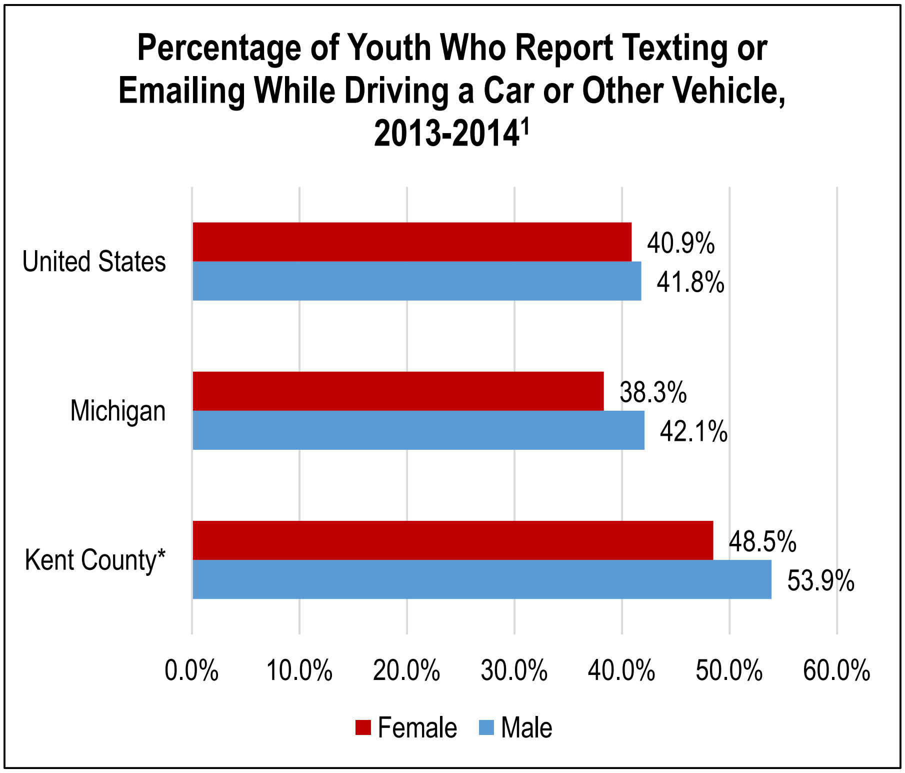

Percentage of Youth Who Report Texting or Emailing While Driving a Car or Other Vehicle, 2013-2014[1]

** Note: Kent County data for this measure includes high school students only.*

SUMMARY

Drinking and driving among youth in Kent County occurs at lower rates than what is reported at the state and national levels, with only about 3.8% of all Kent County teens reporting that they have driven a vehicle under the influence of alcohol. Males are more than twice as likely to participate in this risky behavior when compared with females. However, about 20% of middle school students in Kent County report having ridden in a car with someone who was under the influence of alcohol and about 14% of high school students report having ridden in a car with someone who was under the influence of alcohol within the past 30 days.

Rates of distracted driving appears to be a bigger issue among Kent County youth than among Michigan and United States youth, overall. More than 50% of Kent County male youth reported texting or emailing while driving, while 48.8% of Kent County female youth reported this behavior.

REFERENCES

1. Michigan Department of Education. (2014). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx
2. Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system, United States and Michigan 2013 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx
3. Michigan Department of State. (2014). *Substance abuse and driving*. Retrieved from http://www.michigan.gov/sos/0,4670,7-127-1627_8665-24488--,00.html
4. Centers for Disease Control and Prevention. (2014). *Distracted driving*. Retrieved from http://www.cdc.gov/motorvehiclesafety/distracted_driving/index.html

BEHAVIORAL RISK FACTORS: KENT COUNTY
SCREENING, ROUTINE CHECKUPS

OVERVIEW: ROUTINE CHECKUPS

A yearly routine checkup with a health care professional provides an opportunity to raise awareness regarding adult preventive services, conduct individual risk assessments, promote informed decision-making, and potentially benefit from early detection. The type of exams and screenings an individual needs during a routine checkup depends on many factors, including age, gender, health and family history, and lifestyle choices like diet, exercise, and tobacco consumption[4].

Kent County Behavioral Risk Factors: No Routine Checkup
Percentage Of Respondents Who Had No Routine Checkup In The Past Year

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	👍 ☺	2014*	Percent	24.8%	30.1%	31.8%	NA
Age							
18 – 24 Years	👍 ☺	2014*	Percent	28.5%	39.9%	41.7%	
25-34 Years	👍 ☺	2014*	Percent	33.6%	42.8%	44.3%	
35-44 Years	👍 ☺	2014*	Percent	27.1%	37.8%	38.4%	
45 – 54 Years	👍 ☺	2014*	Percent	23.2%	31.3%	31.6%	
55 – 64 Years	👎 ☹	2014*	Percent	24.9%	24.5%	24.3%	
65+ Years	☺	2014*	Percent	10.2%	--	12.3%	
Gender							
Male	👍 ☺	2014*	Percent	28.3%	35.0%	36.3%	
Female	👍 ☺	2014*	Percent	21.5%	25.6%	25.6%	
Race							
White/Caucasian	👍 ☺	2014*	Percent	25.6%	30.5%	31.1%	
Black/African American	👍 ☺	2014*	Percent	18.4%	22.6%	23.6%	
Hispanic/Latino	👍 ☺	2014*	Percent	29.2%	36.4%	38.9%	
Non-Hispanic	👍	2014*	Percent	24.5%	40.6%	--	
Education							
Less Than High School	👍 ☺	2014*	Percent	22.7%	30.4%	32.0%	
High School Diploma	👍 ☺	2014*	Percent	28.7%	30.2%	32.1%	
Some College	👍 ☺	2014*	Percent	23.8%	30.5%	31.0%	
College Graduate	👍 ☺	2014*	Percent	23.5%	29.1%	29.1%	
Household Income							
Less Than $20,000	👍	2014*	Percent	26.1%	35.8%	--	
$20,000 to $34,999	👎	2014*	Percent	32.7%	32.5%	--	
$35,000 to $49,999	👍	2014*	Percent	25.7%	31.6%	--	
$50,000 to $74,999	👍	2014*	Percent	18.8%	27.1%	--	
$75,000 Or More	👍	2014*	Percent	18.0%	27.5%	--	

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NA -- National Benchmark was not identified.

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

Kent County adult residents are more likely than respondents state and nationwide to report having a routine checkup within the past 12 months (75.2%, vs. 69.9% and 68.2%, respectively). Kent County males are more likely to have not had a checkup in the past year when compared with Kent County females. Older adults (age 65+) and individuals with a household income of more than $50,000 are the most likely to have had a routine checkup in the past year.

REFERENCES

1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.
4. Medline Plus. (2014). *Health checkup*. Retrieved from http://www.nlm.nih.gov/medlineplus/healthcheckup.html

BEHAVIORAL RISK FACTORS: KENT COUNTY
ORAL HEALTH

OVERVIEW: ORAL HEALTH

Oral health is an important part of one's general health, wellbeing, and quality of life. In the past 50 years, there has been significant improvement in the oral health of Americans. Most of the gains in oral health are the result of effective prevention and treatment efforts, such as community water fluoridation. Despite these gains, there are many Americans who still do not have access to prevention programs and services, which leads to greater rates of oral disease like dental carries, periodontal disease, and oral and pharyngeal cancers[1].

Kent County Behavioral Risk Factors: Oral Health
Percentage Of Respondents Who Have Not Visited A Dentist Or Dental Clinic Within The Past 12 Months

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[3]	United States[4]	National Benchmark[a,b]
Total	👍 ☺	2014*	Percent	26.1%	32.0%	32.8%	**51.0%[a]**
Age							**OH-7: Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year.**
18 – 24 Years	👎 ☹	2014*	Percent	36.7%	31.3%	31.7%	
25-34 Years	👍 ☺	2014*	Percent	33.7%	41.8%	39.3%	
35-44 Years	👍 ☺	2014*	Percent	26.7%	33.7%	33.8%	
45 – 54 Years	👍 ☺	2014*	Percent	22.3%	31.6%	31.6%	
55 – 64 Years	👍 ☺	2014*	Percent	19.6%	26.6%	29.8%	
65+ Years	--	2014*	Percent	--	28.3%	35.1%	
Gender							
Male	👍 ☺	2014*	Percent	28.8%	36.2%	36.5%	
Female	👍 ☺	2014*	Percent	23.6%	28.0%	29.6%	
Race							
White/Caucasian	👍 ☺	2014*	Percent	23.2%	29.1%	30.4%	
Black/African American	👍 ☺	2014*	Percent	42.9%	44.8%	43.8%	
Hispanic/Latino	👍 ☺	2014*	Percent	33.5%	36.9%	41.9%	
Non-Hispanic	--	2014*	Percent	25.3%	--	--	
Education							
Less Than High School	👍 ☺	2014*	Percent	49.5%	55.2%	55.5%	
High School Diploma	👍 ☺	2014*	Percent	32.1%	34.9%	38.0%	
Some College	👍 ☺	2014*	Percent	30.1%	31.2%	31.2%	
College Graduate	👍 ☺	2014*	Percent	13.4%	17.4%	19.6%	
Household Income							
Less Than $20,000	--	2014*	Percent	54.3%	--	--	
$20,000 to $34,999	--	2014*	Percent	36.4%	--	--	
$35,000 to $49,999	--	2014*	Percent	21.7%	--	--	
$50,000 to $74,999	--	2014*	Percent	15.6%	--	--	
$75,000 Or More	--	2014*	Percent	6.9%	--	--	

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NA -- National Benchmark was not identified

**Note: The 2014 comparative data is based on 2012 BRFS of Michigan Residents and 2012 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

More than one-quarter of Kent County residents have not seen a dentist or visited a dental clinic in the past 12 months, which is a better rate of oral health care access than rates reported for the State of Michigan and the United States as a whole. Individuals who are least likely to have visited a dentist or received care at a dental clinic in the past 12 months include people between the ages of 18 and 34 years, males, African Americans and Latinos, people with educational attainment of high school or less, and those who have a household income of $34,999 or less.

REFERENCES

1. Healthy People 2020. (2014). *Oral health overview*. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/oral-health
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

BEHAVIORAL RISK FACTORS: KENT COUNTY
BREAST CANCER SCREENING

OVERVIEW: BREAST CANCER SCREENING

Breast cancer is the second leading cause of cancer deaths among United States women. Early detection of breast cancer can occur through the use of screening tools such as mammography and clinical breast exams. Current recommendations from the American Cancer Society indicate that women aged 20-39 years should have a clinical or physical breast exam by a health professional every three years, and women aged 40 years and older should have both a clinical breast exam (CBE) and mammogram annually[4].

Kent County Behavioral Risk Factors: Breast Cancer Screening
Percentage Of Female Respondents Age 40 And Over Who Have Had A Mammogram In The Past Year Or In The Past Two Years

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]		United States[3]		National Benchmark[a,b]	
	Past Year	Two Years			Past Year	Two Years	Past Year	Two Years	Past Year	Two Years	Past Year	Two Years
Total	--	👍 ☺	2014*	Percent	57.8%	76.7%	--	76.6%	--	74.0%	**NA**	**81.1%[a]**
Age											**C-17: Increase the proportion of women who receive a breast cancer screening based on the most recent guidelines.**	
40 – 49 Years	--	👍 ☺	2014*	Percent	51.5%	73.6%	--	68.1%	--	64.8%		
50 – 59 Years	--	👍 ☺	2014*	Percent	61.7%	80.4%	--	78.8%	--	76.9%		
60 – 69 Years	--	👍 ☺	2014*	Percent	68.7%	86.4%	--	81.7%	--	79.2%		
70+ Years	--	👎 ☹	2014*	Percent	52.4%	66.8%	--	79.3%	--	76.9%		
Race												
White/Caucasian	--	👍 ☺	2014*	Percent	58.9%	76.3%	--	76.2%	--	74.1%		
Black/African American	--	👎 ☹	2014*	Percent	55.7%	71.7%	--	77.9%	--	78.3%		
Hispanic/Latino	--	👎 ☹	2014*	Percent	50.5%	68.4%	--	83.9%	--	69.0%		
Non-Hispanic	--	--	2014*	Percent	58.7%	77.9%	--	--	--	--		
Education												
Less Than High School	--	👍 ☺	2014*	Percent	58.0%	70.7%	--	65.1%	--	62.7%		
High School Diploma	--	👍 ☺	2014*	Percent	57.8%	77.6%	--	75.7%	--	73.4%		
Some College	--	👎 ☺	2014*	Percent	56.7%	77.0%	--	77.9%	--	74.7%		
College Graduate	--	👎 ☹	2014*	Percent	58.6%	77.1%	--	80.7%	--	80.7%		
Household Income												
Less Than $20,000	--	--	2014*	Percent	42.9%	71.2%	--	--	--	--		
$20,000 to $34,999	--	--	2014*	Percent	55.7%	70.3%	--	--	--	--		
$35,000 to $49,999	--	--	2014*	Percent	52.3%	74.9%	--	--	--	--		
$50,000 to $74,999	--	--	2014*	Percent	58.5%	75.9%	--	--	--	--		
$75,000 Or More	--	--	2014*	Percent	67.1%	84.3%	--	--	--	--		

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[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

**Note: The 2014 comparative data is based on 2012 BRFS of Michigan Residents and 2012 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

In Kent County, 57.8% of women aged 40 years and older report having had a mammogram in the past year, and 76.7% of women aged 40 years and older report having had a mammogram within the past two years. In comparison to the two-year rates for the State of Michigan and the United States, Kent County has a slightly better breast cancer screening rate. Women in higher income groups, white and non-Hispanic women, and those with a high school diploma or higher are the most likely to receive a mammogram in Kent County. Despite Kent County's relatively good screen rates, the Healthy People 2020 benchmark of an 81.1% screening rate has not yet been achieved.

REFERENCES

1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.
4. American Cancer Society. (2014). *American Cancer Society recommendations for early breast cancer detection in women without breast symptoms.* Retrieved from http://www.cancer.org/cancer/breastcancer/moreinformation/breastcancerearlydetection/breast-cancer-early-detection-acs-recs

BEHAVIORAL RISK FACTORS: KENT COUNTY
CERVICAL CANCER SCREENING

OVERVIEW: CERVICAL CANCER SCREENING

Cervical cancer was once one of the most common causes of cancer death for American women. In the last 30 years, however, the mortality rate associated with cervical cancer has been reduced by more than 50%. The main reason for this significant decrease in death for this disease was the increased use of the Pap test[1]. This screening procedure can help find changes in cervical tissues before cancer develops and can diagnose cancer at much earlier stages, when the condition has a higher rate of treatment success. Current guidelines for cervical cancer screening recommend that Pap testing should begin at 21 years of age and end at 65 years of age, regardless of the age of onset of sexual activity. Pap tests should be performed once every three years[2].

Kent County Behavioral Risk Factors: HPV and Cervical Cancer Screening
Percentage Of Female Respondents 18 Years or Older Who Have Had A Pap Test Within The Last Three Years

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[3]	United States[4]	National Benchmark[a,b]
Total	👎 ☹	2014*	Percent	69.3%	79.5%	77.9%	**93.0%[a]**
Age							**C-15: Increase the proportion of women who receive a cervical cancer screening based on the most recent guidelines.**
18 – 24 Years	👎 ☹	2014*	Percent	33.4%	59.4%	58.7%	
25-34 Years	👍 ☺	2014*	Percent	88.8%	87.2%	88.3%	
35-44 Years	👎 ☹	2014*	Percent	85.2%	91.6%	86.0%	
45 – 54 Years	👎 ☹	2014*	Percent	82.0%	85.1%	83.2%	
55 – 64 Years	👎 ☹	2014*	Percent	68.3%	86.1%	80.6%	
65+ Years	👎 ☹	2014*	Percent	41.3%	62.9%	59.8%	
Race							
White/Caucasian	👎 ☹	2014*	Percent	68.3%	79.1%	77.9%	
Black/African American	👎 ☹	2014*	Percent	75.6%	84.1%	83.5%	
Hispanic/Latino	👎 ☹	2014*	Percent	72.3%	77.7%	76.6%	
Non-Hispanic	--	2014*	Percent	68.8%	--	--	
Education							
Less Than High School	👍 ☺	2014*	Percent	73.5%	67.8%	65.4%	
High School Diploma	👎 ☹	2014*	Percent	60.0%	75.5%	71.7%	
Some College	👎 ☹	2014*	Percent	65.3%	80.4%	77.8%	
College Graduate	👎 ☹	2014*	Percent	78.5%	87.3%	88.0%	
Household Income							
Less Than $20,000	--	2014*	Percent	64.4%	--	--	
$20,000 to $34,999	--	2014*	Percent	67.6%	--	--	
$35,000 to $49,999	--	2014*	Percent	57.6%	--	--	
$50,000 to $74,999	--	2014*	Percent	79.0%	--	--	
$75,000 Or More	--	2014*	Percent	83.5%	--	--	
HPV Screening							
Total	--	2014*	Percent	29.2%	--	--	**NA**

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**Note: The 2014 comparative data is based on 2012 BRFS of Michigan Residents and 2012 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

Only about seven in 10 Kent County women report having received a Pap test according to most current recommendations. This rate of screening for cervical cancer is much lower than both the State of Michigan's and the United States' screening rates. The groups of women most likely to receive a Pap test include women aged 25 to 54 years, African American women, and women in with an annual household income of at least $50,000. In 2014, only about three in 10 Kent County women reported being screened for HPV.

REFERENCES

1. American Cancer Society. (2014). *What are the key statistics about cervical cancer?* Retrieved from http://www.cancer.org/cancer/cervicalcancer/detailedguide/cervical-cancer-key-statistics
2. Centers for Disease Control and Prevention. (2014). *2012 Cervical Cancer Screening Guidelines for Average-Risk Women.* Retrieved from http://www.cdc.gov/cancer/cervical/pdf/guidelines.pdf
3. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
4. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
5. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

BEHAVIORAL RISK FACTORS: KENT COUNTY
COLORECTAL CANCER SCREENING

OVERVIEW: COLORECTAL CANCER SCREENING

Excluding skin cancers, colorectal cancer is the third most common type of cancer diagnosed in both men and women in the United States[1]. Fecal occult blood tests (FOBTs), sigmoidoscopy, and colonoscopy are screening procedures that are performed to detect colorectal cancer in the early stages. Appropriate colorectal cancer screening consists of a FOBT within the past year, sigmoidoscopy within the past five years, and colonoscopy within the past ten years[2].

Kent County Behavioral Risk Factors: Colorectal Cancer Screening
Percentage Of Respondents Age 50 And Over Who Did Not Have A Blood Stool Test Within The Last Two Years, And Percentage Of Respondents Who Had Never Had A Sigmoidoscopy Or A Colonoscopy

Indicator	Status		Time Period	Measure	Kent County[3]		Michigan[4]		United States[5]		National Benchmark[a,b]	
	No BS Test	No Screen			No BS Test	No Screen	No BS Test	No Screen	No BS Test	No Screen	No BS Test	No Screen
Total	👎 ☹	👍 ☺	2014*	Percent	85.5%	24.8%	84.2%	27.3%	85.8%	33.2%	**NA**	**29.5%[a]**
Age											**C-17: Increase the proportion of adults who receive a colorectal cancer screening based on the most recent guidelines.**	
50 – 59 Years	👎 ☹	👍 ☺	2014*	Percent	92.8%	33.3%	88.9%	37.6%	90.2%	45.2%		
60 - 69 Years	👎 ☺	👍 ☺	2014*	Percent	82.8%	19.7%	82.2%	22.1%	84.1%	27.0%		
70+ Years	👍 ☺	👍 ☺	2014*	Percent	79.5%	18.9%	80.4%	19.4%	82.1%	23.2%		
Gender												
Male	👎 ☺	👍 ☺	2014*	Percent	84.4%	21.8%	84.3%	30.0%	85.6%	34.3%		
Female	👎 ☹	👎 ☺	2014*	Percent	86.6%	27.7%	84.2%	25.0%	85.7%	31.7%		
Race												
White/Caucasian	👎 ☹	👍 ☺	2014*	Percent	86.2%	23.8%	84.4%	25.8%	85.9%	30.7%		
Black/African American	👍 ☺	👍 ☺	2014*	Percent	78.6%	27.8%	82.2%	34.7%	83.0%	33.9%		
Hispanic/Latino	👎 ☹	👎 ☹	2014*	Percent	90.6%	63.0%	86.9%	37.0%	87.4%	44.2%		
Non-Hispanic	--	--	2014*	Percent	85.3%	23.9%	--	--	--	--		
Education												
Less Than High School	👍 ☺	👍 ☺	2014*	Percent	77.9%	37.5%	87.4%	41.2%	86.9%	44.3%		
High School Diploma	👎 ☹	👎 ☺	2014*	Percent	85.8%	30.3%	83.5%	29.1%	85.7%	35.8%		
Some College	👎 ☹	👍 ☺	2014*	Percent	87.8%	22.8%	83.2%	25.5%	85.3%	30.7%		
College Graduate	-- ☺	👎 ☺	2014*	Percent	85.1%	20.4%	85.1%	19.9%	85.6%	25.4%		
Household Income												
Less Than $20,000	--	--	2014*	Percent	84.7%	40.0%	--	--	--	--		
$20,000 to $34,999	--	--	2014*	Percent	84.4%	22.8%	--	--	--	--		
$35,000 to $49,999	--	--	2014*	Percent	84.0%	17.1%	--	--	--	--		

Kent County Behavioral Risk Factors: Colorectal Cancer Screening
Percentage Of Respondents Age 50 And Over Who Did Not Have A Blood Stool Test Within The Last Two Years, And Percentage Of Respondents Who Had Never Had A Sigmoidoscopy Or A Colonoscopy

Indicator	Status		Time Period	Measure	Kent County[3]		Michigan[4]		United States[5]		National Benchmark[a,b]	
	No BS Test	No Screen			No BS Test	No Screen	No BS Test	No Screen	No BS Test	No Screen	No BS Test	No Screen
$50,000 to $74,999	--	--	2014*	Percent	89.1%	17.7%	--	--	--	--		
$75,000 Or More	--	--	2014*	Percent	87.9%	19.5%	--	--	--	--		

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**Note: The 2014 comparative data is based on 2012 BRFS of Michigan Residents and 2012 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

Poor screening for colorectal cancers using the blood stool test are persistent at the county, state, and national levels. Less than 20% of people reported having had this test completed within the past two years. The screening rates for colonoscopy and sigmoidoscopy are much better, with only about one in four Kent County residents reporting that they had not ever received one of these screening procedures. Among Kent County residents, females were slightly less likely to have had a colonoscopy or sigmoidoscopy when compared with males. The groups of people most likely to had had one of these tests in their lifetime were whites, non-Hispanics, individuals with at least some college education, and people with an annual household income of at least $35,000.

REFERENCES

1. American Cancer Society. (2014). *What are the key statistics about colorectal cancer?* Retrieved from http://www.cancer.org/cancer/colonandrectumcancer/detailedguide/colorectal-cancer-key-statistics
2. Colorectal Cancer Screening Guidelines, Centers for Disease Control and Prevention http://www.cdc.gov/cancer/colorectal/basic_info/screening/guidelines.htm
3. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
4. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
5. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.
6. Cancer (Healthy People 2020) http://www.healthypeople.gov/2020/topics-objectives/topic/cancer

BEHAVIORAL RISK FACTORS: KENT COUNTY
HIV TESTING

OVERVIEW: HIV TESTING

Human immunodeficiency virus, or HIV, continues to be a public health issue of great concern. Over one million Americans are living with HIV, and nearly one in five do not know they have it. HIV is a preventable disease, and there are interventions that have been proven to reduce HIV transmission. People who get tested for HIV and learn they are HIV positive can make behavior changes to improve their health and reduce the risk of transmitting HIV to their sexual partners or drug-using partners[1].

Kent County Behavioral Risk Factors: HIV Testing
Percentage Of Respondents Who Have Ever Had An HIV Test, Excluding HIV Tests When Donating Blood

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[3]	United States[4]	National Benchmark[a,b]
Total	👎 ☹	2014*	Percent	33.3%	41.2%	35.2%	**73.6%[a]**
Age							**HIV-14.1: Increase the proportion of adolescents and adults who have ever been tested for HIV.**
18 – 24 Years	👎 ☹	2014*	Percent	16.1%	27.0%	31.1%	
25-34 Years	👎 ☹	2014*	Percent	46.3%	53.5%	54.0	
35-44 Years	👎 ☹	2014*	Percent	41.9%	57.2%	52.8	
45 – 54 Years	👎 ☹	2014*	Percent	32.5%	41.7%	38.9	
55 – 64 Years	👎	2014*	Percent	24.5%	27.5%	24.5%	
65+ Years	--	2014*	Percent	--		10.7%	
Gender							
Male	👎 ☹	2014*	Percent	25.9%	37.9%	33.7%	
Female	👎 ☺	2014*	Percent	40.3%	44.4%	36.6%	
Race							
White/Caucasian	👎 ☹	2014*	Percent	29.4%	36.1%	30.7%	
Black/African American	👎 ☺	2014*	Percent	65.3%	71.2%	59.0%	
Hispanic/Latino	👍 ☺	2014*	Percent	48.8%	40.8%	45.5%	
Non-Hispanic	👎	2014*	Percent	31.4%	38.4%	--	
Education							
Less Than High School	👎 ☺	2014*	Percent	38.7%	45.0%	35.0%	
High School Diploma	👎 ☺	2014*	Percent	32.8%	36.8%	29.8%	
Some College	👎 ☹	2014*	Percent	32.4%	41.9%	37.1%	
College Graduate	👎 ☹	2014*	Percent	33.3%	43.7%	37.7%	
Household Income							
Less Than $20,000	👎	2014*	Percent	48.8%	50.7%	--	
$20,000 to $34,999	👎	2014*	Percent	34.5%	44.2%	--	
$35,000 to $49,999	👎	2014*	Percent	30.8%	40.2%	--	
$50,000 to $74,999	👎	2014*	Percent	36.3%	40.7%	--	
$75,000 Or More	👎	2014*	Percent	28.4%	36.5%	--	

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[a] Benchmark is based on Healthy People 2020 Goal.
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NA -- National Benchmark was not identified

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

About one-third of Kent County residents have ever been tested for HIV, which is a lower testing rate than that reported for both the State of Michigan and the United States. Individuals between the ages of 25 and 64 years, females, African Americans and Hispanics, and individuals who have a household income of $34,999 or less are most likely to have been tested at least once in their life for HIV. There is still significant improvement needed in Kent County related to HIV screening to successfully achieve the Healthy People 2020 target of 73.6%.

REFERENCES

1. Healthy People 2020. (2014). *HIV overview*. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/hiv
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

ENVIRONMENTAL HEALTH

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT
COMMUNITY HEALTH STATUS ASSESSMENT

DEFINITION OF CATEGORY

The physical environment directly impacts health and quality of life. Clear air and water, as well as safely prepared food, are essential to physical health. Exposure to environmental substances such as lead or hazardous waste increases risk for preventable disease. Unintentional home, workplace, or recreational injuries affect all age groups and may result in premature disability or death.

Key Topics

- INDOOR/OUTDOOR AIR QUALITY
- WATER QUALITY
- WATERBORNE DISEASES
- FOOD SAFETY
- CHILDHOOD LEAD EXPOSURE
- VECTOR-BORNE DISEASE
- ANIMAL BITES AND RABIES

ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
AIR QUALITY

OVERVIEW: AIR QUALITY

Air pollution comes from many different sources, ranging from factories, to power plants, to vehicles, to volcanic eruptions. Quality of the air people breathes can be affected by these different sources of pollution. The Environmental Protection Agency (EPA) has classified six principle pollutants (also known as "criteria pollutants") that are monitored by the EPA, and national, state, and local organizations. The six categories of principle pollutants include ground-level ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide, and lead[1].

The National Ambient Air Quality Standards (NAAQS) are set by the EPA through regulations outlined by the Clean Air Act. The Act identifies two types of standards: primary and secondary. Primary standards provide public health protections for all people, but particularly for those who are particularly vulnerable to the health effects of poor air quality. Secondary standards provide public welfare protections, meaning protection against low visibility, as well as damage to buildings, animals, crops, or vegetation[2].

EPA National Ambient Air Quality Standards[2]

Pollutant	Type of Protection (Primary, Secondary)	Averaging Time	Level	Form
Carbon Monoxide	Primary	8 hour	9 ppm	Not to be exceeded more than once per year.
		1 hour	35 ppm	
Lead	Primary and Secondary	Rolling 3-month avg.	0.15 μg/m^3	Not to be exceeded.
Nitrogen Dioxide	Primary	1 hour	100 ppb	98th percentile of 1 hour daily maximum concentrations, averaged over three years.
	Primary and Secondary	Annual	53 ppb	Annual mean.
Ozone	Primary and Secondary	8 hour	0.075 ppm	Annual fourth-highest daily maximum 8 hour concentration, averaged over three years.
Particle Pollution				
PM$_{2.5}$	Primary	Annual	12 μg/m^3	Annual mean, averaged over three years.
	Secondary	Annual	15 μg/m^3	Annual mean, averaged over three years.
	Primary and Secondary	24 hour	35 μg/m^3	98th percentile, averaged over three years.
PM$_{10}$	Primary and Secondary	24 hour	150 μg/m^3	Not to be exceeded more than once per year on average, over three years.
Sulfur Dioxide	Primary	1 hour	75 ppb	99th percentile of 1 hour daily maximum concentrations, averaged over three years.
	Secondary	3 hour	0.5 ppm	Not to be exceeded more than once per year.

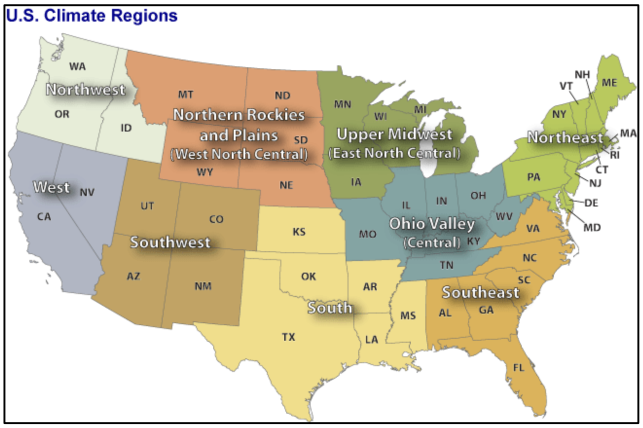
REFERENCES

1. US Environmental Protection Agency. (2014). *Air quality planning and standards*. Retrieved from http://www.epa.gov/airquality/index.html
2. US Environmental Protection Agency. (2014). *National ambient air quality standards*. Retrieved from http://www.epa.gov/air/criteria.html

ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
CARBON MONOXIDE

OVERVIEW: CARBON MONOXIDE

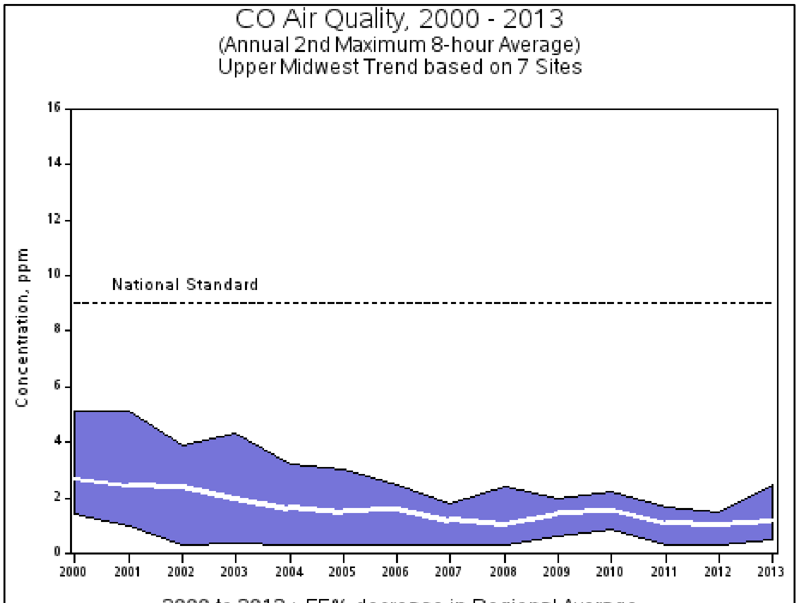
Carbon monoxide is a colorless, odorless gas that is emitted from combustion processes. The majority of carbon monoxide emissions in highly populated areas comes from mobile sources like motor vehicles, airplanes, and other forms of transportation. Carbon monoxide causes reduced delivery of oxygen to key organs within the body, like the heart and brain. This can cause detrimental health effects when people are exposed to elevated carbon monoxide levels. Sometimes even death can occur[1].



Carbon monoxide is one of the EPA's six principle pollutants that must be measured and compared to national standards regularly due to regulations put forth through the Clean Air Act. The national standard set by the EPA through the Clean Air Act for this air quality measure is 9 parts per million (ppm).

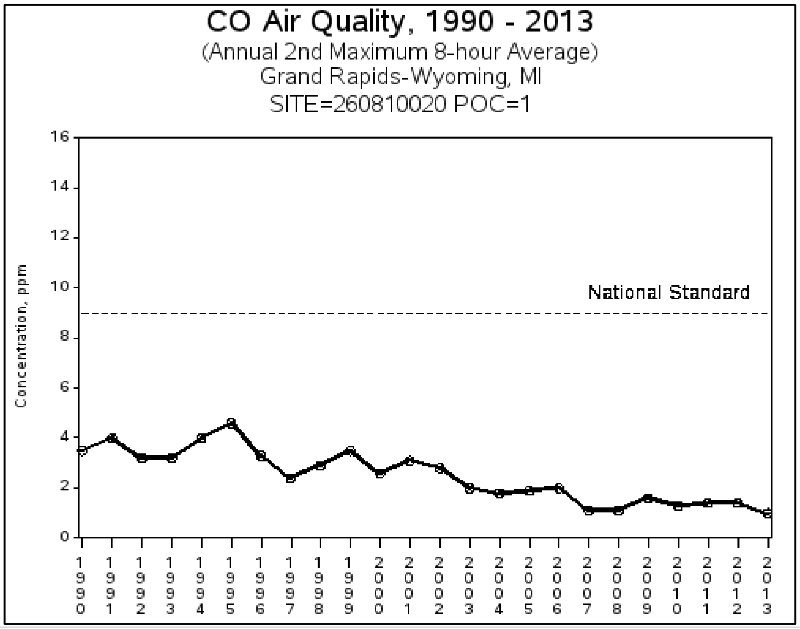
SUMMARY

The top chart shows trend data for the annual maximum 8-hour average readings for carbon monoxide air quality in the Upper Midwest region for the years of 2000 to 2013[2]. This region includes the states of Minnesota, Iowa, Wisconsin, and Michigan. As noted in the chart, the Upper Midwest region has been consistently reporting carbon monoxide levels that meet the national standard for more than a decade. A steady decrease in concentration has been observed during this time period.



2000 to 2013 : 55% decrease in Regional Average

The annual maximum 8-hour average readings for carbon monoxide air quality in the Greater Grand Rapids area for the years of 1990 to 2013[2] are demonstrated in the bottom chart. Similar to the regional data, locally, the Greater Grand Rapids area has regularly reported carbon monoxide concentrations that meet the national standards. The Greater Grand Rapids area has also reported a steady decrease in concentrations for the period of time the chart includes.



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1. US Environmental Protection Agency. (2014). *Carbon monoxide*. Retrieved from http://www.epa.gov/airquality/carbonmonoxide/
2. US Environmental Protection Agency. (2014). *Air trends: Carbon monoxide*. Retrieved from http://www.epa.gov/airtrends/carbon.html#coloc

ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
LEAD IN AIR

OVERVIEW: LEAD IN AIR

Lead is a metal found naturally in the environment, as well as in manufactured goods. Historically, the most common sources of lead emissions come from either motor vehicles, like cars and trucks, or industry. The highest concentrations of lead in the air are usually found near lead smelters. Other sources, such as waste incinerators, utilities, or lead-acid battery manufacturers can also contribute to air pollution[1].

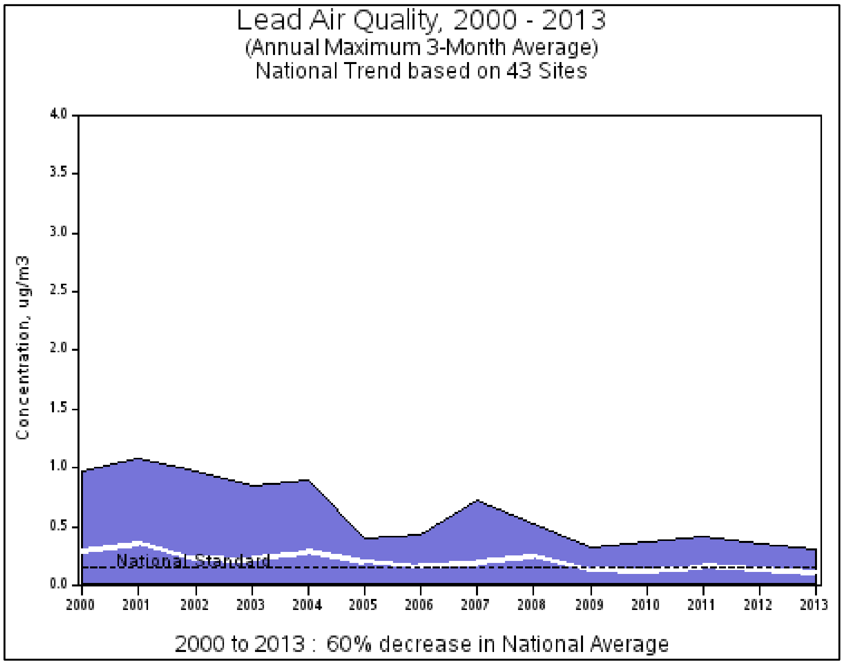
Once lead exposure has occurred and the contaminant enters the body, it is distributed throughout the blood and accumulates in the bones. If the level of exposure is significant, it can lead to negative effects on the nervous system, kidneys, immune system, reproductive and developmental systems, and the cardiovascular system[2]. Children and infants are most at risk, and most sensitive to lead exposure.

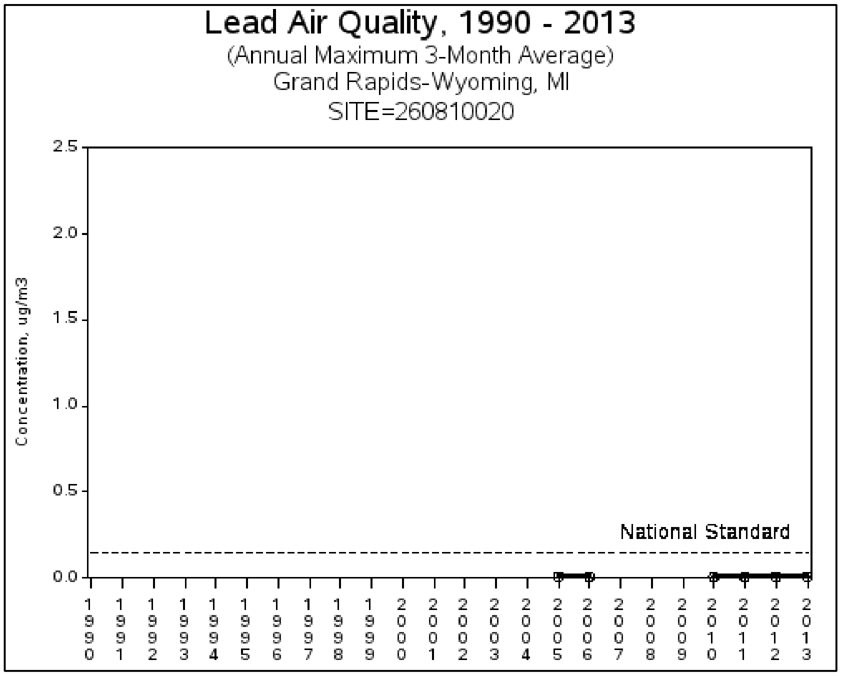
Lead in air is one of the EPA's six principle pollutants that must be measured and compared to national standards regularly due to regulations put forth through the Clean Air Act. The national standard set by the EPA through the Clean Air Act for this air quality measure is 0.15 micrograms per cubic meter of air (µg/m³).

SUMMARY

The top chart shows trend data for the annual maximum three-month average readings for lead in air quality nationally for the years of 2000 to 2013[3]. As noted in the chart, the national levels of lead in air, on average, are not meeting the national standard set by the EPA.

However, based on the data shown in the bottom chart[3], which depicts the annual maximum three-month average readings for lead in air quality locally, the Greater Grand Rapids area is meeting the national standard for this measure.





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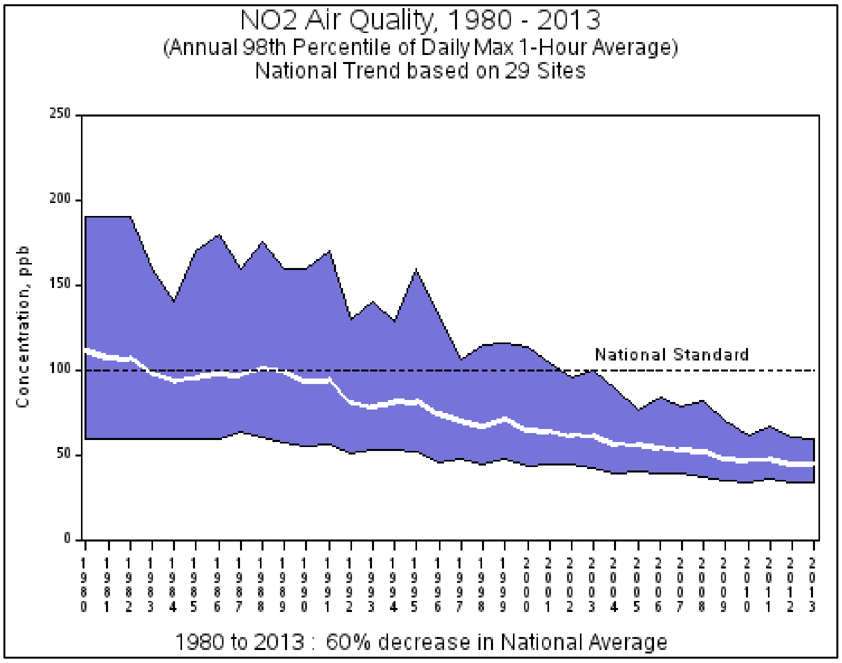
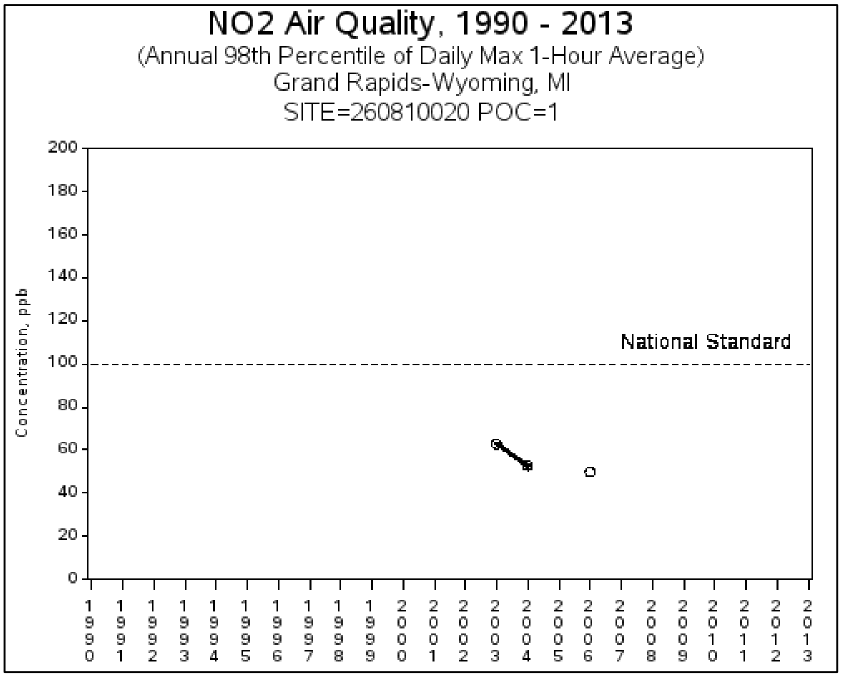
ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
NITROGEN DIOXIDE





OVERVIEW: NITROGEN DIOXIDE

Nitrogen dioxide is one of a group of highly reactive gasses known as “oxides of nitrogen”, or nitrogen oxides. The EPA uses nitrogen dioxide as the indicator for this larger group of nitrogen oxides. This gas forms quickly as the result of emissions from various types of ground transportation vehicles, power plants, and off-road equipment. Nitrogen dioxide aids in the formation of ground-level ozone[1].

Adverse respiratory consequences associated with nitrogen dioxide have been shown after as little as 30 minutes of exposure. It can cause airway inflammation and increased respiratory symptoms in persons with asthma. These effects most frequently impact vulnerable populations like the elderly, children, and asthmatics[2].

Nitrogen dioxide is one of the EPA’s six principle pollutants that must be measured and compared to national standards regularly due to regulations put forth through the Clean Air Act. The national standard set by the EPA through the Clean Air Act for this air quality measure is 100 parts per billion (ppb) per hour, or 53 ppb annually (average).

SUMMARY

Unfortunately, the Upper Midwest Region, which includes data for Michigan reporting on this indicator, is unavailable at this time. However, the top chart on this page illustrates national data for the daily maximum one-hour averages of nitrogen dioxide concentrations for the years between 1980 and 2013[3]. It appears that for about the past decade, the nationally-reported average concentrations for nitrogen dioxide have been meeting the national standard.

Locally, the only data available through the EPA for nitrogen dioxide concentrations are for the years of 2002 to 2003, and 2006. Each of these data points illustrate the Greater Grand Rapids area’s achievement of the national standard for nitrogen dioxide concentrations as measured through one-hour averages[3].

REFERENCES

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2. US Environmental Protection Agency. (2014). *Nitrogen dioxide: Health*. Retrieved from http://www.epa.gov/airquality/nitrogenoxides/health.html
3. US Environmental Protection Agency. (2014). *Air trends: Nitrogen dioxide*. Retrieved from http://www.epa.gov/airtrends/nitrogen.html

ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
OZONE

OVERVIEW: GROUND-LEVEL OZONE

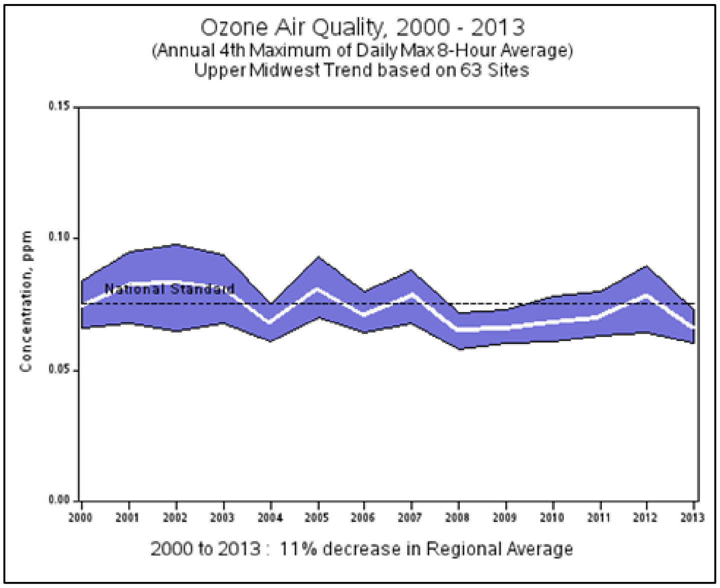
Ozone is a pollutant that occurs in two different layers within our atmosphere. It is found in the stratosphere where it protects the earth from UV light, but it is also found at the ground level (the troposphere) where it can be harmful to human health and the environment. The main component of ground-level ozone is "smog," which is produced from the action of sunlight on contaminates in the air from automotive emissions, power plants, and cleaning solutions. Other sources of ground ozone are combustion from power plants, gas vapors, biogenic emissions, and chemical solvents[1].

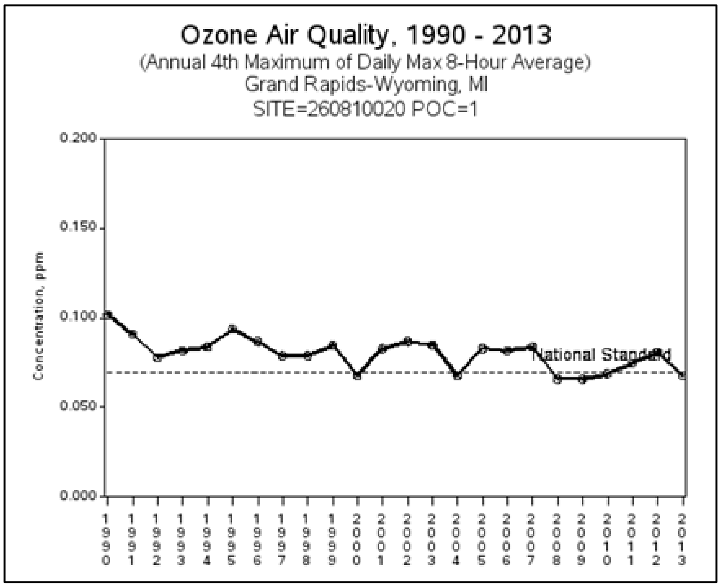
All levels of ozone exposure can be harmful to human health and children, people with lung disease, the elderly, and people who spend a lot of time outdoors are the most sensitive to ozone. Breathing ozone can trigger numerous health issues, including chest pain, throat irritation and congestion. It has been shown to worsen bronchitis, emphysema, and asthma. Repeated exposure can permanently scar lung tissue[2].

Ground-level ozone is one of the EPA's six principle pollutants that must be measured and compared to national standards regularly due to regulations put forth through the Clean Air Act. The national standard set by the EPA through the Clean Air Act for this air quality measure is 0.075 parts per million (ppm) per 8 hours (average).

SUMMARY

The top chart shows trend data for the annual maximum 8-hour average readings for ozone air quality in the Upper Midwest region for the years of 2000 to 2013[3]. This region includes the states of Minnesota, Iowa, Wisconsin, and Michigan. As noted in the chart, the Upper Midwest region has reported ground-level ozone levels that are consistently close to meeting the national standard set by the EPA, though there is fluctuation from year to year.





Locally, a similar trend is reported. Since 2008, the Greater Grand Rapids area has been fairly consistent in meeting the national standard set by the EPA. Ozone air quality readings for the years of 2011 and 2012 were slightly higher than the national standard, but the 2013 level showed improvement and achievement of the standard.

REFERENCES

1. Department of Environmental Quality (DEQ). *2012 Annual Air Quality Report Michigan*. Retrieved from http://www.michigan.gov/documents/deq/DEQ-AQD-AMU-AnnualAirQualityReport-2013_428972_7.pdf
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ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
PARTICULATE MATTER 2.5

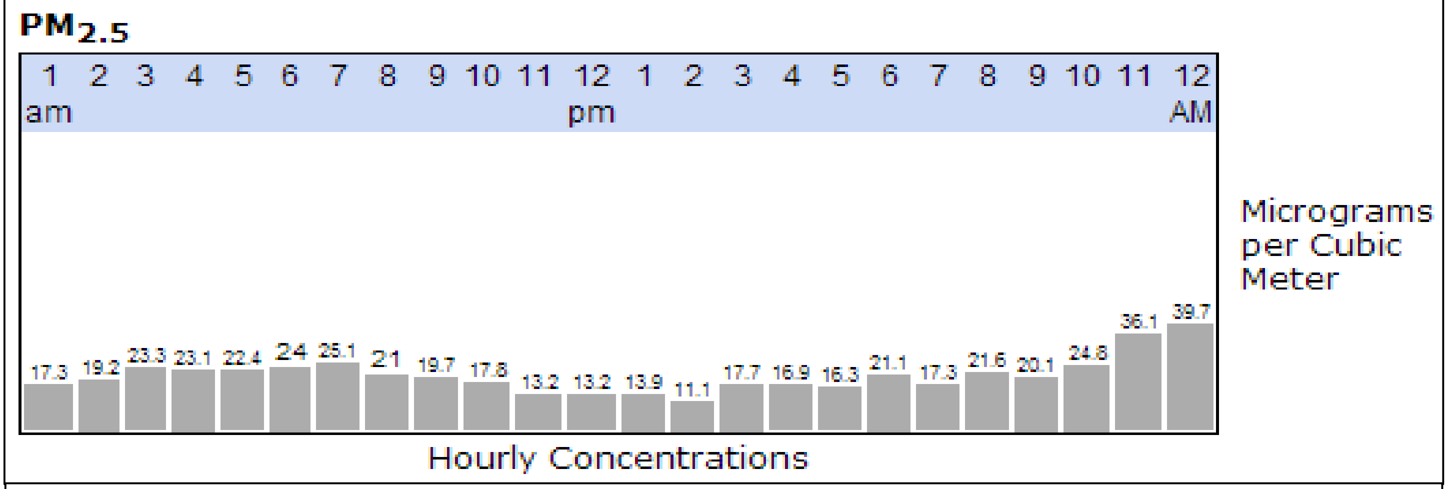
OVERVIEW: PARTICULATE MATTER 2.5

$PM_{2.5}$ is defined in two ways. First, as fine particles that can be viewed as 'primary', which are emitted directly from a source such as construction sites, unpaved roads, fields, smokestacks, or fires[6]. Secondary particulate matter occurs when there are reactions in the atmosphere between chemicals, such as sulfur dioxins and nitrogen oxides, which are emitted from power plants or automobiles[6]. Levels of $PM_{2.5}$ in the air are increased during times of when the air is stagnant because the wind usually carries the particulate matter away from its source.

Elevated levels of $PM_{2.5}$ can cause short and long-term health issues. Some of these issues include increased risk of heart attack, stroke, respiratory issues, emergency room visits, increased lung cancer mortality, increased cardiopulmonary mortality, and death from other conditions[2,3]. Increased hospitalizations for asthma attacks, slowed lung function and growth in children, and damage to small airways of the lungs are yet more health issues associated with long-term $PM_{2.5}$ exposure[5].

Short-term exposure to elevated levels of $PM_{2.5}$ has been linked to an increased risk in mortality, too. Diminished lung function can be a symptom of exposure to particulate matter short-term, causing greater use of asthma medication, increased absenteeism in schools, increased hospitalization, and increased emergency room visits[5].

$PM_{2.5}$ levels in Kent County, MI on July 20th, 2014 compared to the State of Michigan and National Benchmarks	
Kent County $PM_{2.5}$ Level[1]	22 μg/m^3(24-hour average)
State Benchmark	<35 μg/m^3 (24-hour average)
National Benchmark	<35 μg/m^3 (24-hour average)
Note: July 20th, 2014 was selected as an example to show the levels of $PM_{2.5}$ in the air.	



The bar graph above is an example of the hourly $PM_{2.5}$ levels on July 20th, 2014. $PM_{2.5}$ levels reached a maximum of 39.7 μg/m^3.

98th Percentile Of $PM_{2.5}$ Values, 3-Year Averages[1]						
Location	**Timeframe**					
	2006-2008	*2007-2009*	*2008-2010*	*2009-2011*	*2010-2012*	*2011-2013*
Grand Rapids	29 μg/m^3	28 μg/m^3	26 μg/m^3	26 μg/m^3	24 μg/m^3	22 μg/m^3
This table illustrates the three-year averages of the highest 2% of $PM_{2.5}$ levels between 2006-2013.Typically, Grand Rapids is meeting the 24-hour national standard of $PM_{2.5}$ standard which is <35 μg/m^3. In order to attain the current daily standard, the three year average of the 98th percentile of 24-hour concentrations at each monitoring station must not exceed 35μg/m^3.						

SUMMARY

Kent County is typically reporting $PM_{2.5}$ levels that are within the acceptable air quality standards, as prescribed by the EPA. Since 2006, the City of Grand Rapids has been within the acceptable air quality standards when considering the three-year averages, as shown in the table entitled "*98th Percentile of $PM_{2.5}$ Values, 3-Year Averages*", located on the previous page.

Though Kent County and Grand Rapids are performing well on this particular measure, there is the potential for air quality to fall below acceptable standards. When this occurs, Clean Air Action Days are issued. In response to Clean Air Action Days, individuals and families are asked to take actions to reduce the vehicle-related emissions, like biking or walking to work or school.

REFERENCES

1. Department of Environmental Quality. (2012). *Annual air quality report: Michigan*. Retrieved from http://www.michigan.gov/documents/deq/DEQ-AQD-AMU-AnnualAirQualityReport-2013_428972_7.pdf
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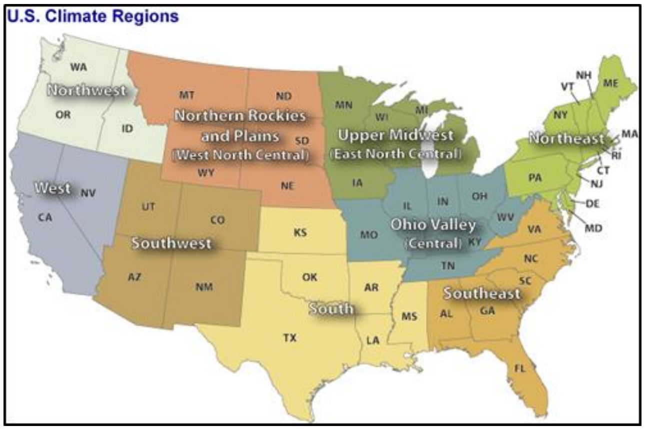
ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
SULFUR DIOXIDE

OVERVIEW: SULFUR DIOXIDE

Sulfur dioxide is one of a group of highly reactive gasses known as "oxides of sulfur". Fossil fuel combustion plants and other industrial facilities are the largest source of sulfur dioxide emissions[1]. Research has shown that negative health effects can be experienced by people in as little as five minutes of exposure to sulfur dioxide. Many of these health issues are associated with the respiratory system, such as constriction of the bronchus and increased asthma symptoms. Increased hospital admissions and visits to the emergency department for respiratory problems are also associated with exposure to sulfur dioxide in the air, especially among at-risk populations like the elderly, children, and asthmatics[2].

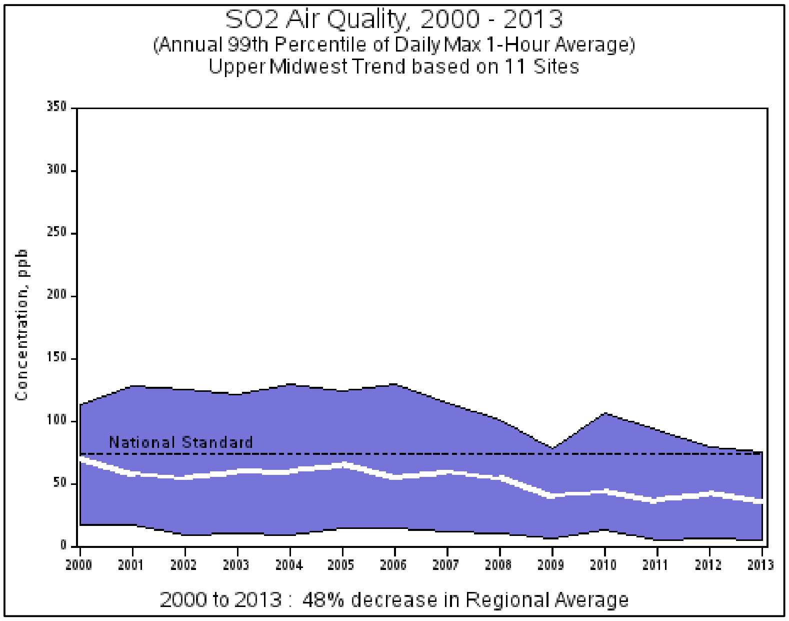


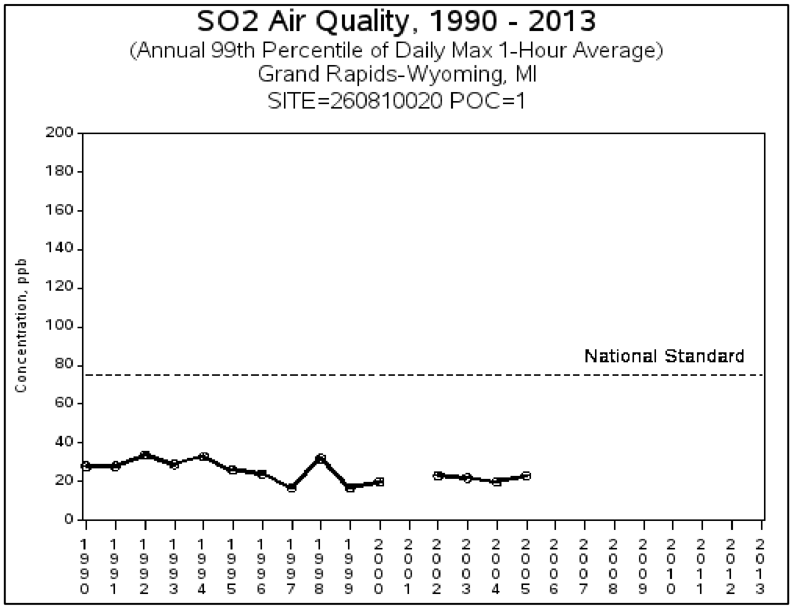
Sulfur dioxide is one of the EPA's six principle pollutants that must be measured and compared to national standards regularly due to regulations put forth through the Clean Air Act. The national standard set by the EPA through the Clean Air Act for this air quality measure is 75 parts per billion (ppb) per hour, or 0.5 ppb per three hours.

SUMMARY

The top chart on this page illustrates data for the Upper Midwest Region for the daily maximum one-hour averages of sulfur dioxide concentrations for the years between 2000 and 2013[3]. The average readings (white line) have consistently met the national standard since 2000.

Locally, the only data available through the EPA for nitrogen dioxide concentrations are for the years of 1990 to 2000, and 2002 to 2005. Each of these data points illustrate the Greater Grand Rapids area's achievement of the national standard for nitrogen dioxide concentrations as measured through one-hour averages[3].





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2. US Environmental Protection Agency. (2014). *Sulfur dioxide: Health*. Retrieved from http://www.epa.gov/airquality/sulfurdioxide/health.html
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ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
WATER QUALITY

OVERVIEW: WATER QUALITY

Water is essential for life. It plays a vital role in how the Earth's ecosystems work. Pollution of water has a serious impact on all forms of life, and can negatively impact the quality of drinking water and water used for other household needs. Polluted water can also negatively impact recreation, fishing, transportation, and commerce[1]. Many diseases and health conditions can be caused by consumption of contaminated water.

The US Environmental Protection Agency (EPA) focuses on quality of two major categories of water – surface water and ground water. The surface water category includes bodies of water that are found above the earth's surface, such as lakes, rivers, and streams[1]. Ground water is found below the earth's surface. This is the water source accessed when people use a private well[1].

The Safe Drinking Water Act requires the EPA to set limits on the levels of certain contaminants found in public drinking water supplies. These limits reflect levels that address both safety of human consumption, as well as the level that water purification systems are able to achieve with available technologies[2]. In addition to the acceptable levels, the EPA also regulates water-testing schedules, methods for testing, and rules for treating contaminated water. The categories of contaminants are microorganisms, disinfectants, disinfection byproducts, inorganic chemicals, organic chemicals, and radionuclides[3].

REFERENCES

1. US Environmental Protection Agency. (2014). *Water resources*. Retrieved from http://www2.epa.gov/learn-issues/water-resources
2. US Environmental Protection Agency. (2014). *Water: Safe drinking water act, current drinking water regulations*. Retrieved from http://water.epa.gov/lawsregs/rulesregs/sdwa/currentregulations.cfm
3. US Environmental Protection Agency. (2014). *Water: Drinking water contaminants, national primary drinking water regulations*. Retrieved from http://water.epa.gov/drink/contaminants/index.cfm

ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
SURFACE WATER

OVERVIEW: SURFACE WATER

Surface water sources, like lakes, streams, and rivers, are tested for contaminants and compared against federal standards per the United States Clean Water Act to determine water quality[1]. Poor water quality can be caused naturally or through human practices. For example, natural impairments can be caused by animals and major storm events. Many human activities such as agriculture, development, industrial processes, fossil fuel combustion, and ageing and outdated waste and storm water practices are key contributors effecting surface water quality[2].

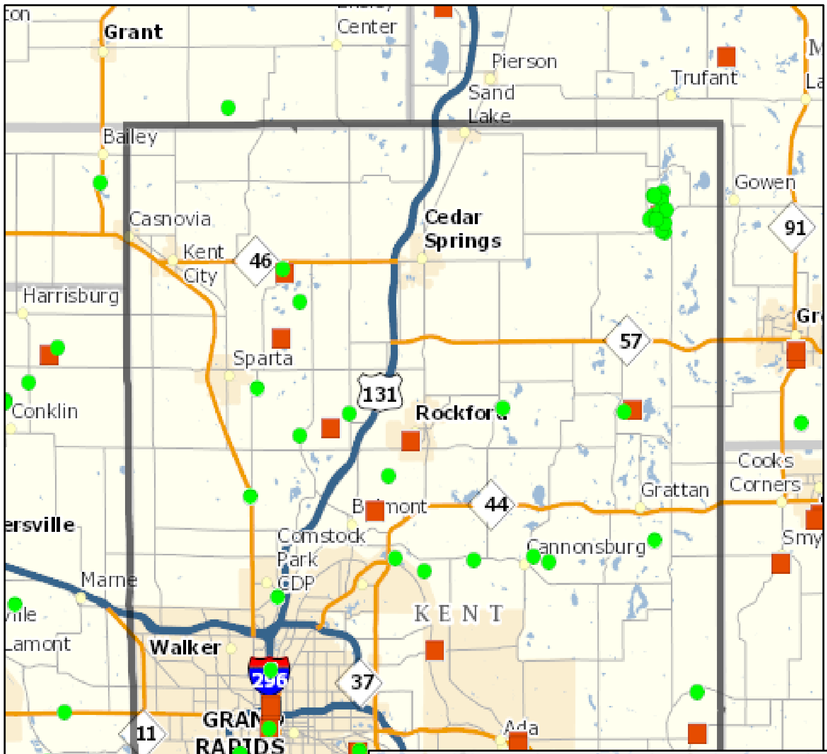
Water impairment can have a variety of health concerns because there are many different ways the water can be polluted. For example, impaired water way could be due to a biological, nutrient, or sediment. Biological impairments can occur when bacterial or viral pathogens are in the water supply such as E Coli. Nutrient impairment occurs when phosphorous or nitrogen is in excess in the water. The excess of nutrients can lead to the development of toxic algae. Sediment impairment can occur when mercury or polychlorinated biphenyls (PCBs) are found to be in excess in the sediment or water column.

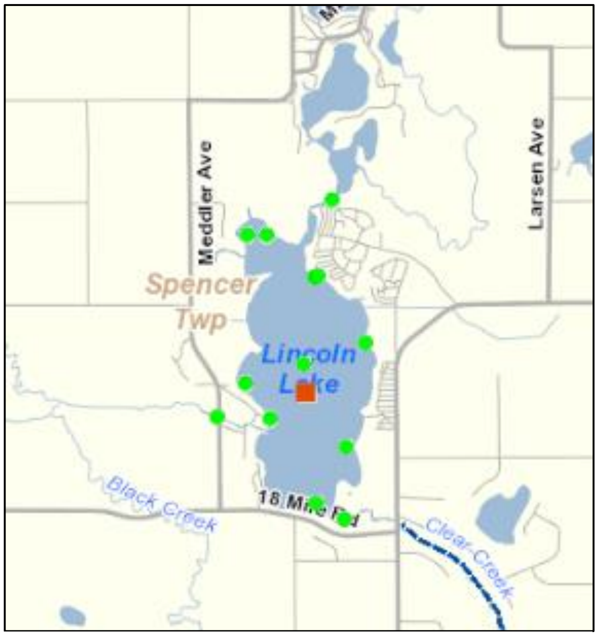
The health concerns associated with each type of impairment can vary. For example, human exposure to toxic algae from accidental drinking or swimming is related to serious health issues such as a rash, respiratory problems, neurological effects, and stomach or liver issues[6]. Individuals who come into contact with elevated levels of E.coli can experience abdominal cramps, diarrhea, and kidney problems can occur in children less than 5 years old[8]. Lastly, elevated levels of PCBs in the water column can lead to hearing issues, vision issues, changes in liver function, and irritation of the nose, throat and gastrointestinal tract[9]. It also has been shown to increase the likelihood of developing cancer[9].

Common Water Impairment In West Michigan	Cause Of Impairment	Potential Health Effects	Ways To Remove Impairment
PCB in the Water Column[9]	Atmospheric Deposition	Hearing/Vision Issues, Irritation To Nose, Throat, And Gastrointestinal Tracts, Changes In Liver Function	Dredging In Lakes And Rivers With High Amounts Of PCB In Sediment. Identify The Source To Prevent Pollution From Atmospheric Deposition.
E.Coli[8]	Storm Water Runoff, Contamination From Wastewater Treatment Plants, Failing Septic Systems	Abdominal Cramps, Diarrhea	Proper Treatment Of Wastewater With UV-Light, Chlorine Or Ozone. Improved Waste And Storm Water Infrastructure. Utilization Of Agricultural Best Practices.

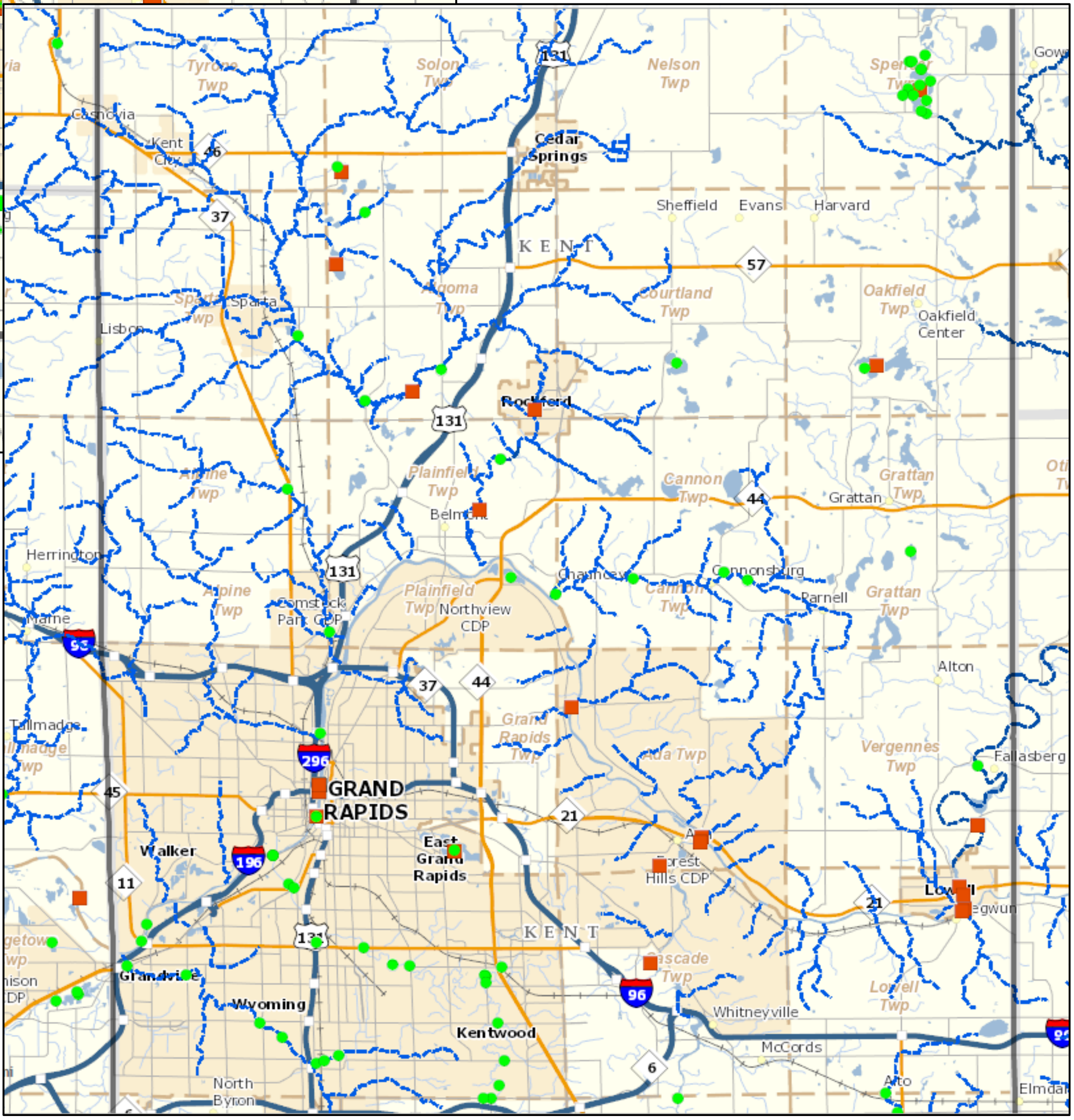
SUMMARY

Water testing by the Michigan Department of Environmental Quality and Department of Natural Resources identifies water quality issues pertaining to contamination, and reports them using mapping tools, such as those provided on the following page. It appears that water contamination with E coli and reports of contaminated fish are not contained to one geographical area of Kent County, though certain bodies of water have more reports of such contamination than others. For example, in Spencer Township, located in northeastern Kent County, multiple reports of E coli contamination and one report of contaminated fish were recorded for a singular body of water (Lincoln Lake), as shown on the maps. The Flat River in the Lowell area had several reports of contaminated fish, while the Grand River which runs through much of Kent County, had multiple contamination reports in the section of the river that runs through the City of Grand Rapids and the south western part of Kent County.





Maps: (top) Spencer Township and contamination reports for Lincoln Lake[6].



Maps: (top) Beach and river E. coli (green dots) and fish contaminant (orange squares) reports in Kent County, accessed March 12, 2015[6]. (right) Beach and river E. coli (green dots) and fish contaminant (orange squares) reports in Kent County cold water streams and natural rivers, accessed March 12, 2015[6].

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ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY GROUNDWATER

OVERVIEW: GROUND WATER

Groundwater is a vital finite resource that is essential for the health and prosperity of communities. Many commercial businesses, industry, agriculture, as well as residents, are 100% percent reliant on groundwater as a primary source of process, irrigation, and drinking water. Groundwater also is vitally important to the sustainability of ecosystems such as wetlands, streams, and lakes that are dependent on it. As the population growth of Kent County continues to push residents from areas with municipal provided water supplies, greater stress will continue to be placed on the county's groundwater supply. There are areas within Kent County that have low yield wells that may not be sustainable in the long term. Excessive withdrawal of the groundwater in Kent County decreases the long term sustainability and availability for public and private water supplies.

SUMMARY

Water Wells

Within Kent County, there are various water well types that are permitted by county officials. A few of the commonly permitted well types include: residential private; Type II non-community, irrigation, dewatering, geothermal, and test wells. From 2009 – 2014, 3,875 water wells constructions permits were issued by the Kent County Health Department. During this same period, an average of 775 wells were issued permits per year[1].

Non-Community Water Supplies

A non-community water supply is a water system that provides water for drinking or potable purposes to 25 or more persons at least 60 days per year or has 15 or more service connections[2]. Michigan is home to nearly 10,000 non-community water supply systems, which includes schools, restaurants, motels, campgrounds, and churches. At this time, officials monitor 338 active non-community water supplies operating within Kent County. In 2014, 99% of non-community water supplies met for drinking water standards compliance and water quality monitoring requirements set through the Michigan Safe Drinking Water Act[1].

Private Residential Water Supplies

Private water well owners are responsible for monitoring their own drinking water supply. The Kent County Health Department offers water sampling test kits and a service for testing water quality for these individuals. Private water well owners should monitor their water supplies annually and safe guard it from damage or contamination.

Water Quality: Impacts of Onsite Wastewater Systems

When municipal sewage systems are not available, homes and business are reliant on onsite wastewater systems (OWS), commonly known as septic systems, to treat their waste. OWSs are widely used throughout the county. Unmaintained or failing OWSs threaten human health not only by contaminating groundwater supplies, but surface water, as well. Over the course of 2014, there were 341 properties identified as having a failing septic system. A failing septic system is capable of discharging 54,750 gallons of untreated waste per year into the environment if not repaired. With the identification of these failing septic systems, 18,669,750 gallons of discharging untreated sewage waste per year was eliminated.

REFERENCES

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2. Michigan Department of Environmental Quality. (2015). *Noncommunity water supply*. Retrieved from http://www.michigan.gov/deq/0,4561,7-135-3313_3675_3692---,00.html

ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
WATERBORNE DISEASES

OVERVIEW: WATERBORNE DISEASES

Waterborne diseases can be transmitted to humans through ingestion of contaminated drinking water or exposure to disease-contaminated waters through recreational activities, like swimming and fishing. Though these types of disease outbreaks are rare in the United States, they do still occur and can lead to serious acute, chronic, and sometimes fatal health consequences[1]. The most common causes of drinking water-related outbreaks are giardia, legionella, shigella, norovirus, and campylobacter[2]. Recreational water-related outbreaks are most commonly caused by cryptosporidium, pseudomonas, shigella, legionella, and norovirus[3]. The table below describes the disease and health-related issues associated with each.

Most Frequently Reported Waterborne Diseases[2,3]

Organism Name	Description	Associated Health Issues	Type of Water Exposure
Giardia[4]	Giardia is a microscopic parasite that causes diarrheal illness called giardiasis.	Signs and symptoms can last for more than two weeks. Acute symptoms include diarrhea, gas, greasy stools, stomach or abdominal cramps, upset stomach or nausea/vomiting, and dehydration.	Drinking water and recreational water
Legionella[5]	Legionella is a bacterium that causes conditions called legionnaires' disease and Pontiac Fever.	Legionella causes a type of pneumonia. It can usually be treated successfully with antibiotics, but is sometimes fatal.	Drinking water and recreational water
Shigella[6]	Shigella is a bacterium that causes a condition called shigellosis.	People infected with shigella often develop diarrhea, fever, and stomach cramps a day or two after they are exposed to the bacteria.	Drinking water and recreational water
Norovirus[7]	Norovirus is a very contagious virus that can infect anyone.	Norovirus causes inflammation of the intestines and stomach. This leads to stomach pain, nausea, diarrhea, and vomiting. These symptoms can be serious, especially for at-risk populations.	Drinking water and recreational water
Campylobacter[8]	Campylobacter is a bacterial disease that typically lasts about a week.	People infected with campylobacter become ill with diarrhea, cramping, abdominal pain, and fever within a few days of exposure. Some infected persons do not develop symptoms, while others can develop a dangerous blood infection that can be life threatening.	Drinking water and recreational water
Cryptosporidium[9]	Cryptosporidium is a microscopic parasite that causes the diarrheal disease called cryptosporidiosis.	Signs and symptoms generally begin two to 10 days after being infected with the parasite. The most common symptom is watery diarrhea, but other symptoms can include stomach cramps or pain, dehydration, nausea, vomiting, fever, and weight loss. Some people do not develop symptoms	Drinking water and recreational water
Pseudomonas[10]	Pseudomonas are also called "hot tub rash" and are a skin rash caused by the organism *Pseudomonas aeruginosa*.	This is an infection of the skin. Symptoms can include itchy spots on the skin that become a bumpy red rash, as well as pus-filled blisters around hair follicles.	Recreational Water

SUMMARY

The table below illustrates the number of waterborne disease cases reported for the State of Michigan and Kent County in 2013. Kent County reported 100 cases of giardia, 11 cases of legionella, 6 cases of shigella, 22 cases of norovirus, 74 cases of campylobacter, and 231 cases of cryptosporidium. Cases of pseudomonas are not a required reportable condition in Michigan, so there is no available data on this common waterborne condition. Of all reported waterborne disease cases, Kent County had a higher proportion of giardia (44.6%) cases than the State of Michigan (20.7%).

Kent County Environmental Characteristics: Cases of Common Waterborne Diseases

	Status	Time Period	Measure	Kent County[11]	Michigan[12]	National Benchmark[a,b]
Giardia	--	2013	Total number of cases	100	524	**NA**
	--	2013	% of total waterborne cases	44.6%	20.7%	**NA**
Legionella	--	2013	Total number of cases	11	272	**NA**
	--	2013	% of total waterborne cases	4.9%	10.8%	**NA**
Shigella	--	2013	Total number of cases	6	159	**NA**
	--	2013	% of total waterborne cases	2.7%	6.3%	**NA**
Norovirus	--	2013	Total number of cases	22	238	**NA**
	--	2013	% of total waterborne cases	9.8%	9.4%	**NA**
Campylobacter	--	2013	Total number of cases	74	1102	**NA**
	--	2013	% of total waterborne cases	33.0%	43.6%	**NA**
Cryptosporidium	--	2013	Total number of cases	11	231	**NA**
	--	2013	% of total waterborne cases	4.9%	9.1%	**NA**
Pseudomonas	--	2013	Total number of cases	-	-	**NA**
	--	2013	% of total waterborne cases	-	-	**NA**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

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ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
FOOD SAFETY

OVERVIEW: FOOD SAFETY

Foodborne illness is a common, costly, but preventable public health problem. Each year, one in every six Americans contracts a foodborne illness by consuming contaminated foods or beverages, and 3,000 people die from foodborne illness[4]. There are many different types of foodborne diseases, and they can be caused by many different types of pathogens, such as bacteria, viruses, and parasites. The most common types of foodborne pathogens that cause illness in the United States include campylobacter, E. coli O157, listeria, salmonella, vibrio, norovirus, and toxoplasma[5].

Kent County Environmental Characteristics: Common Foodborne Illnesses

	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Campylobacter	👎 ☺	2013*	Cases per 100,000 population per year	12.0	11.0	14.2	**8.5**[a]
E. coli (STEC) O157	👎 ☹	2013*	Cases per 100,000 population per year	2.2	1.6	1.1	**0.6**[a]
Listeria	👍 ☺	2013*	Cases per 100,000 population per year	0.0	0.1	0.3	**0.2**[a]
Salmonella	👎 ☺	2013*	Cases per 100,000 population per year	10.0	9.5	16.4	**11.4**[a]
Yersinia enteritis	👎	2013*	Cases per 100,000 population per year	0.3	0.2	0.3	**0.3**[a]
Norovirus	👎	2013	Cases per 100,000 population per year	3.7	2.4	--	**--**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.
**Note: The 2013 comparative data is based on 2012 HP2020 Objective Data.*

SUMMARY

Kent County's most commonly reported foodborne illnesses are campylobacter (12.0/100,000), salmonella (10.0/100,000), and norovirus (3.7/100,000). In 2013, Kent County had higher rates of these three illnesses than the State of Michigan. In regard to Healthy People 2020 targets, Kent County has not yet achieved the national benchmark for campylobacter cases, but has achieved the benchmark set for salmonella cases.

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2. Michigan Department of Community Health. (2014). *Michigan disease surveillance system (MDSS)*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2945_5104_31274---,00.html
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ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
CHILDHOOD LEAD EXPOSURE

OVERVIEW: CHILDHOOD LEAD EXPOSURE

There are millions of children in the United States that are living in homes that expose them to high levels of lead. When children are exposed to lead in their homes, there are not typically observable symptoms, so the exposure often goes unnoticed. Unfortunately, childhood exposure to lead can affect nearly every system in the body and to date, research has not identified a safe blood lead level (BLL) in children[1]. Even low levels of lead in a child's blood have been shown to affect IQ, ability to pay attention, and academic achievement. The negative effects of lead exposure cannot be reversed[2].

Children can be given a blood test to measure the level of lead in their blood. Children living in high-risk homes should be tested for lead at one and two years of age. The Centers for Disease Control and Prevention lowered the "reference value" for blood lead levels from 10 ug/dL to 5 ug/dL in 2012[3]. The "reference value" is the level at which evaluation and intervention for lead are recommended.

Kent County Environmental Health Characteristics: Childhood Lead Testing and Confirmed Elevated BLL[4]

	Measure	2013		2012		2011	
		Kent County	Michigan	Kent County	Michigan	Kent County	Michigan
Children Tested for Elevated BLL							
Less than 6 Years Old							
% Pre-1950 Housing	Percent	24.8%	24.7%	24.8%	24.7%	24.8%	24.7%
% Pre-1978 Housing	Percent	59.2%	64.8%	59.2%	64.8%	--	--
One and Two Years Old							
% Pre-1950 Housing	Percent	24.8%	24.7%	24.8%	24.7%	24.8%	24.7%
% Pre-1978 Housing	Percent	59.2%	64.8%	59.2%	64.8%	--	--
Children Tested and Confirmed Elevated BLL							
Less than 6 Years Old							
Confirmed BLL greater than or equal to 5 ug/dL	Percent	5.3%	3.9%	6.2%	4.5%	6.5%	5.0%
Confirmed BLL greater than or equal to 10 ug/dL	Percent	0.5%	0.4%	0.4%	0.5%	0.6%	0.6%
One and Two Years Old							
Confirmed BLL greater than or equal to 5 ug/dL	Percent	5.2%	4%	6.3%	4.8%	6.3%	5.1%
Confirmed BLL greater than or equal to 10 ug/dL	Percent	0.5%	0.5%	0.3%	0.5%	0.6%	0.6%

SUMMARY

In 2013, almost 60% of children tested for elevated blood lead levels (BLL) in Kent County lived in housing that was constructed before 1978, which is the year lead-based paint was banned for use in the United States. Of these children, about 5% were confirmed to have BLLs greater than or equal to 5 ug/dL. It is children who have these types of test results that are prioritized for intervention to prevent further health consequences that could be perpetrated by lead exposure.

The rate of confirmed BLLs greater than or equal to 5 ug/dL for Kent County was slightly higher than the rate reported for the State of Michigan.

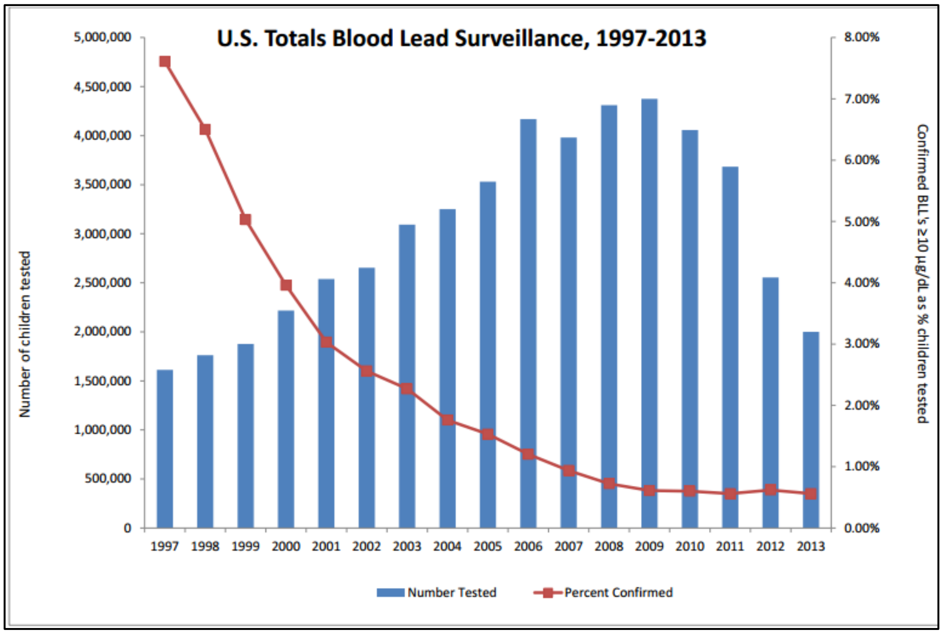

Chart courtesy of Centers for Disease Control and Prevention, 2013[5].

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ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
VECTOR-BORNE DISEASES

INTRODUCTION: VECTOR-BORNE DISEASES

Vector-borne diseases are some of the most complex infectious diseases to prevent and control. These types of conditions are caused by organisms that transmit pathogens and parasites from one infected person or animal to another, causing diseases to spread[1]. The organisms most often responsible for the transmission of vector-borne diseases are mosquitos, fleas, and ticks[2]. In Michigan, the vector-borne diseases of greatest concern include West Nile Virus and Lyme disease.

Vector-borne disease transmission is preventable. Reducing exposure to mosquitos and ticks is the best defense against these types of illnesses.

SUMMARY

Vector-borne disease transmission is a major concern within Kent. In 2012, Kent County had the second-highest number of West Nile Virus (WNV) cases in Michigan. As a result, Kent County officials implemented a surveillance program to monitor activity and identify surges in disease so they could be quickly mediated. This is a disease that continues to be monitored annually and its transmission is connected to weather patterns. The Michigan Department of Community Health identifies Kent County as a community endemic with both WNV and Lyme disease. In 2013, there were less than three confirmed locally contracted cases of Lyme disease in Kent County[10].

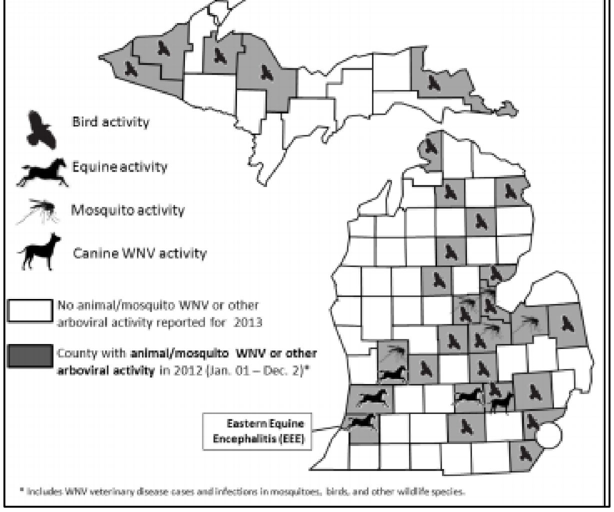
Definitions of Common Vector-borne Disease in Michigan and Kent County

	Lyme Disease[3,4]	West Nile Virus[5,6]
Transmission	Lyme disease is caused by the bacterium, *Borrelia burgdorferi* and is spread through the bite of infected ticks. The blacklegged tick, or deer tick, spreads the disease in Michigan.	West Nile Virus is commonly transmitted to humans by mosquitos.
Signs and Symptoms	Symptoms associated with Lyme disease vary based on length of time post-exposure. Early signs include red, expanding rash, fatigue, chills, fever, headache, muscle and joint aches, and swollen lymph nodes. As time goes on, symptoms can expand to include loss of muscle tone on one or both sides of the face (Bell's Palsy), severe headaches and stiffness of the neck, pain and swelling in large joints, shooting pains that interfere with sleep, and heart palpitations/ dizziness. If Lyme disease goes untreated for long periods of time, infected persons can experience arthritic symptoms, as well.	Most people who become infected with West Nile Virus do not develop symptoms. About one in five who contracted the disease will develop febrile illness, which includes fever, headache, body ache, joint pain, vomiting, diarrhea, or rash. Less than 1% of infected persons will develop severe neurological illness like encephalitis or meningitis.

Kent County Environmental Characteristics: Cases of Vector-borne Disease

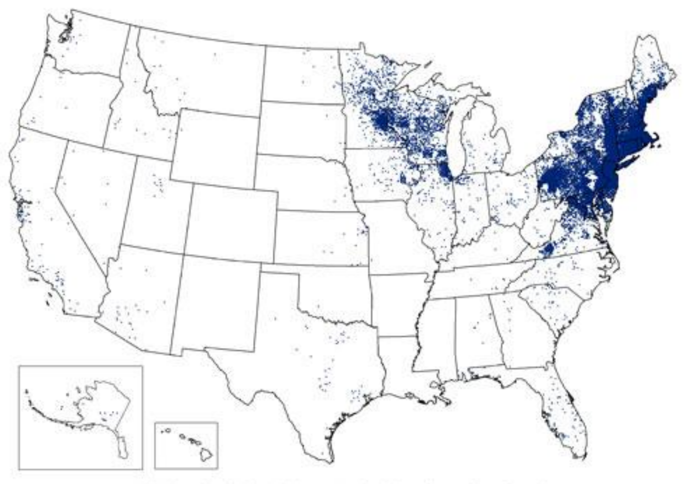
Indicator	Time Period	Measure	Kent County[7]	Michigan[7]	United States[8,9]
Lyme Disease	2013	Total Number of Cases	4	115	27,203
West Nile Virus	2013	Total Number of Cases	0	24	2,469

Figure 3. West Nile virus (WNV) and other arboviral ecologic activity reported in Michigan, 2013 (as of December 2, 2013)


Bird activity
Equine activity
Mosquito activity
Canine WNV activity
No animal/mosquito WNV or other arboviral activity reported for 2013
County with animal/mosquito WNV or other arboviral activity in 2012 (Jan. 01 – Dec. 2)*
Eastern Equine Encephalitis (EEE)

* Includes WNV veterinary disease cases and infections in mosquitoes, birds, and other wildlife species.

Reported Cases of Lyme Disease -- United States, 2013



1 dot placed randomly within county of residence for each confirmed case

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ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
DOG BITE-RELATED INJURIES AND FATALITIES

OVERVIEW: DOG BITES

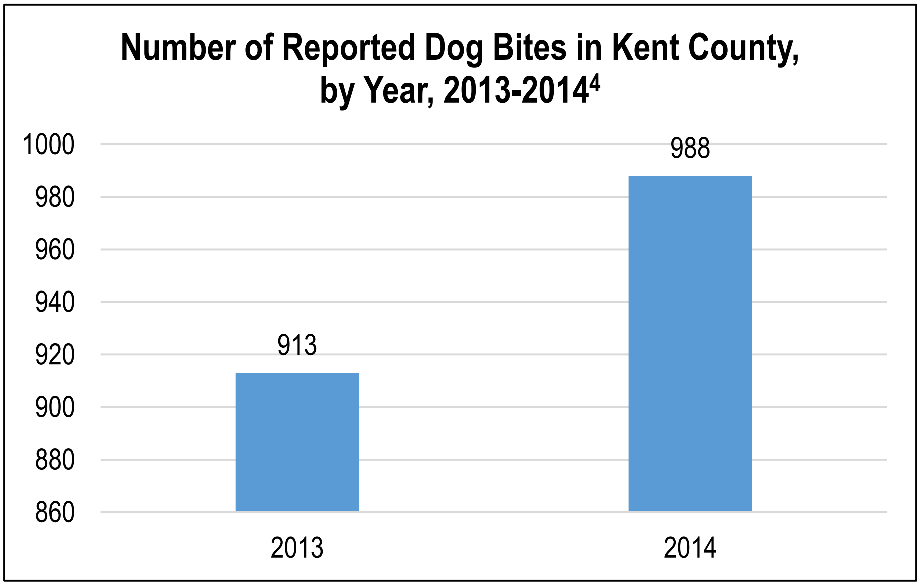
There are currently more than 83 million dogs in the United States, with 56.7 million of them kept as household pets[1]. The Centers for Disease Control and Prevention estimate that there are roughly 4.5 million American dog bite victims each year, which equates to about 1.5% of the total population. Nearly one-fifth of these victims require medical attention, and some even require reconstructive surgeries and reparative procedures to address injuries that result from dog bites[2].

Research has shown that there is no singular cause of dog bites. In fact, seven key factors have been identified as co-occurring contributors to most serious and fatal dog bite incidents[3]. In more than 80% of cases reviewed over a ten-year period, most serious and fatal dog bite incidents involve four or more of these factors. Additionally, data consistently shows that there is no evidence to support the idea that any one kind of dog is more likely to injure a human than another kind of dog[3].

Factor	Cases from 2000-2009 with this factor present
No able-bodied person being present to intervene.	87.1%
The victim having no familiar relationship with the dog(s).	85.2%
The owner failing to neuter/spay the dog(s).	84.4%
A victim's compromised ability, whether based on age or physical condition, to manage their interactions with the dog(s).	77.4%
The owner keeping dog(s) as resident, rather than as a family pet.	76.2%
The owner's prior mismanagement of the dog(s).	37.5%
The owner's abuse or neglect of the dog(s).	21.1%

SUMMARY

Though dog bite fatalities are extremely rare, it is important to recognize that death due to dog bite can occur. In 2013, there were 32 dog bite-related fatalities in the United States. Among these fatalities, 18 were children seven years or younger, 14 were adults aged 25 or older, and 11 were children aged four or younger[4].


Number of Reported Dog Bites in Kent County, by Year, 2013-2014[4]

Locally, the number of dog bites reported to Kent County Animal Control increased by about 70 dog bites between 2013 and 2014. Additional accurate trend data is not currently available from the Kent County Animal Shelter.

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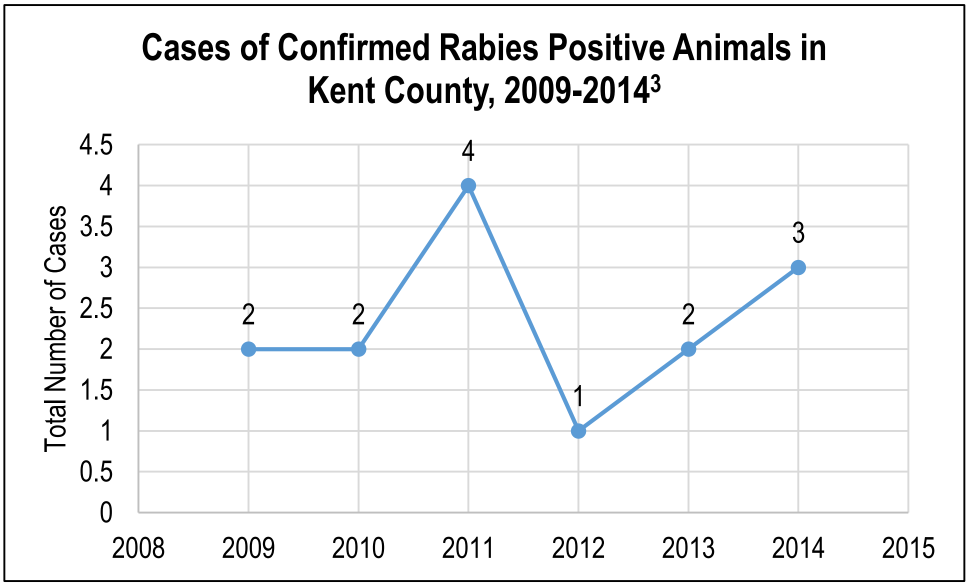
ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY
RABIES

OVERVIEW: RABIES

Rabies is a preventable viral disease of mammals that is most often transmitted through the bite of a rabid animal[1]. Each year, most reported rabies cases result from bites incurred through contact with wild animals like skunks, raccoons, bats, and foxes.

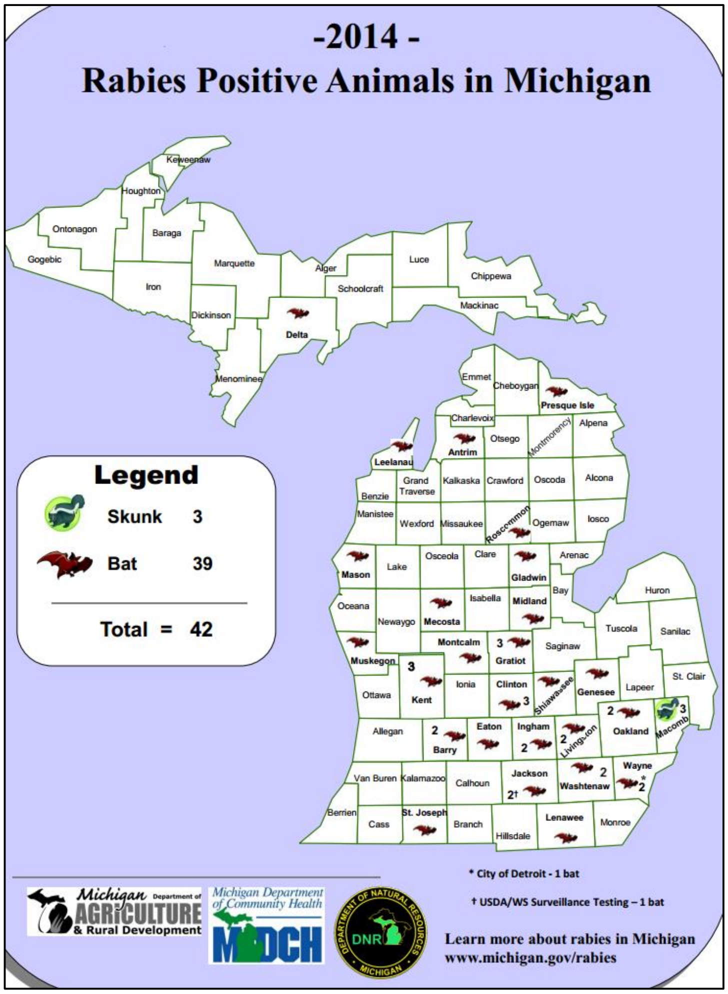


When a person becomes infected with the rabies virus, the central nervous system - namely the brain - is infected and most often, death occurs. Early symptoms of rabies infection in people includes fever, headache, and general weakness and discomfort. The longer a person is infected, the more severe symptoms become. These later-stage symptoms can include insomnia, anxiety, confusion, slight or partial paralysis, excitation, hallucinations, agitation, increased saliva production, difficulty swallowing, and fear of water[1]. In recent years, rabies-related human deaths in the United States has decreased significantly due to modern-day prophylaxis[2].

SUMMARY

Consistent with national trends, Michigan's most common carriers and transmitters of rabies are wild animals. Michigan had a total of 42 rabies cases in 2014, all involving wild animals, like bats and skunks[3]. The most common perpetrator of rabies disease in Michigan are bats (39 cases in 2014). Kent County typically has fewer than five cases of confirmed rabies per year. In 2014, three cases of rabies were confirmed in Kent County, all in bats[3].

Between the years of 1995 and 2011, there was only one reported human case of rabies disease in Michigan. This individual contracted the rabies from a bat bite while sleeping, and died from the disease in November 2009[4].


-2014 -
Rabies Positive Animals in Michigan
Legend
Skunk 3
Bat 39
Total = 42
Kent
3
* City of Detroit - 1 bat
† USDA/WS Surveillance Testing – 1 bat
Learn more about rabies in Michigan
www.michigan.gov/rabies
Michigan Department of Agriculture & Rural Development
Michigan Department of Community Health MDCH
DNR

Rabies positive animals by county, 2014[3]

REFERENCES

1. Centers for Disease Control and Prevention. (2013). *Rabies*. Retrieved from http://www.cdc.gov/rabies/
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Section 3: Health Status

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

Key Topics

- SOCIAL AND MENTAL HEALTH DATA
- MATERNAL AND CHILD HEALTH DATA
- DEATH, ILLNESS, AND INJURY DATA
- COMMUNICABLE DISEASE DATA
- SENTINEL EVENTS DATA

SOCIAL AND MENTAL HEALTH

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

DEFINITION OF CATEGORY

This category represents social and mental factors and conditions which directly or indirectly influence overall health status and individual and community quality of life. Mental health conditions and overall psychological well-being and safety may be influenced by substance abuse and violence within the home and within the community.

Key Topics

- POOR MENTAL HEALTH DAYS
- PSYCHIATRIC ADMISSIONS
- CHILD ABUSE AND NEGLECT
- DOMESTIC VIOLENCE
- CRIME RATES
- HOMICIDE RATES
- ALCOHOL AND DRUG-RELATED MORTALITY
- ALCOHOL-RELATED MOTOR VEHICLE INJURIES AND DEATH

SOCIAL AND MENTAL HEALTH: KENT COUNTY
POOR MENTAL HEALTH DAYS

OVERVIEW: POOR MENTAL HEALTH DAYS

Mental health includes stress, depression, and emotional issues. Poor mental health is often measured using the indicator, “poor mental health days”. This measure considers the average number of days in the previous 30 days adults report their mental health was not good[3]. Poor mental health provides a good indication of overall wellness, health-related quality of life, mental distress, and the burden that more serious mental conditions place on the population. The number of poor mental health days is also a predictor of future health as it is associated with measures related to healthcare utilization and hospitalizations[3].

Kent County Social And Mental Health: Poor Mental Health Days
Percentage Of Respondents With 14 Or More Days Of Poor Mental Health in the Past 30 Days

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States	National Benchmark[a,b]
Total	👍	2014*	Percent	7.9%	12.0%	--	**NA**
Age							**HRQOL/WB-1.2: Increase the proportion of adults who self-report good or better mental health.**
18 – 24 Years	👍	2014*	Percent	7.5%	11.8%	--	
25-34 Years	👍	2014*	Percent	5.8%	12.5%	--	
35-44 Years	👍	2014*	Percent	9.5%	13.5%	--	
45 – 54 Years	👍	2014*	Percent	10.8%	14.8%	--	
55 – 64 Years	👍	2014*	Percent	8.6%	13.3%	--	
65+ Years	--	2014*	Percent	5.5%	--	--	
Gender							
Male	👍	2014*	Percent	5.1%	10.7%	--	
Female	👍	2014*	Percent	10.7%	13.2%	--	
Race							
White/Caucasian	👍	2014*	Percent	6.5%	11.5%	--	
Black/African American	👍	2014*	Percent	15.1%	15.8%	--	
Hispanic/Latino	👍	2014*	Percent	9.9%	13.0%	--	
Non-Hispanic	👍	2014*	Percent	7.5%	8.6%	--	
Education							
Less Than High School	👍	2014*	Percent	16.0%	24.3%	--	
High School Diploma	👍	2014*	Percent	5.8%	12.4%	--	
Some College	👍	2014*	Percent	10.9%	11.4%	--	
College Graduate	👍	2014*	Percent	5.3%	5.7%	--	
Household Income							
Less Than $20,000	👍	2014*	Percent	19.9%	25.3%	--	
$20,000 to $34,999	👍	2014*	Percent	9.8%	13.2%	--	
$35,000 to $49,999	👍	2014*	Percent	7.8%	11.1%	--	
$50,000 to $74,999	👍	2014*	Percent	4.3%	6.7%	--	
$75,000 Or More	👍	2014*	Percent	1.6%	5.1%	--	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
☺ When compared, for this health indicator, Kent County is better than the United States.
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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

The percentage of Kent Count residents who report 14 or more days of poor mental health in the past 30 days is 7.9%, which is lower than the state average of 12.0%. The population subgroups most likely to be affected by poor mental health days in Kent County are people who fall within the age range of 45 to 64 years, females, African Americans and Hispanic/Latinos, and people with an annual household income of less than $20,000, respectively.

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2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
3. America's Health Rankings. (2014). *Poor mental health days, United States*. Retrieved from http://www.americashealthrankings.org/ALL/MentalHealth

SOCIAL AND MENTAL HEALTH: KENT COUNTY
MENTAL ILLNESS

OVERVIEW: MENTAL ILLNESS

Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with challenges. Mental disorders are among the most common causes of disability in the United States. The disease burden resulting from mental illness is among the highest of all diseases. The state of an individual's mental health plays a major role in his or her ability to maintain good physical health. Mental illnesses, such as depression and anxiety, affect the ability of people to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery.

Kent County Social And Mental Health: Mental Illness

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
About how often during the past 30 days did you feel nervous — would you say all of the time, most of the time, some of the time, a little of the time, or none of the time?							**MHMD-9.1: Increase the proportion of adults aged 18 years and older with serious mental illness who receive treatment.**
All	--	2014*	Percent	1.6%	--	--	
Most	--	2014*	Percent	3.0%	--	--	
Some	--	2014*	Percent	14.0%	--	--	
A Little	--	2014*	Percent	32.0%	--	--	
During the past 30 days, about how often did you feel hopeless — all of the time, most of the time, some of the time, a little of the time, or none of the time?							
All	--	2014*	Percent	0.7%	--	--	
Most	--	2014*	Percent	1.6%	--	--	
Some	--	2014*	Percent	4.9%	--	--	
A Little	--	2014*	Percent	11.4%	--	--	
During the past 30 days, about how often did you feel restless or fidgety?							
All	--	2014*	Percent	2.5%	--	--	
Most	--	2014*	Percent	2.4%	--	--	
Some	--	2014*	Percent	12.3%	--	--	
A Little	--	2014*	Percent	20.2%	--	--	
During the past 30 days, about how often did you feel so depressed that nothing could cheer you up?							
All	--	2014*	Percent	1.0%	--	--	
Most	--	2014*	Percent	1.1%	--	--	
Some	--	2014*	Percent	3.9%	--	--	
A Little	--	2014*	Percent	6.2%	--	--	
During the past 30 days, about how often did you feel that everything was an effort?							
All	--	2014*	Percent	3.8%	--	--	
Most	--	2014*	Percent	3.3%	--	--	
Some	--	2014*	Percent	9.4%	--	--	
A Little	--	2014*	Percent	13.9%	--	--	
During the past 30 days, about how often did you feel worthless?							
All	--	2014*	Percent	1.1%	--	--	
Most	--	2014*	Percent	1.4%	--	--	
Some	--	2014*	Percent	3.3%	--	--	
A Little	--	2014*	Percent	6.0%	--	--	
Are you now taking medicine or receiving treatment from a doctor or other health professional for any type of mental health condition or emotional problem?							
Yes	--	2014*	Percent	15.3%	--	--	**72.3%[a]**
No	--	2014*	Percent	83.9%	--	--	

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified

SUMMARY

In the past 30 days, roughly 51% of Kent County residents reported feeling nervous at least a little, around 19% reported feeling hopeless at least a little, and about 37% of respondents reported feeling some level of anxiety, respectively. More than 12% of Kent County residents reported feeling so depressed within the last 30 days that they believed nothing could cheer them up and almost 12% said they felt worthless at some time within the last 30 days. Only about 15% of Kent County residents reported that they are currently receiving some variation of treatment for their mental health condition.

REFERENCES

1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

SOCIAL AND MENTAL HEALTH: KENT COUNTY
ACCESS TO MENTAL HEALTHCARE

OVERVIEW: ACCESS TO MENTAL HEALTHCARE

One in four Americans do not have adequate access to mental health services. Many do not have mental healthcare benefits through their insurance programs, and even if they do have coverage through insurance, they are not sure which services are covered. For individuals with serious mental health and/or substance abuse problems, almost half go without necessary treatment[2].

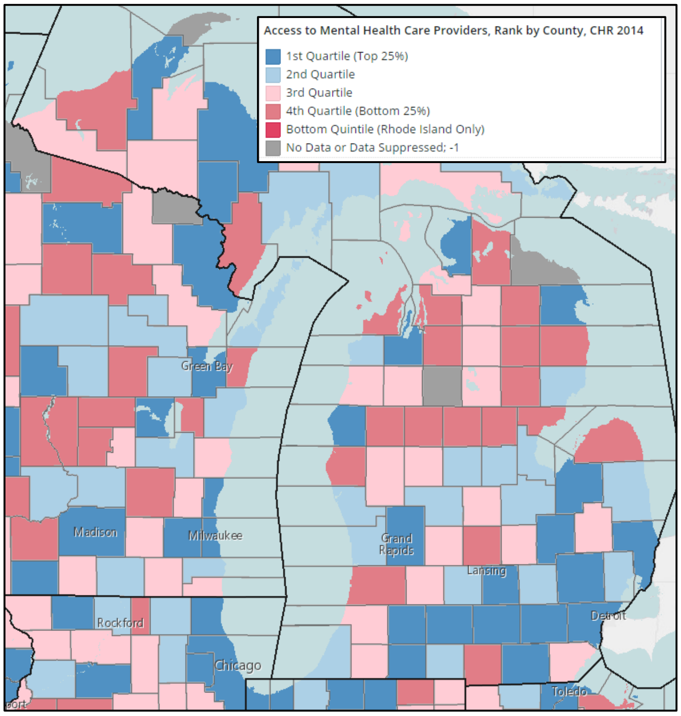

Access to Mental Health Care Providers, Rank by County, CHR 2014
1st Quartile (Top 25%)
2nd Quartile
3rd Quartile
4th Quartile (Bottom 25%)
Bottom Quintile (Rhode Island Only)
No Data or Data Suppressed: -1
Green Bay
Madison
Milwaukee
Grand Rapids
Lansing
Rockford
Chicago
Detroit
Toledo

Photo: Access to mental healthcare providers, Kent County, MI. (courtesy of County Health Rankings, 2014)[1].

SUMMARY

Based on County Health Ranking's data from 2014, Kent County is within the top 25% of counties when it comes to access to mental healthcare providers. In fact, there are 1,121 providers practicing in Kent County, which is a rate of 179.1 providers per 100,000 population, and a ratio of 548 patients per provider[3]. This ratio of population to providers puts Kent County in the top 20 when compared with other counties in Michigan for access to mental healthcare. Despite this, Kent has not yet achieved the national benchmark for patient-provider ratio on this particular measure.

In addition to the number of practicing providers, there are two psychiatric hospitals within Kent County – one located in eastern Grand Rapids, and the other to the south of Grand Rapids. There are also numerous facilities located throughout the greater-Grand Rapids region that provide mental health services for both youth and adults. Lack of access to mental healthcare services starts to become a problem when considering the more rural parts of Kent County, specifically in the northern part of the County. The lack of access in these areas can be clearly observed in the maps provided below.

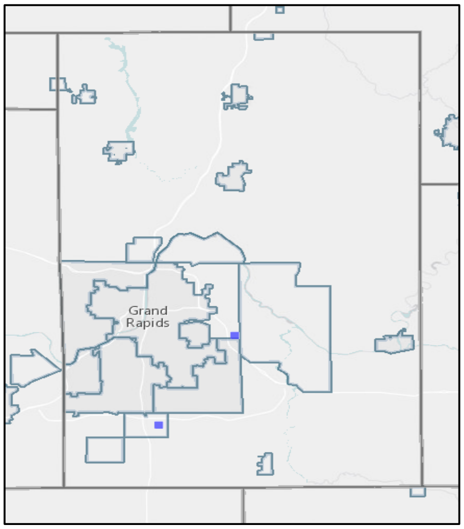


Photo: Psychiatric hospitals by location, Kent County, MI. (courtesy of US Department of Health and Human Services, Center for Medicare and Medicaid Services)[1].

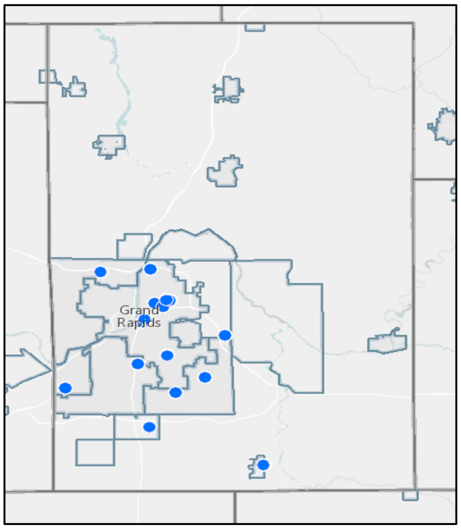


Photo: Mental health facilities offering adult services by location, Kent County, MI. (courtesy of SAMHSA, 2014)[1].

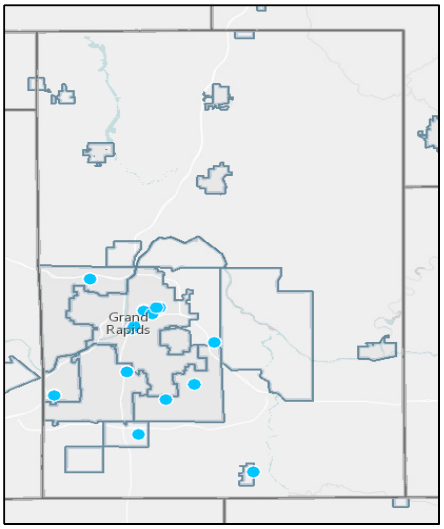


Photo: Mental health facilities offering youth services by location, Kent County, MI. (courtesy of SAMHSA, 2014)[1].

Kent County Social And Mental Health: Ratio Of Population To Mental Health Providers

Indicator	Status	Time Period	Measure	Kent County[4]	Michigan[4]	National Benchmark[a,b]
Ratio of Population To Mental Health Providers	👍	2013	Ratio	548:1	661:1	**521.1[b]**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
☺ When compared, for this health indicator, Kent County is better than the United States.
☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

REFERENCES

1. Community Commons. (2014). *Maps and data*. Retrieved from http://maps.communitycommons.org/viewer/datalist.aspx
2. American Psychological Association. (2015). *Access to mental healthcare*. Retrieved from http://www.apa.org/health-reform/access-mental-health.html
3. County Health Rankings. (2014). *Michigan mental health providers*. Retrieved from http://www.countyhealthrankings.org/app/michigan/2014/measure/factors/62/map?sort=desc-0

SOCIAL AND MENTAL HEALTH: KENT COUNTY
PERCEPTIONS AND STIGMA OF MENTAL ILLNESS

OVERVIEW: PERCEPTIONS AND STIGMA OF MENTAL ILLNESS

Stigma is a mark of disgrace often created through negative attitudes and prejudice that sets a person apart from their peers. Stigma can bring about feelings of shame, blame, hopelessness, distress, and reluctance to seek or accept necessary help. Many people who suffer from mental illness and disorder suffer the consequences of stigma associated with these types of conditions. These individuals suffer from both public stigma, and self-stigma[4].

Kent County Social And Mental Health: Perceptions And Stigma Of Mental Illness

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Treatment can help people with mental illness lead normal lives. Do you – agree slightly or strongly, or disagree slightly or strongly?							**NA**
Agree Strongly	--	2014*	Percent	72.0%	--	--	
Agree Slightly	--	2014*	Percent	18.7%	--	--	
Neither Agree Nor Disagree	--	2014*	Percent	2.2%	--	--	
Disagree Slightly	--	2014*	Percent	2.0%	--	--	
Disagree Strongly	--	2014*	Percent	1.0%	--	--	
People are generally caring and sympathetic to people with mental illness. Do you – agree slightly or strongly, or disagree slightly or strongly?							
Agree Strongly	--	2014*	Percent	24.3%	--	--	
Agree Slightly	--	2014*	Percent	33.4%	--	--	
Neither Agree Nor Disagree	--	2014*	Percent	2.8%	--	--	
Disagree Slightly	--	2014*	Percent	25.9%	--	--	
Disagree Strongly	--	2014*	Percent	9.0%	--	--	

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

SUMMARY

More than 90% of Kent County residents agree that treatment for mental illness can help people achieve normal lives. Almost 35% of residents report that they do not think people are generally sympathetic to individuals suffering from mental illness. This finding suggests that the stigma associated with mental illness and with persons suffering from mental illness in Kent County is an issue. Efforts to raise community awareness and knowledge will be necessary in changing perceptions and reducing stigma.

REFERENCES

1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.
4. Corrigan, P. W. & Watson, A. C. (2002). Understanding the impact of stigma on people with mental illness. *World Psychiatry, 1*(1), 16-20.

SOCIAL AND MENTAL HEALTH: KENT COUNTY
ALCOHOL AND DRUG-RELATED MOTOR VEHICLE CRASHES

OVERVIEW: ALCOHOL AND DRUG-RELATED MOTOR VEHICLE CRASHES

Michigan has a 0.08 blood-alcohol content (BAC) drunk driving law and a zero tolerance limit for minors. On a daily basis, Michigan law enforcement officers arrest more than 100 motorists for drunk or impaired driving. Crashes involving alcohol tend to be more serious than non-alcohol related crashes. Data indicates that the percentage of serious injuries and fatalities is higher for crashes involving alcohol, when compared with non-alcohol related crashes[2].

Kent County Social And Mental Health: Alcohol-Related Motor Vehicle Crashes

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	National Benchmark[a,b]
All Crashes	👎	2013	Rate per 10,000 population	13.0	10.0	**NA**
Injury Crashes	👎	2013	Rate per 10,000 population	4.1	3.4	
Fatal Crashes	--	2013	Rate per 10,000 population	0.2	0.2	
Property Damage Crashes	👎	2013	Rate per 10,000 population	7.5	5.4	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

Kent County Social And Mental Health: Drug-Related Motor Vehicle Crashes

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	National Benchmark[a,b]
All Crashes	--	2013	Rate per 10,000 population	--	--	**NA**
Injury Crashes	👍	2013	Rate per 10,000 population	0.2	0.5	
Fatal Crashes	👍	2013	Rate per 10,000 population	0.0	0.1	
Property Damage Crashes	👍	2013	Rate per 10,000 population	0.4	0.5	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

Kent County Social And Mental: Alcohol & Drug-Related Motor Vehicle Crash Arrests

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	National Benchmark[a,b]
Total	👍	2013	Rate per 10,000 population	30.9	36.3	**NA**
Gender						
Males	👍	2013	Rate per 10,000 population	24.0	26.7	
Females	👍	2013	Rate per 10,000 population	6.9	9.6	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

SUMMARY

In 2013, the rate of alcohol-involved crashes in Kent County was 13.0 per 10,000 population, which was higher than the rate reported for the State of Michigan (10.0/10,000). Kent County had higher rates of injuries, fatalities, and property damages associated with alcohol-related motor vehicle crashes when compared to the state, as well. Despite the higher rate of alcohol-involved crashes, Kent County reported a lower rate of arrests for alcohol and drug-related motor vehicle crashes than the state, 30.9 arrests per 10,000 compared to 36.3 arrests per 10,000, respectively. Males were significantly more likely to be arrested for these types of offenses than females.

REFERENCES

1. Michigan State Police. (2014). *2013 Michigan Annual Drunk Driving Audit*. Retrieved from http://www.michigan.gov/documents/msp/2013_Drunk_Driving_Audit_461795_7.pdf
2. Michigan State Police. (2015). *Impaired driving in Michigan*. Retrieved from http://www.michigan.gov/msp/0,4643,7-123-1589_1711-49577--,00.html

SOCIAL AND MENTAL HEALTH: KENT COUNTY
ALCOHOL-INDUCED MORTALITY

OVERVIEW: ALCOHOL-INDUCED MORTALITY

Alcohol-induced mortality includes deaths due to alcohol psychoses, alcohol dependence syndrome, non-dependent abuse of alcohol, alcohol-induced chronic liver disease and cirrhosis, and alcohol poisoning. Deaths that occur due to alcohol-related injury are not considered in the measure of alcohol-induced mortality[2].

Kent County Social And Mental Health: Alcohol-Induced Mortality

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States[1]	National Benchmark
Total	👎 ☹	2011-2013*	Rate per 100,000 population	9.1	7.8	8.0	**NA**
Age							**NA**
25 Years and Under	--	2011-2013*	Rate per 100,000 population	--	--	--	
25 – 64 Years	--	2011-2013*	Rate per 100,000 population	--	14.4	--	
65+ Years	--	2011-2013*	Rate per 100,000 population	--	9.2	--	
Gender							
Male	--	2011-2013*	Rate per 100,000 population	--	11.5	12.1	
Female	--	2011-2013*	Rate per 100,000 population	--	4.5	4.2	
Race							
White	--	2011-2013*	Rate per 100,000 population	--	8.3	8.4	
African American	--	2011-2013*	Rate per 100,000 population	--	6.0	5.9	
Gender By Race							
White Male	--	2011-2013*	Rate per 100,000 population	--	11.9	12.7	
African American Male	--	2011-2013*	Rate per 100,000 population	--	9.9	9.5	
White Female	--	2011-2013*	Rate per 100,000 population	--	4.9	4.4	
African American Female	--	2011-2013*	Rate per 100,000 population	--	2.7	3.0	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

☺ When compared, for this health indicator, Kent County is better than the United States.

☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified

*Note: *The 2013 comparative data is based on 2013 MDCH Vital Statistics of Michigan Residents and 2012 Nationwide Vital Statistics.*

SUMMARY

The rate of alcohol-induced mortality in Kent County was 9.1 deaths per 100,000 in 2013, which is higher than both the national and state rates. Unfortunately, more specific county-level data is not available at this time. Despite this, we can draw inferences from the state and national data, which illustrates some clear trends related to alcohol-induced mortality. For instance, alcohol-induced mortality appears to occur more frequently among males and Whites. The lowest rates of alcohol-induced mortality occur among African American females.

REFERENCES

1. Michigan Department of Community Health. (2015). *Michigan mortality statistics*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html
2. Michigan Department of Community Health. (2003). *Critical health indicators: Alcohol-induced mortality*. Retrieved from http://www.michigan.gov/documents/AlcoholRelatedDeathsFeb00_10424_7.pdf

SOCIAL AND MENTAL HEALTH: KENT COUNTY
SUBSTANCE ABUSE-RELATED MORTALITY

OVERVIEW: SUBSTANCE ABUSE-RELATED MORTALITY

Deaths from drug overdose have become the leading cause of injury death in the United States. About 90% of all poisoning deaths are caused by drugs[1].

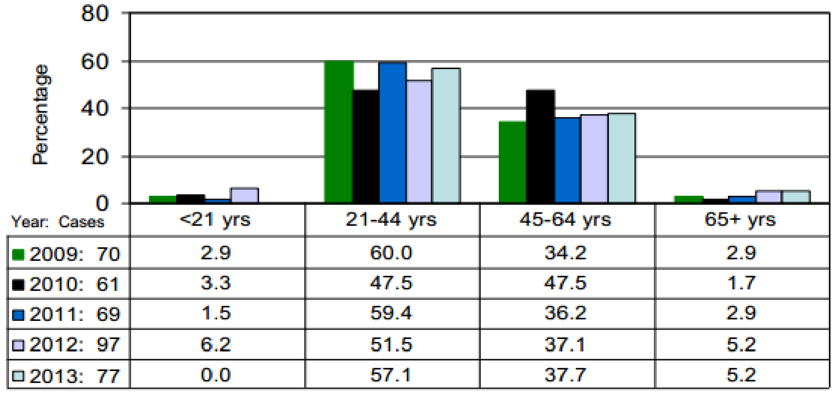
In addition to causing negative physical and mental health effects for drug abusers, drug use has a substantial healthcare-associated cost. By some estimates, the healthcare-associated cost for addressing illicit drugs in the United States is $11 billion annually[2].

SUMMARY

According to the Kent County Medical Examiner, there were a total of 77 deaths attributed to drug use. This equates to 7.0% of all deaths reviewed in 2013[3]. Of those deaths, 94.8% occurred among persons aged 21 to 64 years. Additionally, more than 75% of all drug use deaths were accidental, while 23% were related to suicides.

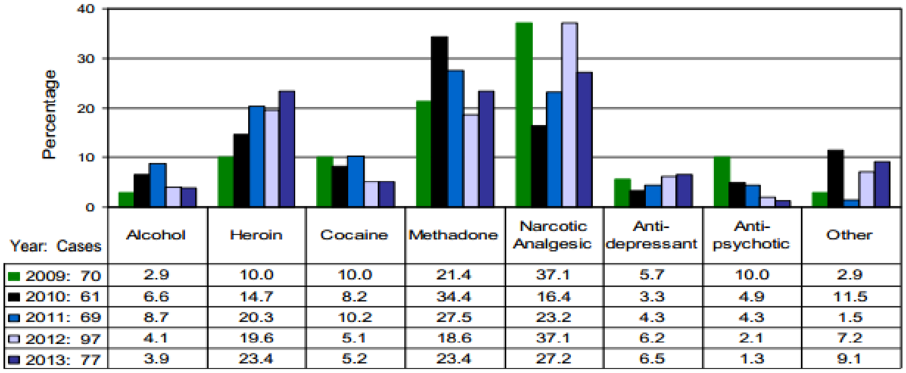
The drugs most commonly cited as cause of death include heroin, methadone, and narcotic analgesics. These three types of drugs were responsible for 74.0% of drug-associated deaths in 2013.

Figure 17: Drug Deaths by Age, 2009-2013



Year: Cases	<21 yrs	21-44 yrs	45-64 yrs	65+ yrs
🟩 2009: 70	2.9	60.0	34.2	2.9
■ 2010: 61	3.3	47.5	47.5	1.7
🟦 2011: 69	1.5	59.4	36.2	2.9
□ 2012: 97	6.2	51.5	37.1	5.2
□ 2013: 77	0.0	57.1	37.7	5.2

Figure 18: Drug Deaths by Drug of First Mention, 2009-2013



Year: Cases	Alcohol	Heroin	Cocaine	Methadone	Narcotic Analgesic	Anti-depressant	Anti-psychotic	Other
🟩 2009: 70	2.9	10.0	10.0	21.4	37.1	5.7	10.0	2.9
■ 2010: 61	6.6	14.7	8.2	34.4	16.4	3.3	4.9	11.5
🟦 2011: 69	8.7	20.3	10.2	27.5	23.2	4.3	4.3	1.5
□ 2012: 97	4.1	19.6	5.1	18.6	37.1	6.2	2.1	7.2
■ 2013: 77	3.9	23.4	5.2	23.4	27.2	6.5	1.3	9.1

REFERENCES

1. Centers for Disease Control and Prevention. (2015). *Prescription drug overdose in the United States: Fact sheet*. Retrieved from http://www.cdc.gov/homeandrecreationalsafety/overdose/facts.html
2. National Institute on Drug Abuse. (2013). *Trends and statistics*. Retrieved from http://www.drugabuse.gov/related-topics/trends-statistics
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SOCIAL AND MENTAL HEALTH: KENT COUNTY
BULLYING

OVERVIEW: BULLYING

Bullying threatens the wellbeing of young people. It can result in physical injuries, social and emotional difficulties, and academic problems. The Centers for Disease Control and Prevention define bullying as any unwanted aggressive behaviors by another youth of group of youths who are not siblings or current dating partners that involves an observed or perceived power imbalance and is repeated multiple times or is highly likely to be repeated[3]. As social media and technology has become more available and widely used, bullying has moved from being an issue on school property to something that youth can experience electronically. Cyber-bullying is the term used for bullying that happens through chat rooms, instant messaging, email, a website, texting, or social media[3].

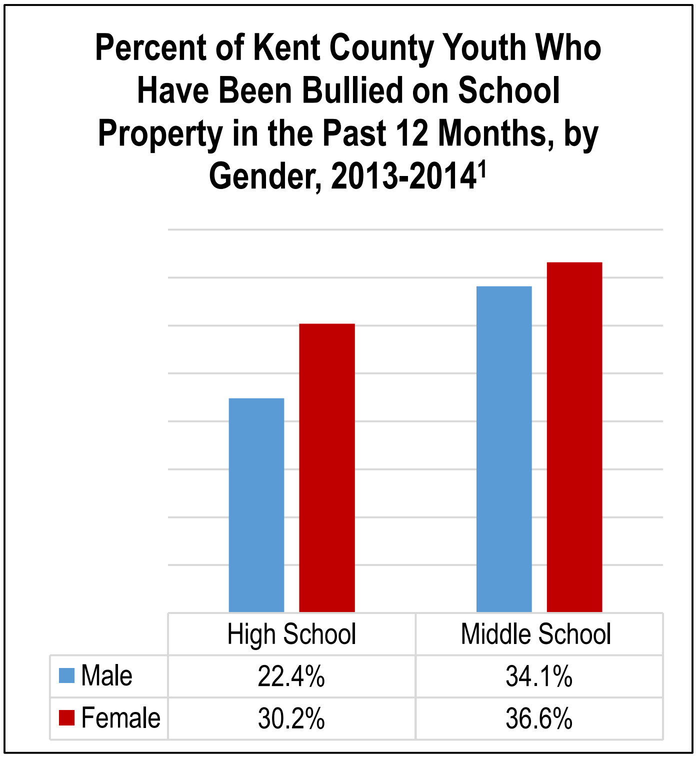
Kent County Social and Mental Health: Bullying

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who have been bullied on school property in the past 12 months	👎 ☹	👎 ☹	2013-2014	Percent	35.5%	26.4%	21.9%**	15.6%**	**17.9%[a] IVP-35: Reduce bullying among adolescents.**
Percentage of students who have been electronically bullied in the past 12 months	👎 ☹	👎 ☹	2013-2014	Percent	19.3%	17.9%	12.5%**	8.5%**	
Percentage of students who have seen students get pushed, hit, or punched one or more times during the past 12 months	--	--	2013-2014	Percent	63.9%	48.8%	--	--	
Percentage of students who have heard students get called mean names or get "put down" one or more times during the past 12 months	--	--	2013-2014	Percent	82.5%	74.5%	--	--	
Percentage of students who have heard students threaten to hurt other students one or more times during the past 12 months	--	--	2013-2014	Percent	51.8%	49.0%	--	--	
Percentage of students who have read e-mail or website messages that contained threats to other students one or more times during the past 12 months	--	--	2013-2014	Percent	16.5%	16.4%	--	--	

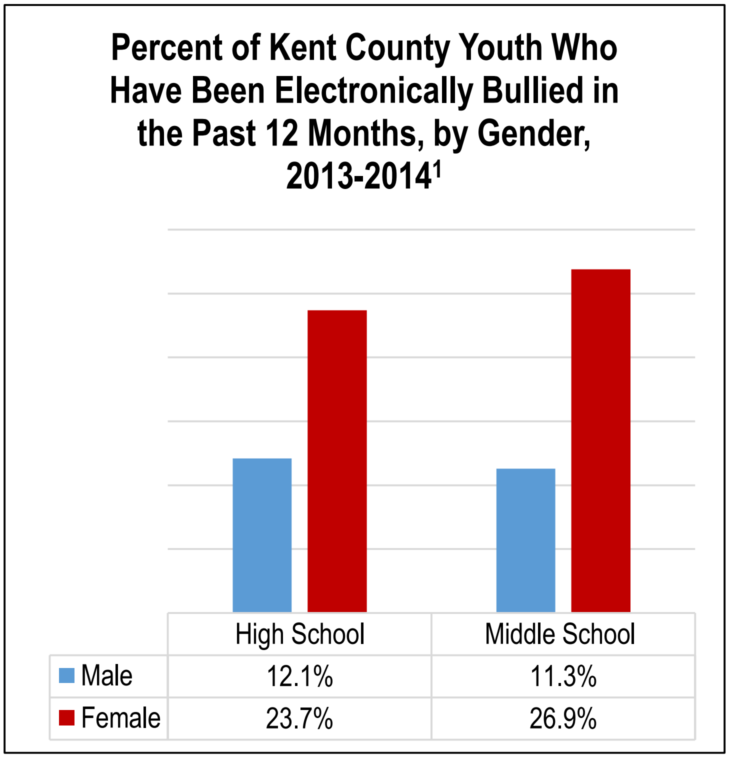
👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
☺ When compared, for this health indicator, Kent County is better than the United States.
☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

** Median range values used for United States. Data used from CDC YRBS 2013 Report.


Percent of Kent County Youth Who Have Been Bullied on School Property in the Past 12 Months, by Gender, 2013-2014[1]

	High School	Middle School
🟦 Male	22.4%	34.1%
🟥 Female	30.2%	36.6%


Percent of Kent County Youth Who Have Been Electronically Bullied in the Past 12 Months, by Gender, 2013-2014[1]

	High School	Middle School
🟦 Male	12.1%	11.3%
🟥 Female	23.7%	26.9%

SUMMARY

Bullying is a significant issue among Kent County youth. More than 35% of middle schoolers and 26.4% of high schoolers report being bullied on school property within the past year, while nearly 20% of middle schoolers and 17.9% of high schoolers report being bullied electronically within the past year. All of these rates greatly exceed the state and national averages, and fail to achieve the Healthy People 2020 benchmark of 17.9%.

A gender disparity among Kent County youth exists for bullying. At both the high school and middle school-levels, female students experience both bullying on school property and electronic bullying more frequently than do males. In fact, female youth experience electronic bullying at more than double the rate of male youth.

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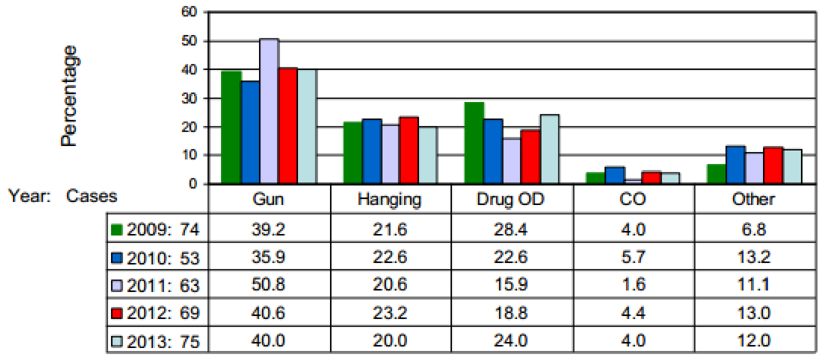
2. Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system, United States and Michigan 2013 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx
3. Centers for Disease Control and Prevention. (2014). *Youth bullying: What does the research say?* Retrieved from http://www.cdc.gov/violenceprevention/youthviolence/bullyingresearch/index.html

SOCIAL AND MENTAL HEALTH: KENT COUNTY
INTENTIONAL SELF-HARM (SUICIDE)

OVERVIEW: INTENTIONAL SELF-HARM

Suicide is a serious public health problem that causes immeasurable pain, suffering, and loss to individuals, families, and communities nationwide. While suicide is the tenth leading cause of death in the State of Michigan and Kent County, suicide completion, or death resulting from suicidal activities, is just the tip of the iceberg. For every one person who completes suicide, another 30 attempt suicide and survive[3]. Whether the individual completes suicide or survives, family members, coworkers, and others in the community suffer the long-lasting consequences of suicidal behaviors. The impact of suicide on communities is tremendous, yet suicidal behaviors continue to be met with silence and shame[3].

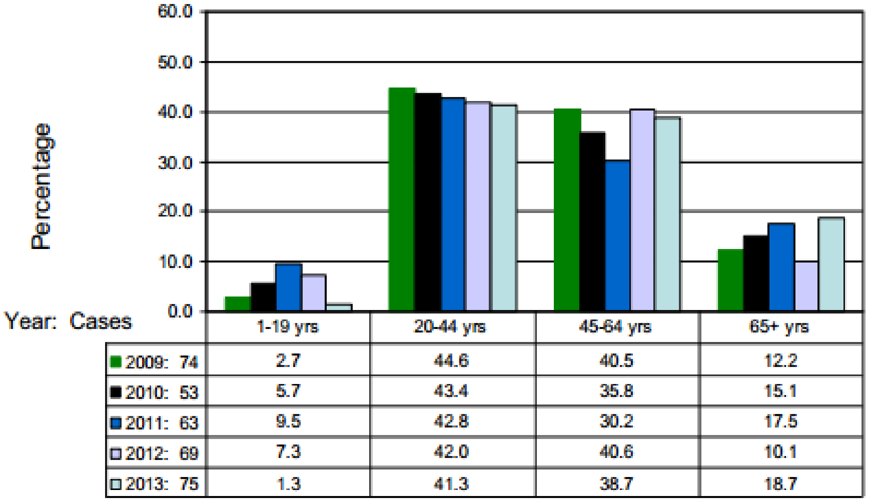
Figure 15: Suicide Cases by Method Used, 2009-2013



Year: Cases	Gun	Hanging	Drug OD	CO	Other
■ 2009: 74	39.2	21.6	28.4	4.0	6.8
■ 2010: 53	35.9	22.6	22.6	5.7	13.2
□ 2011: 63	50.8	20.6	15.9	1.6	11.1
■ 2012: 69	40.6	23.2	18.8	4.4	13.0
□ 2013: 75	40.0	20.0	24.0	4.0	12.0

In 2013, CO is carbon monoxide poisoning, while Other consists of asphyxia (1), exsanguination (1), falls (1), fire (2), stabbing (2) and pedestrian (2).

Figure 14: Suicide Cases by Age, 2009-2013



Year: Cases	1-19 yrs	20-44 yrs	45-64 yrs	65+ yrs
■ 2009: 74	2.7	44.6	40.5	12.2
■ 2010: 53	5.7	43.4	35.8	15.1
■ 2011: 63	9.5	42.8	30.2	17.5
□ 2012: 69	7.3	42.0	40.6	10.1
□ 2013: 75	1.3	41.3	38.7	18.7

SUMMARY

While the suicide rate in Kent County is lower than the rate for the state overall and has met the Healthy People 2020 target, it continues to be a source of concern. According to data collected from the Kent County Medical Examiner, there were 75 cases of suicide in 2013. These deaths accounted for 6.8% of total deaths reviewed by the Medical Examiner in 2013[2]. Since 2010. There has been a steady increase in the number of suicides committed among Kent County residents.

In 2013, suicides were most common Hispanics, Asian/Pacific Islanders, and Whites. Most of the suicide cases reviewed by the Medical Examiner were for persons between the ages of 20 and 64 years. Forty percent of the suicides completed in 2013 involved a gun, while 24% involved a drug overdose. Hanging accounted for 20% of suicides, and 12% were completed using "other" methods, which include asphyxia, exsanguination, falls, fire, stabbing, and pedestrian.

Suicide ideation and attempts among Kent County youth is troubling. More than 20% of middle schoolers and 18.3% of high schoolers reported that they considered attempting suicide within the past 12 months. Even more concerning, 17.7% of middle schoolers and 14.2% of high schoolers made a plan of how they would attempt suicide, and 9.3% of middle schoolers and 7.6% of high schoolers actually attempted suicide one or more times in the past 12 months. These rates are higher than the state and national averages. African American youth appear to be the most likely to both consider and attempt suicide at the middle school and high school levels, followed closely by Hispanic youth.

Kent County Social And Mental Health: Intentional Self-Harm (Suicide) Mortality

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	National Benchmark[a,b]
Total	👍	2012*	Rate per 100,000 population	9.9	12.4	**10.2[a]**
Gender						**MHMD-1: Reduce the suicide rate.**
Male	👍	2012*	Rate per 100,000 population	15.5	20.5	
Female	--	2012*	Rate per 100,000 population	--	4.9	
Race						
White/Caucasian	👍	2012*	Rate per 100,000 population	10.1	13.4	
Black/African American	--	2012*	Rate per 100,000 population	--	7.0	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

Kent County Social and Mental Health: Youth Suicidal Ideation and Attempts

Indicator	Status		Time Period	Measure	Kent County[4]		Michigan[5]	United States[5]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months.	👍 ☺	👎 ☹	2013-2014	Percent	24.9%	34.0%	27.0%**	27.1%**	**MHMD-2: Reduce suicide attempts by adolescents.**
Percentage of students who seriously considered attempting suicide during the past 12 months.	👎 ☹	👎 ☹	2013-2014	Percent	21.1%	18.3%	16.0%**	15.6%**	
Percentage of students who made a plan about how they would attempt suicide during the past 12 months.	👎 ☹	👍 ☹	2013-2014	Percent	17.7%	14.2%	14.7%**	13.0%**	
Percentage of students who actually attempted suicide one or more times during the past 12 months.	👎 ☹	👍 ☺	2013-2014	Percent	9.3%	7.6%	8.9%**	8.5%**	
Percentage of students whose suicide attempt resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse during the past 12 months.	👎 ☹	👍 ☺	2013-2014	Percent	4.8%	2.5%	3.0%**	3.0%**	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

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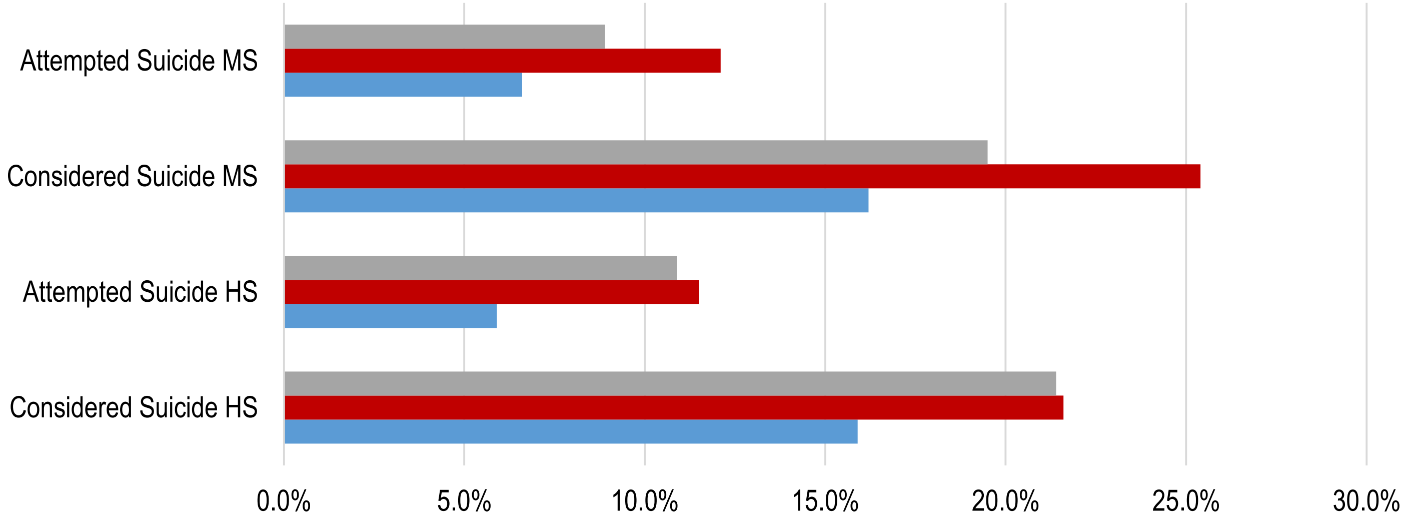
[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

** Median range values used for United States. Data used from CDC YRBS 2013 Report.


Percent of Kent County Middle and High School Students Who Considered and Attempted Suicide, by Race/Ethnicity, 2013-2014[4]

	Considered Suicide HS	Attempted Suicide HS	Considered Suicide MS	Attempted Suicide MS
⬜ Hispanic	21.4%	10.9%	19.5%	8.9%
🟥 African American	21.6%	11.5%	25.4%	12.1%
🟦 White	15.9%	5.9%	16.2%	6.6%

REFERENCES

1. Michigan Department of Community Health. (2012). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html
2. Kent County Medical Examiner. (2013). 2013 *Annual Report*. Retrieved from https://www.accesskent.com/Health/ME/pdf/2013_ME_Annual_Report.pdf
3. U.S. Department of Health and Human Services. (2012). *Surgeon General's Report, National strategy for suicide prevention: Goals and objectives for action.* Retrieved from http://www.surgeongeneral.gov/library/reports/national-strategy-suicide-prevention/index.html
4. Michigan Department of Education. (2014). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx
5. Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system, United States and Michigan 2013 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx

SOCIAL AND MENTAL HEALTH: KENT COUNTY
INTENTIONAL INJURY

OVERVIEW: INTENTIONAL INJURY

Intentional injuries are not accidents – they can be prevented. Intentional injuries result from a person's intent to engage in an action that inflicts injury upon others or his or herself[1]. Violence is a key contributor to intentional injury rates, often perpetrated through crimes such as sexual violence, intimate partner violence (domestic violence), child maltreatment, youth violence, and suicide[2]. Because of the significant health implications that violence and suicide can have on population health, intentional injury has become an important topic for public health practitioners in recent years.

Kent County Social And Mental Health: Intentional Injury

Indicator	Status	Time Period	Measure	Michigan[3]	Midwest[3]	United States[3]	National Benchmark[a,b]
Total Violence-Related Deaths	--	2013	Rate per 100,000 population	19.6	18.5	18.3	**NA**
Age							**NA**
0 – 4 Years	--	2013	Rate per 100,000 population	2.3	3.2	3.1	
5 - 9 Years	--	2013	Rate per 100,000 population	--	0.9	0.7	
10 – 14 Years	--	2013	Rate per 100,000 population	3.8	2.9	2.6	
15 – 19 Years	--	2013	Rate per 100,000 population	19.0	16.9	15.0	
20 – 24 Years	--	2013	Rate per 100,000 population	30.7	29.4	26.9	
25 – 29 Years	--	2013	Rate per 100,000 population	32.6	28.9	26.0	
30 – 34 Years	--	2013	Rate per 100,000 population	28.6	26.1	24.1	
35 – 39 Years	--	2013	Rate per 100,000 population	26.5	23.1	23.1	
40 – 44 Years	--	2013	Rate per 100,000 population	30.2	25.1	22.8	
45 – 49 Years	--	2013	Rate per 100,000 population	26.9	25.2	24.1	
50 – 54 Years	--	2013	Rate per 100,000 population	22.8	23.5	24.7	
55 – 59 Years	--	2013	Rate per 100,000 population	20.8	22.4	23.2	
60 – 64 Years	--	2013	Rate per 100,000 population	15.8	15.7	19.0	
65 –69 Years	--	2013	Rate per 100,000 population	15.3	14.8	16.8	
70 – 74 Years	--	2013	Rate per 100,000 population	15.3	15.7	17.5	
75 – 79 Years	--	2013	Rate per 100,000 population	15.2	15.8	17.7	
80 – 84 Years	--	2013	Rate per 100,000 population	19.7	19.2	21.2	
85+ Years	--	2013	Rate per 100,000 population	16.8	17.3	20.5	
Gender							
Male	--	2013	Rate per 100,000 population	31.55	29.8	28.7	
Female	--	2013	Rate per 100,000 population	8.0	7.5	7.6	
Race							
White	--	2013	Rate per 100,000 population	16.4	16.7	17.4	
African American	--	2013	Rate per 100,000 population	39.4	34.2	23.4	
American Indian/Alaskan Native	--	2013	Rate per 100,000 population	11.3	21.7	17.0	
Asian/Pacific Islander	--	2013	Rate per 100,000 population	8.8	8.2	7.4	

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified

SUMMARY

Overall violence-related death data is not readily available for Kent County. However, inferences can be drawn based on state-level data in comparison to national data. Michigan has a higher rate of violence-related deaths than both the Midwestern region and the United States. The age groups most likely to die due to violent acts include individuals in the age ranges between 20 years and 44 years. Violence-related deaths are more common among males and African Americans. Data for specific intentional injury-related acts of violence against others and self are reflected in the following pages.

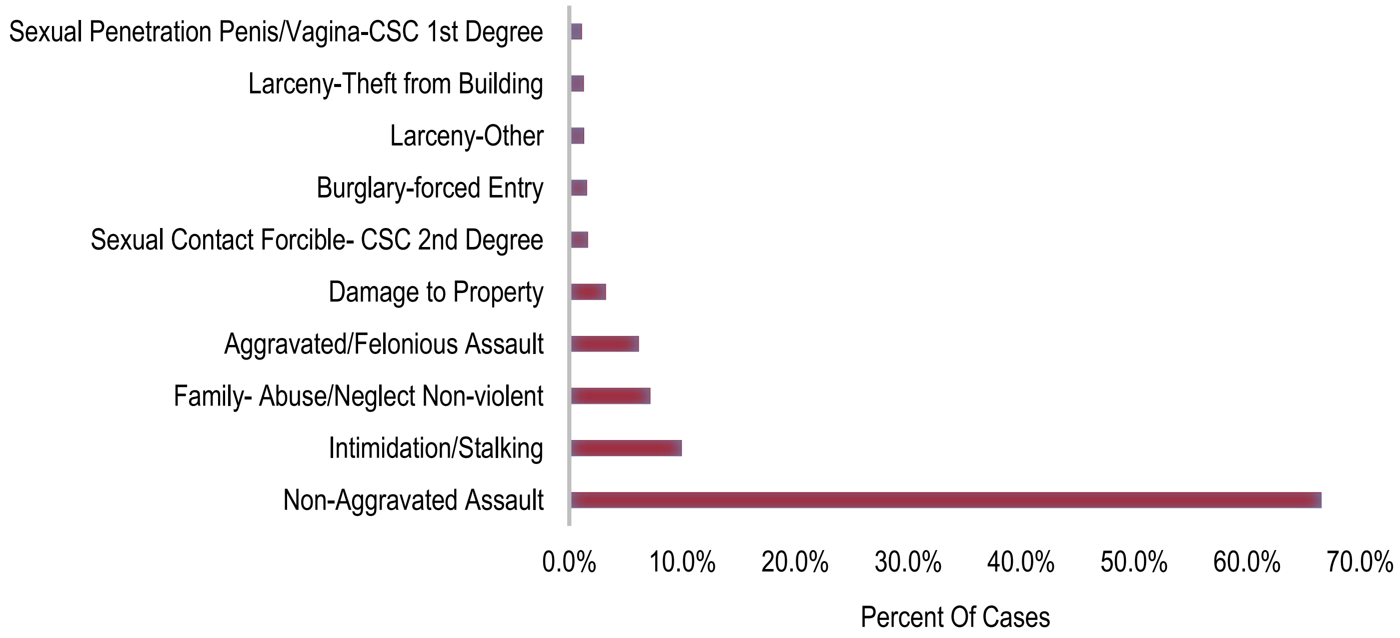
REFERENCES

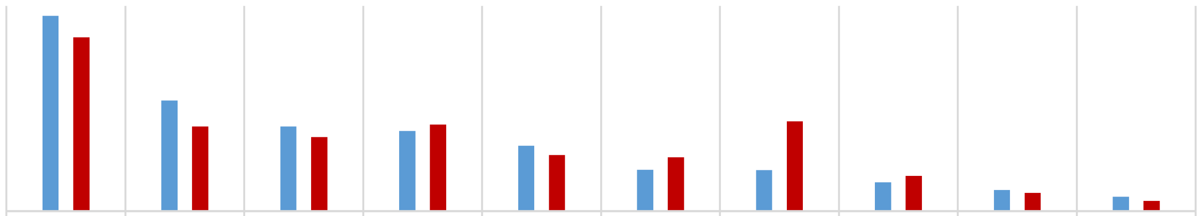
1. Division of Population Health, Maine Center for Disease Control and Prevention. (2013). *Maine injury prevention program: Intentional injury*. Retrieved from http://www.maine.gov/dhhs/mecdc/population-health/inj/intentional.html
2. Society for Public Health Education. (n.d.). *Violence/intentional injury*. Retrieved from http://www.sophe.org/ui/injury-violence.cfm
3. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. (2015). *WISQARS, fatal injury reports, 1999-2013, for national, regional, and states.* Retrieved from http://webappa.cdc.gov/cgi-bin/broker.exe

SOCIAL AND MENTAL HEALTH: KENT COUNTY
DOMESTIC VIOLENCE

OVERVIEW: DOMESTIC VIOLENCE

Domestic violence can happen to anyone of any race, age, sexual orientation, religion, or gender. It can happen to people of all socioeconomic backgrounds, education levels, and regardless of relationship status[1]. Abuse is a repetitive pattern of behaviors that a person uses to maintain power and control over an intimate partner. Often, these behaviors elicit fear, prevent a partner from doing what they want to do, force them to behave in ways that they do not want, and can cause physical harm. Abuse includes physical and sexual violence, threats and intimidation, emotional abuse, and financial deprivation[1]. These behaviors are not mutually exclusive, and often co-occur.


Most Common Domestic Violence Offenses, Kent County, 2013[2]


Most Common Victim-to-Offender Relationships, Kent County and Michigan 2013[2]

	Dating (BF/GF)	Child	Parent	Step-Child	Sibling	Other Family Member	Former Dating (BF/GF)	Child in Common	Ex-Spouse	Spouse
🟦 Kent County	28.56%	16.18%	12.38%	11.74%	9.59%	6.06%	6.03%	4.23%	3.11%	2.12%
🟥 Michigan	25.40%	12.40%	10.86%	12.68%	8.24%	7.89%	13.14%	5.19%	2.69%	1.51%

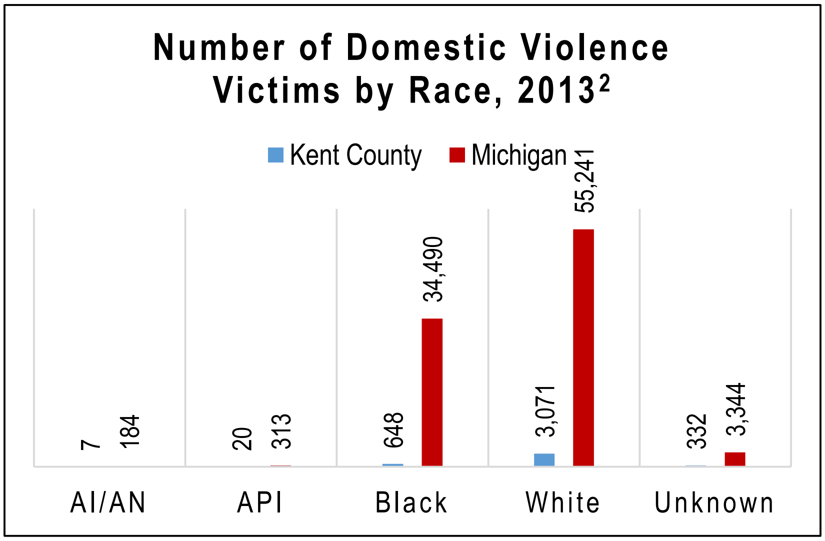
SUMMARY

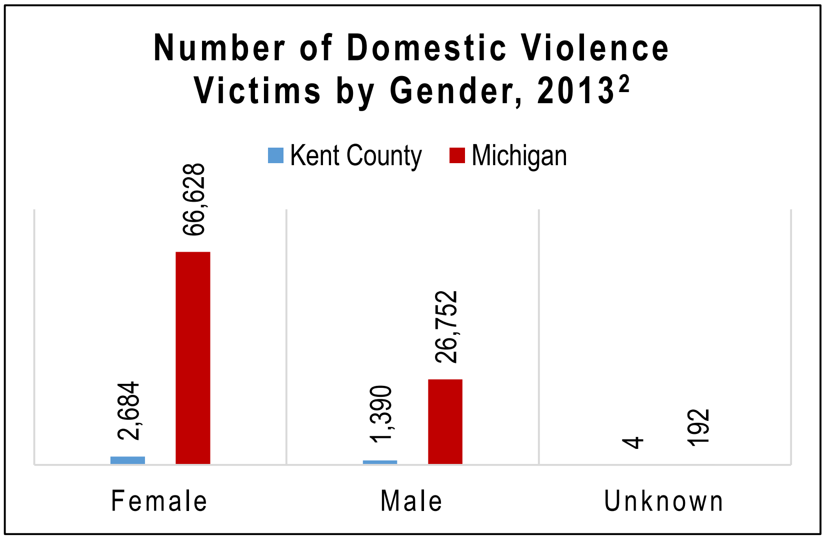
The charts provided illustrate basic statistics related to domestic violence in Kent County. Non-aggravated assault is responsible for two-thirds of offenses. The second and third most common types of domestic abuse involve intimidation/stalking and negligent/non-violent family abuse. Domestic violence in Kent County is most likely to occur among couples who are dating, and affects children, parents, and step-children.

In Kent County, there were twice as many female victims of domestic violence, when compared with males. The races that are most often victimized through domestic violence crimes are Whites and Blacks. This trend is seen at both the Kent County level and the state level.

REFERENCES

1. National Domestic Violence Hotline. (2011). *Abuse defined: Warning signs and red flags*. Retrieved from http://www.thehotline.org/is-this-abuse/abuse-defined/
2. Michigan State Police. (2013). *Michigan incident crime reporting, 2013 domestic violence information*. Retrieved from http://www.michigan.gov/documents/msp/Annual_Domestic_Violence_461480_7.pdf


Number of Domestic Violence Victims by Race, 2013[2]


Number of Domestic Violence Victims by Gender, 2013[2]

SOCIAL AND MENTAL HEALTH: KENT COUNTY
YOUTH RELATIONSHIP VIOLENCE

OVERVIEW: YOUTH RELATIONSHIP VIOLENCE

Teen dating violence is defined as the physical, sexual, psychological, or emotional violence within a dating relationship, including stalking. It can occur in person or electronically and might occur between a current or former dating partner. Dating violence is widespread and can have long and short-term effects, such as depression, anxiety, engagement in unhealthy behaviors, involvement in antisocial behaviors, and thoughts about suicide. Many teens do not report dating violence because they are afraid to tell family and friends[3].

Kent County Social And Mental Health: Youth Relationship Violence

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who were physically hurt on purpose by someone they were dating or going out with during the past 12 months	--	👎 ☺	2013-2014	Percent	--	9.7%	8.8%	10.3%	**IVP-39.1: Reduce physical violence by intimate partners. (developmental)**
Percentage of students who were forced to do sexual things they did not want to do by someone they were dating or going out with during the past 12 months	--	👎 ☹	2013-2014	Percent	--	11.0%	9.8%	10.4%	**IVP-39.2: Reduce sexual violence by intimate partners. (developmental)**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
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[a] Benchmark is based on Healthy People 2020 Goal.
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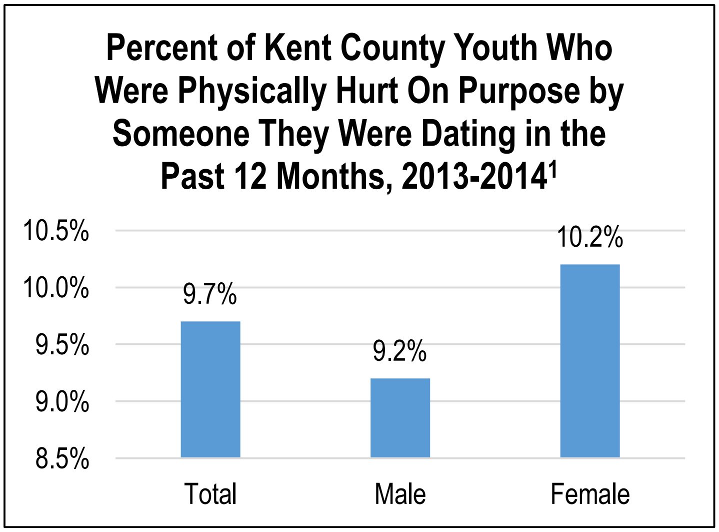
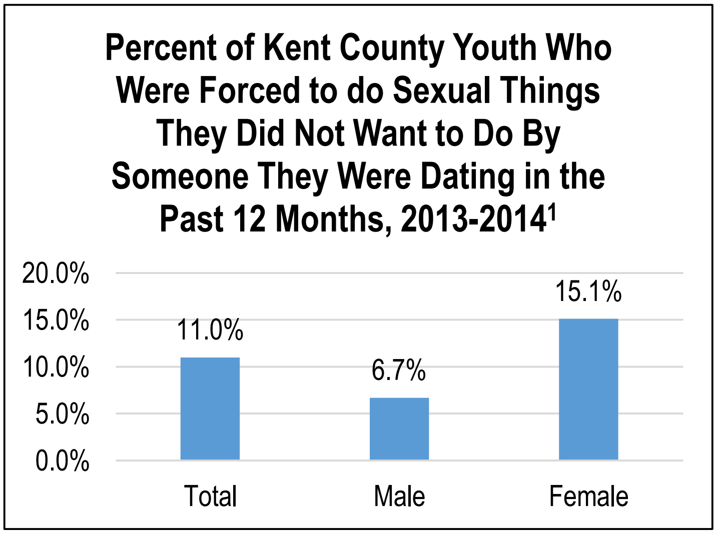
NA -- National Benchmark was not identified.
👍 ** Median range values used for United States. Data used from CDC YRBS 2013 Report.





SUMMARY

About 11% of Kent County youth report having been forced to do something sexual that they did not want to do by someone they were dating within the past 12 months, while nearly 10% of youth reported being physically hurt by someone they were dating in the past 12 months. Compared to the State of Michigan, Kent County teens experience dating violence more frequently. Females are more likely than males to experience this type of relationship violence.

REFERENCES

1. Michigan Department of Education. (2014). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx
2. Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system, United States and Michigan 2013 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx
3. Centers for Disease Control and Prevention. (2014). *Teen dating violence*. Retrieved from http://www.cdc.gov/violenceprevention/intimatepartnerviolence/teen_dating_violence.html

SOCIAL AND MENTAL HEALTH: KENT COUNTY
SEXUAL VIOLENCE

OVERVIEW: SEXUAL VIOLENCE

Sexual violence is a serious public health and human rights problem with both short-term and long-term consequences on physical, mental, and sexual and reproductive health. Sexual violence is defined any sexual act that is perpetrated against someone's will. A wide array of offenses are encompassed by the term sexual assault, including a completed non-consensual act (i.e. rape), an attempted non-consensual act, abusive sexual contact (i.e. unwanted touching), and non-contact sexual abuse (i.e. verbal sexual harassment, threatened sexual violence)[2]. Whether sexual violence is perpetrated by an intimate partner, or within the larger family or community structure, it is a deeply violating and painful experience for the survivor[3].

Kent County Social And Mental Health: Sexual Assault

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States[1]	National Benchmark[1,b]
Total Rapes	**--**	2013	Total Number	113	6,593	108,612	**IVP-40: Reduce rape or attempted rape (developmental)**
Total Rapes	**--**	2013	Rate per 100,000 population	--	66.6	34.4	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

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NA -- National Benchmark was not identified

SUMMARY

In 2013, there were 113 rapes reported to the various law enforcement agencies that serve Kent County communities. Further data on this important public health topic is not readily available at this time.

REFERENCES

1. US Department of Justice, Federal Bureau of Investigation. (2015). Crime in the United States, 2013. Retrieved from http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2013/crime-in-the-u.s.-2013/violent-crime/rape
2. Centers for Disease Control and Prevention. (2014). *Sexual violence: Definitions.* Retrieved from http://www.cdc.gov/violenceprevention/sexualviolence/definitions.html
3. World Health Organization. (2015). *Sexual violence*. Retrieved from http://www.who.int/reproductivehealth/topics/violence/sexual_violence/en/

SOCIAL AND MENTAL HEALTH: KENT COUNTY
CHILD MALTREATMENT

OVERVIEW: CHILD MALTREATMENT

Child maltreatment includes all types of abuse and neglect of a child under the age of 18 by a parent, caregiver, or another person in a custodial role. There are four common types of abuse – physical, sexual, emotional, and neglect[2]. Child maltreatment has a negative effect on health. Abused children often suffer from physical injuries, like cuts, bruises, burns, and broken bones. Extreme and ongoing maltreatment can cause problems with nervous system and immune system development, as well. Children aged four years and younger, living in poverty, living in communities with high violence rates, and within families with a history of abuse and neglect are at the greatest risk for becoming victims of maltreatment[2].

Kent County Social And Mental Health: Child Abuse and Neglect

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	National Benchmark[a,b]
Child Abuse and/or Neglect						
Children Ages 0 – 17 In Investigated Families	👎	2012	Rate per 1,000 population	94.2	90.1	**NA**
Confirmed Victims of Abuse/Neglect						
Ages 0 - 5	👎	2012	Rate per 1,000 population	23.5	22.6	**8.5[a] IVP-38: Reduce nonfatal child maltreatment.**
Ages 0 – 8	👎	2012	Rate per 1,000 population	21.0	19.8	
Ages 0 – 17	👎	2012	Rate per 1,000 population	15.7	14.6	
In Out Of Home Care Due to Abuse/Neglect						
Children Ages 0 – 5	👎	2012	Rate per 1,000 population	6.9	6.7	**NA**
Children Ages 0 – 8	👎	2012	Rate per 1,000 population	6.0	5.7	
Children Ages 0 – 17	--	2012	Rate per 1,000 population	4.5	4.5	

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NA -- National Benchmark was not identified

SUMMARY

Child abuse rates in Kent County are higher than rates reported for the State of Michigan. The rate per 1,000 population of confirmed victims of abuse and neglect for Kent County children between the ages of zero and 17 was 15.7, as compared with 14.6 for the State of Michigan. The highest rates of abuse and neglect were reported for children under the age of five.

REFERENCES

1. Annie E. Casey Foundation. (2014). *Kids Count data center*. Retrieved from http://datacenter.kidscount.org/locations
2. Centers for Disease Control and Prevention. (2014). *Understanding child maltreatment fact sheet*. Retrieved from http://www.cdc.gov/violenceprevention/pdf/ CM-FactSheet-a.pdf

SOCIAL AND MENTAL HEALTH: KENT COUNTY
YOUTH VIOLENCE IN SCHOOLS AND THE COMMUNITY

OVERVIEW: VIOLENCE IN SCHOOLS

Youth violence refers to harmful behaviors that can start early and continue into adulthood. Some youth become the perpetrator of violence, while others become victims or witnesses to these acts. Some types of youth violence, such as bullying, can cause more emotional harm than physical harm, while others can lead to serious injury or even death[3].

Kent County Social And Mental Health: Youth Violence in Schools and the Community

Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Percentage of students who carried a weapon such as a gun, knife, or club on one or more of the past 30 days	👎 ☹	👍 ☺	2013-2014	Percent	37.5%^	16.8%	24.6%**	28.1%**	**NA**
Percentage of students who carried a gun on one or more of the past 30 days	👍 ☺	☺	2013-2014	Percent	2.5%^	7.8%	7.8%**	9.4%**	**NA**
Percentage of students who did not go to school because they felt unsafe at school or on their way to or from school on one or more of the past 30 days	👎 ☹	👍 ☺	2013-2014	Percent	10.0%	4.5%	6.3%**	5.4%**	**NA**
Percentage of students who had been threatened or injured with a weapon such as a gun, knife, or club on school property one or more times during the past 12 months	👎 ☹	👍 ☺	2013-2014	Percent	8.7%	5.5%	8.4%**	7.7%**	**NA**
Percentage of students who were in a physical fight one or more times during the past 12 months	👎 ☹	👍 ☺	2013-2014	Percent	38.4%^	15.9%	28.1%**	30.2%**	**28.4%[a] IVP-34: Reduce physical fighting among adolescents.**
Percentage of students who were injured in a physical fight and had to be treated by a doctor or nurse one or more times during the past 12 months	👍 ☺	👍 ☺	2013-2014	Percent	3.5%^	2.0%	3.7%**	3.8%**	
Percentage of students who were in a physical fight on school property one or more times during the past 12 months	👎 ☹	👍 ☺	2013-2014	Percent	19.0%^	6.4%	9.7%**	10.7%**	

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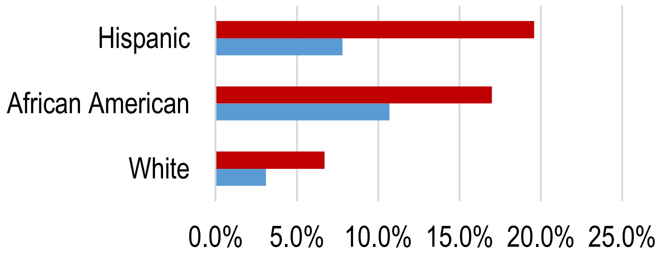
* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

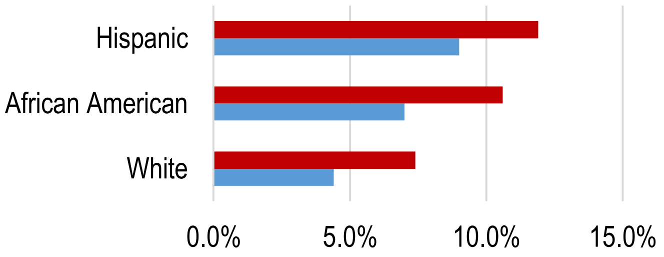
** Median range values used for United States. Data used from CDC YRBS 2013 Report.
^Middle school data is lifetime experience versus past 12 months.

Percent of Kent County Students Who Did Not Go to School Because They Felt Unsafe at School or On Their Way to or From School, by Race/Ethnicity, 2013-2014[1]



	White	African American	Hispanic
🟥 Middle School	6.7%	17.0%	19.6%
🟦 High School	3.1%	10.7%	7.8%

Percent of Kent County Students Who Have Been Threatened or Injured by a Weapon on School Property, by Race/Ethnicity, 2013-2014[1]



	White	African American	Hispanic
🟥 Middle School	7.4%	10.6%	11.9%
🟦 High School	4.4%	7.0%	9.0%

SUMMARY

Youth violence in schools and communities does not appear to be as big of an issue in Kent County as it is at the state and national levels. When considering high school-level data, fewer youth carry weapons in Kent County and fewer youth have been threatened or hurt by weapons than youth at the state and national level. However, within Kent County racial and ethnic disparities exist between the levels of violence experienced by youth. For example, at both the middle and high school levels, Hispanic and African American youth more frequently reported not going to school because they did not feel safe at school or on their way to or from school. A similar disparity is present among students reporting threats of violence and injury with a weapon while on school property. A higher percentage of Hispanic and African American youth report experiencing these types of situations than their white counterparts.

REFERENCES

1. Michigan Department of Education. (2014). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx
2. Centers for Disease Control and Prevention. (2014). *Youth risk behavior surveillance system, United States and Michigan 2013 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx
3. Centers for Disease Control and Prevention. (2014). *Youth violence*. Retrieved from http://www.cdc.gov/violenceprevention/youthviolence/

SOCIAL AND MENTAL HEALTH: KENT COUNTY
OVERALL CRIME RATE SUMMARY

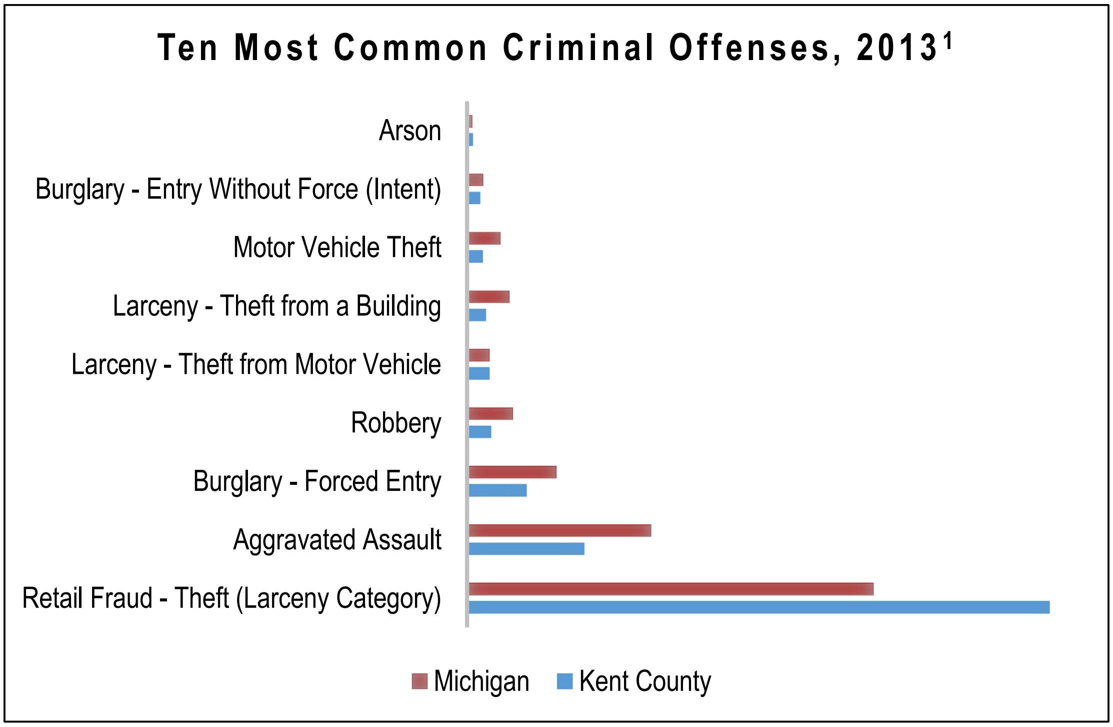
OVERVIEW: OVERALL CRIME RATE

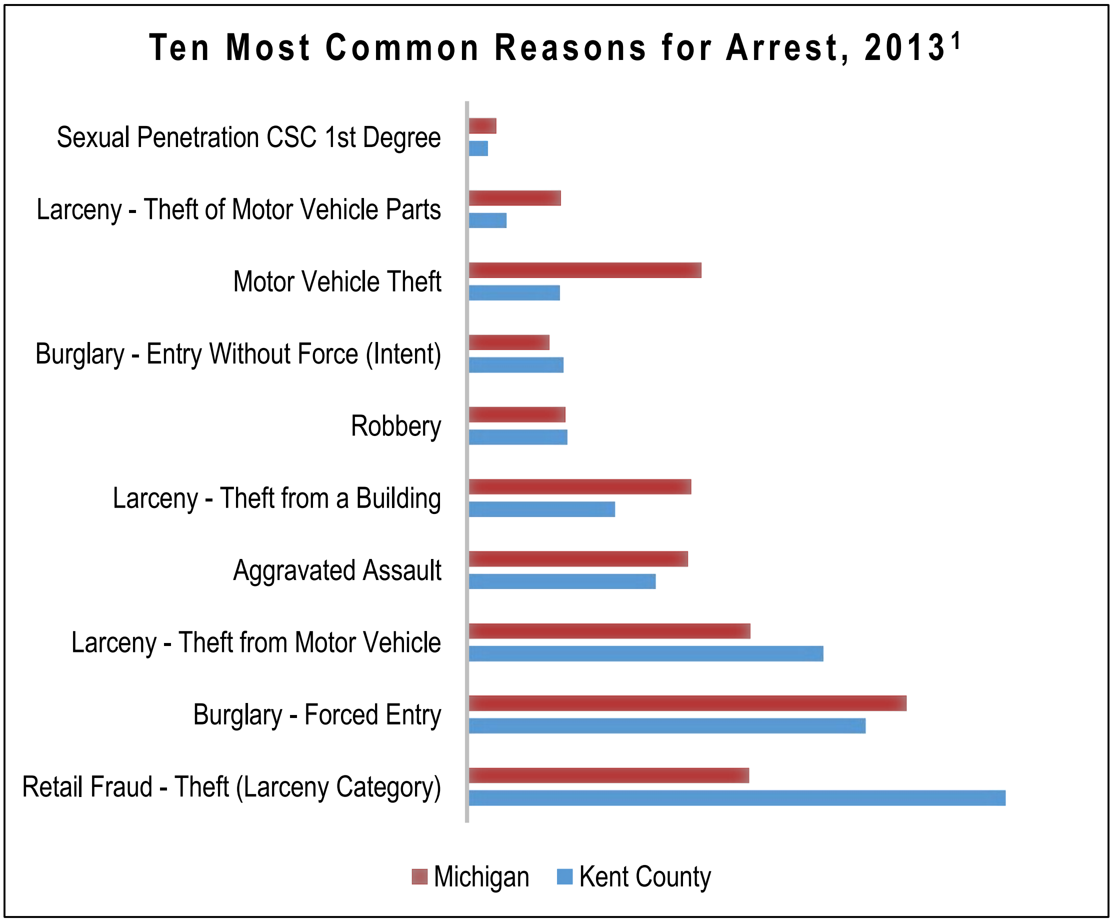
Crime can affect health both directly and indirectly. Persons who are the victims of crime will suffer the direct physical and psychological effects of the crime committed against them, as expected. However, indirect effects of crime and the means through which it can affect the health of individuals and communities is a great concern in regards to the wellbeing of residents in crime-ridden communities. High levels of crime can compromise physical safety, negatively influence psychological wellbeing, and deter residents from pursuing healthy behaviors[2]. Exposure to crime can exacerbate residents' existing chronic conditions, and may contribute to the development of stress-related disorders.

SUMMARY

The most common types of general crimes committed in Kent County include retail theft and fraud, aggravated assault, and burglary. The highest rates of arrest in Kent County are recorded for retail fraud, forced-entry burglary, and larceny or theft of property from a motor vehicle.

Some of the least common offenses recorded in Kent County are arson, burglary without forced entry, and motor vehicle theft.





REFERENCES

1. Michigan State Police. (2013). *Michigan incident crime reporting, 2013 all offenses by county/agency.* Retrieved from http://www.michigan.gov/documents/msp/Annual_Offenses_by_County_Agency_461485_7.pdf
2. County Health Rankings. (2014). *Violent crime*. Retrieved from http://www.countyhealthrankings.org/app/michigan/2014/measure/factors/43/description

SOCIAL AND MENTAL HEALTH: KENT COUNTY
BURGLARY, LARCENY, AND THEFT

OVERVIEW: BURGLARY, LARCENY, AND THEFT

Burglary (forced entry) is the unlawful forcible entry of a building or structure with the intent to commit a theft or felony. Burglary entry without force is the unlawful entry, without force, with the intent to commit a theft or other felony. Neither type of burglary applies to motor vehicles or coin boxes[2]. Larceny is the unlawful taking, carrying, leading, or riding away of property from the possession, or constructive possession of another person[3]. The category of larceny includes such things as pocket picking, purse snatching, theft from building, theft from coin-operated device, theft from a motor vehicle, theft of motor vehicle parts or accessories, and retail fraud. Motor vehicle theft is the theft or attempted theft of a self-propelled vehicle that runs on land and not on rails. “Joy-riding” is included in the motor vehicle theft category of crime[4]. The presence of crimes like these can have a negative impact on the health of people residing in communities. Constant crime and unrest can lead to increased stress and contributes to unhealthy behaviors.

Kent County Social and Mental Health: Burglary, Larceny, and Theft

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]
Total For All Burglary, Larceny, and Theft Crimes	--	2013	Total Number	10,459	226,235
Burglary – Forced Entry	--	2013	Total Number	2,476	45,710
Burglary – Entry without Force	--	2013	Total Number	598	8,552
Larceny – Pocket Picking	--	2013	Total Number	81	914
Larceny – Purse Snatching	--	2013	Total Number	60	715
Larceny – Theft from a Building	--	2013	Total Number	919	23,327
Larceny – Theft from Coin Operated Machine/Device	--	2013	Total Number	16	212
Larceny – Theft from a Motor Vehicle	--	2013	Total Number	2,213	29,481
Larceny – Theft of Motor Vehicle Parts/Accessories	--	2013	Total Number	245	9,745
Larceny – Other	--	2013	Total Number	3,273	53,888
Retail Fraud – Theft	--	2013	Total Number	3,346	29,322
Motor Vehicle Theft	--	2013	Total Number	578	24,369

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan

SUMMARY

In 2013, there was a total of 10,459 burglary, larceny, and theft-related cases reported in Kent County. The most frequent type of offenses were larceny-other, retail fraud, burglary forced entry, and larceny from a motor vehicle. The least common offenses were larceny from a coin operated machine, purse snatching, and pocket picking.

REFERENCES

1. Michigan State Police. (2013). *Michigan incident crime reporting, 2013 all offenses by county/agency.* Retrieved from http://www.michigan.gov/documents/msp/Annual_Offenses_by_County_Agency_461485_7.pdf
2. Michigan State Police. (2013). *Michigan incident crime reporting, 2013 burglary forced entry and entry without force*. Retrieved from http://www.michigan.gov/documents/msp/Annual_Burglary_461476_7.pdf
3. Michigan State Police. (2013). *2013 larceny offenses*. Retrieved from http://www.michigan.gov/documents/msp/Annual_Larceny_461477_7.pdf
4. Michigan State Police. (2013). *2013 motor vehicle theft*. Retrieved from http://www.michigan.gov/documents/msp/Annual_Motor_Vehicle_Theft_461478_7.pdf

SOCIAL AND MENTAL HEALTH: KENT COUNTY
HATE/BIAS CRIME

OVERVIEW: HATE AND BIAS CRIMES

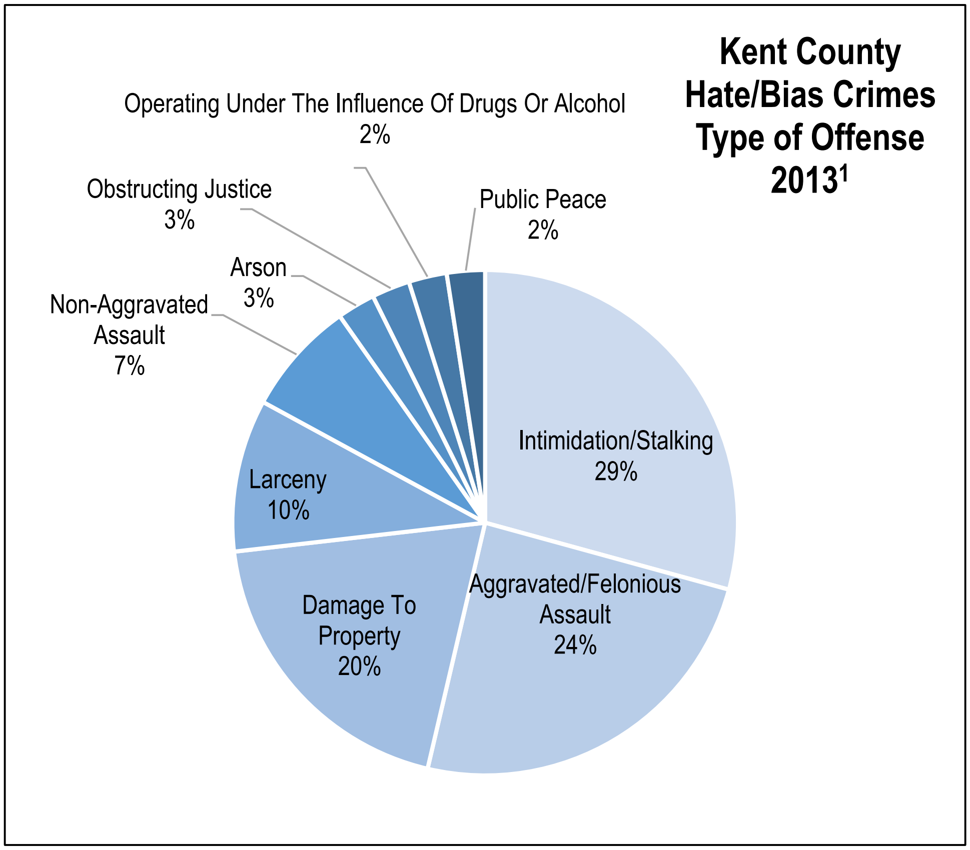
Crimes of hatred or prejudice are a fact of our nation's history, but the term "hate crime" did not enter the nation's vocabulary until the late 1980s, when emerging hate groups launched a wave of bias-fueled crimes. A hate crime is a criminal offense committed against a person or property which is motivated in whole or in part by the offender's bias against a race, ethnic group, a person's nation of origin, religion, sexual orientation, or mental/physical disability group[1]. Hate itself is not a crime, but traditional offenses like murder or arson with an added element of bias are what typically comprise hate crime offenses in this country[2].

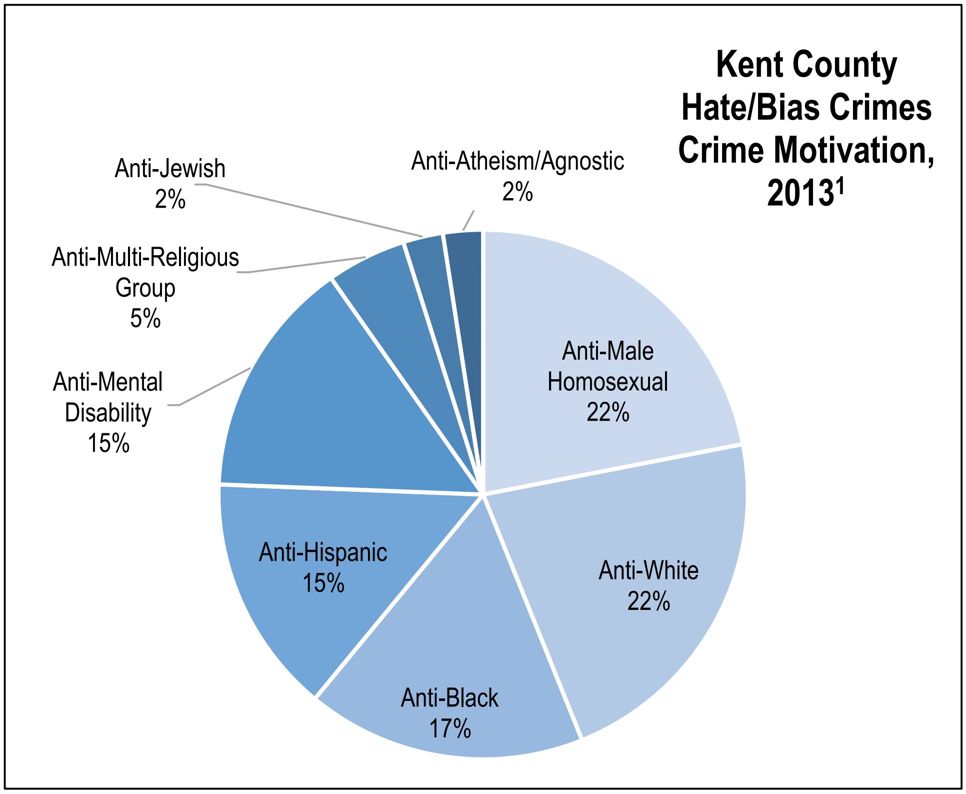
SUMMARY

A total of 22 hate/bias crimes were committed in Kent County during 2013[1]. The most-reported hate/bias crimes were related to intimidation and stalking, aggravated/felonious assault, and property damage. The target groups of these hate/bias crimes were most often homosexual males, whites, blacks, Hispanics, and persons with mental disabilities.

REFERENCES

1. Michigan State Police. (2013). *Michigan incident crime reporting, 2013 domestic violence information*. Retrieved from http://www.michigan.gov/documents/msp/Annual_Domestic_Violence_461480_7.pdf
2. The Federal Bureau of Investigation. (2014). Hate crime – Overview. Retrieved from http://www.fbi.gov/about-us/investigate/civilrights/hate_crimes/overview





SOCIAL AND MENTAL HEALTH: KENT COUNTY
HOMICIDE

OVERVIEW: HOMICIDE

Violent crime, like homicide, is a universal public health issue that tears at the fabric of communities and threatens the life, health, and happiness of all. Because it is so pervasive, violence is often seen as a fact of life rather than something that can be prevented or effectively reduced. Homicide is defined by the Federal Bureau of Investigation as the willful, non-negligent, killing of one human being by another[2].

Kent County Social and Mental Health: Homicide Rate

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States[1]	National Benchmark[a,b]
Total	👍 ☺	2013*	Rate per 100,000	3.3	6.7	5.4	**5.5[a]**
Age							
Under 25 Years	👍	2013*	Rate per 100,000	3.7	6.0	--	**IVP-29: Reduce homicides.**
25 to 74 Years	👍	2013*	Rate per 100,000	3.3	7.1	--	
75+ Years	--	2013*	Rate per 100,000	--	1.7	--	

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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

*Note: *The 2013 comparative data is based on 2013 MDCH Vital Statistics of Michigan Residents and 2012 Nationwide Vital Statistics.*

SUMMARY

In 2013, the homicide rate for Kent County was 3.3 per 100,000, which is lower than the rate reported for the State of Michigan and for the United States. This rate also signifies that Kent County has met and exceeded the Healthy People 2020 target of 5.5 homicides per 100,000.

Figure 11: Homicides by Race, 2009-2013

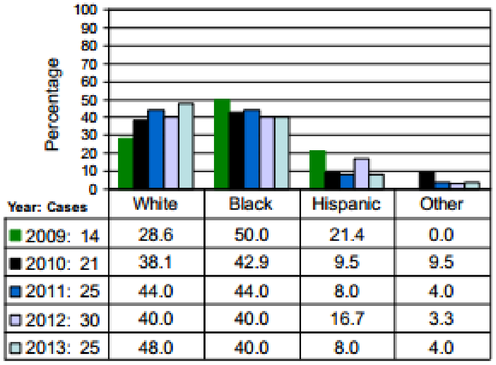
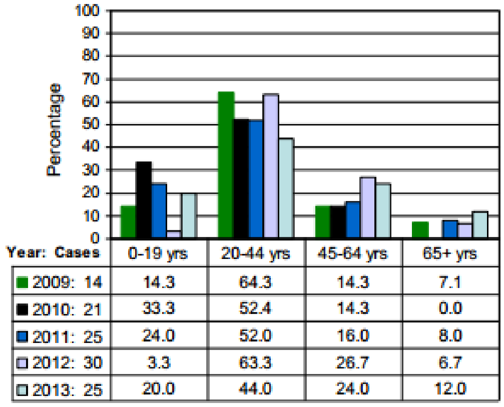
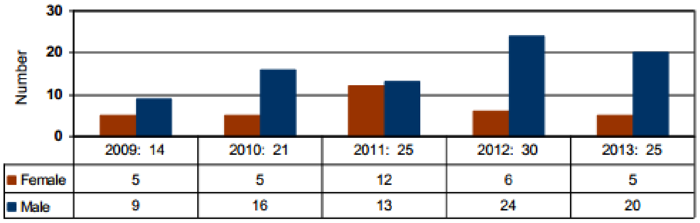


Figure 12: Homicides by Age, 2009-2013



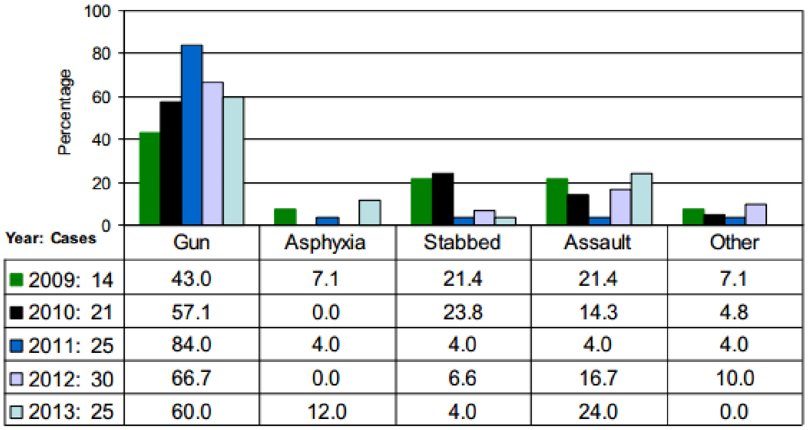
Based on data from the Kent County Medical Examiner's report[3], there were 25 total homicides in Kent County in 2013, which was a slight reduction from the number of homicide deaths reported in 2012. Homicides in Kent County appear to happen most often among Whites and African Americans, males, and people between the ages of 20 and 44 years.

Figure 9: Kent County Homicides by Gender, 2009-2013



All 2013 homicides committed in Kent County were committed through the use of a gun, asphyxia, stabbing, or assault.

Figure 13: Homicide Cases by Method Used, 2009-2013



Year: Cases	Gun	Asphyxia	Stabbed	Assault	Other
🟩 2009: 14	43.0	7.1	21.4	21.4	7.1
⬛ 2010: 21	57.1	0.0	23.8	14.3	4.8
🟦 2011: 25	84.0	4.0	4.0	4.0	4.0
🟪 2012: 30	66.7	0.0	6.6	16.7	10.0
☐ 2013: 25	60.0	12.0	4.0	24.0	0.0

REFERENCES

1. Michigan Department of Community Health. (2015). *Michigan mortality statistics*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html
2. US Department of Justice, Federal Bureau of Investigation. (2014). *Crime in the United States, murder*. Retrieved from https://www2.fbi.gov/ucr/cius2009/offenses/violent_crime/murder_homicide.html
3. Kent County Medical Examiner. (2013). *2013 annual report.* Retrieved from https://www.accesskent.com/Health/ME/pdf/2013_ME_Annual_Report.pdf

MATERNAL, INFANT, AND CHILD HEALTH

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT
COMMUNITY HEALTH STATUS ASSESSMENT

DEFINITION OF CATEGORY

One of the most significant areas for monitoring and comparison relates to the health of a vulnerable population: infants and children. This category focuses on birth data and outcomes as well as mortality data for infants and children. Because maternal care is correlated with birth outcomes, measures of maternal access to, and/or utilization of, care is included. Births to teen mothers is a critical indicator of increased risk for both mother and child.

Key Topics

- INFANT MORTALITY
- BIRTH DATA
- PRENATAL CARE
- PREGNANCY RATES
- TEEN BIRTHS
- CHILD MORTALITY

MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY
INFANT MORTALITY

OVERVIEW: INFANT MORTALITY

The death of a baby before his or her first birthday is called infant mortality. An infant mortality rate is an estimate of the number of infant deaths for every 1,000 live births. Often, this measure is used as an indicator to measure the health and wellbeing of a nation because factors affecting the entire population can also impact the rate of mortality among infants. Most cases of infant mortality are due to serious birth defects, prematurity or preterm birth, Sudden Infant Death Syndrome, consequences of maternal complications during pregnancy, and injuries or accidents like suffocation[3].

Kent County Maternal, Infant And Child Health: Infant Mortality

Indicator	Status	Time Period	Measure	Grand Rapids[1]	Kent County[1]	Michigan[1]	United States[2]	National Benchmark[a,b]
Total	👍 ☺	2013	Rate Per 1,000 Live Births	5.3	4.4	7.0	6.0	**6.0[a]**
Race/Ethnicity								**MICH-1.3: Reduce the rate of all infant deaths.**
White	👍 ☺	2011-2013*	Rate Per 1,000 Live Births	5.3	4.1	5.7	5.1	
African American	👍 ☹	2011-2013*	Rate Per 1,000 Live Births	14.9	12.9	13.1	11.2	
Hispanic	--	2013	Rate Per 1,000 Live Births	--	5.1	10.3	--	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

**Note: Comparative data for 2013 Grand Rapids, Kent County, and Michigan data is 2013 United States data from the National Center for Health Statistics.*

SUMMARY

The overall infant mortality rate in Kent County is 4.4 deaths per 1,000 live births. This rate is lower than that of the City of Grand Rapids, the State of Michigan, and the United States. It also indicates that Kent County has achieved the Healthy People 2020 target for this indicator. Despite the positive overall trend in infant mortality for Kent County, there are some obvious disparities associated with race. The infant mortality rate for African American babies in Kent County is more than three times that of White babies. A similar trend is observed in the City of Grand Rapids.

REFERENCES

1. Michigan Department of Community Health. (2015). *Michigan infant mortality*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4694---,00.html
2. Centers for Disease Control and Prevention. (2015). *Deaths: Final data for 2013, table 21*. Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_02.pdf
3. Centers for Disease Control and Prevention. (2014). *Reproductive health: Infant mortality*. Retrieved from http://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm

MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY
NEONATAL AND POST-NEONATAL MORTALITY

OVERVIEW: NEONATAL AND POST-NEONATAL MORTALITY

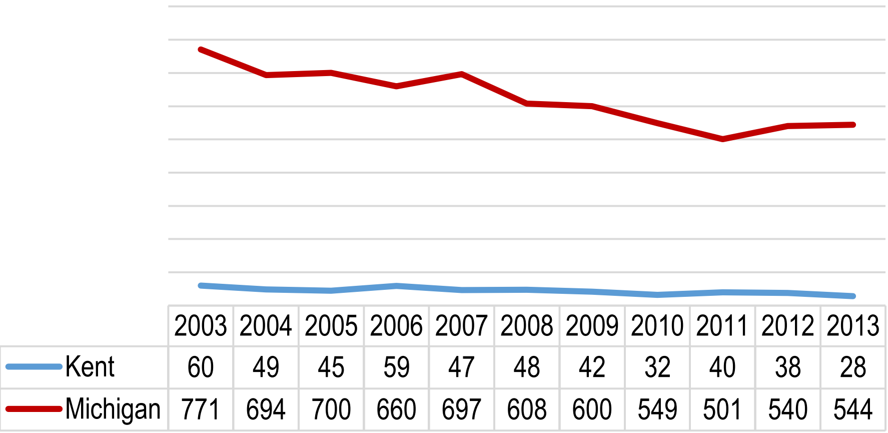
The neonatal mortality rate is the number of infant deaths per 1,000 live births that occur during the first 28 days of life. This is an important measure for newborn care and directly reflects prenatal, intrapartum, and neonatal care. Early neonatal deaths are most closely associated with pregnancy-related factors and maternal health, while later neonatal deaths are associated more with factors in the newborn's environment[2].

The post-neonatal mortality rate is also an indicator that is a subset of overall infant mortality. Post-neonatal mortality is the number of infant deaths per 1,000 live births that occur during the 28 days to one year following birth. Post-neonatal deaths are more likely to reflect the socioeconomic environment and condition of the home in which the infant resides, as well as the consequences of infectious and other types of disease or injury[3].

SUMMARY

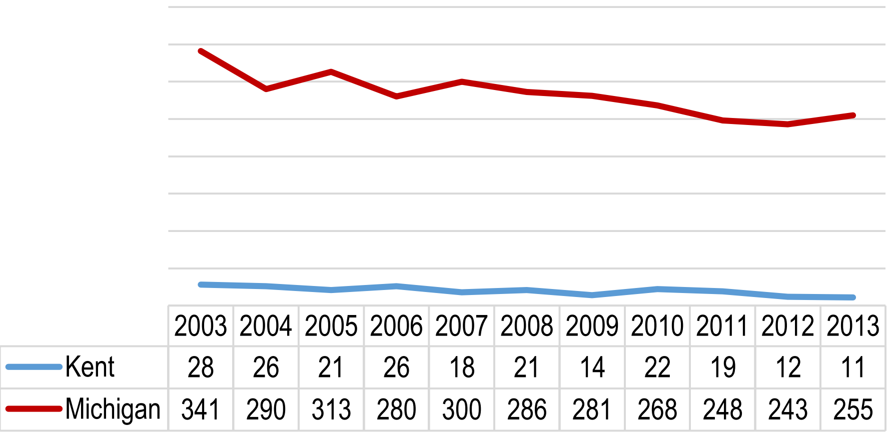
Over the past decade, the number of neonatal and post-neonatal deaths in Kent County have remained relatively stable, with no notable fluctuations. In 2013 there was a total of 28 neonatal deaths and 11 post-neonatal deaths reported in Kent County. Both measures reflect a decrease from the previous year.

Total Number of Neonatal Deaths for Kent County and Michigan, 2003-2013[1]



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Kent	60	49	45	59	47	48	42	32	40	38	28
Michigan	771	694	700	660	697	608	600	549	501	540	544

Total Number of Post-Neonatal Deaths for Kent County and Michigan, 2003-2013[1]



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Kent	28	26	21	26	18	21	14	22	19	12	11
Michigan	341	290	313	280	300	286	281	268	248	243	255

REFERENCES

1. Michigan Department of Community Health. (2015). *Michigan infant mortality*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4694---,00.html
2. University of North Carolina. (2015). *Measure evaluation PRH, family planning and reproductive health indicators database, neonatal mortality rate. Retrieved from* http://www.cpc.unc.edu/measure/prh/rh_indicators/specific/nb/neonatal-mortality-rate-nmr
3. Arkansas Department of Health. (2010). *Postneonatal mortality rate*. Retrieved from http://www.healthy.arkansas.gov/stats/stat/POSTNEO.HTM

MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY
CHILDHOOD MORTALITY

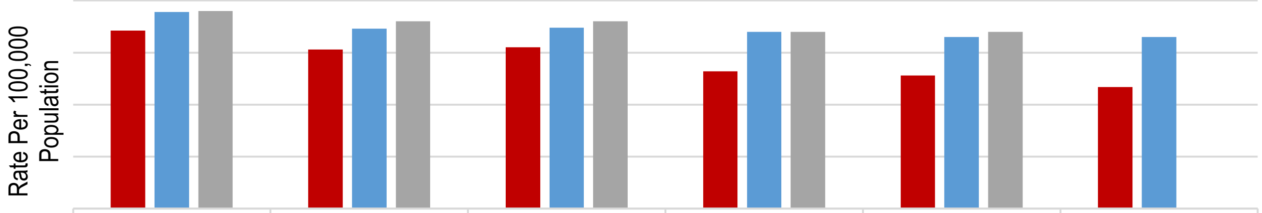
OVERVIEW: CHILDHOOD MORTALITY

The death of a child is tragic for family, friends, and is a great loss to a community. Death rates for children have fallen significantly in the past 30 years, though age, gender, and race disparities continue to persist. In addition to the impact that a child's death has on people close to that child, it also has implications for researchers and policymakers. High rates of childhood mortality can help identify underlying issues and root causes of certain conditions, as well as inequities within and between communities[3].

Kent County Maternal, Infant And Child Health: Childhood Mortality Rates
Number Of Deaths Among Children Per 100,000 Children Aged 1 - 14 Years

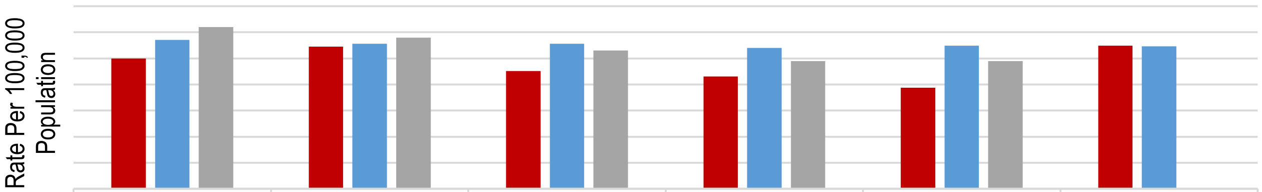
Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[2]	United States[4]	National Benchmark[a,b]
Total for Ages 1 – 14 Years	👍	2012	Rate Per 100,000	11.7	16.5	--	**54.3[a]** **MICH-4.2: Reduce the rate of deaths among adolescents aged 15-19 years.**
Total for Ages 15 – 19 Years	👎 ☹	2012	Rate Per 100,000	54.9	54.7	48.9	

Trends in Childhood Death Rates for Kent County, Michigan, and United States Residents Aged 1 to 14 Years, 2000-2012[2]



	2007	2008	2009	2010	2011	2012
🟥 Kent County	17.1	15.3	15.5	13.2	12.8	11.7
🟦 Michigan	18.9	17.3	17.4	17	16.5	16.5
⬜ United States	19	18	18	17	17	--

Trends in Teenage Death Rates for Kent County, Michigan, and United States Residents Aged 15 to 19 Years, 2000-2012[2]



	2007	2008	2009	2010	2011	2012
🟥 Kent County	50	54.5	45.2	43.1	38.8	54.9
🟦 Michigan	57.1	55.6	55.6	54	54.9	54.7
⬜ United States	62	58	53	49	49	--

Kent County Maternal, Infant And Child Health: Childhood Mortality

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	National Benchmark[a,b]
Total	--	2013	Total Number	56	1,075	**NA**
Age						
Under 1 Year	--	2013	Total Number	39	799	
1 – 14 Years	--	2013	Total Number	17	276	
By Diagnosis, Under 1 Year						
Septicemia	--	2013	Total Number	--	2	
Cancer	--	2013	Total Number	--	--	
Cardiovascular Disease	--	2013	Total Number	--	15	
Influenza and Pneumonia	--	2013	Total Number	--	7	
Chronic Lower Respiratory Disease	--	2013	Total Number	--	--	
Kidney Disease	--	2013	Total Number	--	2	
Conditions Originating in the Perinatal Period	--	2013	Total Number	20	414	
Congenital Malformations	--	2013	Total Number	12	160	
SIDS	--	2013	Total Number	1	31	
Other - Disease	--	2013	Total Number	3	69	
Unintentional Injuries (Accidents)	--	2013	Total Number	3	90	
Intentional Self-Harm (Suicide)	--	2013	Total Number	--	--	
Assault (Homicide)	--	2013	Total Number	--	5	
Other – Non Disease	--	2013	Total Number	--	4	
By Diagnosis, 1 – 14 Years						
Septicemia	--	2013	Total Number	--	2	
Cancer	--	2013	Total Number	4	34	
Cardiovascular Disease	--	2013	Total Number	2	15	
Influenza and Pneumonia	--	2013	Total Number	--	6	
Chronic Lower Respiratory Disease	--	2013	Total Number	--	4	
Kidney Disease	--	2013	Total Number	--	--	
Conditions Originating in the Perinatal Period	--	2013	Total Number	--	4	
Congenital Malformations	--	2013	Total Number	1	23	
SIDS	--	2013	Total Number	--	--	
Other - Disease	--	2013	Total Number	5	69	
Unintentional Injuries (Accidents)	--	2013	Total Number	4	79	
Intentional Self-Harm (Suicide)	--	2013	Total Number	--	18	
Assault	--	2013	Total Number	1	18	
Other – Non Disease	--	2013	Total Number	--	4	

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NA – National Benchmark was not identified.

**Note: Comparative data for 2013 Kent County and Michigan data is 201 United States data from the National Vital Statistics System, CDC/NCHS.*

SUMMARY

The childhood mortality rate for children between the ages of one and 14 years is 11.7 per 100,000 population for Kent County, compared to 16.5 for the state. The mortality rate for children between the ages of 15 and 19 years is 54.9 for Kent County, compared to 54.7 for the state. In general, the trend for childhood mortality has been moving in a positive direction, with a steady decline in the death rate over the past four years. However, a more unstable trend is presented for teenagers. Most children who die within their first year of life die from conditions originating in the perinatal period or from congenital malformations, while children between the ages of one and 14 years are most likely to die from unintentional injuries and cancers.

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MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY
EARLY PRENATAL CARE

OVERVIEW: EARLY PRENATAL CARE

Prenatal care is care received by women while they are pregnant. Getting early and regular prenatal care is important for the health of the mother and the unborn child because it keeps both healthy and allows doctors to identify potential problems with the pregnancy early. This allows for earlier treatment, which can improve health outcomes[3]. Early prenatal care is defined as receiving the first prenatal care appointment within the first trimester of pregnancy. Quality of prenatal care is measured through the Kotelchuck Index, also called the Adequacy of Prenatal Care Index. This index classifies prenatal care into four adequacy groupings: adequate plus, adequate, intermediate, and inadequate[4].

Kent County Maternal, Infant And Child Health: Early Prenatal Care

Indicator	Status	Time Period	Measure	Grand Rapids[1]	Kent County[1]	Michigan[1]	United States[2]	National Benchmark[a,b]
Total Population	☺	2013*	Percent Of Live Births	67.1%	73.1%	73.1%	70.8%	**77.9%[a]**
WIC Population[5]	☺	2013	Percent Of Live Births	--	79.9%	79.9%	73.7%	
Age								**MICH-10.1: Increase the proportion of pregnant women who receive prenatal care beginning in first trimester.**
Less than 15 Years	--	2013	Percent Of Live Births	--	--	29.7%	--	
15 – 19 Years	👎	2013	Percent Of Live Births	45.6%	50.4%	55.7%	--	
20 – 24 Years	👎	2013	Percent Of Live Births	60.8%	63.6%	65.9%	--	
25 – 29 Years	👍	2013	Percent Of Live Births	69.8%	77.0%	75.2%	--	
30 – 34 Years	👎	2013	Percent Of Live Births	74.9%	79.3%	80.0%	--	
35 – 39 Years	👎	2013	Percent Of Live Births	70.7%	77.0%	78.1%	--	
40+ Years	👎	2013	Percent Of Live Births	66.7%	72.6%	74.8%	--	
Race/Ethnicity								
White	👍	2013	Percent Of Live Births	73.2%	77.4%	76.7%	--	
African American	👎	2013	Percent Of Live Births	54.5%	57.1%	60.8%	--	
Hispanic	👎	2013	Percent Of Live Births	56.1%	59.4%	65.3%	--	
Arab	👎	2013	Percent Of Live Births	--	62.0%	71.1%	--	

Kent County Maternal, Infant And Child Health: Quality of Prenatal Care
Percent Of Women With A Live Birth Who Received Adequate Plus Or Adequate Prenatal Care Per The Kotelchuck Index

Indicator	Status	Time Period	Measure	Grand Rapids[1]	Kent County[1]	Michigan[1]	United States[2]	National Benchmark[a,b]
Total	👍 ☺	2013*	Percent Of Live Births	72.4%	77.1%	72.6%	70.5%	**77.6%[a]**
Race/Ethnicity								**MICH-10.2: Increase the proportion of pregnant women who receive early and adequate prenatal care.**
White	👍	2013	Percent Of Live Births	77.2%	80.4%	76.3%	--	
African American	👍	2013	Percent Of Live Births	62.3%	64.5%	59.7%	--	
Hispanic	👍	2013	Percent Of Live Births	66.6%	68.4%	68.3%	--	
Arab	👍	2013	Percent Of Live Births	--	67.5%	66.7%	--	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
☺ When compared, for this health indicator, Kent County is better than the United States.
☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA – National Benchmark was not identified.

**Note: Comparative data for 2013 Grand Rapids, Kent County, and Michigan data is 2007 United States data from the National Vital Statistics System.*

SUMMARY

The percentage of pregnant women in Kent County who entered prenatal care within the first trimester was 73.1%, which is on par with the state, and better than the United States and the City of Grand Rapids. There appears to be a disparity among age groups and racial and ethnic groups when it comes to early entry into prenatal care in Kent County. Women between the ages of 25 and 39 years and white women are the most likely to receive their first prenatal care in the first trimester. Kent County still has room for improvement on this measure in order to achieve the Healthy People 2020 target of 77.9% for this measure.

In regard to quality of prenatal care, more than 77% of Kent County pregnant women received adequate plus or adequate prenatal care services. This is a higher percentage than the state, nation, and city of Grand Rapids. Kent County is very close to achieving the Healthy People 2020 target of 77.6% for this measure, as well. Despite the positive statistics for the county overall, Kent does have some clear racial and ethnic disparities of importance when considering quality of prenatal care. White women are significantly more likely than African Americans, Hispanics, and Arabs to receive adequate plus or adequate prenatal care. Similar findings hold true for the city of Grand Rapids, as well.

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MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY
TEEN SEXUAL HEALTH

OVERVIEW: TEEN SEXUAL HEALTH

Many young people engage in sexual risk behaviors that can result in unintended health outcomes. Some of the negative health outcomes that occur as a result of sexual activity among youth include HIV, other serious STIs, and unintended teen pregnancies. For example, adolescents and young adults account for nearly half of the new STI cases that are diagnosed each year and more than 8,000 people between the ages of 13 and 24 have a positive HIV status[3].

Kent County Maternal, Infant, And Child Health: Teen Sexual Health									
Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Benchmark[a,b]
	Middle School	High School			Middle School	High School			
Students Who Ever Had Sexual Intercourse	👍 ☺	👍 ☺	2013 - 2014	Percent	8.8%	25.8%	38.1%**	46.8%**	**FP-9: Increase the proportion of adolescents aged 17 years and under who have never had sexual intercourse.**
Students Who Had Sexual Intercourse With Four Or More People During Their Life	👍 ☺	👍 ☺	2013 - 2014	Percent	2.2%	5.6%	8.3%**	15.0%**	
Students Who Used A Condom During Last Sexual Intercourse (Sexual Intercourse In Past 3 Months)	👎 ☹	👍 ☺	2013 - 2014	Percent	57.8%	67.5%	61.0%**	59.1%**	**FP-10: Increase the proportion of sexually active persons aged 15-19 years who use condoms.**
Students Who Used Birth Control Pills To Prevent Pregnancy Before Last Sexual Intercourse (Sexual Intercourse In Past 3 Months)	--	👎 ☹	2013 - 2014	Percent	--	18.3%	21.7%**	19.0%**	
Students Who Had Ever Been Pregnant Or Gotten Someone Else Pregnant	--	--	2013 - 2014	Percent	--	4.3%	--	--	**NA**
Students Whose First Sexual Partner Was 3 Or More Years Older	--	--	2013 - 2014	Percent	16.2%	19.9%	--	--	**NA**

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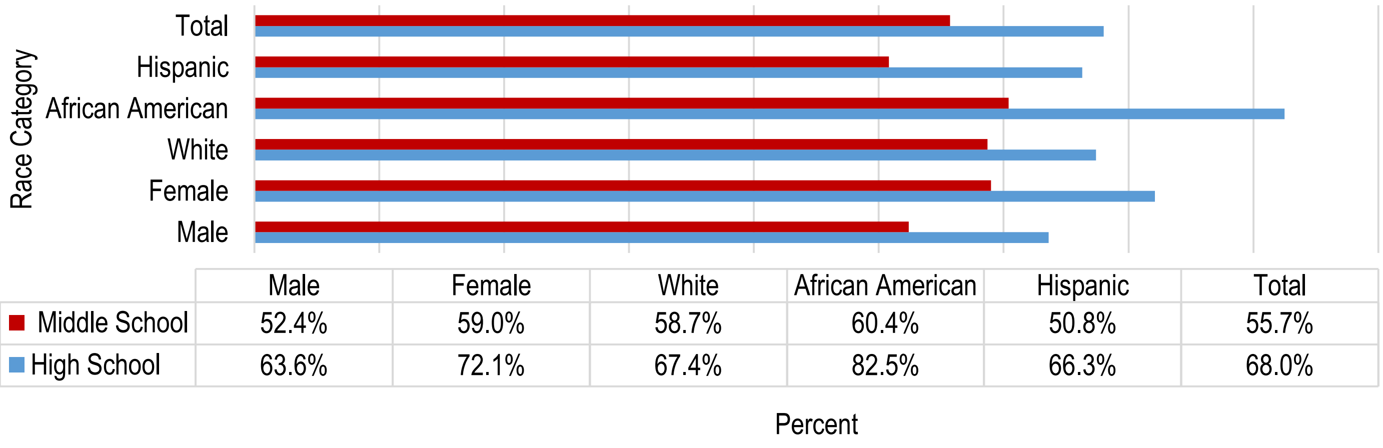
NA -- National Benchmark was not identified.

** Median range values used for United States. Data used from CDC YRBS 2013 Report.

Percent of Kent County Youth Whose Parents or Other Adults Have Ever Talked With Them About What they Expected them to Do or Not to Do When it Comes to Sex, by Race/Ethnicity and Gender, 2013-2014[1]



	Male	Female	White	African American	Hispanic	Total
🟥 Middle School	52.4%	59.0%	58.7%	60.4%	50.8%	55.7%
🟦 High School	63.6%	72.1%	67.4%	82.5%	66.3%	68.0%

SUMMARY

In Kent County, 8.8% of middle schoolers and 25.8% of high schoolers reported having had sexual intercourse at least once. Both age groups are less sexually active than youth at the state and national level. However, the rates of birth control use among sexually active Kent County youth are concerning, with only 57.8% of middle schoolers and 67.5% of high schoolers reporting condom use and less than 20% of high schoolers reporting use of birth control pills to prevent pregnancy.

Overall, almost 70% of high school students and about 55% of middle school students report having a talk with parents or other adults about expected behavior related to sex. African American students were the most likely to have had this talk with an adult, while Hispanic students were the least likely. Females were also more likely to have received this information from an adult when compared to males.

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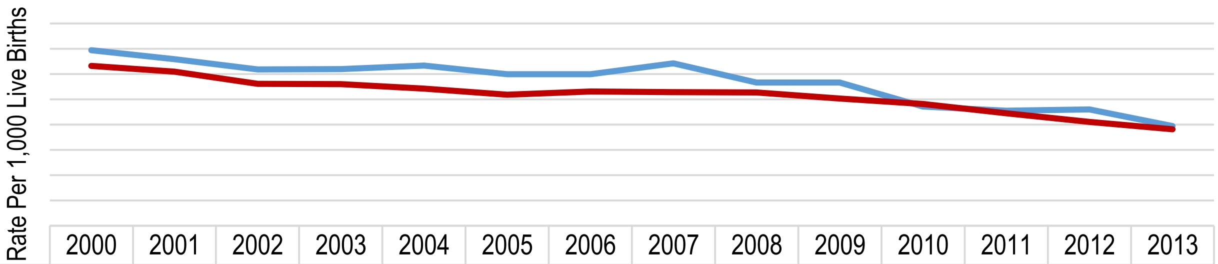
MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY
TEEN PREGNANCY AND BIRTHS TO TEENS

OVERVIEW: TEEN PREGNANCY AND BIRTHS TO TEENS

Teen pregnancy is a public health issue of great concern to many communities because of the socioeconomic and other consequences that result. For example, only about 50% of teen mothers graduate high school, compared to a 90% graduation rate for those females who do not become teen mothers. Lack of education is associated with increased health problems, low incomes, and unemployment. Teen mothers are also at an increased risk of poorer health later in life due to poor lifestyle choices, such as smoking, eating unhealthy, and not having the time to exercise[1]. The teen pregnancy rate is expressed as the total number of live births, abortions, and estimated miscarriages per 1,000 females between the ages 15-19 years.

The measure of births to teens is similar to the teen pregnancy rate, but is different since it focuses on the number of *live* births per 1,000 females aged 15 to 19 years. This measure does not take into account abortions and miscarriages. Repeat births among teen mothers becomes a concern, as about one in five young women who have a child as a teenager are likely to have multiple births.

Teen Pregnancy Rates for Kent County and Michigan, 2000-2013[2]



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Kent County	69.4	65.9	61.8	62	63.4	59.9	60	64.2	56.6	56.6	47.2	45.5	46	39.4
Michigan	63.2	61	56.1	56	54.3	51.8	53.1	52.9	52.7	50.3	48.2	44.5	41.1	38.2

Kent County Maternal, Infant And Child Health: Teen Pregnancy Rate
Total Number Of Live Births, Abortions, And Estimated Miscarriages Per 1,000 Females Aged 15-19 Years.

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[2]	National Benchmark[a,b]	
Total	👎	2013	Rate Per 1,000 Live Births	39.4	38.2	**FP-8: Reduce pregnancies among adolescent females**	**NA**
Age of Mother							
Aged 15 to 17 Years (Of Mother)	--	2013	Rate Per 1,000 Live Births	--	17.5		**36.2[a]**
Aged 18 to 19 Years (Of Mother)	--	2013	Rate Per 1,000 Live Births	--	68.5		**104.6[a]**
Race							**NA**
White	👎	2013	Rate Per 1,000 Live Births	29.6	26.9		
African American	👍	2013	Rate Per 1,000 Live Births	82.1	83.2		

Kent County Maternal, Infant And Child Health: Teen Birth Rate
Total Number Of Live Births Per 1,000 Females Aged 15-19 Years.

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	👎 ☹	2012	Rate Per 1,000 Live Births	31.4	26.3	29.4	**NA**
Age of Mother							
Aged 15 to 17 Years (Of Mother)	--	2012	Rate Per 1,000 Live Births	--	11.9	14.1	
Aged 18 to 19 Years (Of Mother)	--	2012	Rate Per 1,000 Live Births	--	47.2	51.4	
Race/Ethnicity							
White	👍 ☺	2011*	Rate Per 1,000 Live Births	17.3	19.8	20.5	
African American	👎 ☹	2011*	Rate Per 1,000 Live Births	66.3	55.5	43.9	
Hispanic/Latino	👎 ☹	2011*	Rate Per 1,000 Live Births	74.8	45.3	46.3	

**Note: Comparative data for 2011 Kent County and Michigan data is 2012 United States data from the National Vital Statistics System.*

Kent County Maternal, Infant And Child Health: Repeat Births to Teens
Total Number Of Second Or Third Births To Teens (Percent Based On Births To Mothers Aged 15-19 Years)

Indicator	Status	Time Period	Measure	Kent County[4]	Michigan[4]	United States[4]	National Benchmark[a,b]
Total	👍 ☺	2012	Percent	16.7%	17.1%	17.0%	**NA**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

SUMMARY

The teen pregnancy rate in Kent County is 39.4 per 1,000 live births, which is higher 38.2 per 1,000 live births which was reported for the State of Michigan. There is a clear racial disparity in teen pregnancy in Kent County, with the rate for African Americans at nearly three times that of white teens. Similarly, the teen birth rate in Kent County (32.4 per 1,000 live births) is also higher than the teen birth rate at the state (26.3 per 1,000 live births) and national level (29.4 per 1,000 live births). The same type of racial disparity persists when birth rate is considered, with the teen birth rate for African Americans about three times that of white teens. However, the highest teen birth rate in Kent County is reported for Hispanic/Latino teens.

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MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY BIRTH RATE AND OTHER BIRTH CHARACTERISTICS

OVERVIEW: BIRTH RATE AND OTHER BIRTH CHARACTERISTICS

The birth rate is used to calculate population growth and to look at health indicators of a community. There are factors within the community that affect the birth rate, such as contraceptive methods and pregnancy resources available. Birth rates have been declining in the United States in recent years. First and second order births account for the majority of births to women 15-44 years. Third order births have declined the most and fourth or higher order births have declined the least in 2007-2009[2].

Multiple births are associated with a higher risk of preterm deliveries. Preterm delivery is associated with higher infant mortality and permanent developmental disabilities. With singleton births, infants are still at risk of the conditions associated with preterm delivery; however, the risk for being born prematurely is reduced[3].

Though the birth rate to unwed mothers has declined in recent years, it is still an indicator of interest and concern in public health due to the short and long-term consequences that can occur for both mother and child. Single mothers are faced with increased levels of stress due to lack of a support network, limited resources, and strains on their health that occur when having to provide for a child on her own. Children of single mothers who do not have at least a high school education are nine times more likely than other children to grow up in poverty[4].

Kent County Maternal, Infant And Child Health: Birth Rate

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States[1]	National Benchmark[a,b]
Total Birth Rate	👎 ☹	2013	Rate per 1,000	14.2	11.5	12.5	NA

Kent County Maternal, Infant And Child Health: Births To Unwed Mothers

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States	National Benchmark[a,b]
Total Birth Rate to Unwed Mothers	👍	2013	Percent	37.2%	42.7%	--	NA

Kent County Maternal, Infant And Child Health: Infection Status And Screening

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States	National Benchmark[a,b]
Confirmed Group-B Strep Present During Pregnancy	👎	2013	Percent	19.0%	17.6%	--	NA
Maternal HIV Test Performed	👍	2013	Percent	95.4%	77.8%	--	NA

Kent County Maternal, Infant And Child Health: Other Birth Characteristics

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States	National Benchmark[a,b]
First Births	--	2013	Percent	38.6%	39.1%	--	NA
Fourth Or Higher Order Births	--	2013	Percent	12.6%	12.2%	--	
Singleton Births	--	2013	Percent	96.2%	96.3%	--	
Male to Female Ratio*	--	2013	Ratio	107.3	104.4	--	NA

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

** Male/Female ratio is the number of male resident live births divided by the number of female resident live births x 100.*

SUMMARY

The total birth rate for Kent County in 2013 was 14.2 per 1,000, which is higher than the state and national rates. More than one-third of births in 2013 were to unwed mothers in Kent County, which is lower than the nearly 43% that was reported for the State of Michigan. Kent County appears to be testing mothers for HIV much more frequently than the state, with more than 95% of mothers receiving an HIV test in 2013.

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MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY
PRETERM BIRTHS

OVERVIEW: PRETERM BIRTHS

Term	Definition[1]
Very Preterm	Infants born prior to 32 completed weeks of gestation.
Late Preterm	Infants born between 34 and 36 completed weeks of gestation.
Preterm	Infants born prior to 37 completed weeks of gestation.

Preterm birth is any birth that occurs before 37 weeks gestation. It is important that a healthy pregnancy is allowed to go full-term, 40 weeks gestation, and for labor to begin on its own. During the final months and weeks of pregnancy, vital growth and development takes place. Infants who are born before this can happen, are starting life at a disadvantage. Preterm infants can spend weeks and months in a neonatal intensive care unit[3]. The earlier an infant is born, the more severe his/her short and long-term health problems are likely to be.

Kent County Maternal, Infant And Child Health: Preterm Births

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States[2]	National Benchmark[a,b]
Very Preterm	👍 ☹	2013	Percent	2.2%	2.3%	1.9%	1.8%[a] MICH-9.4: Reduce very preterm births.
Live Births 32 To 33 Weeks Gestation	👍 ☺	2013	Percent	1.4%	1.6%	1.5%	1.4%[a] MICH-9.3: Reduce live births at 32 to 33 weeks gestation.
Late Preterm	👍 ☺	2013	Percent	7.7%	8.2%	8.1%	8.1%[a] MICH-9.2: Reduce late preterm births.
Preterm	👍 ☺	2013	Percent	11.3%	12.0%	11.5%	11.4%[a] MICH-9.1: Reduce total preterm births.
Preterm, WIC Recipients[5]	👎 ☹	2013	Percent	12.1%	11.5%	11.4%	

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[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

**Note: Comparative data for 2013 Grand Rapids, Kent County, and Michigan data is 2012 US data from the National Vital Statistics System.*

SUMMARY

Slightly more than 11% of all births in Kent County were preterm births in 2013. At this percentage, Kent County appears to have better birth outcomes than the state and nation. Kent County also has a lower percentage of very preterm, births at 32 to 33 weeks gestation, and late preterm births than the state and nation. For all of these important maternal, infant and child health indicators, Kent County has achieved the Healthy People 2020 targets, which can be viewed in the table above.

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1. Michigan Department of Community Health. (2014). *Natality, pregnancy, and abortion statistics*. Retrieved from http://www.mdch.state.mi.us/pha/osr/index.asp?Id=2
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MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY
LOW AND VERY-LOW BIRTH WEIGHT

OVERVIEW: LOW AND VERY-LOW BIRTH WEIGHT

Birth weight is the most significant predictor of infant health. Infants born with a low birth weight have the highest risk of infant mortality. Low birth weight and very-low birth weight infants are at an increased risk of developing numerous conditions, ranging from hypothermia to Sudden Infant Death Syndrome[3]. As these children get older, they continue to have an increased risk of health issues like cerebral palsy and developmental delays[3]. An infant is considered to have a low birth weight if he or she is born weighing less than 2500 grams, or 5.5 pounds, while very low-birth weight babies are born weighing less than 1500 grams, or 3.25 pounds. Low birth weight babies are most likely to be born to teenage mothers.

Kent County Maternal, Infant And Child Health: Low And Very-Low Birth Weight

Indicator	Status	Time Period	Measure	Grand Rapids[1]	Kent County[1]	Michigan[1]	United States[2]	National Benchmark[a,b]
Total Low Birth Weight Births	☹	2013*	Percent	8.8%	8.3%	8.3%	8.0%	**7.8%[a]**
WIC Low Birth Weight Births[4]	☹	2013*	Percent	--	8.7%	8.7%	8.0%	
Total Very–Low Birth Weight Births	☹ 👎	2013*	Percent	1.9%	1.5%	1.6%	1.4%	**1.4%[a]**
Total Low Birth Weight Births by Race/Ethnicity								**MICH-8.1: Reduce low birth weight (LBW).** **MICH-8.2: Reduce very low birth weight (VLBW).**
White	👎	2013	Percent	7.6%	7.6%	7.1%	--	
African American	👍	2013	Percent	12.9%	12.8%	13.2%	--	
Hispanic	--	2013	Percent	7.5%	7.5%	7.5%	--	
Arab	👍	2013	Percent	--	5.4%	6.9%	--	
Birth Weight (in grams) by Race/Ethnicity								
Less Than 750 Grams								
All Races	👍	2013	Percent	0.6%	0.4%	0.5%	--	
White	--	2013	Percent	0.6%	0.4%	0.4%	--	
African American	👍	2013	Percent	0.9%	0.9%	1.2%	--	
Hispanic	👎	2013	Percent	--	0.6%	0.4%	--	
Arab	--	2013	Percent	--	--	0.5%	--	
750 – 1,499 Grams								
All Races	--	2013	Percent	1.2%	1.1%	1.1%	--	
White	👎	2013	Percent	1.2%	1.0%	0.9%	--	
African American	👍	2013	Percent	1.4%	1.7%	2.1%	--	
Hispanic	👎	2013	Percent	0.9%	1.1%	1.0%	--	
Arab	--	2013	Percent	--	--	0.7%	--	
1,500 – 2,499 Grams								
All Races	👎	2013	Percent	7.0%	6.8%	6.6%	--	
White	👎	2013	Percent	5.8%	6.2%	5.8%	--	
African American	👎	2013	Percent	10.5%	10.2%	9.9%	--	
Hispanic	👍	2013	Percent	5.8%	5.8%	6.1%	--	
Arab	👍	2013	Percent	--	4.7%	5.7%	--	
2,500 Grams Or Greater								
All Races	--	2013	Percent	91.2%	91.7%	91.7%	--	
White	👎	2013	Percent	92.4%	92.4%	92.9%	--	
African American	👍	2013	Percent	87.1%	87.2%	86.8%	--	
Hispanic	--	2013	Percent	92.5%	92.5%	92.5%	--	
Arab	👍	2013	Percent	--	94.6%	93.1%	--	

👍	When compared, for this health indicator, Kent County is better than the State of Michigan.
👎	When compared, for this health indicator, Kent County is worse than the State of Michigan.
☺	When compared, for this health indicator, Kent County is better than the United States.
☹	When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

**Note: Comparative data for 2013 Grand Rapids, Kent County, and Michigan data is 2012 US data from the National Vital Statistics System.*

SUMMARY

The percent of low birth weight (LBW) births in Kent County was 8.3% in 2013, while the percent of very low birth weight (VLBW) births was 1.5%. These statistics indicate the Kent County has not achieved the Healthy People 2020 target for these two important measures of maternal, infant, and child health. While this is concerning, the percentages of LBW and VLBW for the City of Grand Rapids are even more troubling, with 8.8% of births LBW and almost 2% of births VLBW.

Clear racial disparities are documented for LBW in both Kent County and the City of Grand Rapids. The percent of LBW births for African American women in Grand Rapids was 12.9% in 2013, while the percent of LBW births for African Americans in Kent County overall was 12.8%. For both the city and county, the percent of LBW for African Americans was almost double that of whites and Hispanics.

REFERENCES

1. Michigan Department of Community Health. (2013). *Natality statistics*. Retrieved from http://www.mdch.state.mi.us/pha/osr/CHI/Births/frame.html
2. Healthy People 2020. (2014). *HP2020 objective data search, maternal, infant and child health*. Retrieved from http://www.healthypeople.gov/2020/data-search/Search-the-Data?nid=4903
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MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY
USE OF CESAREAN SECTIONS

OVERVIEW: USE OF CESAREAN SECTIONS

About one-third of births in the United States are delivered via cesarean section. Elective cesarean sections, also commonly referred to as C-sections, are becoming more and more common. This method of delivery, when not medically warranted, can carry greater risks for both the mother and the baby's health. Women who have a planned C-section are more likely to be hospitalized within 30 days of the delivery when compared with women who have a planned vaginal birth[3]. C-sections are also more costly than vaginal deliveries.

Historically, it has been common for women who have had C-sections for one of their births to continue with that method of delivery for each subsequent birth. However, the American College of Obstetricians and Gynecologists (ACOG) supports the use of vaginal birth after C-section (VBAC) as a suitable alternative to repeat C-sections for women with low risk births[4]. Attempted VBACs have a 0.4-0.7% risk of uterine rupture — a much smaller risk than what was commonly thought.

Kent County Maternal, Infant And Child Health: Use of Cesarean Sections

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States[2]	National Benchmark[a,b]
Cesarean Births	👍	2013	Percent	31.2%	32.5%	--	**NA**
Low Risk Live Births -- Cesarean Births	👍 ☹	2013*	Percent	28.3%	29.6%	26.4	**23.9%[a]** **MICH-7.1: Reduce cesarean births among low-risk women with no prior cesarean births.**
Low Risk Live Births -- First Cesarean Section	👍	2013	Percent	16.2%	17.7%	--	**NA**
Low Risk Women -- Prior Cesarean Birth	👍 ☹	2013	Percent	87.3%	88.6%	89.9%	**81.7%[a]** **MICH-7.2: Reduce cesarean births among low-risk women giving birth with a prior cesarean birth.**

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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

**Note: Comparative data for 2013 Kent County and Michigan data is 2010 US data from the National Vital Statistics System.*

SUMMARY

Based on numbers reported for 2013, Kent County still has significant work to do in reducing the number of elective C-section deliveries to achieve the Healthy People 2020 targets that have been established.

REFERENCES

1. Michigan Department of Community Health. (2014). *Natality statistics*. Retrieved from http://www.mdch.state.mi.us/pha/osr/CHI/Births/frame.html
2. Healthy People 2020. (2014). *HP2020 objective search data, maternal, infant and child health*. Retrieved from http://www.healthypeople.gov/2020/data-search/Search-the-Data?nid=4900
3. Declercq, E., Barger, M., Cabral, H.J., et al. (2007). Maternal outcomes associated with planned primary cesarean births compared with planned vaginal births. *Obstetrics and Gynecology,109*(3);669-677.
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MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY
PREGNANCY WEIGHT GAIN

OVERVIEW: PREGNANCY WEIGHT GAIN

Appropriate pregnancy weight gain is determined by pre-pregnancy body mass index (BMI) assessments. Healthy weight gain during pregnancy is an important factor in infant health outcomes and infant birth weight. Women who are underweight before pregnancy should gain 28-40 pounds during pregnancy; women who are at a normal pre-pregnancy weight should gain 25-35 pounds; overweight women should gain 15-25 pounds; and obese women should gain 11-20 pounds[3].

Term	Definition[3]
Underweight	BMI less than 18.5
Normal	BMI between 18.5 and 24.9
Overweight	BMI between 25.0 and 29.9
Obese	BMI more than 30.0
Note: BMI is a measure of weight for height expressed as weight/height.	

Women with a low pre-pregnancy BMI and low pregnancy weight gain are more likely to have a low birth weight infant. In contrast, excessive pregnancy weight gain is associated with increased risk of cesarean section delivery, spontaneous preterm delivery, and increased risk of developing gestational diabetes[3].

Kent County Maternal, Infant And Child Health: Pregnancy Weight Gain

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States[2]	National Benchmark[a,b]
Healthy Weight Prior To Pregnancy	👍 ☹	2013*	Percent	43.7%	41.9%	48.5%	**53.4%[a]**
Gained Less Than 16 Pounds	👎	2013	Percent	18.1%	14.3%	--	**MICH-16.5: Increase the proportion of women delivering a healthy birth who had a healthy weight prior to pregnancy.**
Low Weight Gain During Pregnancy	👎	2013	Percent	24.6%	19.4%	--	
WIC Recipients: Less Than Ideal Weight Gain[4]	👎 ☹	2013	Percent	21.5%	16.9%	19.1%	
Recommended Weight Gain During Pregnancy	👍	2013	Percent	32.9%	28.9%	--	
WIC Recipients: More Than Ideal Weight Gain[4]	👍 ☺	2013	Percent	47.5%	52.4%	50.4%	
Excessive Weight Gain During Pregnancy	👍	2013	Percent	39.6%	46.6%	--	

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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

**Note: Comparative data for 2013 Kent County and Michigan data is 2007 US data from the Pregnancy Risk Assessment Monitoring System (PRAMS), CDC/NCCDPHP.*

SUMMARY

Nearly 44% of Kent County women had a healthy weight prior to pregnancy, as compared with 41.9% of Michigan women, and 48.5% of women nationally. Nearly one-quarter of Kent County women had low weight gain during pregnancy, while nearly 40% had excessive weight gain and only about 33% gained the recommended amount of weight. Kent County has room for improvement on these measures, as the Healthy People 2020 target has not yet been achieved.

REFERENCES

1. Michigan Department of Community Health. (2014). *Natality statistics*. Retrieved from http://www.mdch.state.mi.us/pha/osr/CHI/Births/frame.html
2. Healthy People 2020. (2014). *HP2020 objective search data, maternal, infant and child health*. Retrieved from http://www.healthypeople.gov/2020/data-search/Search-the-Data?nid=4900
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4. Centers for Disease Control and Prevention. (2014). *Pediatric and pregnancy surveillance system.* Retrieved from http://www.cdc.gov/pednss/what_is/pnss/

MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY
BREASTFEEDING CHARACTERISTICS

OVERVIEW: BREASTFEEDING CHARACTERISTICS

Breastfeeding is the most effective preventive measure that can be taken to promote overall infant health. Breastfed infants are at a decreased risk of developing respiratory and ear infections, gastrointestinal tract infections, decreased incidence of Sudden Infant Death Syndrome, developing allergies, developing inflammatory bowel disease in childhood, and obesity in child and adulthood. The standard set by the American Academy of Pediatrics for breastfeeding recommends that infants should be breastfed exclusively for six months, then breastfed with the introduction of solid foods, with continuation of breastfeeding for at least one year[3].

While the benefits of breastfeeding are well-documented in relation to infant health, mothers can benefit, as well. Research has shown that mothers who breastfeed have a decreased risk of developing postpartum depression. Breastfeeding serves as a protective factor for reducing a woman's likelihood of developing a number of conditions, including rheumatoid arthritis, cardiovascular disease, hypertension, and breast and ovarian cancers[3].

Despite the positive associations between breastfeeding and maternal-infant health, there are some health conditions that may prevent mothers from initiating breastfeeding. For example, women who are HIV positive should plan to formula feed their infants. Additionally, mothers who have untreated tuberculosis or other communicable diseases should not breastfeed until they have been medically treated for an appropriate amount of time[3].

Kent County Maternal, Infant and Child Health: Breastfeeding Characteristics

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States[2]	National Benchmark[a,b]
Total Population Breastfeeding Characteristics							
Breastfeeding not planned	👍	2013	Percent	14.1%	20.9%	--	**81.9%[a] MICH-21.1: Increase the proportion of infants who are ever breastfed.**
Breastfeeding planned	👍	2013	Percent	58.6%	37.4%	--	
Breastfeeding planned or initiated	👍 ☺	2013	Percent	85.3%	77.7%	76.5%	
Breast feeding initiated	👎	2013	Percent	26.8%	40.3%	--	
WIC Recipient Breastfeeding Characteristics (Duration)[4]							
One week	👍	2013	Percent	87.4%	87.2%	--	**60.6%[a] MICH-21.2: Increase the proportion of infants who are breastfed at 6 months. 34.1%[a] MICH-21.3: Increase the proportion of infants who are breastfed at one year.**
Two weeks	👎	2013	Percent	76.3%	76.5%	--	
Four weeks	👍	2013	Percent	61.6%	60.9%	--	
Six weeks	👍	2013	Percent	50.4%	49.5%	--	
Two months	👍	2013	Percent	42.6%	41.8%	--	
Six months	👍 ☹	2013	Percent	15.5%	14.9%	47.8%	
Nine months	👍	2013	Percent	6.5%	6.2%	--	
More than 11 months	☹	2013	Percent	2.0%	2.0%	25.7%	

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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

**Note: Comparative data for 2013 Kent County and Michigan data is 2009 US data from the National Immunization Survey, CDC/NCIRD and CDC/NCHS.*

SUMMARY

Among the total Kent County population, only about 26.8% of women initiated breastfeeding with their infants, which is quite a bit lower than the state initiation rate of 40.3%. This low number is in spite of the fact that almost 60% of Kent County women expressed the intent to breastfeed, as compared with only 37.4% of women statewide.

Among WIC program participants, the breastfeeding initiation level was much higher, with 87.4% of Kent County women breastfeeding their babies for at least one week. At two months post-partum, 42.6% of Kent County WIC mothers reported continued breastfeeding, which is slightly higher than the rate reported for the state. Between two months and six months, however, breastfeeding rates among Kent County WIC mothers dropped significantly to about 15.5%.

REFERENCES

1. Michigan Department of Community Health. (2014). *Natality statistics*. Retrieved from http://www.mdch.state.mi.us/pha/osr/CHI/Births/frame.html
2. Healthy People 2020. (2014). *HP2020 objective search data, maternal, infant and child health*. Retrieved from http://www.healthypeople.gov/2020/data-search/Search-the-Data?nid=4900
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MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY
MATERNAL SMOKING STATUS

OVERVIEW: MATERNAL SMOKING STATUS

Smoking before, during, and after pregnancy can many health problems and complications for both mother and baby. For instance, women who smoke prior to pregnancy are more likely to have difficulty with conception. Smoking during pregnancy can cause complications with the pregnancy, and puts mothers at a greater risk of having placental previa, placental abruption, and/or a premature rupture of the membranes. Negative consequences for the infant that can occur as a result of maternal smoking include decreased lung function, prematurity, low birth weight, stillbirth, and an increased risk of Sudden Infant Death Syndrome[4]. Continued exposure to secondhand smoke after birth can also lead to negative outcomes for the newborn.

Kent County Maternal, Infant and Child Health: Maternal Smoking Status

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	United States[2]	National Benchmark[a,b]
Total Population Maternal Smoking Characteristics							
Mothers Who Smoked While Pregnant	👍	2013	Percent	11.6%	19.7%	--	**98.6%[a] MICH-11.3: Increase abstinence from cigarette smoking among pregnant women.**
Mothers Who Did Not Smoke While Pregnant	👍 ☹	2013	Percent	88.3%	79.3%	89.6%	
WIC Recipient Maternal Smoking Characteristics							
Smoked Three Months Prior to Pregnancy[3]	👍	2013	Percent	26.7%	32.3%	30.7%	
Smoked Last Three Months of Pregnancy[3]	👍	2013	Percent	13.3%	16.8%	17.8%	
Quit Smoking by First Prenatal Visit and Stayed Off Cigarettes[3]	👍 ☹	2013	Percent	37.7%	36.4%	50.4%	
WIC Recipient Secondhand Smoke Exposure in the Home							
Prenatal Exposure[3]	👍 ☺	2013	Percent	9.0%	15.1%	20.6%	**NA**
Post-Partum Exposure[3]	👍 ☺	2013	Percent	2.3%	5.0%	12.5%	

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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

**Note: Comparative data for 2013 Kent County and Michigan data is 2007 US data from the National Vital Statistics System-Natality, CDC/NCHS..*

SUMMARY

More than 88% of all Kent County women reported that they did not smoke during pregnancy, compared to just 79.3% at the state level. However, Kent County has room for improvement on this indicator, as the Healthy People 2020 target requires significant improvement in order to be achieved.

Of WIC program participants in Kent County, more than one-quarter reported smoking within the three months prior to pregnancy and 13.3% reported smoking the last three months of their pregnancies. About 40% of these women stopped smoking during their pregnancy and were able to continue cigarette abstinence after the birth of their babies.

REFERENCES

1. Michigan Department of Community Health. (2014). *Natality statistics*. Retrieved from http://www.mdch.state.mi.us/pha/osr/CHI/Births/frame.html
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MATERNAL, INFANT AND CHILD HEALTH: INDUCED ABORTION

OVERVIEW: INDUCED ABORTION

The Centers for Disease Control and Prevention (CDC) defines a legal induced abortion as “an intervention performed by a licensed clinician that is intended to terminate an ongoing pregnancy[1]. Though CDC does have a national surveillance system, states are not required to report data. Therefore, there is some discrepancy in how abortion is reported.

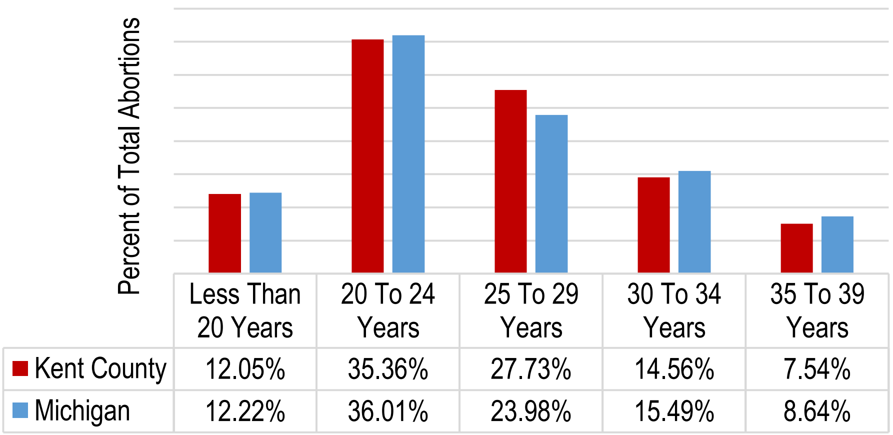
Abortion surveillance is conducted to identify the characteristics of women who have induced abortions to determine those at high risk of unintended pregnancy and to determine the effectiveness of teen pregnancy prevention programs. Collecting information about the number of abortions that women receive is also an important piece of information, especially since about half of abortions being performed nationally are repeat abortions[2].

SUMMARY

In 2013, Kent County reported a total of 1,154 abortions[3]. The abortion rate for Kent County was 8.9 per 1,000, which was lower than the state rate of 13.4 per 1,000. Abortions in Kent County were most likely to be performed among women aged 20 to 29 years of age and nearly 40% of all abortions performed were repeat abortions, meaning the mother had had at least one other abortion previously.

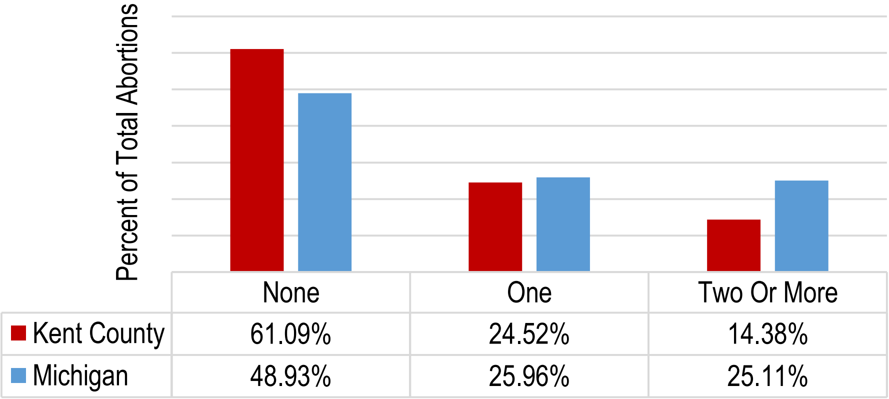
The abortion rate in Kent County has historically been lower than the rates reported at both the state and national levels, and remained relatively stable for nearly a decade. In 2010, a downward trend in the rate of abortions in Kent County was observed, leading to the lowest abortion rate, 7.7 per 1,000, which was recorded in 2010. However, since then, Kent County’s abortion rate has risen, but not to the same level that was reported in the early 2000s. A similar trend has been observed at the state level.

Percent of Total Induced Abortions by Age of Mother for Kent County and Michigan, 2013[3]



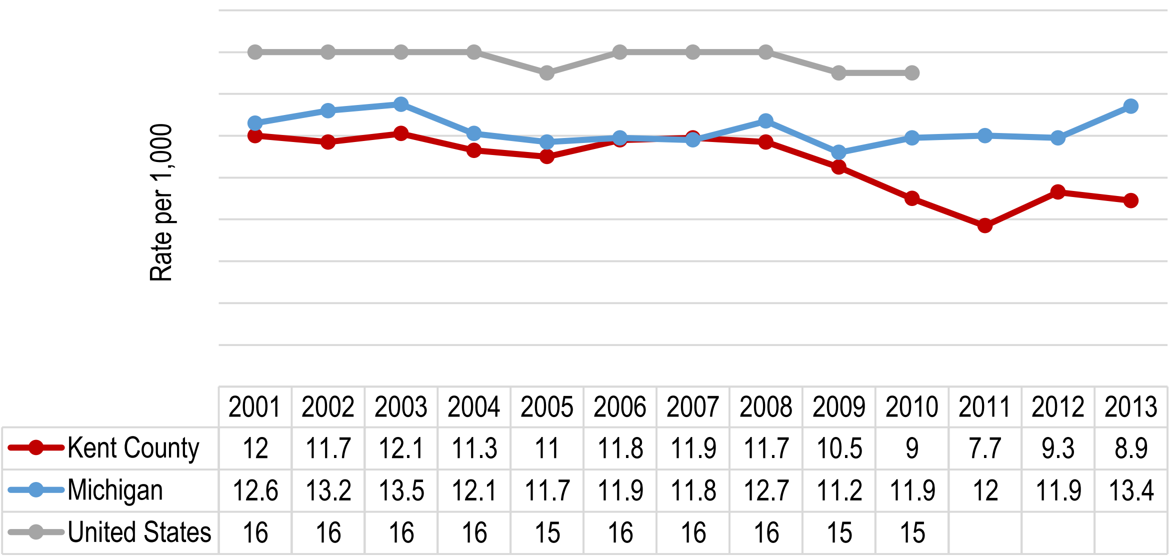
	Less Than 20 Years	20 To 24 Years	25 To 29 Years	30 To 34 Years	35 To 39 Years
🟥 Kent County	12.05%	35.36%	27.73%	14.56%	7.54%
🟦 Michigan	12.22%	36.01%	23.98%	15.49%	8.64%

Percent of Repeat Induced Abortions by Reported Number of Previously Induced Abortions for Kent County and Michigan, 2013[3]



	None	One	Two Or More
🟥 Kent County	61.09%	24.52%	14.38%
🟦 Michigan	48.93%	25.96%	25.11%

Trends in Abortion Rate for Kent County, Michigan, and the United States, 2001 - 2013[3]



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Kent County	12	11.7	12.1	11.3	11	11.8	11.9	11.7	10.5	9	7.7	9.3	8.9
Michigan	12.6	13.2	13.5	12.1	11.7	11.9	11.8	12.7	11.2	11.9	12	11.9	13.4
United States	16	16	16	16	15	16	16	16	15	15			

REFERENCES

1. Centers for Disease Control and Prevention. (2014). *CDC's abortion surveillance system FAQs*. Retrieved from http://www.cdc.gov/reproductivehealth/data_stats/Abortion.htm
2. Jones, R.K., Singh, S., Finer, L.B., & Frohwirth, L.F. (2006). Repeat abortion in the United States. *Occasional Report No. 29*. Retrieved from http://www.guttmacher.org/pubs/2006/11/21/or29.pdf.
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DEATH, ILLNESS, AND INJURY

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

DEFINITION OF CATEGORY
Health status in a community is measured in terms of mortality (rates of death in a population) and morbidity (rates of the incidence and prevalence of a disease).

Key Topics

- GENERAL HEALTH STATUS
- LEADING CAUSES OF DEATH
- UNINTENTIONAL INJURY MORBIDITY AND MORTALITY
- MOTOR VEHICLE CRASHES MORBIDITY AND MORTALITY
- DISEASE-SPECIFIC MORBIDITY AND MORTALITY

DEATH, ILLNESS, AND INJURY: KENT COUNTY
PERCEIVED HEALTH STATUS

OVERVIEW: PERCEIVED HEALTH STATUS

General health status is a reliable self-rated assessment of one's perceived health, which may be influenced by all aspects of life, including behaviors, environmental factors, and community. Self-rated general health status is useful in determining unmet health needs, identifying disparities among subpopulations, and characterizing the burden of chronic diseases within a population. The prevalence of self-rated fair or poor health status has been found to be higher within older age groups, females, and minorities, and has also been associated with lower socioeconomic status in the presence or absence of disease.

Kent County Death, Illness, and Injury: Perceived Health Status
Percentage Of Respondents Who Said Their Health, In General, Was Fair Or Poor

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	👍 ☺	2014*	Percent	13.7%	17.7%	16.9%	**20.2%[a]**
Age							
18 – 24 Years	👎	2014*	Percent	10.8%	9.2%	8.5%	**HRQOL/WB-1: Increase the proportion of adults who self- report good or better health.**
25-34 Years	👍	2014*	Percent	6.3%	10.2%	10.7%	
35-44 Years	👎	2014*	Percent	15.4%	14.9%	13.5%	
45 – 54 Years	👍	2014*	Percent	15.4%	19.8%	18.3%	
55 – 64 Years	👍	2014*	Percent	17.1%	24.2%	21.8%	
65 – 74 Years	👍	2014*	Percent	19.4%	22.1%	--	
Gender							
Male	👍	2014*	Percent	11.4%	17.3%	16.1%	
Female	👍	2014*	Percent	15.9%	18.1%	17.7%	
Race							
White/Caucasian	👍	2014*	Percent	10.1%	16.0%	14.5%	
Black/African American	👎	2014*	Percent	32.4%	25.5%	22.3%	
Hispanic/Latino	👎	2014*	Percent	29.7%	23.6%	23.6%	
Non-Hispanic	👍	2014*	Percent	11.7%	16.8%	--	
Education							
Less Than High School	👎	2014*	Percent	42.7%	42.2%	35.5%	
High School Diploma	👍	2014*	Percent	16.9%	19.3%	19.3%	
Some College	--	2014*	Percent	14.8%	14.8%	14.7%	
College Graduate	👍	2014*	Percent	4.3%	7.5%	7.0%	
Household Income							
Less Than $20,000	👍	2014*	Percent	32.1%	35.9%	--	
$20,000 to $34,999	👍	2014*	Percent	22.1%	23.0%	--	
$35,000 to $49,999	👍	2014*	Percent	7.4%	16.5%	--	
$50,000 to $74,999	👍	2014*	Percent	4.5%	10.4%	--	
$75,000 Or More	👍	2014*	Percent	1.9%	5.5%	--	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

☺ When compared, for this health indicator, Kent County is better than the United States.

☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

The results of the Kent County BRFS suggest that, overall, local residents have a lower rate of self-reported fair or poor general health than their counterparts state- and nationwide. The self-reported rate of fair/poor health ratings is highest among residents older than 65 years of age, African Americans, residents with less than a high school education, and those with less than $20,000 in an annual household income.

REFERENCES

1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

DEATH, ILLNESS, AND INJURY: KENT COUNTY
HEALTH-RELATED QUALITY OF LIFE

OVERVIEW: HEALTH-RELATED QUALITY OF LIFE

Health-related quality of life reflects a personal sense of physical health and the ability to react to factors in the physical and social environments. The key indicator used in this analysis is the number of days in the past month that residents experienced physical health problems, and in particular, whether they had experienced problems for 14 or more days within that timeframe.

Kent County Death, Illness, and Injury: Health-Related Quality of Life
Percentage Of Respondents With 14 Or More Days Of Poor Physical Health

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	👍	2014*	Percent	9.2%	12.7%	--	**20.2%[a]**
Age							
18 – 24 Years	👍	2014*	Percent	3.9%	6.1%	--	**HRQOL/WB-1.1: Increase the proportion of adults who self-report good or better physical health.**
25-34 Years	👍	2014*	Percent	4.0%	7.6%	--	
35-44 Years	--	2014*	Percent	10.2%	10.2%	--	
45 – 54 Years	👍	2014*	Percent	11.8%	15.4%	--	
55 – 64 Years	👍	2014*	Percent	12.3%	18.1%	--	
65+ Years	--	2014*	Percent	13.4%	--		
Gender							
Male	👍	2014*	Percent	7.3%	13.0%	--	
Female	👍	2014*	Percent	10.9%	12.5%	--	
Race							
White/Caucasian	👍	2014*	Percent	7.7%	11.8%	--	
Black/African American	👎	2014*	Percent	19.8%	16.7%	--	
Hispanic/Latino	👍	2014*	Percent	11.2%	15.3%	--	
Non-Hispanic	👍	2014*	Percent	8.6%	12.9%	--	
Education							
Less Than High School	👍	2014*	Percent	20.3%	24.4%	--	
High School Diploma	👍	2014*	Percent	11.2%	14.8%	--	
Some College	👍	2014*	Percent	10.7%	11.5%	--	
College Graduate	👍	2014*	Percent	4.0%	6.2%	--	
Household Income							
Less Than $20,000	👍	2014*	Percent	20.9%	29.7%	--	
$20,000 to $34,999	👍	2014*	Percent	13.8%	14.3%	--	
$35,000 to $49,999	👍	2014*	Percent	8.7%	10.5%	--	
$50,000 to $74,999	👍	2014*	Percent	2.4%	6.9%	--	
$75,000 Or More	👍	2014*	Percent	3.5%	4.9%	--	

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[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

A total of about 9% of Kent County residents report having 14 or more days of poor physical health in the past month. Females, African Americans, people with less than a high school education, and individuals with a household income of less than $20,000 are more likely than their counterparts to report having 14 or more days of poor physical health in the past month. Not surprisingly, older adults (65+) are also more likely to have 14 or more days of poor physical health in the past month than younger age groups.

REFERENCES

1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

DEATH, ILLNESS, AND INJURY: KENT COUNTY
LEADING CAUSES OF DEATH

OVERVIEW: LEADING CAUSES OF DEATH

The ten leading causes of death worldwide - including heart disease, stroke, lower respiratory infections, and chronic lung disease - have remained fairly consistent over the past decade[1]. Depending on where a person lives in the world, however, the leading causes of death can vary. For example, low-income countries report more infectious diseases, like lower respiratory infections, HIV/AIDS, and diarrheal diseases as the top killers. In contrast, the leading causes of death in high-income countries like the United States are typically more chronic in nature, like heart disease, stroke, and cancers and result from lifestyle-related factors, like smoking tobacco and poor diet[1].

Kent County Death, Illness, and Injury: Leading Causes of Death

	Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[2]	United States[3]	National Benchmark[a,b]
1	Heart Disease	👍 ☺	2012*	Rate Per 100,000	681.0	774.5	740.6	**103.4[a]**
2	Cancer	👍 ☺	2012*	Rate Per 100,000	165.5	197.9	173.7	**161.4[a]**
3	Lower Respiratory Diseases	👍 ☺	2012*	Rate Per 100,000	161.3	174.9	168.6	**102.6[a]**
4	Alzheimer's Disease	👎 ☹	2012*	Rate Per 100,000	38.5	36.6	38.0	**NA**
5	Stroke	👍 ☺	2012*	Rate Per 100,000	33.3	45.2	42.7	**34.8[a]**
6	Unintentional Injuries	👍 ☺	2012*	Rate Per 100,000	29.4	37.2	37.9	**36.4[a]**
7	Diabetes Mellitus	👍 ☹	2012*	Rate Per 100,000	25.2	25.6	24.6	**66.6[a]**
8	Intentional Self-Harm (Suicide)	👍 ☺	2012*	Rate Per 100,000	12.2	13.3	15.7	**10.2[a]**
9	Kidney Disease	👍 ☺	2012*	Rate Per 100,000	10.8	23.0	21.5	**13.6[a]**
10	Pneumonia/Influenza	👍 ☺	2012*	Rate Per 100,000	8.0	13.5	13.4	**NA**

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👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
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[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

**Note: The 2012 comparative data is based on 2011 national data (States, DC and Territories).*

SUMMARY

The leading causes of death in Kent County are reflected in the chart above. Similar to Michigan and the United States, the highest rates of mortality are related to heart disease. There is significant improvement needed at the national, state, and local levels to improve the heart disease-related mortality in order to achieve the Healthy People 2020 target of 103.4 deaths per 100,000. For most of the conditions reflected in the chart above, Kent County's mortality rates are lower or on par with those reported for the State of Michigan or the US, however Kent County does have a slightly higher mortality rate associated with Alzheimer's disease.

REFERENCES

1. World Health Organization. (2014). *The top 10 causes of death*. Retrieved from http://www.who.int/mediacentre/factsheets/fs310/en/
2. 2012 Michigan Death Certificate Registry. Division for Vital Records & Health Statistics, Michigan Department of Community Health; Population Estimate (latest update 9/2012), National Center for Health Statistics, U.S. Census Populations With Bridged Race Categories.

DEATH, ILLNESS, INJURY: KENT COUNTY
YEARS OF POTENTIAL LIFE LOST (YPLL)

OVERVIEW: YEARS OF POTENTIAL LIFE LOST (YPLL)

The concept of years of potential life lost (YPLL) involves estimating the average time a person would have lived had he or she not died prematurely. This measure is used to help quantify social and economic loss owing to premature death, and emphasizes specific causes of death affecting younger age groups[1]. YPLL is based on the number of deaths at each age up to some limit (75 years is commonly used in the US) and represents the number of years not lived by people who die before reaching a given age[2]. An YPLL rate, like that presented in the table below, is the number of YPLL before age 75 per 100,000 population ages, zero to 75 years[3].

Kent County Death, Illness, and Injury: Rates of Years of Potential Life Lost

Indicator	Status	Time Period	Measure	Kent County[4]	Michigan[4]	United States[5]
All Causes						
Total	👍 ☺	2012*	Rates per 100,000 population	5,799.4	7,482.4	6,412.3
Gender						
Male	👍 ☺	2012*	Rates per 100,000 population	7,287.0	9,941.2	8,039.0
Female	👍 ☺	2012*	Rates per 100,000 population	4,330.0	5,740.1	4,817.4
Race						
White	👍 ☺	2012*	Rates per 100,000 population	5,519.8	6,787.4	6,142.4
African American	👍 ☺	2012*	Rates per 100,000 population	7,524.8	11,523.1	9,372.2
All Cancers						
Total	👍 ☹	2012*	Rates per 100,000 population	1,323.1	1,658.7	1,299.7
Gender						
Male	👍 ☹	2012*	Rates per 100,000 population	1,505.0	1,767.9	1,386.7
Female	👍 ☺	2012*	Rates per 100,000 population	1,143.5	1,550.5	1,221.5
Race						
White	👍 ☹	2012*	Rates per 100,000 population	1,382.7	1,652.9	1,281.6
African American	👍 ☺	2012*	Rates per 100,000 population	1,051.8	1,837.1	1,668.9
Heart Disease						
Total	👍 ☺	2012*	Rates per 100,000 population	858.4	1,252.7	915.0
Gender						
Male	👍 ☺	2012*	Rates per 100,000 population	1,234.8	1,728.7	1,288.1
Female	👍 ☺	2012*	Rates per 100,000 population	486.5	781.1	559.8
Race						
White	👍 ☺	2012*	Rates per 100,000 population	793.5	1,084.1	845.0
African American	👍 ☺	2012*	Rates per 100,000 population	1,351.3	2,270.9	1,602.3
Accidents						
Total	👍 ☺	2012*	Rates per 100,000 population	935.0	985.7	1,039.6
Gender						
Male	👎 ☺	2012*	Rates per 100,000 population	1,392.1	1,315.5	1,449.6
Female	👍 ☺	2012*	Rates per 100,000 population	483.5	658.9	626.9
Race						
White	👍 ☺	2012*	Rates per 100,000 population	926.9	971.0	1,113.0
African American	--	2012*	Rates per 100,000 population	--	1,069.0	922.7
Suicide						
Total	👍 ☺	2012*	Rates per 100,000 population	348.0	403.3	399.3
Gender						
Male	👍 ☺	2012*	Rates per 100,000 population	570.5	641.6	620.8
Female	--	2012*	Rates per 100,000 population	--	167.3	177.1
Race						
White	👍 ☺	2012*	Rates per 100,000 population	351.7	427.2	448.0
African American	--	2012*	Rates per 100,000 population	--	290.7	208.1

Kent County Death, Illness, and Injury: Rates of Years of Potential Life Lost

Indicator	Status	Time Period	Measure	Kent County[4]	Michigan[4]	United States[5]
Conditions Originating in the Perinatal Period						
Total	👎 ☹	2012*	Rates per 100,000 population	423.1	365.4	328.3
Gender						
Male	--	2012*	Rates per 100,000 population	--	427.4	360.5
Female	--	2012*	Rates per 100,000 population	--	304.0	294.7
Race						
White	👎 ☹	2012*	Rates per 100,000 population	318.9	243.7	270.0
African American	--	2012*	Rates per 100,000 population	--	968.5	640.5
Assault (homicide)						
Total	👍 ☺	2012*	Rates per 100,000 population	145.4	332.8	239.3
Gender						
Male	--	2012*	Rates per 100,000 population	--	560.0	380.7
Female	--	2012*	Rates per 100,000 population	--	107.8	94.7
Race						
White	--	2012*	Rates per 100,000 population	--	89.2	135.3
African American	--	2012*	Rates per 100,000 population	--	1,616.4	837.1
Chronic Lower Respiratory Diseases						
Total	👍 ☺	2012*	Rates per 100,000 population	109.3	221.7	159.3
Gender						
Male	👍 ☺	2012*	Rates per 100,000 population	100.4	232.5	166.7
Female	👍 ☺	2012*	Rates per 100,000 population	118.0	211.0	152.4
Race						
White	👍 ☺	2012*	Rates per 100,000 population	119.3	230.3	161.7
African American	--	2012*	Rates per 100,000 population	--	208.4	184.7
Chronic Liver Disease and Cirrhosis						
Total	👍 ☺	2012*	Rates per 100,000 population	136.0	202.3	169.9
Gender						
Male	👍 ☺	2012*	Rates per 100,000 population	159.3	263.5	232.7
Female	--	2012*	Rates per 100,000 population	--	141.7	109.7
Race						
White	👍 ☺	2012*	Rates per 100,000 population	155.0	214.8	182.2
African American	--	2012*	Rates per 100,000 population	--	130.7	113.7
Diabetes						
Total	👍 ☺	2012*	Rates per 100,000 population	71.4	180.0	158.4
Gender						
Male	👍 ☺	2012*	Rates per 100,000 population	95.3	211.5	196.6
Female	👍 ☺	2012*	Rates per 100,000 population	47.9	148.9	122.1
Race						
White	👍 ☺	2012*	Rates per 100,000 population	74.4	165.0	139.8
African American	--	2012*	Rates per 100,000 population	--	271.8	308.3
Cerebrovascular Diseases						
Total	👍 ☺	2012*	Rates per 100,000 population	119.6	174.2	154.4
Gender						
Male	👍 ☺	2012*	Rates per 100,000 population	164.5	197.0	176.1
Female	👍 ☺	2012*	Rates per 100,000 population	75.3	151.7	133.8
Race						
White	👍 ☺	2012*	Rates per 100,000 population	110.1	145.0	131.9
African American	👍 ☺	2012*	Rates per 100,000 population	219.1	326.5	316.0

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SUMMARY

The table presented offers the rate of years of potential life lost (YPLL) below age 75 for Kent County, Michigan, and the United States for the ten leading causes of YPLL. In Kent County the rate of YPLL for all cancers is highest among males and whites and for heart disease is highest among males and African Americans. A noteworthy gender disparity exists for the rate of YPLL for accidents, as the rate for males is nearly three times that of females in Kent County, and a sizeable racial disparity in the rate of YPLL for cerebrovascular diseases between whites and African Americans exists.

REFERENCES

1. Gardner, J. W. & Sanborn, J. S. (1990). Years of potential life lost (YPLL) – What does it measure? *Epidemiology, 1*(4), 322-329. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/2083312
2. Healthy People 2020. (2014). *General health status*. Retrieved from https://www.healthypeople.gov/2020/about/foundation-health-measures/General-Health-Status
3. Texas Department of State Health Services. (2010). *Years of potential life lost.* Retrieved from https://www.dshs.state.tx.us/chs/vstat/vs05/ypll.shtm
4. Michigan Department of Community Health. (2012). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html
5. Centers for Disease Control and Prevention. (2014). *Years of potential life lost reports, 1999-2013*. Retrieved from http://webappa.cdc.gov/sasweb/ncipc/ypll10.html

DEATH, ILLNESS, INJURY: KENT COUNTY
HEART DISEASE

OVERVIEW: HEART DISEASE

Heart disease is a leading cause of death in the United States for both genders and a cross all ethnic groups. Fortunately, many of the risk factors for heart disease are modifiable, which makes the development of this condition preventable. Some of the key modifiable risk factors for heart disease include high blood pressure, high cholesterol, smoking cigarettes, diabetes, poor diet and physical inactivity, and overweight and obesity[1]. These different issues are risk factors for heart disease because over time, they can cause negative changes in the heart and blood vessels that lead to diseases of the heart, like heart attacks, heart failure, and stroke. The risk Americans have for developing and dying from heart disease would be greatly reduced if improvements were made across the US population in diet, exercise, control of high blood pressure and cholesterol, and reduced cigarette smoking[1].

Kent County Death, Illness, and Injury: Heart Disease
Percentage Of Respondents Age 35 And Over Who Were Told By A Doctor That They Had Angina Or Coronary Heart Disease

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[3]	United States[4]	National Benchmark[a,b]
Total	👍 ☺	2014*	Percent	4.8%	5.2%	4.2%	**NA**
Age							
35-44 Years		2014*	Percent	0.9%	--	1.4%	**HDS-1: Increase overall cardiovascular health in the U.S. population. (Developmental)**
45 – 54 Years	👍 ☺	2014*	Percent	1.7%	3.9%	3.2%	
55 – 64 Years	👍 ☺	2014*	Percent	5.8%	8.8%	5.9%	
65+ Years	👍 ☺	2014*	Percent	12.1%	14.1%	12.3%	
Gender							
Male	👍 ☹	2014*	Percent	5.9%	6.9%	5.1%	
Female	👎 ☹	2014*	Percent	3.8%	3.7%	3.4%	
Race							
White/Caucasian	👍 ☹	2014*	Percent	5.2%	5.6%	4.5%	
Black/African American	👎 ☹	2014*	Percent	5.8%	4.8%	3.8%	
Hispanic/Latino	☹	2014*	Percent	0.3%	--	2.3%	
Non-Hispanic	👎	2014*	Percent	5.1%	4.0%	--	
Education							
Less Than High School	👍 ☹	2014*	Percent	8.9%	9.6%	6.1%	
High School Diploma	👍 ☹	2014*	Percent	4.9%	5.6%	4.6%	
Some College	👎 ☹	2014*	Percent	6.6%	4.8%	3.8%	
College Graduate	👍 ☺	2014*	Percent	2.8%	3.2%	3.0%	
Household Income							
Less Than $20,000	--	2014*	Percent	7.6%	7.6%	--	
$20,000 to $34,999	👎	2014*	Percent	7.9%	7.1%	--	
$35,000 to $49,999	👍	2014*	Percent	3.3%	5.0%	--	
$50,000 to $74,999	👎	2014*	Percent	4.7%	4.4%	--	
$75,000 Or More	👍	2014*	Percent	2.4%	2.7%	--	

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[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

Kent County Death, Illness, and Injury: All Heart Disease-Related Mortality

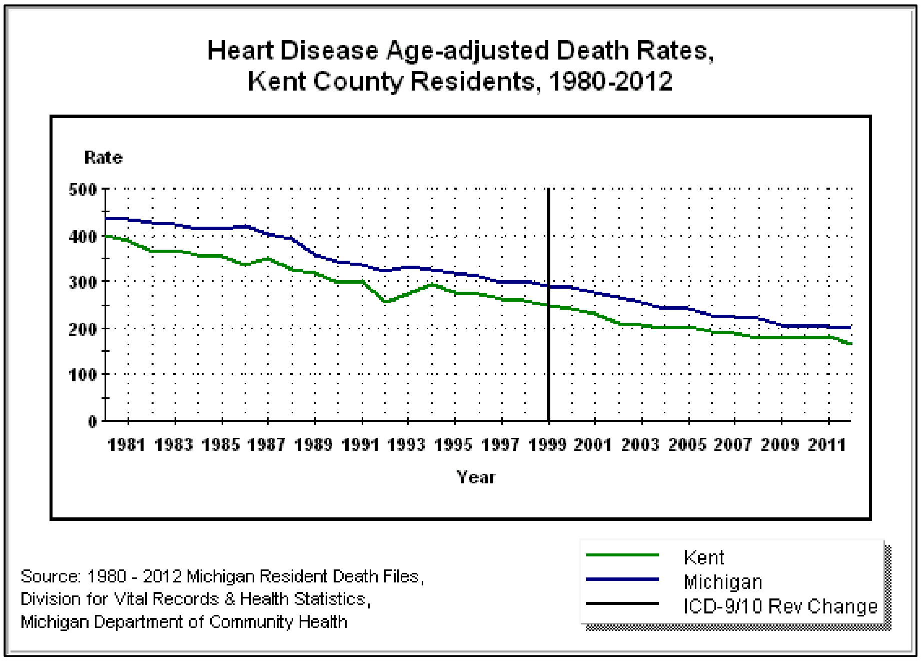
Indicator	Status	Time Period	Measure	Kent County[5]	Michigan[5]
Total	👍	2012*	Rate per 100,000 population	165.5	197.8
Age					
Under 50 Years	👍	2012*	Rate per 100,000 population	8.2	16.0
50-74 Years	👍	2012*	Rate per 100,000 population	231.3	256.9
75+ Years	👍	2012*	Rate per 100,000 population	1,970.6	2,334.7
Gender					
Male	👍	2012*	Rate per 100,000 population	210.8	245.4
Female	👍	2012*	Rate per 100,000 population	130.1	159.8
Race					
White/Caucasian	👍	2012*	Rate per 100,000 population	160.6	187.1
Black/African American	👍	2012*	Rate per 100,000 population	226.2	282.0

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

SUMMARY

The percentage of persons who report ever being told by a healthcare professional that he/she has angina, or coronary heart disease, is lower among Kent County residents when compared with rates reported for the State of Michigan and the United States. In Kent County, the persons most affected by coronary heart disease are those 65 years or older, males, those with less than a high school education, and persons who have a household income of $34,999 per year or less. Kent County also has a lower mortality rate associated with heart disease than the State of Michigan as a whole. The highest reported mortality for heart disease in Kent County exists among those aged 75 years or older, males, and African Americans.



Source: 1980 - 2012 Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health

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4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.
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HEALTH CHARACTERISTICS: KENT COUNTY
STROKE

OVERVIEW: STROKE

Stroke kills nearly 130,000 Americans each year – that's 1 of every 19 deaths. Stroke and heart disease share many of the same risk factors. Although the health complications from stroke are great, the risk of stroke can be greatly reduced by increasing physical activity, reducing fat and salt in the diet, avoiding drinking too much alcohol, and quitting smoking.[1]

Kent County Death, Illness, and Injury: Stroke
Percentage Of Respondents Age 35 And Over Who Reported A Doctor Has Told Them They Had A Stroke

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[3]	United States[4]	National Benchmark[a,b]
Total	👎 ☹	2014*	Percent	4.4%	3.6%	2.8%	**NA**
Age							
35 – 44 Years	☹	2014*	Percent	2.5%	2.5%	1.4%	**HDS-17: Increase the proportion of adults aged 20 years and older who are aware of the symptoms and how to respond to a stroke.**
45 - 54 Years	👎 ☹	2014*	Percent	3.4%	2.9%	2.5%	
55 – 64 Years	👍 ☹	2014*	Percent	4.7%	5.3%	2.9%	
65+ Years	👎 ☺	2014*	Percent	7.5%	6.4%	7.8%	
Gender							
Male	👎 ☹	2014*	Percent	5.8%	3.7%	2.9%	
Female	👍 ☹	2014*	Percent	3.1%	3.5%	2.8%	
Race							
White/Caucasian	👎 ☹	2014*	Percent	3.9%	3.3%	3.0%	
Black/African American	👎 ☹	2014*	Percent	8.1%	5.1%	4.1%	
Hispanic/Latino	--	2014*	Percent	0.0%	--	1.9%	
Non-Hispanic	👍	2014*	Percent	4.6%	4.7%	--	
Education							
Less Than High School	👎 ☹	2014*	Percent	13.1%	7.2%	5.5%	
High School Diploma	👎 ☹	2014*	Percent	4.1%	3.8%	3.3%	
Some College	👎 ☹	2014*	Percent	5.1%	3.4%	2.5%	
College Graduate	👎 ☹	2014*	Percent	2.6%	1.8%	1.6%	
Household Income							
Less Than $20,000	--	2014*	Percent	9.4%	6.5%	--	
$20,000 to $34,999	--	2014*	Percent	8.3%	5.5%	--	
$35,000 to $49,999	--	2014*	Percent	5.5%	4.3%	--	
$50,000 to $74,999	--	2014*	Percent	0.7%	1.8%	--	
$75,000 Or More	--	2014*	Percent	0.7%	1.1%	--	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
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☺ When compared, for this health indicator, Kent County is better than the United States.
☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

Kent County Death, Illness, and Injury: Stroke-Related Mortality						
Indicator	**Status**	**Time Period**	**Measure**	**Kent County[5]**	**Michigan[5]**	**National Benchmark[a,b]**
Total	👍	2012*	Rate per 100,000 population	29.4	37.2	**34.8[a]**
Age						
Under 50 Years	👍	2012*	Rate per 100,000 population	1.6	2.2	**HDS-3: Reduce stroke deaths.**
50-74 Years	👍	2012*	Rate per 100,000 population	27.4	36.9	
75+ Years	👍	2012*	Rate per 100,000 population	412.0	494.7	
Gender						
Male	👍	2012*	Rate per 100,000 population	30.9	37.2	
Female	👍	2012*	Rate per 100,000 population	28.0	36.4	
Race						
White/Caucasian	👍	2012*	Rate per 100,000 population	26.8	35.2	
Black/African American	👎	2012*	Rate per 100,000 population	70.2	52.6	

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NA -- National Benchmark was not identified.

SUMMARY

The overall rate of stroke among Kent County adults age 35 or older is 4.4%, which is higher than the rates reported for both the State of Michigan and the United States. The population subgroups most affected by stroke in Kent County persons aged 65 years or older, males, African Americans, people with less than a high school education, and individuals with a household income of $34,999 or less. Though the rates of stroke are higher in Kent County, the death rate for Kent County is lower than the mortality rate reported for the State of Michigan. Males in Kent County have a slightly higher mortality rate for stroke when compared with females. The most striking disparity reported for stroke mortality exists between African Americans and whites. The African American mortality rate for stroke is more than double that reported for whites.

REFERENCES

1. Stroke Fact Sheet, Centers for Disease Control and Prevention
   http://www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_stroke.htm
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.
5. Michigan Department of Community Health. (2012). *Michigan mortality*. Retrieved from
   http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html

DEATH, ILLNESS, AND INJURY: KENT COUNTY
ALL CANCERS

OVERVIEW: ALL CANCERS

Despite great advances in screening, diagnosis, and treatment, cancer continues to be a leading cause of death in the United States, second only to heart disease[1]. Many cancers are preventable by reducing risk factors, such as use of tobacco products, obesity, and exposure to ultraviolet light and by improving nutrition and physical activity. Some cancers can also be prevented through vaccination, such as with the HPV vaccine. Early detection and appropriate and timely treatment are other major factors in cancer prognosis.

Kent County Death, Illness, and Injury: Cancer Mortality					
Indicator	**Status**	**Time Period**	**Measure**	**Kent County[2]**	**Michigan[2]**
Total	👍	2012*	Rate per 100,000 population	161.3	174.9
Age					
Under 50 Years	👍	2012*	Rate per 100,000 population	14.0	17.4
50-74 Years	👍	2012*	Rate per 100,000 population	322.1	365.2
75+ Years	👍	2012*	Rate per 100,000 population	1,310.7	1,375.9
Gender					
Male	👍	2012*	Rate per 100,000 population	192.9	208.8
Female	👍	2012*	Rate per 100,000 population	138.2	150.6
Race					
White/Caucasian	👍	2012*	Rate per 100,000 population	160.8	170.7
Black/African American	👍	2012*	Rate per 100,000 population	188.6	210.5

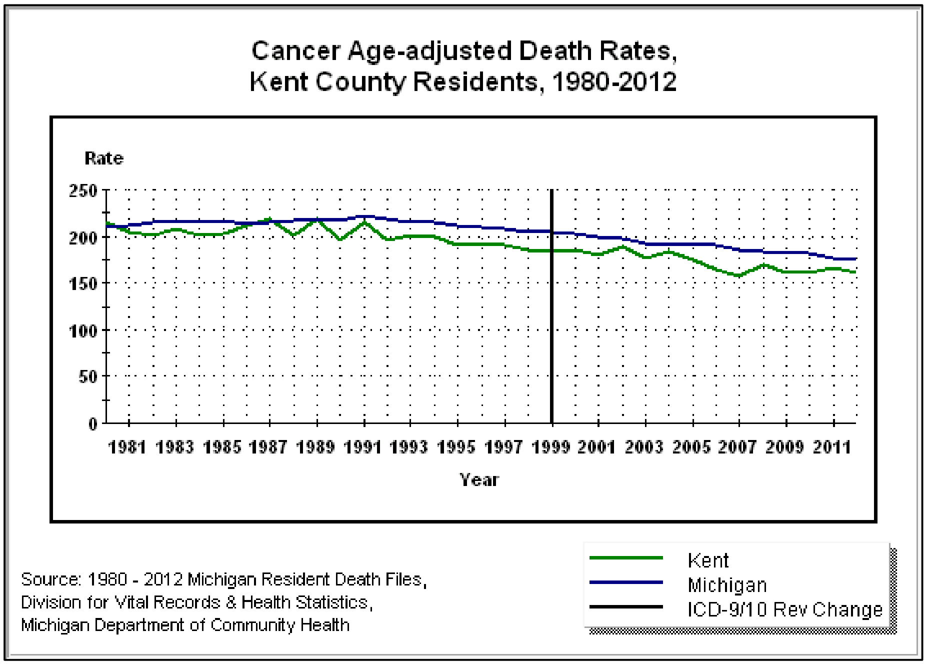
👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

SUMMARY

Though cancer mortality is a concern among Kent County residents, deaths from cancer are lower than those reported for the State of Michigan overall. The groups most afflicted by cancer mortality in Kent County include persons aged 75 years or older, males, and African Americans. These patterns are observed at the state level, as well.

The graph at the right shows age-adjusted cancer death rates since 1980. Kent County has consistently reported fewer cancer-related deaths than Michigan during this time period.



Cancer Age-adjusted Death Rates,
Kent County Residents, 1980-2012

Source: 1980 - 2012 Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health

REFERENCES

1. Healthy People 2020. (2014). *Cancer*. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/cancer
2. Michigan Department of Community Health. (2012). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html

DEATH, ILLNESS, AND INJURY: KENT COUNTY
BREAST CANCER

OVERVIEW: BREAST CANCER

Breast cancer is a disease in which cancer cells form in the tissue of the breast. Breast cancer is the second-most common type of cancer with which women in the United States are diagnosed, and the second leading cause of cancer-related death[4]. There are both lifestyle and non-lifestyle related behaviors and factors that can influence an individual's risk for developing breast cancer. Lifestyle-related factors that can positively or negatively influence risk for developing breast cancer include having children, use of birth control, hormone therapy after menopause, breastfeeding, drinking alcohol, being overweight or obese, and physical activity levels[5]. These are factors that individuals have some level of control over. Non-lifestyle related factors that can positively or negatively influence risk for developing breast cancer include gender, age, genetic makeup, family history of breast cancer, personal history of breast cancer, race and ethnicity, dense breast tissue, certain benign breast conditions, menstrual periods, previous chest radiation, and exposure to certain drugs in the 1940s through the 1960s[5]. Breast self-exams, clinical breast exams, and mammograms are the most effective and commonly used tests for detecting breast cancer early[6].

Female Breast Cancer Incidence Rates

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
All Races (Includes Hispanic)	👎 ☹	2006-2010	Rate per 100,000 population	133.4	120.0	119.8	**NA**
Race/Ethnicity							
White (Includes Hispanic)	👎 ☹	2006-2010	Rate per 100,000 population	135.6	117.7	120.8	**NA**
Black (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	116.6	119.4	118.0	
Hispanic (Any Race)	👎 ☹	2006-2010	Rate per 100,000 population	113.7	80.1	90.6	

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[a] Benchmark is based on Healthy People 2020 Goal.
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NA -- National Benchmark was not identified.

Female Breast Cancer Mortality Rates

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
All Races (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	20.2	24.0	22.6	**20.7[a]**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	19.7	22.7	22.1	**C-3: Reduce the female breast cancer death rate.**
White Non-Hispanic	👍 ☺	2006-2010	Rate per 100,000 population	19.9	22.8	22.7	
Black (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	29.0	34.3	30.8	

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NA -- National Benchmark was not identified.

SUMMARY

The overall incidence of breast cancer in Kent County is higher than the State of Michigan and the United States. Among the available race/ethnicity groups, White women in Kent County experience the greatest incidence of breast cancer, surpassing both the state and national incidence rates. Hispanic women in Kent County also experience much higher breast cancer incidence rates when compared with the state and national rates. Despite these documented higher incidence rates, overall breast cancer mortality rates in Kent County are lower than those reported for the State of Michigan and the United States for all available demographic categories. There is a notable racial disparity in Kent County for breast cancer mortality, however. Black women have a much higher mortality rate when compared with White and Hispanic women.

REFERENCES

1. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
2. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
3. CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission and SEER November 2012 submission.
4. National Cancer Institute. (2014). *General information about breast cancer*. Retrieved from http://www.cancer.gov/cancertopics/pdq/prevention/breast/Patient/page2
5. American Cancer Society. (2014). *What are the risk factors for breast cancer?* Retrieved from http://www.cancer.org/cancer/breastcancer/detailedguide/breast-cancer-risk-factors
6. American Cancer Society. (2014). *Can breast cancer be found early*? Retrieved from http://www.cancer.org/cancer/breastcancer/detailedguide/breast-cancer-detection

DEATH, ILLNESS, AND INJURY: KENT COUNTY
CERVICAL CANCER

OVERVIEW: CERVICAL CANCER

Cervical cancer starts in the cells lining the cervix[4]. Though cervical cancer typically develops from precancerous cells, only some women who are diagnosed with pre-cancers of the cervix will actually develop cancer. The transition from precancerous to cancerous usually takes many years, though it has been shown to happen in some women in a year or less. For those women who do not develop cancer, the precancerous cells will go away without treatment. Cervical cancer is a highly preventable cancer in most Western industrialized countries because effective screening tests like the Pap test and vaccines to prevent human papillomavirus (HPV) infections are available.

Cervical Cancer Incidence Rates

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a, b]
All Races (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	7.0	7.3	7.8	**7.1[a]**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	6.6	6.9	7.5	**NA**

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Cervical Cancer Mortality Rates

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a, b]
All Races (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	1.6	2.0	2.4	**2.2[a]**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	1.5	1.8	2.2	**C-4: Reduce the death rate from cancer of the uterine cervix.**
White Non-Hispanic	👍 ☺	2006-2010	Rate per 100,000 population	1.6	1.7	2.1	

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SUMMARY

At the county, state, and national level, incidence rates for cervical cancer are relatively low. Kent County has managed to achieve the Healthy People 2020 Goal for cervical cancer incidence rates. Mortality from cervical cancer is also very low at the county, state, and national level. Again, Kent County has managed to achieve and exceed the Healthy People 2020 goal for cervical cancer-related mortality.

REFERENCES

1. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
2. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
3. CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission and SEER November 2012 submission.
4. American Cancer Society. (2014). *What is cervical cancer?* Retrieved from http://www.cancer.org/cancer/cervicalcancer/detailedguide/cervical-cancer-what-is-cervical-cancer.

DEATH, ILLNESS, AND INJURY: KENT COUNTY
COLORECTAL CANCER

OVERVIEW: COLORECTAL CANCER

Colorectal cancer is cancer that starts in the colon or the rectum. Colorectal cancer is the third leading cause of cancer-related deaths in the United States when men and women are considered separately, and the second leading cause when both sexes are combined. It is expected to cause about 50,310 deaths during 2014. Younger adults can develop colorectal cancer, but the chances increase markedly after age 50. About nine out of 10 people diagnosed with colorectal cancer are at least 50 years old.

Colorectal cancer screening saves lives. Screening can find precancerous polyps—abnormal growths in the colon or rectum—so that they can be removed before turning into cancer. Screening also helps find colorectal cancer at an early stage, when treatment often leads to a cure. About nine out of every 10 people whose colorectal cancers are found early and treated appropriately are still alive five years later[4].

Colorectal Cancer Incidence Rates

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
All Races (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	40.6	44.5	43.9	**NA**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	39.4	42.5	42.8	**NA**
Black (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	50.2	54.3	52.6	
Hispanic (Any Race)	👍 ☺	2006-2010	Rate per 100,000 population	41.0	36.2	38.7	
Gender							
Male	👍 ☺	2006-2010	Rate per 100,000 population	45.7	51.0	50.7	
Female	👍 ☺	2006-2010	Rate per 100,000 population	36.5	39.3	38.4	
Race/Ethnicity BY Gender							
White (Includes Hispanic) - Male	👍 ☺	2006-2010	Rate per 100,000 population	43.6	48.6	49.5	
Black (Includes Hispanic) – Male	👍 ☺	2006-2010	Rate per 100,000 population	58.4	64.1	62.0	
Hispanic (Any Race) – Male	👍 ☺	2006-2010	Rate per 100,000 population	57.4	44.3	47.0	
White (Includes Hispanic) - Female	👍 ☺	2006-2010	Rate per 100,000 population	36.1	37.6	37.3	
Black (Includes Hispanic) – Female	👍 ☺	2006-2010	Rate per 100,000 population	43.6	47.8	46.3	

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NA -- National Benchmark was not identified.

Colorectal Cancer Mortality Rates

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
All Races (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	14.0	16.5	16.4	**14.5[a]**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	13.6	15.8	15.9	**C-5: Reduce the colorectal cancer death rate.**
White Non-Hispanic	👍 ☺	2006-2010	Rate per 100,000 population	13.4	15.8	16.1	
Black (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	19.3	22.4	22.8	
Gender							
Male	👍 ☺	2006-2010	Rate per 100,000 population	16.2	19.4	19.6	
Female	👍 ☺	2006-2010	Rate per 100,000 population	12.4	14.2	13.9	
Race/Ethnicity BY Gender							
White (Includes Hispanic) - Male	👍 ☺	2006-2010	Rate per 100,000 population	15.6	18.6	19.1	
White Non-Hispanic – Male	👍 ☺	2006-2010	Rate per 100,000 population	15.4	18.5	19.2	
Black (Includes Hispanic) – Male	👍 ☺	2006-2010	Rate per 100,000 population	24.1	27.9	28.7	
White (Includes Hispanic) - Female	👍 ☺	2006-2010	Rate per 100,000 population	12.0	13.7	13.4	

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NA -- National Benchmark was not identified.

SUMMARY

The incidence of colorectal cancer in Kent County is lower than the State of Michigan and the United States. Black individuals experience the highest colorectal cancer incidence rate in Kent County, when compared with Whites and Hispanics. Black males experience the highest incidence of colorectal cancer when compared with males of other race/ethnicity and all females. The colorectal cancer mortality rate in Kent County is also lower than those reported for the State of Michigan and the United States. Kent County has been able to achieve the Healthy People 2020 goal for colorectal cancer mortality rates. The highest mortality rates associated with colorectal cancer in Kent County are among Blacks, particularly Black males.

REFERENCES

1. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
2. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
3. CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission and SEER November 2012 submission.
4. Centers for Disease Control and Prevention. (2014). *Colorectal Cancer*. Retrieved from http://www.cdc.gov/cancer/colorectal/.

DEATH, ILLNESS, AND INJURY: KENT COUNTY
LUNG CANCER

OVERVIEW: LUNG CANCER

Lung cancer is the leading cause of cancer-related death among both men and women. Each year, more people die of lung cancer than of colon, breast, and prostate cancers combined. About two out of every three people diagnosed with lung cancer are 65 or older, with fewer than 2% of all cases occurring in people younger than 45 years[4].

Cigarette smoking is the number one cause of lung cancer. Lung cancer also can be caused by using other types of tobacco (such as pipes or cigars), breathing secondhand smoke, being exposed to substances such as asbestos or radon at home or work, and having a family history of lung cancer[5]. The best way a person can reduce his or her risk of developing lung cancer is to avoid smoking, avoid secondhand smoke exposure, have their home tested for radon, and avoid other known carcinogens by following safety guidelines in the workplace[5].

Lung Cancer Incidence Rates

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
All Races (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	61.0	71.9	65.0	**NA**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	58.8	70.4	65.6	**NA**
Black (Includes Hispanic)	👎 ☹	2006-2010	Rate per 100,000 population	89.1	82.8	68.3	
Hispanic (Any Race)	👎 ☹	2006-2010	Rate per 100,000 population	39.2	44.1	34.6	
Gender							
Male	👍 ☺	2006-2010	Rate per 100,000 population	73.6	86.1	79.3	
Female	👍 ☺	2006-2010	Rate per 100,000 population	52.6	61.5	54.4	
Race/Ethnicity BY Gender							
White (Includes Hispanic) - Male	👍 ☺	2006-2010	Rate per 100,000 population	71.2	83.3	78.6	
Black (Includes Hispanic) – Male	👍 ☹	2006-2010	Rate per 100,000 population	106.6	109.1	94.8	
White (Includes Hispanic) - Female	👍 ☺	2006-2010	Rate per 100,000 population	50.6	61.0	55.8	
Black (Includes Hispanic) – Female	👎 ☹	2006-2010	Rate per 100,000 population	77.4	64.8	50.6	

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NA -- National Benchmark was not identified.

Lung Cancer Mortality Rates							
Indicator	**Status**	**Time Period**	**Measure**	**Kent County[1]**	**Michigan[2]**	**United States[3]**	**National Benchmark[a,b]**
All Races (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	44.4	54.1	49.5	**45.5[a]**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	43.5	53.4	50.2	**C-2: Reduce the lung cancer death rate.**
White Non-Hispanic	👍 ☺	2006-2010	Rate per 100,000 population	44.2	53.8	52.6	
Black (Includes Hispanic)	👍 ☹	2006-2010	Rate per 100,000 population	60.8	62.4	53.5	
Gender							
Male	👍 ☺	2006-2010	Rate per 100,000 population	55.7	68.2	63.5	
Female	👍 ☺	2006-2010	Rate per 100,000 population	36.6	43.9	39.2	
Race/Ethnicity BY Gender							
White (Includes Hispanic) - Male	👍 ☺	2006-2010	Rate per 100,000 population	54.8	66.7	63.2	
White Non-Hispanic – Male	👍 ☺	2006-2010	Rate per 100,000 population	55.5	67.0	65.7	
Black (Includes Hispanic) – Male	👍 ☺	2006-2010	Rate per 100,000 population	72.9	85.3	78.5	
White (Includes Hispanic) - Female	👍 ☺	2006-2010	Rate per 100,000 population	35.8	43.8	40.4	
White Non-Hispanic – Female	👍 ☺	2006-2010	Rate per 100,000 population	36.5	44.1	42.7	
Black (Includes Hispanic) – Female	👎 ☹	2006-2010	Rate per 100,000 population	52.8	47.0	37.2	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

☺ When compared, for this health indicator, Kent County is better than the United States.

☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

SUMMARY

The overall lung cancer incidence rate for Kent County is lower than incidence rates reported for both the State of Michigan and the United States. It appears there is a racial/ethnic disparity in lung cancer incidence in Kent County, with Blacks disproportionately affected. A gender disparity in lung cancer incidence is also present in Kent County, with males being affected more frequently than females. The group most burdened by lung cancer in Kent County is Black males. The mortality rate for lung cancer in Kent County is lower than both the State of Michigan and the United States, and meets the Healthy People 2020 Goal. Despite this, racial/ethnic and gender disparities in lung cancer mortality exist in Kent County, with Blacks and males disproportionately affected.

REFERENCES

1. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
2. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
3. CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission and SEER November 2012 submission.
4. American Cancer Society. (2014) *Detailed Guide: Lung Cancer*. Retrieved from http://www.cancer.org/cancer/lungcancer/index.
5. Centers for Disease Control and Prevention. (2014). *Lung Cancer*. Retrieved from http://www.cdc.gov/cancer/lung/.

DEATH, ILLNESS, AND INJURY: KENT COUNTY
ORAL CANCER

OVERVIEW: ORAL CANCER

Oral cavity cancer, also referred to as simply oral cancer, is cancer that starts in the mouth. Oropharyngeal cancer starts in the oropharynx, which is the part of the throat just behind the mouth. Each year, more than 30,000 new cases of cancer of the oral cavity and pharynx are diagnosed and over 8,000 deaths due to oral cancer occur[4]. The five-year survival rate for these cancers is only about 50%. Mortality from oral cancer is nearly twice as high in some minorities (especially Black males) when compared to Whites.

Methods used to treat oral cancers (surgery, radiation, and chemotherapy) are disfiguring and costly. Preventing high risk behaviors, that include cigarette, cigar or pipe smoking, use of smokeless tobacco, and excessive use of alcohol are critical in preventing oral cancers. Early detection is key to increasing the survival rate for these cancers[5].

Oral Cavity and Pharynx Cancer Incidence Rates

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
All Races (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	9.6	11.3	10.8	**NA**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	9.3	11.1	11.0	**NA**
Black (Includes Hispanic)	👎 ☹	2006-2010	Rate per 100,000 population	12.0	11.2	9.4	
Gender							
Male	👍 ☺	2006-2010	Rate per 100,000 population	13.8	16.7	16.2	
Female	👍 ☺	2006-2010	Rate per 100,000 population	6.0	6.6	6.1	
Race/Ethnicity BY Gender							
White (Includes Hispanic) - Male	👍 ☺	2006-2010	Rate per 100,000 population	13.2	16.3	16.4	
Black (Includes Hispanic) – Male	👎 ☹	2006-2010	Rate per 100,000 population	20.9	17.1	15.0	
White (Includes Hispanic) - Female	👍 ☺	2006-2010	Rate per 100,000 population	6.0	6.4	6.2	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
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☹ When compared, for this health indicator, Kent County is worse than the United States.

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[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

Oral Cavity and Pharynx Cancer Mortality Rates

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
All Races (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	2.2	2.5	2.5	**2.3[a]**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	2.1	2.4	2.4	**C-6: Reduce the oropharyngeal cancer death rate.**
White Non-Hispanic	👍 ☺	2006-2010	Rate per 100,000 population	2.1	2.4	2.5	
Gender							
Male	👍 ☺	2006-2010	Rate per 100,000 population	3.2	3.9	3.8	
Female	👍 ☺	2006-2010	Rate per 100,000 population	1.3	1.4	1.4	
Race/Ethnicity BY Gender							
White (Includes Hispanic) – Male	👍 ☺	2006-2010	Rate per 100,000 population	3.0	3.7	3.6	
White Non-Hispanic – Male	👍 ☺	2006-2010	Rate per 100,000 population	3.1	3.7	3.7	
White (Includes Hispanic) - Female	👎	2006-2010	Rate per 100,000 population	1.4	1.3	1.4	
White Non-Hispanic –Female	👎	2006-2010	Rate per 100,000 population	1.4	1.3	1.4	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

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[a] Benchmark is based on Healthy People 2020 Goal.

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NA -- National Benchmark was not identified.

SUMMARY

The incidence of oropharyngeal cancer in Kent County is lower than incidence reported for the State of Michigan and the United States. Black males in Kent County are disproportionately affected by oropharyngeal cancer when compared with other population groups. Mortality rates for oropharyngeal cancer in Kent County are also lower than mortality rates reported for the State of Michigan and the United States), and achieve the Healthy People 2020 Goal for oropharyngeal cancer. The mortality rate for males with this type of cancer is more than double that of females. This gender disparity for oropharyngeal cancer mortality persists across racial and ethnic groups.

REFERENCES

1. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
2. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
3. CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission and SEER November 2012 submission.
4. American Cancer Society. (2014). *Detailed Guide: Oral Cavity and Oropharyngeal Cancer.* Retrieved from http://www.cancer.org/cancer/oralcavityandoropharyngealcancer/index.
5. Centers for Disease Control and Prevention. (2014). *Oral Cancer*. Retrieved from http://www.cdc.gov/OralHealth/oral_cancer/.

DEATH, ILLNESS, AND INJURY: KENT COUNTY
PROSTATE CANCER

OVERVIEW: PROSTATE CANCER

Except for skin cancer, prostate cancer is the most common cancer found in American men. It is the second most common cause of death from cancer among White, Black, American Indian/Alaska Native, and Hispanic men, and the fourth most common cause of death from cancer among Asian/Pacific Islander men[4]. About one man in seven will be diagnosed with prostate cancer during his lifetime.

Prostate cancer can be a serious disease, but most men diagnosed with prostate cancer do not die from it. In fact, more than 2.5 million men in the United States who have been diagnosed with prostate cancer are still alive today[5]. Many men with prostate cancer, especially those with tumors that have not spread beyond the prostate, die of other causes without ever having any symptoms caused by the cancer.

Prostate Cancer Incidence Rates

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
All Races (Includes Hispanic)	👎 ☹	2006-2010	Rate per 100,000 population	163.8	163.7	143.8	**NA**
Race/Ethnicity							
White (Includes Hispanic)	👎 ☹	2006-2010	Rate per 100,000 population	151.0	143.6	133.3	**NA**
Black (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	204.0	228.6	218.0	
Hispanic (Any Race)	👎 ☹	2006-2010	Rate per 100,000 population	155.6	117.1	123.7	

Prostate Cancer Mortality Rates

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
All Races (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	18.8	21.8	23.0	**21.8[a]**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	18.3	19.9	21.2	**C-7: Reduce the prostate cancer death rate.**
White Non-Hispanic	👍 ☺	2006-2010	Rate per 100,000 population	18.2	19.8	21.3	
Black (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	29.2	42.4	50.9	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

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☹ When compared, for this health indicator, Kent County is worse than the United States.

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[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

SUMMARY

Overall prostate cancer incidence rates for Kent County are higher than incidence rates reported for the State of Michigan and the United States. Incidence of prostate cancer is highest among Black males. Despite the higher incidence rates, Kent County's mortality rate for prostate cancer is lower than both the State of Michigan and the United States, and surpasses the Healthy People 2020 Goal. Similar to disparities in incidence, Black males in Kent County suffer the highest mortality rates associated with prostate cancer.

REFERENCES

1. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
2. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
3. CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission and SEER November 2012 submission.
4. Centers for Disease Control and Prevention. (2014). *Prostate Cancer*. Retrieved from http://www.cdc.gov/cancer/prostate/.
5. American Cancer Society (2014). *Detailed Guide: Prostate Cancer*. Retrieved from http://www.cancer.org/cancer/prostatecancer/index.

DEATH, ILLNESS, AND INJURY: KENT COUNTY
SKIN CANCER

OVERVIEW: SKIN CANCER

Skin cancer is a type of cancer that forms in the tissues of the skin and is one of the most commonly diagnosed cancers in the United States. There are many forms of skin cancer, but melanomas are the most common[4]. Melanomas can occur anywhere on the skin, but they are more likely to start in certain locations. The trunk (chest and back) is the most common site in men and the legs are the most common site in women. The neck and face are other common sites. Having darkly pigmented skin lowers risk of melanoma at the more common sites, but anyone can develop this cancer on the palms of the hands, soles of the feet, and under the nails. Melanomas in these areas account for more than half of all melanomas Blacks but less than one in 10 melanomas in Whites.

The risk for developing melanoma can be influenced by many factors. Older age is an important risk factor, as the risk for developing this type of cancer increases with age. However, melanoma is not uncommon even among those younger than 30. In fact, it is one of the most common cancers in young adults, especially young women[5]. The most preventable cause of skin cancer is exposure to ultraviolet (UV) light, either from the sun or from artificial sources like tanning beds[6].

Melanoma Skin Cancer Incidence Rates

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
All Races (Includes Hispanic)	👎 ☹	2006-2010	Rate per 100,000 population	20.9	18.9	19.0	**NA**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2006-2010	Rate per 100,000 population	19.0	20.3	21.4	**NA**
Gender							
Male	👎 ☹	2006-2010	Rate per 100,000 population	27.0	22.8	24.1	
Female	👎 ☹	2006-2010	Rate per 100,000 population	16.6	16.2	15.3	
Race/Ethnicity BY Gender							
White (Includes Hispanic) - Male	👎 ☺	2006-2010	Rate per 100,000 population	24.9	24.3	26.8	
White (Includes Hispanic) - Female	👍 ☺	2006-2010	Rate per 100,000 population	14.7	17.6	17.5	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
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[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

Melanoma Skin Cancer Mortality Rates							
Indicator	**Status**	**Time Period**	**Measure**	**Kent County**[1]	**Michigan**[2]	**United States**[3]	**National Benchmark**[a,b]
All Races (Includes Hispanic)	👎 ☹	2006-2010	Rate per 100,000 population	2.9	2.4	2.7	**2.4**[a]
Race/Ethnicity							
White (Includes Hispanic)	👎	2006-2010	Rate per 100,000 population	3.1	2.7	3.1	**C-8: Reduce the melanoma cancer death rate.**
White Non-Hispanic	👎	2006-2010	Rate per 100,000 population	3.3	2.8	3.4	
Gender							
Male	👎 ☹	2006-2010	Rate per 100,000 population	4.8	3.5	4.1	
Female	👍 ☺	2006-2010	Rate per 100,000 population	1.5	1.5	1.7	
Race/Ethnicity BY Gender							
White (Includes Hispanic) - Male	👎 ☹	2006-2010	Rate per 100,000 population	5.2	4.0	4.6	
White Non-Hispanic – Male	👎 ☹	2006-2010	Rate per 100,000 population	5.4	4.1	5.0	
White (Includes Hispanic) - Female	👍 ☹	2006-2010	Rate per 100,000 population	1.6	1.7	2.0	
White Non-Hispanic – Female	👍 ☺	2006-2010	Rate per 100,000 population	1.7	1.8	2.1	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
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[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

SUMMARY

The incidence of skin cancer in Kent County is higher than the incidence reported for both the State of Michigan and the United States . Both male and female incidence rates for Kent County are higher than those reported at the state and national level. Despite the lower incidence rates, Kent County's overall mortality rate for skin cancer is higher than the mortality rates reported by the State of Michigan and the United States. Kent County has yet to achieve the Healthy People 2020 mortality rate target of 2.4 deaths per 100,000 population.

REFERENCES

1. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
2. State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission. State rates include rates from metropolitan areas funded by SEER.
3. CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) January 2013 data submission and SEER November 2012 submission.
4. National Cancer Institute. (2014). *Melanoma*. Retrieved from http://www.cancer.gov/cancertopics/types/melanoma
5. American Cancer Society. (2014). *Detailed Guide: Skin Cancer*. Retrieved from http://www.cancer.org/cancer/skincancer/index
6. Centers for Disease Control and Prevention. (20140. *Skin Cancer*. Retrieved from http://www.cdc.gov/cancer/skin/.

Death, Illness, and Injury: Kent County
Chronic Lower Respiratory Disease

Overview: Chronic Lower Respiratory Disease

Chronic lower respiratory disease, primarily chronic obstructive pulmonary disease (COPD) is the third leading cause of death in Kent County, Michigan, and the United States[1]. Several serious conditions that cause airflow blockage and breathing problems are included within this category of disease, including emphysema, chronic bronchitis, and sometimes asthma[1]. The primary factor that contributes to the development of chronic lower respiratory diseases is smoking tobacco, though other risk factors like air pollution, genetic factors, and some infections can play a role.

Kent County Death, Illness, and Injury: Chronic Obstructive Pulmonary Disease
Percentage Of Respondents Who Had Ever Been Told By A Doctor That They Have COPD, Emphysema, or Chronic Bronchitis

Indicator	Status	Time Period	Measure	Kent County[3]	Michigan[4]	United States[5]	National Benchmark[a,b]
Total	👍 ☺	2014*	Percent	8.6%	8.8%	6.3%	**NA**

- 👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
- 👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
- ☺ When compared, for this health indicator, Kent County is better than the United States.
- ☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

Kent County Death, Illness, and Injury: Chronic Lower Respiratory Disease Mortality

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[2]	National Benchmark[a,b]
Total	👍	2012*	Rate per 100,000 population	33.3	45.2	**102.6[a]**
Age						
Under 50 Years	--	2012*	Rate per 100,000 population	--	1.2	**RD-10: Reduce deaths from chronic obstructive pulmonary disease (COPD) among adults.**
50-74 Years	👍	2012*	Rate per 100,000 population	44.4	67.7	
75+ Years	👍	2012*	Rate per 100,000 population	388.1	499.3	
Gender						
Male	👍	2012*	Rate per 100,000 population	39.1	51.5	
Female	👍	2012*	Rate per 100,000 population	29.9	41.1	
Race						
White/Caucasian	👍	2012*	Rate per 100,000 population	34.6	47.1	
Black/African American	--	2012*	Rate per 100,000 population	--	30.4	

- 👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
- 👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

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[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

Summary

Fewer people in Kent County report ever being diagnosed by a doctor with chronic lower respiratory disease when compared with respondents at the state level. Kent County's death rate for chronic lower respiratory disease is lower than the rate reported for the State of Michigan. The population subgroups with the highest mortality rates for this condition in Kent County include persons aged 75 years or older and males.

REFERENCES

1. Centers for Disease Control and Prevention. (2014). *What is COPD?* Retrieved from http://www.cdc.gov/copd/
2. Michigan Department of Community Health. (2012). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html
3. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
4. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
5. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.

DEATH, ILLNESS, AND INJURY: KENT COUNTY
ASTHMA

OVERVIEW: ASTHMA

Asthma is a chronic inflammatory disorder of the lungs, and is characterized by wheezing, coughing, difficulty breathing, and chest tightness. Asthma attacks can be triggered by a variety of factors, such as cold air, allergens, irritants, and respiratory viral infections. Allergies, a family history of asthma or allergy, low birth weight, and exposure to tobacco smoke are just a few potential risk factors that are associated with the development of asthma[1].

Kent County Death, Illness, and Injury: Asthma
Percentage Of Respondents Who Have Ever Been Told By A Doctor That They Had Asthma, And Percentage Of Respondents Who Still Have Asthma

Indicator	Status		Time Period	Measure	Kent County[2]		Michigan[3]		United States[4]		National Benchmark[a,b]	
	Ever Told	Have Now			Ever Told	Have Now	Ever Told	Have Now	Ever Told	Have Now	Ever Told	Have Now
Total	👍 ☹	👍	2014*	Percent	14.2%	9.0%	16.6%	11.5%	14.1%	9.0%	**NA**	**NA**
Age												
18 – 24 Years	👍 ☹	👍 ☹	2014*	Percent	19.7%	11.7%	22.8%	14.1%	18.9%	10.2%	**NA**	
25-34 Years	👍 ☺	👍 ☺	2014*	Percent	10.5%	4.3%	18.3%	10.6%	14.9%	8.5%		
35-44 Years	👍 ☹	👍 ☹	2014*	Percent	15.6%	11.1%	16.9%	12.5%	13.7%	9.0%		
45 – 54 Years	👍 ☹	👍 ☺	2014*	Percent	14.2%	9.2%	14.4%	10.8%	13.4%	9.4%		
55 – 64 Years	👍 ☹	👍 ☹	2014*	Percent	15.2%	10.7%	16.9%	12.3%	12.9%	9.5%		
65+ Years	☺	☺	2014*	Percent	10.7%	8.2%	--	--	11.8%	8.4%		
Gender												
Male	👍 ☹	👍 ☺	2014*	Percent	11.9%	5.5%	14.3%	8.6%	11.7%	6.7%		
Female	☺	👍 ☹	2014*	Percent	16.3%	12.3%	18.7%	14.2%	16.3%	11.3%		
Race												
White/Caucasian	👍 ☺	👍 ☺	2014*	Percent	13.3%	8.3%	16.0%	10.9%	13.7%	8.9%		
Black/African American			2014*	Percent	20.8%	17.3%	19.4%	14.3%	16.3%	11.5%		
Hispanic/Latino	👍 ☺	👍 ☺	2014*	Percent	8.4%	4.2%	18.3%	13.4%	13.5%	8.0%		
Non-Hispanic	--	--	2014*	Percent	14.3%	9.4%	--	--	--	--		
Education												
Less Than High School	👍 ☺	👍 ☺	2014*	Percent	10.4%	5.0%	22.9%	17.5%	16.9%	12.0%		
High School Diploma	👍 ☺	👍 ☺	2014*	Percent	10.6%	5.3%	16.1%	11.6%	13.6%	9.0%		
Some College	👎 ☹	👎 ☹	2014*	Percent	16.7%	12.6%	16.2%	10.7%	15.0%	9.6%		
College Graduate	👎 ☹	👎 ☹	2014*	Percent	15.6%	9.7%	14.7%	9.6%	12.3%	7.4%		
Household Income												
Less Than $20,000	👍	👍	2014*	Percent	18.1%	16.1%	23.6%	18.2%	--	--		
$20,000 to $34,999	👍	👍	2014*	Percent	12.8%	5.8%	16.9%	11.4%	--	--		
$35,000 to $49,999	👍	--	2014*	Percent	14.4%	10.5%	15.4%	10.5%	--	--		
$50,000 to $74,999	👍	👍	2014*	Percent	12.4%	8.1%	12.6%	8.5%	--	--		
$75,000 Or More	👍	👍	2014*	Percent	13.4%	8.9%	13.8%	9.1%	--	--		

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[a] Benchmark is based on Healthy People 2020 Goal.
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NA -- National Benchmark was not identified.

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

Current and lifetime asthma rates in Kent County are lower than the rates reported for the state overall. Current asthma rates are highest among females, African Americans, and persons with a household income of $20,000 or less. Lifetime asthma rates are highest among the same population subgroups. According to the Michigan Department of Community Health, asthma accounted for a total of four deaths among Kent County residents in 2012[5]. Though asthma does not cause high rates of mortality in Kent County, it is a health issue of concern for the fact that it leads to many hospitalizations. In 2012, asthma was responsible for 143 hospitalizations for people between the ages of 45 and 64 years in Kent County, which equates to a rate of 9.1 hospitalizations per 10,000 population[6].

REFERENCES

1. Centers for Disease Control and Prevention. (2014). *Asthma's impact on the nation - data from the CDC National Asthma Control Program.* Retrieved from http://www.cdc.gov/asthma/impacts_nation/asthmafactsheet.pdf
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
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DEATH, ILLNESS, AND INJURY: KENT COUNTY
UNINTENTIONAL INJURIES

OVERVIEW: UNINTENTIONAL INJURIES

Deaths from unintentional injuries include deaths due to vehicle traffic accidents and other accidents such as falls, accidental discharge of firearms, drowning and submersion, smoke exposure, fire and flames, accidental poisoning and exposure to noxious substances, other and unspecified accidents and their late effects[1].

Kent County Death, Illness, and Injuries: Unintentional Injury-Related Mortality

Indicator	Status	Year	Measure	Kent County[1]	Michigan[1]	United States[2]	National Benchmark[a,b]
Total	👎 ☺	2012*	Rate per 100,000	38.5	36.6	38.9	**36.4[a]**
Age							
Under 25 Years	👎	2012*	Rate per 100,000	18.5	17.1	--	**IVP-11: Reduce unintentional injury deaths.**
25-74 Years	👍	2012*	Rate per 100,000	29.5	37.0	--	
75+ Years	👎	2012*	Rate per 100,000	277.7	160.3	--	
Gender							
Male	👎 ☺	2012*	Rate per 100,000	50.2	48.5	52.5	
Female	👎 ☹	2012*	Rate per 100,000	27.3	25.8	26.3	
Race							
White/Caucasian	👎 ☺	2012*	Rate per 100,000	38.8	37.2	41.4	
Black/African American	--	2012*	Rate per 100,000	--	33.4	31.4	
Death Rate by Type of Injury							
Unintentional - Fall	👎 ☹	2012*	Rate Per 100,000	16.1	8.8	7.2	**7.2[a]**
Unintentional - Poisoning	👍	2012*	Rate Per 100,000	9.3	10.5	--	**13.2[a]**
Transport Fatal Injuries	👍	2012*	Rate Per 100,000	7.5	10.9	--	**NA**
Unintentional - Suffocation	👎 ☹	2012*	Rate Per 100,000	2.6	2.4	2.0	**1.8[a]**
Unintentional - Drowning	👍 ☺	2012*	Rate Per 100,000	1.0	1.3	1.2	**1.1[a]**
Unintentional - Burn, Fire/Flame	👍	2012*	Rate Per 100,000	--	1.0	--	**0.9[a]**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

☺ When compared, for this health indicator, Kent County is better than the United States.

☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified

**Note: The 2012 comparative data is based on 2012 Michigan Death Certificate Registry and 2012 National Center for Health Statistics US Census Populations with Bridged Race Categories.*

SUMMARY

The overall death rate for unintentional injuries in Kent County is 38.5, which is very similar to the national rate, and slightly higher than the rate reported for the State of Michigan. The types of unintentional injuries that lead to the highest mortality rates include falls, poisonings, and transport-related injuries. The unintentional injury-related mortality rate for males in Kent County is nearly double that of females.

REFERENCES

1. Michigan Resident Death Files, Division for Vital Records and Health Statistics, Michigan Department of Community Health.
2. National Vital Statistics System-Mortality (NVSS-M), CDC/NCHS; Population Estimates, Census.

DEATH, ILLNESS, AND INJURY: KENT COUNTY
MOTOR VEHICLE CRASHES

OVERVIEW: MOTOR VEHICLE CRASHES

A transport-related fatal injury is any fatal injury involving a device designed primarily for, or being used at the time primarily for, conveying persons or goods from one place to another. This category includes accidents involving: aircraft, spacecraft, watercraft, motor vehicle, railway, and other road vehicles (excludes intentional or undetermined deaths). A motor vehicle traffic - unspecified is any traffic accident of specific type but victim's mode of transport is unknown.[1]

Kent County Death, Illness, and Injury: Motor Vehicle Crash Mortality							
Transport-Related Fatal Injuries	**Status**	**Year**	**Measure**	**Kent County[1]**	**Michigan[1]**	**United States[2]**	**National Benchmark[a,b]**
Total	👍 ☺	2012*	Rate per 100,000	7.5	10.9	10.6	**12.4[a]**
By Type of Crash							
Motor Vehicle Traffic - Occupant	👍	2012	Rate Per 100,000	2.0	2.3	--	**IVP-13.1: Reduce motor vehicle crash-related deaths per 100,000 population.**
Motor Vehicle Traffic - Driver	👍	2012	Rate Per 100,000	1.1	1.2	--	
Motor Vehicle Traffic - Motorcyclist	--	2012	Rate Per 100,000	--	1.4	--	
Motor Vehicle Traffic - Bicyclist	--	2012	Rate Per 100,000	--	0.1	--	
Motor Vehicle Traffic - Pedestrian	--	2012	Rate Per 100,000	--	1.4	--	
Motor Vehicle Traffic - Unspecified	👍	2012	Rate Per 100,000	2.9	4.9	--	
Other Transports - Bicyclist	--	2012	Rate Per 100,000	--	0.1	--	
Other Transports - Pedestrian	--	2012	Rate Per 100,000	--	0.2	--	
Other Transports - Other	--	2012	Rate Per 100,000	--	0.5	--	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

** Note: The 2012 comparative data is based on 2011 National Center for Health Statistics US Census Populations with Bridged Race Categories.*

SUMMARY

The overall mortality rate for motor vehicle-related crashes in Kent County is 7.5 per 100,000. This rate is lower than the rates for the State of Michigan and the United States, and exceeds the national benchmark set through Healthy People 2020. Kent County reported a total of 46 transport-related fatal injuries in 2012. All of these fatal injuries occurred among people aged 15 to 64 years, with the highest mortality rate occurring in the 15 to 24 years age group and among males (80.4% of fatalities)[1].

REFERENCES

1. Michigan Resident Death Files, Division for Vital Records and Health Statistics, Michigan Department of Community Health.
2. Healthy People 2020. (2014). Injury and violence prevention objective data. Retrieved from http://www.healthypeople.gov/2020/data-search/Search-the-Data?nid=4732

DEATH, ILLNESS, AND INJURY: KENT COUNTY
ALZHEIMER'S DISEASE

OVERVIEW: ALZHEIMER'S DISEASE

Dementia is the loss of cognitive functioning – thinking, remembering, and reasoning – to the extent that it interferes with a person's daily life[2]. Contrary to what people may believe, dementia is not a disease itself, but is rather a grouping of symptoms. Alzheimer's disease is the most common cause of dementia and accounts for 60-80% of all diagnosed cases. Key signs of Alzheimer's disease include difficulty remembering conversations, names, or events; apathy and depression; impaired communication, disorientation, confusion, poor judgment, behavior changes, and ultimately difficulty speaking, swallowing, and walking[3].

Kent County Death, Illness, and Injuries: Mortality for Alzheimer's Disease							
Fatal Injuries	**Status**	**Year**	**Measure**	**Kent County[1]**	**Michigan[1]**	**United States[1]**	**National Benchmark[a,b]**
Total	👎 ☺	2012*	Rate per 100,000	25.2	25.6	24.6	**NA**
Age							
65-74 Yeas	👍	2012*	Rate per 100,000	19.7	21.0	--	**NA**
75-84 Years	👎	2012*	Rate per 100,000	268.6	191.8	--	
85+ Years	👎	2012*	Rate per 100,000	1,157.7	907.8	--	
Gender							
Male	👎	2012*	Rate per 100,000	24.6	21.2	--	
Female	👍	2012*	Rate per 100,000	25.6	28.2	--	
Race							
White/Caucasian	👍	2012*	Rate per 100,000	25.2	26.6	--	
Black/African American	--	2012*	Rate per 100,000	--	16.9	--	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

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[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

**Note: The 2012 comparative data is based on 2012 Michigan Death Certificate Registry and 2012 National Center for Health Statistics US Census Populations with Bridged Race Categories.*

SUMMARY

The mortality rate for Alzheimer's disease in Kent County is 25.2, which is lower than the rate for the State of Michigan, but higher than the national average. This condition appears to cause death in women slightly more often than in men, and the highest mortality rates exist in populations 75 years and older. Though comparison data is unavailable for African Americans in Kent County, there does appear to be a racial disparity in Alzheimer's-related mortality, with more whites dying from the disease.

REFERENCES

1. Michigan Department of Community Health. (2012). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html
2. Healthy People 2020. (2014). *Dementias, including Alzheimer's disease*. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/dementias-including-alzheimers-disease
3. Alzheimer's Association. (2014). *2014 Alzheimer's disease facts and figures*. Retrieved from http://www.alz.org/downloads/Facts_Figures_2014.pdf

DEATH, ILLNESS, AND INJURY: KENT COUNTY
DIABETES

OVERVIEW: DIABETES

Diabetes mellitus is a chronic disease characterized by high glucose levels resulting from insufficient production of insulin by the pancreas or to a reduction in the body's ability to use insulin. Without a properly functioning insulin signaling system, blood glucose levels become elevated, leading to other metabolic abnormalities. This physiological process causes serious and disability complications[1]. Obesity, poor diet, physical inactivity, and high blood pressure are just a few of the known risk factors that are associated with the development of diabetes[2].

Kent County Death, Illness, and Injury: Diabetes Diagnosis
Percentage Of Respondents Who Had Ever Been Told By A Doctor That They Have Diabetes (Excluding Gestational Diabetes)

Indicator	Status	Time Period	Measure	Kent County[3]	Michigan[4]	United States[5]	National Benchmark[a,b]
Total	👍 ☺	2014*	Percent	9.2%	10.4%	9.8%	**NA**
Age							
25-34 Years	👎 ☹	2014*	Percent	5.6%	2.0%	2.0%	**D-1: Reduce the annual number of new cases of diagnosed diabetes in the population. (Developmental)**
35-44 Years	👍 ☺	2014*	Percent	4.6%	5.1%	5.0%	
45 – 54 Years	👍 ☺	2014*	Percent	7.1%	10.0%	10.0%	
55 – 64 Years	👎 ☹	2014*	Percent	16.7%	16.2%	15.8%	
65+ Years	👎 ☹	2014*	Percent	22.5%	21.9%	20.9%	
Gender							
Male	👍 ☺	2014*	Percent	9.3%	11.0%	10.2%	
Female	👍 ☺	2014*	Percent	9.2%	9.7%	9.7%	
Race							
White/Caucasian	👍 ☺	2014*	Percent	8.5%	10.1%	9.1%	
Black/African American	👎 ☹	2014*	Percent	18.9%	11.7%	13.9%	
Hispanic/Latino	👍 ☺	2014*	Percent	3.7%	10.8%	8.9%	
Non-Hispanic	👎	2014*	Percent	9.8%	8.8%	--	
Education							
Less Than High School	👎 ☹	2014*	Percent	15.6%	13.8%	14.7%	
High School Diploma	👍 ☺	2014*	Percent	9.3%	11.8%	11.1%	
Some College	👎 ☹	2014*	Percent	10.7%	10.2%	9.4%	
College Graduate	👍 ☹	2014*	Percent	6.6%	6.9%	6.5%	
Household Income							
Less Than $20,000	👎	2014*	Percent	14.0%	13.2%	--	
$20,000 to $34,999	👎	2014*	Percent	13.8%	13.6%	--	
$35,000 to $49,999	👍	2014*	Percent	9.7%	13.6%	--	
$50,000 to $74,999	👎	2014*	Percent	11.0%	8.2%	--	
$75,000 Or More	👍	2014*	Percent	3.7%	5.3%	--	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

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[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

Kent County Death, Illness, and Injury: Diabetes Mortality

Indicator	Status	Time Period	Measure	Kent County[6]	Michigan[6]	National Benchmark[a,b]
Total	👍	2012*	Rate per 100,000	10.8	23.0	**NA**
Age						
Under 50 Years	--	2012*	Rate per 100,000	--	2.4	**D-2: Reduce the death rate among persons with diabetes. (Developmental)**
50-74 Years	👍	2012*	Rate per 100,000	17.6	37.2	
75+ Years	👍	2012*	Rate per 100,000	107.5	225.7	
Gender						
Male	👍	2012*	Rate per 100,000	13.7	27.6	
Female	👍	2012*	Rate per 100,000	8.4	19.6	
Race						
White/Caucasian	👍	2012*	Rate per 100,000	10.6	21.5	
Black/African American	--	2012*	Rate per 100,000	--	33.9	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

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[a] Benchmark is based on Healthy People 2020 Goal.

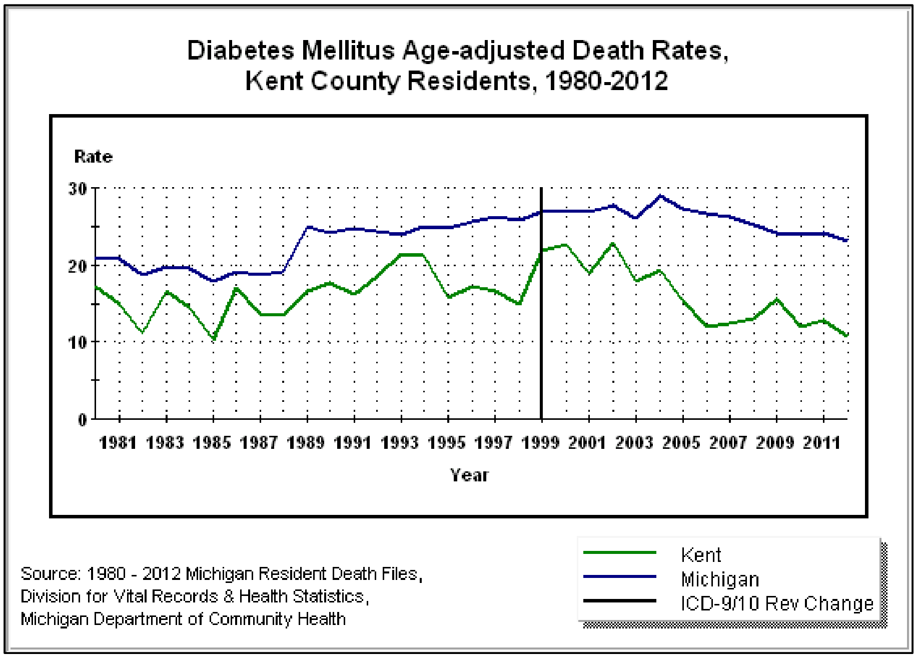
[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

SUMMARY

The percentage of Kent County residents who have ever been told by a doctor that they have diabetes is 9.2%, which is a lower proportion than reported for the state and nation. The population subgroups most likely to have been told they have diabetes were residents aged 55 years or older, African Americans, and persons with a household income of $34,999 or less.

In regard to diabetes-associated mortality, Kent County's rate is less than half the statewide rate. Males in Kent County are more likely than females to die from diabetes. Though there was insufficient data to make racial comparisons at the county level, state level data indicates a racial disparities between whites and African Americans, where African Americans have a higher mortality rate associated with diabetes mellitus.



Source: 1980 - 2012 Michigan Resident Death Files,
Division for Vital Records & Health Statistics,
Michigan Department of Community Health

REFERENCES

1. Healthy People 2020. (2014). *Diabetes*. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/diabetes
2. Centers for Disease Control and Prevention. (2013*). Diabetes public health resource -Basics about diabetes*. Retrieved from http://www.cdc.gov/diabetes/consumer/learn.htm
3. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
4. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
5. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.
6. Michigan Department of Community Health. (2012). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html

DEATH, ILLNESS, AND INJURY: KENT COUNTY
KIDNEY DISEASE

OVERVIEW

Kidney disease is a significant public health problem in the United States. It causes a great deal of suffering and reduces the quality of life of persons who are afflicted with the condition. Genetic determinants have a large influence in the development and progression of kidney disease, however there are environmental and behavioral factors that can be managed to reduce the risk an individual has of developing the disease[5]. Kidney disease is responsible for high healthcare costs, as well as premature death among Americans.

Kent County Death, Illness, and Injury: Kidney Disease
Percentage Of Respondents Who Were Ever Told By A Doctor That They Had Kidney Disease

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Total	👎 ☹	2014*	Percent	5.9%	3.0%	2.5%	**13.6%[a]** **CKD-1: Reduce the proportion of the US population with chronic kidney disease.**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

☺ When compared, for this health indicator, Kent County is better than the United States.

☹ When compared, for this health indicator, Kent County is worse than the United States.

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[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories).*

Kent County Death, Illness, and Injury: Kidney Disease Mortality

Indicator	Status	Time Period	Measure	Kent County[4]	Michigan[4]	National Benchmark[a,b]
Total	👍	2012*	Rate per 100,000	8.0	13.5	**NA**
Age						
Under 50 Years	👍	2012*	Rate per 100,000	0.7	0.8	**NA**
50-74 Years	👍	2012*	Rate per 100,000	8.9	15.8	
75+ Years	👍	2012*	Rate per 100,000	140.8	166.8	
Gender						
Male	👍	2012*	Rate per 100,000	10.7	16.8	
Female	👍	2012*	Rate per 100,000	6.0	11.4	
Race						
White/Caucasian	👍	2012*	Rate per 100,000	7.3	12.2	
Black/African American	--	2012*	Rate per 100,000	--	23.5	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

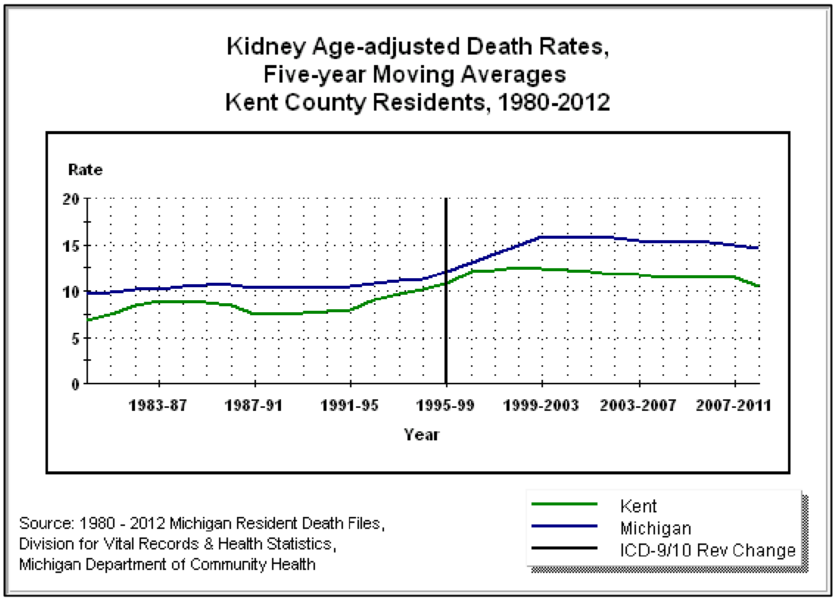
[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

SUMMARY

When compared, kidney disease is more prevalent in Kent County (5.9%) than the state of Michigan (3.0%) and the United States (2.5%). However, the proportion of Kent County residents with chronic kidney disease is significantly fewer than the recommended national benchmark (13.6%). While the prevalence of kidney disease is high, disease-related mortality remains low in comparison to the state.



Kidney Age-adjusted Death Rates,
Five-year Moving Averages
Kent County Residents, 1980-2012

Source: 1980 - 2012 Michigan Resident Death Files,
Division for Vital Records & Health Statistics,
Michigan Department of Community Health

REFERENCES

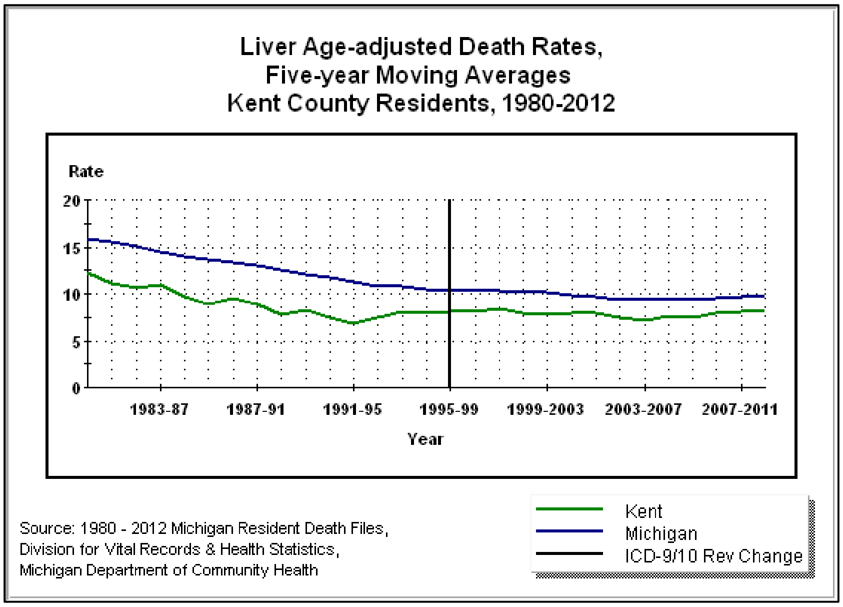
1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2014.
2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2013.
3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2013.
4. Michigan Department of Community Health. (2012). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html
5. Healthy People 2020. (2014). *Chronic kidney disease*. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/chronic-kidney-disease

Death, Illness, and Injury: Kent County
Chronic Liver Disease

Overview: Chronic Liver Disease

The liver plays an important role in many bodily functions, ranging from protein production to the metabolism of glucose and iron. The term "liver disease" applies to many disease and disorders that cause the liver to function improperly or stop functioning all together[2].

Symptoms of liver disease include weakness and fatigue, weight loss, nausea, vomiting, and yellow discoloration of the skin (also known as jaundice). Causes of liver disease can include alcohol abuse, cirrhosis, drug abuse, infectious hepatitis, cancer, and others. Due to the nature of the causes of liver disease, there are environmental and behavioral factors that can be modified to reduce the risk an individual has for developing this condition.



Liver Age-adjusted Death Rates,
Five-year Moving Averages
Kent County Residents, 1980-2012

Source: 1980 - 2012 Michigan Resident Death Files,
Division for Vital Records & Health Statistics,
Michigan Department of Community Health

Kent County Death, Illness, and Injury: Chronic Liver Disease Mortality						
Indicator	**Status**	**Time Period**	**Measure**	**Kent County[1]**	**Michigan[1]**	**National Benchmark[a,b]**
Total	👍	2012*	Rate per 100,000	7.0	9.8	**NA**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

NA -- National Benchmark was not identified.

Summary

Data on chronic liver disease for Kent County is limited. Death certificates indicate that the mortality rate associated with liver disease in Kent County is about 7.0 deaths per 100,000. This is a lower rate than what is reported for the State of Michigan. The trend over time for this condition shows that the mortality rate for chronic liver disease has remained pretty stable over the past three decades.

References

1. Centers for Disease Control and Prevention, National Center for Health Statistics. (2015) *Multiple Cause of Death 1999-2013 on CDC WONDER Online Database, released 2015.* Retrieved from http://wonder.cdc.gov/mcd-icd10.htm
2. University of Maryland Medical Center. (2012). *Liver disease*. Retrieved from http://umm.edu/health/medical/ency/articles/liver-disease

DEATH, ILLNESS, AND INJURY: KENT COUNTY
PNEUMONIA/INFLUENZA

OVERVIEW

Pneumonia is a common lung infection that is caused by bacteria, viruses, or fungi. The symptoms for this condition can range from mild to severe, and many treatments are available. Most healthy people are able to recover from pneumonia in one to three weeks, but for those at highest-risk, pneumonia can be life threatening[2].

Influenza is a serious respiratory illness that can quickly spread from person to person. There are many different types of influenza that are classified into "virus families" – types A, B, and C. Influenza type A can infect people, but is also common in other animals like birds, pigs, and horses. Influenza type B viruses are usually only found in humans and are typically less severe and less contagious than type A. Influenza type C causes mild illness in humans, and occur much less frequently than types A and B[3]. Types A and B are most frequently included in the seasonal influenza vaccine that is produced each year.

Both pneumonia and influenza can be prevented through vaccination and through frequent hand-washing.

Kent County Death, Illness, and Injury: Pneumonia/Influenza-Related Mortality

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	National Benchmark[a,b]
Total	👍	2012*	Rate per 100,000	12.2	13.3	**NA**
Age						
Under 50 Years	--	2012*	Rate per 100,000	--	0.8	
50-74 Years	👍	2012*	Rate per 100,000	6.5	15.8	
75+ Years	👎	2012*	Rate per 100,000	203.0	166.8	
Gender						
Male	👎	2012*	Rate per 100,000	18.7	16.0	
Female	👍	2012*	Rate per 100,000	8.1	11.5	
Race						
White/Caucasian	👍	2012*	Rate per 100,000	12.2	13.2	
Black/African American	--	2012*	Rate per 100,000	--	13.6	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

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[a] Benchmark is based on Healthy People 2020 Goal.

[b] Benchmark is based on County Health Rankings project.

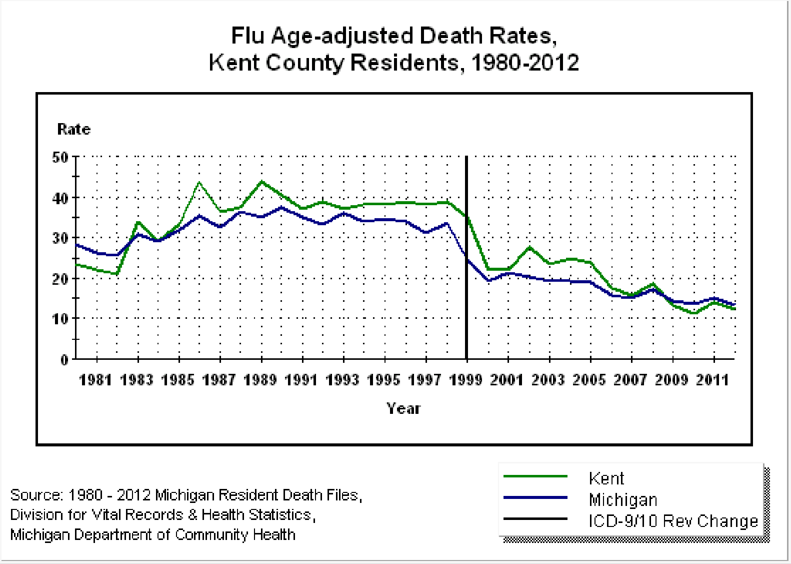
NA -- National Benchmark was not identified.

SUMMARY

The mortality rate for pneumonia and influenza in Kent County is 12.2, which is lower than the rate reported for the State of Michigan. Persons most likely to die from pneumonia and influenza are the elderly (75+ years old) and males. There was insufficient data available to make a racial comparison on this topic for Kent County, but state-level data indicates the mortality rates for African Americans and whites are relatively equal.

The provided chart shows a slight decrease in pneumonia and influenza-related deaths among Kent County residents over the past decade.

Flu Age-adjusted Death Rates,
Kent County Residents, 1980-2012



Source: 1980 - 2012 Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health

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COMMUNICABLE DISEASE

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

DEFINITION OF CATEGORY

Measures within this category include diseases which are usually transmitted through person-to-person contact or shared used of contaminated instruments or materials. Many of these diseases can be prevented through a high level of vaccination coverage of vulnerable populations, or through the use of protective measures, such as condoms for the prevention of sexually transmitted diseases.

Key Topics

- VACCINATION RATES
- SEXUALLY TRANSMITTED DISEASES
- HIV/AIDS
- TUBERCULOSIS
- MENINGITIS
- VIRAL HEPATITIS

COMMUNICABLE DISEASE: KENT COUNTY VACCINATION RATES

OVERVIEW: VACCINATION RATES

In the United States, the widespread use of vaccinations has made outbreaks of vaccine-preventable diseases rare. Reports of disease levels for these conditions are at or near record lows. In fact, there are some diseases, such as smallpox, that have been fully eradicated in the United States. Though most infants, toddlers, and children have received all recommended vaccines by the age of two, some unvaccinated children remain. Even with recommended vaccination schedules for adolescents, adults, and the elderly, many remain under-vaccinated. Both of these situations pose the risk for potential outbreaks of disease.

There are series of vaccines that are proposed for children, teens, and adults[5]. The tables included on this page explain which vaccines are included in each series, who is recommended to receive that particular series, and data describing vaccination coverage for Kent County, Michigan, and the United States.

Vaccine Key[8]

Abbreviation	Diseases Included/ Covered
DTaP	Tetanus, Diphtheria, and acellular Pertussis
DT	Tetanus and Diphtheria
IPV	Poliovirus
MCV	Meningococcal Disease
Hib	*Haemophilus influenzae*
PCV	Pneumococcal Disease
MMR	Measles, Mumps, Rubella
HPV	Human Papillomavirus
VAR	Varicella Virus (Chickenpox)

Vaccine Series Overview[9]

Series	Description	Target Population
4:3:1:3:3	4 or more doses of DTaP/DT, 3 or more doses of poliovirus vaccine, 1 or more doses of MCV, 3 or more doses of Hib, and 3 or more doses of hepatitis B.	19 - 35 Months
4:3:1:3:3:1	Refers to 4:3:1:3:3 plus 1 or more doses of varicella (chickenpox).	19 - 35 Months
4:3:1:3:3:1:4	Refers to 4:3:1:3:3:1 plus 4 or more doses of PCV.	19 - 35 Months
1:3:2:3:2:1	Refers to 1 Tdap, 3 doses of poliovirus vaccine, 2 MMR, 3 doses of hepatitis B, 2 doses of varicella (chickenpox), and 1 dose of MCV.	13 - 18 Years
1:3:2:3:2:1:3	Refers to 1:3:2:3:2:1 plus three doses of HPV vaccine	13 - 18 Years

Kent County Communicable Disease: Childhood Vaccination Rates (19 - 35 months)

	Status	Time Period	Measure	Kent County[1]	Michigan[2,7]	United States[3,6]	National Benchmark[a,b]
Vaccine series 4:3:1:3:3	👍 ☺	2013 - 2014	Percent	83.0%	75.0%	78.7%	**80.0% – 95.0%[a]**
Vaccine series 4:3:1:3:3:1	👍 ☺	2013 - 2014	Percent	83.0%	74.0%	77.7%	
Vaccine series 4:3:1:3:3:1:4	👍 ☺	2013 - 2014	Percent	82.0%	74.0%	72.6%	
Influenza, 6 - 23 months old	--	2012 - 2013	Percent	--	--	76.9%	**NA**
Influenza, 2 - 4 years old	--	2012 - 2013	Percent	--	--	65.8%	**NA**
Influenza, 5 - 12 years old	--	2012 - 2013	Percent	--	49.5%	58.6%	**NA**

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👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
☺ When compared, for this health indicator, Kent County is better than the United States.
☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

Kent County Communicable Disease: Adolescent Vaccination Rates (13 - 18 years)

	Status	Time Period	Measure	Kent County[1]	Michigan[2,7]	United States[4,6]	National Benchmark[a,b]
Vaccine series 1:3:2:3:2:1	👍	2013 - 2014	Percent	71.0%	62.0%	--	**NA**
Vaccine series 1:3:2:3:2:1:3	👍	2013 - 2014	Percent	21.0%	14.0%	--	**NA**
Influenza, 13 - 17 years old	--	2012 - 2013	Percent	--	29.3%	42.5%	**NA**

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Kent County Communicable Disease: Adult Vaccination Rates
Proportion Of Respondents Age 65 Years And Older Who Have Had A Flu Shot In The Past 12 Months And Who Have Ever Had A Pneumonia Shot

Indicator	Status		Time Period	Measure	Kent County[10]		Michigan[11]		United States[12]		Healthy People Obj.[13]	
	FLU*	PNA*			FLU*	PNA*	FLU*	PNA*	FLU*	PNA*	FLU*	PNA*
Total	👎 ☹	👍 ☺	2014*	Percent	54.1%	78.0%	56.8%	68.6%	62.6%	69.4%	**70.0%[a]**	**60.0%[a]**
Age											**IID-12.5: Increase the percentage of non-institutionalized adults aged 65 years and older who are vaccinated annually against seasonal influenza** **IID-13.1: Increase the percentage of non-institutionalized adults aged 65 years and older who are vaccinated against pneumococcal disease**	
65 - 74 Years	👎 ☹	👍 ☺	2014*	Percent	49.8%	75.3%	53.6%	63.0%	60.1%	63.5%		
75+ Years	👎 ☹	👍 ☺	2014*	Percent	58.5%	80.7%	61.1%	75.9%	65.0%	77.2%		
Gender												
Male	👎 ☹	👍 ☺	2014*	Percent	50.8%	77.3%	57.6%	66.5%	62.6%	66.4%		
Female	👍 ☹	👍 ☺	2014*	Percent	57.5%	78.7%	56.2%	70.1%	62.1%	71.8%		
Race												
White/Caucasian	👎 ☹	👍 ☺	2014*	Percent	57.2%	79.1%	59.0%	70.6%	64.0%	71.1%		
Black/African American	👎 ☹	👍 ☺	2014*	Percent	39.7%	69.8%	39.9%	52.4%	51.9%	58.5%		
Hispanic/Latino	☹	☺	2014*	Percent	31.9%	69.8%	--	--	57.9%	53.6%		
Non-Hispanic	--	--	2014*	Percent	54.3%	78.1%	--	--	--	--		
Education												
Less Than High School	👍 ☹	👍 ☺	2014*	Percent	51.3%	70.9%	51.1%	61.6%	58.7%	66.3%		
High School Diploma	👎 ☹	👍 ☺	2014*	Percent	46.2%	75.1%	55.0%	69.2%	60.8%	69.7%		
Some College	👎 ☹	👍 ☺	2014*	Percent	55.1%	86.3%	57.9%	70.6%	62.8%	71.4%		
College Graduate	👎 ☹	👍 ☺	2014*	Percent	61.2%	76.1%	63.4%	68.9%	66.9%	70.2%		
Household Income												
Less Than $20,000	--	--	2014*	Percent	46.7%	72.4%	--	--	--	--		
$20,000 to $34,999	--	--	2014*	Percent	63.0%	80.6%	--	--	--	--		
$35,000 to $49,999	--	--	2014*	Percent	48.9%	83.3%	--	--	--	--		
$50,000 to $74,999	--	--	2014*	Percent	54.9%	80.8%	--	--	--	--		
$75,000 Or More	--	--	2014*	Percent	58.9%	83.8%	--	--	--	--		

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**Note: The 2014 comparative data is based on 2013 BRFS of Michigan Residents and 2013 Nationwide BRFSS (States, DC and Territories). FLU is an abbreviation of Influenza and PNA is an abbreviation of Pneumonia.*

SUMMARY

Kent County's vaccination coverage, based on the recommended childhood vaccination schedules, is higher than the State of Michigan and the United States for all three included series. Kent County also has higher rates than the State of Michigan for the recommended adolescent vaccination schedules. Concerning adult vaccination rates, Kent County has a much higher rate of individuals aged 65 and older who have ever had a pneumonia vaccine (78.0%) when compared with the state (68.6%) and national (69.%) rates. However, it appears Kent County has room for improvement with annual influenza vaccination rates for persons aged 65 and older, as only about 54.1% of this high-risk population reported having received a flu vaccine within the past 12 months. This is a lower rate than what is reported for the State of Michigan (56.8%) and the United States (62.6%).

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COMMUNICABLE DISEASE: KENT COUNTY
SEXUALLY TRANSMITTED INFECTIONS

OVERVIEW: SEXUALLY TRANSMITTED INFECTIONS

Sexually transmitted infections (STIs) are transmitted from person to person through sexual intercourse with an infected person. Most STIs affect men and women, but sometimes the consequences of the infection can be greater for women. If a pregnant woman contracts an STI, it can cause complications for the unborn baby.

There are more than 20 different types of STIs, and they can be caused by bacteria, parasites, and viruses. Some of the most common STIs include chlamydia, gonorrhea, genital herpes, HIV/AIDS, HPV, and syphilis[4]. STIs caused by bacteria can be treated with antibiotics or other medicines. However, if an individual contracts a viral STI, there is no cure. In these cases, the use of certain medications may help with symptoms and keep the infection under control[4].

SUMMARY

The STI rate in Kent County continues to be an issue when considering the health status of residents. The rate of chlamydia in Kent County is 625 cases per 100,000 population, which is significantly higher than chlamydia rates for the State of Michigan (457/100,000) and the United States (446.6/100,000).

Rates of gonorrhea in Kent County (106/100,000) are similar to those reported for the State of Michigan (108/100,000) and the United States (106.1/100,000).

When considering the rates of syphilis infection, Kent County fares better than the State of Michigan and the United States. Primary syphilis infection rates for Kent County are nearly one-quarter that of the State of Michigan, and secondary syphilis infection among Kent County residents is almost one-third that of the State of Michigan.

This data can be reviewed more thoroughly using the table provided on the following page of this report.

Sexually Transmitted Infection	Description	Signs/Symptoms
Chlamydia[5]	Chlamydia is a common bacterial STI. It can be contracted during oral, vaginal, or anal sex with an infected partner. Both men and women can acquire chlamydia.	There are not usually symptoms associated with chlamydia. If any do appear, they are typically a burning feeling when urinating or abnormal discharge from the genitals. If left untreated, women can develop pelvic inflammatory disease.
Gonorrhea[6]	Gonorrhea is a common bacterial STI that is common in young adults. It can be contracted during oral, vaginal, or anal sex with an infected partner. Pregnant women can spread the disease to their unborn child during childbirth.	There are not usually symptoms associated with gonorrhea. In men, it can cause pain when urinating or discharge from the genitals. In women, early symptoms are mild. If the infection persists, it can cause bleeding between menstrual cycles, pain when urinating, and discharge from the genitals. If left untreated, women can acquire pelvic inflammatory disease.
Genital Herpes[7]	Genital herpes is caused by herpes simplex virus. It can be contracted by having oral, vaginal, or anal sex with an infected partner. Mothers can infect their children during birth. This disease causes sores on the genitals, rectal area, buttocks, and thighs. It can be transmitted even when the sores are not present.	Symptoms of herpes are called "outbreaks". Sores appear near the area where the virus entered the body and turn into blisters before healing. Some people do not show symptoms, and may not know they have the disease.
HPV[8]	Human papillomaviruses (HPV) are diverse and common. Most are harmless, but some cause genital warts or even cancers.	Though some people develop visible warts due to HPV, most do not show symptoms. The warts can be treated or removed by a healthcare provider.
Syphilis[9]	Syphilis is a bacterial STI that affects the genitals, lips, mouth, and anus of both men and women and is contracted through sexual contact with an infected partner. This disease can also be passed from mother to baby during pregnancy.	Syphilis usually presents first as a single sore. If it is not treated, people can develop a skin rash. Some do not notice symptoms for years, and the symptoms can come and go on their own.

Kent County Communicable Disease: Common Sexually Transmitted Infections

	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Chlamydia	👎 ☹	2013	Rate per 100,000 population	625.0	457.0	446.6	**NA**
Gonorrhea	👍 ☺	2013	Rate per 100,000 population	106.0	108.0	106.1	**NA**
Genital Herpes	--	2013	Rate per 100,000 population	--	--	--	**NA**
HPV	--	2013	Rate per 100,000 population	--	--	--	**NA**
Syphilis - Primary	👍	2013	Rate per 100,000 population	0.3	1.5	--	**NA**
Syphilis -Secondary	👍	2013	Rate per 100,000 population	1.3	3.5	--	**NA**
Early Latent Syphilis	👍 ☺	2013	Rate per 100,000 population	1.2	2.1	5.4	**NA**
Late Latent Syphilis	👍 ☺	2013	Rate per 100,000 population	1.2	1.6	7.0	**NA**
Congenital Syphilis	👍 ☺	2013	Rate per 100,000 population	0.2	0.1	8.7	**9.6[a]**

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COMMUNICABLE DISEASE: KENT COUNTY
HIV/AIDS

OVERVIEW: HIV/AIDS

Human immunodeficiency virus (HIV) is a retrovirus spread by the transfer of blood, semen, vaginal fluid, pre-ejaculate, or breast milk that affects specific cells of the immune system. Over time, HIV destroys many of these cells, which compromises the individual's immune system. Though there is no cure for HIV, there are available treatments that can slow or prevent progression from one stage of disease to the next[4].

When the destruction of cells reaches a certain threshold, an HIV infected persons' body loses the ability to effectively fight infection and disease. It is at this point that HIV, typically, transitions to acquired immunodeficiency syndrome (AIDS). Persons who progress to AIDS are very vulnerable to infections and opportunistic illnesses called infection-related cancers. Without treatment, persons who have AIDS typically live about three years[4].

Kent County Communicable Disease: HIV/AIDS

	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
HIV Diagnoses	--	2012	Total number of cases	47	843	47,746	**36,450[a]**
HIV Diagnoses	👍 ☺	2012	Rate per 100,000 population	9.4	10.2	18.3	**NA**
Persons Living with Diagnosed HIV	--	2011	Total number of cases	779	14,086	877,828	**NA**
Persons Living with Diagnosed HIV	👍 ☺	2011	Rate per 100,000 population	157.6	170.4	339.4	**NA**
AIDS	--	2012	Total number of cases	--	472	27,918	**NA**
AIDS	--	2012	Rate per 100,000 population	--	5.7	10.7	**NA**

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SUMMARY

Kent County (9.4/100,000) has a lower rate of HIV diagnosis than the State of Michigan (10.2/100,000) and the United States (18.3/100,000). The United States is still working toward achieving the Healthy People 2020 objective for number of new HIV diagnoses per year. In 2012, the United States reported almost 47,800 cases of HIV while the national benchmark set through Healthy People 2020 is 36,450 cases.

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COMMUNICABLE DISEASE: KENT COUNTY
TUBERCULOSIS

OVERVIEW: TUBERCULOSIS

Tuberculosis (TB) is a disease caused by bacteria called *Mycobacterium tuberculosis*. TB bacteria typically affect the lungs, but can affect other parts of the body, such as the kidneys, spine, or brain. This disease spreads person-to-person through coughing, sneezing, speaking, or singing by an individual with infection of the lungs or throat. If left untreated, TB can be fatal[4].

Even if a person is infected with TB, he or she may not become sick. Because of this, there are two recognized TB conditions: latent TB infection and active TB disease. Latent TB infection is a condition where bacteria resides within a person's body but does not make that person ill. People with latent TB infection are not infectious and cannot spread the disease to others. However, if the bacteria becomes active in the body and begins to multiply, the person will go from having latent TB infection to TB disease. TB disease makes people sick and makes the bacteria transmissible to others[4].

Kent County Communicable Disease: Tuberculosis

	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Latent TB	👍	2013	Rate per 100,000 population	4.6	7.5	-	**NA**
Active TB	👍 ☺	2013	Rate per 100,000 population	1.0	1.5	3.0	**1.0[a]**

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NA -- National Benchmark was not identified.

SUMMARY

Kent County's rate of TB disease is 1.0 cases per 100,000 population, which achieves the Healthy People 2020 target for this indicator. Kent County also has fewer active TB cases per 100,000 population than the State of Michigan (1.5/100,000) and the United States (3.0/100,000). Kent County also has a lower rate of reported latent TB infection (4.6/100,000) than the State of Michigan (7.5/100,000).

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COMMUNICABLE DISEASE: KENT COUNTY
MENINGITIS

OVERVIEW: MENINGITIS

Meningitis is a disease caused by the inflammation of the protective membranes covering the brain and spinal cord known as the meninges[1]. The inflammation is usually due to an infection of the fluid that surrounds the brain and spinal cord. This condition can develop as a result of bacterial, viral, or even fungal infections. Injuries, cancers, and certain drugs have also been identified as possible, yet less common, causes of meningitis[4].

Meningococcal disease can refer to any illness that is caused by a particular bacteria known as *Neisseria meningitides*. This illness is severe and can cause infections of the brain and spinal cord lining, as well as infections of the bloodstream, causing what is called septicemia[5].

	Description[4]	Signs/Symptoms[4]	Causes[4]
Bacterial Meningitis	Bacterial meningitis is often severe. Even though most people recover, they can suffer long-term complications like brain damage, hearing loss, or learning disabilities.	Bacterial meningitis may manifest as a sudden onset of fever, headache, and stiff neck. Other symptoms like nausea, vomiting, increased sensitivity to light, and confusion are also common.	Some of the leading causes of bacterial meningitis in the United States include *Haemophilus influenza, Streptococcus pneumonia*, group B *Streptococcus*, *Listeria monocytogenes*, and *Neisseria meningitides.* The type of germ that causes bacterial meningitis varies by age group.
Viral Meningitis	Viral meningitis is the most common type of meningitis. It is often less severe than bacterial meningitis and most people usually get better on their own, without medical intervention. Most people get better without treatment within 7-10 days.	Symptoms may vary by age. Disease in infants may appear as fever, irritability, poor eating, sleepiness or trouble waking up from sleep, and lethargy. Common symptoms in adults include fever, headache, stiff neck, sensitivity to light, sleepiness or trouble waking up from sleep, nausea, vomiting, lack of appetite, and lethargy.	*Non-polio enteroviruses* are the most common cause of viral meningitis in the United States. Other viruses that can cause meningitis are the mumps virus, *herpes simplex viruses*, *varicella-zoster virus*, measles virus, influenza virus, *arboviruses* (i.e. West Nile), and *lymphocytic choriomeningitis* virus.
Fungal Meningitis	Fungal meningitis is rare and is usually the result of a fungus spreading through blood to the spinal cord. People with weakened immune systems are most likely to contract this form of meningitis.	Symptoms of fungal meningitis include fever, headache, stiff neck, nausea and vomiting, sensitivity to light, and confusion.	The most common cause of fungal meningitis for people with weakened immune systems is *Cryptococcus*.

Kent County Communicable Disease: Meningitis

	Status	Time Period	Measure	Kent County[1] (2013)	Michigan[2] (2013)	United States[3] (2012)	National Benchmark[a,b]
Meningococcal Disease	--	2012 – 2013	Total number of cases	--	3	551	**1,094[a]**
Meningitis – Bacterial, Other	--	2012 – 2013	Total number of cases	8	82	-	**NA**
Meningitis - Aseptic	--	2012 - 2013	Total number of cases	46	745	-	**NA**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
☺ When compared, for this health indicator, Kent County is better than the United States.
☹ When compared, for this health indicator, Kent County is worse than the United States.
* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified

SUMMARY

In 2013, Kent County reported zero cases of meningococcal disease, eight cases of bacterial meningitis, and 46 cases of aseptic meningitis. The term aseptic meningitis is typically used to denote viral causes of meningitis, though there are other causes that are included in this diagnosis category[6]. At the national level, the United States has achieved the Healthy People 2020 objective for reducing meningococcal disease to 1,094 or fewer cases. In 2012, there were 551 reported cases of meningococcal disease in the United States.

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1. Michigan Department of Community Health. (2014). *Michigan disease surveillance system (MDSS)*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2945_5104_31274---,00.html
2. Michigan Department of Community Health. (2014). *Michigan disease surveillance system (MDSS)*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2945_5104_31274---,00.html
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Communicable Disease: Kent County
Viral Hepatitis

Overview: Hepatitis

Hepatitis refers to a group of viral infections that affect the liver. Viral hepatitis is the leading cause of liver cancer and the most common reason for transplantation[4]. The three most common types of hepatitis are Hepatitis A, Hepatitis B, and Hepatitis C. The table below describes key characteristics associated with each form of hepatitis. Vaccines are available for the prevention of hepatitis A and hepatitis B, however a vaccine is not currently available for hepatitis C.

Infection	Description and Duration[4]	Signs/Symptoms[4]	Transmission[4]
Hepatitis A (Hep A)	Hepatitis A is caused by an infection with the Hepatitis A virus and has an incubation period of approximately 28 days. Symptoms usually last less than two months, although some asymptomatic persons can have relapsing disease for up to 6 months. Hepatitis A cannot become chronic.	Some people are asymptomatic. When symptoms are present, they occur abruptly and include fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, clay-colored bowel movements, joint pain, and/or jaundice.	Hep A is transmitted most commonly through the ingestion of something that has been contaminated with the feces of an infected person. Most infections result from close personal contact with an infected household member or sex partner.
Hepatitis B (Hep B)	Hepatitis B is caused by an infection with the Hepatitis B virus (HBV). The incubation period from the time of exposure to onset of symptoms is six weeks to six months. HBV is found in its highest concentrations in blood, but can also be found in other body secretions. Hepatitis B can be acute or chronic.	Some people are asymptomatic. When symptoms are present, they include fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, clay-colored bowel movements, join paint, and/or jaundice.	Hep B is transmitted most commonly through contact with infectious blood, semen, and other body fluids from having sex with an infected person, sharing contaminated needles to inject drugs, or from an infected mother to her newborn.
Hepatitis C (Hep C)	Hepatitis C is caused by infection with the Hepatitis C virus. Hepatitis C ranges in severity from a mild illness lasting a few weeks to a serious, lifelong illness that attacks the liver. Hepatitis C can be acute or chronic.	The majority of people with acute Hepatitis C do not show symptoms. However, some symptoms can appear shortly after infection and include fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, clay-colored bowel movements, joint pain, and/or jaundice.	Hep C is usually transmitted through contact with infectious blood. Most people become infected with Hep C by sharing needles or other equipment to inject drugs. It can also be transmitted from an infected mother to her newborn.

Kent County Communicable Disease: Viral Hepatitis

	Status	Time Period	Measure	Kent County[1] (2013)	Michigan[2] (2013)	United States[3] (2012)	National Benchmark[a,b]
Hepatitis A	👍 --	2012 - 2013	Rate per 100,000 population	0.5	0.8	0.5	**0.3[a]**
Hepatitis B, Acute	👍 ☺	2012 - 2013	Rate per 100,000 population	0.3	0.6	0.9	**NA**
Hepatitis B, Chronic	👎 --	2012 - 2013	Rate per 100,000 population	6.3	4.8	-	**NA**
Hepatitis C, Acute	👍 ☺	2012 - 2013	Rate per 100,000 population	0.2	0.7	0.6	**0.3[a]**
Hepatitis C, Chronic	👍 --	2012 - 2013	Rate per 100,000 population	50.0	62.0	-	**NA**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
☺ When compared, for this health indicator, Kent County is better than the United States.
☹ When compared, for this health indicator, Kent County is worse than the United States.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:

[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

SUMMARY

The burden of disease in Kent County associated with the three most common types of hepatitis is relatively low, as demonstrated in the table on the following page. For all indicators except chronic hepatitis B, Kent County performs better than the State of Michigan and the United States. Despite this comparison, Kent County has yet to achieve the Healthy People 2020 objective for hepatitis A infection (0.3/100,000), with a rate of 0.5 cases per 100,000 population. Kent County has, however, achieved the Healthy People 2020 objective for acute hepatitis C infection (0.3/100,000) with a rate of 0.2 per 100,000 population.

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1. Michigan Department of Community Health. (2014). *Michigan disease surveillance system (MDSS)*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2945_5104_31274---,00.html
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3. Centers for Disease Control and Prevention. (2014) *Viral hepatitis statistics and data*. Retrieved from http://www.cdc.gov/hepatitis/Statistics/2012 Surveillance/index.htm
4. Centers for Disease Control and Prevention. (2014). *Viral hepatitis*. Retrieved from http://www.cdc.gov/hepatitis/

SENTINEL EVENTS

HEALTHY KENT
2014 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

DEFINITION OF CATEGORY

Sentinel events are those cases of unnecessary disease, disability, or untimely death that could be avoided if appropriate and timely care or preventive services were provided. These include vaccine-preventable illness, late stage cancer diagnosis, and unexpected syndromes or infections. Sentinel events may alert the community to health system problems, such as inadequate vaccine coverage, lack of primary care and/or screening, a bioterrorist event, or introduction of globally transmitted infections.

Key Topics

- VACCINE-PREVENTABLE DISEASES
- EMERGENCY DEPARTMENT UTILIZATION: UNUSUAL DISEASE OUTBREAKS
- LATE STAGE CERVICAL CANCER DIAGNOSIS
- LATE STAGE BREAST CANCER DIAGNOSIS

SENTINEL EVENTS: KENT COUNTY
VACCINE-PREVENTABLE DISEASES

OVERVIEW: VACCINE-PREVENTABLE DISEASES

Vaccine-preventable diseases are illnesses for which a vaccination has been developed and can be used to prevent an individual from contracting that disease. Some of the well-known vaccine-preventable diseases include *Haemophilius influenzae* (Hib), measles, mumps, polio, and rubella. These conditions were once responsible for significant disease outbreaks, led to disability, and caused thousands, or even millions, of deaths. With the advent of vaccination, however, many of these once-common diseases are now rarely reported in the United States. The table below provides data on the number of cases reported in 2013 for select vaccine-preventable conditions in Kent County, Michigan, and the United States.

Kent County Sentinel Events: Vaccine-Preventable Diseases

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[2]	United States[3]	National Benchmark[a,b]
Chickenpox (Varicella)	--	2012*	Total number of cases	4	353	13,447	**100,000[a]**
Diphtheria	--	2012*	Total number of cases	--	--	1	**NA**
H. influenza (Hib) Disease	--	2012*	Total number of cases	9	98	3,418	**NA**
Measles	--	2012*	Total number of cases	1	5	55	**30[a]**
Mumps	--	2012*	Total number of cases	--	--	229	**500[a]**
Pertussis	--	2012*	Total number of cases	10	834	48,277	**NA**
Polio	--	2012*	Total number of cases	--	--	--	**0[a]**
Rubella	--	2012*	Total number of cases	--	--	9	**10[a]**
Shingles	--	2012*	Total number of cases	1	389	--	**NA**
Tetanus	--	2012*	Total number of cases	--	--	37	**NA**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
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☺ When compared, for this health indicator, Kent County is better than the United States.
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* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

**Note: The 2013 comparative data is based on 2013 Michigan Disease Surveillance System data and 2012 CDC MMWR Data*

SUMMARY

Even with the many recent, well-publicized outbreaks of some of these conditions – like pertussis, measles, and mumps - at the national level, Kent County has illustrated continued success in maintaining low case numbers for all of the vaccine-preventable diseases displayed in the table above. In 2013, the most prevalent vaccine-preventable diseases in Kent County were pertussis (10 cases) and *Haemophilius influenza*, otherwise known as Hib, (9 cases).

At the national level, the United States has successfully achieved three of the four Healthy People 2020 objectives featured in this section of the report. These objectives reference the number of cases of mumps, polio, and rubella. The one objective that United States is still working to achieve is the objective associated with the number of measles cases diagnosed in the United States. In 2012, the US reported 55 cases of measles, while the national benchmark is to have 30 or fewer cases reported annually.

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1. Michigan Department of Community Health. (2014). *Michigan disease surveillance system (MDSS)*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2945_5104_31274---,00.html
2. Michigan Department of Community Health. (2014). *Michigan disease surveillance system (MDSS)*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2945_5104_31274---,00.html
3. Centers for Disease Control and Prevention. (2014). Summary of notifiable diseases, United States, 2012. *Morbidity and Mortality Weekly Report, 61*(53), 1-121. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6153a1.htm

SENTINEL EVENTS: KENT COUNTY
LATE-STAGE BREAST CANCER DIAGNOSIS

OVERVIEW: LATE-STAGE BREAST CANCER DIAGNOSIS

Breast cancer is the second-most common cancer and the second-leading cause of cancer death among American women[2]. When an individual is diagnosed with breast cancer, the disease is staged using a scale of zero through four. Stage zero describes non-invasive cancers that remain contained to their original location. Stage four describes invasive cancers that have spread to other parts of the body[3]. Invasive, or late stage, breast cancer is much harder to treat and often leads to a poorer prognosis.

Kent County Sentinel Events: Late-Stage Breast Cancer Diagnosis

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]	National Benchmark[a,b]
Incidence Rates for Late-Stage Breast Cancer						
Total	👎	2009 - 2011	Rate per 100,000 population	134.6	120.6	**38.9[a]**
Age						**C-11: Reduce late-stage female breast cancer**
Under 50 Years	👍	2009 - 2011	Rate per 100,000 population	41.0	42.8	
50-74 Years	👎	2009 - 2011	Rate per 100,000 population	344.8	302.9	
75+ Years	👎	2009 - 2011	Rate per 100,000 population	434.0	389.2	
Mortality Rate for Late-Stage Breast Cancer						
Total	👍	2009 - 2011	Rate per 100,000 population	22.2	22.5	**NA**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.

* National Benchmarks were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Benchmark is based on Healthy People 2020 Goal.
[b] Benchmark is based on County Health Rankings project.
NA -- National Benchmark was not identified.

SUMMARY

The incidence rate for late-stage breast cancer in Kent County is 134.6 cases per 100,000 population, which is higher than the rate reported for the State of Michigan (120.6/100,000). The incidence rate increases with advanced age, with the highest rates among women aged 75 years and older. Despite the higher incidence rates, the mortality rate for late-stage breast cancer in Kent County is lower than that reported for the state.

REFERENCES

1. Michigan Department of Community Health. (2012). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html
2. American Cancer Society. (2014). *What are the key statistics about breast cancer?* Retrieved from http://www.cancer.org/cancer/breastcancer/detailedguide/breast-cancer-key-statistics
3. Breast Cancer.org. (2015). *Stages of breast cancer*. Retrieved from http://www.breastcancer.org/symptoms/diagnosis/staging

Sentinel Events: Kent County
Late-Stage Prostate Cancer Diagnosis

Overview: Late-Stage Prostate Cancer Diagnosis

Prostate cancer is the second-most common cancer and the second-leading cause of cancer-related death in American men[2]. When an individual is diagnosed with prostate cancer, the disease is staged using a scale of one through four. Many tests are conducted to determine at which stage the cancer should be classified. If the cancer is categorized as stage one, it is found in the prostate only and has not yet spread to other parts of the body. When the cancer is classified as stage four, the cancer has spread to various parts of the body[3]. The later the stage of diagnosis, the harder it is to treat prostate cancer and the poorer the prognosis becomes.

Kent County Sentinel Events: Late-Stage Prostate Cancer Diagnosis

Indicator	Status	Time Period	Measure	Kent County[1]	Michigan[1]
Incidence Rates for Late-Stage Prostate Cancer					
Total	👎	2009 - 2011	Rate per 100,000 population	160.0	155.3
Age					
Under 50 Years	👎	2009 - 2011	Rate per 100,000 population	8.6	8.1
50-74 Years	👎	2009 - 2011	Rate per 100,000 population	514.7	489.0
75+ Years	👍	2009 - 2011	Rate per 100,000 population	534.8	658.0
Mortality Rate for Late-Stage Prostate Cancer					
Total	👍	2009 - 2011	Rate per 100,000 population	18.2	19.0

Summary

The incidence rate for late-stage prostate cancer in Kent County is 160.0 cases per 100,000 population, which is higher than the rate reported for the State of Michigan (155.3/100,000). As age increases, so does the incidence of late-stage prostate cancer among Kent County residents. Despite the elevated incidence rates, Kent County's mortality rate for late-stage prostate cancer is lower than that reported for the state.

References

1. Michigan Department of Community Health. (2012). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html
2. American Cancer Society. (2015). *What are the key statistics about prostate cancer?* Retrieved from http://www.cancer.org/cancer/prostatecancer/detailedguide/prostate-cancer-key-statistics
3. National Cancer Institute. (2014). *Prostate cancer treatment: Stages of prostate cancer*. Retrieved from http://www.cancer.gov/cancertopics/pdq/treatment/prostate/Patient/page2

SENTINEL EVENTS: KENT COUNTY
LATE-STAGE COLORECTAL CANCER DIAGNOSIS

OVERVIEW: LATE-STAGE COLORECTAL CANCER DIAGNOSIS

Not counting skin cancers, colorectal cancer is the third most common cancer found in men and women in the United States[2]. When an individual is diagnosed with colorectal cancer, the disease is staged using a scale of zero through four. Many tests are conducted to determine at which stage the cancer should be classified. If the cancer is classified as stage zero, that means that abnormal cells have been identified in the colon wall and these cells may spread and become cancer. Stage four colorectal cancer has often spread to other parts of the body[3]. The later the stage of diagnosis, the more difficult the disease becomes to treat and the poorer the prognosis.

Kent County Sentinel Events: Late-Stage Colorectal Cancer Diagnosis					
Indicator	**Status**	**Time Period**	**Measure**	**Kent County[1]**	**Michigan[1]**
Incidence Rates for Late-Stage Colorectal Cancer					
Total	👍	2009 - 2011	Rate per 100,000 population	39.3	39.9
Age					
Under 50 Years	👍	2009 - 2011	Rate per 100,000 population	6.2	7.5
50-74 Years	👍	2009 - 2011	Rate per 100,000 population	86.9	93.7
75+ Years	👍	2009 - 2011	Rate per 100,000 population	235.7	265.7
Gender					
Male	👍	2009 - 2011	Rate per 100,000 population	43.7	47.7
Female	👍	2009 - 2011	Rate per 100,000 population	34.1	37.8
Mortality Rate for Late-Stage Prostate Colorectal Cancer					
Total	👍	2009 - 2011	Rate per 100,000 population	12.8	15.7

SUMMARY

The incidence rate for late-stage colorectal cancer in Kent County is 39.3 cases per 100,000 population, which is lower than the rate reported for the State of Michigan (39.9/100,000). Males residing in Kent County have a higher incidence rate than females, but both genders have lower incidence rates than those reported for the state. Kent County's mortality rate for late-stage colorectal cancer diagnosis is also lower than the rate reported for the state.

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1. Michigan Department of Community Health. (2012). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html
2. American Cancer Society. (2014). *How many people get colorectal cancer?* Retrieved from http://www.cancer.org/cancer/colonandrectumcancer/overviewguide/colorectal-cancer-overview-key-statistics
3. National Cancer Institute. (2015). *Colon cancer treatment: Stages of colon cancer*. Retrieved from http://www.cancer.gov/cancertopics/pdq/treatment/colon/Patient/page2

SENTINEL EVENTS: KENT COUNTY EMERGENCY DEPARTMENT UTILIZATION

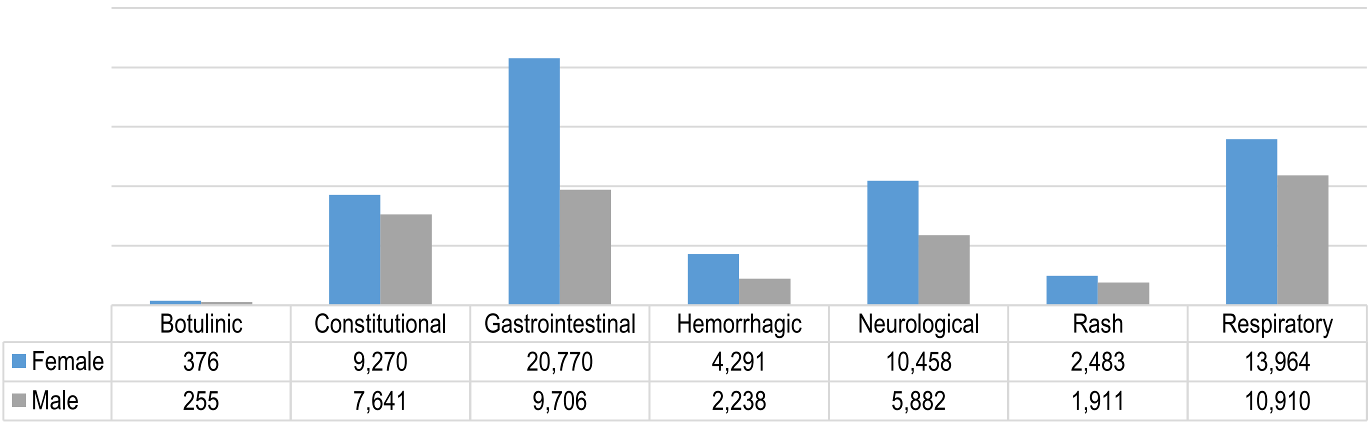
OVERVIEW: EMERGENCY DEPARTMENT UTILIZATION

The Michigan Syndromic Surveillance System (MSSS) was designed and implemented to facilitate public health rapid detecting and response to unusual outbreaks of illness that may be the result of bioterrorism, outbreaks of infectious disease, or other public health threats and emergencies[2]. Real time detection of a notable increase in patients presenting for care with similar symptoms could allow early and appropriate public health intervention and minimize negative impact. The data provided in the following bar charts describes data collected through MDSS for Kent County in 2013 for unusual outbreaks of illness.

These diagnoses are typically grouped into seven common MSSS categories, including: botulinic, constitutional, gastrointestinal, hemorrhagic, neurological, rash, or respiratory. The following table describes which ICD-9 codes are included in each category, as well as a listing of common diagnoses/conditions. ICD-9 is the abbreviation for the *International Classification of Diseases, Ninth Revision*. It is the official system of assigning codes to diagnoses and procedures associated with hospital utilization in the United States[3].

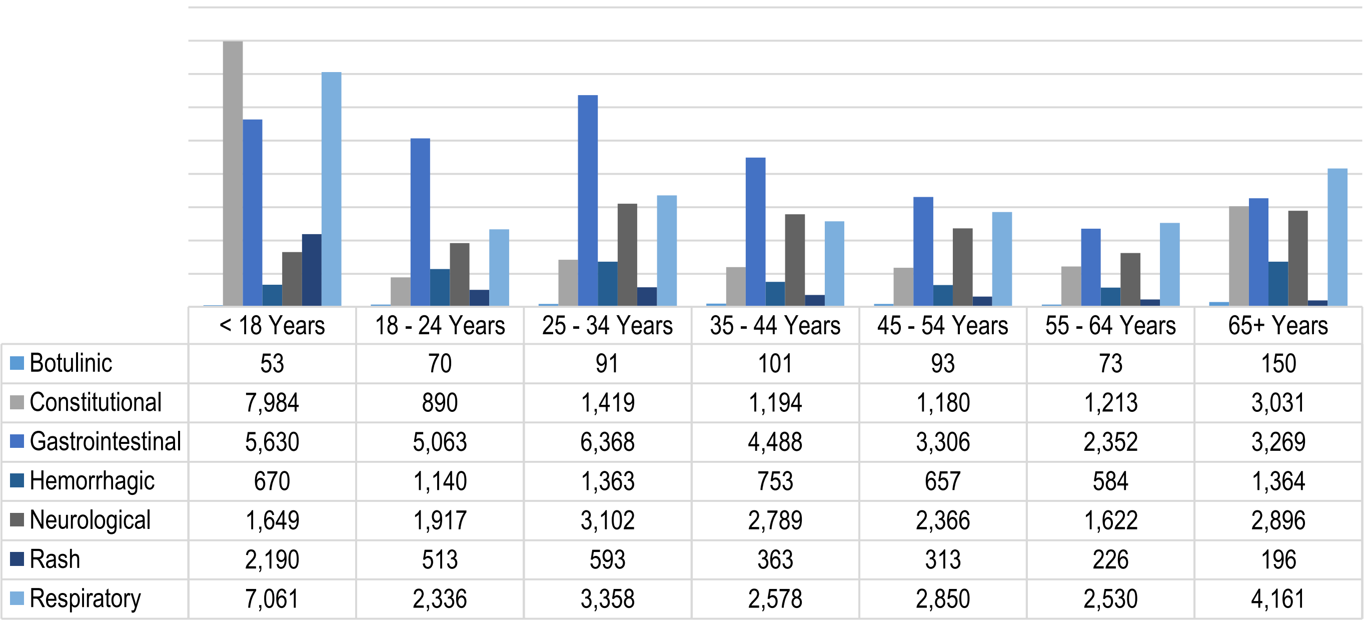
Description Key of MSSS Categories[1]	
Category Name	**Common Diagnoses/Conditions**
Botulinic	Ocular abnormalities (diplopia, blurred vision, photophobia), difficulty speaking (dysphonia, dysarthria, slurred speech), and difficulty swallowing (dysphagia).
Constitutional	Non-localized, systemic problems including fever, chills, body aches, flu symptoms (viral syndrome), weakness, fatigue, anorexia, malaise, lethargy, sweating (diaphoresis), light-headedness, faintness and fussiness.
Gastrointestinal	Pain or cramps anywhere in the abdomen, nausea, vomiting, diarrhea, and abdominal distension or swelling.
Hemorrhagic	Bleeding from any site, e.g., vomiting blood (hematemesis), nosebleed (epistaxis), hematuria, gastrointestinal bleeding (site unspecified), rectal bleeding, and vaginal bleeding.
Neurological	Non-psychiatric complaints that relate to brain function. Included are headache, head pain, migraine, facial pain or numbness, seizure, tremor, convulsion, loss of consciousness, syncope, fainting, ataxia, confusion, disorientation, altered mental status, vertigo, concussion, meningitis, stiff neck, tingling and numbness.
Rash	Any rash, such as macular, papular, vesicular, petechial, purpuric, or hives. Ulcerations are not counted as Rash unless consistent with cutaneous anthrax (an ulcer with a black eschar).
Respiratory	Problems of the nose (coryza) and throat (pharyngitis), as well as the lungs. Examples of Respiratory include congestion, sore throat, tonsillitis, sinusitis, cold symptoms, bronchitis, cough, shortness of breath, asthma, chronic obstructive pulmonary disease (COPD), and pneumonia. The presence of both cold and flu symptoms is counted in this category, not constitutional.

Total Number of Emergency Department-Reported Syndromic Cases by Type, Kent County, 2013[2]



	Botulinic	Constitutional	Gastrointestinal	Hemorrhagic	Neurological	Rash	Respiratory
■ Female	376	9,270	20,770	4,291	10,458	2,483	13,964
■ Male	255	7,641	9,706	2,238	5,882	1,911	10,910

Total Number of Emergency Department-Reported Syndromic Cases by Type and Age of Patient, Kent County, 2013[2]



	< 18 Years	18 - 24 Years	25 - 34 Years	35 - 44 Years	45 - 54 Years	55 - 64 Years	65+ Years
■ Botulinic	53	70	91	101	93	73	150
■ Constitutional	7,984	890	1,419	1,194	1,180	1,213	3,031
■ Gastrointestinal	5,630	5,063	6,368	4,488	3,306	2,352	3,269
■ Hemorrhagic	670	1,140	1,363	753	657	584	1,364
■ Neurological	1,649	1,917	3,102	2,789	2,366	1,622	2,896
■ Rash	2,190	513	593	363	313	226	196
■ Respiratory	7,061	2,336	3,358	2,578	2,850	2,530	4,161

SUMMARY

The bar charts above describe the emergency department utilization in Kent County related to syndromic conditions. In 2013, the most common diagnoses reported through MSSS were included within the gastrointestinal and respiratory categories of disease, while the fewest diagnoses belonged to the botulinic, rash, and hemorrhagic categories. Overall, females were more likely to receive diagnoses for MSSS-related conditions across all seven categories, when compared with males. Children under 18 years of age appear to be affected most often by constitutional and respiratory conditions. This age group had the most constitutional illness reports when compared with all other age groups.

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3. Centers for Disease Control and Prevention. (2013). *International classification of diseases, ninth revision, clinical modification*. Retrieved from http://www.cdc.gov/nchs/

2014 COMMUNITY HEALTH NEEDS ASSESSMENT
APPENDIX A: HEALTHY KENT COMMUNITY HEALTH SURVEY

The **2014 Healthy Kent Community Health Survey** is designed to assess the quality of life in our community, identify areas for improvement, and develop community initiatives and programs to address the needs of Kent County. ***This survey is anonymous, voluntary, and meant for adults (18+); if you feel uncomfortable answering any question you may skip that question and continue.*** All information will be kept **CONFIDENTIAL**. Please complete the entire survey; your opinion is important to us!

Demographic Information

1. **Do you live or work in Kent County?**
    a. Yes, Live
    b. Yes, Work
    c. Yes, Live and Work
    d. No
2. **What city do you MOST identify with?**
    a. Cedar Springs
    b. East Grand Rapids
    c. Grand Rapids
    d. Grandville
    e. Kentwood
    f. Lowell
    g. Rockford
    h. Walker
    i. Wyoming
    j. Caledonia
    k. Kent City
    l. Sparta
    m. Other: ______________________________
3. **What is your ZIP code?** __________________
4. **What is your age?** ______________________
5. **What is your height (feet and inches)?**

    ____

6. **What is your weight (pounds)?**

    ____

7. **What is your gender?**
    a. Male
    b. Female
8. **What is your marital/relationship status?**
    a. Single
    b. Married
    c. Separated
    d. Divorced
    e. Widowed
    f. Domestic Partnership
9. **Do you own or rent your home?**
    a. Own
    b. Rent
10. **What is your current employment status?**
    a. Unemployed
    b. Self-Employed
    c. Employed Part-Time
    d. Employed Full-Time
    e. Retired
11. **What is your highest level of education?**
    a. Less Than High School
    b. High School Diploma
    c. GED
    d. Some College
    e. Associate or Technical Degree
    f. Bachelor's Degree
    g. Master's Degree or Higher
12. **What is your race?**
    a. White/Caucasian
    b. Black/African American
    c. Asian
    d. Hispanic or Latino
    e. American Indian or Alaska Native
    f. Native Hawaiian or Pacific Islander
    g. Multi-Racial
    h. Other: ______________________________
13. **What is your ethnicity?**
    a. Mexican
    b. Puerto Rican
    c. Cuban
    d. Asian Indian
    e. Chinese
    f. Filipino
    g. Japanese
    h. Korean
    i. Vietnamese
    j. Guamanian or Chamorro
    k. Samoan
    l. Other: ______________________________
14. **What is your annual household income?**
    a. Less Than $20,000
    b. $20,000 to $40,000
    c. $40,000 to $60,000
    d. $60,000 to $80,000
    e. $80,000 to $100,000
    f. $100,000 to $120,000
    g. More Than $120,000

Perception Information

15. **From the following list, what do you believe are the current STRENGTHS of your community? Strengths can be defined as those characteristics that make your community an ideal place to live, raise a family, and visit. Please select NO MORE THAN FIVE (5).**
    a. Active Community
    b. Availability Of Affordable Healthy Food
    c. Availability Of Arts, Culture, Entertainment Opportunities
    d. Availability Of Dental Care
    e. Availability of Healthcare
    f. Availability Of Healthy Food
    g. Availability Of Mental Health Care
    h. Availability Of Quality Parks And Recreation Opportunities
    i. Availability Of Youth After-School Programs, Activities, Clubs, Etc.
    j. Beautiful Area Great Place To Live
    k. Business Development
    l. Clean And Safe Streets
    m. Easy Access To Affordable Healthy Food
    n. Easy Access To Dental Care
    o. Easy Access To Healthcare
    p. Easy Access To Healthy Food
    q. Easy Access To Mental Healthcare
    r. Easy Access To Secondary Education
    s. Education (K-12)
    t. Engaged And Involved Community
    u. Family-Focused Community
    v. Farmers Markets
    w. Growing And Evolving Community
    x. Health-Focused Community
    y. Increasing Access To Transportation
    z. Increasing Urban And Community Garden Availability
    aa. Increasingly Walkable Community
    bb. Lots Of Diversity And Culture
    cc. Low Poverty
    dd. Philanthropic Community
    ee. Resource Rich Community
    ff. Safe Community
    gg. Strong Religious Faith And Faith-Based Community

16. **From the following list, what do you believe are the current WEAKNESSES of your community? Weaknesses can be defined as those aspects of your community that need improvement. Please select NO MORE THAN FIVE (5).**
    a. Disparities and Inequity
    b. Lack Of Access To Affordable Healthy Foods
    c. Lack Of Access To Dental Care
    d. Lack Of Access To Healthcare
    e. Lack Of Access To Mental Healthcare
    f. Lack Of Access To Public Transportation
    g. Lack Of Affordable Healthcare And Treatment
    h. Lack Of Affordable Housing
    i. Lack Of Education On Available Community Resources
    j. Lack Of Education On How To Navigate The Healthcare System
    k. Lack Of Health Education
    l. Language Barriers To Care
    m. Low Graduation Rates
    n. Motor Vehicle Accidents
    o. Need Additional Bus Stops
    p. Need Bus Route Expansion
    q. Need Sidewalks And Crosswalks
    r. Poor Communication and Community Collaboration
    s. Poor Education Standards (K-12)
    t. Poor Housing Quality
    u. Poor Life Skills Education (Cooking, Budgeting, Etc.)
    v. Poor Nutrition Education
    w. Poor Street Quality
    x. Poverty
    y. Racism
    z. Segregation
    aa. Sidewalks and Crosswalks Need Repair
    bb. Streets Need Repair
    cc. Violence and Safety

17. From the following list, what do you believe are the HEALTH PROBLEMS that most affect your community? Please select NO MORE THAN FIVE (5).

a. Air Quality
b. Alcohol Abuse
c. Alcohol Use
d. Asthma
e. Cancer
f. Dental Problems
g. Depression
h. Diabetes
i. Environmental Quality
j. Heart Disease
k. High Blood Pressure
l. Infant Mortality
m. Marijuana Use
n. Mental Health Issues (Depression, Bipolar Disorder, Schizophrenia, ...)
o. Obesity
p. Poor Nutrition
q. Prenatal Health
r. Prescription Drug Abuse
s. Sexually Transmitted Infection (Chlamydia, Herpes, Syphilis, …)
t. Stress
u. Substance Abuse
v. Suicide
w. Teen Pregnancy
x. Tobacco Use
y. Underage Drinking
z. Violence
aa. Water Quality

Health Care Information

18. Where do you usually go when you are sick or need health care?

a. Doctor's Office
b. Health Department
c. Urgent Care Facility
d. Hospital Emergency Room
e. Community Health Center/Clinic
f. Other: ______________________

19. What do you feel are barriers to getting health care in your community? Please select all that apply.

a. No Barriers
b. Cost
c. Prescription/Medication Cost
d. Too Much Paper Work
e. Location Of Health Care/No Transportation
f. Doctor's/Staff Do Not Speak My Language
g. Fear Or Distrust Of The Health Care System
h. Other: ______________________

20. How do you usually pay for your health care?

a. Cash
b. Health Insurance (Self-Paid)
c. Health Insurance Through Employer
d. Medicaid
e. Medicare
f. Veteran's Administration, TRICARE
g. Indian Health Services, Tribal Health Services
h. Other: ______________________________________

21. Where do you get information about the health resources available in your community? Please select all that apply.

a. Health Professional
b. Social Media (Facebook, Twitter, Etc.)
c. The Internet
d. E-Newsletters (Please Specify): ____
e. Church
f. Family and Friends
g. School
h. TV and Radio
i. Newspaper and Magazines (Please Specify): ____
j. Community Service Organizations (Please Specify): ____
k. Other: ____________________________________

Health Status Information

22. Has a doctor, nurse, or other health professional EVER told you that you have any of the following? Please select all that apply.

a. Alcohol Abuse/Addiction
b. Drug Abuse/Addiction
c. Obesity
d. Diabetes
e. High Blood Pressure
f. High Cholesterol
g. Heart Disease
h. Chronic Pain
i. Memory Loss (Alzheimer’s, Dementia)
j. Vision Loss
k. Hearing Loss
l. Allergies
m. Sinus Issues
n. Asthma
o. Stroke
p. Arthritis
q. Stress
r. Mental Health Issues (Depression, Bipolar Disorder, Schizophrenia, ...)
s. Sexually Transmitted Infection (Chlamydia, Gonorrhea, Herpes, Syphilis, …)
t. HIV/AIDS
u. Infectious Disease (Hepatitis, Tuberculosis, …)
v. Cancer
w. Concussion or Brain Injury

23. Do you have a disability?

a. Yes
b. No

24. Please describe your disability (may check more than one):

a. Mobility (Use Wheelchair, Crutches, Walker, …)
b. Medical (Debilitating Chronic Condition or Injury)
c. Visual (Blind or Low Vision)
d. Hearing (Deaf or Hard of Hearing)
e. I do not have a disability.

25. In the past year, have you had a physical examination?

a. Yes
b. No

26. In the past year, have you had an eye exam?

a. Yes
b. No

27. In the past year, have you seen a dentist?

a. Yes
b. No

28. In the past year, did you get a flu shot?

a. Yes
b. No

29. In the past month, did you eat less than you thought you should because you did not have enough money for food?

a. Yes
b. No

Safety Information

30. How often do you wear a helmet when riding a bicycle or motorcycle, using rollerblades, riding a scooter or skateboard, etc.?

a. Always
b. Nearly Always
c. Sometimes
d. Rarely
e. Never
f. I do not ride any of these.

31. Does your family have a basic emergency supply kit? This kit may include water, non-perishable food, any necessary prescriptions, first-aid supplies, flashlight and batteries, non-electric can opener, blanket, etc.

a. Yes
b. No

Housing Information

32. **Does your home have peeling paint?**
    a. Yes
    b. No
33. **Does anyone that resides in your home smoke in your home?**
    a. Yes
    b. No
34. **Do you allow visitors to smoke in your home?**
    a. Yes
    b. No
35. **How often is there secondhand smoke entering your home?**
    a. Daily
    b. Weekly
    c. Monthly
    d. A Few Times
    e. Never
36. **Was your home built before 1978, the year that the sale of lead-based paint for residential housing was banned?**
    a. Yes
    b. No
37. **Does your home have a working carbon monoxide detector?**
    a. Yes
    b. No
38. **Have you seen signs of mice, rats, and/or rodents in your home in the last 12 months?**
    a. Yes
    b. No
39. **Have you seen signs of cockroaches in your home in the last 12 months?**
    a. Yes
    b. No
40. **Have you observed mold in your home in the last 12 months?**
    a. Yes
    b. No
41. **What was the location of the mold?**
    a. Kitchen
    b. Bathroom(s)
    c. Bedroom(s)
    d. Living Room
    e. Basement
    f. Other Room
    g. I have not observed mold in my home.
42. **Do you have a septic system?**
    a. Yes
    b. No
43. **How long has it been since your septic system was inspected or pumped by a professional?**
    a. 3 Years Or Less
    b. Between 3-5 Years Ago
    c. More Than 6 Years Ago
    d. I don’t know.
    e. I do not have a septic system.

Health Literacy

44. Medical terms are complicated and many people find the words difficult to understand. Do you ever get help from others in filling out forms, reading prescription labels, insurance forms, and/or health education sheets?

a. Yes
b. No

45. Many people have trouble reading and remembering health information because it is difficult. Is this ever a problem for you?

a. Yes
b. No

46. How often do you have problems learning about your medical condition because of difficulty understanding written information?

a. Very Often
b. Somewhat Often
c. Rarely
d. Never

Substance Use Information

How often do you use the following substances?

Substance	Every Day	Some Days	Not At All
Alcohol			
Cigarettes			
Electronic Cigarettes			
Cigars and Cigarillos			
Hookah			
Chew, Snus, and Snuff			

In the past year, how often have you used the following substances?

Substance	0 Times	1-2 Times	3-9 Times	10-19 Times	20-39 Times	40+ Times
Marijuana						
Synthetic Marijuana (also called K2, Spice, Fake Weed, King Kong, Yucatan Fire, Skunk, or Moon Rocks)						
Ecstasy (also called MDMA)						
Heroin (also called Smack, Junk, or China White)						
Cocaine, (Powder, Crack, or Freebase)						
Methamphetamines (also called Speed, Crystal, Crank, or Ice)						

47. In the past year, how many times have you taken a Prescription Drug (such as OxyContin, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription?

a. 0 Times
b. 1 or 2 Times
c. 3 to 9 Times
d. 10 to 19 Times
e. 20 to 39 Times
f. 40 or More Times

2014 COMMUNITY HEALTH NEEDS ASSESSMENT
APPENDIX B: ACKNOWLEDGMENTS

Primary Community Health Needs Assessment Authors

Organization	Name
Kent County Health Department	Chelsey K. Chmelar, MPH
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Community Health Needs Assessment Contributors

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Kent County Health Department	Sara Simmonds

Primary Community Health Needs Assessment Reviewers

Organization	Name
Spectrum Health Healthier Communities	Ken Fawcett
Grand Valley State University	Raymond Higbea
Kent County Health Department	Amy Endres-Bercher
Grand Rapids Public Schools	Stephanie Painter

Organizations Participating in and/or Supporting 2014 Community Health Forums

- Mercy Health Saint Mary's
- Spectrum Health
- Metro Health Hospital
- Priority Health
- Cherry Street Health Services
- Forest View Hospital
- Grand Valley Health Plan
- Heartside Health Center
- Oasis of Hope Center
- Planned Parenthood
- Salvation Army Booth Clinic
- Network 180
- Arbor Circle
- Mental Health Foundation of West Michigan
- Cedar Springs Rotary Club
- Kiwanis Club North
- Messiah Lutheran Church
- Restaurants
- Baby Beloved, Inc.
- Your Home Birth
- WZZM-13
- Feeding America of West Michigan
- Eastern Avenue Food Bank
- Food Security Advocate
- Baxter Community Center
- Senior Neighbors
- Strong Beginnings
- Kent County Health Dept.
- Kent County Dept. of Human Services
- City of Grand Rapids Planning Dept.
- Kent County Parks and Recreation
- Michigan Dept. of Community Health
- Inter-Tribal Council Healthy Start
- City of Kentwood
- John Ball Zoo
- West Michigan Area Agency on Aging
- Veteran's Administration
- Roosevelt Park Neighborhood Association
- Rockford Ambulance
- Calvin College
- Grand Rapids Community College
- Grand Valley State University
- Michigan State University (MSU), College of Human Medicine
- Kentwood Public Schools
- Rockford Public Schools
- Kent Intermediate School District
- Deaf and Hard of Hearing Services
- Association for the Blind and Visually Impaired
- Heart of West Michigan United Way
- YMCA
- Family Futures
- First Steps
- Steepletown Neighborhood Services

Organizations Participating in and/or Supporting 2014 Community Health Forums

- Latino Coalition
- Women in Neighborhood Group
- Kent County Prevention Coalition
- Healthy Homes Coalition
- Healthy Kent Suicide Prevention Coalition
- Rockford HOPE
- Literacy Center of West Michigan
- Mel Trotter Ministries
- Our Kitchen Table
- Western Michigan Environmental Action Council
- Family Network
- Salvation Army
- DA Blodgett St. John's Home

Organizations Participating in and/or Supporting 2014 Community Health Surveys

- Kent County Health Dept.
- Mercy Health Saint Mary's
- Oasis of Hope Center
- Cherry Street Health Services
- Healthy Homes Coalition
- Spectrum Health
- Messiah Lutheran Church
- KLM Ministries
- Healthy Homes Coalition
- Catherine's Health Center
- Salvation Army Booth Clinic
- West Michigan Environmental Action Council
- Kent County Women, Infants, and Children Program
- Health Net of West Michigan
- AmeriCorps VISTA
- Healthy Kent Suicide Prevention Coalition
- Kent County Farmer's Markets
- Strong Beginnings
- Grand Rapids Public Library
- Planned Parenthood
- Grand Rapids Community College

Organizations Participating in and/or Supporting 2014-15 Healthy Kent Summit Activities

- Kent County Health Department
- Metro Health Hospital
- West Michigan Environmental Action Council
- Grand Valley State University (GVSU)
- Kent Intermediate School District
- Grand Valley Health Plan
- Health Net of West Michigan
- Pine Rest
- Healthy Homes Coalition
- Kent County Administration
- Ferris State University
- Cherry Street Health Services
- Grandville Public Schools
- Arbor Circle
- City of Grand Rapids, Planning Department
- West Michigan Asian American Association
- Network 180
- Grand Rapids African American Health Institute
- Oasis of Hope Center
- Strong Beginnings
- Kent County Great Start Collaborative
- Down Syndrome Association
- Turning Point Therapy
- Sparta Area Schools
- Family Outreach Center
- Kent County Prevention Coalition
- GVSU Community Research Institute
- Mental Health Foundation of West Michigan
- Our Kitchen Table
- Mercy Health Saint Mary's
- Catherine's Health Center
- At-Large Community Members
- Salvation Army
- DA Blodgett St. John's Home
- Spectrum Health Healthier Communities
- Alliance for Health
- Mary Free Bed Rehabilitation Hospital
- WZZM-13
- Kent County Oral Health Coalition
- Spectrum Health
- Our Community's Children
- YMCA
- Rockford Schools
- Holland Home
- City of Kentwood
- Kent County Board of Commissioners
- Paisley Birth and Breastfeeding
- Calvin College
- First Steps
- Grand Rapids Community College
- Grand Rapids Public Schools
- Salvation Army Booth Clinic
- Family Futures
- Forest View Hospital
- LoWellness
- Grand Rapids Area Coalition to End Homelessness
- Health Intervention Services Grand Rapids
- Wedgwood Christian Services

Organizations Participating in and/or Supporting 2014-15 Healthy Kent Summit Activities	
• Michigan State University Extension	• Healthy Kent Suicide Prevention Coalition

MAPP Core Team Membership (Health Department)

Name	Position
Chelsey Chmelar	Quality & Performance Manager
L. Paige Birkelbach	Epidemiologist
Barb Hawkins Palmer	Exec. Director Healthy Kent
Karla Black	Emergency Preparedness Coordinator
Teresa Branson	Deputy Health Officer
Cheryl Clements	Senior Administrative Specialist
Patricia Draper	Emergency Preparedness Specialist
Brian Hartl	Epidemiologist
Lisa LaPlante	Marketing & Communications Manager
Adam London	Administrative Health Officer
Jill Myer	Obesity Initiative Coordinator
Julie Payne	Epidemiologist
Carolyn Quiney	Public Health Educator
Mary Wisinski	Immunization Program Supervisor

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Grand Rapids Hospital

This document serves as the tool to identify the impact of actions taken to address the significant health needs in the Implementation Plans created as a result from the previous 2011 CHNA.

Specific Health Need Goal	Metric	Impact of Implementation Plan
Access		
Development of initial community medicine clinic, focused on serving the underinsured and uninsured, to include two Family Medicine Physicians and three Advanced Practice Providers. The clinic will have capacity for approximately 25,000 patients' visits per year, or 8,000-10,000 patients.	1. Increase the number of practicing primary care providers by hiring 2 Family Medicine Physicians and 3 Advanced Practice Providers. 2. Develop the capacity to serve 8,000-10,000 patients annually.	1. Partial achievement was accomplished with the hiring of 1 Family Medicine Physician and 1 Advanced Practice Provider. We will continue with ongoing recruitment efforts to ensure that additional providers are added to the clinic to meet capacity. • Added 1 Financial Advisor to assist patients with accessing charity care to reduce any financial barriers that cause them to not seek services. • Added 1 licensed master level social worker to assist patients to address and eliminate barriers that impede their ability to access care. 2. Over 4,000 patients have been assigned to the clinic as their primary medical home. We are continuing to implement plans to increase capacity and create awareness of the clinics operation. • Opened since August 2013, there were 4,556 unique patient encounters with anticipated volume increases year-over-year.
Increase the number of practicing primary care providers over a three-year period. (FY13-15) in partnership with Spectrum Health Medical Group.	Hiring 5 physicians and 14 Advance Practice Providers per year (excluding urgent care and leadership positions)	The recruitment of Primary Care Physicians and Advanced Practice Providers has been more challenging than anticipated. As our nation is facing the retirement of the existing primary care workforce, diminishing numbers of new physicians who choose to practice primary care, and when combined with an aging population with multiple comorbidities and increased life expectancy, we are revising our recruitment strategies to ensure greater success. In Kent County our Medical Group increased our providers as follows: • 15 new provider hires resulting in a net increase of 11 providers

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Grand Rapids Hospital

This document serves as the tool to identify the impact of actions taken to address the significant health needs in the Implementation Plans created as a result from the previous 2011 CHNA.

		for Fiscal Year (FY) 2013 • 14 new provider hires resulting in a net increase of 9 providers for FY2014 • 13 new provider hires resulting in a net increase of 9 providers for FY2015 • 25 Primary care physicians are currently open to accept Medicaid in 2015. Historical data is not available at this time but we will capture the information annually going forward.
Health Literacy		
Specific Health Need Goal	**Metric**	**Impact of Implementation Plan**
Add health care teams to include all of Grand Rapids Public Schools System (GRPS). Plan to expand and add up to five (5) RN's to service the all of GRPS.	1. Expand staffing by 5 Registered Nurses and provide services to 55 schools in the Greater Grand Rapids Area 2. Provide staff education services to 6 school districts in the Western Michigan Area	1. There are currently Registered Nurse and Health Aides staffing 58 schools and 7 school districts with the addition of Montcalm Area Intermediate School District. In FY2013, there were over 28,000 students served through 160,000 unique encounters (visits). In FY2014, over 29,000 students utilized services with 190,000 encounters. Although the final count for FY2015 is not currently available, we anticipate that we will increase the numbers of student seen in comparison to FY2014. 2. Program initiated the Medical Emergency Response Team (MERT) and EpiPen training to the designated employees in all of the 7 school districts served.
Partnership with Grand Rapids Public Schools/School of Health Sciences (SHS) to increase the number of students entering into the health science field. (FY13-15)	1. To increase the number of Grand Rapids Public School students who choose a health career post high school by connecting education to career skills and real life experiences.	1. Annually provide over 300-900 students with series of health, math, science and technology classes, instruction and experiences to provide them with the necessary skills to succeed in college health-related education or careers. • All students undergo health screenings and are educated on the results to improve long-term outcomes.

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Grand Rapids Hospital

This document serves as the tool to identify the impact of actions taken to address the significant health needs in the Implementation Plans created as a result from the previous 2011 CHNA.

	2. To align the education curriculum to prepare students for health/science needs of the future.	2. All students are provided with instruction, knowledge, and strategies on how to improve their overall health.
	3. To employ School of Health Science students at Spectrum Health	3. Students participate in healthcare job shadowing and have the opportunity to participate in an Emergency Medical Technician certification program.

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Special Care Hospital

This document serves as the tool to identify the impact of actions taken to address the significant health needs in the Implementation Plans created as a result from the previous 2011 CHNA.

Specific Health Need Goal	Metric	Impact of Implementation Plan
Access		
Increase the percentage of total admissions for patients with a secondary diagnosis of mental illness and/or substance abuse, ensuring access to care for this patient population.	The hospital will develop a model that will increase access to services for patients with a dual diagnosis of mental illness or substance abuse. Patients are considered to have a dual diagnosis if either their admitting diagnosis, or a secondary diagnosis, is either mental illness or chemical dependency. The hospital looked at the percentage of total admissions meeting these criteria.	Special Care Hospital has a historical baseline of 28% of patients meeting the dual diagnosis criteria. This historical baseline was established during the reporting period of July 1, 2012 through December 31, 2012. The percent of total admissions with a dual diagnosis for the reporting period of July 1, 2013 through December 31, 2013 increased to 39%, an 11% increase from baseline. An additional increase in dual diagnosis admissions to 45% was seen for the reporting period January 1′ 2014 through December 31, 2014. In summary, Special Care Hospital has increased the percentage of total admissions with a dual diagnosis from 28% to 45% for a net increase of 17%. This was done, in large part, through awareness of the admission team at Special Care Hospital of the goal to increase admissions in this patient population. Further work in this area should focus on concrete processes to ensure sustainability.
Special Care Hospital will develop and implement an educational staff development plan focused on the treatment of psychiatric disorders and chemical dependency. Additionally, Special Care Hospital will seek to recruit a behavior specialist to assist in developing care plans and programs specific to dual diagnosis patients. Modules to be educated: psychiatric medications,	Increasing the percentage of staff educated as the metric for this goal. Nurses, aides, physical therapists, occupational therapists, speech therapists, as well as respiratory therapists were all included in the target audience for all or some of the modules.	These objectives have been met. We are better able to serve the unique needs of these patients through completion of education of 100% of our nurses regarding medications, the entirety of unit staff on suicide prevention, and nursing and nurse aids on crisis management. Hiring a behavior specialist remains an ongoing goal. Until such time, we have enhanced education of our staff in those topics that are most important for this special population of patients.

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Special Care Hospital

This document serves as the tool to identify the impact of actions taken to address the significant health needs in the Implementation Plans created as a result from the previous 2011 CHNA.

neuropsychiatric conditions and care planning, crisis management, management of suicide risk, and community mental health resources.		
Specific Health Need Goal	**Metric**	**Impact of Implementation Plan**
Health Literacy		
Increase the percentage of Medicare patients at Special Care Hospital who are screened for diabetes and receive timely referral and follow-up for post-acute diabetic education and management from existing area programs.	Special Care hospital measured the percent of total admissions screened for diabetes risk by the dietician.	The Special Care Hospital Dietician has screened 100% of admissions since project implementation. This process also flags those individuals who are 65 years of age or older who have an elevated blood glucose of 140 of greater. The dietician is able to coordinate additional diabetic (HgbA1c) testing and education on diabetes management when indicated. Lastly, the dietician provides resources to area programs for diabetic management to discharging patients who are diabetic, or at risk of becoming diabetic. Initially there was a goal to measure the percent of patients who later followed up with area clinics. This was determined not to be feasible due to barriers with patient privacy and data logistics. For this reason, the Hospital has removed this as a future goal metric.
Develop, maintain, and distribute a county-wide bilingual resource directory of diabetic screening centers, educational programs and treatment programs.	Increasing the number of bilingual patients who are able to better manage and understand their disease.	Bilingual resources are an important aspect of patient care. To this point, Special Care Hospital sought to compile a hardcopy print version of county –wide diabetic education and resource programs. Existing diabetes management guides were printed off and supplied on the unit in both Spanish and Bosnian, common primary or secondary languages for our patients. Additionally, Special Care Hospital has placed on its website, a link to the bi-lingual resources (as

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Special Care Hospital

This document serves as the tool to identify the impact of actions taken to address the significant health needs in the Implementation Plans created as a result from the previous 2011 CHNA.

		well as the English) provided by the Community Medicine Clinic. The true measure is difficult to quantify, however our dietician is able to work with each patient to meet their needs.