KENT COUNTY
COMMUNITY HEALTH NEEDS ASSESSMENT
2017

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HEALTH
DEPARTMENT
Caring today for a healthy tomorrow
Healthy Kent

COUNTY
KENT
MICHIGAN
HEALTH
DEPARTMENT
Caring today for a healthy tomorrow

MERCY HEALTH

METRO HEALTH
UNIVERSITY OF MICHIGAN HEALTH

SPECTRUM HEALTH

PINE REST
Christian
Mental Health
Services

Restoring Hope and Freedom
Mary Free Bed
Rehabilitation Hospital

2017 Community Health Needs Assessment
Table of Contents

Executive Summary

Record of Review and Revisions

Introduction and Process Overview
About Healthy Kent
Overview of 2017 Kent County Community Health Needs Assessment
Organizing for Success and Partnership Development
Visioning
MAPP Assessments and Data
Community Themes and Strengths Assessment
Community Health Status Assessment
Identifying Strategic Issues

Chapter 1: Community Themes and Strengths Assessment
Community Themes and Strengths Table of Contents
Kent County Photovoice
Community Input
Community Health Survey, VoiceKent

Chapter 2: Community Health Status Assessment
Community Health Status Assessment Table of Contents
Kent County Demographics and Assets
Demographic Data
Socioeconomic Data
Health Resource Availability
Factors Influencing Health
Quality of Life Data
Behavioral Risk Factors Data
Environmental Health Data
Health Status
Social and Behavioral Health Data
Maternal, Child, and Infant Health Data
Death, Illness, and Injury Data
Communicable Disease Data
Sentinel Events Data

2017 Community Health Needs Assessment Executive Summary

The Kent County Health Department (KCHD) is pleased to present you with the 2017 Community Health Needs Assessment. The mission of KCHD is to serve, protect and promote a healthy community for all. Every three years, the health department and our local health system partners are required to assess population health through a community health needs assessment process. 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 third iteration of Kent County's community health improvement efforts. The first county-wide 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. Coordination of the CHNA/CHIP process in our community is led by our long-standing community coalition, **Healthy Kent**.

Healthy Kent is an initiative of KCHD and has existed in our community for more than 20 years. It 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, a lengthy CHNA process was completed, wherein thousands of Kent County residents were asked for input on priority health issues and community concerns, and data has been mined from numerous sources. All of this information, collated in the following report, describes the health status of Kent County and has led to the identification of core health issues deemed priority by those who live, work, learn, and play in Kent County. This report is also available on the accessKent website at https://accesskent.com/Health/pdf/2017KC_CHNA.pdf.

Priority Health Issues

1. Mental Health
2. Substance Abuse
3. Obesity
4. Poor Nutrition

Key Findings in Mental Health

- Kent County residents identified the following as the most common barriers to accessing mental healthcare services: cost (44.7%); feeling embarrassment or shame (34.4%); did not know who to call (27.3%); fear or distrust of the healthcare system (27.2%); and cultural beliefs about health (19.6%).
- More than eight in ten residents (83.6%) reported they would be able to recognize the signs and symptoms of mental health in themselves or in others that would require professional assistance.
- Two-thirds of Kent County residents reported their mental and emotional health as excellent (22.9%) or good (43.0%). Nearly one in ten residents reported their mental and emotional health as poor (7.5%) or failing (2.1%).
- More than one in ten Kent County residents (13.4%) reported 14 or more poor mental health days in the past 30 days, including approximately one-third of individuals with an annual household income of less than $25,000.
- Nearly one-quarter of Kent County middle school students (23.6%) and one-third of high school students (32.2%) reported feeling 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.
- During the past 12 months, 15.8% of high school students seriously considered attempting suicide, 13.3% made a plan, and 6.9% attempted suicide one or more times. Approximately one in five (20.6%) middle school students had ever considered suicide, 13.0% had ever made a plan, and 7.8% had ever attempted suicide.

KEY FINDINGS IN SUBSTANCE ABUSE

- In 2017, 15.4% of Kent County residents reported current cigarette use and 5.5% reported current electronic cigarette use. In 2015, 10.2% of mothers in Kent County smoked while pregnant.
- Among Kent County youth, 1.9% of middle school students and 5.8% of high school students reported current cigarette use; half (50.7%) of high school students who are current smokers attempted to quit smoking within the past 12 months.
- Approximately 5% of Kent County adults reported heavy drinking (15 or more drinks per week for men or 8 or more drinks per week for women) and 15.3% reported binge drinking (5 or more drinks on an occasion for men or 4 or more drinks on an occasion for women). Slightly less than 4% of Kent County adults reported driving after drinking too much in the past month.
- One-third of Kent County high school students reported ever drinking alcohol (35.4%), 17.0% reported drinking alcohol in the past 30 days, and 9.0% report binge drinking in the past 30 days. Approximately 4% of Kent County middle school students reported drinking alcohol in the past 30 days.
- Per the most recent data available at the time of this report, the number of opioid-related deaths in Kent County in 2017 (93) exceeded those in 2016 (70). Between 1999 and 2015 in Kent County, the drug-induced mortality rate (including deaths from any drug) increased nearly fourfold, from 4.2 per 100,000 to 16.2.

KEY FINDINGS IN OBESITY

- Obesity among Kent County adults increased from 27.6% in 2014 to 34.1% in 2017.
- Obesity increased among Kent County youth as well; in 2014, 9.7% of middle school and 11.4% of high school students were obese, compared to 11.4% of middle school and 12.5% of high school students in 2016.
- Nearly one in five (19.7%) of Kent County adults reported no leisure-time physical activity in the past month. One-third of residents (35.0%) reported thirty minutes or more of physical activity at least five times per week.
- Middle school students (58.6%) were more likely than high school students (52.0%) to be physically active for 60 minutes per day for at least five of the past seven days. Males were more likely than females in both school groups to be physically active.
- Middle school and high school students reported similar rates of screen time: 20.2% of middle school and 17.8% of high school students reported three or more hours per day of TV on an average school day, and 28.9% of middle school and 27.8% of high school students reported three or more hours per day of video or computer games or computer use for something other than school work on an average school day.

KEY FINDINGS IN POOR NUTRITION

- More than two-thirds of Kent County adults (68.4%) reported consuming fruit one or more times per day, and 63.4% reported consuming vegetables one or more times per day.
- Among Kent County youth, 27.0% of middle school and 26.0% of high school students report eating five or more servings of fruits and vegetables per day during the past seven days. Slightly more middle school students (43.5%) than high school students (38.8%) report eating breakfast every day in the past seven days.
- Approximately 6% of Kent County families reported that their children skipped meals either daily, weekly, or monthly in the past six months because there was not enough money for food.
- More than one in five Kent County residents (21.3%) reported feeling worried about whether food would run out in the past six months, 18.2% reported that their food did not last and they were unable to buy more, 14.0% skipped meals because there was not enough money for food, and 12.8% felt hungry but did not eat because there was not enough money to buy food.
- Kent County residents tended to agree (40.5%) or strongly agree (34.5%) that it is easy to obtain fresh fruits and vegetables in their neighborhood or community, although disparities were noted among races and ethnicities, educational attainment, and annual household income.
- More than one in five Kent County residents (20.7%) reported they were not always able to buy or receive all the healthy food needed to feed their families.

2017 Community Health Needs Assessment
Record of Review and Revisions

Date	Activity	Recorded By Whom

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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 by the Kent County Health Department as a mechanism to identify which Healthy People 2000 goals were priorities for Kent County, and to develop strategies to meet them.

During its tenure, 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 Kent County Community Health Needs Assessment (CHNA) process.

OVERVIEW OF 2017 KENT COUNTY COMMUNITY HEALTH NEEDS ASSESSMENT

The 2017 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 2017 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 2017 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 2018 Community Health Improvement Planning process gets underway and yields a final report.

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 that is supported by the community and will actually be implemented[2]. The 2017 CHNA process began when a Core Team of Kent County Health Department (KCHD) staff reviewed and updated a list of key community partners that was developed during the 2014 CHNA process. This list of partners included both organizations, agencies, and individuals who participated in the 2014 CHNA process, as well as numerous additions that included nontraditional partners and community sectors that were missing from previous iterations 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 2014 process, or who are seen as "nontraditional" partners in

public health. Engagement recorded for the 2017 CHNA process has produced a comprehensive view of community need. A list of contributors and participants involved with the 2017 CHNA can be located in Appendix A.

MAPP ASSESSMENTS AND DATA

Community Themes and Strengths

Intercept Surveys

During the months of May to August 2017, Kent County Health Department's Marketing and Communications Manager, Steve Kelso and a student intern from Calvin College, Ben Aparicio, developed a set of survey questions and a strategy for resident input through intercept surveys. Intercept surveys are surveys conducted in-person, generally in a public place or business[3]. The initial plan for this strategy was to attend several community events throughout the summer to capture varying view points from residents; however, capacity became an issue and the implementation of this strategy was limited.

Interviews with four Kent County residents were captured on video at WGVU's Kids Day at the Zoo at John Ball Zoo on August 4, 2017. They responded to questions about the challenges and strengths within their communities. The edited interviews can be viewed at https://www.youtube.com/watch?v=Z9RUF7olS_A.

Photovoice

Through collaborations with Kent County Health Department's Children's Special Health Care Services Parent Support Group, Grand Rapids HQ, Strong Beginnings HUGS Breastfeeding Café Breastfeeding Support Group, and the Deborah Project, Healthy Kent implemented a unique data collection process utilizing photovoice as a component of the community input process for the 2017 CHNA. Healthy Kent staff worked with a student intern from Grand Valley State University, Mercedes Gough, to develop a protocol suited for Kent County that was used when planning and implementing the project. Participants were provided cameras and were asked to take photos in their communities in response to questions that were utilized as prompts. More information and examples of photos and the captions developed by participants can be found in later pages of this report.

Community Input Cards

Further community input was collected through community polling and input cards during the summer months of 2017. In August, community input regarding the most pressing health concerns in Kent County were collected using a polling program at a KCHD event, *A Healthy Community for All: Health in All Policies*, where more than 120 individuals were in attendance.

Kent County mothers recruited through home visiting programs were also asked for their input on what helps and hinders their families' ability to stay healthy in Kent County. Over the course of this input process, more than 140 women provided their thoughts and opinions.

Community Health Survey: *VoiceKent*

Kent County Health Department and its Healthy Kent initiative partnered with the Dorothy A. Johnson Center for Philanthropy at Grand Valley State University for the 2017 community health survey, known as *VoiceKent*. The Johnson Center has implemented a community survey since 2001, originally called the *Greater Grand Rapids Community Survey* and then renamed *VoiceGR* in 2013. The partnership with the Johnson Center allowed for expansion of data collection, leveraged existing community partners between the two organizations, and prevented overburdening the community with two separate surveys.

The questionnaire used for *VoiceKent* was created using questions administered through earlier iterations of VoiceGR which were merged with non-duplicative questions from the 2014 Healthy Kent Community Health Survey. Additional input from various community partners, ranging from the current Community Health Improvement Plan (CHIP) Workgroups, YMCA, Kent County Essential Needs Taskforce, and other partners were also incorporated into the final survey instrument. The Johnson Center piloted the draft survey and collaborated with KCHD to make edits to the final survey instrument. *VoiceKent* was then translated into Spanish and made available in a paper-based and electronic format via Qualtrics. The survey was open for data collection beginning June 5, 2017 and closed September 29, 2017.

Many community partner organizations played an instrumental role in the success of *VoiceKent* as they collected hundreds of responses through targeted outreach amongst service recipients. Because of the collaborative efforts of partner organizations, the survey yielded responses from more than 4,800 people who live or work in Kent County. More information about *VoiceKent* can be found at http://johnsoncenter.org/services/community-research/aboutvoicegr/.

VoiceKent assessed community residents' opinions and perceptions on topics such as employment, education, racism and discrimination, ability to meet basic needs, access to health care, and neighborhood safety. These topics and others were analyzed using different pieces of demographic data to help identify disparities and areas of greatest need in Kent County.

Community Health Status

Data included in the 2017 Kent County 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 2017 Kent County 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 VoiceKent survey. Nearly 5,000 participants in that survey were asked, "What do you believe are the health problems that most affect your neighborhood/community?" and were instructed to select no more than five from a designated list [Figure 1].

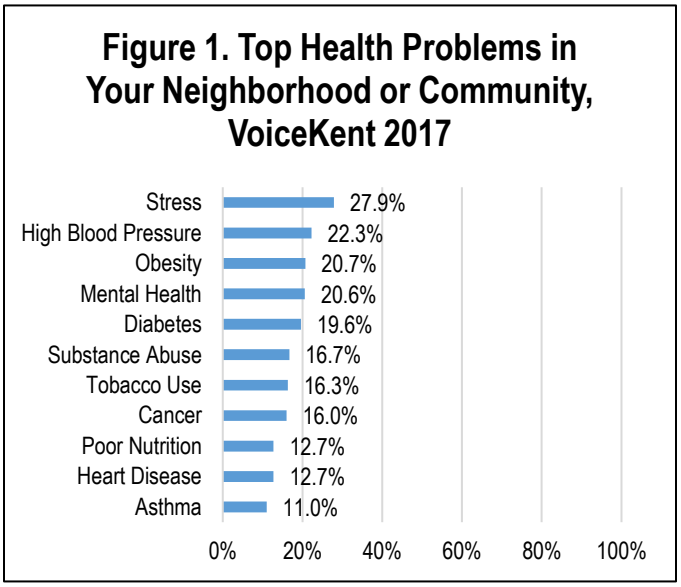
The ten most frequently reported health concerns from the VoiceKent survey were listed in an electronic survey, in which stakeholders and community members were asked to vote for the four health concerns the community should prioritize during the 2018-2020 Community Health Improvement Plan. The link to this survey was distributed through partner networks, including promotion through local radio and television. The survey was open between January 18-30, 2018, and garnered 808 responses [Figure 2].

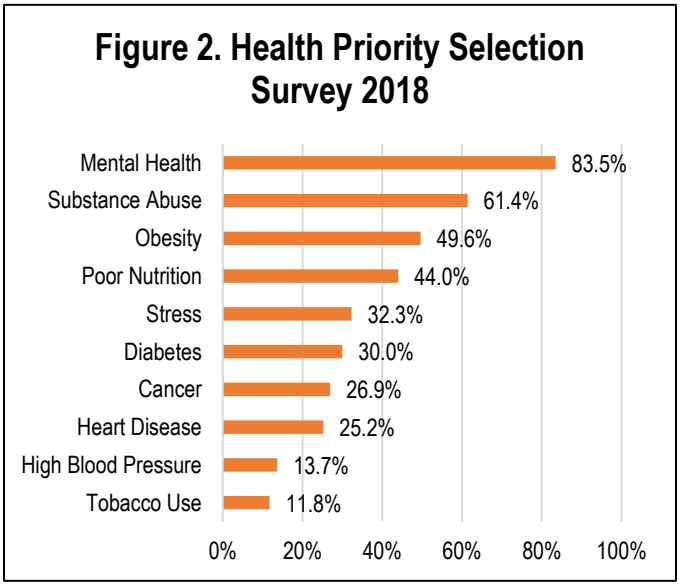
The priority health issues selected by the community for focus in the 2018 Community Health Improvement Planning process are:

- Mental Health
- Substance Abuse
- Obesity
- Poor Nutrition

**Obesity and Poor Nutrition will be combined as one priority*

The 2018 Community Health Improvement Plan will be based on the results of the Community Themes and Strengths and Health Status Assessments. This plan will offer a long-term, systematic strategy for addressing each of the priority health issues identified above. As these issues were also identified during the 2015 Community Health Improvement Plan, the community will be able to further build upon the strategies and partnerships created during that process.





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3. Robinson Research. (2017). *Intercept surveys – Data collection*. Retrieved from http://www.robinson-research.com/intercepts.html.

Chapter 1

KENT COUNTY
2017 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 DOES THE COMMUNITY VIEW AS THE MOST PRESSING HEALTH CONCERNS?
- WHAT ASSETS DO WE HAVE THAT CAN BE USED TO IMPROVE COMMUNITY HEALTH?

Community Themes and Strengths Assessment: Table of Contents

Process Overview

Introduction

Methods

Photovoice

Community Input

Community Health Survey, *VoiceKent*

Top Ten Health Concerns

Demographics

Adverse Childhood Experiences

Persons with Disabilities

Emergency Readiness

Work, Benefits, and Health Insurance

Housing and Household

Water and Septic Systems

Social Cohesion and Belonging

Perceived Community Safety

Racism

Basic Needs

Utilities

Transportation

Healthy Food Access

Food Security

Parks and Recreation

Self-Reported Health Status, Adults

Self-Reported Health Status, Children

Self-Reported Mental Health Status

Recognition of Mental Health Distress

Primary Source of Healthcare Services

Barriers to Healthcare Services

Barriers to Mental Healthcare Services

Primary Source of Health-Related Information

Healthy Eating and Active Living

Tobacco and E-Cigarettes

Perceived Harm of Marijuana Use

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

Intercept Surveys

During the months of May to August 2017, Kent County Health Department's Marketing and Communications Manager, Steve Kelso and a student intern from Calvin College, Ben Aparicio, developed a set of survey questions and a strategy for resident input through intercept surveys. Intercept surveys are surveys conducted in-person, generally in a public place or business[3]. The initial plan for this strategy was to attend several community events throughout the summer to capture varying view points from residents; however, capacity became an issue and the implementation of this strategy was limited.

Interviews with four Kent County residents were captured on video at WGVU's Kids Day at the Zoo at John Ball Zoo on August 4th, 2017. They responded to questions about the challenges and strengths within their communities. The edited interviews can be viewed at https://www.youtube.com/watch?v=Z9RUF7olS_A.

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Participants were provided cameras and were asked to take photos in their communities in response to questions that were utilized as prompts. More information and examples of photos and the captions developed by participants can be found in later pages of this report.

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Kent County mothers recruited through home visiting programs were also asked for their input on what helps and hinders their families' ability to stay healthy in Kent County. Over the course of this input process, more than 140 women provided their thoughts and opinions.

Community Health Survey: VoiceKent

Kent County Health Department and its Healthy Kent initiative partnered with the Dorothy A. Johnson Center for Philanthropy at Grand Valley State University for the 2017 community health survey, known as *VoiceKent*. The Johnson Center has implemented a community survey since 2001, originally called the *Greater Grand Rapids Community Survey* and then renamed *VoiceGR* in 2013. The partnership with the Johnson Center allowed for expansion of data collection, leveraged existing community partners between the two organizations, and prevented overburdening the community with two separate surveys.

VOICEKENT

Powered by the Johnson Center for Philanthropy and Kent County Health Department

The questionnaire used for *VoiceKent* was created using questions administered through earlier iterations of VoiceGR which were merged with non-duplicative questions from the 2014 Healthy Kent Community Health Survey. Additional input from various community partners, ranging from the current Community Health Improvement Plan (CHIP) Workgroups, YMCA, Kent County Essential Needs Taskforce, and other partners were also incorporated into the final survey instrument. The Johnson Center piloted the draft survey and collaborated with KCHD to make edits to the final survey instrument. *VoiceKent* was then translated into Spanish and made available in a paper-based and electronic format via Qualtrics. The survey was open for data collection beginning June 5, 2017 and closed September 29, 2017. *VoiceKent* was administered to adults aged 18 years and older.

Many community partner organizations played an instrumental role in the success of *VoiceKent* as they collected hundreds of responses through targeted outreach amongst service recipients. Because of the collaborative efforts of partner organizations, the survey yielded responses from more than 4,800 people who live or work in Kent County. More information about *VoiceKent* can be found at http://johnsoncenter.org/services/community-research/aboutvoicegr/.

VoiceKent assessed community residents' opinions and perceptions on topics such as employment, education, racism and discrimination, ability to meet basic needs, access to health care, and neighborhood safety. These topics and others were analyzed using different pieces of demographic data to help identify disparities and areas of greatest need in Kent County. It should be noted that not all respondents completed every question of the survey and data analysis was completed with the exclusion of missing responses. Some data categories do not add to 100% due to other/none responses. Data were suppressed if the denominator included less than 30 respondents.

FINDINGS AND CONSIDERATIONS

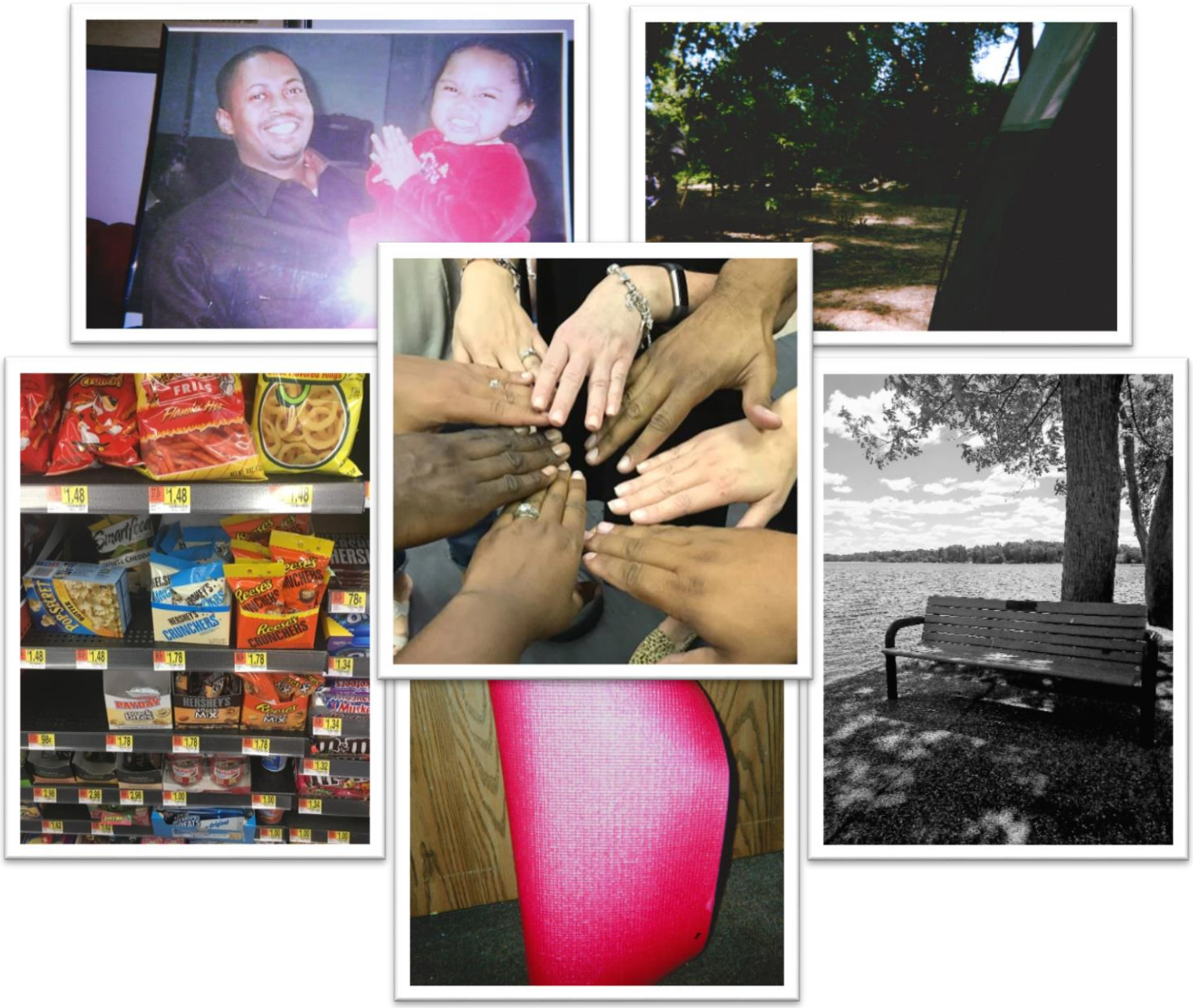
Despite considerable community participation in each of the data collection methodologies used in the CTSA process, it is important to note that the data presented in the following pages [Chapter 1] was collected as a convenience sample. This means that, though the data collected through intercept interviews, photovoice, input cards, and *VoiceKent* 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.

REFERENCES

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

OVERVIEW: KENT COUNTY PHOTOVOICE

Photovoice is "a process by which people can identify, represent, and enhance their community through a specific photographic technique."[1] This method enables community members to share their own experiences through a visual medium and reflect on these experiences. Healthy Kent staff employed the use of photovoice to gain insight from specific community groups on two questions, "*What in your community helps you to stay healthy?*," and, "*What in your community makes it difficult to stay healthy?*" Individuals first met for an introductory session to learn about photovoice and then were given 2-4 weeks to take photos in their community based on the prompt questions. At the follow-up meeting, individuals shared the photos they took with the group. The photos provided below are examples from the various photovoice focus groups. Many of the photos mirror the top health concerns identified through the *VoiceKent* survey. The photo descriptions show the participant's photo caption in *italics*, followed by a summary of their story.



Clockwise from upper left: *Dead at 45,* remembering her father who died at 45 from heart disease, motivating her to live a healthier life; *At Peace*, finding beauty in one's surroundings, even when homeless and sleeping in a tent outside; *Beauty in Nature*, taking advantage of the parks Kent County has to offer; *Go to Yoga*, intending to be physically active and attending one of the free yoga sessions offered in Grand Rapids; *The Checkout Line*, highlighting the many processed, unhealthy, and cheap foods at gas stations, corner stores, and grocery stores; *Diversity & Unity*, our community thrives when we all work together.

PARTNERING ORGANIZATIONS FOR PHOTOVOICE

- Kent County Health Department
- Kent County Children's Special Health Care Services Program
- Strong Beginnings HUGS Café Breastfeeding Support Group
- The Deborah Project
- Grand Rapids HQ

REFERENCES

1. Wang, C., & Burris, M. (1997, June). Photovoice: Concept, Methodology, and Use for Participatory Needs Assessment. *Health Education & Behavior*, 24(3), 369-387. Retrieved from https://deepblue.lib.umich.edu/bitstream/handle/2027.42/67790/10.1177_109019819702400309.pdf?sequence=2&isAllowed=y.

OVERVIEW: COMMUNITY INPUT

Community input was gathered from a variety of community stakeholders who attended *A Healthy Community for All: Health in All Policies* on August 15, 2017 at the Eberhard Center at Grand Valley State University. This event sought to introduce Kent County leaders to the idea of *Health in All Policies* and featured a national speaker on the topic. More than 120 attendees at this event were asked the question, "*What do you think is the most pressing health concern in Kent County today?*" Attendees responded via mobile device through the program Poll Everywhere, and responses were captured in a word cloud [right]. The most common responses appear in large text: *housing* and *racism.* Many words in the cloud mirror priorities from the 2014-2015 Community Health Needs Assessment and Improvement Planning process, including mental health, violence, substance use, and nutrition and physical activity. Others address social determinants of health, including insecurity, inclusion, affordable, quality, access, funding, efficacy, and kindness.

What do you think is the most pressing health concern in Kent County today?

Above: Word cloud generated from attendee responses at *A Healthy Community for All: Health in All Policies*, August 15, 2017.

Approximately 140 mothers who were identified through home visiting programs contributed opinions on the community via input cards in June 2017. Mothers were asked, "*What in your community helps you and your family stay healthy?*", and, "*What in your community makes it hard for you and your family to stay healthy?*" The most common ideas regarding what helps families stay healthy include healthcare, healthy food access, parks and trails, education programs, and farmers markets [bottom left]. The most common ideas concerning what makes it difficult to stay healthy include transportation, cost of healthy food, access to healthy food, finances, lack of resources, and access to physical activity [bottom right].

What in your community helps you and your family stay healthy?

Above: Word cloud generated from responses of approximately 140 Kent County mothers in June 2017.

What in your community makes it hard for you and your family to stay healthy?

Above: Word cloud generated from responses of approximately 140 Kent County mothers in June 2017.

COMMUNITY HEALTH SURVEY, *VOICEKENT*: TOP TEN HEALTH CONCERNS

OVERVIEW: TOP TEN HEALTH CONCERNS

Kent County residents helped to identify the core health problems most affecting their communities by participating in the *VoiceKent* survey in 2017. They were asked to select no more than five health issues from a list of more than 20 ailments and were given the option to specify other health concerns if they were not already listed. The responses collected through this assessment focused on resident perceptions of the greatest health problems within their communities, not necessarily the conditions with which they were afflicted personally. The table and figure below outline the findings associated with this question, indicating the top ten health concerns in Kent County. These data, along with community input data and data from the Community Health Status Assessment (CHSA) will be used to select priorities and subsequent goals, objectives, and strategies for the 2018 Community Health Improvement Process.

Table 1. Community Health Survey Data
Top Ten Health Concerns

Stress	**27.9%**
High Blood Pressure	**22.3%**
Obesity	**20.7%**
Mental Health	**20.6%**
Diabetes	**19.6%**
Substance Abuse	**16.7%**
Tobacco Use	**16.3%**
Cancer	**16.0%**
Heart Disease	**12.7%**
Poor Nutrition	**12.7%**

COMMUNITY HEALTH SURVEY, *VOICEKENT*: DEMOGRAPHICS

OVERVIEW: DEMOGRAPHICS

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. 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].

Figure 1. Percent of Respondents by Age, 2017

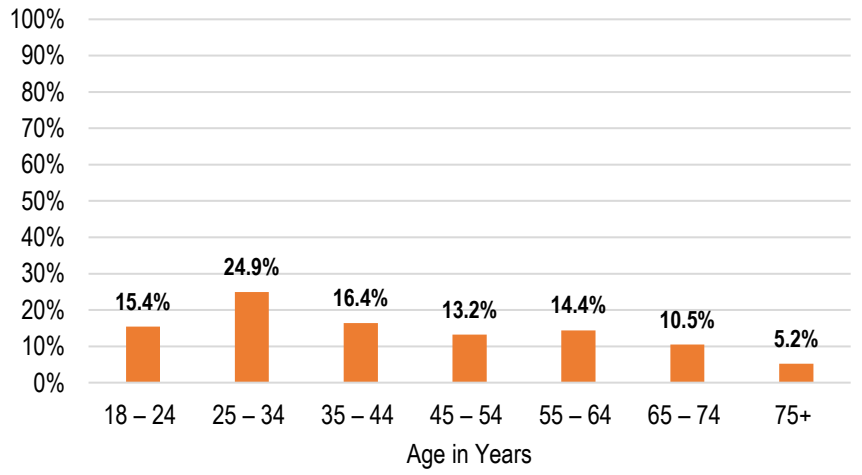
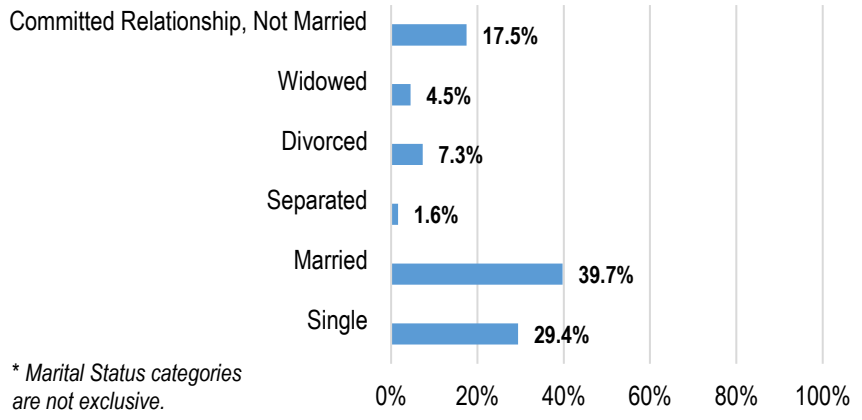


Figure 2. Percent of Respondents by Marital Status*, 2017

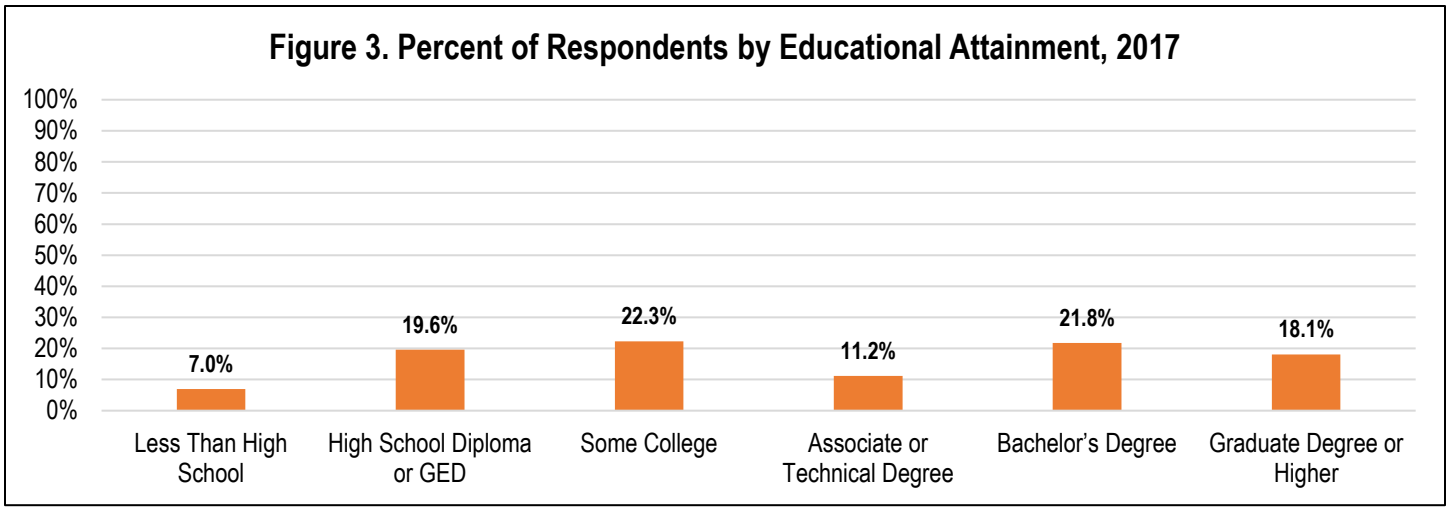


** Marital Status categories are not exclusive.*

Table 1: Community Health Survey Data Demographics

Indicator	Percent
Gender	
Male	30.6%
Female	68.7%
Sexual Orientation	
Heterosexual/ Straight	88.5%
Gay/Lesbian	2.6%
Bisexual	3.3%
Race*	
White	61.1%
Black or African American	15.9%
Hispanic or Latino/a	10.2%
Asian	1.6%
American Indian or Alaskan Native	--
Middle Eastern or North African	--
Native Hawaiian or Pacific Islander	--
Multi-Racial	7.2%
Primary Language	
English	91.5%
Spanish	7.2%
Arabic	--
Mandarin	--
Household Income	
Less Than $20,000	33.5%
$20,000 to $40,000	20.9%
$40,000 to $60,000	14.5%
$60,000 to $80,000	9.4%
$80,000 to $100,000	7.7%
$100,000 to $120,000	2.8%
More Than $120,000	8.8%
BMI**	
Underweight	2.1%
Normal Weight	33.3%
Overweight	28.6%
Obese	36.1%

-- Denotes estimate suppressed due to low numbers
*Race categories are exclusive; "Multi-Racial" includes those who selected the "Multi-Racial" category as well as those selecting more than one race category
**BMI was calculated based on participants' reported height and weight.



Survey Summary

VoiceKent asked respondents to provide demographic information including gender, sexual orientation, race, age, relationship status, educational attainment, household income, geographic location of residence, and body mass index BMI. Most survey respondents were female (68.7%), white (61.1%), and reported a household income of less than $20,000 per year (33.5%).

The most frequently reported religion or belief systems among survey respondents were Protestant Christianity (44.0%), Catholicism (17.0%), and no religion (10.9%). Other common characteristics of the survey population were younger age groups, including those aged 18 to 24 years (15.4%), 25 to 34 years (24.9%), and 35 to 44 years (16.4%). Just over half of respondents (51.1%) reported that they had an educational attainment level of an associate or technical degree or higher and nearly two-thirds of survey respondents had a BMI that is indicative of overweight (28.6%) or obesity (36.1%).

Table 2. Community Health Survey Data
Religion or Belief System

	Percent
Agnosticism	6.2%
Atheism	4.2%
Buddhism	1.3%
Catholicism	17.0%
Protestant Christianity	44.0%
Hinduism	--
Islam	0.7%
Judaism	--
Spiritualism, non-religious	7.0%
None	10.9%
Other	7.7%

-- Denotes estimate suppressed due to low numbers

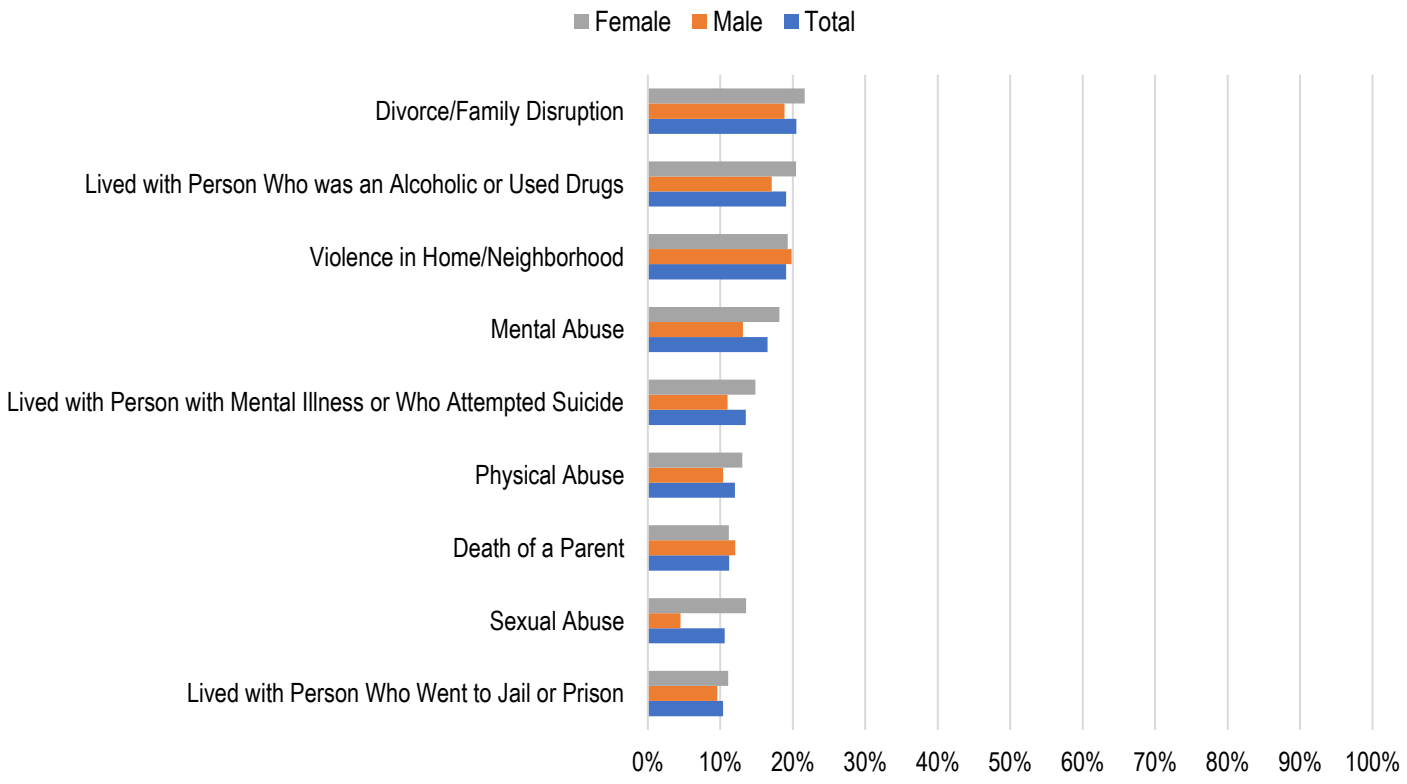
References

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

OVERVIEW: ADVERSE CHILDHOOD EXPERIENCES (ACEs)

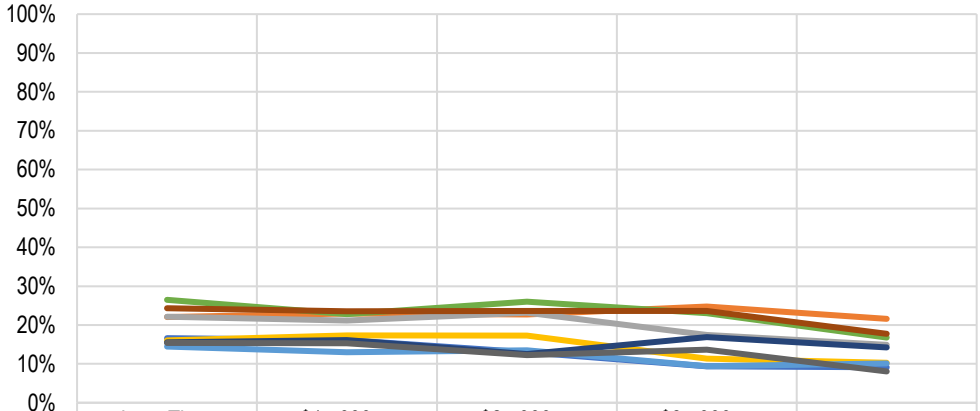
Adverse childhood experiences (ACEs) are stressful or traumatic events that occur before age 18, including physical abuse, sexual abuse, emotional abuse, physical neglect, emotional neglect, intimate partner violence, mother was treated violently, substance misuse within the household, household mental illness, parental separation or divorce, or an incarcerated family member[1]. ACEs can impact an individual's health throughout their lifespan and are a significant risk factor for substance use disorders[1]. A study done by the Centers for Disease Control and Prevention and Kaiser Permanente found that ACEs are common, with almost 40% of the sample population reporting two or more ACEs[1]. Studies have found that ACEs have a cumulative effect on health outcomes, with a higher number of ACEs related to a greater number of health, social, and behavioral problems[1]. Prevention and identification of ACEs is key to mitigating related health problems.

Figure 1. Adverse Childhood Experiences, by Gender, 2017



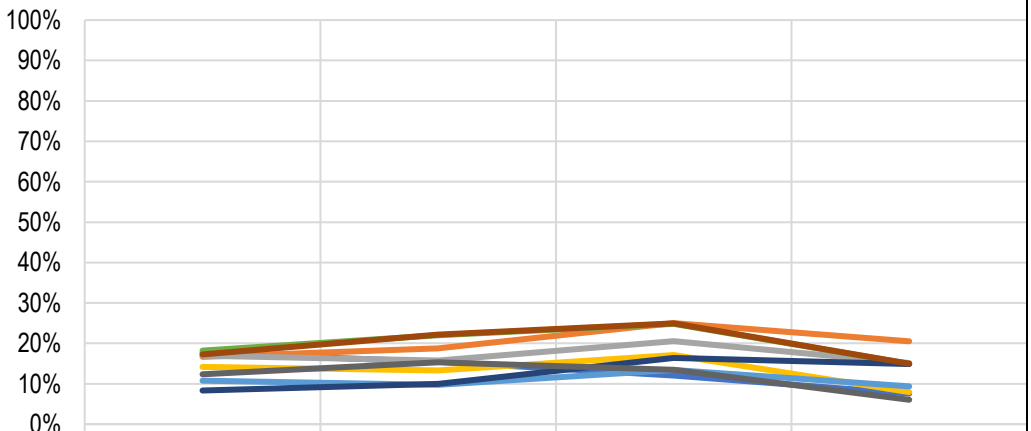
	Lived with Person Who Went to Jail or Prison	Sexual Abuse	Death of a Parent	Physical Abuse	Lived with Person with Mental Illness or Who Attempted Suicide	Mental Abuse	Violence in Home/Neighborhood	Lived with Person Who was an Alcoholic or Used Drugs	Divorce/Family Disruption
Female	11.1%	13.5%	11.2%	13.0%	14.9%	18.2%	19.3%	20.5%	21.6%
Male	9.6%	4.5%	12.1%	10.4%	11.0%	13.1%	19.8%	17.1%	18.9%
Total	10.4%	10.6%	11.2%	12.0%	13.5%	16.5%	19.1%	19.1%	20.5%

Figure 2. Adverse Childhood Experiences, by Annual Household Income, 2017



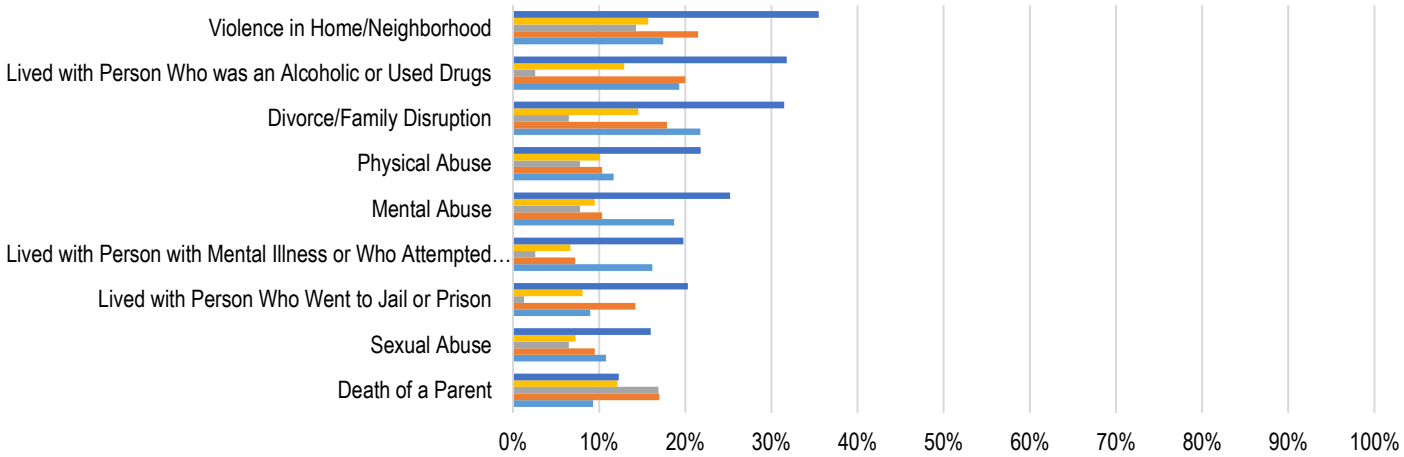
	Less Than $15,000	$15,000 to $24,999	$25,000 to $34,999	$35,000 to $49,999	$50,000 or more
Death of a Parent	16.6%	16.2%	13.0%	9.4%	9.1%
Divorce/Family Disruption	22.0%	23.0%	22.7%	24.8%	21.6%
Mental Abuse	22.2%	21.2%	23.2%	17.5%	14.9%
Physical Abuse	16.1%	17.3%	17.3%	11.3%	10.3%
Sexual Abuse	14.5%	13.0%	13.5%	9.4%	10.1%
Violence in Home/Neighborhood	26.5%	22.8%	26.0%	23.0%	16.8%
Lived with Person with Mental Illness or Who Attempted Suicide	15.5%	16.2%	12.5%	16.9%	14.2%
Lived with Person Who was an Alcoholic or Used Drugs	24.3%	23.5%	23.6%	23.6%	17.7%
Lived with Person Who Went to Jail or Prison	15.4%	15.3%	12.3%	13.6%	8.1%

Figure 3. Adverse Childhood Experiences, by Educational Attainment, 2017



	Less Than High School	High School Diploma or GED	Some College	Bachelor's Degree or Higher
Death of a Parent	17.6%	15.4%	12.1%	7.6%
Divorce/Family Disruption	16.7%	18.8%	25.0%	20.5%
Mental Abuse	17.0%	15.8%	20.5%	15.1%
Physical Abuse	14.2%	13.3%	17.1%	7.9%
Sexual Abuse	10.8%	9.8%	13.4%	9.4%
Violence in Home/Neighborhood	18.2%	22.0%	24.8%	14.9%
Lived with Person with Mental Illness or Who Attempted Suicide	8.3%	10.0%	16.4%	14.9%
Lived with Person Who was an Alcoholic or Used Drugs	17.3%	22.2%	25.0%	15.0%
Lived with Person Who Went to Jail or Prison	12.3%	15.3%	13.5%	6.0%

Figure 4. Adverse Childhood Experiences, by Race/Ethnicity, 2017



	Death of a Parent	Sexual Abuse	Lived with Person Who Went to Jail or Prison	Lived with Person with Mental Illness or Who Attempted Suicide	Mental Abuse	Physical Abuse	Divorce/Family Disruption	Lived with Person Who was an Alcoholic or Used Drugs	Violence in Home/Neighborhood
Multi-Racial	12.3%	16.0%	20.3%	19.8%	25.2%	21.8%	31.5%	31.8%	35.5%
Hispanic or Latino/a	12.1%	7.3%	8.1%	6.7%	9.5%	10.1%	14.5%	12.9%	15.7%
Asian	16.9%	6.5%	1.3%	2.6%	7.8%	7.8%	6.5%	2.6%	14.3%
Black or African American	17.0%	9.5%	14.2%	7.2%	10.3%	10.3%	17.9%	20.0%	21.5%
White	9.3%	10.8%	9.0%	16.2%	18.7%	11.7%	21.8%	19.3%	17.5%

Summary

Overall, 47% of *VoiceKent* respondents reported at least one ACE, 33% reported none, and 20% did not respond to the question. Slightly more females reported experiencing any ACE than males (49.5% vs. 44.7%, respectively). The most common ACE appears to be divorce or family disruption (20.5%), followed by violence in the home or neighborhood (19.1%), having lived with a person who was an alcoholic or used drugs (19.1%), and mental abuse (16.5%) [Figure 1]. Females were more likely to report most ACEs than males, but were three times more likely to report experiencing sexual abuse [Figure 1].

ACEs appear to have an association with household income. Those with a household income of $35,000 or higher tend to experience fewer ACEs than those at the lower income levels, except for the experiences of divorce and family disruption and having lived with a person with mental illness or who attempted suicide [Figure 2]. ACEs also generally appear to have an association with educational attainment, with those at lower levels of educational attainment having a greater likelihood of reporting ACEs than those with a bachelor's degree or higher [Figure 3]. However, there was an opposite relationship for having lived with a person with mental illness or who attempted suicide, with a higher percentage of those with a bachelor's degree or higher reporting this experience than those with lower educational attainment [Figure 3]. Those with some college attainment were more likely than other educational levels to report experiencing ACEs for every circumstance except the death of a parent and having lived with a person who went to jail or prison [Figure 3].

ACEs appeared to vary by race or ethnicity: six in ten multi-racial individuals (60.5%) reported at least one ACE, roughly half of whites and African Americans reported at least one ACE (48.3% and 50.5% respectively), and slightly more than one-third of Hispanic/Latinos and Asians reported at least one ACE (35.8% and 36.4%, respectively). Multi-racial individuals were more likely to report experiencing all categories of ACEs except the death of a parent. Death of a parent was reported most frequently by African Americans and Asians [Figure 4].

References

1. Substance Abuse and Mental Health Services Administration. (2017). *Adverse Childhood Experiences*. Retrieved from https://www.samhsa.gov/capt/practicing-effective-prevention/prevention-behavioral-health/adverse-childhood-experiences.

COMMUNITY HEALTH SURVEY, *VOICEKENT*: PERSONS WITH DISABILITIES

OVERVIEW: PERSONS WITH 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, and some disabilities may be hidden or not easy to see. They can range from mild to severe, and can occur at any point in a person's life. In 2014, 22.5% of people in the United States had a disability[2].

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[3]. However, recognizing these restrictions and providing accommodations can allow people living with disabilities to participate in everyday activities.

Table 1. Community Health Survey Data
Persons with Disabilities

	Any Disability	Type of Disability			
		Mobility	Cognitive	Visual	Hearing
Total	**24.0%**	**16.5%**	**5.1%**	**7.5%**	**5.2%**
Age					
18 – 24 Years	8.9%	2.5%	4.3%	2.5%	1.4%
25 – 34 Years	10.6%	5.8%	4.3%	1.6%	1.7%
35 – 44 Years	15.1%	10.1%	5.4%	2.5%	2.0%
45 – 54 Years	24.6%	18.2%	8.5%	4.4%	2.3%
55 – 64 Years	41.2%	30.0%	7.0%	11.8%	8.2%
65 – 74 Years	49.6%	37.9%	3.7%	23.0%	14.8%
75+ Years	71.4%	53.1%	2.1%	35.7%	27.4%
Gender					
Male	27.3%	15.9%	5.6%	9.1%	8.2%
Female	23.2%	17.4%	5.0%	6.9%	3.9%
Race					
White	25.2%	17.5%	5.2%	8.1%	6.4%
Black or African American	27.4%	19.1%	5.4%	7.7%	3.2%
Asian	3.9%	1.3%	0.0%	2.6%	0.0%
Hispanic or Latino/a	14.3%	9.9%	2.8%	5.0%	1.4%
Multi-Racial	24.6%	16.9%	8.6%	6.3%	4.6%
Education					
Less Than High School	32.1%	22.8%	8.6%	9.9%	4.9%
High School Diploma or GED	28.7%	19.1%	8.2%	8.2%	6.1%
Some College	28.8%	20.6%	6.5%	8.8%	6.0%
Bachelor's Degree or Higher	17.5%	11.5%	2.1%	5.8%	4.4%
Household Income					
Less Than $15,000	41.1%	30.9%	10.5%	13.1%	8.6%
$15,000 to $24,999	33.5%	23.5%	6.5%	12.2%	7.3%
$25,000 to $34,999	22.7%	17.5%	3.3%	5.9%	5.2%
$35,000 to $49,999	21.3%	12.7%	5.0%	6.3%	5.8%
$50,000 or more	18.8%	12.0%	3.8%	5.0%	4.0%

SURVEY SUMMARY

Nearly one-quarter of *VoiceKent* survey respondents (24%) reported having some type of disability. Rates of disability were highest amongst populations 55 years or older. More males reported having a disability than females, and higher rates of disability were observed in respondents with a household income of less than $25,000, and individuals reporting less than a high school education, high school diploma/GED, and some college when compared with those having a bachelor's degree or higher. Asians were less likely than other racial and ethnic groups to report having a disability.

Mobility was the most common type of disability (16.5%), followed by visual (7.5%). Older age groups were more likely to report a mobility disability. This type of disability was also more common with lesser annual household income.

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *Disability Overview*. Retrieved from https://www.cdc.gov/ncbddd/disabilityandhealth/disability.html.
2. Centers for Disease Control and Prevention. (2017). *Disability and Health Data System*. National Center on Birth Defects and Developmental Disabilities. Retrieved from https://dhds.cdc.gov/dataviews/tabular?viewId=1522&geoId=1&subsetId=&z=1.
3. Mar, J., Larranaga, I., Arrospide, A., and Begiristain, J. M. (2010). Impact of disability on different domains of health-related quality of life in the noninstitutionalized general population. *ClinicoEconomics and Outcomes Research, 2*, 97-103. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3169959/.

COMMUNITY HEALTH SURVEY, *VOICEKENT*: EMERGENCY READINESS

Table 1. Community Health Survey Data Have Basic Emergency Supply Kit	
Total	**48.3%**
Age	
18 – 24 Years	49.2%
25 – 34 Years	43.5%
35 – 44 Years	47.6%
45 – 54 Years	48.3%
55 – 64 Years	51.1%
65 – 74 Years	50.0%
75+ Years	56.5%
Gender	
Male	52.0%
Female	46.7%
Race	
White	48.6%
Black or African American	47.6%
Asian	55.7%
Hispanic or Latino/a	47.3%
Multi-Racial	47.5%
Education	
Less Than High School	51.3%
High School Diploma or GED	47.9%
Some College	49.3%
Bachelor's Degree or Higher	47.2%
Household Income	
Less Than $15,000	40.8%
$15,000 to $24,999	48.0%
$25,000 to $34,999	42.7%
$35,000 to $49,999	46.7%
$50,000 or more	50.6%

OVERVIEW: EMERGENCY READINESS

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[1]. 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[2].

When a household is prepared to support and sustain itself during an emergency, 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 half of 2017 *VoiceKent* 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 consistent across age groups, educational attainment, and annual household income. Asians were more likely than other racial/ethnic groups to report having a basic emergency supply kit prepared in their home (55.7%).

REFERENCES

1. Ready.gov. (n.d.). *Build a kit*. Retrieved from https://www.ready.gov/build-a-kit.
2. Ready.gov. (n.d.). *Basic disaster supplies kit*. Retrieved from https://www.ready.gov/food.

COMMUNITY HEALTH SURVEY, *VOICEKENT*: WORK, BENEFITS, AND HEALTH INSURANCE

OVERVIEW: WORK, BENEFITS, AND HEALTH INSURANCE

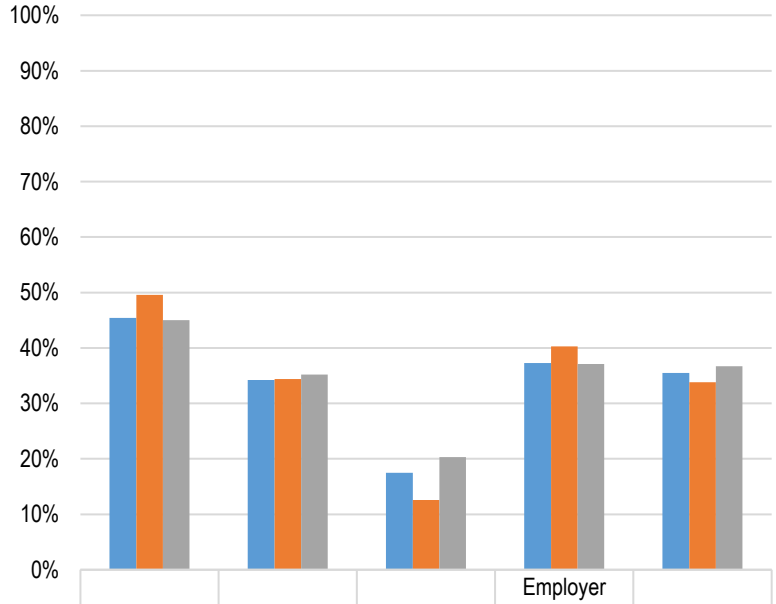
Employment Status

The correlation between health and employment is well-established, though the causal relationship is complicated. Researchers have empirically documented that employment leads to better health[1]. Work can lead to better health through two mechanisms – financial and psychological benefits. Well-paying work provides individuals with financial means to meet basic needs and often is accompanied by employer-provided health insurance. Employment is also associated with key characteristics of mental well-being, like self-esteem, self-worth, purpose, and identity[1].

Employer-Provided Benefits

Workplace benefits are an important part of balancing work, family, and medical needs. Benefits like paid leave can help employees meet their personal and family care needs, yet there is no federal requirement for paid leave or sick days[2]. Currently, only 5 states and the District of Columbia (DC) have enacted laws that offer paid family leave that is administered through disability programs[2]. Eight states, the DC, 28 cities, and 2 counties have enacted laws requiring paid sick time for eligible employees. Paid parental leave benefits vary based on size and type of organization by which an individual is employed[2].

Figure 1. Percent of Respondents with Benefits through Employer by Gender, 2017



	Paid Vacation	Paid Sick Leave	Paid Maternity/Paternity Leave	Employer Contributions to a Retirement Plan	None
Total	45.4%	34.2%	17.5%	37.3%	35.5%
Male	49.6%	34.4%	12.6%	40.3%	33.8%
Female	45.0%	35.2%	20.3%	37.1%	36.7%

Table 1. Community Health Survey Data Work, Benefits, and Health Insurance

Indicator	Percent
Employment Status	
Not Currently Working	10.9%
Unable to Work	5.4%
Employed Part-Time	18.3%
Employed Full-Time	40.4%
Homemaker or Stay-At-Home Parent	5.7%
Retired	14.5%
Benefits Through Employer	
Paid Vacation	45.4%
Paid Sick Leave	34.2%
Paid Maternity/Paternity Leave	17.5%
Employer Contributions to a Retirement Plan	37.3%
None	35.5%
Health Insurance Coverage	
Self-Paid	3.6%
Employer Provided	29.6%
Spouse or Parent-Provided	19.3%
Health Insurance through Marketplace	7.3%
Healthy Michigan Plan	3.0%
Medicaid	23.3%
Medicare	17.8%
Veteran's Administration TRICARE	1.1%
No Insurance (Cash)	7.6%
Government Benefits	
Childcare Assistance	1.6%
Cash Assistance	1.7%
Food Assistance	21.2%
TANF	0.9%
State Emergency Relief	1.4%
Social Security	19.4%
WIC	9.3%
HUD Assistance	3.6%
MSHDA Assistance	1.2%

Health Insurance

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.

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[4]. 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.

Government-Provided Benefits

Government-provided benefits provide assistance to those individuals with demonstrated need for many different services and basic needs. For example, these programs help individuals afford or access housing, childcare, food for their families, and more.

Table 2. Community Health Survey Data
Health Insurance in the Past Year

	No Insurance	Health Insurance (Self-Paid)	Health Insurance Through Employer	Health Insurance Through Parent or Spouse	Health Insurance Through Marketplace	Healthy Michigan Plan	Medicaid	Medicare	Veteran's Admin., TRICARE
Total	**7.6%**	**3.6%**	**29.6%**	**19.3%**	**7.3%**	**3.0%**	**23.3%**	**17.8%**	**1.1%**
Age									
18 – 24 Years	10.3%	1.0%	11.0%	49.5%	5.7%	2.5%	21.5%	2.8%	0.4%
25 – 34 Years	8.5%	2.5%	40.0%	18.9%	9.6%	3.9%	26.3%	2.7%	0.7%
35 – 44 Years	7.5%	3.3%	40.4%	19.3%	7.1%	2.9%	23.6%	5.9%	0.5%
45 – 54 Years	8.3%	2.1%	37.0%	14.7%	8.1%	3.1%	25.9%	11.1%	0.8%
55 – 64 Years	5.2%	3.3%	37.5%	11.7%	9.1%	4.2%	21.6%	20.5%	1.5%
65 – 74 Years	4.6%	7.4%	13.0%	4.9%	3.9%	1.6%	22.2%	72.8%	3.1%
75+ Years	3.2%	17.0%	12.4%	2.5%	2.5%	0.8%	22.4%	75.1%	2.1%
Gender									
Male	11.2%	4.6%	32.5%	14.2%	8.0%	3.0%	16.7%	19.8%	2.5%
Female	5.8%	3.4%	29.2%	21.9%	7.1%	3.0%	26.8%	17.4%	0.5%
Race									
White	4.8%	4.4%	34.6%	25.8%	7.5%	2.7%	17.6%	18.2%	1.2%
Black or African American	8.5%	2.1%	23.1%	5.9%	7.5%	2.6%	38.7%	22.8%	0.9%
Asian	7.7%	1.3%	32.5%	26.0%	7.8%	1.3%	7.8%	6.5%	2.6%
Hispanic or Latino/a	23.2%	2.0%	20.4%	8.7%	5.8%	3.4%	31.5%	9.9%	0.0%
Multi-Racial	9.0%	5.2%	22.6%	16.3%	7.7%	6.3%	32.7%	17.2%	1.4%
Education									
Less Than High School	20.3%	3.4%	5.6%	5.6%	5.6%	5.2%	44.8%	22.5%	2.2%
High School Diploma or GED	14.1%	3.0%	13.9%	11.4%	6.8%	3.1%	39.4%	22.8%	3.1%
Some College	6.9%	3.6%	21.9%	21.8%	7.4%	4.1%	29.2%	22.0%	1.1%
Bachelor's Degree or Higher	3.0%	4.3%	50.8%	26.0%	8.2%	1.9%	7.6%	11.8%	2.8%
Household Income									
Less Than $15,000	10.8%	3.0%	5.7%	8.5%	7.7%	5.4%	49.6%	35.8%	0.8%
$15,000 to $24,999	11.5%	4.2%	13.8%	10.8%	8.0%	4.0%	37.3%	31.0%	2.0%
$25,000 to $34,999	11.1%	5.4%	31.2%	15.8%	9.0%	4.3%	25.5%	14.9%	1.4%
$35,000 to $49,999	4.2%	4.6%	44.7%	23.0%	11.5%	3.1%	14.2%	12.5%	1.0%
$50,000 or more	4.4%	3.2%	44.5%	28.3%	6.6%	1.9%	13.0%	9.5%	0.9%

*Survey respondents selected all health insurances carried in the past year, so percentages across categories sum to more than 100%

SURVEY SUMMARY

Nearly 60% of *VoiceKent* respondents reported either full-time (40.4%) or part-time (18.3%) employment [Table 1]. Of those employed and eligible for employer-provided benefits, 45.4% reported having paid vacation, 34.2% reported having paid sick leave, and nearly 40% reported having an employer who contributes to a retirement plan. The distribution of employer-provided benefits was very similar between males and females, with slightly more females reporting paid parental leave than males.

Most *VoiceKent* respondents reported health insurance coverage through their employer (29.6%) or Medicaid (23.3%) [Table 2]. More whites (34.6%) and Asians (32.5%) reported having health insurance through their employer than other racial and ethnic groups and were also less likely than other racial and ethnic groups to have Medicaid as their primary method of healthcare payment. 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. Reporting no health insurance in the past year was more common among younger age groups, males, Hispanic/Latinos, and lower educational attainment and annual household income.

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COMMUNITY HEALTH SURVEY, *VOICEKENT*: HOUSING AND HOUSEHOLD

OVERVIEW: HOUSING AND HOUSEHOLD

Home Ownership

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.

Homeownership allows households to accumulate wealth and social status, and is the basis for several social, economic, family and civic outcomes[1]. Homeownership is correlated with improved educational performance of children, higher participation in civic and volunteer activities, and improved healthcare outcomes, crime rates, and lessened welfare dependency[1].

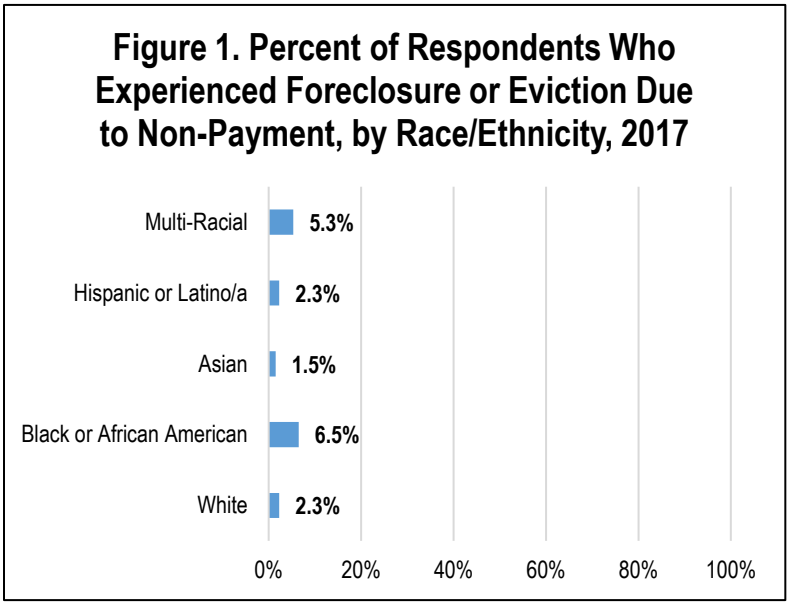
Healthy Housing

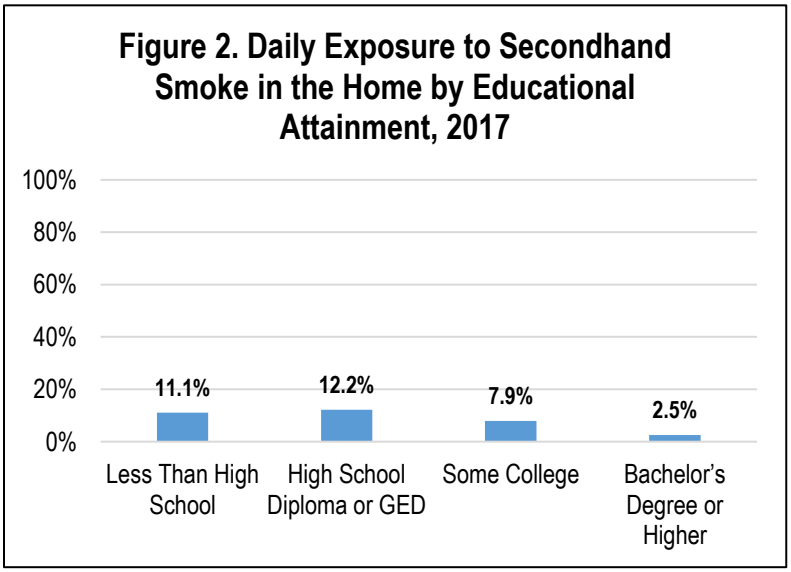
If a home does not meet safety and sanitary standards, it can cause great detriment to the health of those who dwell within it. Currently in the United States, there are millions of homes that have moderate to severe physical housing problems. Some common housing issues, include secondhand smoke exposure, lead contamination, pest infestation, mold, and carbon monoxide.

Each of these housing issues are important to health and wellbeing. People who reside in homes afflicted with these types of housing issues (and others) are exposed to several health conditions including unintentional injuries, respiratory illness, asthma, lead poisoning, and cancer[2].

Table 1. Community Health Survey Data
Housing and Household

Indicator	Percent
Home Ownership Status	
Rent	36.2%
Own	46.3%
Living with Someone, Not Paying Rent	12.0%
Homeless	3.5%
Experienced Foreclosure or Eviction for Non-Payment	
Total	3.3%





SURVEY SUMMARY

Homeownership

Among *VoiceKent* respondents, 46% reported owning their home. Nearly 50% reported renting or living with someone without paying rent, while 3.5% indicated they were homeless. More than 3% of respondents reported experiencing foreclosure or eviction from their homes due to non-payment. Foreclosure and eviction were most commonly reported among those aged 25 to 54 years (13.4%), African Americans (6.5%) [Figure 1], those with less than a bachelor's degree (13.6%), and those making $35,000 or less per year (15.2%).

Secondhand Smoke

Nearly nine in ten *VoiceKent* respondents reported that they never allow secondhand smoke to enter their home. Daily exposure to secondhand smoke in the home was reported more frequently among those persons aged 45 to 64 years, those with a high school diploma or less, and those with a household income of less than $15,000. Daily exposure to secondhand smoke in the home was also reported more frequently among multi-racial individuals and African Americans [Figure 2]. Males were more likely than females to report daily secondhand smoke exposure in the home.

Carbon Monoxide

Nearly two-thirds of *VoiceKent* respondents reported having a working carbon monoxide detector in their home [Table 2]. Younger age groups were more likely to report having a working carbon monoxide detector, as well as those with a bachelor's degree or higher, and those with a household income of $50,000 or more. Hispanic/Latinos, Asians, and whites were more likely than other racial or ethnic groups to report having a working detector.

Pest Infestation

About two in ten respondents reported having signs of mice, rats, and/or rodents in their home within the last 12 months [Table 3]. Asians were less likely than other groups to report signs of rodents. Individuals with lower educational attainment and lesser annual household income were more likely to report signs of rodents in the last 12 months.

Just over 6% of respondents reported signs of cockroaches in their home in the last 12 months [Table 3]. Those 45-54 years of age, Hispanic/Latinos, those with less than a high school education, and those with a household income of less than $25,000 were more likely to report signs of cockroaches than other groups.

Table 2. Community Health Survey Data
Working Carbon Monoxide Detector

Total	**65.5%**
Age	
18 – 24 Years	71.2%
25 – 34 Years	68.7%
35 – 44 Years	68.9%
45 – 54 Years	63.6%
55 – 64 Years	59.1%
65 – 74 Years	59.5%
75+ Years	57.8%
Gender	
Male	65.9%
Female	65.4%
Race	
White	67.3%
Black or African American	61.5%
Asian	68.3%
Hispanic or Latino/a	69.1%
Multi-Racial	58.0%
Education	
Less Than High School	57.5%
High School Diploma or GED	59.9%
Some College	62.8%
Bachelor's Degree or Higher	70.4%
Household Income	
Less Than $15,000	52.4%
$15,000 to $24,999	52.9%
$25,000 to $34,999	64.0%
$35,000 to $49,999	67.6%
$50,000 or more	73.0%

Table 3. Community Health Survey Data
Pest Infestation

	Rodent	Cockroach
Total	**20.2%**	**6.4%**
Age		
18 – 24 Years	17.1%	5.9%
25 – 34 Years	20.5%	5.2%
35 – 44 Years	21.7%	5.5%
45 – 54 Years	22.7%	9.2%
55 – 64 Years	23.8%	6.7%
65 – 74 Years	15.6%	4.8%
75+ Years	15.2%	6.7%
Gender		
Male	20.9%	7.0%
Female	19.7%	6.0%
Race		
White	19.3%	3.2%
Black or African American	21.6%	10.8%
Asian	13.8%	6.3%
Hispanic or Latino/a	23.0%	18.8%
Multi-Racial	22.2%	8.9%
Education		
Less Than High School	27.8%	17.4%
High School Diploma or GED	21.4%	9.8%
Some College	20.7%	7.8%
Bachelor's Degree or Higher	18.3%	2.2%
Household Income		
Less Than $15,000	25.1%	12.8%
$15,000 to $24,999	23.0%	9.8%
$25,000 to $34,999	20.8%	7.4%
$35,000 to $49,999	20.3%	4.8%
$50,000 or more	18.6%	3.8%

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COMMUNITY HEALTH SURVEY, *VOICEKENT*: WATER AND SEPTIC SYSTEMS

OVERVIEW: WATER AND SEPTIC SYSTEMS

Over 151,000 public water systems provide drinking water to most Americans, while about 10% of people in the United States rely on private wells for drinking water[1]. Public water systems are regulated by the Safe Drinking Water Act (SWDA) of 1974, which ensures these water supplies are meeting standards set by the US Environmental Protection Agency. Private wells are not regulated under the SWDA, so persons relying on wells for drinking water are responsible for taking precautions, like regular testing, to ensure their drinking water is safe[1].

Table 1. Community Health Survey Data
Origin of Home Drinking Water

	Private Water Well	City Water	Store
Total	10.7%	65.8%	19.0%

Table 2. Community Health Survey Data
Last Time Drinking Water Tested

	One Year Ago or Less	Between 1-3 Years Ago	More Than 3 Years Ago	Never
Total	24.4%	12.4%	11.9%	51.2%
Private Well	30.4%	24.2%	32.1%	13.3%

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[2]. 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.

Table 3. Community Health Survey Data
Septic Systems

	Home Has Septic System	Age of Septic System			
		Less than 10 Years	10-19 Years	20-29 Years	30 Years or Older
Total	16.4%	24.0%	30.6%	20.1%	25.2%

SURVEY SUMMARY

One in ten survey respondents reported having a private water well (10.7%). Two-thirds of respondents reported being on city water (66%). Asians (71%), whites (70%), and multi-racial individuals (68%) were more likely than African Americans (60%) and Hispanic/Latinos (60%) to use city water as a source of drinking water. Those with a bachelor's degree or higher (75%) were more likely to report using city water as drinking water than those with some college (66%), a high school diploma (60%), and those with less than a high school education (59%). Nearly 20% of respondents reported using store-bought water as their drinking water at home [Table 1]. African Americans (31%), Hispanic/Latinos (27%), and multi-racial individuals (23%) were more likely than whites (15%) and Asians (14%) to buy water from the store.

While one in four respondents reported having their drinking water tested one year ago or less, more than one-half of respondents reported never having their drinking water tested [Table 2]. The likelihood of never having the drinking water tested appeared equally likely across most population subgroups, although Hispanic/Latinos, African Americans, those with less than a high school education, and those with a household income of less than $35,000 were most likely to have never tested their water. Those with private water wells appeared to report more having their water tested more frequently than the population as a whole, with more than 30% having their water tested in the past year, 24.2% having their water tested between one and three years ago, and 32.1% having their water tested more than 3 years ago. [Table 2]

Approximately one in six *VoiceKent* respondents report having a septic system (16.4%). Most of these systems are less than 20 years old (54.6%), and one-quarter of them are 30 years or older.

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COMMUNITY HEALTH SURVEY, *VOICEKENT*: SOCIAL COHESION AND BELONGING

OVERVIEW: SOCIAL COHESION AND BELONGING

The neighborhood or community social environment has been identified as an important factor in peoples' well-being[1]. A socially cohesive society is one where all groups have a sense of belonging, participation, inclusion, recognition, and legitimacy[2].

When individuals do not feel like they belong, they can experience social isolation. There are documented adverse health effects associated with social isolation, such as depression, poor sleep quality, impaired function, accelerated cognitive decline, unfavorable cardiovascular function, impaired immunity, and earlier mortality[3].

SURVEY SUMMARY

Slightly more than one-quarter (27%) of *VoiceKent* respondents indicated they perceive they "fit in" completely in their neighborhood or community, while 11% reported that they do not "fit in" [Figure 1].

Older adults (55 years and older) were more likely to report that they completely "fit in" in their neighborhoods or communities when compared with younger age groups [Table 1]. There was not a significant difference between genders recorded.

When considering race and ethnicity, Hispanic/Latino, Asian, African American, and multi-racial individuals were more likely to report that they do not "fit in" in their neighborhoods or communities when compared with whites [Figure 2]. Sense of belonging increased as income increased among survey respondents, with more than 30% of people making $50,000 or more reporting they completely "fit in" within their communities [Figure 3].

Figure 1. Extent to Which Respondents Perceive they "Fit In" in their Communities, 2017

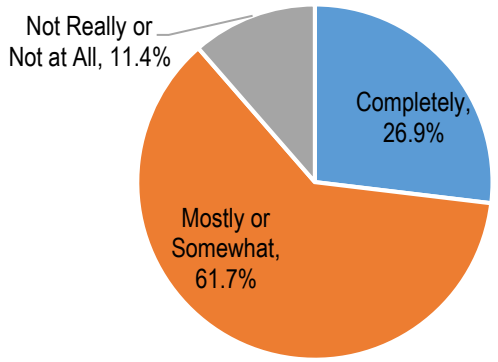

Figure 2. Extent to Which Respondents Perceive they "Fit In" in their Communities by Race/Ethnicity, 2017

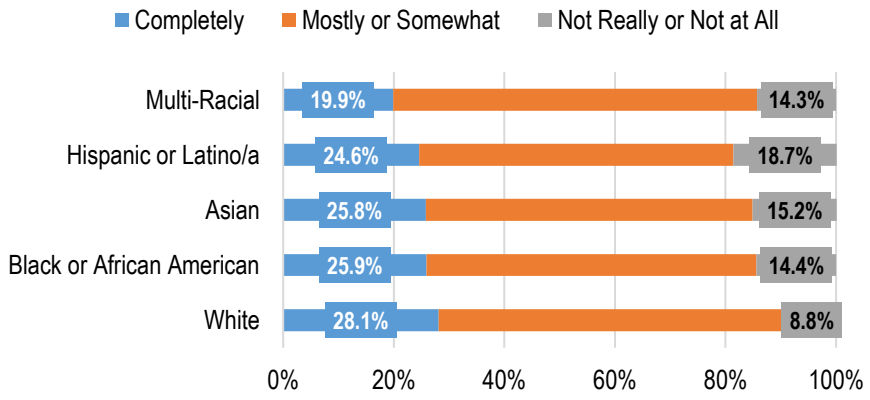

Figure 3. Extent to Which Respondents Perceive they "Fit In" in their Communities by Income, 2017

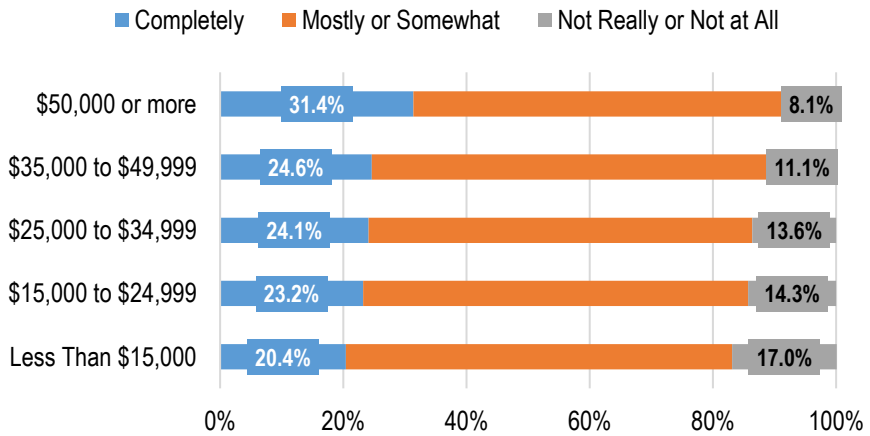

Table 1. Community Health Survey Data How Much Do You "Fit In" in Your Neighborhood or Community?			
	Completely	Mostly or Somewhat	Not Really or Not at All
Total	**26.9%**	**61.7%**	**11.4%**
Age			
18 – 24 Years	20.7%	65.5%	13.8%
25 – 34 Years	21.1%	67.5%	11.5%
35 – 44 Years	25.2%	62.3%	12.4%
45 – 54 Years	28.6%	60.3%	11.1%
55 – 64 Years	33.7%	55.4%	10.9%
65 – 74 Years	34.5%	56.9%	8.6%
75+ Years	34.5%	58.5%	7.0%
Gender			
Male	27.9%	60.5%	11.6%
Female	26.5%	62.3%	11.2%
Race			
White	28.1%	63.1%	8.8%
Black or African American	25.9%	59.7%	14.4%
Asian	25.8%	59.1%	15.2%
Hispanic or Latino/a	24.6%	56.8%	18.7%
Multi-Racial	19.9%	65.8%	14.3%
Education			
Less Than High School	28.0%	55.3%	16.7%
High School Diploma or GED	26.5%	57.5%	16.0%
Some College	25.1%	61.8%	13.1%
Bachelor's Degree or Higher	27.9%	65.2%	6.9%
Household Income			
Less Than $15,000	20.4%	62.7%	17.0%
$15,000 to $24,999	23.2%	62.5%	14.3%
$25,000 to $34,999	24.1%	62.3%	13.6%
$35,000 to $49,999	24.6%	64.3%	11.1%
$50,000 or more	31.4%	60.5%	8.1%

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COMMUNITY HEALTH SURVEY, *VOICEKENT*: PERCEIVED COMMUNITY SAFETY

OVERVIEW: PERCEIVED COMMUNITY SAFETY

Communities cannot thrive or enjoy good health unless they are safe. Violence and fear of violence increase the risk of poor health outcomes and undermine community supports and conditions that would otherwise promote health and wellbeing[1]. Circumstances that give rise to violence feed the cycle of poor community health, leading to long-term health consequences like injury, disability, mental health problems, substance use, asthma, and chronic illness[1].

SURVEY SUMMARY

Three in four *VoiceKent* respondents reported that they felt their communities were very or somewhat safe (75%). However, among the 13% who reported their communities were somewhat or very unsafe, there were notable disparities [Table 1].

African Americans (22%) and Hispanic/Latinos (24%) were approximately 2.5 times more likely to report that their communities were somewhat or very unsafe when compared with whites (9%) and nearly four times more likely than Asians (6%). Persons with lower educational attainment were more likely to perceive their communities to be somewhat or very unsafe when compared to people with a bachelor's degree or higher [Figure 2].

Disparities across income levels were also reported. Individuals making less than $15,000 per year were more than twice as likely to report their community as somewhat or very unsafe when compared to individuals who make more than $50,000 per year [Figure 3].

Figure 1. Perceived Community Safety by Race/Ethnicity, 2017

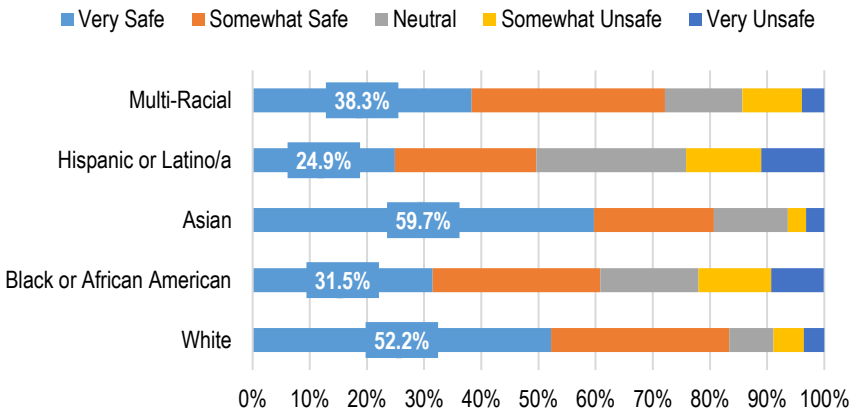

Figure 2. Perceived Community Safety by Educational Attainment, 2017

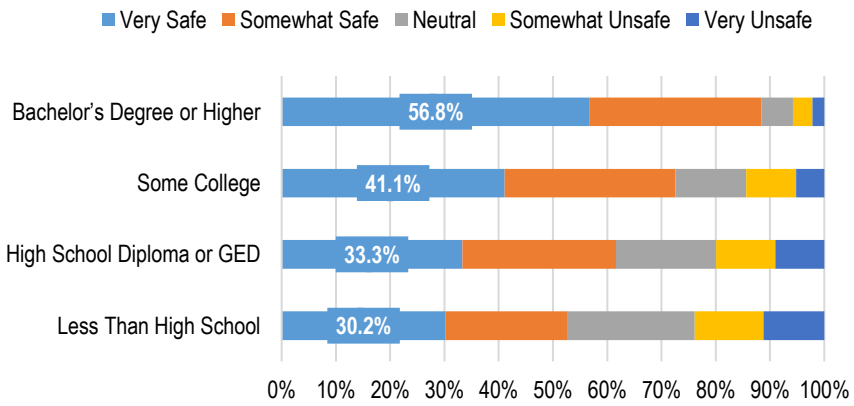

Figure 3. Perceived Community Safety by Annual Household Income, 2017

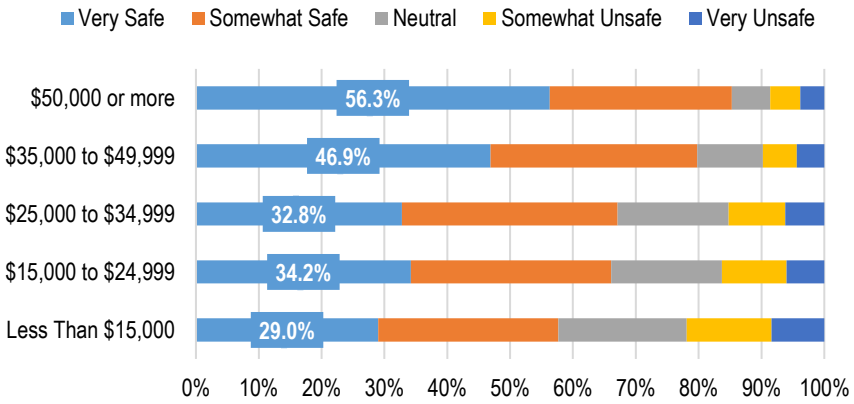

Table 1. Community Health Survey Data How Safe Do You Feel in Your Neighborhood or Community?					
	Very Safe	Somewhat Safe	Neutral	Somewhat Unsafe	Very Unsafe
Total	**45.1%**	**30.2%**	**11.7%**	**7.6%**	**5.3%**
Age					
18 – 24 Years	40.2%	33.1%	14.0%	7.8%	5.0%
25 – 34 Years	43.1%	32.5%	13.8%	6.9%	3.8%
35 – 44 Years	49.6%	26.9%	11.3%	7.5%	4.7%
45 – 54 Years	43.8%	30.3%	11.7%	8.1%	6.1%
55 – 64 Years	47.9%	28.9%	8.4%	8.6%	6.1%
65 – 74 Years	48.3%	29.1%	9.5%	7.3%	5.7%
75+ Years	47.3%	24.6%	9.8%	8.5%	9.8%
Gender					
Male	46.2%	28.7%	12.7%	7.8%	4.7%
Female	44.8%	31.0%	11.2%	7.4%	5.5%
Race					
White	52.2%	31.2%	7.7%	5.3%	3.6%
Black or African American	31.5%	29.3%	17.2%	12.7%	9.2%
Asian	59.7%	21.0%	12.9%	3.2%	3.2%
Hispanic or Latino/a	24.9%	24.7%	26.2%	13.2%	11.0%
Multi-Racial	38.3%	33.8%	13.6%	10.4%	3.9%
Education					
Less Than High School	30.2%	22.4%	23.5%	12.7%	11.2%
High School Diploma or GED	33.3%	28.3%	18.5%	10.9%	9.0%
Some College	41.1%	31.5%	13.0%	9.2%	5.2%
Bachelor's Degree or Higher	56.8%	31.6%	5.8%	3.6%	2.2%
Household Income					
Less Than $15,000	29.0%	28.7%	20.4%	13.5%	8.4%
$15,000 to $24,999	34.2%	31.9%	17.6%	10.3%	6.0%
$25,000 to $34,999	32.8%	34.3%	17.7%	9.0%	6.2%
$35,000 to $49,999	46.9%	32.9%	10.4%	5.4%	4.4%
$50,000 or more	56.3%	29.0%	6.1%	4.8%	3.8%

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COMMUNITY HEALTH SURVEY, *VOICEKENT*: RACISM

OVERVIEW: RACISM

Racism structures opportunity and assigns value based on how a person looks. The result of this is conditions that unfairly create advantages for some and disadvantages for others. Racism influences our nation, communities, and neighborhoods by preventing some people from the opportunity to achieve their highest level of health[1].

Racism drives social determinants of health, like housing, education, and employment and creates a significant barrier to achieving equity[1]. Researchers have found evidence that while big experiences of discrimination certainly have an impact on health outcomes, smaller day-to-day indignities, like being treated with less courtesy and respect than others, can also affect health in a negative way[2].

Figure 1. Perception of Racism as a Problem in..., by Race/Ethnicity, 2017

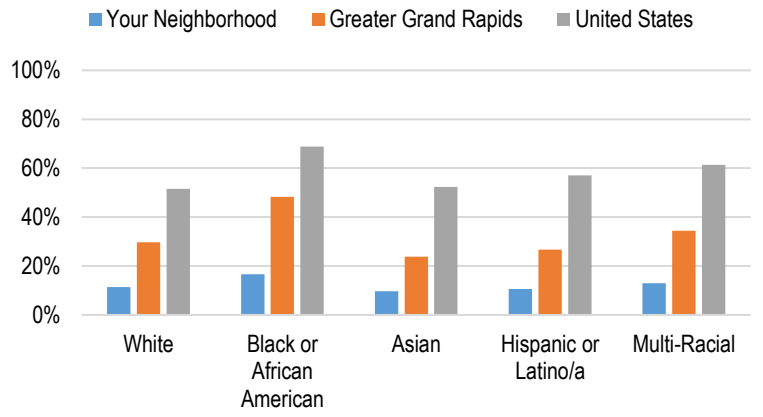

Table 1. Community Health Survey Data
Racism is Very Much a Problem in…

	Your Neighborhood	Greater Grand Rapids	United States
Total	**12.4%**	**32.9%**	**55.8%**
Age			
18 – 24 Years	11.3%	24.1%	54.8%
25 – 34 Years	13.6%	34.9%	62.3%
35 – 44 Years	15.0%	36.6%	59.0%
45 – 54 Years	12.4%	35.0%	53.3%
55 – 64 Years	12.4%	36.0%	52.2%
65 – 74 Years	11.2%	32.8%	54.1%
75+ Years	5.7%	22.9%	38.7%
Gender			
Male	10.9%	27.3%	48.8%
Female	13.0%	35.3%	58.7%
Race			
White	11.4%	29.7%	51.6%
Black or African American	16.6%	48.3%	68.8%
Asian	9.7%	23.8%	52.4%
Hispanic or Latino/a	10.6%	26.7%	57.1%
Multi-Racial	12.9%	34.4%	61.4%
Education			
Less Than High School	10.0%	27.8%	43.8%
High School Diploma or GED	10.6%	24.7%	46.1%
Some College	11.6%	28.5%	54.4%
Bachelor's Degree or Higher	13.9%	40.7%	63.2%
Household Income			
Less Than $15,000	15.3%	34.7%	53.6%
$15,000 to $24,999	10.8%	30.6%	52.7%
$25,000 to $34,999	10.3%	32.4%	61.5%
$35,000 to $49,999	11.9%	29.3%	58.1%
$50,000 or more	12.9%	35.2%	56.8%

SURVEY SUMMARY

Overall, about 12% of *VoiceKent* respondents reported that racism is a problem in their neighborhood, compared with nearly 33% for Greater Grand Rapids and 56% for the United States. Females were more likely to perceive racism as a problem across all three geographies when compared with males, as were individuals with a bachelor's degree or higher [Table 1].

Within their own neighborhoods, African Americans (17%) and multi-racial (13%) individuals were most likely to report that racism is very much a problem than other racial and ethnic groups. Similar findings were reported by these racial and ethnic groups when they reported their perception of racism as a problem within Greater Grand Rapids, with almost half of African Americans reporting that racism is very much a problem within the region [Table 1, Figure 1].

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1. American Public Health Association. (2017). *Racism and health.* Retrieved from https://www.apha.org/topics-and-issues/health-equity/racism-and-health.
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OVERVIEW: BASIC NEEDS

Objectively, wellbeing can be measured by determining whether an individual's basic needs for food, shelter, economic security, social relationships, and healthcare are being met[1]. A person's inability to afford having his or her basic needs met can have a negative impact on health and wellbeing.

Table 1. Community Health Survey Data
Inability to Afford Selected Basic Needs

Indicator	Food	Shelter	Utilities	Clothing	Prescriptions	Healthcare	Transportation
Total	**15.2%**	**14.9%**	**16.4%**	**21.2%**	**20.0%**	**22.9%**	**18.3%**
Age							
18 – 24 Years	11.1%	17.5%	16.7%	22.1%	25.4%	28.5%	20.0%
25 – 34 Years	12.6%	13.5%	15.3%	20.5%	18.8%	24.6%	15.8%
35 – 44 Years	17.6%	16.4%	18.6%	23.3%	22.6%	25.9%	18.8%
45 – 54 Years	21.2%	21.3%	23.6%	25.6%	24.3%	25.7%	23.9%
55 – 64 Years	17.9%	13.7%	16.2%	19.4%	17.6%	19.4%	16.8%
65 – 74 Years	12.7%	10.3%	10.9%	18.1%	13.3%	13.4%	16.4%
75+ Years	13.0%	7.3%	10.5%	17.3%	13.7%	14.4%	20.2%
Gender							
Male	15.6%	16.3%	16.8%	18.7%	21.1%	23.1%	17.0%
Female	14.8%	14.2%	16.3%	22.2%	19.4%	22.7%	18.6%
Race							
White	10.6%	10.4%	11.9%	16.9%	15.4%	18.6%	13.6%
Black or African American	22.8%	23.8%	24.1%	27.5%	25.4%	26.5%	28.2%
Asian	14.3%	12.9%	14.5%	19.7%	16.7%	20.6%	11.1%
Hispanic or Latino/a	22.6%	20.2%	24.3%	29.7%	33.6%	36.9%	22.2%
Multi-Racial	22.9%	24.3%	28.1%	31.7%	29.0%	33.0%	30.2%
Education							
Less Than High School	30.2%	24.8%	30.8%	32.4%	29.8%	29.5%	32.1%
High School Diploma or GED	24.7%	24.5%	26.2%	32.4%	28.0%	31.0%	26.8%
Some College	17.9%	18.4%	21.1%	26.9%	25.8%	28.0%	23.6%
Bachelor's Degree or Higher	5.5%	5.7%	5.8%	9.7%	10.0%	13.9%	7.7%
Household Income							
Less Than $15,000	31.5%	27.9%	31.6%	40.1%	30.8%	31.0%	37.3%
$15,000 to $24,999	21.7%	21.5%	24.1%	31.1%	31.0%	33.7%	23.9%
$25,000 to $34,999	15.6%	13.8%	16.7%	27.7%	28.7%	36.2%	21.2%
$35,000 to $49,999	11.4%	11.7%	12.0%	18.7%	18.9%	24.4%	13.2%
$50,000 or more	8.3%	9.5%	9.9%	11.2%	12.0%	13.9%	10.8%

SURVEY SUMMARY

VoiceKent data shows that an inability to afford to meet basic needs is common in Kent County, with at least 15% of survey respondents reporting "not very well" or "not at all" able to afford each category of basic needs [Table 1]. Healthcare appears to be the most difficult to afford (23%) overall, while the second and third most commonly reported categories were clothing (21%) and prescriptions (20%).

As expected, there is a relationship between an ability to afford basic needs and educational attainment and household income; those with higher educational status and higher household incomes reported being better able to afford basic needs than other groups. Whites and Asians were more likely than other races and ethnicities to report being able to afford basic needs. For most categories of

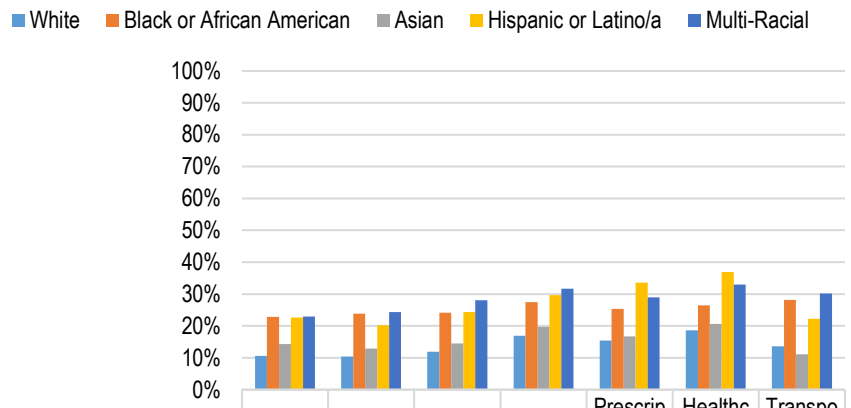
basic needs, individuals aged 45 to 54 years were more likely than other age groups to report a difficulty in affording them. There was not a wide gender disparity present across the basic needs.

Nearly two-thirds of survey respondents reported knowing someone or some organization that could help with basic needs [Table 2]. Those 65 years and older were less likely than other age groups to know of someone who could help, and females were more likely than males to know of someone or some organization that could help with basic needs. Those with higher educational attainment and greater annual household income were more likely than other groups to report knowing someone who could help with basic needs.

Table 2. Community Health Survey Data
Do You Know Anyone That Could Help With Basic Needs?

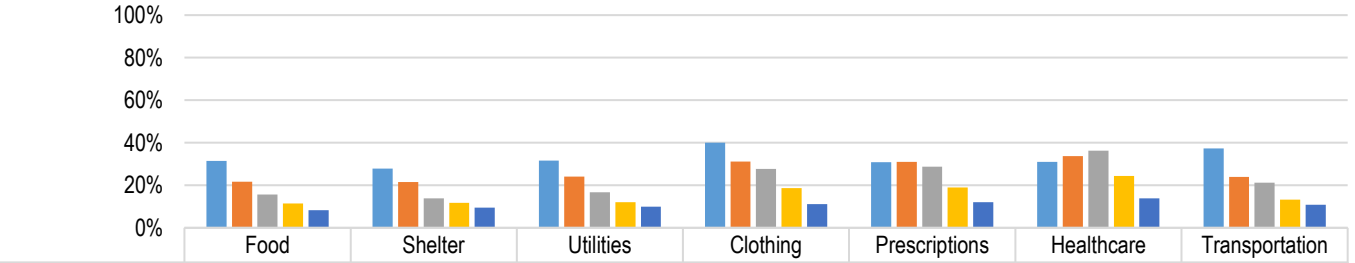
Indicator	Percent
Total	**63.5%**
Age	
18 – 24 Years	62.9%
25 – 34 Years	65.7%
35 – 44 Years	66.4%
45 – 54 Years	63.3%
55 – 64 Years	65.7%
65 – 74 Years	59.6%
75+ Years	51.7%
Gender	
Male	58.8%
Female	65.7%
Race	
White	67.6%
Black or African American	56.2%
Asian	50.8%
Hispanic or Latino/a	52.0%
Multi-Racial	58.6%
Education	
Less Than High School	48.9%
High School Diploma or GED	50.7%
Some College	59.8%
Bachelor's Degree or Higher	74.7%
Household Income	
Less Than $15,000	56.6%
$15,000 to $24,999	57.5%
$25,000 to $34,999	58.0%
$35,000 to $49,999	60.6%
$50,000 or more	70.2%

Figure 1. Inability to Afford Basic Needs, by Race/Ethnicity, 2017



	Food	Shelter	Utilities	Clothing	Prescriptions	Healthcare	Transportation
White	10.6%	10.4%	11.9%	16.9%	15.4%	18.6%	13.6%
Black or African American	22.8%	23.8%	24.1%	27.5%	25.4%	26.5%	28.2%
Asian	14.3%	12.9%	14.5%	19.7%	16.7%	20.6%	11.1%
Hispanic or Latino/a	22.6%	20.2%	24.3%	29.7%	33.6%	36.9%	22.2%
Multi-Racial	22.9%	24.3%	28.1%	31.7%	29.0%	33.0%	30.2%

Figure 2. Inability to Afford Basic Needs, by Annual Household Income, 2017



	Food	Shelter	Utilities	Clothing	Prescriptions	Healthcare	Transportation
Less Than $15,000	31.5%	27.9%	31.6%	40.1%	30.8%	31.0%	37.3%
$15,000 to $24,999	21.7%	21.5%	24.1%	31.1%	31.0%	33.7%	23.9%
$25,000 to $34,999	15.6%	13.8%	16.7%	27.7%	28.7%	36.2%	21.2%
$35,000 to $49,999	11.4%	11.7%	12.0%	18.7%	18.9%	24.4%	13.2%
$50,000 or more	8.3%	9.5%	9.9%	11.2%	12.0%	13.9%	10.8%

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COMMUNITY HEALTH SURVEY, *VOICEKENT*: UTILITIES

OVERVIEW: UTILITIES

Essential utilities that homeowners and renters may be responsible for paying include gas, water, sewer, trash and recycling, and electric. Additional utility bills might include cable, internet, and telephone services[1]. The poorest among us pay often pay more than they can afford for their utility bills and energy assistance programs struggle to meet the demand. Economists estimate that paying 6% of one's income for utilities is "affordable." However, low income individuals often fall into what is referred to as the "Home Energy Affordability Gap", which is when they are paying more than the affordable amount toward utility bills[2]. In Kent County, persons below 50% of the federal poverty level are paying 32.6% of their income on energy costs, with an estimated cost of $2,416 annually[2].

SURVEY SUMMARY

Approximately 7% of all *VoiceKent* respondents reported that their utilities were turned off due to non-payment. Younger and middle-aged individuals, particularly in the age groups 45-54 years (10%), 35-44 years (10%), 25-34 years (9%) and 18-24 years (7%) were more likely to report this happening to them. As shown in Figure 1, African Americans, Hispanic/Latinos and multi-racial individuals were the racial/ethnic groups most affected by utilities being turned off, and lower educational attainment was also associated with higher instances of this occurrence [Figure 2]. Lower income individuals were also more likely to experience having their utilities turned off for non-payment [Figure 3].

REFERENCES

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2. Inside Energy. (2016). *High utility costs force hard decisions on the poor.* Retrieved from http://insideenergy.org/2016/05/08/high-utility-costs-force-hard-decisions-for-the-poor/.

Figure 1. Percent of Respondents Reporting Utilities Turned Off Due to Non-Payment by Race/Ethnicity, 2017

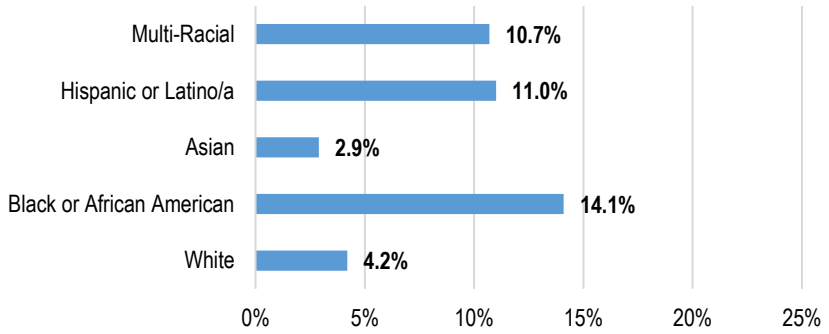


Figure 2. Percent of Respondents Reporting Utilities Turned Off Due to Non-Payment, by Educational Attainment, 2017

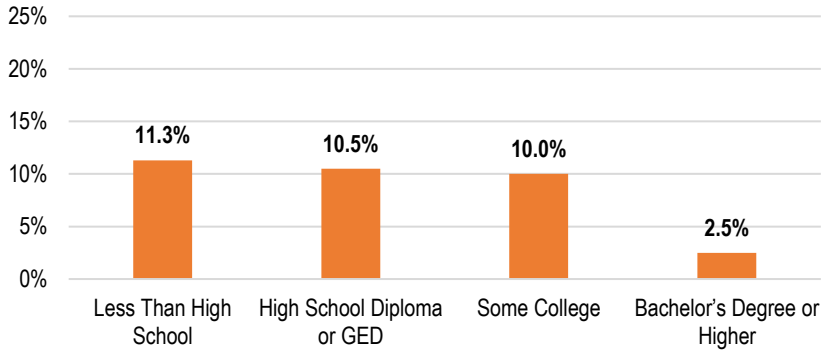
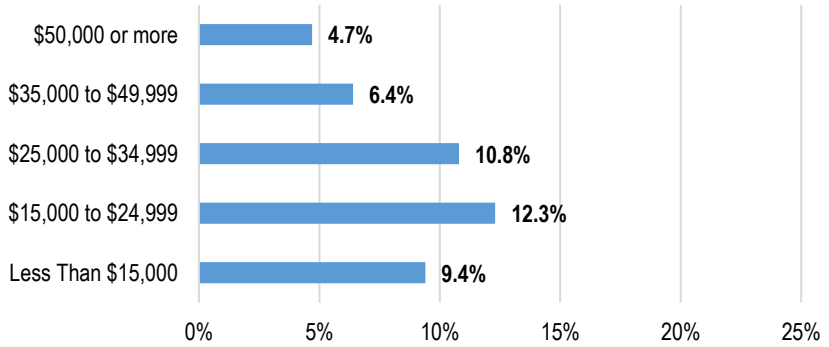


Figure 3. Percent of Respondents Reporting Utilities Turned Off Due to Non-Payment by Annual Household Income, 2017

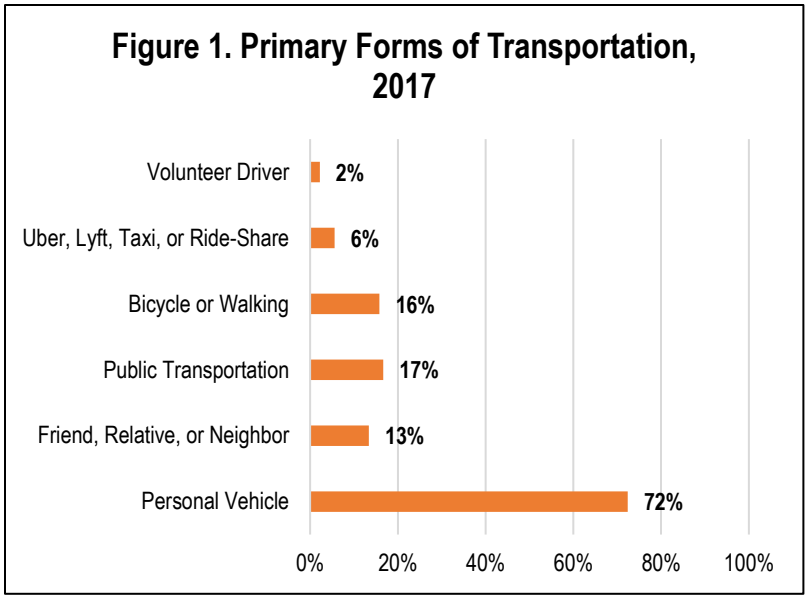


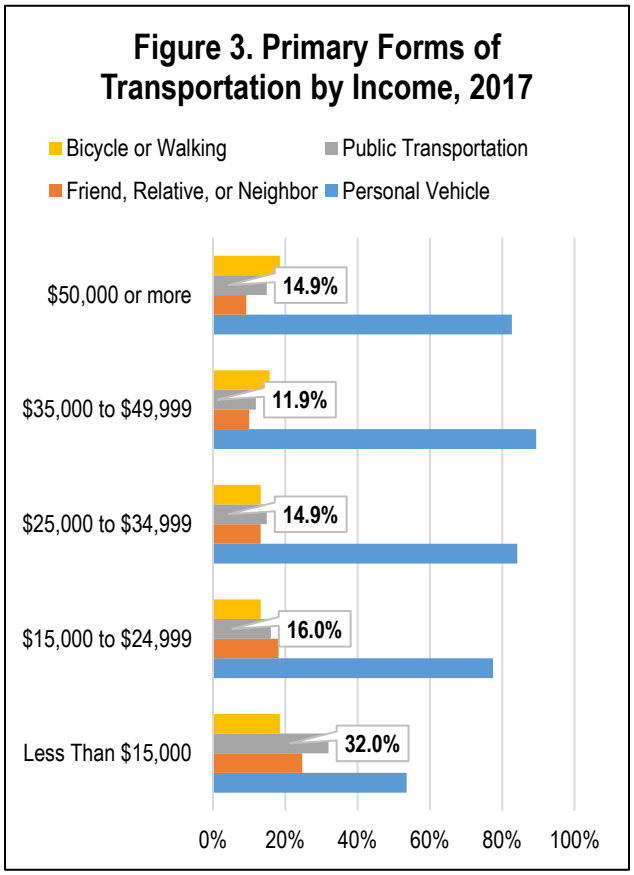
COMMUNITY HEALTH SURVEY, *VOICEKENT*: TRANSPORTATION

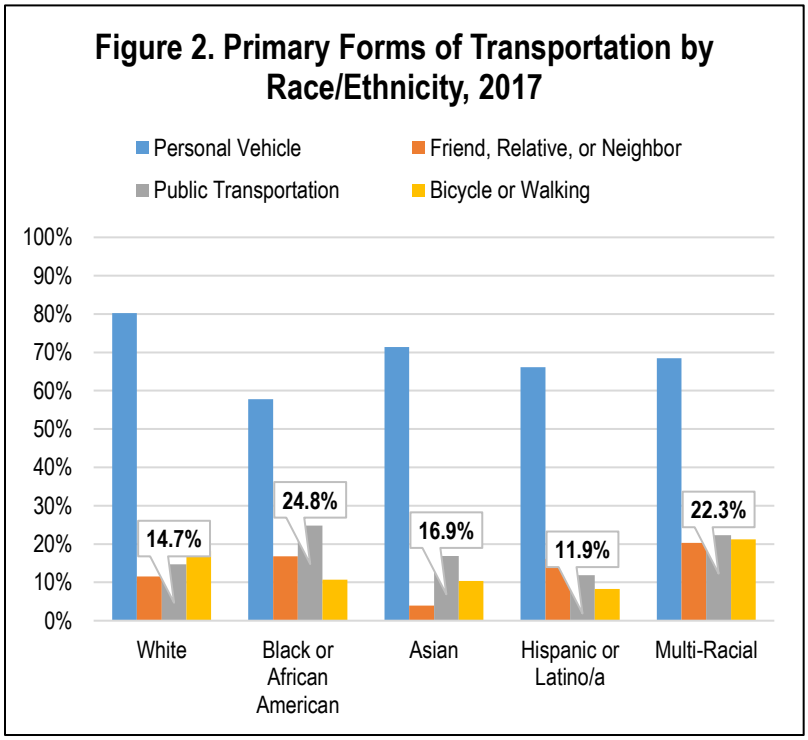
OVERVIEW: TRANSPORTATION

Transportation barriers are often cited as barriers to healthcare access and result in rescheduled or missed appointments, delayed care, and missed or delayed medication use[1]. Research has shown that the effects of transportation barriers disproportionately affect those with lower incomes and the under/uninsured.

Beyond healthcare access, transportation is considered a social determinant of health that affects other aspects of individuals" lives, including how they get to work or school, access to healthy foods and recreation, and other day-to-day things[2].







SURVEY SUMMARY

The most commonly used forms of transportation among *VoiceKent* respondents were personal vehicles (72.4%), public transit (16.7%), and bicycles/walking (15.8%) [Table 1, Figure 1].

Personal vehicles were most commonly reported as the primary form of transportation for people aged 25 to 34 years (81.4%) and 35 to 44 years (80.1%), whites (80.1%), people with a bachelor's degree or higher (89.7%), and people who make $25,000 or more. Public transit was most commonly reported as the primary form of transportation by people aged 18 to 24 years (23.0%), African Americans (24.7%), people with less than a high school education (26.2%), and people making $15,000 or less (32.0%) [Table 1].

Table 1. Community Health Survey Data What Are Your Main Forms of Transportation?						
	Personal Vehicle	Friend, Relative, or Neighbor	Public Transportation	Bicycle or Walking	Uber, Lyft, Taxi, or Ride-Share	Volunteer Driver
Total	**72.4%**	**13.4%**	**16.7%**	**15.8%**	**5.6%**	**2.2%**
Age						
18 – 24 Years	66.9%	20.6%	23.0%	20.1%	9.3%	0.7%
25 – 34 Years	81.4%	10.9%	13.4%	17.4%	8.5%	0.9%
35 – 44 Years	80.1%	8.8%	14.0%	13.6%	5.8%	0.7%
45 – 54 Years	69.2%	12.4%	19.1%	19.1%	3.4%	2.8%
55 – 64 Years	72.0%	7.9%	18.1%	17.1%	3.3%	3.6%
65 – 74 Years	74.1%	15.6%	18.3%	12.6%	2.5%	6.6%
75+ Years	61.0%	33.6%	13.3%	4.1%	2.1%	4.1%
Gender						
Male	70.1%	11.3%	19.6%	22.2%	5.9%	1.3%
Female	75.4%	14.4%	15.7%	13.0%	5.6%	2.6%
Race						
White	80.2%	11.5%	14.7%	18.1%	6.3%	1.4%
Black or African American	57.8%	16.8%	24.8%	10.7%	4.6%	5.8%
Asian	71.4%	3.9%	16.9%	10.4%	3.9%	0.0%
Hispanic or Latino/a	66.1%	16.1%	11.9%	8.3%	4.4%	1.2%
Multi-Racial	68.5%	20.3%	22.3%	21.2%	5.7%	2.6%
Education						
Less Than High School	46.6%	29.9%	26.2%	12.7%	2.8%	6.8%
High School Diploma or GED	58.9%	20.4%	20.5%	13.3%	3.4%	3.3%
Some College	71.2%	15.4%	20.3%	15.0%	6.1%	2.2%
Bachelor's Degree or Higher	89.7%	5.6%	11.0%	19.6%	7.1%	0.7%
Household Income						
Less Than $15,000	53.6%	24.7%	32.0%	18.5%	4.9%	6.6%
$15,000 to $24,999	77.5%	18.2%	16.0%	13.2%	5.2%	3.3%
$25,000 to $34,999	84.2%	13.2%	14.9%	13.2%	7.1%	1.2%
$35,000 to $49,999	89.4%	10.0%	11.9%	15.7%	7.3%	4.0%
$50,000 or more	82.7%	9.2%	14.9%	18.5%	6.3%	6.3%

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COMMUNITY HEALTH SURVEY, *VOICEKENT*: HEALTHY FOOD ACCESS

OVERVIEW: HEALTHY FOOD ACCESS

A lack of access to healthy foods can contribute to poor diets and higher levels of obesity and other diet-related diseases. Food access is about more than just whether there are grocery stores in a community; it also pertains to whether households can afford to purchase healthy foods from these stores[1]. Healthy food retailers, including grocery stores, farmers markets, cooperatives, mobile markets, and others are critical in ensuring a healthy and thriving community[2]. Some key findings from a recent report indicate the following as challenges associated with healthy food access: (1) Accessing healthy food is a challenge for many families, particularly those living in low-income neighborhoods, communities of color, and rural areas; (2) living closer to healthy food retail is associated with better eating habits and decreased risk for obesity and diet-related diseases; and (3) healthy food retail stimulates economic activity[2].

Table 1. Community Health Survey Data
Where Do You Purchase Most of Your Fruits and Vegetables?

	Grocery Store	Veggie Van	Farmers Market	Neighborhood Corner Store	Other
Total	**85.4%**	**0.7%**	**6.9%**	**2.0%**	**5.0%**
Age					
18 – 24 Years	90.4%	0.4%	5.4%	1.6%	2.2%
25 – 34 Years	87.9%	0.4%	6.6%	2.5%	2.6%
35 – 44 Years	86.6%	0.5%	6.8%	1.5%	4.6%
45 – 54 Years	83.9%	1.2%	7.0%	1.7%	6.2%
55 – 64 Years	80.2%	1.2%	9.1%	2.5%	7.0%
65 – 74 Years	81.3%	0.5%	6.8%	1.9%	9.6%
75+ Years	89.5%	0.5%	3.6%	1.4%	5.0%
Gender					
Male	84.0%	0.8%	7.1%	2.4%	5.7%
Female	86.1%	0.6%	6.9%	1.8%	4.5%
Race					
White	86.4%	0.5%	7.1%	1.2%	4.9%
Black or African American	83.1%	1.6%	6.8%	3.4%	5.0%
Asian	93.4%	0.0%	1.6%	0.0%	4.9%
Hispanic or Latino/a	88.4%	0.6%	4.4%	5.2%	1.4%
Multi-Racial	81.2%	0.7%	9.2%	3.1%	5.8%
Education					
Less Than High School	82.8%	2.0%	5.7%	5.7%	3.7%
High School Diploma or GED	85.6%	0.7%	6.4%	3.2%	4.2%
Some College	84.3%	0.5%	7.1%	2.1%	5.9%
Bachelor's Degree or Higher	86.9%	0.5%	7.5%	0.7%	4.5%
Household Income					
Less Than $15,000	80.2%	1.1%	7.5%	3.9%	7.2%
$15,000 to $24,999	85.0%	0.2%	5.6%	2.3%	6.9%
$25,000 to $34,999	86.3%	0.5%	7.1%	2.7%	3.3%
$35,000 to $49,999	89.4%	0.7%	6.7%	1.1%	2.2%
$50,000 or more	86.4%	0.8%	6.9%	1.3%	4.6%

SURVEY SUMMARY

In general, more than 85% of *VoiceKent* respondents reported that they purchase most of their fruits and vegetables at a grocery store. There were no significant differences to report among age groups or between genders. Multi-racial individuals (9.2%), whites (7.1%), and African Americans (6.8%) were most likely among different racial/ethnic groups to purchase produce at farmers markets, while Hispanic/Latinos (5.2%), African Americans (3.4%), and multi-racial (3.1%) individuals were the most likely racial/ethnic groups to purchase produce at a neighborhood corner store.

As education level increased, so did the likelihood that respondents reported purchasing produce at a farmers market. In contrast, lower educational attainment was associated with greater likelihood that respondents purchased produce at a neighborhood corner store. Those making less than $15,000 were also more likely to purchase produce at a neighborhood corner store than other income brackets.

More than 16% of *VoiceKent* respondents indicated that it is challenging to obtain fresh fruits and vegetables within their neighborhoods or communities. These findings are especially apparent when considering certain demographic factors, such as race/ethnicity, educational attainment, and income level.

African Americans and multi-racial individuals were the most likely to report difficulty in obtaining fresh fruits and vegetables in their neighborhoods or communities when compared with whites [Figure 1]. People with less than a high school education or a high school diploma/GED were also more likely than more highly educated individuals to express challenges in obtaining fresh produce within their communities [Figure 2]. Additionally, lower income meant more challenges in obtaining fresh produce within respondents' neighborhood or community. People making less than $15,000 were more than twice as likely as those making $50,000 to report this as an issue.

Figure 1. Respondents Reporting it is Easy to Obtain Fresh Fruits & Vegetables in their Neighborhood or Community, by Race/Ethnicity, 2017

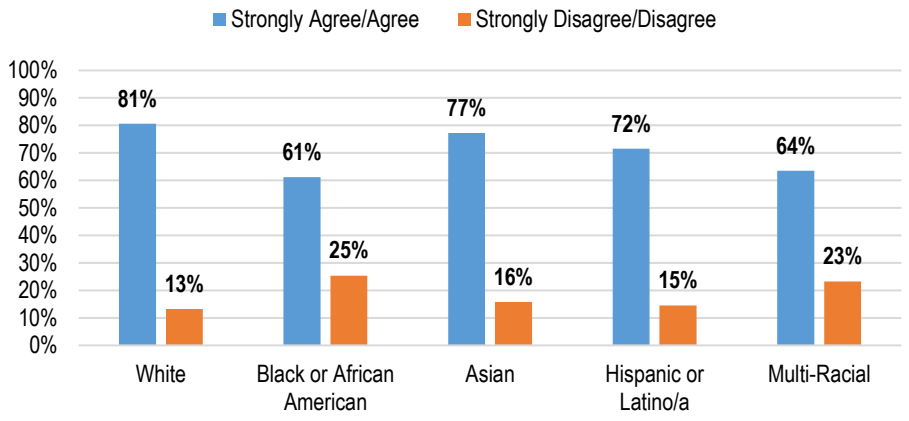


Figure 2. Respondents Reporting it is Easy to Obtain Fresh Fruits & Vegetables in their Neighborhood or Community, by Educational Attainment, 2017

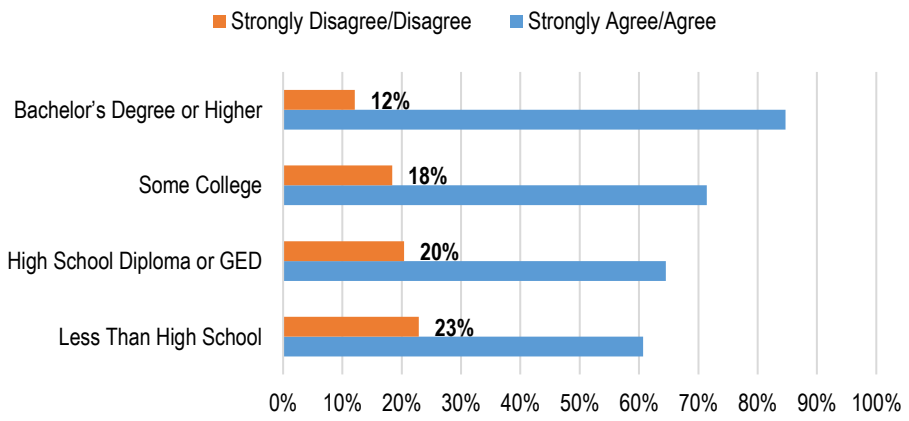
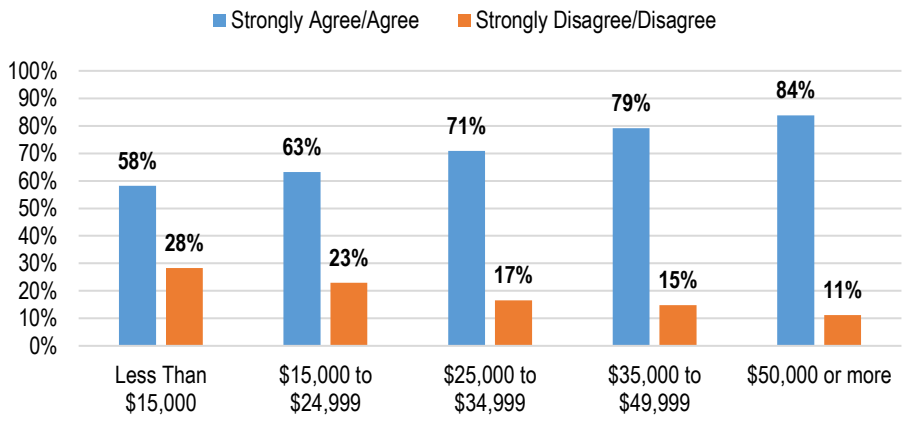


Figure 3. Respondents Reporting it is Easy to Obtain Fresh Fruits & Vegetables in their Neighborhood or Community, by Income, 2017



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COMMUNITY HEALTH SURVEY, *VOICEKENT*: FOOD SECURITY

OVERVIEW: FOOD SECURITY

In the United States, food security means that all people have access at all times to enough food for an active, healthy lifestyle[1].

SURVEY SUMMARY

More than 20% of *VoiceKent* respondents indicated that they were not always able to buy or receive all the healthy food needed for their families. The most significant disparities related to procuring sufficient healthy foods for the family were associated with race/ethnicity, educational attainment and income.

Approximately 30% of African Americans reported that they were unable to procure the necessary amount of healthy food for their family, while 29% of multi-racial individuals and 22% of Hispanic/Latinos reported the same challenge [Figure 1].

Educational attainment was also a factor in an individual's ability to obtain the necessary quantity of healthy food for their family, with more than 30% of those with less than a high school education and/or a high school diploma/GED reporting this issue. This is nearly three times that of persons with a bachelor's degree or higher [Figure 2].

Those with lower annual household income, particularly those making less than $35,000 reported an inability to procure sufficient healthy food for their families [Figure 3].

Almost 13% of *VoiceKent* respondents indicated that in the past 6 months, even though they may have felt hungry, they didn't eat because there wasn't enough money. This was reported most often among African Americans and multi-racial individuals, those with a high school diploma/GED or less, and those who make less than $25,000 [Table 1].

Additionally, more than 18% of *VoiceKent* respondents ran out of food in the past 6 months and couldn't buy more and 14% of adults skipped meals. Similar patterns across demographic categories reported in the paragraph above were recorded regarding these behaviors, as well [Table 1].

Figure 1. Able to Buy or Receive All Healthy Food Needed For Family, by Race/Ethnicity, 2017

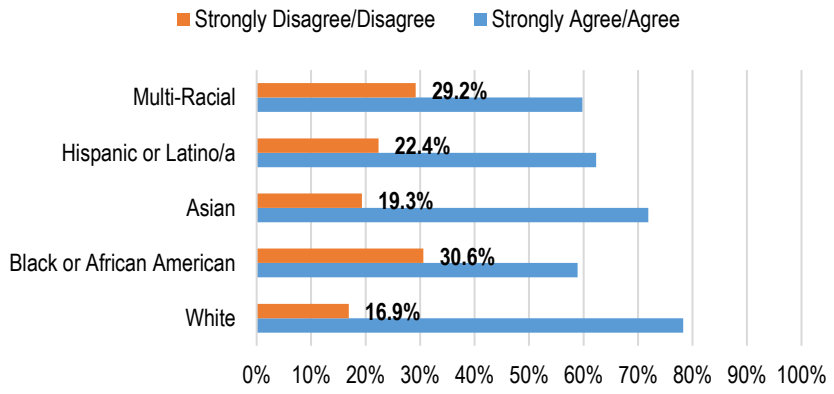


Figure 2. Able to Buy or Receive All Healthy Food Needed For Family, by Educational Attainment, 2017

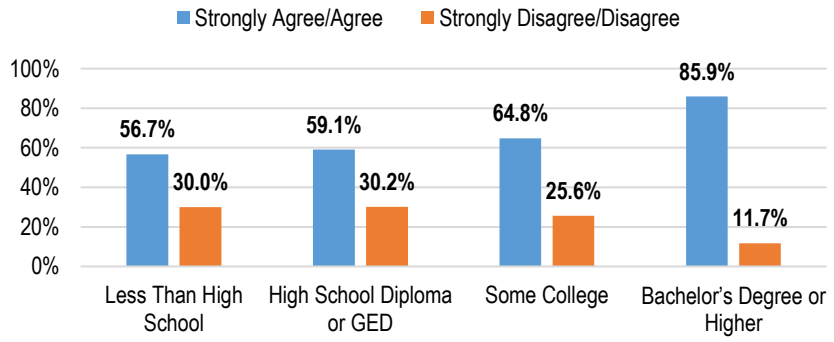


Figure 3. Able to Buy or Receive All Healthy Food Needed For Family, by Income, 2017

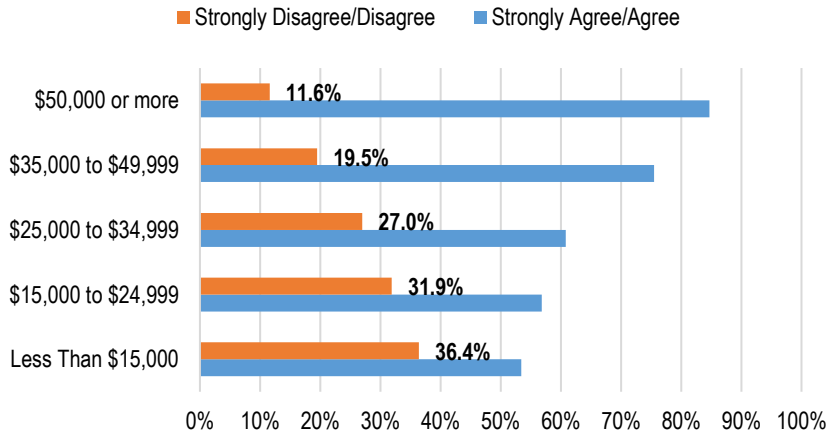


Table 1. Community Health Survey Data Daily, Weekly, or Monthly Food Security in Past 6 Months	Worried Whether Food Would Run Out	Food Didn't Last, Couldn't Buy More	Adults Skipped Meals Because There Wasn't Money	Felt Hungry but Didn't Eat Because There Wasn't Money
Total	**21.3%**	**18.2%**	**14.0%**	**12.8%**
Age				
18 – 24 Years	19.8%	16.6%	10.9%	12.7%
25 – 34 Years	22.4%	16.7%	13.8%	12.0%
35 – 44 Years	22.6%	17.7%	15.4%	14.7%
45 – 54 Years	26.1%	24.3%	19.7%	16.5%
55 – 64 Years	21.5%	20.6%	15.3%	14.8%
65 – 74 Years	16.1%	16.2%	11.4%	8.1%
75+ Years	17.0%	15.1%	10.0%	8.9%
Gender				
Male	19.2%	17.1%	14.0%	14.2%
Female	22.3%	18.6%	14.0%	12.1%
Race				
White	15.4%	12.7%	9.8%	9.1%
Black or African American	35.1%	32.4%	23.9%	22.6%
Asian	18.3%	16.9%	13.3%	8.5%
Hispanic or Latino/a	31.1%	23.9%	18.2%	15.5%
Multi-Racial	32.5%	27.8%	25.0%	21.5%
Education				
Less Than High School	37.4%	33.9%	25.2%	24.9%
High School Diploma or GED	34.4%	30.7%	21.7%	20.5%
Some College	26.9%	23.7%	18.8%	16.5%
Bachelor's Degree or Higher	8.6%	6.2%	5.2%	4.8%
Household Income				
Less Than $15,000	40.7%	37.5%	28.1%	26.0%
$15,000 to $24,999	34.2%	30.5%	25.4%	20.6%
$25,000 to $34,999	27.3%	20.5%	17.5%	14.5%
$35,000 to $49,999	19.1%	12.3%	11.2%	9.3%
$50,000 or more	10.2%	8.9%	6.2%	6.7%

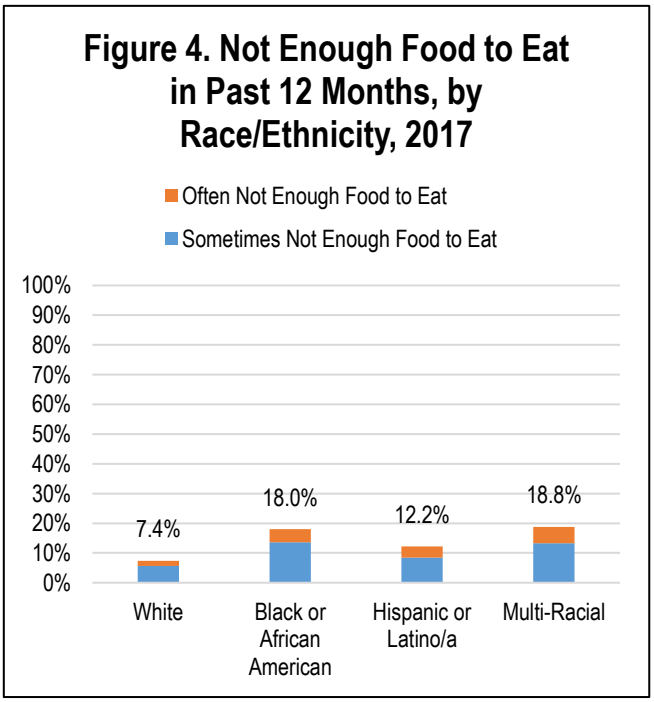


Figure 4. Not Enough Food to Eat in Past 12 Months, by Race/Ethnicity, 2017

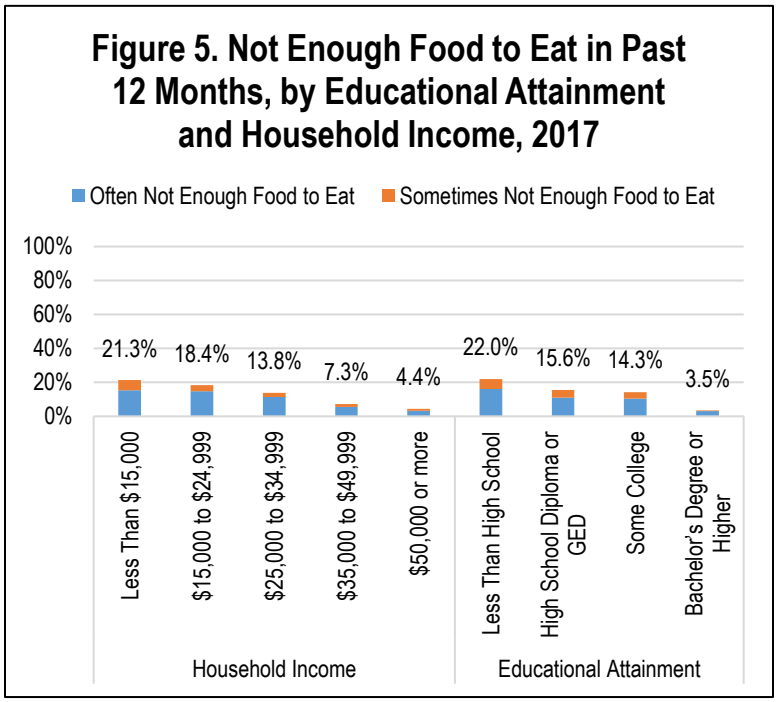


Figure 5. Not Enough Food to Eat in Past 12 Months, by Educational Attainment and Household Income, 2017

Table 2. Community Health Survey Data Agree or Strongly Agree That Family Has Access to Enough Fruits & Vegetables and Children Get Enough Fruits & Vegetables		
	Family Has Access to Enough Fruits & Vegetables	Children Get Enough Fruits & Vegetables
Total	**42.5%**	**40.7%**
Age		
18 – 24 Years	22.0%	18.6%
25 – 34 Years	40.5%	39.3%
35 – 44 Years	51.4%	49.1%
45 – 54 Years	50.7%	46.9%
55 – 64 Years	36.6%	37.5%
65 – 74 Years	29.8%	9.1%
75+ Years	14.3%	23.1%
Gender		
Male	46.6%	46.6%
Female	41.1%	38.6%
Race		
White	53.7%	53.4%
Black or African American	29.0%	21.7%
Hispanic or Latino/a	22.3%	20.8%
Multi-Racial	32.1%	31.6%
Education		
Less Than High School	20.5%	15.0%
High School Diploma or GED	27.5%	23.9%
Some College	33.0%	30.5%
Bachelor's Degree or Higher	64.7%	64.6%
Household Income		
Less Than $15,000	30.9%	20.8%
$15,000 to $24,999	31.1%	23.0%
$25,000 to $34,999	24.2%	25.9%
$35,000 to $49,999	29.9%	30.5%
$50,000 or more	58.5%	58.8%

Table 3. Community Health Survey Data Child(ren) Skipped Meals in the Past 6 Months Because There Was No Money for Food		
	Daily, Weekly, or Monthly	Never
Total	**5.9%**	**94.1%**
Age		
18 – 24 Years	3.8%	96.2%
25 – 34 Years	3.5%	96.5%
35 – 44 Years	5.0%	95.0%
45 – 54 Years	10.8%	89.2%
55 – 64 Years	12.3%	87.7%
65 – 74 Years	4.3%	95.7%
75+ Years	25.0%	75.0%
Gender		
Male	8.6%	91.4%
Female	4.9%	95.1%
Race		
White	2.8%	97.2%
Black or African American	8.9%	91.1%
Hispanic or Latino/a	10.5%	89.5%
Multi-Racial	10.5%	89.5%
Education		
Less Than High School	9.9%	90.1%
High School Diploma or GED	9.1%	90.9%
Some College	5.3%	94.7%
Bachelor's Degree or Higher	3.0%	97.0%
Household Income		
Less Than $15,000	13.0%	87.0%
$15,000 to $24,999	8.4%	91.6%
$25,000 to $34,999	5.1%	94.9%
$35,000 to $49,999	3.1%	96.9%
$50,000 or more	3.9%	96.1%

SURVEY SUMMARY (CONT'D)

Respondents were also asked to provide information about whether their children had ever skipped meals in the past six months due to a lack of money for food. Nearly 95% said that their children never skipped meals, though there were some differences reported across demographics. For example, Hispanic/Latino, multi-racial, and African American parents were more likely to report their children had skipped meals when compared to whites [Table 3]. Parents with an income of $25,000 or less and those with a high school diploma/GED or less were more likely to report their children had skipped meals [Table 3].

Only 42.5% of *VoiceKent* respondents reported that their family has access to enough fruits and vegetables, and only 40.7% said their children had enough access [Table 2]. Young adults (18 to 24 years), older adults (65+ years), were more likely to report lack of access.

REFERENCES

1. United States Department of Agriculture, Economic Research Service. (2017). *Definitions of food security.* Retrieved from https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security/.

COMMUNITY HEALTH SURVEY, *VOICEKENT*: PARKS AND RECREATION

OVERVIEW: PARKS AND RECREATION

Open space is any open piece of land that is undeveloped and is accessible to the public. Open space can include green space, parks, community gardens, school yards, playgrounds, public seating areas, and public plazas[1]. Open spaces provide recreation for residents and boost the beauty and environmental quality of neighborhoods and communities. Green spaces can positively impact physical activity, social and psychological wellbeing, air quality, and noise pollution[2].

One initiative that Kent County has undertaken in recent years is establishing county and city parks and other shared green spaces as tobacco-free. Eliminating secondhand smoke exposure and tobacco use in these areas is an important way to improve public health[3].

SURVEY SUMMARY

More than 65% of *VoiceKent* respondents indicated a preference for tobacco-free parks. Females, Asians, those with some college or a bachelor's degree or higher, and those with a household income of $25,000 or more were most likely to indicate a preference for tobacco-free parks.

Nearly 70% of respondents report visiting a greenspace in Kent County at least monthly [Table 2]. White, multi-racial, and Asian residents are more likely to visit greenspaces when compared with Hispanic/Latinos and African Americans [Figure 2].

Table 1. Community Health Survey Data
Prefer Tobacco-Free Parks

	Yes	No Opinion	No
Total	**65.2%**	**19.7%**	**15.0%**
Age			
18 – 24 Years	65.9%	19.8%	14.3%
25 – 34 Years	68.0%	18.4%	13.7%
35 – 44 Years	70.3%	15.7%	14.0%
45 – 54 Years	62.9%	19.5%	17.6%
55 – 64 Years	62.0%	19.7%	18.3%
65 – 74 Years	61.6%	23.7%	14.7%
75+ Years	57.9%	29.2%	13.0%
Gender			
Male	59.5%	20.6%	19.8%
Female	67.9%	19.4%	12.7%
Race			
White	67.5%	18.9%	13.6%
Black or African American	54.5%	24.3%	21.2%
Asian	80.7%	12.3%	7.0%
Hispanic or Latino/a	69.8%	18.5%	11.7%
Multi-Racial	61.6%	18.3%	20.1%
Education			
Less Than High School	47.2%	24.5%	28.3%
High School Diploma or GED	51.3%	27.1%	21.6%
Some College	60.8%	22.1%	17.1%
Bachelor's Degree or Higher	77.6%	13.8%	8.6%
Household Income			
Less Than $15,000	52.9%	24.0%	23.1%
$15,000 to $24,999	57.9%	25.8%	16.3%
$25,000 to $34,999	62.8%	22.6%	14.6%
$35,000 to $49,999	68.2%	18.1%	13.8%
$50,000 or more	71.7%	15.7%	12.6%

Figure 1. Frequency of Visits to Greenspaces, by Age, 2017

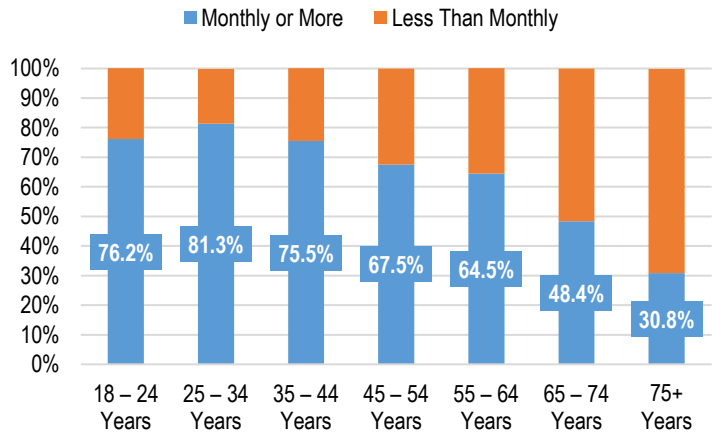


Figure 2. Frequency of Visits to Greenspaces, by Race/Ethnicity, 2017

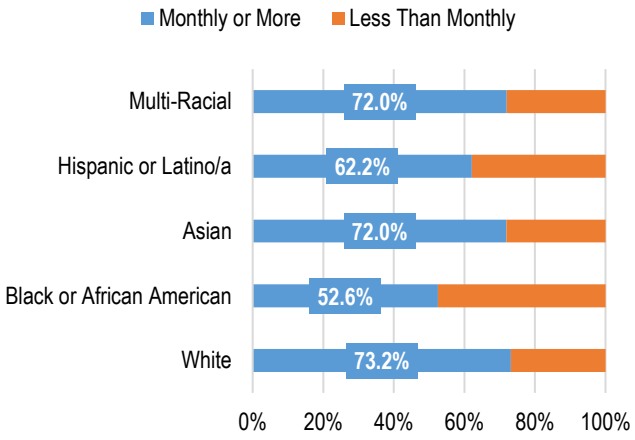


Table 2. Community Health Survey Data How Often Do You Visit Outdoor Parks, Beaches, Nature Trails, or Other Greenspaces?					
	Daily	Weekly	Monthly	Less than Monthly	Never
Total	**6.6%**	**31.4%**	**30.5%**	**24.5%**	**6.9%**
Age					
18 – 24 Years	8.2%	30.8%	37.2%	20.6%	3.3%
25 – 34 Years	5.9%	40.3%	35.1%	16.1%	2.5%
35 – 44 Years	7.0%	35.8%	32.7%	20.9%	3.7%
45 – 54 Years	5.5%	31.8%	30.2%	28.2%	4.3%
55 – 64 Years	8.1%	29.4%	27.0%	27.7%	7.9%
65 – 74 Years	5.8%	20.6%	22.0%	34.8%	16.8%
75+ Years	3.2%	9.2%	18.4%	41.5%	27.6%
Gender					
Male	7.8%	30.6%	30.7%	24.4%	6.5%
Female	5.9%	31.7%	30.8%	24.5%	7.1%
Race					
White	6.1%	34.9%	32.2%	21.3%	5.5%
Black or African American	7.8%	20.0%	24.8%	34.7%	12.9%
Asian	5.3%	22.8%	43.9%	26.3%	1.8%
Hispanic or Latino/a	6.3%	27.1%	28.8%	29.1%	8.8%
Multi-Racial	10.2%	33.1%	28.7%	23.9%	4.1%
Education					
Less Than High School	9.7%	22.8%	21.5%	29.1%	16.9%
High School Diploma or GED	7.1%	22.9%	25.0%	32.3%	12.6%
Some College	6.8%	27.9%	31.4%	27.1%	6.8%
Bachelor's Degree or Higher	6.0%	39.7%	34.3%	17.6%	2.3%
Household Income					
Less Than $15,000	6.1%	25.4%	24.1%	29.4%	15.0%
$15,000 to $24,999	5.7%	22.4%	32.2%	30.8%	8.8%
$25,000 to $34,999	4.4%	31.1%	29.8%	27.0%	7.7%
$35,000 to $49,999	6.2%	35.8%	32.3%	21.6%	4.1%
$50,000 or more	7.3%	37.2%	32.3%	19.9%	3.3%

REFERENCES

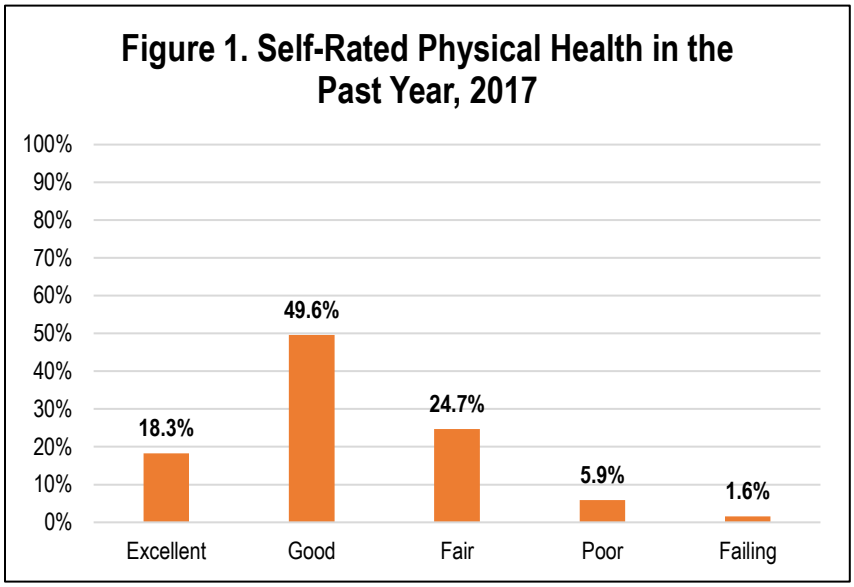
1. US Environmental Protection Agency. (n.d.). *What is open space/green space?* Retrieved from https://www3.epa.gov/region1/eco/uep/openspace.html.
2. World Health Organization. (2016). *Urban green spaces and health: A review of evidence.* Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0005/321971/Urban-green-spaces-and-health-review-evidence.pdf?ua=1.
3. ChangeLab Solutions. (2017). *Smoke-free parks: A webinar exploring policy options and tips.* Retrieved from http://www.changelabsolutions.org/publications/smokefree-parks.

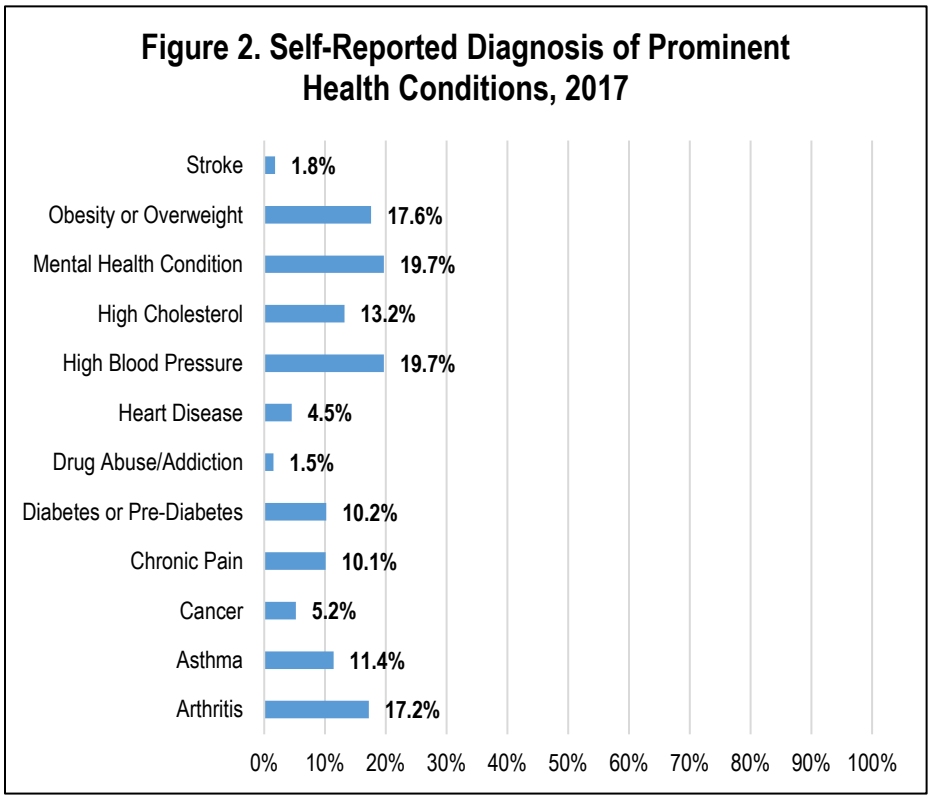
COMMUNITY HEALTH SURVEY, *VOICEKENT*: SELF-REPORTED HEALTH STATUS, ADULTS

OVERVIEW: SELF-REPORTED HEALTH STATUS, ADULTS

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].

VoiceKent asked respondents to select all health conditions for which the respondent was diagnosed at any point in his or her lifetime from the provided list. Figure 2 showcases self-report responses for all physical and mental health conditions assessed through the survey.





SURVEY SUMMARY

The most commonly reported diagnoses among survey respondents were high blood pressure, mental health conditions, obesity or overweight, and arthritis [Figure 2].

Data collected through *VoiceKent* indicates the least frequently reported health conditions among this population included drug abuse/addiction, stroke, heart disease, and cancer [Figure 2].

Self-perceived health status is a subjective measure of health that is affected by an individual's assessment of their circumstances, expectations, and the relative situations of their peers. This indicator is associated with functional decline, morbidity, and mortality. Self-perceived health status is a reliable and valid measure that can help predict health care utilization behaviors[2]. More than two-thirds of *VoiceKent* respondents characterized their health as good or excellent (67.9%) [Figure 1].

REFERENCES

1. Cohen, B. & Menken, J. (Eds.). (2006). *Aging in Sub-Saharan Africa: Recommendations for furthering research*. Washington, D. C.: The National Academies Press.
2. Statistics Canada. (2016, September 28). *Perceived health*. Retrieved September 05, 2017, from http://www.statcan.gc.ca/pub/82-229-x/2009001/status/phx-eng.htm.

COMMUNITY HEALTH SURVEY, *VOICEKENT*: SELF-REPORTED HEALTH STATUS, CHILDREN

OVERVIEW: SELF-REPORTED HEALTH STATUS, CHILDREN

VoiceKent was an adult-only survey, and therefore only persons aged 18 years and older could provide responses to the survey. Despite this limitation, it is important to understand the burden of disease among children in Kent County. Therefore, parents were asked to provide information about the physical and mental health and wellbeing of children under age 18 living in their household. The findings from these questions are provided in this section.

Table 1. Community Health Survey Data
Child with Physical or Mental Health Conditions

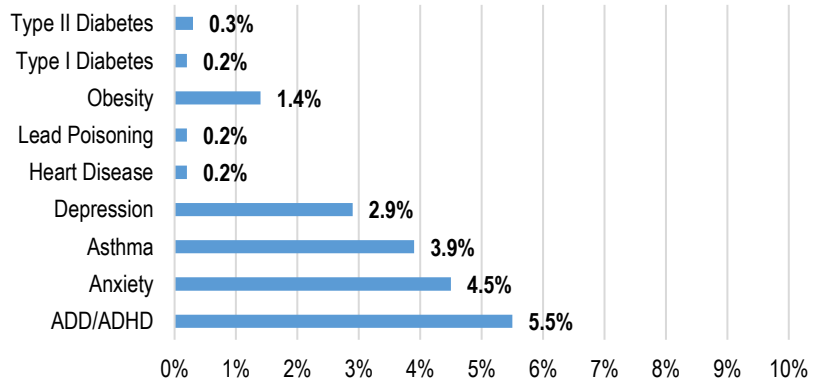
	ADD/ADHD	Anxiety	Asthma	Depression	Heart Disease	Lead Poisoning	Obesity	Type I Diabetes	Type II Diabetes
Total	**5.5%**	**4.5%**	**3.9%**	**2.9%**	**0.2%**	**0.2%**	**1.4%**	**0.2%**	**0.3%**
Race									
White	5.5%	4.7%	3.3%	2.9%	0.2%	0.2%	0.9%	0.1%	0.2%
Black or African American	5.3%	2.7%	5.8%	1.8%	0.1%	0.3%	1.9%	0.4%	0.6%
Hispanic or Latino/a	5.2%	5.2%	5.6%	4.6%	0.0%	0.2%	3.4%	0.2%	0.2%
Multi-Racial	8.9%	7.2%	5.7%	4.6%	0.9%	0.3%	2.6%	0.6%	0.9%
Education									
Less Than High School	6.2%	4.6%	4.9%	5.9%	0.3%	0.0%	2.2%	0.3%	0.3%
High School Diploma or GED	5.1%	2.7%	4.3%	2.7%	0.4%	0.2%	1.9%	0.1%	0.7%
Some College	7.6%	5.6%	4.4%	3.6%	0.3%	0.3%	1.4%	0.2%	0.3%
Bachelor's Degree or Higher	4.4%	4.6%	3.4%	2.1%	0.1%	0.2%	1.1%	0.3%	0.2%
Household Income									
Less Than $15,000	6.1%	3.6%	3.8%	3.5%	0.7%	0.5%	1.4%	0.1%	0.4%
$15,000 to $24,999	6.3%	5.3%	5.3%	3.5%	0.5%	0.0%	2.3%	0.5%	0.5%
$25,000 to $34,999	9.5%	5.4%	6.1%	3.5%	0.2%	0.7%	2.4%	0.0%	0.0%
$35,000 to $49,999	6.9%	4.4%	4.0%	3.1%	0.0%	0.0%	1.9%	0.0%	0.0%
$50,000 or more	5.2%	5.3%	4.1%	2.8%	0.1%	0.1%	1.1%	0.3%	0.4%

SURVEY SUMMARY

The most commonly reported physical and/or mental conditions afflicting Kent County children, as reported by parents included Attention Deficit Disorder (ADD)/Attention Deficit Hyperactivity Disorder (ADHD), anxiety, asthma, depression, and obesity [Table 1, Figure 1].

Among these conditions, ADD/ADHD and anxiety were most commonly reported by parents of multi-racial background. Asthma was most common among children with parents who identified as African American, multi-racial, or Hispanic/Latino, and depression was most frequently reported among children with parental race/ethnicity of Hispanic/Latino or multi-racial [Figure 2].

Figure 1. Percent of Respondents with Children Diagnosed with Select Physical or Mental Conditions, 2017



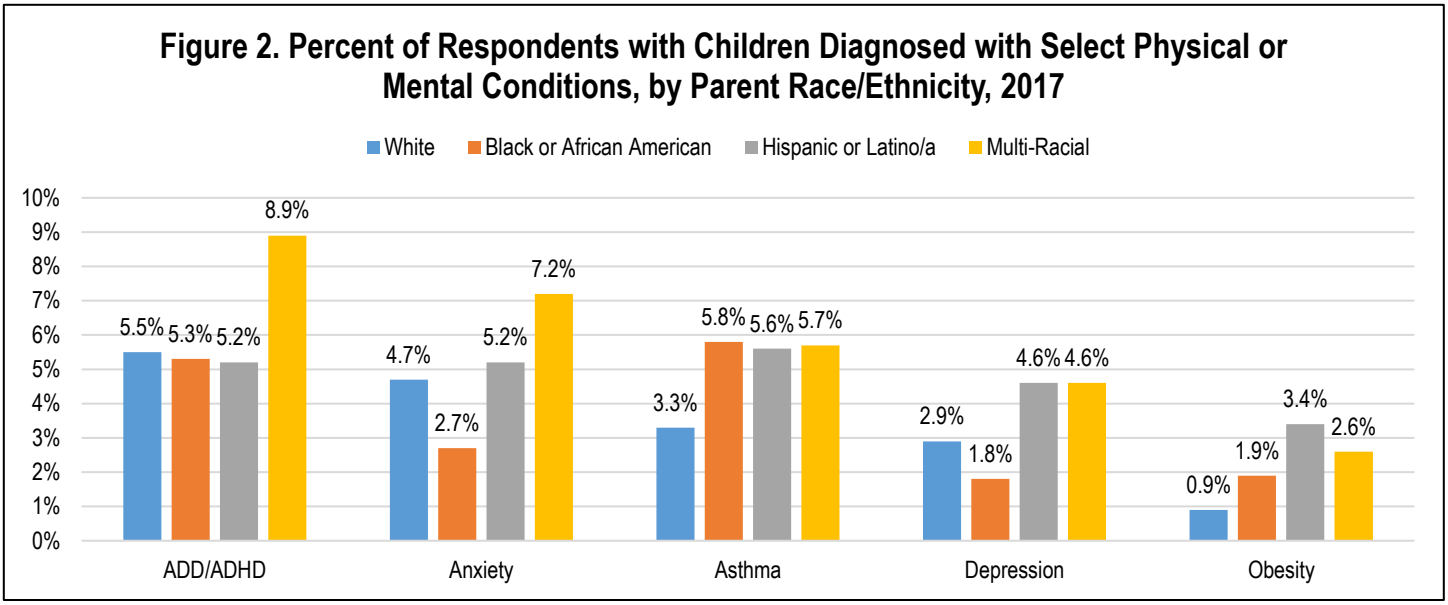


Figure 2. Percent of Respondents with Children Diagnosed with Select Physical or Mental Conditions, by Parent Race/Ethnicity, 2017
White
Black or African American
Hispanic or Latino/a
Multi-Racial
10%
9%
8%
7%
6%
5%
4%
3%
2%
1%
0%
5.5% 5.3% 5.2% 8.9%
4.7% 2.7% 5.2% 7.2%
3.3% 5.8% 5.6% 5.7%
2.9% 1.8% 4.6% 4.6%
0.9% 1.9% 3.4% 2.6%
ADD/ADHD
Anxiety
Asthma
Depression
Obesity

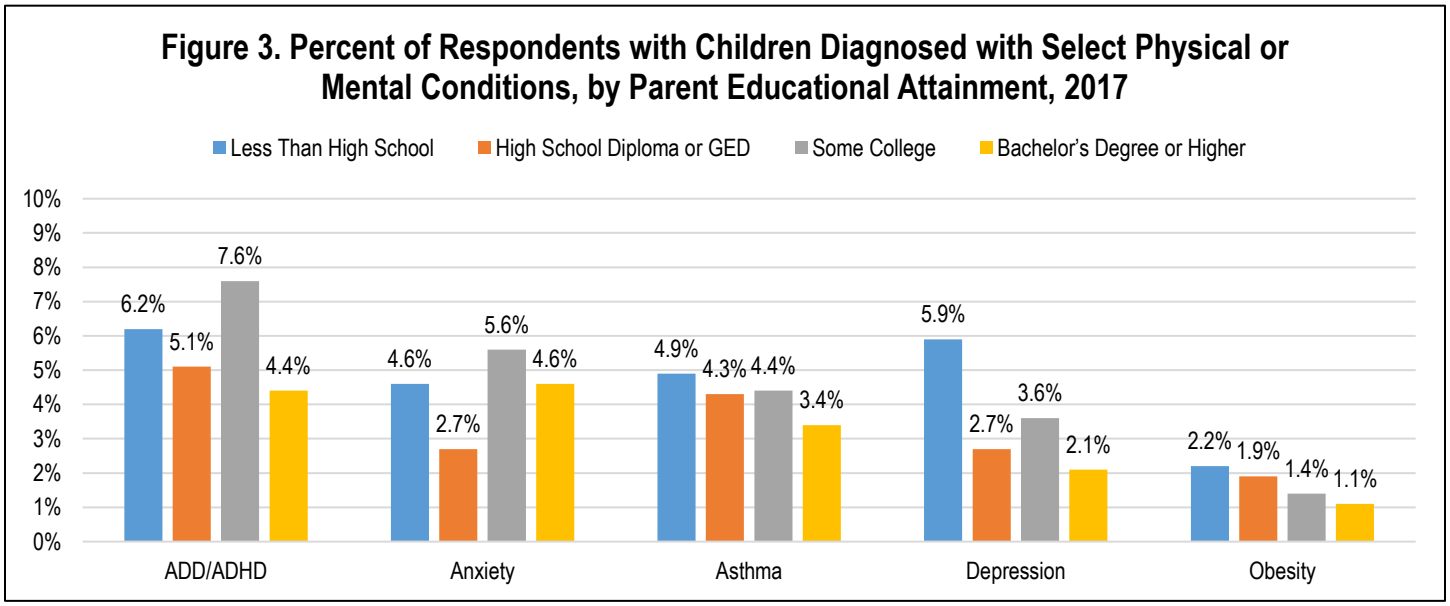


Figure 3. Percent of Respondents with Children Diagnosed with Select Physical or Mental Conditions, by Parent Educational Attainment, 2017
Less Than High School
High School Diploma or GED
Some College
Bachelor's Degree or Higher
10%
9%
8%
7%
6%
5%
4%
3%
2%
1%
0%
6.2% 5.1% 7.6% 4.4%
4.6% 2.7% 5.6% 4.6%
4.9% 4.3% 4.4% 3.4%
5.9% 2.7% 3.6% 2.1%
2.2% 1.9% 1.4% 1.1%
ADD/ADHD
Anxiety
Asthma
Depression
Obesity

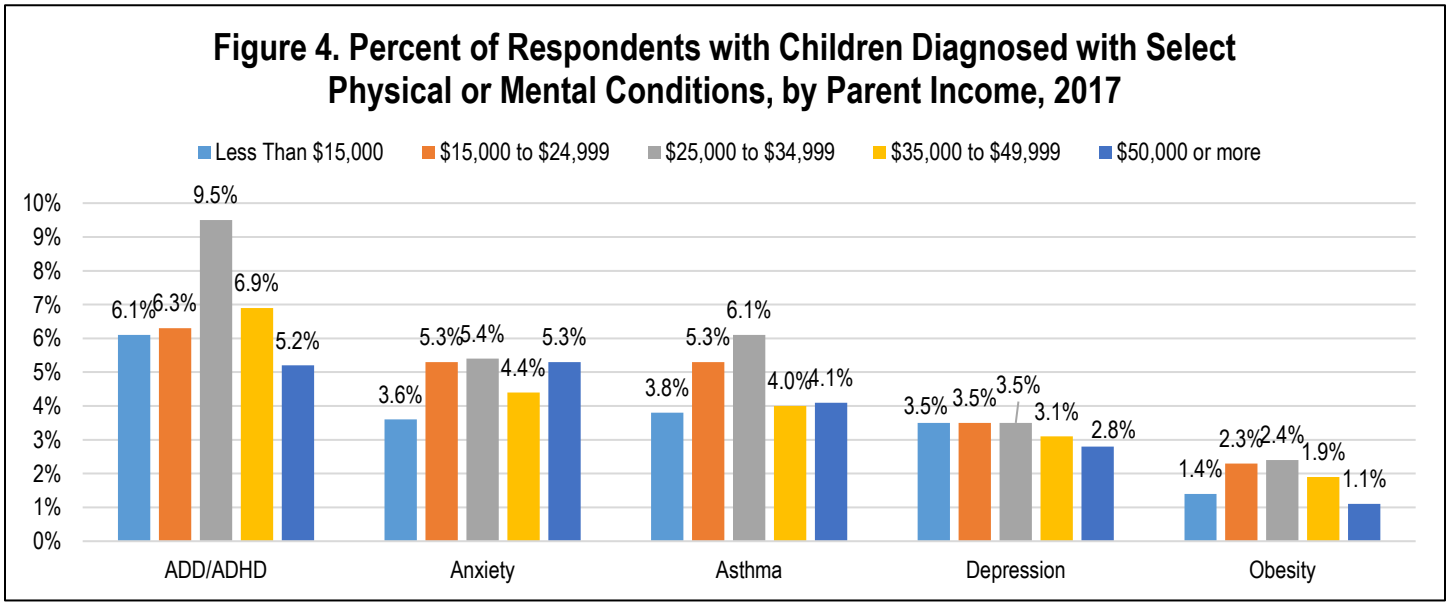


Figure 4. Percent of Respondents with Children Diagnosed with Select Physical or Mental Conditions, by Parent Income, 2017
Less Than $15,000
$15,000 to $24,999
$25,000 to $34,999
$35,000 to $49,999
$50,000 or more
10%
9%
8%
7%
6%
5%
4%
3%
2%
1%
0%
6.1% 6.3% 9.5% 6.9% 5.2%
3.6% 5.3% 5.4% 4.4% 5.3%
3.8% 5.3% 6.1% 4.0% 4.1%
3.5% 3.5% 3.5% 3.1% 2.8%
1.4% 2.3% 2.4% 1.9% 1.1%
ADD/ADHD
Anxiety
Asthma
Depression
Obesity

COMMUNITY HEALTH SURVEY, *VOICEKENT*: SELF-REPORTED MENTAL HEALTH STATUS

OVERVIEW: SELF-REPORTED MENTAL HEALTH STATUS

Self-reported mental health is a subjective measure of overall mental health status and gives an indication of how much a population is suffering from a "mental disorder, mental or emotional problems or distress" that may not be reflected in the measure of self-reported health status[1].

Table 1. Community Health Survey Data
Self-Reported Mental and Emotional Health

	Excellent	Good	Fair	Poor	Failing
Total	**22.9%**	**43.0%**	**24.6%**	**7.5%**	**2.1%**
Age					
18 – 24 Years	17.7%	32.3%	32.5%	14.0%	3.5%
25 – 34 Years	19.8%	42.0%	28.9%	8.0%	1.3%
35 – 44 Years	19.9%	45.9%	24.5%	7.7%	2.0%
45 – 54 Years	21.0%	43.5%	25.6%	8.1%	1.8%
55 – 64 Years	28.2%	45.6%	18.8%	5.0%	2.4%
65 – 74 Years	34.0%	45.6%	15.4%	3.4%	1.6%
75+ Years	25.8%	52.0%	17.2%	3.2%	1.8%
Gender					
Male	29.3%	41.0%	22.4%	5.6%	1.8%
Female	20.0%	44.3%	25.5%	8.1%	2.1%
Race					
White	21.6%	45.1%	23.8%	7.4%	2.0%
Black or African American	27.1%	38.6%	25.9%	6.2%	2.2%
Asian	33.3%	40.4%	24.6%	1.8%	0.0%
Hispanic or Latino/a	26.6%	41.3%	24.3%	5.8%	2.0%
Multi-Racial	19.0%	35.3%	30.3%	13.3%	2.0%
Education					
Less Than High School	23.0%	30.7%	34.1%	8.4%	3.8%
High School Diploma or GED	21.7%	37.6%	27.0%	9.2%	4.5%
Some College	21.8%	39.1%	26.8%	9.9%	2.4%
Bachelor's Degree or Higher	24.2%	49.9%	20.6%	4.8%	0.5%
Household Income					
Less Than $15,000	19.2%	36.9%	30.0%	9.8%	4.1%
$15,000 to $24,999	18.0%	43.6%	26.0%	10.5%	2.0%
$25,000 to $34,999	20.5%	41.2%	27.3%	9.4%	1.6%
$35,000 to $49,999	19.7%	44.4%	27.4%	6.6%	1.9%
$50,000 or more	26.2%	44.8%	21.9%	5.8%	1.3%

SURVEY SUMMARY

Most *VoiceKent* respondents report their mental and emotional health to be excellent or good (65.9%). Multi-racial persons and African Americans are more likely to report poorer mental and emotional health than other racial and ethnic groups [Table 1].

Respondents with some college or less educational attainment reported poorer mental and emotional health than those with a bachelor's degree or higher [Table 1]. Household income also had a relationship with mental and emotional health, with those reporting less annual household income also reporting poorer mental and emotional health than those with greater household income.

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COMMUNITY HEALTH SURVEY, *VOICEKENT*: RECOGNITION OF MENTAL HEALTH DISTRESS

OVERVIEW: RECOGNITION OF MENTAL HEALTH DISTRESS

As with many diseases, mental illness is severe in some cases and mild in others. People with mental illnesses do not necessarily look like they are sick, especially when they have a mild case. Signs and symptoms differ based on the type of mental illness[1].

It is important for individuals, like friends, family members, colleagues, teachers, and others to be equipped with the knowledge and ability to recognize symptoms of mental illness in those with which they are in close contact. There are training programs, like Mental Health First Aid, that can help equip community members with this type of knowledge[2].

SURVEY SUMMARY

Nearly 84% of *VoiceKent* respondents indicated that they can recognize signs and symptoms of mental health issues in their selves or others that require professional assistance [Table 1]. Females were more likely to report this ability when compared with males. Young adults (aged 18-24) and older adults (aged 75+) were less likely than other age groups to report this ability, while Hispanic/Latinos, Asians, and African Americans were also less likely to report this ability when compared to other racial/ethnic groups [Figure 1].

Figure 1. Percent of Respondents Who Report they Can Identify Signs of Mental Health Issues in Themselves or Others, by Race/Ethnicity, 2017

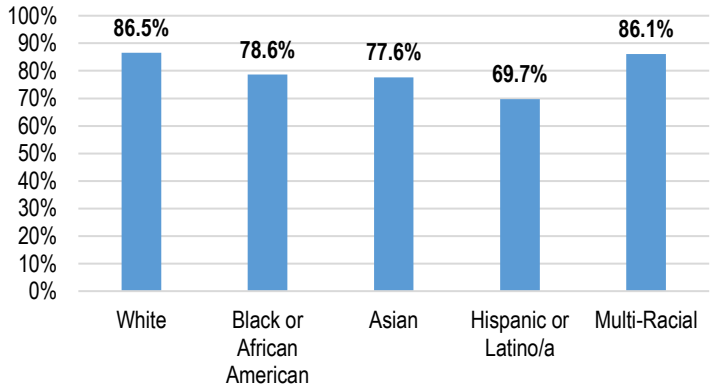

Table 1. Community Health Survey Data
Can Recognize Signs and Symptoms of Mental Health Issues in Yourself or Others that Require Professional Assistance

	Percent
Total	**83.6%**
Age	
18 – 24 Years	80.0%
25 – 34 Years	84.2%
35 – 44 Years	82.6%
45 – 54 Years	84.4%
55 – 64 Years	88.4%
65 – 74 Years	84.5%
75+ Years	76.2%
Gender	
Male	77.3%
Female	86.3%
Race	
White	86.5%
Black or African American	78.6%
Asian	77.6%
Hispanic or Latino/a	69.7%
Multi-Racial	86.1%
Education	
Less Than High School	72.6%
High School Diploma or GED	76.0%
Some College	84.4%
Bachelor's Degree or Higher	88.7%
Household Income	
Less Than $15,000	81.4%
$15,000 to $24,999	79.2%
$25,000 to $34,999	83.3%
$35,000 to $49,999	86.9%
$50,000 or more	85.4%

REFERENCES

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2. Mental Health Foundation of West Michigan. (2017). *Mental health first aid.* Retrieved from https://www.benice.org/mental-health-first-aid.

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 several factors. Some of these 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.

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, can 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.

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[2]. 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.

Figure 1. Primary Source of Healthcare Services, 2017

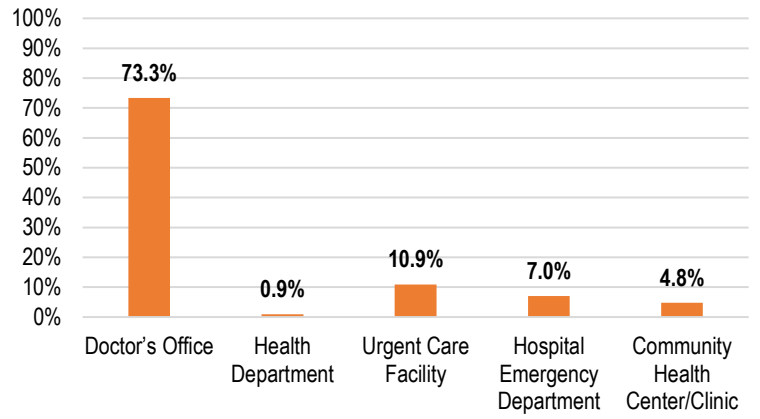


Figure 2. Primary Source of Healthcare Services by Gender, 2017

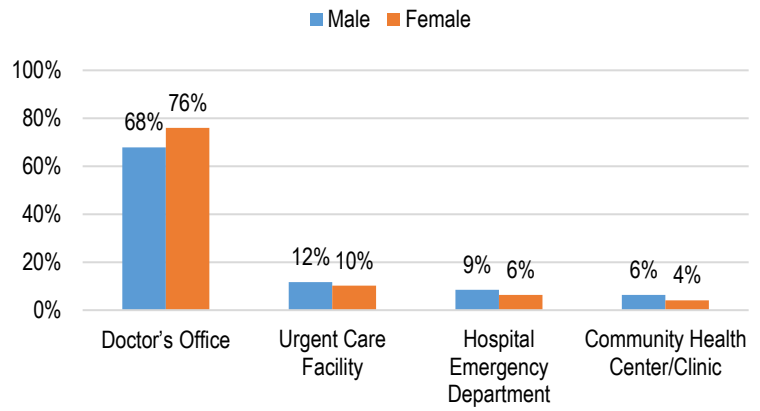
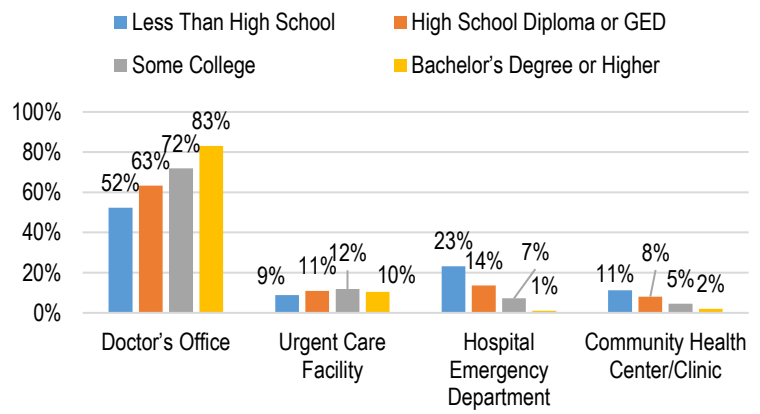
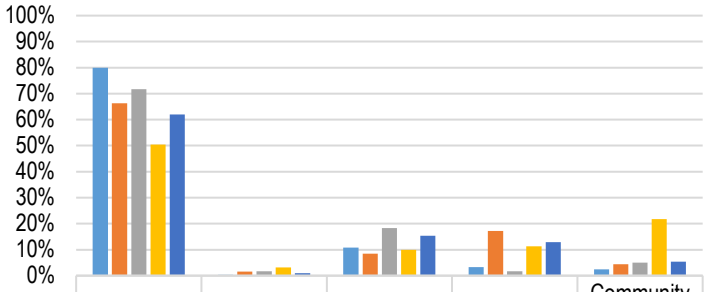


Figure 3. Primary Source of Healthcare Services by Educational Attainment, 2017



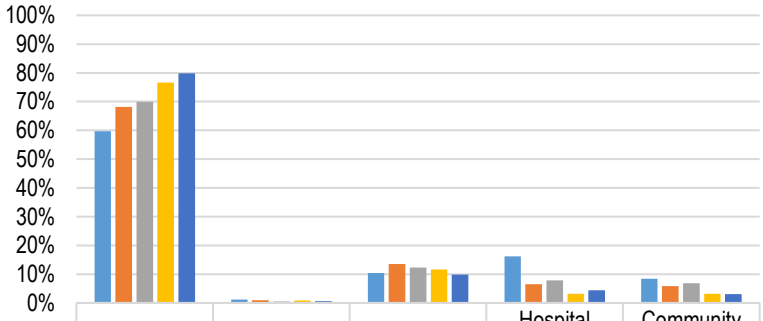
The benefits of having a primary care provider, whether through a doctor's office or community health center, include regular care, preventive screenings, assistance with medication management, and timely, continuous care for common illnesses, chronic conditions, and minor injuries[3].

Figure 4. Primary Source of Healthcare Services by Race/Ethnicity, 2017



	Doctor's Office	Health Department	Urgent Care Facility	Hospital Emergency Department	Community Health Center/Clinic
White	80.0%	0.3%	10.8%	3.3%	2.4%
Black or African American	66.3%	1.6%	8.5%	17.2%	4.4%
Asian	71.7%	1.7%	18.3%	1.7%	5.0%
Hispanic or Latino/a	50.4%	3.2%	10.0%	11.3%	21.8%
Multi-Racial	62.0%	1.0%	15.3%	12.9%	5.4%

Figure 5. Primary Source of Healthcare Services by Annual Household Income, 2017



	Doctor's Office	Health Department	Urgent Care Facility	Hospital Emergency Department	Community Health Center/Clinic
Less Than $15,000	59.7%	1.2%	10.4%	16.2%	8.4%
$15,000 to $24,999	68.2%	1.0%	13.5%	6.5%	5.9%
$25,000 to $34,999	69.9%	0.5%	12.3%	7.9%	6.8%
$35,000 to $49,999	76.6%	0.8%	11.6%	3.2%	3.2%
$50,000 or more	79.8%	0.6%	9.9%	4.4%	3.1%

Survey Summary

Data from *VoiceKent* indicates most patients report either a doctor's office (73.3%) or urgent care facility (10.9%) as their primary source of health services. However, among the population that responded to this survey, there are still 7.0% 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 $15,000 (16.2%) and have less than a high school education (23.2%). African Americans, multi-racial, and Hispanic/Latino individuals appear to be more likely to use the emergency room for health services than other racial and ethnic groups.

More females (76%) than males (68%) utilize a doctor's office as their primary source of healthcare. Educational attainment also appears to play a role where residents seek healthcare. Those with higher levels of educational attainment are more likely than those with lower educational attainment to seek healthcare at a doctor's office [Figure 3].

The racial and ethnic groups least likely to seek healthcare at a doctor's office are Hispanic/Latinos, multi-racial individuals, and African Americans [Figure 4].

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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.

Each of the barriers listed 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, 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[1].

Figure 1. Barriers to Physical Healthcare Services, 2017

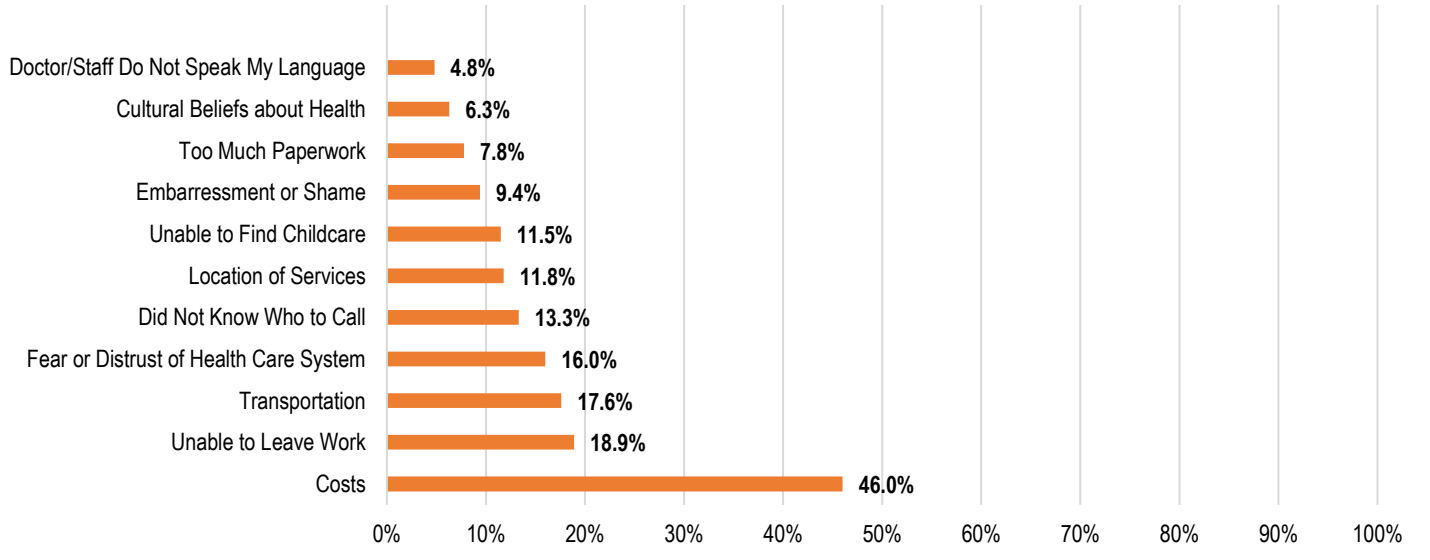


Table 1. Community Health Survey Data Top Five Barriers to Physical Healthcare Services					
	Costs	Unable to Leave Work	Transportation	Fear or Distrust of Health Care System	Did Not Know Who to Call
Total	**46.0%**	**18.9%**	**17.6%**	**16.0%**	**13.3%**
Age					
18 – 24 Years	46.3%	21.6%	14.5%	14.6%	11.3%
25 – 34 Years	54.3%	29.6%	18.1%	19.3%	15.8%
35 – 44 Years	50.8%	24.9%	19.2%	19.2%	13.6%
45 – 54 Years	46.1%	16.6%	20.0%	17.3%	10.6%
55 – 64 Years	43.6%	12.0%	20.4%	16.6%	13.0%
65 – 74 Years	43.4%	7.8%	18.5%	13.2%	15.0%
75+ Years	29.5%	2.9%	15.8%	6.2%	16.2%
Gender					
Male	44.5%	14.6%	15.0%	14.3%	13.5%
Female	47.8%	21.5%	19.2%	17.1%	13.6%
Race					
White	52.2%	23.2%	18.5%	17.7%	12.2%
Black or African American	35.0%	9.5%	17.0%	14.7%	16.8%
Asian	40.3%	13.0%	7.8%	7.8%	9.1%
Hispanic or Latino/a	33.9%	11.3%	11.5%	10.1%	14.7%
Multi-Racial	49.3%	20.9%	24.4%	21.2%	16.6%
Education					
Less Than High School	27.5%	6.8%	14.8%	10.8%	16.4%
High School Diploma or GED	33.4%	10.0%	15.9%	11.3%	14.2%
Some College	47.5%	17.0%	16.8%	16.1%	12.8%
Bachelor's Degree or Higher	58.1%	29.4%	20.9%	20.8%	13.6%
Household Income					
Less Than $15,000	34.9%	10.0%	20.9%	13.9%	15.7%
$15,000 to $24,999	49.5%	14.8%	18.2%	17.0%	15.7%
$25,000 to $34,999	53.2%	22.7%	20.6%	18.4%	12.8%
$35,000 to $49,999	60.8%	25.9%	16.1%	19.2%	14.6%
$50,000 or more	52.5%	25.4%	19.0%	18.3%	13.5%

SURVEY SUMMARY

The most frequently reported barrier to healthcare services was healthcare costs (46.0%) [Figure1, Table 1]. This barrier was reported nearly 2.5 times more than the second next common barrier, unable to leave work (18.9%). Cost was reported most commonly by individuals aged 25 to 44 years, whites and multi-racial individuals, and those with an annual household income of $35,000 to less than $50,000. Cost was cited as a barrier more commonly with increasing educational attainment.

Transportation, fear or distrust of the healthcare system, and didn't know who to call rounded out the top five barriers to healthcare services among survey respondents. Transportation appeared to be a barrier more commonly among females than males, among multi-racial individuals, and among those aged 35 to 64 years and 75 years and older. Fear and distrust of the healthcare system as a barrier was most apparent among females, multi-racial individuals, and those with a household income of more than $15,000. Older adults (65 and older) and multi-racial, African American, and Hispanic/Latino individuals were most likely to report not knowing who to call [Table 1].

REFERENCES

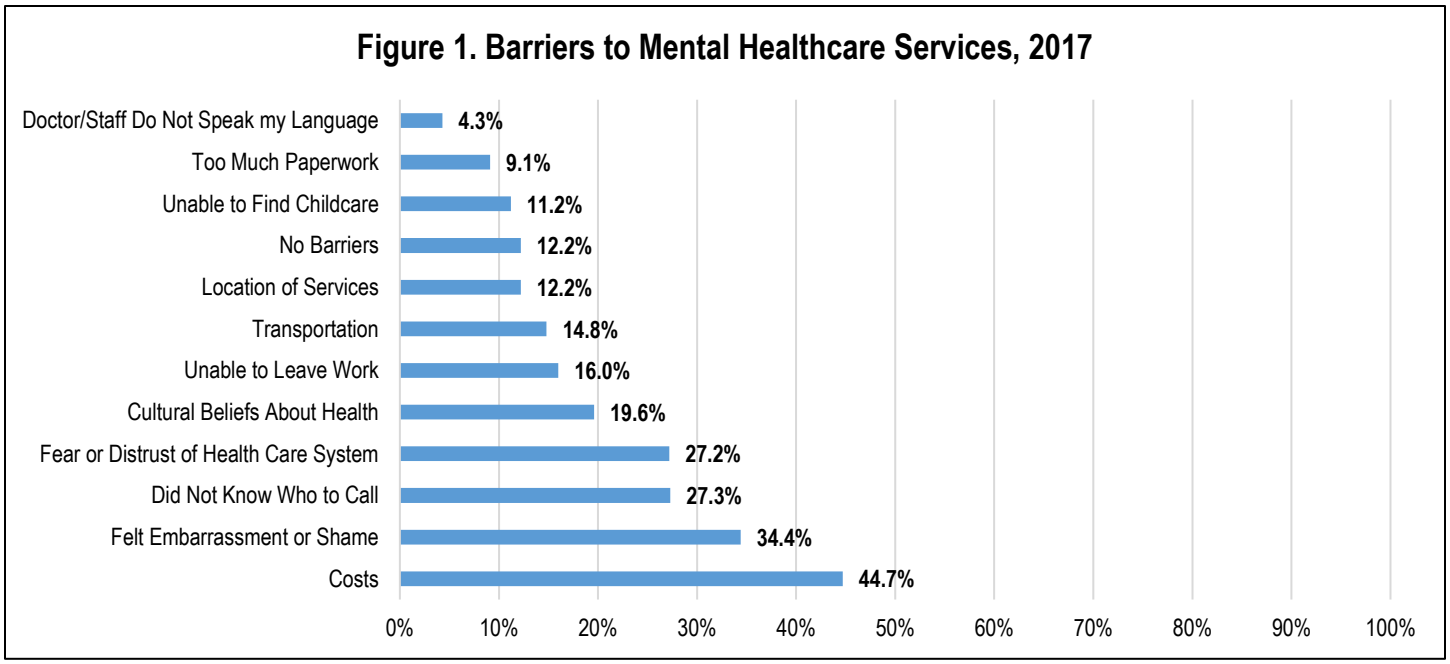
1. Syed, S., Gerber, B., & Sharp, L. (2013). Traveling toward disease: Transportation barriers to health care access. *Journal of Community Health,* 38(5), 976-993. doi: 10.1007/s10900-013-9681-1. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/23543372.

OVERVIEW: BARRIERS TO MENTAL HEALTHCARE SERVICES

A substantial proportion of adults with common mental health disorders fail to receive treatment, even when these conditions can be severe and debilitating. Several factors are thought to impede appropriate mental health treatment seeking. Some of these factors include stigma, pessimism regarding efficacy of available treatments, lack of access due to financial barriers, and structural barriers like inconvenience or inability to obtain an appointment[1].

Table 1. Community Health Survey Data
Top Five Barriers to Mental Healthcare Services

	Costs	Felt Embarrassment or Shame	Did Not Know Who to Call	Fear or Distrust of Health Care System	Cultural Beliefs About Health
Total	**44.7%**	**34.4%**	**27.3%**	**27.2%**	**19.6%**
Age					
18 – 24 Years	45.5%	37.2%	26.4%	26.1%	18.4%
25 – 34 Years	52.6%	40.3%	29.4%	31.0%	23.7%
35 – 44 Years	48.3%	40.9%	28.3%	30.1%	22.6%
45 – 54 Years	42.8%	36.0%	28.2%	31.4%	20.4%
55 – 64 Years	42.6%	32.1%	25.9%	26.1%	20.7%
65 – 74 Years	43.4%	28.4%	29.6%	24.5%	15.4%
75+ Years	32.8%	14.5%	26.1%	18.3%	9.5%
Gender					
Male	42.6%	29.6%	26.4%	23.2%	17.4%
Female	46.9%	37.7%	28.4%	29.6%	21.2%
Race					
White	51.9%	41.1%	29.1%	29.3%	22.2%
Black or African American	30.1%	23.6%	26.6%	26.7%	17.0%
Asian	32.5%	28.6%	24.7%	13.0%	23.4%
Hispanic or Latino/a	32.9%	20.0%	24.4%	17.1%	11.7%
Multi-Racial	47.0%	34.7%	26.1%	33.5%	20.3%
Education					
Less Than High School	25.0%	14.8%	19.4%	14.8%	4.3%
High School Diploma or GED	32.6%	20.2%	21.5%	19.0%	9.4%
Some College	45.6%	33.6%	26.1%	29.5%	17.1%
Bachelor's Degree or Higher	57.0%	48.8%	34.4%	33.8%	31.4%
Household Income					
Less Than $15,000	36.9%	23.1%	25.9%	27.2%	11.5%
$15,000 to $24,999	43.5%	27.0%	26.2%	27.2%	16.2%
$25,000 to $34,999	52.5%	38.3%	29.1%	30.7%	18.2%
$35,000 to $49,999	59.5%	41.8%	32.2%	33.8%	27.3%
$50,000 or more	51.3%	45.1%	30.9%	29.9%	25.8%



SURVEY SUMMARY

The top five barriers reported in relation to accessing mental healthcare services were cost (44.7%), embarrassment/shame (34.4%), did not know who to call (27.3%), fear or distrust of the healthcare system (27.2%), and cultural beliefs about health (19.6%) [Figure 1, Table 1]. Those most likely to report cost as a barrier were individuals 25 to 44 years of age, females, whites, and those with a household income of $25,000 or more. Feeling embarrassment or shame was cited as a barrier more often with younger age, greater educational attainment, and higher annual household income. Hispanic/Latinos and African Americans were less likely than other racial or ethnic groups to cite embarrassment or shame as a barrier. Fear or distrust of the healthcare system was most frequently reported as a barrier among multi-racial individuals, those with a bachelor's degree or higher, and among those with a household income of $25,000 or more. Multi-racial and Asian respondents were most likely to report cultural beliefs about health as a barrier to accessing mental healthcare services.

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COMMUNITY HEALTH SURVEY, *VOICEKENT*: 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].

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].

Table 1. Community Health Survey Data
Primary Sources of Health-Related Information

	Health Professional	Social Media	Internet/ Health Websites	E-Newsletters	Church	Family and Friends	School	TV and Radio	Newspaper and Magazines	Community Service Organizations
Total	**51.2%**	**13.3%**	**31.1%**	**2.6%**	**5.2%**	**23.5%**	**4.8%**	**7.8%**	**6.4%**	**13.9%**
Age										
18 – 24 Years	39.5%	14.5%	30.3%	2.4%	4.0%	29.8%	12.4%	5.0%	3.5%	8.8%
25 – 34 Years	48.7%	16.2%	41.4%	2.2%	4.3%	23.9%	5.0%	6.0%	3.8%	14.3%
35 – 44 Years	56.0%	16.5%	35.6%	2.8%	5.0%	22.6%	5.6%	7.6%	4.9%	13.6%
45 – 54 Years	52.9%	14.8%	31.9%	2.8%	4.9%	22.0%	2.1%	7.3%	5.0%	16.0%
55 – 64 Years	59.2%	10.6%	30.9%	4.2%	7.2%	21.0%	2.2%	11.1%	10.9%	15.9%
65 – 74 Years	63.4%	9.3%	22.2%	3.1%	6.8%	24.1%	1.0%	11.5%	14.0%	17.3%
75+ Years	56.4%	4.1%	6.6%	0.8%	7.5%	28.2%	0.4%	12.0%	12.4%	19.5%
Gender										
Male	48.7%	10.1%	31.1%	2.1%	4.9%	19.5%	3.8%	7.8%	5.7%	11.9%
Female	53.8%	15.2%	31.9%	3.0%	5.4%	25.8%	5.4%	8.0%	7.0%	15.0%
Race										
White	57.5%	13.6%	39.3%	2.8%	3.9%	26.4%	4.4%	7.4%	6.6%	13.1%
Black or African American	46.3%	15.0%	16.4%	3.0%	9.4%	19.2%	5.2%	11.5%	7.2%	17.3%
Asian	40.3%	16.9%	40.3%	7.8%	7.8%	22.1%	9.1%	10.4%	10.4%	9.1%
Hispanic or Latino/a	35.9%	11.3%	14.5%	0.8%	7.1%	16.5%	6.7%	4.0%	3.8%	14.5%
Multi-Racial	45.6%	13.8%	25.2%	2.6%	6.0%	25.8%	7.4%	9.5%	7.2%	15.8%
Education										
Less Than High School	39.5%	9.9%	8.0%	0.9%	7.4%	20.4%	5.9%	8.0%	4.0%	13.0%
High School Diploma or GED	40.1%	12.4%	12.3%	1.8%	4.8%	19.5%	3.7%	8.7%	5.8%	11.3%

Table 1. Community Health Survey Data Primary Sources of Health-Related Information										
	Health Professional	Social Media	Internet/ Health Websites	E-Newsletters	Church	Family and Friends	School	TV and Radio	Newspaper and Magazines	Community Service Organizations
Some College	49.3%	14.5%	29.2%	2.1%	6.4%	25.7%	6.6%	7.6%	6.4%	15.0%
Bachelor's Degree or Higher	64.3%	14.7%	49.7%	4.1%	4.0%	26.1%	4.2%	7.5%	7.8%	15.4%
Household Income										
Less Than $15,000	44.3%	11.6%	18.1%	1.1%	7.3%	23.6%	4.5%	10.0%	6.5%	20.0%
$15,000 to $24,999	48.8%	15.3%	24.0%	1.7%	7.5%	25.3%	6.3%	8.8%	7.5%	14.3%
$25,000 to $34,999	51.3%	13.9%	28.1%	1.7%	5.7%	23.2%	5.9%	7.3%	4.7%	18.0%
$35,000 to $49,999	57.0%	15.0%	36.1%	3.5%	3.8%	22.8%	3.1%	6.1%	5.0%	13.2%
$50,000 or more	61.6%	15.6%	44.2%	4.2%	4.2%	26.6%	5.7%	8.2%	7.9%	13.7%

SURVEY SUMMARY

The most popular source of health-related information across all reported population subgroups was health professionals (51.2%). The next two popular sources of health-related information were internet/health websites (31.1%) and family and friends (23.5%). Adults older than 55 years of age were more likely than other age groups to receive health information from health professionals. Asians and whites were more likely than other racial and ethnic groups to get information from the internet/health websites. Individuals with a greater educational attainment and higher annual household income were more likely to receive information from a health professional. Those who make less than $15,000 were more likely than other income groups to receive information from community service organizations and TV and radio.

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COMMUNITY HEALTH SURVEY, *VOICEKENT*: HEALTHY EATING AND ACTIVE LIVING

OVERVIEW: HEALTHY EATING AND ACTIVE LIVING

Healthy eating and active living contribute to decreased risks of chronic diseases and overweight/obesity. Regular physical activity and consumption of healthy foods like fruits and vegetables can improve health and quality of life at all ages.

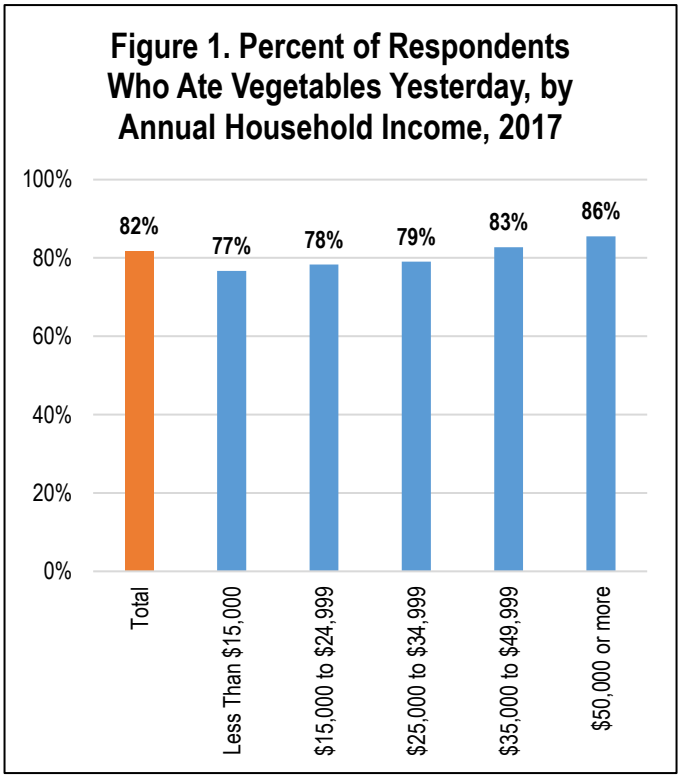
Table 1. Community Health Survey Data
Healthy Eating and Active Living

	30+ minutes of exercise 5 times/week	Ate Fruit Yesterday	Ate Vegetables Yesterday
Total	**35.0%**	**73.6%**	**81.8%**
Age			
18 – 24 Years	33.3%	67.3%	71.3%
25 – 34 Years	32.8%	71.8%	80.2%
35 – 44 Years	32.6%	71.8%	81.1%
45 – 54 Years	34.3%	72.8%	83.8%
55 – 64 Years	37.0%	77.0%	84.0%
65 – 74 Years	41.9%	79.6%	90.0%
75+ Years	42.7%	84.8%	88.8%
Gender			
Male	41.6%	69.1%	80.9%
Female	32.4%	75.6%	82.0%
Race			
White	35.1%	76.7%	85.8%
Black or African American	37.1%	62.2%	73.0%
Asian	35.6%	85.0%	90.0%
Hispanic or Latino/a	26.6%	75.1%	69.8%
Multi-Racial	42.5%	67.6%	77.4%
Education			
Less Than High School	33.2%	65.9%	68.5%
High School Diploma or GED	39.2%	63.2%	70.7%
Some College	37.8%	71.2%	80.3%
Bachelor's Degree or Higher	31.0%	80.7%	89.7%
Household Income			
Less Than $15,000	41.9%	67.0%	76.7%
$15,000 to $24,999	38.2%	71.7%	78.3%
$25,000 to $34,999	35.0%	70.7%	79.1%
$35,000 to $49,999	32.1%	75.9%	82.7%
$50,000 or more	31.7%	76.1%	85.5%

SURVEY SUMMARY

Slightly more than one-third of *VoiceKent* respondents report getting 30 or more minutes of physical activity five or more days per week. The likelihood of meeting this indicator appears to increase with age, with those 75 years and older reporting the highest percentage of this level of activity. Males were more likely than females to achieve this level of physical activity. Hispanic/Latinos were the least likely among all racial/ethnic groups to attain 30 or more minutes of exercise five times per week.

Nearly three-quarters of respondents report eating fruit yesterday, and more than eight in ten report eating vegetables. Those 55 years and older were more likely to eat fruits and those 45 years and older were more likely to eat vegetables than other age groups, females were more likely than males, and consumption increased with increasing educational attainment and household income. Whites and Asians were more likely than other racial and ethnic groups to report eating fruits and vegetables yesterday.



COMMUNITY HEALTH SURVEY, *VOICEKENT*: TOBACCO AND E-CIGARETTES

OVERVIEW: TOBACCO AND E-CIGARETTES

Tobacco use is the leading cause of preventable illness and death in the United States. Each day, more than 3,200 people under age 18 smoke their first cigarette; nine of every 10 smokers start smoking before age 18, and 98% of smokers begin smoking by age 26[1]. Smoking can have a significant impact on general health, and causes serious problems with respiratory health, various cancers, and can even cause problems with fertility.

Researchers have suggested that shifting smokers away from tobacco toward the use of e-cigarettes could curb premature death[2]. However, the Centers for Disease Control and Prevention caution that e-cigarettes are still fairly new and we are still learning about their health effects. Some things that we do know are that many e-cigarettes contain nicotine which has known health effects, e-cigarette aerosol can contain other harmful substances, and they are known to cause unintended injuries as the result of explosions and fires[3].

SURVEY SUMMARY

Tobacco Use

Among *VoiceKent* respondents, more than 80% report not using tobacco at all. About 10% of respondents use tobacco products daily. Every day use appears highest among middle-aged individuals (35- to 64-year-olds), males, multi-racial and African Americans, those with lower educational attainment, and persons making less than $25,000 [Table 1].

E-Cigarette Use and Perceived Harm

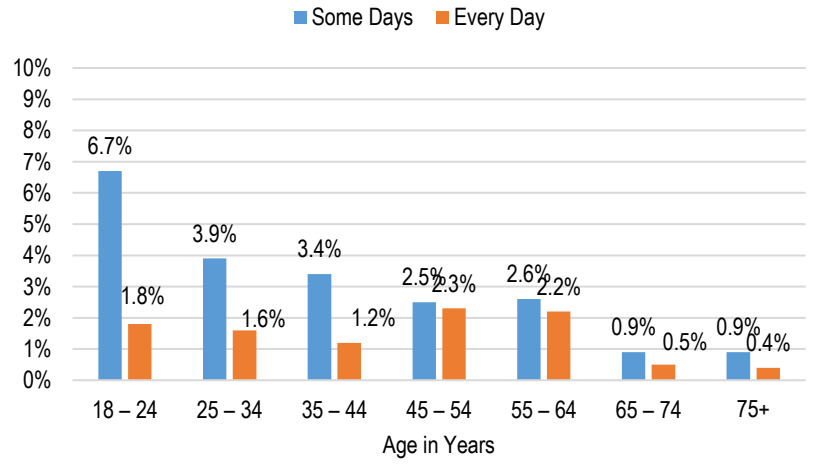
Overall, use of e-cigarettes appears low among *VoiceKent* respondents, with only 3.4% reporting use on some days and 1.5% reporting everyday use. Despite low overall use, there are notable disparities in use among different demographic groups. For example, younger persons are more likely to report using e-cigarettes than older persons [Figure 1].

Everyday use of e-cigarettes is highest among multi-racial, Asian, and whites, while sometimes use is highest among African Americans, Hispanic/Latinos,

Table 1. Community Health Survey Data
Frequency of Tobacco Use

	Not at All	Some Days	Every Day
Total	**80.7%**	**8.7%**	**10.5%**
Age			
18 – 24 Years	82.8%	10.7%	6.6%
25 – 34 Years	79.7%	9.4%	10.8%
35 – 44 Years	77.9%	10.7%	11.3%
45 – 54 Years	77.3%	7.9%	14.7%
55 – 64 Years	76.6%	7.9%	15.5%
65 – 74 Years	85.7%	6.4%	7.8%
75+ Years	82.8%	10.7%	6.6%
Gender			
Male	75.1%	11.7%	13.2%
Female	83.2%	7.4%	9.5%
Race			
White	83.3%	6.5%	10.2%
Black or African American	69.1%	16.5%	14.3%
Asian	91.7%	5.0%	3.3%
Hispanic or Latino/a	85.8%	8.2%	6.1%
Multi-Racial	73.8%	12.3%	13.9%
Education			
Less Than High School	70.2%	11.4%	18.4%
High School Diploma or GED	66.7%	13.8%	19.5%
Some College	77.3%	9.9%	12.9%
Bachelor's Degree or Higher	91.1%	5.3%	3.6%
Household Income			
Less Than $15,000	71.6%	12.0%	16.4%
$15,000 to $24,999	74.3%	10.4%	15.3%
$25,000 to $34,999	81.2%	7.5%	11.3%
$35,000 to $49,999	79.2%	9.9%	10.9%
$50,000 or more	85.7%	7.1%	7.2%

Figure 1. E-Cigarette Use by Age, 2017



and multi-racial individuals [Figure 2]. Everyday use is also highest among persons with lower educational attainment and among those who make $25,000 or less.

Nearly 50% of respondents reported that they perceive e-cigarettes to be very harmful, while another 26% perceived e-cigarettes to be of moderate risk. A higher percentage of females felt e-cigarettes were very or moderately (73.7%) harmful than males (69.4%). The perception of harm related to e-cigarettes was relatively consistent across all racial/ethnic groups.

Perception of harm was higher among respondents with higher levels of educational attainment [Figure 3]. Younger people were less likely than older adults to report that e-cigarette use was very or moderately harmful [Figure 4].

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Figure 2. E-Cigarette Use by Race/Ethnicity, 2017

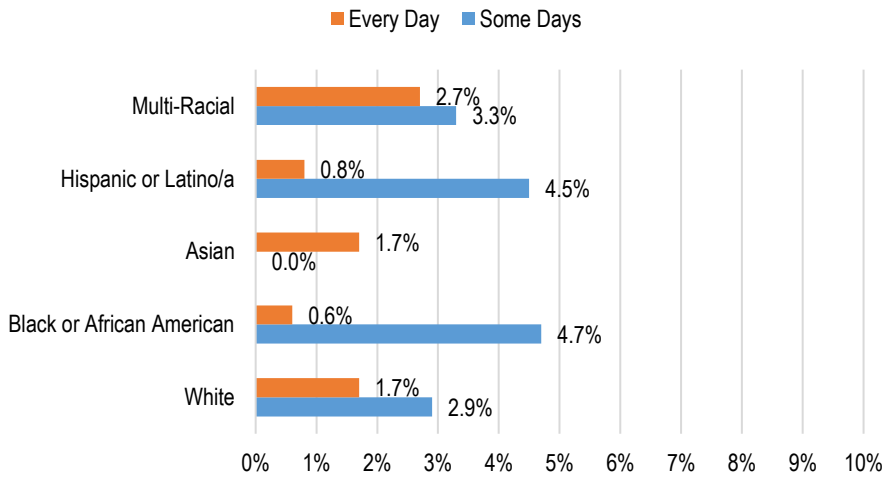


Figure 3. Perceived Harm of E-Cigarette Use by Educational Attainment, 2017

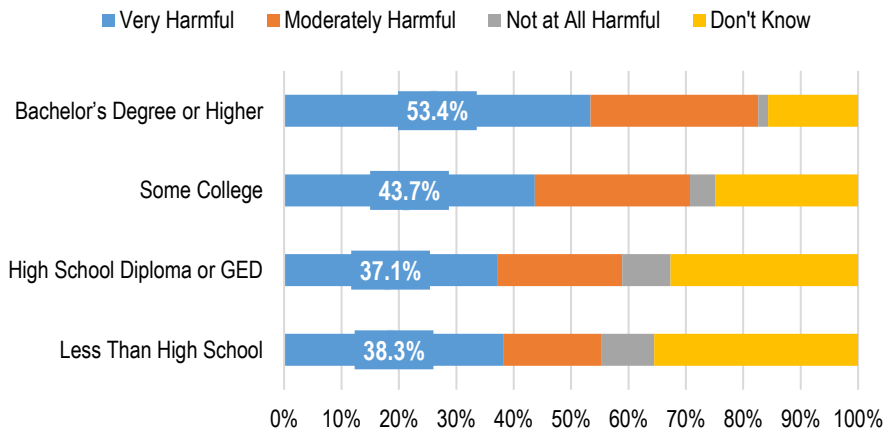
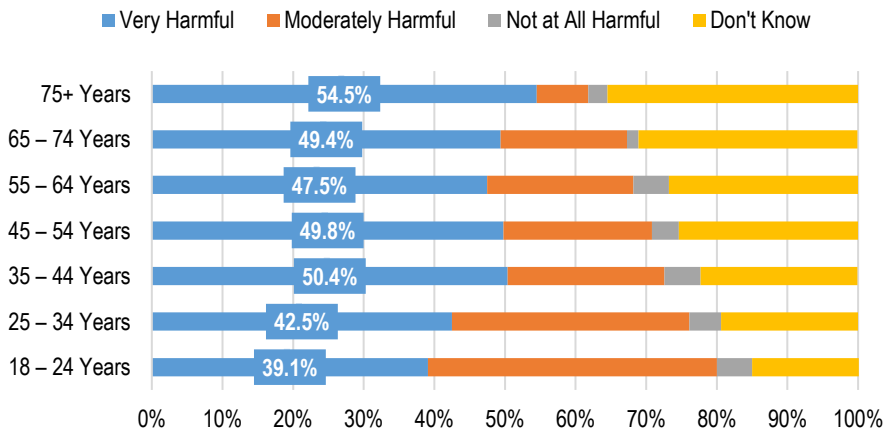


Figure 4. Perceived Harm of E-Cigarette Use by Age, 2017



COMMUNITY HEALTH SURVEY, *VOICEKENT*: PERCEIVED HARM OF MARIJUANA USE

OVERVIEW: PERCEIVED HARM OF MARIJUANA USE

Marijuana is the most commonly used illicit drug in the United States and many Americans do not perceive it to be a harmful substance[1]. Despite changes in some state laws in recent years, marijuana is still classified as a drug that has high potential for abuse and no accepted medical use in the United States[1].

National data indicates that only about 2 in 7 people perceive great risk of harm from monthly marijuana use; the perception of risk in the Midwest region is even lower, about 1 in 4[1].

Marijuana use has a public health impact on communities across the United States. About 4.2 million people meet diagnostic criteria for dependence on marijuana and it is a major cause of emergency department visits. Marijuana is the second leading cause of drug treatment seeking among Americans behind alcohol[1].

SURVEY SUMMARY

In general, less than 50% of *VoiceKent* respondents perceive marijuana use to be of moderate or great risk. Older adults, aged between 65 and 75 years were most likely to report great risk associated with marijuana use, as were Hispanic/Latinos (40.5%) and Asians (31.7%).

Respondents with less than a high school education (36.9%) were more likely to report great risk associated with marijuana use when compared to people with higher educational attainment. Income level and gender did not seem to have significant differences regarding perceived risk of marijuana use.

Figure 1. Perceived Risk of Marijuana Use by Age, 2017

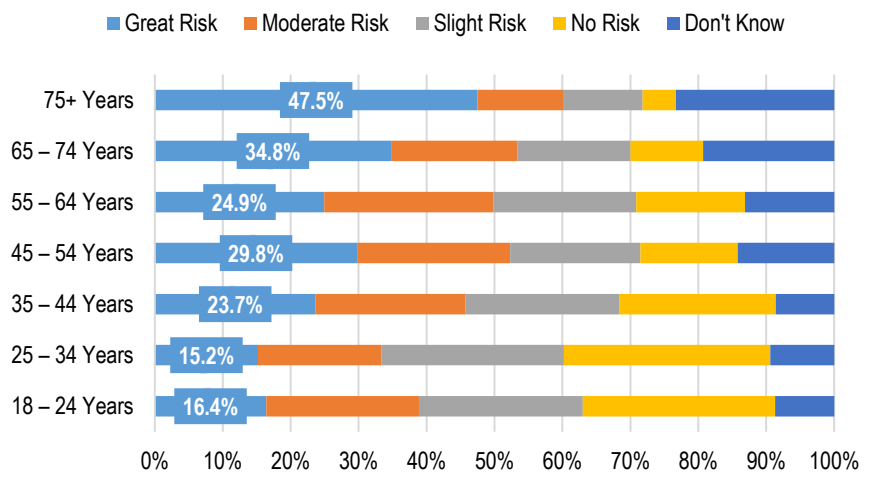
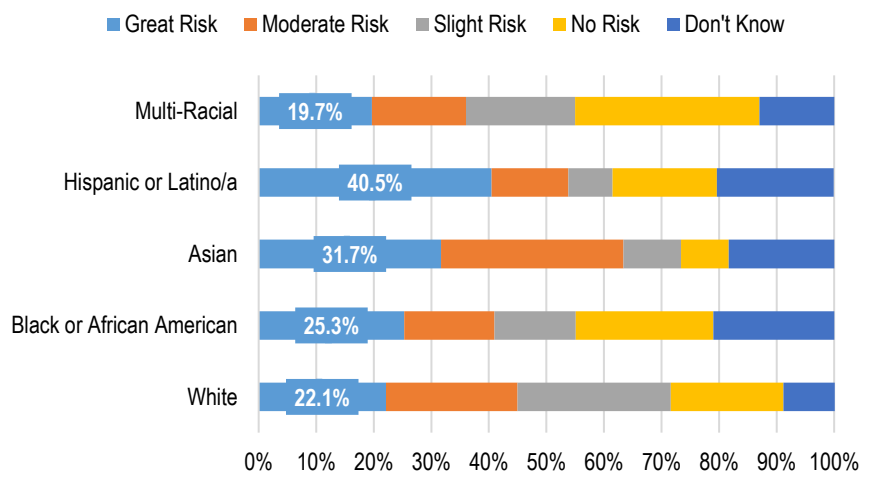


Figure 2. Perceived Risk of Marijuana Use by Race/Ethnicity, 2017



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Chapter 2

KENT COUNTY
2017 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?

Indicator/Profile Listing

Demographics
Overview of the Community
Rural Population
Total Population, Gender, and Age
Race/ Ethnicity
Ancestry and Origin of Birth
Refugee Population
Disability

Socioeconomic Characteristics
Workforce and Employment
Education
Relationship Status and Households
Income
Poverty
Social Context
Healthcare Insurance
Healthcare Access

Health Resource Accessibility
Facilities and Capacity
Utilization

Quality of Life
Population Growth and Stability
Foreclosures and Vacant Housing
Housing Quality
Voter Participation
Reactions to Race and Racism
Racial and Ethnic Segregation
Access to Exercise Opportunities
Access to Parks
Limited Access to Healthy Foods

Behavioral Risk Factors
Adult Tobacco Use
Youth Tobacco Use
Adult Alcohol Use
Youth Alcohol Use
Adult Substance Use Disorder
Youth Drug Use and Abuse
Adult Nutrition
Youth Nutrition
Adult Obesity
Youth Obesity
Youth Physical Activity
Adult Sedentary Lifestyle
Adult Seatbelt Use
Youth Seatbelt and Helmet Use
Adult Driving While Impaired
Youth Driving While Impaired or Distracted
Routine Checkups
Oral Health
Breast Cancer Screening
Cervical Cancer Screening
Colorectal Cancer Screening
HIV Testing

Environmental Health
Air Quality
Carbon Monoxide
Nitrogen Dioxide
Ground-Level Ozone
Particulate Matter 2.5
Sulfur Dioxide
Ground Water
Waterborne Disease
Food Safety
Childhood Lead Exposure
Vector Borne Diseases
Rabies

Social and Behavioral Health
Poor Mental Health Days
Access to Behavioral Healthcare
Alcohol and Drug-Related Motor Vehicle Crashes
Alcohol-Induced Mortality
Substance Use-Induced Mortality
Opioid Use and Mortality
Bullying
Suicide
Intentional Injuries
Domestic Violence
Youth Relationship Violence
Sexual Violence
Child Maltreatment
Youth Violence in Schools and Community
Overall Crime Summary
Burglary, Larceny, and Theft
Hate/Bias Crimes
Homicide

Maternal, Infant & Child Health
Infant Mortality
Neonatal and Post-Neonatal Mortality
Child Mortality
Preconception Health and Family Planning
Early Prenatal Care
Teen Sexual Health
Teen Pregnancy and Births to Teens
Birth Rate
Preterm Births
Low and Very Low Birthweight
Use of Cesarean Sections

Pregnancy Weight Gain
Breastfeeding Characteristics
Maternal Smoking Status
Induced Abortion

Death, Illness and Injury

Perceived Health Status
Health-Related Quality of Life
Leading Causes of Death
Years of Potential Life Lost
Heart Disease
Stroke
All Cancers
Breast Cancer
Cervical Cancer
Colorectal Cancer
Lung Cancer
Oral Cancer
Prostate Cancer
Skin Cancer
Chronic Lower Respiratory Disease
Asthma
Unintentional Injury
Motor Vehicle Crashes
Alzheimer's Disease
Diabetes
Kidney Disease
Liver Disease
Pneumonia and Influenza

Communicable Disease

Vaccination Rates
Sexually Transmitted Infections
HIV/AIDS
Tuberculosis
Meningitis
Viral Hepatitis

Sentinel Events

Vaccine Preventable Diseases
Late-Stage Breast Cancer Diagnosis
Late-Stage Prostate Cancer Diagnosis
Late-Stage Colorectal Cancer Diagnosis
Emergency Department Utilization

Section 1: Demographics and Assets

KENT COUNTY
2017 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

Subsections

- DEMOGRAPHIC DATA
- SOCIOECONOMIC DATA
- HEALTH RESOURCE AVAILABILITY

DEMOGRAPHICS

KENT COUNTY
2017 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

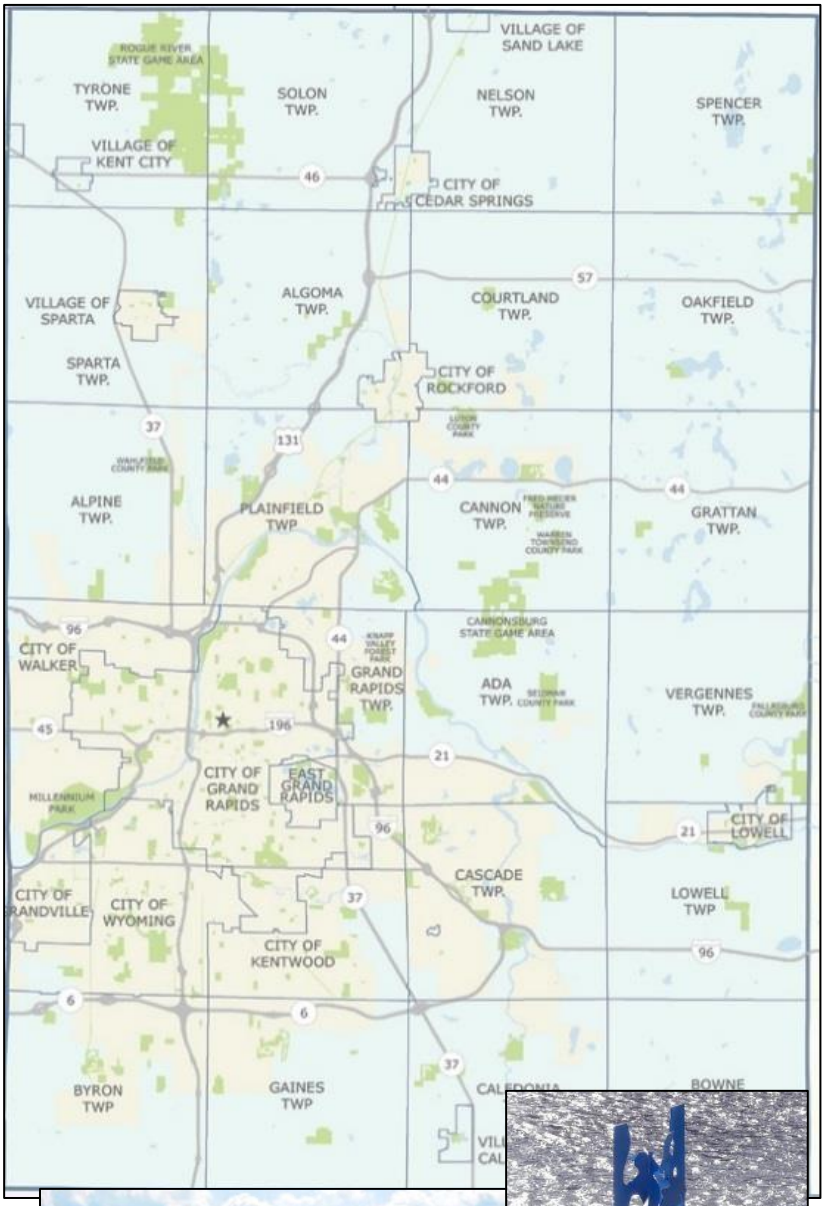
- GEOGRAPHIC CHARACTERISTICS
- TOTAL POPULATION
- POPULATION BY AGE, GENDER, RACE/ETHNICITY
- POPULATION BY ANCESTRY AND ORIGIN OF BIRTH
- REFUGEE POPULATION CHARACTERISTICS
- DISABILITY

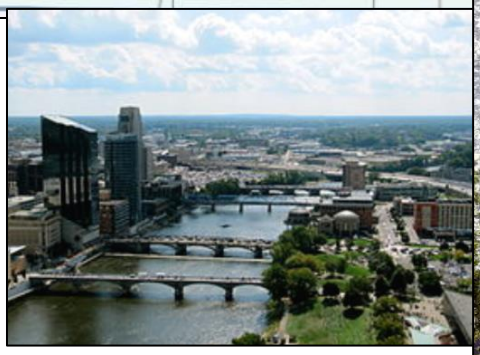
Demographic Characteristics: Kent County
Overview of the Community

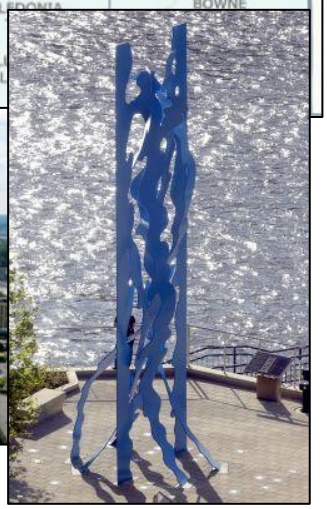
Overview

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	
Ada Twp.	Grattan Twp.
Algoma Twp.	Lowell Twp.
Alpine Twp.	Nelson Twp.
Bowne Twp.	Oakfield Twp.
Byron Twp.	Plainfield Twp.
Caledonia Twp.	Solon Twp.
Cannon Twp.	Sparta Twp.
Cascade Twp.	Spencer Twp.
Courtland Twp.	Tyrone Twp.
Gaines Twp.	Vergennes Twp.
Grand Rapids Twp.	
Villages	
Village of Caledonia	Village of Sand Lake
Village of Casnovia	Village of Sparta
Village of Kent City	
Cities	
City of Cedar Springs	City of Lowell
City of East Grand Rapids	City of Rockford
City of Grand Rapids	City of Walker
City of Grandville	City of Wyoming
City of Kentwood	







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.

References

1. County of Kent. (2017). *About Kent County: County profile.* Retrieved from https://www.accesskent.com/about.htm.
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Demographic Characteristics: Kent County Rural Population

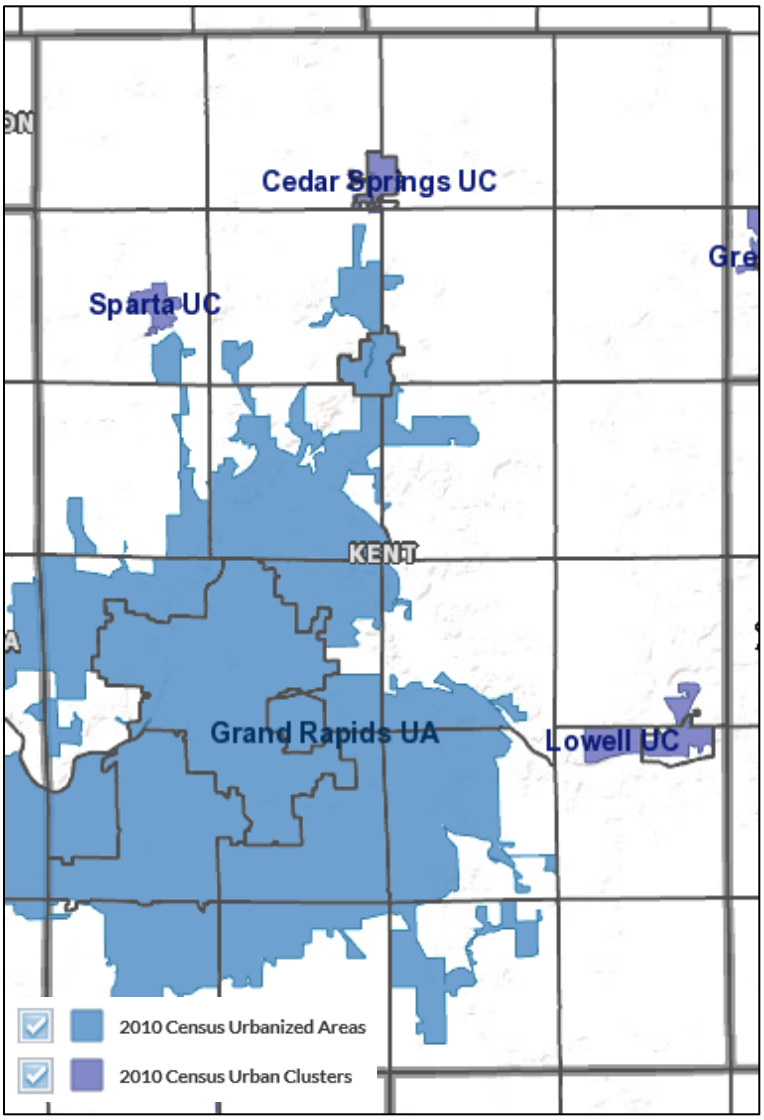
Overview: Rural Population

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 one in five 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).



Above. Urbanized areas and urban clusters per the 2010 US Census (photo courtesy of US Census Bureau TIGERweb, 2017)[2].

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

References

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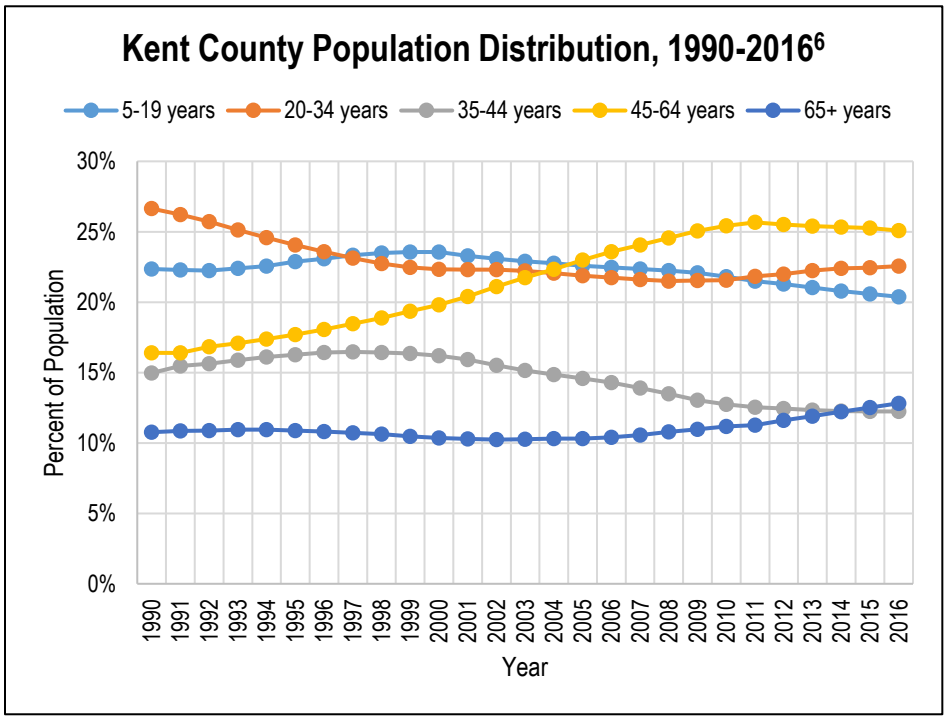
DEMOGRAPHIC CHARACTERISTICS: KENT COUNTY TOTAL POPULATION, GENDER, AND AGE

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[4]. Gender statistics are defined as statistics that reflect differences in the situation of men and women in all areas of life[5].

Kent County Demographic Characteristics: Gender and Disability			
Indicator	**Time Period**	**Measure**	**Kent County[2,3]**
Total Population	2011-2015	Number	622,590
Gender			
Male	2011-2015	Percent	49.1%
Female	2011-2015	Percent	50.9%
Veteran Population	2011-2015	Percent	7.6%
Disabled Population	2011-2015	Percent	11.3%
Under 18 Years	2011-2015	Percent	4.2%
18 – 64 Years	2011-2015	Percent	9.9%
65 Years and Over	2011-2015	Percent	34.3%

[**NOTE:** ***Throughout the 2017 Community Health Needs Assessment, differences in health status and health behaviors are described by age and gender to highlight disparities and inequities, where possible.***]



SUMMARY

Kent County is one of the most populous single counties in the State of Michigan, with more than 620,000 residents. Based on data from the U.S. Census Bureau, Kent County's gender distribution is between males and females, with females (50.9%) comprising a slightly larger proportion of residents.

The age distribution of Kent County has shifted toward an older population over time. In 1990, residents 45 to 64 years made up 16.4% of the population and in 2016 made up the largest proportion in Kent County at 25.1%. The age group of residents 65 years and older has increased from 10.8% in 1990 to 12.8% in 2016. This shift in population distribution mirrors what is happening nationally. Adults aged 65 years and older in the United States are expected to account for 20% of the population by 2030[7].

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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.

Kent County Demographic Characteristics: Race and Ethnicity			
Indicator	**Time Period**	**Measure**	**Kent County[4]**
Race/Ethnicity			
White	2011-2015	Percent	81.2%
Black or African American	2011-2015	Percent	9.7%
American Indian and Alaska Native	2011-2015	Percent	0.5%
Chippewa tribal grouping	2011-2015	Percent	0.1%
Asian	2011-2015	Percent	2.5%
Asian Indian	2011-2015	Percent	0.4%
Chinese	2011-2015	Percent	0.4%
Filipino	2011-2015	Percent	0.1%
Japanese	2011-2015	Percent	0.1%
Korean	2011-2015	Percent	0.3%
Vietnamese	2011-2015	Percent	0.7%
Other Asian	2011-2015	Percent	0.5%
Two or More Races	2011-2015	Percent	3.4%
White and Black or African American	2011-2015	Percent	1.4%
White and American Indian and Alaska Native	2011-2015	Percent	0.5%
White and Asian	2011-2015	Percent	0.5%
Black or African American and American Indian and Alaska Native	2011-2015	Percent	0.1%
Hispanic or Latino (Of Any Race)	2011-2015	Percent	10.0%
Mexican	2011-2015	Percent	6.3%
Puerto Rican	2011-2015	Percent	1.1%
Cuban	2011-2015	Percent	0.3%
Other Hispanic or Latino	2011-2015	Percent	2.4%

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 to most effectively and efficiently use available resources to improve population health and to identify and address health disparities[1].

Kent County Demographic Characteristics: Reactions to Race			
Indicator	**Time Period**	**Measure**	**Kent County[5]**
How do other people usually classify you in this country? Would you say: White, Black or African American, Hispanic or Latino, Asian, American Indian or Alaska Native, or some other group?			
White	2017	Percent	78.2%
Black or African American	2017	Percent	10.1%
Hispanic or Latino	2017	Percent	8.1%
Asian	2017	Percent	2.4%
American Indian or Alaska Native	2017	Percent	0.3%
Other Group	2017	Percent	0.9%

SUMMARY

When observing the racial and ethnic population distributions within Kent County, it is apparent that the majority of residents are white (81.2%). 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 as Asian, while more than three percent identify their race as biracial or multi-racial. Kent County is ethnically diverse. Almost 10% of the county population identify their ethnicity as Hispanic/Latino. Of Hispanic/Latinos, the most common subgroups are Mexican (6.3%), other (2.4%), and Puerto Rican (1.1%).

When asked how other people identify them in this country, racial and ethnic distributions were similar to how people identify themselves. Slightly fewer respondents reported that others identified them as white or Hispanic/Latino. Slightly more respondents reported being identified as black or African American.

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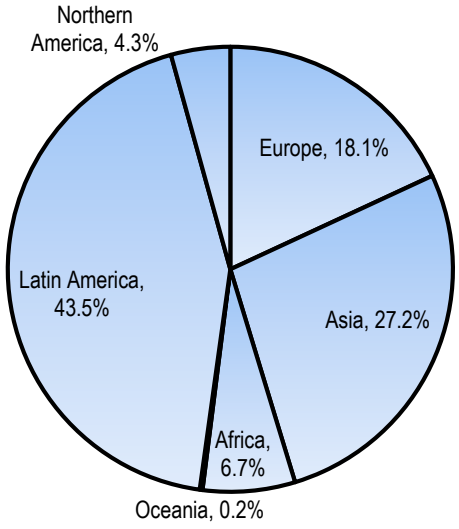
5. Kent County Behavioral Risk Factor Surveillance System. (2017).

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.

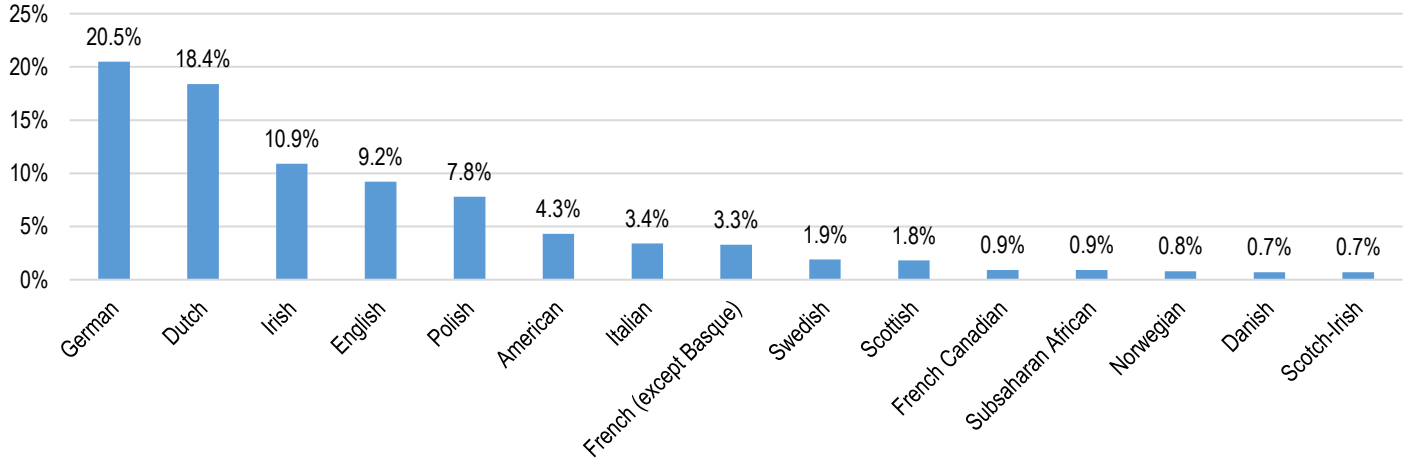
Figure 1. Kent County Foreign-Born Population, by Region of Birth, 2011-2015[3]



SUMMARY

Among Kent County residents, the majority of foreign-born residents were born in Latin America (43.5%), Asia (27.2%), or Europe (18.1%) [Figure 1]. There is a smaller percentage of foreign-born residents that came to Kent County from Africa (6.7%), Northern America (4.3%), and Oceania (0.2%). The bar chart [Figure 2] illustrates the most frequently reported ancestries in Kent County. The most commonly reported ancestries are German (20.5%), Dutch (18.4%), Irish (10.9%), and English (9.2%).

Figure 2. Fifteen Most Commonly Reported Ancestries, Kent County, 2011-2015[3]



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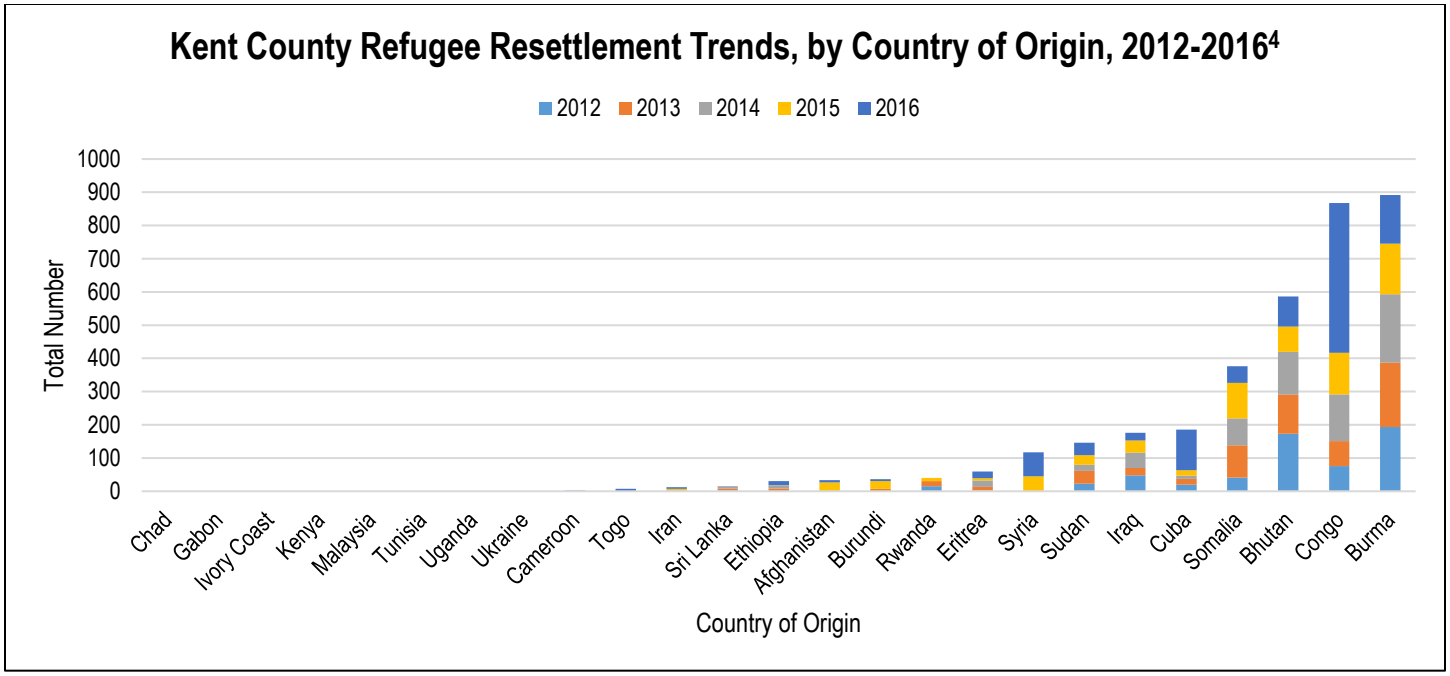
OVERVIEW: REFUGEE POPULATION

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 because of persecution due to race, religion, nationality, political opinion or membership in a particular social group; war; or violence[1]. Refugee assistance and protection organizations generally promote three possible solutions, including voluntary repatriation, local integration, or resettlement in another country[2]. Repatriation means that refugees can 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 another country occurs when repatriation is unsafe and the first asylum country refuses to apply local integration. Worldwide, more than half of all refugees come from Syria, Afghanistan, and South Sudan[1].

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 2016, a total of 1,052 refugees from 17 different countries were resettled in Kent County. Many of these persons came from Congo (451) and Burma (147). These two countries have consistently been among the top countries of origin for Kent County refugees in recent years. Between 2015 and 2016, a significant increase in the number of refugees was recorded from Cuba (16 to 123 refugees) and Congo (125 to 451 refugees).

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OVERVIEW: DISABILITY

There are many ways in which disability can be defined, ranging from having trouble 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 With Difficulty Doing Errands Alone Because Of Physical, Mental Or Emotional Problems

Indicator	Status	Time Period*	Measure	Kent County	Michigan	United States	National Target[a]
Total	👍	2017	Percent	7.8%	8.2%	--	**DH-9: (Developmental) Reduce the proportion of people with disabilities who encounter barriers to participating in home, school, work, or community activities.**
Age							
18 – 24 Years	👍	2017	Percent	2.4%	4.8%	--	
25 – 34 Years	👎	2017	Percent	5.4%	5.3%	--	
35 – 44 Years	👍	2017	Percent	7.8%	8.5%	--	
45 – 54 Years	👎	2017	Percent	11.2%	9.7%	--	
55 – 64 Years	👍	2017	Percent	8.0%	10.4%	--	
65+ Years	👎	2017	Percent	10.4%	9.4%	--	
Gender							
Male	👍	2017	Percent	5.6%	6.3%	--	
Female	👍	2017	Percent	10.0%	10.1%	--	
Race							
White	--	2017	Percent	7.8%	7.8%	--	
Black	👎	2017	Percent	10.8%	10.5%	--	
Hispanic/Latino	👍	2017	Percent	4.2%	8.5%	--	
Non-Hispanic	--	2017	Percent	8.1%	--	--	
Education							
Less Than High School	👍	2017	Percent	17.8%	18.1%	--	
High School Diploma	👎	2017	Percent	11.3%	9.8%	--	
Some College	--	2017	Percent	7.5%	7.5%	--	
College Graduate	👎	2017	Percent	4.5%	3.0%	--	
Household Income							
Less Than $15,000	👎	2017	Percent	29.0%	24.6%	--	
$15,000 to $24,999	👎	2017	Percent	19.7%	12.7%	--	
$25,000 to $34,999	👍	2017	Percent	3.7%	8.9%	--	
$35,000 to $49,999	👎	2017	Percent	7.2%	5.4%	--	
$50,000 Or More	--	2017	Percent	2.8%	2.8%	--	

👍 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.
[a] Target is based on Healthy People 2020 target.; **Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents.*

SUMMARY

Approximately 8% of the Kent County adult population live with a disability that causes them to have difficulty doing errands alone, which is similar to the Michigan population. Females are more likely to report this disability than males, and African Americans are more likely than other races and ethnicities. At both the local and state levels, the prevalence of this disability decreases with increased educational attainment and greater household income. In Kent County, those with a household income of less than $15,000 are 10 times more likely to report being unable to do errands alone.

REFERENCES

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2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.

SOCIOECONOMIC CHARACTERISTICS

KENT COUNTY
2017 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

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 can 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[2]					
Indicator	**Time Period**	**Measure**	**Kent County**	**Michigan**	**United States**
Population In Labor Force					
Employed	2011-2015	Percent	63.4%	55.2%	58.0%
Unemployed	2011-2015	Percent	5.3%	6.0%	5.2%
Armed Forces	2011-2015	Percent	0.0%	0.0%	0.4%
Transportation To Work					
Drive Alone	2011-2015	Percent	81.6%	82.6%	76.4%
Carpool	2011-2015	Percent	9.1%	8.8%	9.5%
Public Transportation (excluding taxicab)	2011-2015	Percent	2.0%	1.4%	5.1%
Walked	2011-2015	Percent	1.9%	2.2%	2.8%
Travel Time To Work					
Mean Travel Time	2011-2015	Minutes	21.2	24.2	25.9
Class Of Worker					
Private Wage and Salary Workers	2011-2015	Percent	87.3%	83.7%	79.5%
Government Workers	2011-2015	Percent	7.7%	11.1%	14.3%
Self-Employed in Own Not Incorporated Business Workers	2011-2015	Percent	4.9%	5.0%	6.0%
Unpaid Family Workers	2011-2015	Percent	0.1%	0.2%	0.2%

SUMMARY

From 2011-2015, the average unemployment rate in Kent County was 5.3%, which is lower than the unemployment rate reported for the State of Michigan (6.0%) and approximately equal with the national unemployment rate of 5.2%. The mean travel time for Kent County residents (21.2 minutes) is shorter than the state (24.2 minutes) and national (25.9 minutes) averages. Among classes of workers, 87.3% of Kent County residents were salary workers, which is greater than the proportion of salary workers at the state (82.6%) and national levels (76.4%). The percentage of government workers in Kent County (7.7%) is lower than at the state (11.1%) and national (14.3%) levels.

REFERENCES

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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]
High School Graduate or Higher	👎 ☺	2011-2015	Percent	89.5%	89.6%	86.7%
Bachelor's Degree or Higher	👍 ☺	2011-2015	Percent	33.3%	26.9%	29.8%
School Enrollment						
Nursery School, Preschool	👍 ☺	2011-2015	Percent	6.4%	5.5%	6.1%
Children Enrolled in GSRP[3]	👍	2014-2015	Percent	2.4%	2.2%	--
Kindergarten	👍 ☺	2011-2015	Percent	5.7%	4.8%	5.1%
Elementary School (Grades 1 – 8)	👍 ☺	2011-2015	Percent	40.4%	38.5%	39.7%
High School (Grades 9 – 12)	👎 ☹	2011-2015	Percent	20.6%	21.2%	20.8%
College Or Graduate School	👎 ☹	2011-2015	Percent	26.9%	30.0%	28.4%
Special Education						
Eligible Children Ages 0 – 5[3]	--	2015	Percent	4.6%	3.7%	--
Eligible Children Ages 0 – 26[3]	--	2015	Percent	13.4%	13.8%	--
Educational Attainment						
Less Than 9th Grade	👎 ☺	2011-2015	Percent	4.1%	3.2%	5.7%
High School Dropouts[3]	👎	2015	Percent	10.5%	9.1%	--
9th To 12th Grade, No Diploma	👍 ☺	2011-2015	Percent	6.4%	7.2%	7.6%
Students Not Graduating On-Time[3]	👎	2015	Percent	21.8%	20.2%	--
On-Time High School Graduates[3]	👎	2015	Percent	78.2%	79.8%	--
High School Graduate (Includes Equivalency)	👎 ☹	2011-2015	Percent	25.5%	29.9%	27.8%
Some College, No Degree	👎 ☺	2011-2015	Percent	22.2%	23.8%	21.1%
Associate's Degree	👎 ☺	2011-2015	Percent	8.6%	8.9%	8.1%
Bachelor's Degree	👍 ☺	2011-2015	Percent	21.8%	16.5%	18.5%
Graduate Or Professional Degree	👍 ☺	2011-2015	Percent	11.5%	10.5%	11.2%
Educational Testing						
M-STEP						
Students Not Proficient in Grade 3 ELA[3]	👍	2017	Percent	51.5%	55.9%	--
Student Not Proficient in Grade 4 ELA[3]	👍	2017	Percent	51.2%	55.8%	--
Students Not Proficient in Grade 8 Math[3]	👍	2017	Percent	61.9%	66.5%	--

Acronyms: GSRP (Great Start Readiness Program, Michigan's state-funded preschool program); ELA (English Language Arts)

- 👍 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

Between 2011 and 2015, the average percentage of Kent County residents who completed high school and at least some post-secondary education was 89.6%, which was equal to the State of Michigan and higher than the national percentage (86.7%). However, the percentage of high school dropouts was higher in Kent County than the State of Michigan (10.5% vs. 9.1%), and Kent County had a higher percentage of residents with less than a high school education than the state (4.1% vs. 3.2%). One in three Kent County residents had completed a bachelor's degree or higher, which is greater than the state (27.0%) and nation (29.7%).

The M-STEP (Michigan Student Test of Educational Progress) was administered for the first time in the Spring of 2015[4]. This test is intended to gauge if students are mastering the state educational standards. In 2017, fewer Kent County students in grades 3, 4, and 8 were rated "Not Proficient" than the State of Michigan in English Language Arts (ELA) and Math.

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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 United States Census Bureau defines household as including all the people who occupy a housing unit as their usual place of residence, and a householder as the person, or one of the people, 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[2]					
Indicator	**Time Period**	**Measure**	**Kent County**	**Michigan**	**United States**
Households with One Or More People Under 18 Years	2011-2015	Percent	33.5%	30.1%	32.3%
Households with One Or More People 60 Years and Over	2011-2015	Percent	31.4%	37.6%	36.4%
Households					
Family Households (Families)	2011-2015	Percent	66.3%	65.0%	66.1%
With Own Children Under 18 Years	2011-2015	Percent	30.7%	27.2%	28.8%
Married-Couple Family	2011-2015	Percent	49.4%	47.8%	48.3%
With Own Children Under 18 Years	2011-2015	Percent	20.9%	17.9%	19.4%
Male Householder, No Wife Present, Family	2011-2015	Percent	4.3%	4.6%	4.8%
With Own Children Under 18 Years	2011-2015	Percent	2.2%	2.3%	2.3%
Female Householder, No Husband Present, Family	2011-2015	Percent	12.6%	12.7%	13.0%
With Own Children Under 18 Years	2011-2015	Percent	7.5%	7.0%	7.1%
Non-Family Households	2011-2015	Percent	33.7%	35.0%	33.9%
Householder Living Alone	2011-2015	Percent	26.6%	29.1%	27.6%
65 Years and Over	2011-2015	Percent	9.0%	10.9%	10.1%
Relationship Status					
Never Married	2011-2015	Percent	34.1%	32.7%	32.8%
Now Married, Except Separated	2011-2015	Percent	49.2%	48.1%	48.2%
Separated	2011-2015	Percent	1.4%	1.4%	2.1%
Widowed	2011-2015	Percent	4.9%	6.2%	5.9%
Divorced	2011-2015	Percent	10.3%	11.6%	11.0%

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 (30.7%), as compared to Michigan (27.2%) and the United States (28.8%). Kent County also has a higher percentage of married couple families (49.4%) and married couple families with children under the age of 18 years (20.9%). Kent County has a comparable percentage of single parent households for both male householders (4.3%) and female householders (12.6%) as the state and nation.

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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[1]. 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[2]					
Indicator	**Time Period**	**Measure**	**Kent County**	**Michigan**	**United States**
Households					
Mean Household Income	2011-2015	Average Total Income ($)	$70,755.00	$66,760.00	$75,558.00
Less than $10,000	2011-2015	Percent	6.3%	8.0%	7.2%
$10,000 to $14,999	2011-2015	Percent	4.9%	5.5%	5.3%
$15,000 to $24,999	2011-2015	Percent	10.5%	11.5%	10.6%
$25,000 to $34,999	2011-2015	Percent	10.9%	10.9%	10.1%
$35,000 to $49,999	2011-2015	Percent	14.5%	14.4%	13.4%
$50,000 to $74,999	2011-2015	Percent	19.9%	18.4%	17.8%
$75,000 to $99,999	2011-2015	Percent	12.8%	11.9%	12.1%
$100,000 to $149,999	2011-2015	Percent	12.3%	11.8%	13.1%
$150,000 to $199,999	2011-2015	Percent	3.9%	4.0%	5.1%
$200,000 or more	2011-2015	Percent	3.8%	3.5%	5.3%
Families					
Mean Family Income	2011-2015	Average Total Income ($)	$88,153.00	$79,572.00	$83,722.00
Less than $10,000	2011-2015	Percent	3.8%	5.2%	4.7%
$10,000 to $14,999	2011-2015	Percent	3.1%	3.3%	3.1%
$15,000 to $24,999	2011-2015	Percent	7.3%	8.0%	7.9%
$25,000 to $34,999	2011-2015	Percent	8.9%	9.0%	8.8%
$35,000 to $49,999	2011-2015	Percent	13.1%	13.8%	12.8%
$50,000 to $74,999	2011-2015	Percent	21.6%	20.2%	18.8%
$75,000 to $99,999	2011-2015	Percent	15.5%	14.6%	14.1%
$100,000 to $149,999	2011-2015	Percent	16.2%	15.6%	16.3%
$150,000 to $199,999	2011-2015	Percent	5.2%	5.5%	6.6%
$200,000 or more	2011-2015	Percent	5.2%	4.7%	6.8%

SUMMARY

Kent County's mean household income is $70,755 per year, which is higher than the state average ($66,760) but lower than the United States ($75,558). The mean family income in Kent County is $88,153, which is higher than both the state ($79,572) and United States ($83,722).

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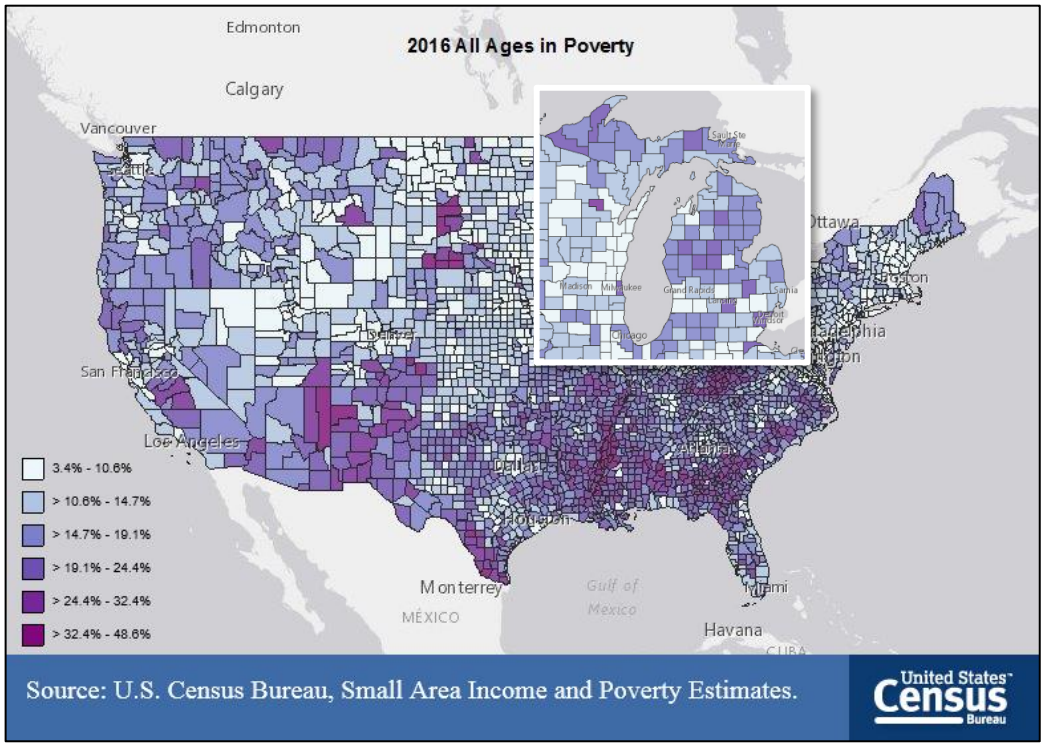
SOCIOECONOMIC CHARACTERISTICS: KENT COUNTY POVERTY

OVERVIEW: POVERTY

Poverty is defined as the condition where basic needs for food, clothing, and shelter are not adequately met[1]. 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[1]. 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[1].



Above. Poverty Estimates by County, United States, 2016[4]

In the United States, poverty is often measured as relative poverty. Following a directive from the Office of Management and Budget, the US Census Bureau uses a set of money income thresholds varying by family size and composition to determine those in poverty, which does not vary geographically[2]. In 2016, the poverty threshold for a family of four was $24,339, which 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[3]. The map above shows the distribution of poverty in the United States at the county level[4].

The federal government supports low-income pregnant, breastfeeding, and non-breastfeeding postpartum women and infants and children up to age five who are found to be at nutritional risk with the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)[5]. This program provides Federal grants to states for resources including supplemental foods, health care referrals, and nutrition education. WIC was established as a permanent program in 1974, with the goal of safeguarding the health of low-income women, infants, and children at nutritional risk.

Table 1. Kent County Socioeconomic Characteristics: Poverty

Indicator	Time Period	Measure	Kent County[6,7]	Michigan[6,7]	United States[6]
Income and Benefits					
Households with Social Security	2011-2015	Percent	27.0%	33.5%	29.8%
Households with Retirement Income	2011-2015	Percent	15.9%	22.7%	18.1%
Households with Supplemental Security Income	2011-2015	Percent	5.5%	6.2%	5.4%
Households with Cash Public Assistance Income	2011-2015	Percent	4.9%	3.4%	2.8%
Households with Food Stamp/SNAP Benefits (Past 12 Months)	2011-2015	Percent	15.3%	16.7%	13.2%
Food Assistance Program (FAP)[6]					
Children Ages 0 – 5[7]	2015	Percent	24.0%	30.1%	--
Children Ages 0 – 8[7]	2015	Percent	24.2%	29.5%	--
Children Ages 0 – 18[7]	2015	Percent	21.2%	24.7%	--

Table 1. Kent County Socioeconomic Characteristics: Poverty					
Indicator	**Time Period**	**Measure**	**Kent County[6,7]**	**Michigan[6,7]**	**United States[6]**
Family Independence Program (FIP)[6]					
Children Ages 0 – 5 Receiving FIP[7]	2015	Percent	1.9%	2.8%	--
Children Ages 0 – 8 Receiving FIP[7]	2015	Percent	1.9%	2.5%	--
Children Ages 0 – 18 Receiving FIP[7]	2015	Percent	1.7%	1.9%	--
Subsidized Care[6]					
Eligible Children Ages 0 – 5[7]	2015	Percent	2.9%	4.0%	--
Eligible Children Ages 0 – 12[7]	2015	Percent	2.2%	2.8%	--
Child Support[6]					
Ages 0 – 19 Owed Child Support[7]	2015	Percent	19.0%	20.8%	--
Child Support Owed but None Received[7]	2015	Percent	16.2%	24.5%	--
Received Less Than 70% Of Child Support Owed[7]	2015	Percent	58.3%	62.6%	--
Income Below The Poverty Level (Past 12 Months)					
Children Living in Poverty					
Ages 0 – 17[7]	2015	Percent	19.1%	22.2%	--
Ages 5 – 17[7]	2015	Percent	19.2%	20.8%	--
All Families	2011-2015	Percent	10.4%	11.9%	11.3%
With Related Children Under 18 Years	2011-2015	Percent	17.1%	20.0%	18.0%
With Related Children Under 5 Years Only	2011-2015	Percent	16.0%	22.9%	18.0%
Married Couple Families	2011-2015	Percent	4.5%	5.3%	5.6%
With Related Children Under 18 Years	2011-2015	Percent	6.6%	8.4%	8.3%
With Related Children Under 5 Years Only	2011-2015	Percent	4.8%	8.0%	6.7%
Families with Female Householder, No Husband Present	2011-2015	Percent	30.8%	34.0%	30.6%
With Related Children Under 18 Years	2011-2015	Percent	41.1%	45.3%	40.5%
With Related Children Under 5 Years Only	2011-2015	Percent	42.6%	52.8%	46.3%
All People	2011-2015	Percent	15.3%	16.7%	15.5%
Under 18 Years	2011-2015	Percent	20.9%	23.5%	21.7%
Related Children Under 18 Years	2011-2015	Percent	20.4%	23.1%	21.4%
Related Children Under 5 Years	2011-2015	Percent	22.8%	27.6%	24.5%
Related Children 5 to 17 Years	2011-2015	Percent	19.5%	21.6%	20.3%
18 Years and Over	2011-2015	Percent	13.4%	14.7%	13.5%
18 to 64 Years	2011-2015	Percent	14.5%	16.3%	14.5%
65 Years and Over	2011-2015	Percent	7.4%	8.1%	9.4%

Table 2. Kent County Socioeconomic Characteristics: WIC Demographics[8]				
	Time Period	**Kent County**	**Michigan**	**United States**
Racial and Ethnic Distribution				
White	2016	39.7%	53.8%	56.2%
Black	2016	22.4%	29.1%	24.5%
Hispanic/Latina	2016	29.2%	10.7%	12.4%
American Indian/Alaska Native	2016	0.2%	0.3%	0.5%
Asian/Pacific Islander	2016	3.4%	2.1%	2.8%
Multiple Races	2016	4.5%	4.0%	3.0%
Age Distribution				
Less Than 15 Years	2016	0.2%	0.1%	0.1%
15 – 17 Years	2016	3.3%	3.0%	3.0%
18 – 19 Years	2016	7.3%	7.9%	7.9%
20 – 29 Years	2016	60.4%	63.5%	63.4%
30 – 39 Years	2016	26.1%	23.7%	23.7%
40+ Years	2016	1.8%	1.8%	1.8%

SUMMARY

The overall poverty rate for Kent County is 15.3%, which is lower than the poverty rate for the State of Michigan (16.7%) and on par with the United States (15.5%) [Table 1]. Kent County (19.1%) has a lower percentage of children living in poverty when compared with the State of Michigan (22.2%). Kent County (17.1%) has a lower percentage of families with children under 18 years living in poverty than the State of Michigan (20.0%) and the national average (18.0%). Approximately three in ten single parent families with a female head of household live in poverty in Kent County (30.8%), which is less than the State of Michigan (34.0%) and comparable to the national rate (30.6%).

Kent County has a comparable age distribution of WIC enrollees as the State of Michigan and the United States [Table 2]. The largest age group enrolled in WIC are those 20-29 years of age. Kent County has a smaller proportion of white WIC enrollees and a larger proportion of Hispanic/Latinas than the state and nation.

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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[1]. This is just one example of how this type of social issue can affect the health and wellbeing of individuals, families, and communities.

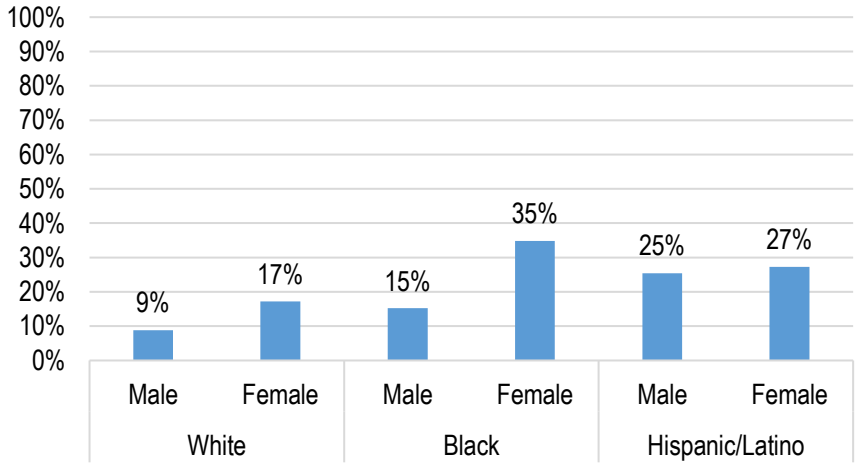
Kent County Socioeconomic Characteristics: Social Context[2]							
Indicator	Time Period	Measure	Always	Usually	Sometimes	Rarely	Never
How often, in the past 12 months, would you say you were worried or stressed about having enough money to pay your rent/mortgage?							
Total	2017	Percent	3.6%	3.0%	14.4%	16.7%	61.2%
Age							
18 – 24 Years	2017	Percent	0.0%	3.6%	29.5%	19.6%	43.8%
25 – 34 Years	2017	Percent	4.9%	4.9%	19.5%	23.9%	45.4%
35 – 44 Years	2017	Percent	5.0%	3.0%	11.5%	19.5%	61.0%
45 – 54 Years	2017	Percent	4.8%	3.5%	12.7%	17.5%	60.5%
55 – 64 Years	2017	Percent	4.0%	1.7%	12.7%	11.0%	69.9%
65+ Years	2017	Percent	1.1%	1.1%	6.3%	8.0%	83.5%
Gender							
Male	2017	Percent	3.4%	0.6%	12.4%	16.2%	66.2%
Female	2017	Percent	3.8%	5.2%	16.3%	17.2%	56.7%
Race/Ethnicity							
White	2017	Percent	4.0%	2.3%	11.7%	15.0%	66.7%
Black	2017	Percent	2.8%	9.4%	18.9%	19.8%	45.3%
Hispanic/Latino	2017	Percent	2.9%	2.9%	33.3%	20.6%	37.3%
Non-Hispanic	2017	Percent	3.8%	3.0%	12.5%	16.2%	63.7%
Education							
Less Than High School	2017	Percent	10.8%	1.5%	30.8%	12.3%	35.4%
High School Diploma	2017	Percent	3.0%	4.9%	18.4%	15.8%	57.9%
Some College	2017	Percent	3.5%	3.8%	17.5%	19.4%	54.8%
College Graduate	2017	Percent	3.0%	1.5%	7.8%	16.2%	70.8%
Household Income							
Less Than $15,000	2017	Percent	12.5%	4.7%	31.3%	17.2%	34.4%
$15,000 to $24,999	2017	Percent	14.3%	12.9%	25.7%	14.3%	32.9%
$25,000 to $34,999	2017	Percent	3.0%	2.0%	15.0%	26.0%	52.0%
$35,000 to $49,999	2017	Percent	1.9%	1.9%	11.0%	16.1%	69.0%
$50,000 Or More	2017	Percent	1.4%	0.6%	8.7%	15.1%	73.9%
How often, in the past 12 months, would you say you were worried or stressed about having enough money to buy nutritious meals?							
Total	2017	Percent	3.5%	1.5%	10.7%	10.9%	72.7%
Age							
18 – 24 Years	2017	Percent	4.2%	0.0%	6.5%	15.5%	73.8%
25 – 34 Years	2017	Percent	2.7%	2.7%	20.2%	15.7%	57.4%
35 – 44 Years	2017	Percent	5.8%	0.5%	10.2%	11.2%	71.4%
45 – 54 Years	2017	Percent	4.3%	2.6%	9.8%	10.3%	72.2%
55 – 64 Years	2017	Percent	2.9%	1.7%	10.9%	6.3%	77.6%
65+ Years	2017	Percent	1.7%	0.6%	4.4%	6.1%	87.3%

Kent County Socioeconomic Characteristics: Social Context[2]							
Indicator	Time Period	Measure	Always	Usually	Sometimes	Rarely	Never
Gender							
Male	2017	Percent	2.2%	1.4%	7.5%	8.3%	79.6%
Female	2017	Percent	4.9%	1.5%	13.7%	13.2%	66.3%
Race/Ethnicity							
White	2017	Percent	4.0%	1.3%	7.9%	9.8%	76.9%
Black	2017	Percent	2.7%	4.5%	20.5%	10.7%	61.6%
Hispanic/Latino	2017	Percent	3.4%	1.7%	20.2%	16.0%	56.3%
Non-Hispanic	2017	Percent	3.5%	1.5%	9.4%	10.5%	74.7%
Education							
Less Than High School	2017	Percent	9.7%	2.8%	25.0%	12.5%	50.0%
High School Diploma	2017	Percent	4.1%	1.7%	11.9%	12.6%	68.6%
Some College	2017	Percent	5.2%	0.9%	12.4%	14.4%	66.6%
College Graduate	2017	Percent	1.2%	1.6%	6.4%	7.4%	82.8%
Household Income							
Less Than $15,000	2017	Percent	20.6%	5.9%	20.6%	11.8%	41.2%
$15,000 to $24,999	2017	Percent	10.0%	8.6%	14.3%	28.6%	35.7%
$25,000 to $34,999	2017	Percent	0.9%	2.8%	13.8%	12.8%	69.7%
$35,000 to $49,999	2017	Percent	0.0%	0.6%	12.7%	9.0%	77.7%
$50,000 Or More	2017	Percent	1.4%	0.0%	5.5%	8.5%	84.6%

SUMMARY

Overall, the majority of Kent County (82.0%) residents report rarely or never experiencing stress associated with paying for housing-related costs. However, this estimate varies when stratified by demographic groups. Those aged 25-34 years are more likely to report always or usually for this indicator (10.0%) than those 65 years and older (2.2%). More females than males reported always or usually (9.0% vs. 4.0%, respectively). African Americans are more likely to report always or usually (12.7%) than whites (6.3%).

Figure 1. Always, Usually, or Sometimes Worried or Stressed About Having Enough Money to Buy Nutritious Meals in the Past 12 Months, by Race/Ethnicity and Gender, Kent County, 2017[2]



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. Similar to the previous indicator, this estimate differs by demographic group, as illustrated in Figure 1. African American females were most likely to report stress in the past year associated with having enough money to buy nutritious meals (35%). In each race and ethnicity, females reported higher stress than males, although among Hispanic/Latinos, the estimate between males and females was very similar (25% vs. 27%, respectively).

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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	👍 ☺	2011-2015	Percent	90.6%	90.4%	87.0%
Population with Private Health Insurance	--	2011-2015	Percent	72.2%	69.8%	66.1%
Population with Public Coverage	--	2011-2015	Percent	29.7%	35.1%	32.1%
No Health Insurance Coverage	👍 ☺	2011-2015	Percent	9.4%	9.6%	13.0%
Population Under 18 Years						
No Health Insurance Coverage	👍 ☺	2011-2015	Percent	3.6%	3.7%	6.5%
Children Insured by MI Child[3]	--	2015	Percent	1.8%	1.6%	--
Children Insured by Medicaid[3]	--	2015	Percent	36.5%	39.4%	--
Children with Health Insurance[3]	☺	2015	Percent	96.0%	96.0%	95.0%
Labor Force						
Employed						
With Health Insurance Coverage	👍 ☺	2011-2015	Percent	88.3%	87.8%	84.3%
With Private Health Insurance	--	2011-2015	Percent	83.0%	81.2%	78.7%
With Public Coverage	--	2011-2015	Percent	7.2%	8.7%	7.8%
No Health Insurance Coverage	👍 ☺	2011-2015	Percent	11.7%	12.2%	15.7%
Unemployed						
With Health Insurance Coverage	👎 ☺	2011-2015	Percent	63.7%	64.9%	59.4%
With Private Health Insurance	--	2011-2015	Percent	39.4%	36.3%	36.4%
With Public Coverage	--	2011-2015	Percent	26.5%	31.3%	25.5%
No Health Insurance Coverage	👎 ☺	2011-2015	Percent	36.3%	35.1%	40.6%
Not in Labor Force						
With Health Insurance Coverage	👎 ☺	2011-2015	Percent	86.7%	87.4%	80.5%
With Private Health Insurance	--	2011-2015	Percent	56.4%	55.0%	51.3%
With Public Coverage	--	2011-2015	Percent	38.4%	41.6%	35.8%
No Health Insurance Coverage	👎 ☺	2011-2015	Percent	13.3%	12.6%	19.5%

👍 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.

SUMMARY

Kent County has a high percentage of health insurance coverage for the total population (90.6%), which is similar to the state (90.4%) and higher than the nation (87.0%). Compared to the state and nation, Kent County has the lowest percentage of residents with public health insurance coverage (29.7%). Most people in Kent County who are employed have health insurance (88.3%), and many of those individuals have private health insurance (83.0%). Among those not in the labor force, Kent County has a lower percentage of insured than the state (86.7% vs. 87.4%, respectively), but higher than the nation (80.5%).

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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[1].

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 several 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[2].

Table 1. 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		Michigan		United States		National Target[a]
	PCP	Cost			PCP	Cost	PCP	Cost	PCP	Cost	83.9%
Total	👍 ☺	👍 ☺	2017	Percent	14.1%	10.5%	14.8%	12.8%	21.0%	13.3%	AHS-3: Increase the Proportion of Persons with a Usual Primary Care Provider
Age											
18 – 24 Years	👍 ☺	👍 ☺	2017	Percent	27.8%	10.7%	29.0%	13.1%	37.9%	14.2%	
25 – 34 Years	👎 ☺	👍 ☺	2017	Percent	28.7%	11.7%	28.3%	14.7%	34.1%	15.9%	
35 – 44 Years	👍 ☺	👍 ☹	2017	Percent	11.7%	14.6%	17.1%	18.7%	22.4%	14.2%	
45 – 54 Years	👍 ☺	👎 ☹	2017	Percent	7.3%	13.7%	11.1%	12.9%	15.2%	13.7%	
55 – 64 Years	👍 ☺	👍 ☺	2017	Percent	5.7%	8.0%	7.1%	12.3%	10.4%	10.6%	
65+ Years	👍 ☺	👍 ☺	2017	Percent	3.3%	3.3%	4.1%	7.2%	5.2%	5.2%	
Gender											
Male	👍 ☺	👍 ☺	2017	Percent	17.5%	10.0%	19.2%	12.0%	27.0%	12.0%	
Female	👎 ☺	👍 ☺	2017	Percent	10.8%	10.9%	10.6%	13.5%	16.1%	14.5%	
Race/Ethnicity											4.2%
White	👍 ☺	👍 ☺	2017	Percent	10.7%	9.0%	13.3%	11.8%	16.9%	10.4%	AHS-6.2: Reduce the Proportion of Persons Who Are Unable to Obtain or Delay in Obtaining Necessary Medical Care
Black	👍 ☺	👎 ☺	2017	Percent	18.0%	17.0%	19.3%	15.1%	22.3%	17.1%	
Hispanic/Latino	👎 ☺	👎 ☺	2017	Percent	31.9%	16.0%	24.1%	16.0%	36.6%	21.1%	
Non-Hispanic	--	--	2017	Percent	12.2%	9.8%	--	--	--	--	
Education											
Less Than High School	👎 ☺	👍 ☺	2017	Percent	23.6%	18.1%	20.7%	19.5%	32.3%	22.9%	
High School Diploma	👍 ☺	👍 ☺	2017	Percent	16.0%	11.6%	16.9%	15.0%	23.1%	13.9%	
Some College	👎 ☺	👍 ☺	2017	Percent	16.7%	12.1%	13.7%	12.8%	19.9%	13.5%	
College Graduate	👍 ☺	👎 ☹	2017	Percent	9.7%	7.4%	10.8%	7.3%	15.4%	7.1%	
Household Income											
Less Than $15,000	👍 ☺	👍 ☺	2017	Percent	14.5%	15.9%	21.1%	20.2%	29.6%	26.0%	
$15,000 to $24,999	👎 ☺	👎 ☺	2017	Percent	25.7%	21.4%	18.6%	20.4%	29.4%	23.2%	
$25,000 to $34,999	👍 ☺	👍 ☺	2017	Percent	7.3%	16.5%	17.3%	18.4%	25.2%	16.9%	
$35,000 to $49,999	👍 ☺	👍 ☹	2017	Percent	12.7%	11.4%	15.1%	15.2%	21.5%	13.7%	
$50,000 Or More	👍 ☺	👍 ☺	2017	Percent	10.3%	5.1%	10.6%	6.2%	15.2%	6.1%	

👍 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.
[a] Target is based on Healthy People 2020 Goal.
**Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).*

Table 2. Kent County Healthcare Resource Availability: Healthcare Access

Indicator	Status	Time Period	Measure	Kent County[3]	Michigan[4]	United States[5]	National Target[a]
Do you have any health care coverage?							**83.2%**
Yes	--	2017	Percent	94.5%	91.8%	90.0%	**AHS-1.1: Increase the Proportion of Persons with Medical Insurance**
No	--	2017	Percent	5.5%	8.2%	10.0%	
Do you have Medicare?							
Yes	--	2017	Percent	22.9%	--	--	
No	--	2017	Percent	77.0%	--	--	
What is the primary source of your healthcare coverage?							
A Plan Through an Employer or Union	--	2017	Percent	70.6%	--	--	
A Plan That You or Another Family Member Buys on Your Own	--	2017	Percent	11.1%	--	--	
Medicare	--	2017	Percent	0.4%	--	--	
Medicaid Or Other State Program	--	2017	Percent	14.0%	--	--	
TRICARE	--	2017	Percent	2.0%	--	--	
Some Other Source	--	2017	Percent	1.8%	--	--	
No Coverage	--	2017	Percent	0.1%	--	--	
Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?							**9.0%**
Yes	--	2017	Percent	10.5%	12.8%	12.0%	**AHS-6: Reduce the Proportion of Persons Who Are Unable to Obtain or Delay in Obtaining Necessary Medical Care, Dental Care, or Prescription Medicines**
No	--	2017	Percent	89.5%	87.2%	88.0%	
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	--	2017	Percent	2.3%	--	--	
You Couldn't Get an Appointment Soon Enough	--	2017	Percent	7.1%	--	--	
Once You Got There, You Had to Wait Too Long to See the Doctor	--	2017	Percent	1.6%	--	--	
The Clinic/Doctor's Office Wasn't Open When You Got There	--	2017	Percent	1.1%	--	--	
You Didn't Have Transportation	--	2017	Percent	4.2%	--	--	
In the past 12 months, was there any time when you did not have any health insurance or coverage?							
Yes	--	2017	Percent	6.9%	--	--	
No	--	2017	Percent	93.1%	--	--	
How long has it been since you last had healthcare coverage?							
6 Months or Less	--	2017	Percent	39.8%	--	--	
More Than 6 Months, But Not More Than 1 Year Ago	--	2017	Percent	13.1%	--	--	
More Than 1 Year, But Not More Than 3 Years Ago	--	2017	Percent	15.8%	--	--	
More Than 3 Years	--	2017	Percent	18.1%	--	--	
Never	--	2017	Percent	13.2%	--	--	
Was there a time in the past 12 months when you did not take your medication as prescribed because of cost?							
Yes	--	2017	Percent	8.3%	--	--	
No	--	2017	Percent	91.7%	--	--	
In general, how satisfied are you with the healthcare you receive?							
Very Satisfied	--	2017	Percent	66.2%	--	--	
Somewhat Satisfied	--	2017	Percent	31.1%	--	--	
Not at All Satisfied	--	2017	Percent	2.7%	--	--	
Do you currently have any healthcare bills that are being paid off over time?							
Yes	--	2017	Percent	25.6%	--	--	
No	--	2017	Percent	74.4%	--	--	

👍 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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[a] Target is based on Healthy People 2020 Goal.
Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).

SUMMARY

An estimated 14.1% of Kent County adults do not have a personal doctor or healthcare provider, which is similar to the statewide estimate (14.3%) and notably lower than the nation (21.0%) [Table 1]. Hispanics (31.9%) 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.

Approximately one in ten Kent County residents (10.5%) reported an inability to see a doctor because of the cost. Cost appears to be a significant factor for accessing healthcare among African Americans (17.0%), and Hispanic/Latinos (16.0%) 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 22.9% of Kent County adults are on Medicare; those who are not on Medicare have healthcare coverage through an employer or union (70.6%) [Table 2]. Of all the reasons respondents provided for delaying needed medical care in the past twelve months, the most common reason was an inability to get an appointment soon enough (7.1%). One in four Kent County adults report having healthcare bills that are being paid off over time (25.6%).

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1. Healthy People 2020. (2017). *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

KENT COUNTY
2017 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.

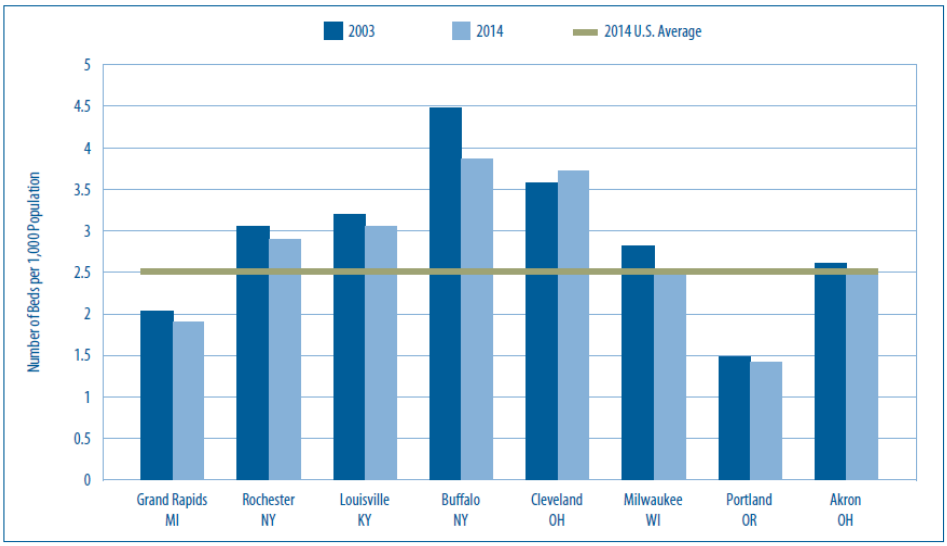
The tables on this page and the following page describe the capacity of the health system operating within Kent County. These tables offer the number of healthcare facilities within the community, as well as the capacity of those facilities, and the number and type of healthcare professionals employed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

Table 1. Kent County Health Resource Availability: Number Facilities[1]

Indicator	Year*	Measure	Kent County	Michigan
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

*Updated data from the Area Health Resources Files were unavailable at the time of this report

Figure 2: Hospital Beds per 1,000 Population



Source: American Hospital Association. *AHA hospital statistics, 2016*
2003 U.S. average = 2.8 beds per 1,000 population

Source: Grand Valley State University (2017)[3]

SUMMARY

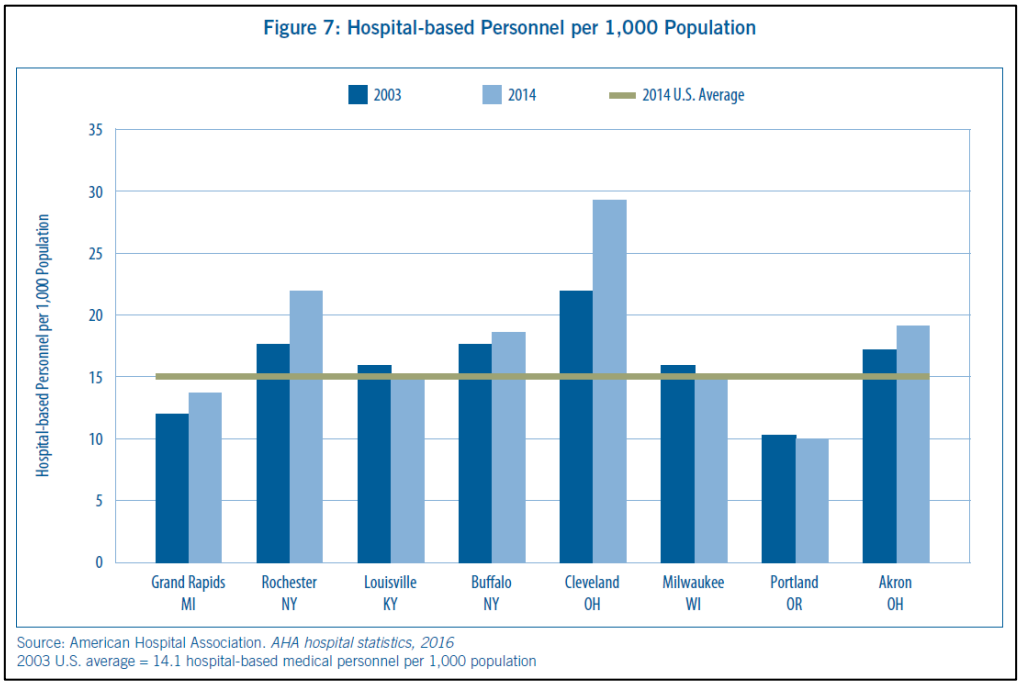
Kent County is a healthcare resource-rich community. There are several hospitals, as well as over 20 community health centers, 16 federally qualified health centers, and one rural health clinic within the jurisdiction [Table 1].

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 [Table 1].

Grand Rapids has a lower number of hospital beds per 1,000 population than similarly sized cities, and lower than the national average [Figure 2].

Tables 3 and 4 provide the number of personnel in each health profession, although the data are from 2011 and 2012 and are likely to have changed.

Grand Rapids has fewer hospital-based personnel per 1,000 population than similarly sized cities, and lower than the national average [Figure 7]. The rate in 2014 was higher than the rate in 2003, however. According to data from 2014, there are many job openings in West Michigan for health professions, and several positions have considerable projected 10-year employment growth [Table 2]. For example, the home health aide and occupational therapy assistant professions are each expected to grow 26% in the next 10 years [Table 2]. The profession with the largest number of job openings is registered nurse, with 900 openings in 2014 [Table 2].



Source: Grand Valley State University (2017)[3]

Table 2. Kent County Health Resource Availability: Need for Selected Professions[3]

Profession	Year	West Michigan Average Annual Job Openings	Average Hourly Wage in Grand Rapids ($)*	Projected 10-year Employment Growth (%)
Dental Assistant	2014	71	19.69	4.4
Dental Hygienist	2014	52	28.79	4.1
Diagnostic Medical Sonographer	2014	26	28.12	19.7
Dietitian and Nutritionist	2014	10	26.59	10.6
Emergency Medical Technician (EMT) and Paramedic	2014	61	16.27	16.9
Family and General Practitioner	2014	38	75.61	3.6
Home Health Aide	2014	494	10.32	26.2
Licensed Practical Nurse (LPN)	2014	136	21.20	5.5
Medical Assistant	2014	194	15.47	10.8
Medical and Clinical Lab Technologist	2014	62	27.26	8.8
Nurse Practitioners	2014	36	43.66	23.5
Nursing Assistant	2014	437	13.31	9.7
Occupational Therapy Assistant	2014	14	21.66	26.1
Occupational Therapist	2014	44	33.65	16.3
Optometrist	2014	15	56.39	12.9
Physician Assistant	2014	42	54.40	19.4
Physical Therapist	2014	113	40.43	21.9
Respiratory Therapist	2014	38	25.37	10.9
Registered Nurse (RN)	2014	900	29.27	12.4
Speech-language Pathologist	2014	29	32.91	7.7
Surgical Technologist	2014	17	20.11	9.6

*Wage data are from 2015

Table 3. Kent County Health Resource Availability: Capacity[1] (Number Hospital Employees)				
Indicator	**Year***	**Measure**	**Kent County**	**Michigan**
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

*Updated data from the Area Health Resources Files were unavailable at the time of this report

Table 4. Kent County Health Resource Availability: Capacity (Number Medical and Nursing Specialties)					
Indicator	**Year***	**Measure**	**Kent County[1]**	**Michigan[1]**	**National Target[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	
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	

Note: NPI – National Provider Identifier Number
*Updated data from the Area Health Resources files were unavailable at the time of this report

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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.

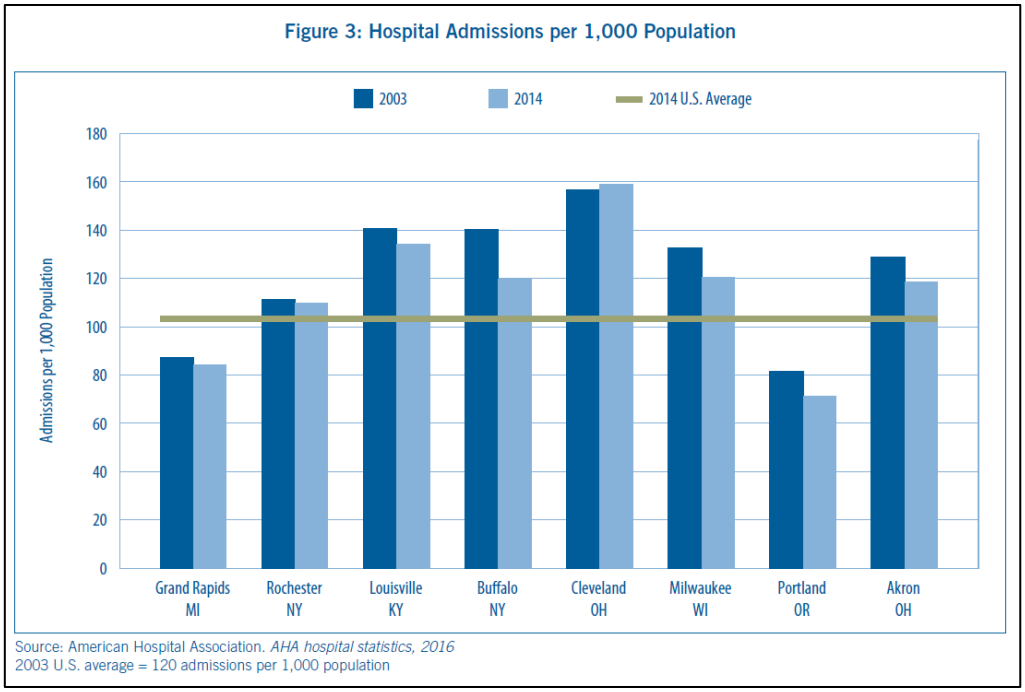
The healthcare delivery system of today has undergone tremendous change, even over the relatively short period of the past decade. New and emerging technologies, including drugs, devices, procedures, tests, and imaging machinery, have changed patterns of care and sites where care is provided. Procedures 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[1]

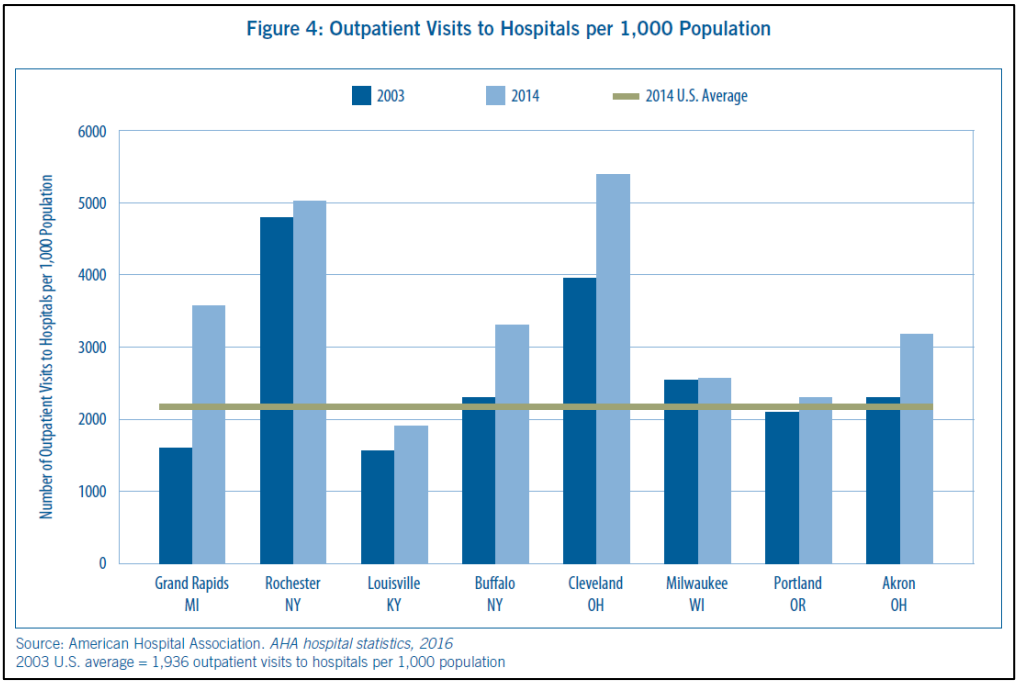
Indicator	Year	Measure	Kent County	Michigan
Hospitals				
Inpatient Days	2011	Total Number	506,848	6,916,128
Outpatient Days	2010	Total Number	2,287,007	32,639,898
Admissions	2011	Total Number	96,096	1,235,322
Short-Term Hospitals				
Inpatient Days	2011	Total Number	421,507	5,950,681
Admissions	2011	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

Note: Updated data from the Area Health Resources files were unavailable at the time of this report.

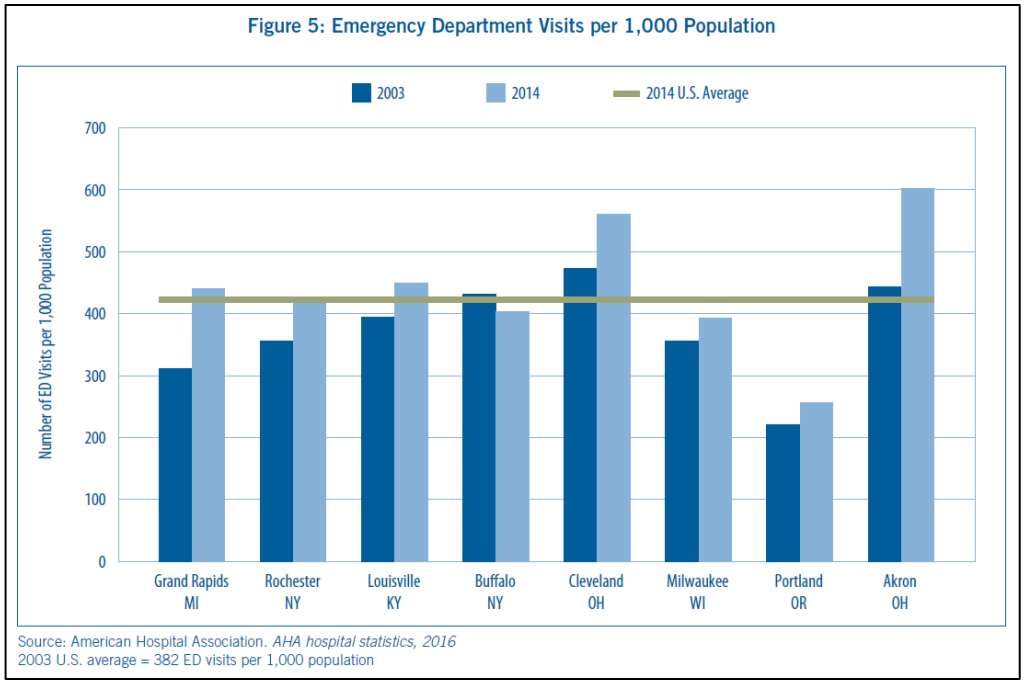
Healthcare utilization has also evolved as the population's need for care has changed over time. Some factors that influence need include aging, socio-demographic population shifts, and changes in the prevalence and incidence of different diseases. As the prevalence of chronic conditions increases, for 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]



Source: Grand Valley State University (2017)[3]



Source: Grand Valley State University (2017)[3]



Source: Grand Valley State University (2017)[3]

SUMMARY

In 2014, Grand Rapids had approximately 80 hospital admissions per 1,000 population, which was a lower rate than similarly sized cities and lower than the national average [Figure 3]. Grand Rapids had a higher rate of outpatient visits to hospitals (approximately 3,600 per 1,000 population) than the national average [Figure 4]. Grand Rapids had a similar rate of emergency department visits (approximately 450 per 1,000 population) as similarly sized cities and a slightly higher rate than the national average [Figure 5].

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Section 2: Factors Influencing Health

KENT COUNTY
2017 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

Subsections

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

QUALITY OF LIFE

KENT COUNTY
2017 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 EXERCISE OPPORTUNITIES AND PARKS
- ACCESS TO HEALTHY FOOD

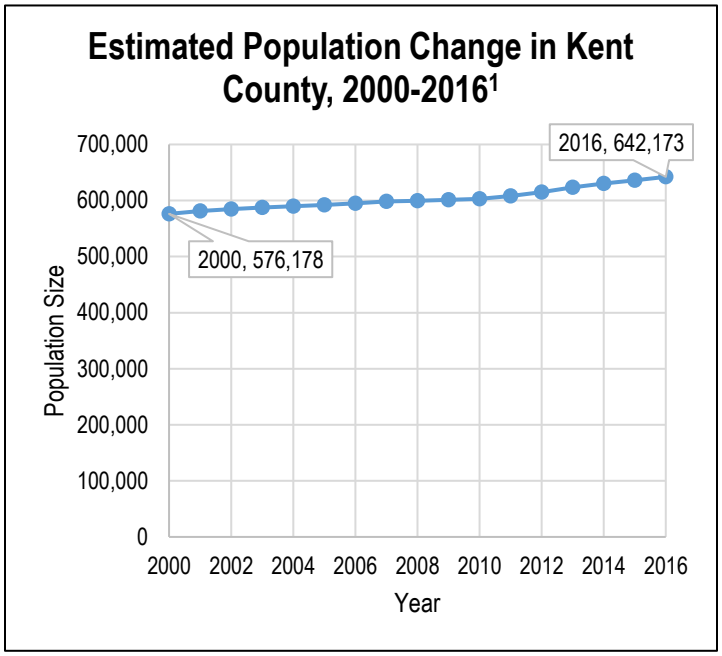
QUALITY OF LIFE: KENT COUNTY POPULATION GROWTH AND STABILITY

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 2016 was about 642,173 people. The City of Grand Rapids has seen similar trends in growth, with a population increase from 192,294 in 2013 to an estimated 196,445 in 2016. 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 that same time was more than three percent.



The majority of Kent County residents have an established long-term residence, with 83% living in the same house. Even among those who moved from the house they lived in the previous year, 11% remained a resident of Kent County.

Kent County Quality of Life: Resident One Year Ago[2]						
Indicator	**Time Period**	**Measure**	**Grand Rapids**	**Kent County**	**Michigan**	**United States**
Same House	2011-2015	Percent	76.8%	83.3%	85.3%	85.1%
Different House, Same County	2011-2015	Percent	15.5%	11.1%	9.0%	8.8%

REFERENCES

1. United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Bridged-Race Population Estimates, United States July 1st resident population by state, county, age, sex, bridged-race, and Hispanic origin. Compiled from revised bridged-race 2000-2009 intercensal population estimates (released by NCHS on 10/26/2012); and bridged-race Vintage 2016 (2010-2016) postcensal population estimates (released by NCHS on 6/26/2017). Available on CDC WONDER Online Database. Accessed at http://wonder.cdc.gov/bridged-race-v2016.html.
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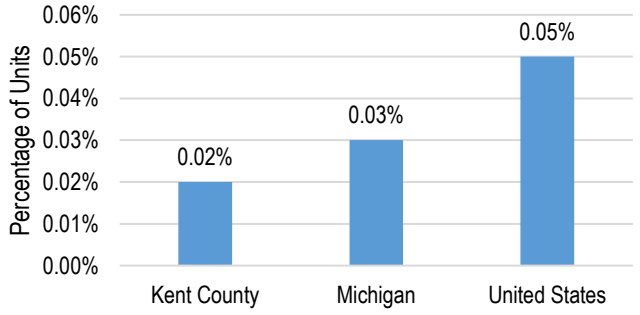
OVERVIEW: FORECLOSURES AND VACANT HOUSING

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].

Table 1. Cities With The Highest Foreclosure Rates Within Kent County, September 2017

City	Foreclosure Rate
Kent County Average	1 In Every 7,150 Homes
Kent City	1 In Every 974 Homes
Sparta	1 In Every 2,722 Homes
Cedar Springs	1 In Every 2,934 Homes
Wyoming	1 In Every 4,429 Homes
Rockford	1 In Every 6,134 Homes

Figure 1. Percent of Foreclosures per Total Number of Units for Kent County, Michigan, and the United States[2]



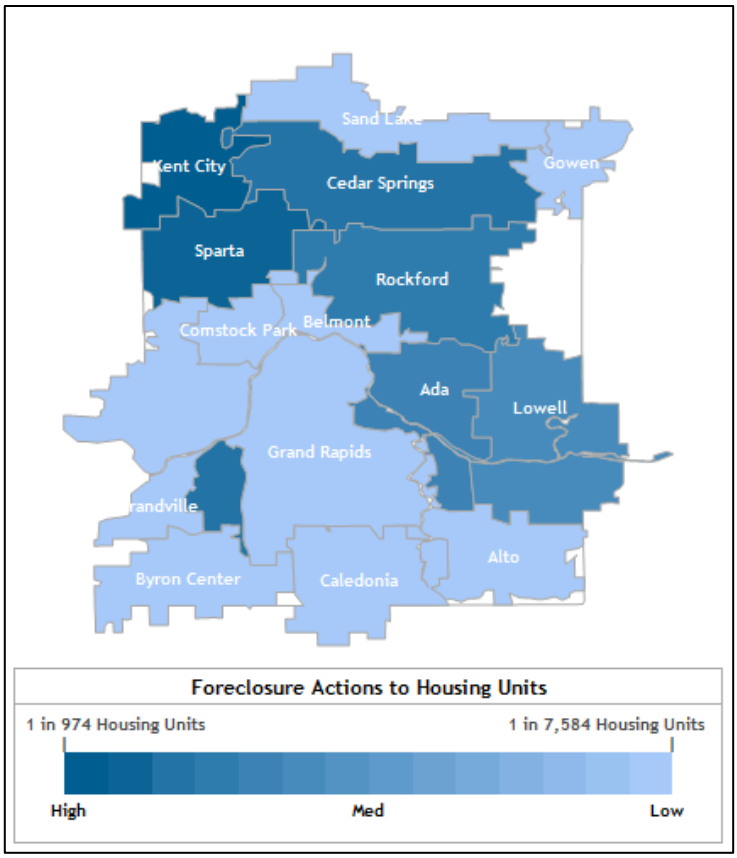


Figure 2. Ratio of foreclosure actions to number of housing units in Kent County, MI. (Image courtesy of RealtyTrac, 2017)[2].

Table 2. Kent County Quality of Life: Vacant Housing[3]

Indicator	Time Period	Measure	Grand Rapids	Kent County	Michigan	United States
Vacant Housing Units	2011-2015	Percent	9.0%	6.1%	15.4%	12.3%
Homeowner Vacancy Rate	2011-2015	Rate Per 100,000	2.8	1.3	2.2	1.9
Rental Vacancy Rate	2011-2015	Rate Per 100,000	5.3	4.3	6.2	6.4

SUMMARY

Kent County's foreclosure rate is lower than the rates reported for the State of Michigan and the United States [Figure 1]. In September 2017, the communities within Kent County most affected by foreclosures were Kent City, Sparta, Cedar Springs, Wyoming, and Rockford [Table 1 and Figure 2]. 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 [Table 2].

REFERENCES

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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[2]							
Indicator	Time Period	Measure	Grand Rapids	Kent County	Michigan	United States	National Target[a]
Year Structure Built							
2014 Or Later	2011-2015	Percent	0.1%	0.1%	0.1%	0.1%	NA
2010 – 2013	2011-2015	Percent	0.6%	1.0%	0.7%	1.5%	
2000 – 2009	2011-2015	Percent	5.0%	12.3%	10.3%	14.9%	
1990 – 1999	2011-2015	Percent	6.1%	14.5%	13.0%	14.0%	
1980 – 1989	2011-2015	Percent	6.8%	12.1%	9.9%	13.7%	
1970 – 1979	2011-2015	Percent	8.6%	14.0%	15.4%	15.7%	
1960 – 1969	2011-2015	Percent	10.3%	10.5%	12.1%	10.9%	
1950 – 1959	2011-2015	Percent	16.6%	12.5%	15.3%	10.7%	
1940 – 1949	2011-2015	Percent	8.9%	5.6%	8.0%	5.3%	
1939 Or Earlier	2011-2015	Percent	37.1%	17.4%	15.2%	13.2%	
Value of Owner Occupied Units							
Less Than $50,000	2011-2015	Percent	10.3%	8.9%	15.7%	9.1%	NA
$50,000 – $99,999	2011-2015	Percent	32.7%	19.8%	24.3%	15.3%	
$100,000 – $149,999	2011-2015	Percent	32.9%	26.6%	19.7%	15.8%	
$150,000 – $199,999	2011-2015	Percent	13.9%	18.7%	15.9%	15.1%	
$200,000 – $299,999	2011-2015	Percent	6.8%	15.4%	14.1%	18.3%	
$300,000 – $499,999	2011-2015	Percent	2.7%	8.0%	7.4%	15.8%	
$500,000 – $999,999	2011-2015	Percent	0.5%	2.1%	2.3%	8.4%	
$1,000,000 Or More	2011-2015	Percent	0.2%	0.5%	0.6%	2.2%	
Selected Home Characteristics							
More Than 1.51 Occupants Per Room	2011-2015	Percent	0.7%	0.4%	0.4%	1.0%	NA
Households with Inadequate Kitchen Facilities	2011-2015	Percent	1.5%	1.0%	0.7%	0.9%	
Households with Inadequate Plumbing	2011-2015	Percent	0.3%	0.3%	0.4%	0.4%	

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

SUMMARY

Much of the housing in Kent County is relatively new construction, with 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 80% of them built in 1979 or earlier. Additionally, the value of homes in Grand Rapids is less when compared with the value of homes across Kent County. More than 40% of homes in Grand Rapids are worth less than $100,000, compared to nearly 30% in Kent County.

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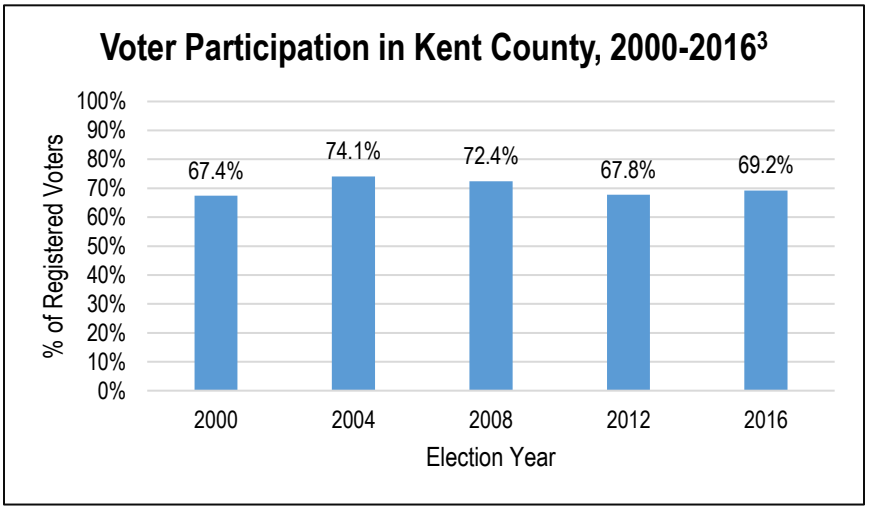
QUALITY OF LIFE: KENT COUNTY VOTER PARTICIPATION

OVERVIEW: VOTER PARTICIPATION

Voting is arguably the most important civic opportunity given to citizens in the United States. To vote in the United States, an individual must be 18 years or age or older and a US citizen[1].

Several 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[2].



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[2].

Kent County Quality of Life: Voter Participation, 2016 Presidential Election[4]				
Indicator	**Time Period**	**Measure**	**Kent County**	**Michigan**
Total Registered Voters	2016	Total Number	453,052	7,355,063
Total Ballots Cast	2016	Total Number	313,396	4,874,619
Voter Turnout	2016	Percent	69.2%	66.3%

SUMMARY

Nearly 70% of Kent County registered voters turned out to vote in the 2016 elections, as compared with 66% of registered voters across the state. Since the 2000 elections, Kent County has consistently had at least 67% of registered voters participate in major presidential or gubernatorial elections.

REFERENCES

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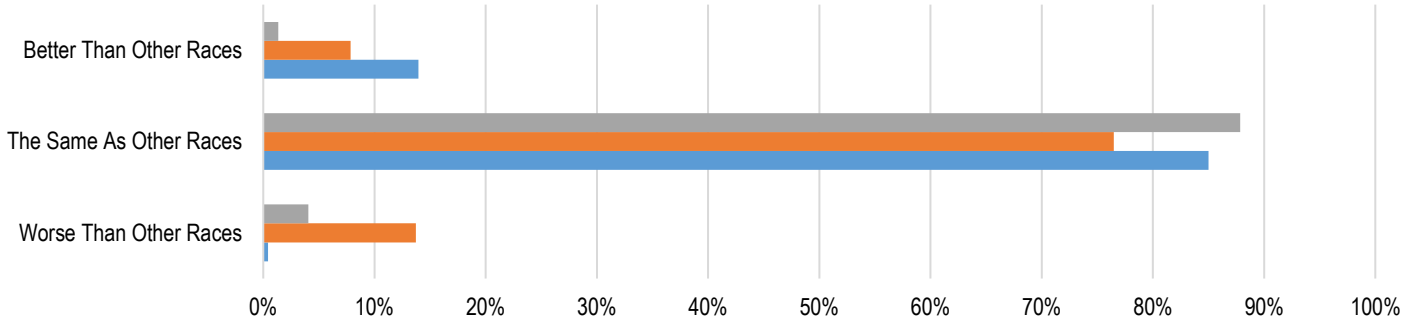
OVERVIEW: REACTIONS TO RACE AND RACISM

Racism is common. Research from around the world supports the notion that there is an association between racism, morbidity, and mortality[1]. 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[2]. 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[2].

Kent County Quality of Life: Reactions to Race[3]						
Indicator	Time Period	Measure	Kent County Total	Race/Ethnicity		
				White	Black	Hispanic
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	2017	Percent	51.1%	54.8%	47.6%	34.2%
Once a Year	2017	Percent	10.1%	10.5%	5.7%	11.4%
Once a Month	2017	Percent	15.8%	16.3%	14.3%	15.8%
Once a Week	2017	Percent	10.9%	11.1%	6.7%	9.6%
Once a Day	2017	Percent	6.2%	4.9%	15.2%	1.8%
Once an Hour	2017	Percent	0.9%	0.8%	1.0%	0.9%
Constantly	2017	Percent	5.0%	1.5%	9.5%	26.3%
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	2017	Percent	4.0%	2.3%	9.3%	5.3%
The Same as Other Races	2017	Percent	88.2%	88.9%	90.7%	89.3%
Better Than Other Races	2017	Percent	6.6%	7.4%	0.0%	4.0%
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	2017	Percent	1.9%	0.4%	13.7%	4.1%
The Same as Other Races	2017	Percent	85.5%	85.0%	76.5%	87.8%
Better Than Other Races	2017	Percent	12.3%	14.0%	7.8%	1.4%
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	2017	Percent	3.9%	1.3%	17.3%	10.2%
No	2017	Percent	96.1%	98.7%	82.7%	89.8%
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	2017	Percent	6.1%	2.8%	13.5%	15.3%
No	2017	Percent	93.9%	97.2%	86.5%	84.7%

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?[3]



	Worse Than Other Races	The Same As Other Races	Better Than Other Races
Hispanic/Latino	4.1%	87.8%	1.4%
Black	13.7%	76.5%	7.8%
White	0.4%	85.0%	14.0%

SUMMARY

Among Kent County residents, 12% of adults think about their race once per day or more. Compared to 1.5% of white residents, 9.5% of African Americans and 26% of Hispanics report thinking about their race constantly. The majority of residents report feeling that they are treated the same as others at work; however, approximately 9% of African Americans and 5% of Hispanics perceive being treated worse. When seeking healthcare, more than 85% of all individuals felt that their experience was the same as that of people of other races. Compared to 1% of white residents, 17% of African Americans and 10% of Hispanics have experienced physical symptoms because of how they were treated based on their race within the past 30 days. Additionally, African Americans were nearly 5 times more likely and Hispanics were nearly 5.5 times more likely than white residents to report being emotionally upset because of how they were treated based on their race within the past 30 days.

REFERENCES

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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].

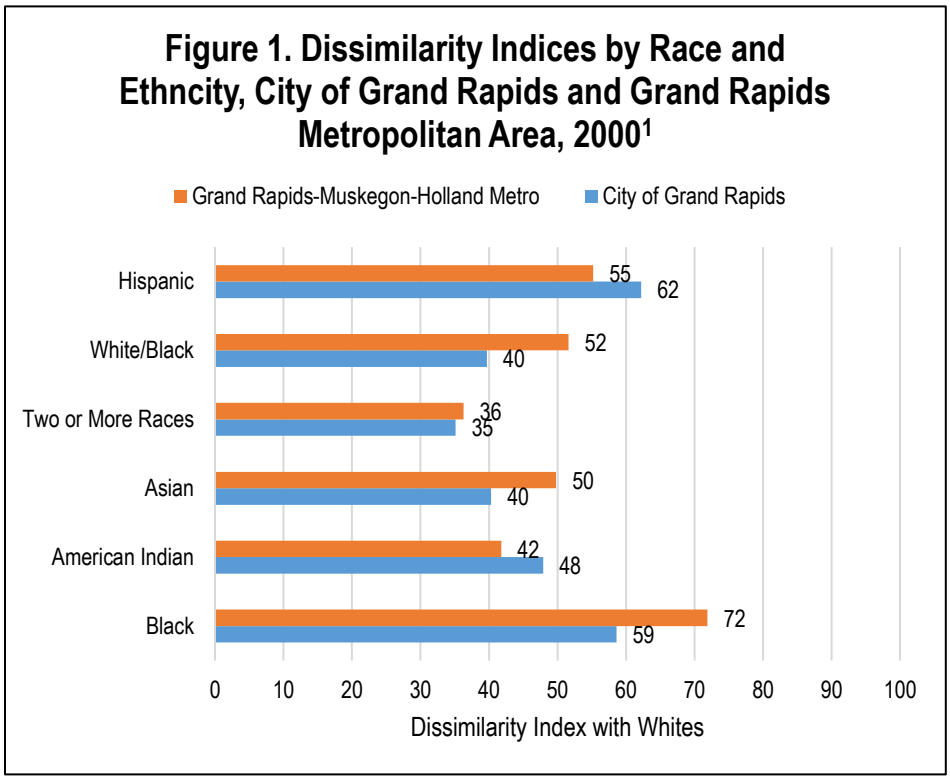

Figure 1. Dissimilarity Indices by Race and Ethncity, City of Grand Rapids and Grand Rapids Metropolitan Area, 2000[1]

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.

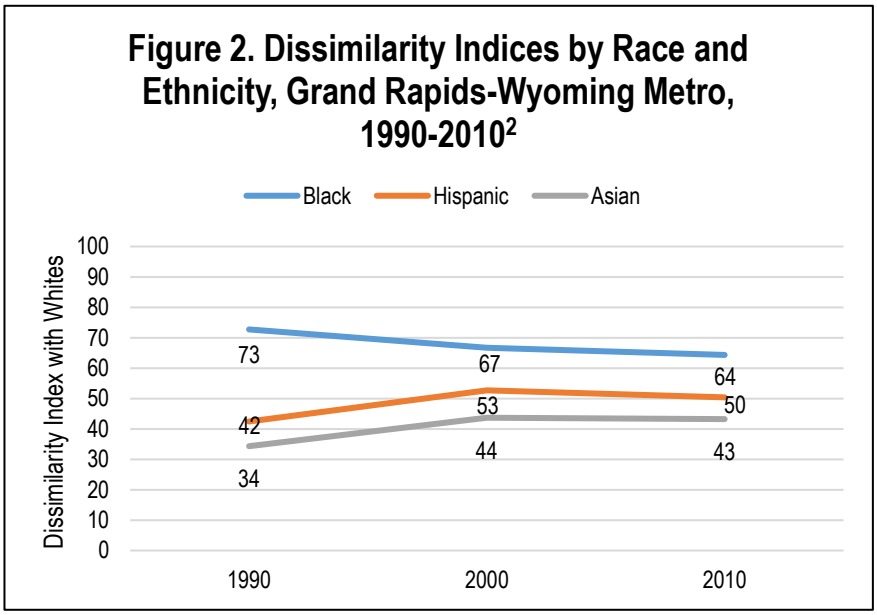

Figure 2. Dissimilarity Indices by Race and Ethnicity, Grand Rapids-Wyoming Metro, 1990-2010[2]

SUMMARY

Figure 1 compares dissimilarity indices for the Grand Rapids-Muskegon Holland metropolitan area and the City of Grand Rapids based on the 2000 US Census. Community segregation in the Grand Rapids metropolitan area appears to be highest between whites and blacks (72) and whites and Hispanics (55). Similarly, in the City of Grand Rapids, the highest segregation occurs between whites and Hispanics (62) and whites and blacks (59). In both the Grand Rapids metropolitan area and the City of Grand Rapids, the lowest segregation is estimated between whites and those reporting two or more races. Overall, the City of Grand Rapids has lower dissimilarity values than the Grand Rapids metropolitan area except for Hispanics and American Indians.

Figure 2 represents a slightly different analysis than Figure 1, comparing the dissimilarity indices for the Grand Rapids-Wyoming metropolitan area between whites and blacks, Hispanics, and Asians for the years 1990, 2000, and 2010. Between 1990 and 2010, segregation between whites and blacks in this geographic region has decreased, while the value for Hispanics and Asians has increased.

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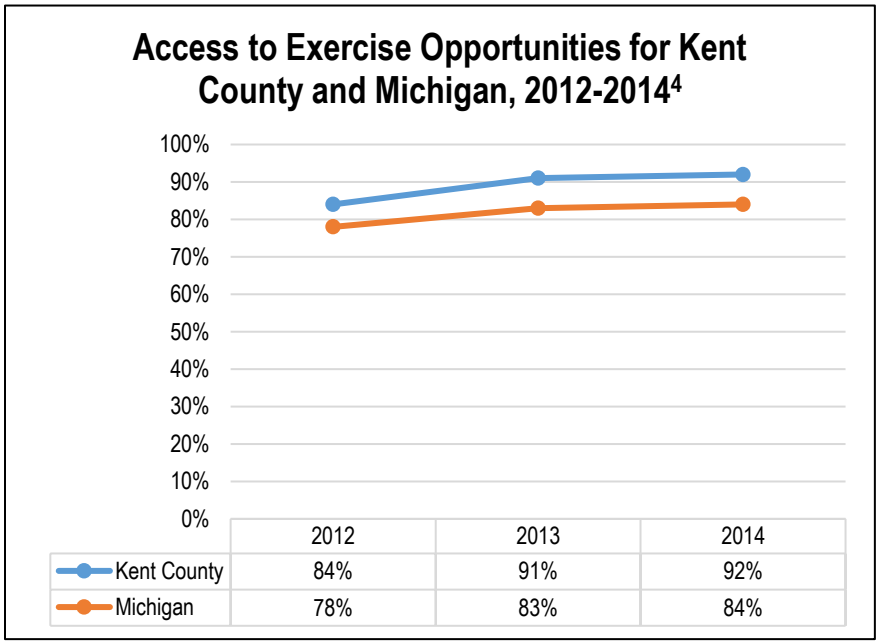
OVERVIEW: ACCESS TO EXERCISE OPPORTUNITIES

Proximity to exercise opportunities, like parks and recreation facilities, has been linked to 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].

Access to exercise opportunities is defined as the percentage of individuals in a county who live reasonably close to a location for physical activity, including parks (local, state, or national) or recreational facilities (e.g. gyms, community centers, dance studios, etc.)[3]. In this context, the term "reasonably close" includes individuals who reside 1) in a census block within a half mile of a park, or, 2) in urban census blocks, those who live within one mile of a recreational facility, or 3) in rural census blocks, those who live within three miles of a recreational facility[4].



SUMMARY

Between 2012 and 2014, access to exercise opportunities have increased for both Kent County and Michigan. Approximately 92% of Kent County residents have access to exercise opportunities, which puts Kent County in the 90th percentile of counties in the United States.

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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[1].

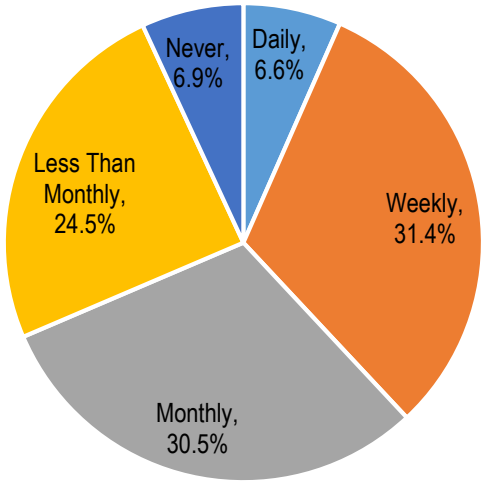
Not only do parks improve physical health through promoting an active lifestyle, they have also been shown to have a positive impact on psychological and social health. Additionally, parks provide children with safe places to play and develop, build healthy communities by stabilizing neighborhoods and strengthening community development, and increases social capital[1].

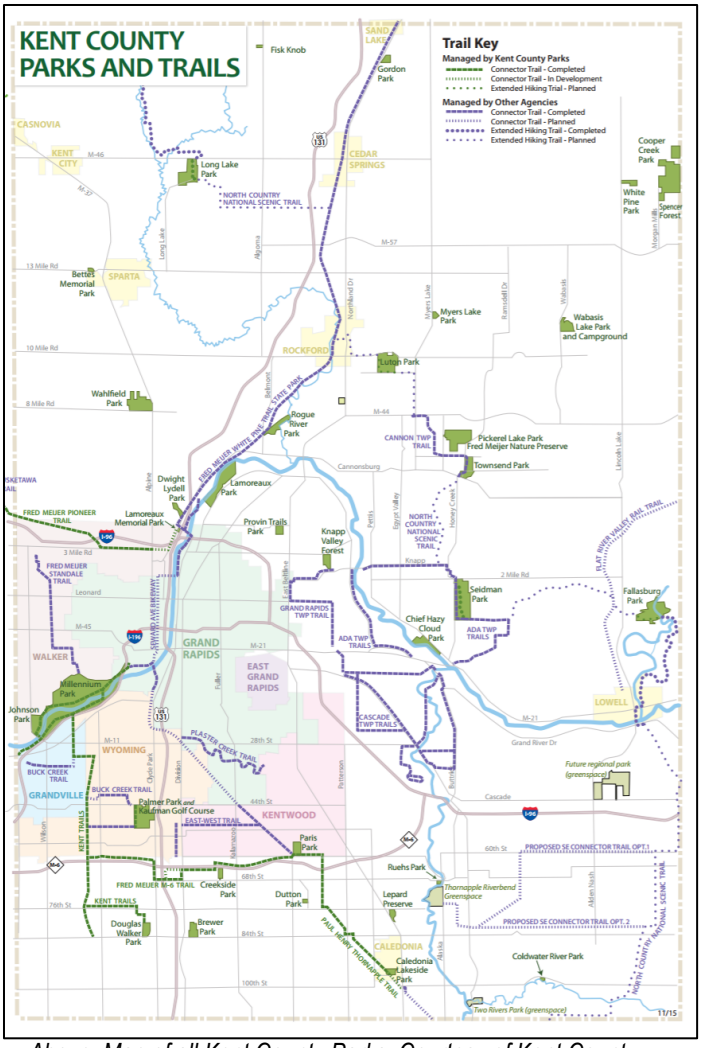
The measure commonly used to determine access to parks considers the percentage of people living within ½ mile of the boundary of a park[2].

SUMMARY

Kent County is home to 42 parks that are scattered throughout the county and 74 parks that fall within the city limits of Grand Rapids[3]. Almost 40% of Kent County residents report visiting outdoor parks, beaches, nature trails, or other greenspaces daily or weekly [Figure 1]. One in four residents visit these greenspaces less than monthly, and 7% never visit.

Figure 1. Self-Reported Frequency of Visiting Outdoor Greenspaces, Kent County, 2017[5]





Above: Map of all Kent County Parks. Courtesy of Kent County Parks[4].

About four in ten Kent County residents (44%) reside within half a mile of a park [Table 1]. Higher proportions of African Americans and Hispanics reside within this half mile radius of parks than whites.

Additionally, three in four Kent county children aged five to nine years live within walking distance of a public elementary school [Table 2]. This provides additional access to recreational activities, as most elementary schools have playgrounds with maintained and safe equipment.

Table 1. Kent County Quality of Life: Access to Parks[6] Percentage of Population Living Within Half A Mile Of Park						
Indicator	Status	Time Period	Measure	Kent County	Michigan	National Target
Total Population	👍	2010	Percent	44%	37%	NA
Total Population by Race/Ethnicity						
White	👍	2010	Percent	39%	33%	
Black	👍	2010	Percent	56%	55%	
Hispanic/Latino	👍	2010	Percent	67%	46%	
Total Population by Age						
0 – 4 years	👍	2010	Percent	48%	39%	
5 – 14 years	👍	2010	Percent	43%	36%	
15 – 24 years	👍	2010	Percent	46%	38%	
25 – 39 years	👍	2010	Percent	49%	40%	
40 – 64 years	👍	2010	Percent	40%	35%	
65+ years	👍	2010	Percent	41%	34%	

👍 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.
NA -- National Target was not identified

Table 2. Kent County Quality of Life: Access to Public Elementary School[6] Percentage Of Population Aged 5 - 9 Years Living Within Half A Mile Of A Public Elementary School						
Indicator	Status	Time Period	Measure	Kent County	Michigan	National Target
Total Population Aged 5 – 9	👎	2010	Percent	74%	75%	NA
Total Population by Race/Ethnicity						
White	👍	2010	Percent	83%	79%	
Black	👍	2010	Percent	82%	81%	
Hispanic/Latino	👍	2010	Percent	85%	80%	

👍 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.
NA -- National Target was not identified

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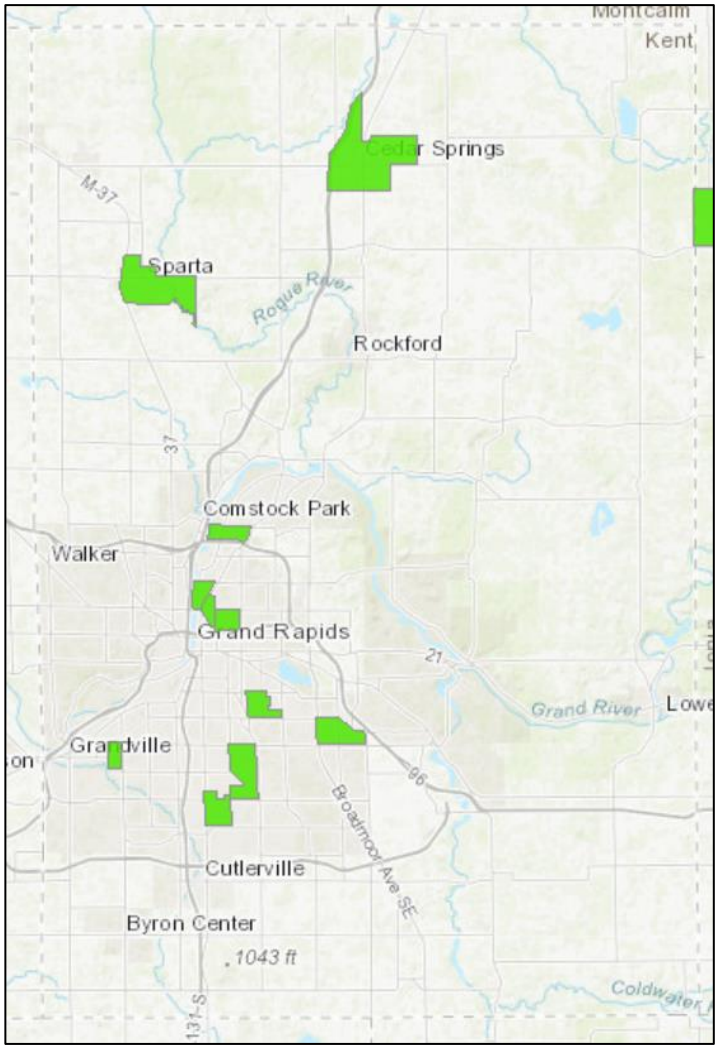
QUALITY OF LIFE: KENT COUNTY
LIMITED ACCESS TO HEALTHY FOODS



Above: 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, 2015)[6].

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 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[5]. 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.

An additional measure of food access is food insecurity, or the percentage of the population without access to a reliable source of food within the past year[5]. The measures *limited access to healthy foods* and *food insecurity* compose the Food Environment Index, which measures a healthy food environment. This index ranges from 0 (worst) to 10 (best). Although the index is a poor measure to track progress in food accessibility, the individual measures can be useful for tracking purposes[5].

Kent County Quality of Life: Food Environment Index

Indicator	Status	Time Period	Measure	Kent County[5]	Michigan[5]	United States[5,6]	National Target[a]
Limited Access to Healthy Foods	👍	2010	Percent	5.0%	6.0%	--	**NA**
Food Insecure	👍 ☺	2014	Percent	13.0%	16.0%	14.0%	**6.0% NWS-13: Reduce household food insecurity and in doing so reduce hunger**
Food Environment Index	👍 ☺	2010 & 2014	Value	7.8	7.2	7.0	**NA**

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

SUMMARY

The percentage of persons in Kent County who have limited access to healthy foods is 5.0%, 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, Sparta, and Cedar Springs in the northern part of Kent County. An estimated 13.0% of Kent County residents are food insecure, compared to 16.0% in the state and 14.0% in the nation. Subsequently, Kent County has a higher Food Environment Index value than the State of Michigan and United States.

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.
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4. United States Department of Agriculture. (2010). *Access to affordable, nutritious food is limited in "food deserts"*. Retrieved from https://www.ers.usda.gov/amber-waves/2010/march/access-to-affordable-nutritious-food-is-limited-in-food-deserts/.
5. County Health Rankings. (2017). *County health rankings, Michigan*. Retrieved from http://www.countyhealthrankings.org/app/michigan/2014/overview.
6. United States Department of Agriculture. (2017). *Food Security in the U.S.: Key Statistics & Graphics.* Retrieved from https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics/.

BEHAVIORAL RISK FACTORS

KENT COUNTY
2017 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
- 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 leading cause of preventable disease, disability, and death in the United States."[1] The United States spends an estimated $170 billion in annual medical costs to treat smoking-related diseases[1]. Every year, "nearly half a million Americans die prematurely of smoking or exposure to secondhand smoke"[1]. Current smoking status is defined as ever having smoked 100 cigarettes (five packs) and smoking cigarettes now, either every day or on some days.

Electronic cigarette use, also known as e-cigarettes, produce an aerosol by heating a liquid that usually contains nicotine[2]. Although many adults use e-cigarettes to quit smoking, the FDA has not approved e-cigarettes as a quit smoking aid, and the US Preventive Services Task Force has determined there is insufficient evidence to recommend e-cigarettes for smoking cessation[2]. E-cigarettes are the most commonly used tobacco product among youth, and more than half of adult e-cigarette users are also current regular cigarette smokers[2]. While e-cigarette aerosol generally contains fewer toxic chemicals than regular cigarettes, the aerosol still can contain potentially harmful substances including nicotine, heavy metals, and cancer-causing agents[2].

Kent County Behavioral Risk Factors: Cigarette and Electronic Cigarette Usage

Percentage Of Respondents Who Are Current Cigarette Smokers and Current Electronic Cigarette Smokers

Indicator	Status	Time Period*	Measure	Kent County[3]	Michigan[4]	United States[5]	National Target[a]
Current Cigarette Smoker							
Total	☺	2017	Percent	15.4%	20.4%	16.4%	**12.0%**
Age							
18 – 24 Years	☺	2017	Percent	13.0%	18.3%	13.2%	
25 – 34 Years	☹	2017	Percent	22.5%	25.3%	--	
35 – 44 Years	☺	2017	Percent	14.1%	26.8%	--	
45 – 54 Years	☹	2017	Percent	20.2%	24.4%	--	
55 – 64 Years	☺	2017	Percent	14.3%	21.6%	--	
65+ Years	☺	2017	Percent	7.1%	9.4%	8.6%	
Gender							
Male	☺	2017	Percent	17.5%	22.3%	18.6%	
Female	☺	2017	Percent	13.4%	18.7%	14.2%	
Race/Ethnicity							
White	☺	2017	Percent	15.1%	19.7%	17.4%	**TU-1: Reduce cigarette smoking by adults.**
Black	☺	2017	Percent	17.1%	25.1%	18.4%	
Hispanic/Latino	☹	2017	Percent	16.8%	19.8%	12.3%	
Non-Hispanic	--	2017	Percent	15.2%	--	--	
Education							
Less Than High School	☺	2017	Percent	20.8%	39.7%	25.8%	
High School Diploma		2017	Percent	21.4%	25.8%	21.2%	
Some College	☹	2017	Percent	19.5%	19.0%	16.2%	
College Graduate	☹	2017	Percent	8.0%	7.5%	6.6%	
Household Income							
Less Than $15,000	☹	2017	Percent	29.0%	36.4%	27.2%	
$15,000 to $24,999	☹	2017	Percent	28.6%	32.2%	23.3%	
$25,000 to $34,999	☺	2017	Percent	19.4%	24.0%	19.5%	
$35,000 to $49,999	☺	2017	Percent	12.0%	21.0%	17.8%	
$50,000 Or More	☹	2017	Percent	12.4%	12.3%	11.0%	

Kent County Behavioral Risk Factors: Cigarette and Electronic Cigarette Usage

Percentage Of Respondents Who Are Current Cigarette Smokers and Current Electronic Cigarette Smokers

Indicator	Status	Time Period*	Measure	Kent County[3]	Michigan[4]	United States[5]	National Target[a]
Current Electronic Cigarette Usage							
Total	👎 ☹	2017	Percent	5.5%	4.9%	4.5%	NA
Age							
18 – 24 Years	👎 ☹	2017	Percent	15.4%	11.6%	9.2%	
25 – 34 Years	👎	2017	Percent	6.8%	6.5%	--	
35 – 44 Years	👍	2017	Percent	3.9%	5.8%	--	
45 – 54 Years	👍	2017	Percent	3.0%	3.8%	--	
55 – 64 Years	👍	2017	Percent	2.9%	3.7%	--	
65+ Years	👎 ☹	2017	Percent	2.2%	1.0%	1.1%	
Gender							
Male	👎 ☹	2017	Percent	6.5%	5.6%	5.6%	
Female	👎 ☹	2017	Percent	4.6%	4.3%	3.5%	
Race/Ethnicity							
White	👎 ☹	2017	Percent	5.6%	5.1%	5.0%	
Black	👎 ☹	2017	Percent	5.4%	3.6%	3.4%	
Hispanic/Latino	☹	2017	Percent	4.2%	--	2.9%	
Non-Hispanic	--	2017	Percent	5.6%	--	--	
Education							
Less Than High School	👎 ☹	2017	Percent	9.7%	7.1%	4.9%	
High School Diploma	👎 ☹	2017	Percent	9.2%	6.0%	5.7%	
Some College	👎 ☹	2017	Percent	6.0%	5.6%	5.3%	
College Graduate	👎 ☹	2017	Percent	2.3%	1.9%	2.2%	
Household Income							
Less Than $15,000	👎 ☹	2017	Percent	10.1%	6.3%	5.5%	
$15,000 to $24,999	👎 ☹	2017	Percent	17.1%	6.8%	5.2%	
$25,000 to $34,999	👍 ☺	2017	Percent	3.7%	6.2%	5.4%	
$35,000 to $49,999	👍 ☺	2017	Percent	4.2%	5.6%	4.9%	
$50,000 Or More	👎 ☹	2017	Percent	5.0%	3.4%	3.8%	

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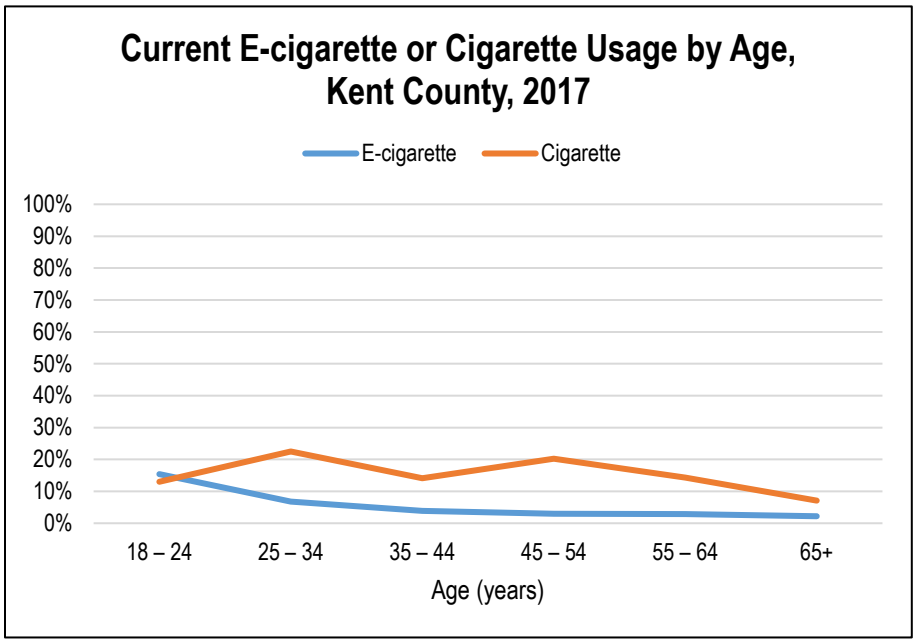
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.

**Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2016 Nationwide BRFSS (States, DC and Territories).*



SUMMARY

An estimated 15% of Kent County adult residents are current smokers, which is a lower rate than reported for the State of Michigan and the United States. Prevalence of smoking in Kent County appears to be least common among respondents over the age of 65, females, college graduates, and those with a household income of at least $35,000 per year.

More adults in Kent County report being current electronic cigarette users than the state (5.5% vs. 4.9%, respectively). In Kent County, e-cigarette use is most common among those 18 to 24 years (15.4%) and those with a household income of less than $25,000.

REFERENCES

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2. Centers for Disease Control and Prevention. (2017). *Electronic cigarettes.* Retrieved from https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm.
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5. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2016.

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[1]. 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[2]		Michigan[3]	United States[3]	National Target[a]
	High School			Middle School	High School	High School	High School	
Ever smoked a whole cigarette	👍 ☺	2015	Percent	--	13.9%	32.5%	32.3%	**NA**
Smoked cigarettes during the past 30 days	👍 ☺	2015	Percent	1.9%	5.8%	10.0%	10.8%	**Target: 16.0% TU-2.2: Reduce use of cigarettes by adolescents (past month).**
Smoked cigarettes on 20 or more of the past 30 days (Frequent use)	👍 ☺	2015	Percent	0.3%	1.4%	3.0%	3.4%	
Smoked cigarettes on school property during the past 30 days	--	2015	Percent	0.4%	1.3%	--	--	**NA**
Among current smokers, the percentage who tried to quit smoking during the past 12 months	👎 ☺	2015	Percent	--	50.7%	52.0%	45.4%	**Target: 64.0% TU-7: Increase smoking cessation attempts by adolescent smokers.**
Used chewing tobacco, snuff, or dip during the past 30 days	👍 ☺	2015	Percent	0.8%	2.6%	6.2%	7.3%	**Target: 6.9% TU-2.3: Reduce use of smokeless tobacco products by adolescents.**
Used chewing tobacco, snuff, or dip on school property during the past 30 days	--	2015	Percent	0.4%	1.0%	--	--	
Smoked cigars, cigarillos, or little cigars during the past 30 days	👍 ☺	2015	Percent	1.3%	4.4%	9.2%	10.3%	**Target: 8.0% TU-2.4: Reduce use of cigars by adolescents (past month).**
Used any tobacco (smoked cigarettes or cigars or used chewing tobacco, snuff, or dip) during the past 30 days	👍 ☺	2015	Percent	2.2%	8.3%	29.1%	31.4%	**Target: 21.0% TU-2.1: Reduce use of tobacco products by adolescents (past month).**
Average age of first tobacco use (Note: Not a percentage)	--	2015	Age (years)	10.8	13.4	--	--	**NA**

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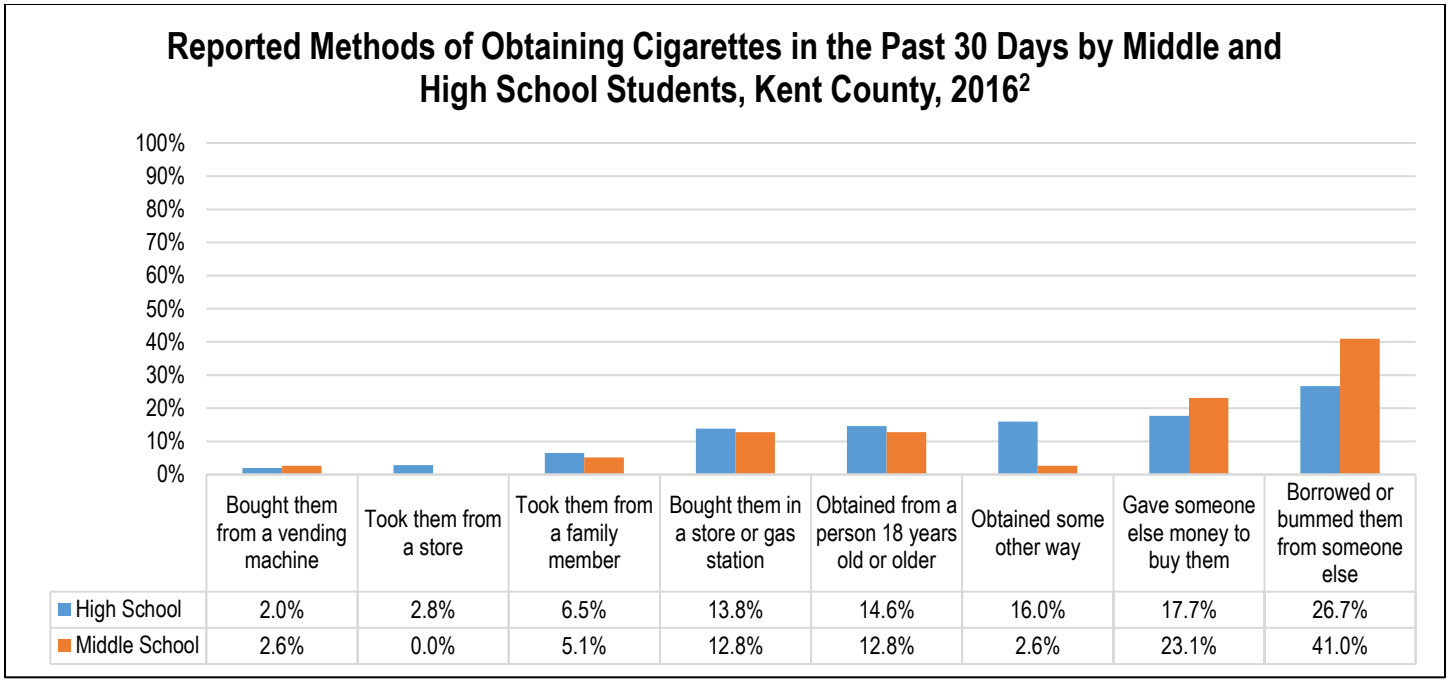
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.

Note: Median range values used for United States. Data used from CDC YRBS 2015 Report.



	Bought them from a vending machine	Took them from a store	Took them from a family member	Bought them in a store or gas station	Obtained from a person 18 years old or older	Obtained some other way	Gave someone else money to buy them	Borrowed or bummed them from someone else
High School	2.0%	2.8%	6.5%	13.8%	14.6%	16.0%	17.7%	26.7%
Middle School	2.6%	0.0%	5.1%	12.8%	12.8%	2.6%	23.1%	41.0%

SUMMARY

Among Kent County youth, approximately 14% report ever having smoked a whole 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.

The most common methods for both middle and high school students to obtain cigarettes is to borrow cigarettes from someone else or to give someone else money to buy them [Figure].

The use of chewing tobacco, snuff, or dip among Kent County youth is low as well, with only 2.6% of high school students and 0.8% of middle school students reporting use of these products within the past 30 days.

REFERENCES

1. American Lung Association. (2014). *Children and teens*. Retrieved from http://www.lung.org/stop-smoking/about-smoking/facts-figures/children-teens-and-tobacco.html.
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BEHAVIORAL RISK FACTORS: KENT COUNTY ADULT ALCOHOL USE

OVERVIEW: ADULT ALCOHOL USE

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, approximately one in four fatal motor vehicle crashes involved alcohol[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	Time Period	Measure	Kent County[2]		Michigan[3]		United States[4]		National Target[a]	
			Heavy	Binge	Heavy	Binge	Heavy	Binge	Heavy	Binge
Total	2017	Percent	5.3%	15.3%	6.9%	19.0%	5.8%	16.4%	**25.4%**	**24.4%**
Age									**SA-14.3: Reduce the proportion of persons engaging in binge drinking during the past 30 days – adults aged 18 years and older.**	
18 – 24 Years	2017	Percent	9.1%	20.0%	9.1%	29.8%	6.7%	25.0%		
25 – 34 Years	2017	Percent	6.1%	28.4%	7.8%	29.1%	6.5%	25.3%		
35 – 44 Years	2017	Percent	4.1%	16.8%	7.0%	22.6%	5.8%	19.0%		
45 – 54 Years	2017	Percent	4.4%	12.3%	7.7%	19.9%	6.3%	15.3%		
55 – 64 Years	2017	Percent	6.5%	9.9%	6.6%	13.7%	5.6%	10.2%		
65+ Years	2017	Percent	3.4%	3.4%	4.5%	6.6%	4.0%	4.1%		
Gender									**SA-15: Reduce the proportion of adults who drank excessively in the previous 30 days.**	
Male	2017	Percent	4.0%	18.9%	7.4%	24.0%	6.4%	21.7%		
Female	2017	Percent	6.6%	11.6%	6.4%	14.4%	5.2%	11.2%		
Race/Ethnicity										
White	2017	Percent	6.0%	15.2%	7.5%	20.0%	6.3%	17.0%		
Black	2017	Percent	3.7%	10.1%	3.4%	14.9%	4.4%	13.0%		
Hispanic/Latino	2017	Percent	5.1%	19.8%	7.8%	19.5%	4.2%	17.2%		
Non-Hispanic	2017	Percent	5.4%	14.9%	--	--	6.6%	16.3%		
Education										
Less Than High School	2017	Percent	7.0%	10.1%	5.0%	15.8%	4.7%	12.9%		
High School Diploma	2017	Percent	4.3%	11.8%	7.0%	17.6%	5.9%	16.1%		
Some College	2017	Percent	7.5%	18.3%	7.5%	20.3%	6.0%	17.2%		
College Graduate	2017	Percent	4.2%	16.2%	6.7%	20.4%	6.0%	17.2%		
Household Income										
Less Than $15,000	2017	Percent	3.0%	12.3%	4.8%	16.0%	4.5%	12.4%		
$15,000 to $24,999	2017	Percent	4.5%	20.3%	6.4%	18.9%	4.8%	14.7%		
$25,000 to $34,999	2017	Percent	2.9%	14.0%	6.5%	16.0%	5.6%	15.5%		
$35,000 to $49,999	2017	Percent	6.1%	11.6%	9.0%	19.2%	6.2%	17.1%		
$50,000 Or More	2017	Percent	7.8%	19.0%	7.9%	23.4%	7.1%	20.1%		

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

Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).

SUMMARY

Kent County's heavy drinking and binge drinking rates are slightly lower than the state and national rates. Kent County has successfully achieved and exceeded the Healthy People 2020 Goals for both heavy drinking and binge drinking. Despite this accomplishment, heavy drinking in Kent County most often affects persons aged 18 to 24 years, while binge drinking in Kent County disproportionately affects residents between the ages of 25 and 34 years. Kent County females were more likely than males to report heavy drinking, and males more likely than females to report binge drinking.

REFERENCES

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3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2015.

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. Beyond immediate effects, use and abuse of alcohol is associated with unintended pregnancies, STI's, violence, and various illness and diseases[1,2].

Kent County Behavioral Risk Factors: Youth Alcohol Use									
Indicator	Status		Time Period	Measure	Kent County[3]		Michigan[4]	United States[4]	National Target[a]
	Middle School	High School			Middle School	High School			
Percentage of students who ever drank alcohol	--	👍 ☺	2015-2016	Percent	--	35.4%	58.7%	63.2%	**NA**
Average age of first alcohol use (Note: Not a percentage)	--	--	2015-2016	Age (years)	10.1	14.5	--	--	**NA**
Percentage of students who had at least one drink of alcohol during the past 30 days	👍 ☺	👍 ☺	2015-2016	Percent	4.2%	17.0%	25.9%	32.8%	**NA**
Percentage of students who have ever been drunk	--	--	2015-2016	Percent	--	22.1%	--	--	**NA**
Average age of first time being drunk (Note: Not a percentage)	--	--	2015-2016	Age (years)	10.9	14.5	--	--	**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	--	👍 ☺	2015-2016	Percent	0.50%	9.0%	12.5%	17.7%	**Target: 8.6% 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	--	--	2015-2016	Percent	0.5%	1.4%	--	--	**NA**

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
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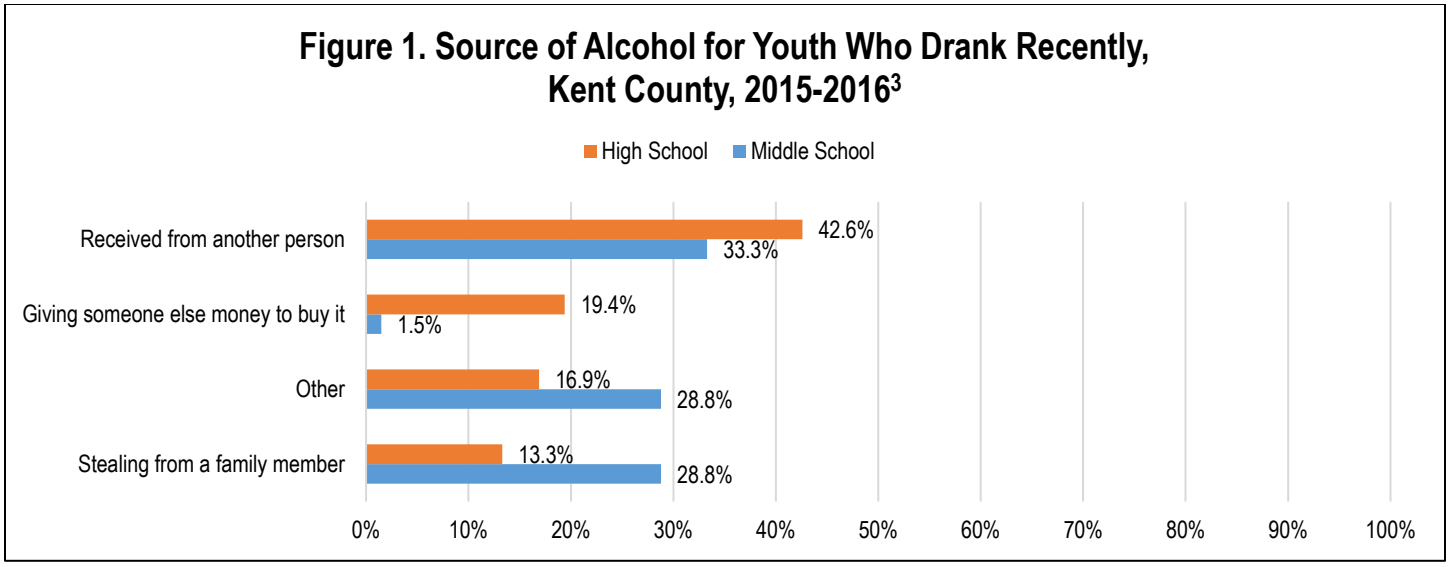
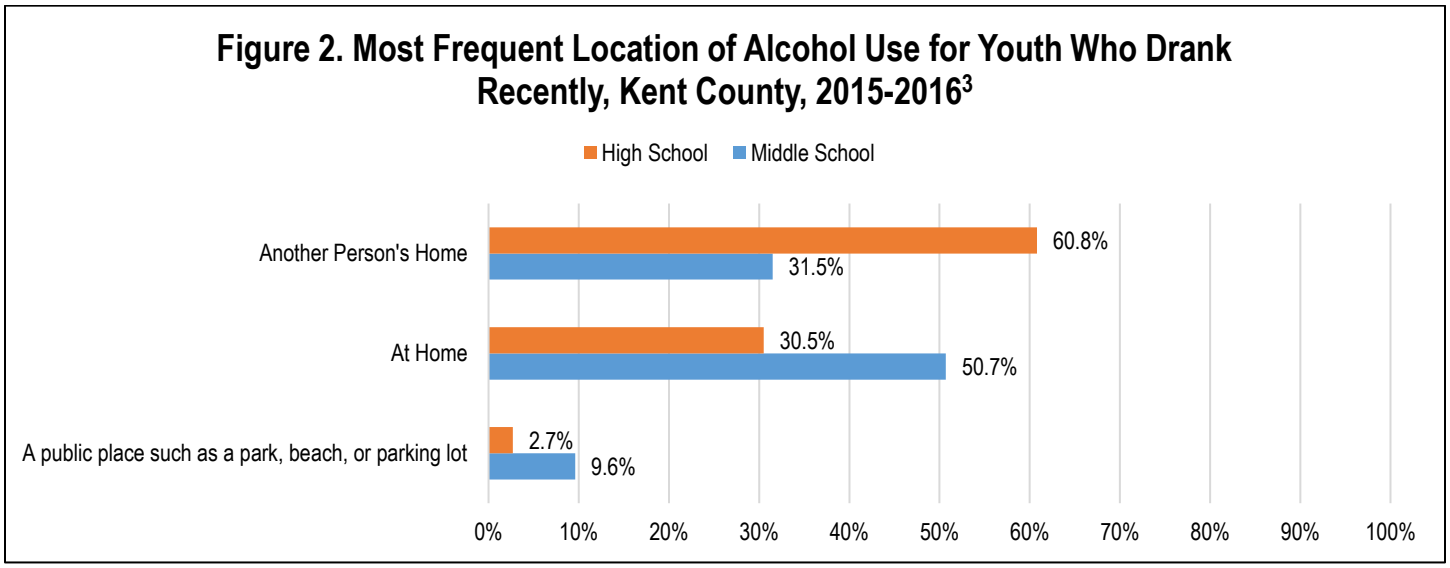
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.

Note: Median range values used for United States. Data used from CDC YRBS 2015 Report.





Summary

Alcohol use among Kent County youth is lower than the state and national percentages, with 17.0% of high school students and 4.2% 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, 22% 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, stealing alcohol from family members, and other methods not specified [Figure 1]. Similarly, high school students reported obtaining alcohol from other people and giving others money to purchase alcohol 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 [Figure 2].

References

1. Healthy People 2020. (2017). *Substance abuse*. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/substance-abuse.
2. Centers for Disease Control and Prevention. (2016). *Fact sheets: Underage drinking*. Retrieved from http://www.cdc.gov/alcohol/fact-sheets/underage-drinking.htm.
3. Michigan Department of Education. (2017). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx.
4. Centers for Disease Control and Prevention. (2017). *Youth risk behavior surveillance system, United States and Michigan 2015 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx.

Behavioral Risk Factors: Kent County Adult Substance Use Disorder

Overview: Adult Substance Use Disorder

Substance use disorder refers to a condition in which an individual's recurrent use of alcohol and/or drugs causes significant behavioral, physical, social, and psychological impairments[1]. The publication of the most recent *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) altered the some of the language around substance use, thus allowing each substance to constitute its own disorder (e.g. alcohol use disorder, stimulant use disorder), while utilizing the same criteria for diagnosis. The terms *abuse, dependence,* and *addiction* were left out of the DSM-5 due to diagnostic confusion and the negative connotations associated with them.

Behavioral Risk Factors: Substance Use[2,3]							
Indicator	**Status**	**Time Period**	**Measure**	**Region 3***	**Michigan**	**United States**	**National Target[a]**
Illicit Drug Use in the Past Month							
Total	👍 ☹	2012-2014	Percent	10.7%	11.3%	10.6%	**7.1%**
Age							
12 – 17 Years	👍 ☹	2012-2014	Percent	10.0%	10.4%	7.9%	**SA-13.3: Reduce the proportion of adults reporting use of any illicit drug during the past 30 days**
18 – 25 Years	👎 ☹	2012-2014	Percent	21.0%	24.3%	23.2%	
26+ Years	👍 ☺	2012-2014	Percent	8.8%	9.2%	8.9%	
Illicit Drug Dependence or Abuse in the Past Year							
Total	👍 ☺	2012-2014	Percent	2.4%	2.7%	2.7%	**NA**
Age							
12 – 17 Years	👎 ☹	2012-2014	Percent	3.8%	3.6%	3.2%	
18 – 25 Years	👍 ☺	2012-2014	Percent	5.7%	6.3%	7.0%	
26+ Years	👍 ☺	2012-2014	Percent	1.7%	2.0%	2.0%	
Illicit Drug Use Other than Marijuana in the Past Month							
Total	👎 ☹	2012-2014	Percent	3.5%	3.3%	3.3%	**NA**
Age							
12 – 17 Years	☺	2012-2014	Percent	3.3%	3.3%	3.4%	
18 – 25 Years	👎 ☹	2012-2014	Percent	7.3%	6.8%	6.7%	
26+ Years	👎 ☹	2012-2014	Percent	2.9%	2.7%	2.7%	
Marijuana Use in the Past Month							
Total	👍 ☹	2012-2014	Percent	9.1%	9.7%	7.7%	**6.0%**
Age							
12 – 17 Years	👍 ☹	2012-2014	Percent	8.2%	8.4%	7.2%	**SA-13.2: Reduce the proportion of adolescents reporting use of marijuana during the past 30 days**
18 – 25 Years	👍 ☺	2012-2014	Percent	18.4%	22.8%	19.1%	
26+ Years	👍 ☹	2012-2014	Percent	7.6%	7.7%	5.8%	
Cocaine Use in the Past Year							
Total	👍 ☺	2012-2014	Percent	1.0%	1.3%	1.7%	**NA**
Age							
12 – 17 Years	☺	2012-2014	Percent	0.4%	0.4%	0.6%	
18 – 25 Years	👍 ☺	2012-2014	Percent	2.8%	3.0%	4.6%	
26+ Years	☺	2012-2014	Percent	0.8%	0.8%	1.3%	
Nonmedical Use of Pain Relievers in the Past Year							
Total	👍	2012-2014	Percent	4.3%	4.4%	4.3%	**SA-19.1: Reduce the past-year nonmedical use of pain relievers.**
Age							
12 – 17 Years	👎 ☹	2012-2014	Percent	5.3%	5.1%	3.5%	
18 – 25 Years	👍 ☹	2012-2014	Percent	9.0%	9.7%	7.1%	
26+ Years	👎 ☺	2012-2014	Percent	3.4%	3.3%	3.9%	

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* For purposes of the National Survey on Drug Use and Health, Region 3 includes Kent, Allegan, Lake, Mason, Muskegon, Oceana, and Ottawa counties

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

NA -- National Target was not identified.

SUMMARY

Overall illicit drug use affects approximately 10% of Region 3 residents, which is less than the State of Michigan, but comparable with the United States. The highest rates of illicit drug use occur in residents aged 12 to 25 years. Significant improvement is needed for the Kent County region to achieve the Healthy People target of 7.1%. The most commonly used types of drugs by residents in the region are marijuana (9.1%) and prescription painkillers (4.3%).

REFERENCES

1. Substance Abuse and Mental Health Services Administration National Registry of Evidence-Based Programs and Practices. (2016). *Behind the Term: Substance Use Disorder.* Retrieved from https://nrepp.samhsa.gov/Docs/Literatures/Behind_the_Term_%20Substance%20Use%20Disorder.pdf.
2. Substance Abuse and Mental Health Services Administration. (2016). *National Survey on Drug Use and Health: Comparison of 2010-2012 and 2012-2014 Population Percentages (Substate Regions).* Retrieved from https://www.samhsa.gov/data/sites/default/files/NSDUHsubstateChangeTabs2014/NSDUHsubstateChangeTabs2014.pdf.
3. Substance Abuse and Mental Health Services Administration. (2016). *2012-2014 National Survey on Drug Use and Health Substate Age Group Tables*. Retrieved from https://www.samhsa.gov/data/sites/default/files/NSDUHsubstateAgeGroupTabs2014/NSDUHsubstateAgeGroupTabs2014.pdf

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[1]. Though youth experience direct negative consequences from substance use and abuse, families, communities, and society are greatly affected, as well.

Table 1. Kent County Behavioral Risk Factors: Youth Marijuana Use

Indicator	Status		Time Period	Measure	Kent County[2]		Michigan[3]	United States[3]	National Target[a]
	Middle School	High School			Middle School	High School			
Ever tried marijuana	--	👍 ☺	2015-2016	Percent	--	25.0%	33.9%	38.6%	**6.0[a] SA-13.2: Reduce the proportion of adolescents reporting use of marijuana during the past 30 days.**
Tried marijuana before age 13 years	--	👍 ☺	2015-2016	Percent	--	4.3%	5.9%	7.5%	
Average age of first marijuana use	--	--	2015-2016	Age (years)	11.1	14.0	--	--	
Used marijuana during the past 30 days	--	👍 ☺	2015-2016	Percent	2.7%	14.3%	19.3%	21.7%	
Used marijuana on school property during the past 30 days	--	--	2015-2016	Percent	0.7%	1.7%	--	--	

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

Note: Median range values used for United States. Data used from CDC YRBS 2015 Report.

Table 2. Kent County Behavioral Risk Factors: Youth Illicit Drug Use

Indicator	Status	Time Period**	Measure	Kent County[2]		Michigan[3]	United States[3]	National Target[a]
	High School			Middle School	High School			
Ever used any form of cocaine	--	2015-2016	Percent	8.7%	1.0%**	4.2%	5.2%	**SA-13: Reduce past-month use of illicit substances.**
Ever used heroin	--	2015-2016	Percent	--	0.5%*	2.5%	2.1%	
Sniffed glue, or breathed the contents of spray cans, or inhaled any paints or sprays to get high during the past 30 days	--	2015-2016	Percent	2.2%	1.3%	7.7%*	7.0%*	**SA-21: Reduce the proportion of adolescents who use inhalants.**
Ever used methamphetamines	--	2015-2016	Percent	8.2%	0.6%**	3.2%	3.0%	**SA-13: Reduce past-month use of illicit substances.**
Ever used a needle to inject any illegal drug into their body	--	2015-2016	Percent	8.1%	0.6%**	2.4%	1.8%	
Offered, sold, or given an illegal drug on school property by someone during the past 12 months	👍 ☺	2015-2016	Percent	5.2%	13.3%	25.4%	21.7%	**Target: 20.4% AH-7: Reduce the proportion of adolescents who have been offered, sold, or given an illegal drug on school property.**

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[a] Target is based on Healthy People 2020 Goal.
*Denotes lifetime use
**Denotes past 30-day use
Note: Median range values used for United States. Data used from CDC YRBS 2015 Report.

Table 3. Kent County Behavioral Risk Factors: Youth Nonmedical Use of Prescription Drugs

Indicator	Status		Time Period**	Measure	Kent County[2]		Michigan[3]	United States[3]	National Target[a]
	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	--	--	2015-2016	Percent	1.5%	5.4%	15.8%*	16.8%*	**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	--	--	2015-2016	Percent	2.7%	4.7%	15.8%*	16.8%*	

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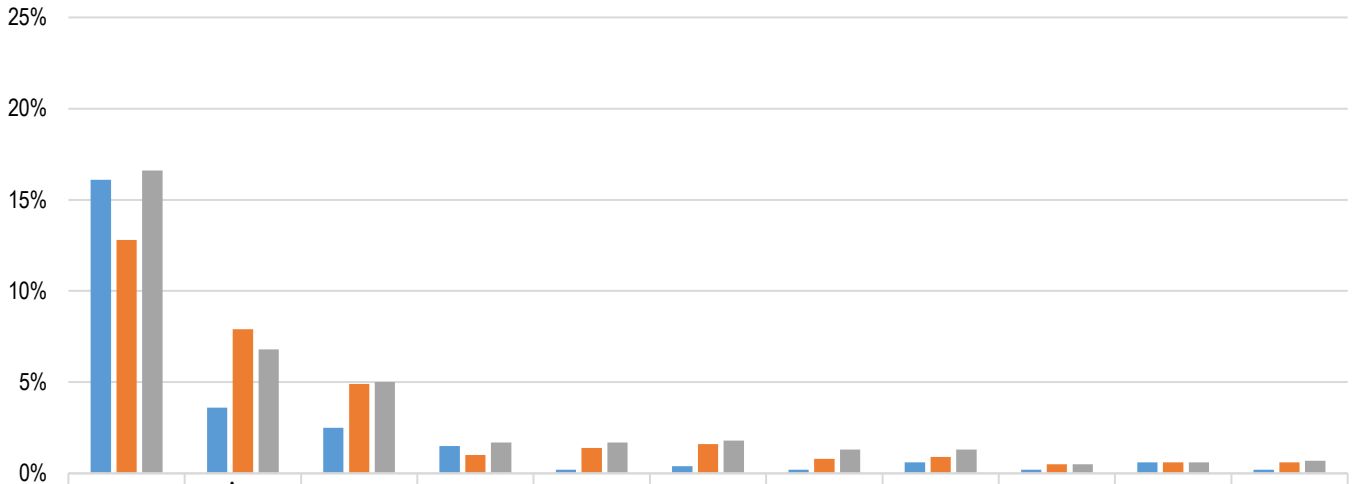
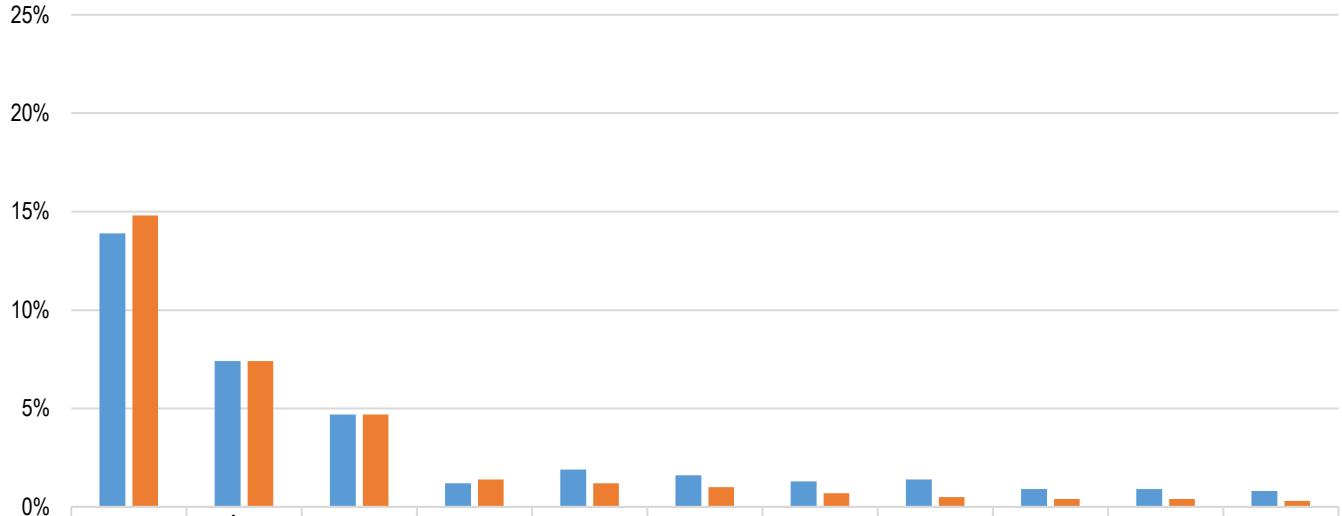
[a] Target is based on Healthy People 2020 Goal.
*Denotes lifetime use of any prescription drugs in either row
Note: Median range values used for United States. Data used from CDC YRBS 2015 Report.

Figure 1. Drug Use Within the Past 30 Days Among High School Youth by Type of Drug and Race/Ethnicity, Kent County, 2015-2016[2]



	Marijuana	Any Prescription Drug	Prescription Opioid	Huffing	Prescription Barbiturates	Club Drugs	Cocaine	Steroids	Heroin	Intravenous Drugs	Methamphetamine
Black	16.1%	3.6%	2.5%	1.5%	0.2%	0.4%	0.2%	0.6%	0.2%	0.6%	0.2%
White	12.8%	7.9%	4.9%	1.0%	1.4%	1.6%	0.8%	0.9%	0.5%	0.6%	0.6%
Latino	16.6%	6.8%	5.0%	1.7%	1.7%	1.8%	1.3%	1.3%	0.5%	0.6%	0.7%

Figure 2. Drug Use Within the Past 30 Days Among High School Youth by Type of Drug and Gender, Kent County, 2015-2016[2]



	Marijuana	Any Prescription Drug	Prescription Opioid	Huffing	Club Drugs	Prescription Barbiturates	Steroids	Cocaine	Methamphetamine	Intravenous Drugs	Heroin
Male	13.90%	7.40%	4.70%	1.20%	1.90%	1.60%	1.30%	1.40%	0.90%	0.90%	0.80%
Female	14.80%	7.40%	4.70%	1.40%	1.20%	1.00%	0.70%	0.50%	0.40%	0.40%	0.30%

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 Figure 1, the drugs most commonly used among Kent County youth are marijuana, prescription drugs (any), prescription opioids, and huffing (sniffed glue, or breathed the contents of spray cans, or inhaled any paints or sprays to get high). Marijuana use is more common among African American and Latino students than white students, while prescription drugs are more common among white students than African American or Latino students. More female than male students report using marijuana within the past 30 days [Figure 2], while usage for males and females is comparable for any prescription drugs, prescription opioids, and huffing.

REFERENCES

1. Youth.gov. (2017). *Substance abuse prevention*. Retrieved from https://youth.gov/youth-topics/substance-abuse.
2. Michigan Department of Education. (2017). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx.
3. Centers for Disease Control and Prevention. (2017). *Youth risk behavior surveillance system, United States and Michigan 2015 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx.

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[1]. 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].

Table 1. 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[2]	Michigan[3]	United States[4]	National Target[a]
Total	👍 ☺	2017	Percent	68.4%	60.3%	60.3%	**NWS-14: Increase the contribution of fruits to the diets of the population aged 2 years and older**
Age							
18 – 24 Years	👍 ☺	2017	Percent	62.4%	50.2%	52.4%	
25 – 34 Years	👍 ☺	2017	Percent	68.3%	55.2%	58.9%	
35 – 44 Years	👍 ☺	2017	Percent	75.4%	61.2%	59.5%	
45 – 54 Years	👍 ☺	2017	Percent	66.4%	57.1%	58.5%	
55 – 64 Years	👍 ☺	2017	Percent	66.5%	64.8%	61.1%	
65+ Years	👍 ☺	2017	Percent	68.9%	68.4%	65.7%	
Gender							
Male	👍 ☺	2017	Percent	63.8%	54.6%	54.9%	
Female	👍 ☺	2017	Percent	72.8%	65.6%	64.5%	
Race							
White	👍 ☺	2017	Percent	68.9%	61.1%	59.6%	
Black	👍 ☺	2017	Percent	58.6%	56.5%	56.8%	
Hispanic/Latino	👍 ☺	2017	Percent	66.1%	58.5%	62.2%	
Non-Hispanic	--	2017	Percent	68.6%	--	--	
Education							
Less Than High School	👍 ☺	2017	Percent	63.9%	50.8%	55.6%	
High School Diploma	👍 ☺	2017	Percent	61.8%	56.0%	55.1%	
Some College	👍 ☺	2017	Percent	65.8%	60.7%	59.4%	
College Graduate	👍 ☺	2017	Percent	74.9%	69.0%	67.3%	
Household Income							
Less Than $15,000	👍 ☺	2017	Percent	53.6%	53.4%	52.8%	
$15,000 to $24,999	👍 ☺	2017	Percent	65.2%	55.9%	56.8%	
$25,000 to $34,999	👍 ☺	2017	Percent	61.3%	58.0%	58.2%	
$35,000 to $49,999	👍 ☺	2017	Percent	66.9%	62.7%	59.8%	
$50,000 Or More	--	2017	Percent	75.0%	--	--	

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

Note: The 2017 comparative data is based on 2015 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).

Table 2. 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[2]	Michigan[3]	United States[4]	National Target[a]
Total	👎 ☹	2017	Percent	63.4%	75.3%	77.9%	**NWS-15.1: Increase the contribution of total vegetables to the diets of the population aged 2 years and older**
Age							
18 – 24 Years	👍 ☹	2017	Percent	64.2%	63.6%	69.9%	
25 – 34 Years	👎 ☹	2017	Percent	66.1%	75.6%	78.8%	
35 – 44 Years	👎 ☹	2017	Percent	63.4%	76.7%	80.1%	
45 – 54 Years	👎 ☹	2017	Percent	59.7%	76.3%	78.7%	
55 – 64 Years	👎 ☹	2017	Percent	61.6%	79.0%	79.3%	
65+ Years	👎 ☹	2017	Percent	64.4%	77.2%	78.6%	
Gender							
Male	👎 ☹	2017	Percent	63.5%	71.2%	74.6%	
Female	👎 ☹	2017	Percent	63.3%	79.1%	81.1%	
Race/Ethnicity							
White	👎 ☹	2017	Percent	64.4%	77.1%	79.8%	
Black	👎 ☹	2017	Percent	50.9%	64.9%	64.9%	
Hispanic/Latino	👎 ☹	2017	Percent	59.8%	70.2%	78.5%	
Non-Hispanic	--	2017	Percent	63.7%	--	--	
Education							
Less Than High School	👎 ☹	2017	Percent	58.6%	63.0%	69.7%	
High School Diploma	👎 ☹	2017	Percent	54.6%	68.9%	72.5%	
Some College	👎 ☹	2017	Percent	66.2%	77.5%	79.2%	
College Graduate	👎 ☹	2017	Percent	67.4%	84.6%	86.0%	
Household Income							
Less Than $15,000	👎 ☹	2017	Percent	38.8%	65.3%	68.3%	
$15,000 to $24,999	👎 ☹	2017	Percent	59.1%	71.6%	72.0%	
$25,000 to $34,999	👎 ☹	2017	Percent	61.5%	76.6%	75.7%	
$35,000 to $49,999	👎 ☹	2017	Percent	61.6%	77.1%	78.2%	
$50,000 Or More	--	2017	Percent	70.0%	--	--	

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

Note: The 2017 comparative data is based on 2015 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).

SUMMARY

Fruit consumption among Kent County residents for all selected demographic groups was higher than both the state and nation [Table 1]. Residents aged 35 to 44 years, females, college graduates, and those with a household income of $50,000 or more reported more fruit consumption than other groups. Whites and Hispanic/Latinos were more likely to report fruit consumption than African Americans.

Kent County residents reported lower vegetable consumption than the state and nation for nearly all selected demographic groups [Table 2]. Residents aged 25 to 34 years, those with some college education or higher, and those with a household income of $50,000 or more reported higher percentages of vegetable consumption than other groups. Whites were more likely to report vegetable consumption than African Americans or Hispanic/Latinos.

In general, fruit and vegetable consumption increased with increased educational attainment and household income.

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1. Healthy People 2020. (2017). *Nutrition and weight status overview*. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/nutrition-and-weight-status.
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2015.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2015.

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[1]. 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[2]		Michigan[3]	United States[3]	National Target[a]
	Middle School	High School			Middle School	High School			
Ate five or more servings per day of fruits and vegetables during the past seven days	--	--	2015-2016	Percent	27.0%	26.0%	--	--	**NA**
Drank three or more glasses per day of milk during the past seven days	👍 ☺	👍 ☺	2015-2016	Percent	15.4%	12.1%	9.2%	10.2%	**NA**
Drank a can, bottle, or glass of soda or pop one or more times per day during the past seven days	👎 ☺	👎 ☺	2015-2016	Percent	16.4%	17.5%	18.9%	13.8%	**NA**
Ate breakfast every day in the past seven days	👍 ☺	👍 ☺	2015-2016	Percent	43.5%	38.8%	32.5%	36.3%	**NA**
Did not eat breakfast in the past seven days	👍 ☺	👍 ☺	2015-2016	Percent	8.5%	12.3%	16.8%	13.8%	**NA**

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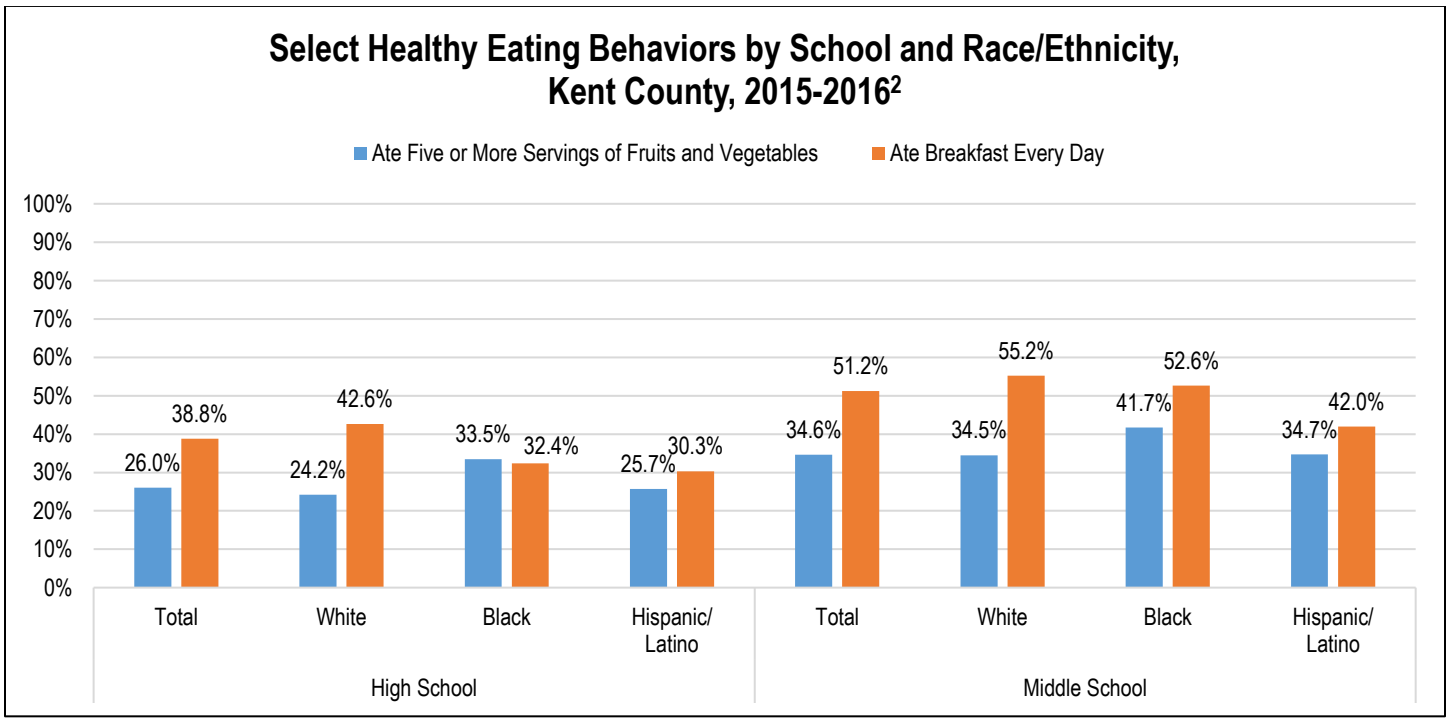
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.

Note: Median range values used for United States. Data used from CDC YRBS 2015 Report.



SUMMARY

Approximately one in three Kent County middle school students and one in four high school students report eating the recommended number of servings of fruits and vegetables regularly [Table]. Middle school-aged students are more likely than high school-aged students to drink three or more glasses per day of milk in the past 7 days. High school students are more likely than middle school students to report not eating breakfast in the past 7 days. Consumption of soda or pop in Kent County is higher among both middle school and high school students when compared with the state.

About 50% of Kent County middle schoolers eat breakfast every day, as compared with nearly 40% of high school students [Figure]. African American students are more likely than whites or Hispanic/Latinos to report eating five or more servings of fruits and vegetables during the past 7 days for middle school and high school. White students in both middle and high school are more likely than African American or Hispanic/Latino students to report eating breakfast every day in the past 7 days.

REFERENCES

1. Centers for Disease Control and Prevention. (2016). *Childhood obesity causes and consequences.* Retrieved from https://www.cdc.gov/obesity/childhood/causes.html.
2. Michigan Department of Education. (2017). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx.
3. Centers for Disease Control and Prevention. (2017). *Youth risk behavior surveillance system, United States and Michigan 2015 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx.

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 poorer mental health, diabetes, heart disease, stroke, and some types of cancer[1]. In the United States, obesity-related medical expenditures have been estimated to be $150 billion in healthcare costs annually and billions of dollars more in lost productivity[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 Target[a]**
Total	👎 ☹	2017	Percent	34.1%	32.5%	28.9%	**30.5%**
Age							
18 – 24 Years	👎 ☹	2017	Percent	22.0%	21.7%	16.7%	**NWS-9: Reduce the proportion of adults who are obese.**
25 – 34 Years	👎 ☹	2017	Percent	35.3%	28.9%	26.7%	
35 – 44 Years	👎 ☹	2017	Percent	42.1%	38.0%	32.1%	
45 – 54 Years	👎 ☹	2017	Percent	37.3%	36.6%	34.0%	
55 – 64 Years	👎 ☹	2017	Percent	38.0%	34.9%	33.4%	
65+ Years	👍 ☹	2017	Percent	27.9%	32.2%	27.6%	
Gender							
Male	👍 ☹	2017	Percent	31.4%	32.4%	29.1%	
Female	👎 ☹	2017	Percent	36.7%	32.6%	28.6%	
Race/Ethnicity							
White	👎 ☹	2017	Percent	33.7%	32.0%	27.9%	
Black	👎 ☹	2017	Percent	41.9%	38.2%	37.7%	
Hispanic/Latino	👍 ☺	2017	Percent	31.4%	37.3%	32.2%	
Non-Hispanic	☹	2017	Percent	34.5%	--	28.9%	
Education							
Less Than High School	👍 ☺	2017	Percent	32.3%	33.8%	34.0%	
High School Diploma	👍 ☹	2017	Percent	32.2%	36.3%	31.7%	
Some College	👎 ☹	2017	Percent	39.2%	33.2%	30.2%	
College Graduate	👎 ☹	2017	Percent	31.7%	26.2%	21.7%	
Household Income							
Less Than $15,000	👎 ☹	2017	Percent	45.3%	38.7%	34.5%	
$15,000 to $24,999	👎 ☹	2017	Percent	39.4%	34.5%	33.2%	
$25,000 to $34,999	👎 ☹	2017	Percent	44.7%	34.1%	32.0%	
$35,000 to $49,999	👍 ☺	2017	Percent	29.2%	37.0%	30.6%	
$50,000 Or More	👎 ☹	2017	Percent	31.5%	29.5%	26.3%	

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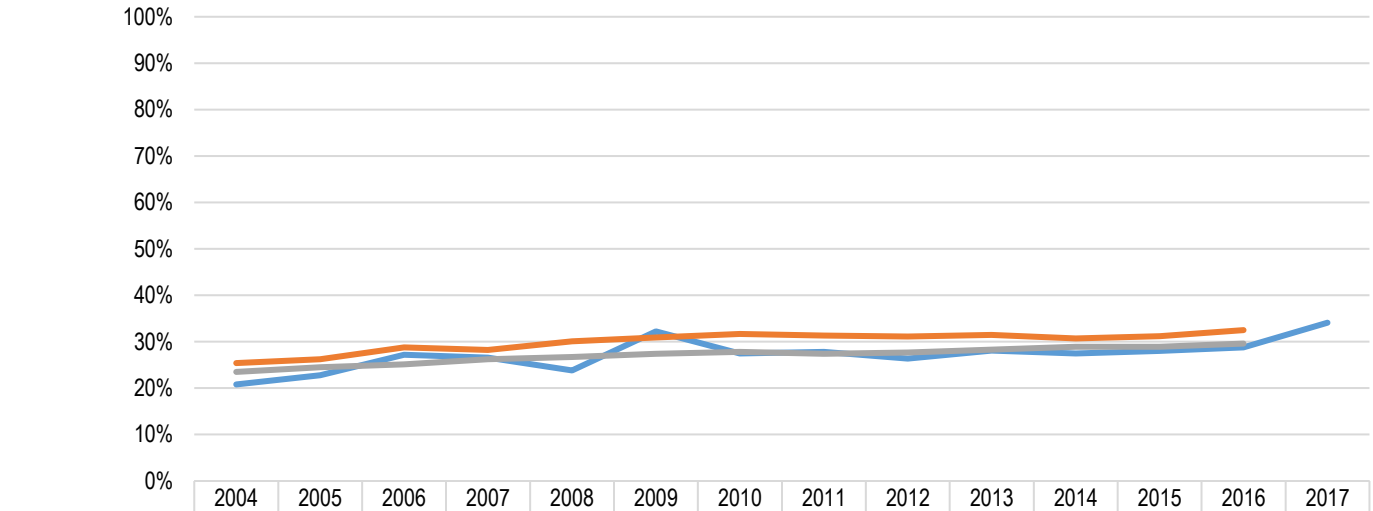
* National Targets were identified in the Healthy People 2020 initiative or the County Health Rankings project where:
[a] Target is based on Healthy People 2020 Goal.

Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).



Prevalence of Obesity in Kent County, Michigan, and the United States, 2004-2017[3,6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Kent County	20.8%	22.8%	27.2%	26.6%	23.8%	32.2%	27.5%	27.8%	26.4%	28.1%	27.5%	28.0%	28.8%	34.1%
Michigan	25.4%	26.2%	28.8%	28.2%	30.1%	30.9%	31.7%	31.3%	31.1%	31.5%	30.7%	31.2%	32.5%	
United States	23.5%	24.5%	25.1%	26.2%	26.7%	27.4%	27.8%	27.4%	27.7%	28.3%	28.9%	28.9%	29.6%	

SUMMARY

Mirroring the trends observed both statewide and nationally, the rate of obesity in Kent County has continued to increase over time [Figure]. The percentage of Kent County residents who are obese has increased 13 percentage points since 2004. In Kent County, the population subgroups most afflicted with obesity are people aged 35 to 44 years, females, African Americans, individuals with some college education, and those with a household income of less than $35,000 [Table].

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *Adult obesity causes and consequences.* Retrieved from http://www.cdc.gov/obesity/adult/causes/index.html.
2. Trust for America's Health. (2017). *The State of Obesity: Better Policies for a Healthier America 2017*. Retrieved from http://healthyamericans.org/assets/files/TFAH-2017-ObesityReport-FINAL.pdf.
3. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
4. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
5. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2015.
6. Centers for Disease Control and Prevention. (2017). *BRFSS Web Enabled Analysis Tool.* Retrieved from https://nccd.cdc.gov/weat/#/.

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[1].

Kent County Behavioral Risk Factors: Youth Obesity									
Indicator	Status		Time Period	Measure	Kent County[2]		Michigan[3]	United States[3]	National Target[a]
	Middle School	High School			Middle School	High School			
Obese (at or above the 95th percentile for BMI by age and sex)	👍 ☺	👍 ☺	2015-2016	Percent	11.4%	12.5%	14.3%	13.9%	**Target: 16.1% NWS-10.3: Reduce the proportion of adolescents who are considered obese.**
Overweight (at or above the 85th percentile and below the 95th percentile for BMI by age and sex)	👍 ☺	👍 ☺	2015-2016	Percent	14.9%	15.8%	16.0%	16.0%	
Percentage of students who were trying to lose weight	👍 ☺	👍 ☺	2015-2016	Percent	41.1%	41.8%	48.4%	45.6%	**NA**
Percentage of students who vomited or took laxatives to lose weight or to keep from gaining weight during the past 30 days	--	--	2015-2016	Percent	--	4.0%	--	--	**Target: 12.9% MHMD-3: Reduce the proportion of adolescents who engage in disordered eating behaviors in order to control their weight.**

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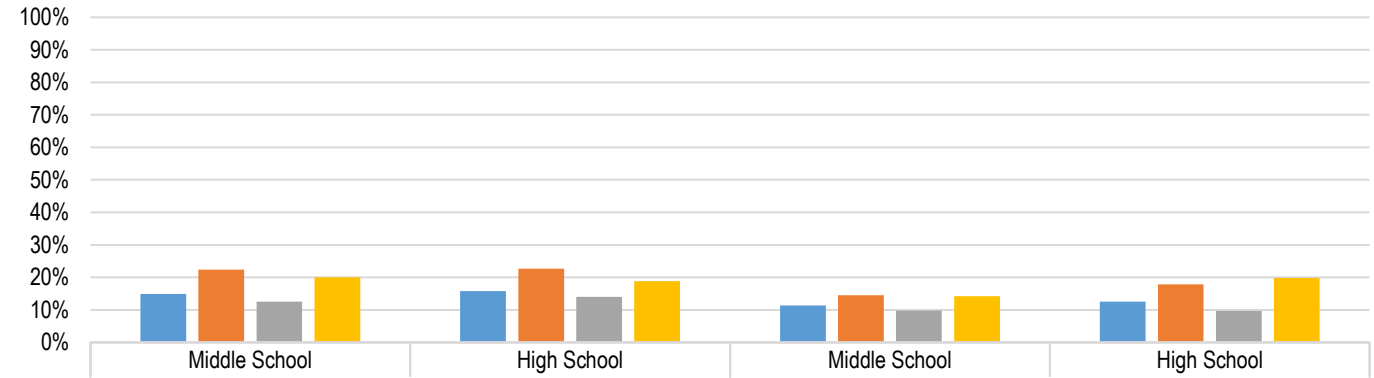
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.

Note: Median range values used for United States. Data used from CDC YRBS 2015 Report.

SUMMARY

In Kent County, nearly 15% of middle school-aged youth and 16% of high school-aged youth are considered overweight, while 11.4% of middle school-aged youth and 12.5% of high school-aged youth are considered obese [Table]. The statistics associated with each of these measures in Kent County are better than state and national numbers, and although Kent County has achieved the Healthy People 2020 Goal, youth obesity is still an issue of concern. Similar percentages of middle and high school youth report trying to lose weight (41.1% and 41.8%, respectively).

Overweight and obesity rates overall and within specified race/ethnicity groups are similar between middle and high school youth, with high school youth tending to be slightly more overweight and obese [Figure]. African American and Hispanic/Latino students are more likely to report being overweight or obese than white students.



	Overweight		Obese	
	Middle School	High School	Middle School	High School
Total	14.9%	15.8%	11.4%	12.5%
Black	22.4%	22.7%	14.5%	17.9%
White	12.5%	14.0%	9.8%	9.7%
Latino	20.0%	18.8%	14.2%	19.8%

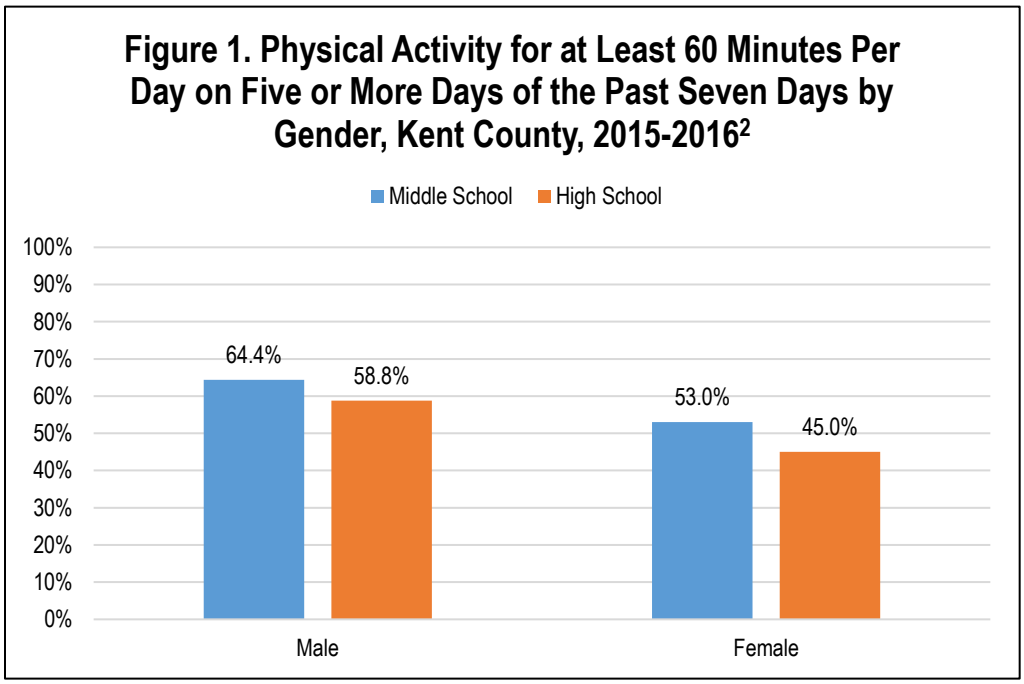
REFERENCES

1. Centers for Disease Control and Prevention. (2017). *Childhood obesity facts*. Retrieved from http://www.cdc.gov/healthyyouth/obesity/facts.htm.
2. Michigan Department of Education. (2017). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx.
3. Centers for Disease Control and Prevention. (2017). *Youth risk behavior surveillance system, United States and Michigan 2015 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx.

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[1].



Kent County Behavioral Risk Factors: Youth Physical Activity									
Indicator	Status		Time Period	Measure	Kent County[2]		Michigan[3]	United States[3]	National Target[a]
	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	👍 ☺	👍 ☺	2015-2016	Percent	58.6%	52.0%	46.0%	48.6%	**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	👍 ☺	👍 ☺	2015-2016	Percent	20.2%	17.8%	21.7%	24.7%	**Target: 73.9% 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	👍 ☺	👍 ☺	2015-2016	Percent	28.9%	27.8%	40.6%	41.7%	**Target: 82.6% 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	👍 ☺	👎 ☹	2015-2016	Percent	59.8%	28.6%	31.5%	51.6%	**Target: 36.6% PA-5: Increase the**

Kent County Behavioral Risk Factors: Youth Physical Activity									
Indicator	Status		Time Period	Measure	Kent County[2]		Michigan[3]	United States[3]	National Target[a]
	Middle School	High School			Middle School	High School			
education (PE) classes on one or more days in an average week when they were in school									**proportion of adolescents who participate in daily school physical education.**
Percentage of students who attended physical education (PE) classes daily in an average week when they were in school		👎 ☹	2015-2016	Percent	--	24.1%	22.4%	29.8%	
Percentage of students who play on any sports team	☺	☺	2015-2016	Percent	66.3%	59.8%	--	57.6%	**NA**

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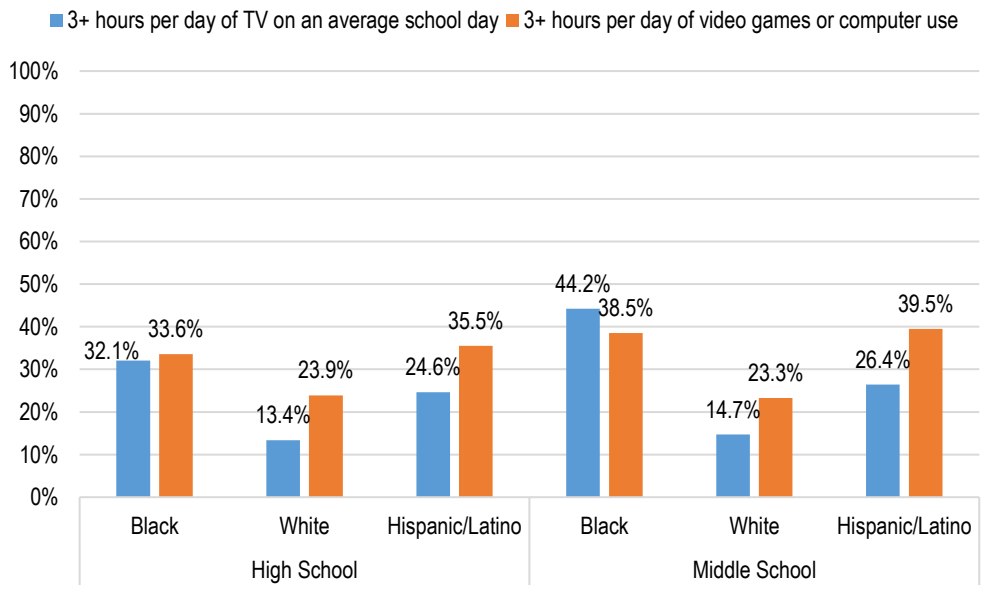
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.

Note: Median range values used for United States. Data used from CDC YRBS 2015 Report.

Summary

For most measures of physical activity among adolescents, Kent County outperforms the state and the United States [Table]. A greater 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, with middle school youth being more active than high school. In middle and high school, males are more likely than females to be physically active [Figure 1]. Kent County youth spend less time in front of the television, computer, and video games than do youth at the state and national level [Table]. 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/Latino students.

Figure 2. Screen Time Among High School and Middle School Youth by Race and Ethnicity, Kent County, 2015-2016[2]



References

1. Centers for Disease Control and Prevention. (2017). *Adolescent and school health, physical activity facts.* Retrieved from http://www.cdc.gov/healthyyouth/physicalactivity/facts.htm.
2. Michigan Department of Education. (2017). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx.
3. Centers for Disease Control and Prevention. (2017). *Youth risk behavior surveillance system, United States and Michigan 2015 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx.

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 many 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 in Past Month

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[3]	United States[4]	National Target[a]
Total	👍 ☺	2017	Percent	19.7%	25.5%	25.9%	**32.6%**
Age							
18 – 24 Years	👍 ☺	2017	Percent	13.0%	17.7%	17.4%	**PA-1: Reduce the proportion of adults who engage in no leisure-time physical activity.**
25 – 34 Years	👍 ☺	2017	Percent	21.6%	25.2%	21.8%	
35 – 44 Years	👍 ☺	2017	Percent	9.3%	22.0%	25.5%	
45 – 54 Years	👍 ☺	2017	Percent	19.3%	27.5%	27.6%	
55 – 64 Years	👍 ☺	2017	Percent	25.7%	26.3%	28.3%	
65+ Years	👎 ☺	2017	Percent	30.9%	30.6%	31.3%	
Gender							
Male	👍 ☺	2017	Percent	16.0%	23.7%	24.6%	
Female	👍 ☺	2017	Percent	23.2%	27.2%	27.0%	
Race/Ethnicity							
White	👍 ☺	2017	Percent	17.9%	24.2%	24.3%	
Black	👎 ☺	2017	Percent	30.6%	30.2%	31.1%	
Hispanic/Latino	👎 ☺	2017	Percent	26.3%	33.2%	30.6%	
Non-Hispanic	--	2017	Percent	18.9%	--	--	
Education							
Less Than High School	👍 ☺	2017	Percent	32.9%	37.8%	40.1%	
High School Diploma	👍 ☺	2017	Percent	31.0%	31.8%	31.7%	
Some College	👍 ☺	2017	Percent	22.2%	24.1%	23.8%	
College Graduate	👍 ☺	2017	Percent	9.1%	14.2%	15.0%	
Household Income							
Less than $15,000	👎 ☹	2017	Percent	44.9%	34.4%	37.1%	
$15,000 to $24,999	👎 ☹	2017	Percent	35.7%	32.9%	34.0%	
$25,000 to $34,999	👍 ☺	2017	Percent	15.7%	34.6%	30.7%	
$35,000 to $49,999	👍 ☺	2017	Percent	24.6%	25.6%	26.5%	
$50,000 to $74,999	👍 ☺	2017	Percent	12.3%	21.7%	22.8%	
$75,000 or more	👍 ☺	2017	Percent	8.3%	16.6%	16.2%	

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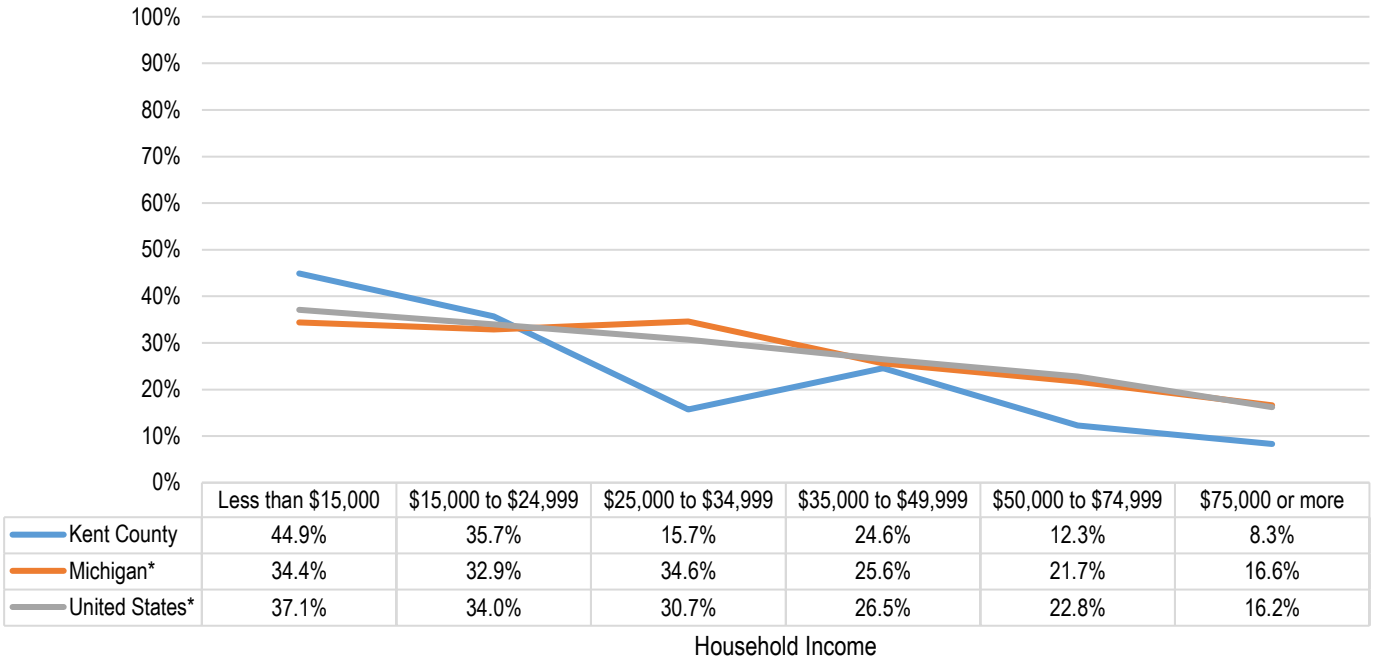
[a] Target is based on Healthy People 2020 Goal.

Note: The 2017 comparative data is based on 2015 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).



	Less than $15,000	$15,000 to $24,999	$25,000 to $34,999	$35,000 to $49,999	$50,000 to $74,999	$75,000 or more
Kent County	44.9%	35.7%	15.7%	24.6%	12.3%	8.3%
Michigan*	34.4%	32.9%	34.6%	25.6%	21.7%	16.6%
United States*	37.1%	34.0%	30.7%	26.5%	22.8%	16.2%

SUMMARY

The percentage of Kent County residents who report no leisure-time physical activity is approximately 20%, which is lower than Michigan and the United States [Table]. The population subgroups in Kent County that are the least likely to participate in some leisure-time activity include residents 65 years and older, females, African Americans, individuals with a high school diploma or less than a high school education, and individuals with a household income of less than $25,000 [Table]. In Kent County, Michigan, and the United States, leisure-time physical activity appears to be associated with household income [Figure]. Kent County has successfully achieved and exceeded the Healthy People 2020 Goal of 32.6% for individuals reporting no leisure-time physical activity.

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *Physical Activity and Health -The Benefits of Physical Activity*. Retrieved from https://www.cdc.gov/physicalactivity/basics/pa-health/index.htm.
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2015.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2015.

BEHAVIORAL RISK FACTORS: KENT COUNTY ADULT SEATBELT USE

OVERVIEW: SEATBELT USE

In 2016, 1,064 people died in automobile accidents in Michigan, with an additional 79,724 people injured[1]. Seatbelt use has been proven to save lives and prevent injuries. Statewide, 35% of passenger vehicle occupants who died were unrestrained[1]. The Centers for Disease Control and Prevention estimate that in 2010, non-fatal crash injuries resulted in more than $48 billion in medical and work loss costs[2].

Kent County Behavioral Risk Factors: Seatbelt Use
Respondents Who Do Not Always Or Nearly Always Use A Seatbelt When Driving/Riding In The Car

Indicator	Status	Time Period	Measure	Kent County[3]	Michigan[4]	United States[5]	National Target[a]
Total	👍 ☺	2017	Percent	3.8%	4.8%	5.7%	**8.0%**
Age							
18 – 24 Years	👎 ☺	2017	Percent	6.5%	4.1%	7.7%	
25 – 34 Years	👎 ☺	2017	Percent	5.0%	3.5%	8.2%	
35 – 44 Years	👍 ☺	2017	Percent	2.9%	3.2%	6.8%	
45 – 54 Years	--	2017	Percent	3.0%	--	--	
55 – 64 Years	--	2017	Percent	2.3%	--	--	
65+ Years	☺	2017	Percent	3.3%	--	4.7%	
Gender							
Male	👍 ☺	2017	Percent	4.3%	7.4%	7.5%	
Female	👎 ☺	2017	Percent	3.0%	2.4%	3.9%	
Race/Ethnicity							
White	👍 ☺	2017	Percent	3.0%	4.2%	5.3%	**IVP-15: Increase use of safety belts.**
Black	👎 ☺	2017	Percent	6.3%	5.2%	7.5%	
Hispanic/Latino	👍 ☹	2017	Percent	5.9%	12.3%	5.3%	
Non-Hispanic	--	2017	Percent	3.5%	--	--	
Education							
Less Than High School	👍 ☺	2017	Percent	2.9%	8.8%	9.0%	
High School Diploma	👎 ☺	2017	Percent	7.1%	6.1%	7.4%	
Some College	👍 ☺	2017	Percent	3.5%	4.3%	5.3%	
College Graduate	👍 ☺	2017	Percent	1.4%	2.3%	2.7%	
Household Income							
Less Than $15,000	👍 ☺	2017	Percent	3.0%	8.9%	7.9%	
$15,000 to $24,999	👍 ☺	2017	Percent	1.4%	6.7%	7.3%	
$25,000 to $34,999	👎 ☺	2017	Percent	5.4%	4.9%	6.9%	
$35,000 to $49,999	👎 ☹	2017	Percent	6.5%	3.5%	6.1%	
$50,000 Or More	👍 ☺	2017	Percent	2.6%	3.8%	4.1%	

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

Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).

SUMMARY

In Kent County, approximately 4% of residents report not always wearing a seatbelt when driving or riding in the car, which is less than but comparable to the rate reported for Michigan and the United States. This behavior is most prevalent among young adults aged 18 to 34 years, individuals with a high school diploma, and those with a household income of $35,000 to $49,999. African Americans and Hispanic/Latinos are more likely than whites to report not always wearing a seatbelt. For local, state, and national numbers, males are more likely than females to report not always wearing a seatbelt.

REFERENCES

1. Michigan State Police, Criminal Justice Information Center. (2017). *2016 Crash Statistics*. Traffic Crash Reporting System. Retrieved from http://www.michigan.gov/documents/msp/2016_YE_Report_568742_7.pdf.
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4. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
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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 1 to 54 years in the United States. Teens are especially at risk for motor vehicle crashes: per mile driven, drivers aged 16 to 19 are nearly three times more likely than drivers 20 years and older to be in a fatal crash[2]. Data from the Fatality Analysis Reporting System show that 52% of people aged 16 to 20 years old who died in motor vehicle-related crashes in 2015 were not wearing their seatbelt at the time of the crash[3]. The use of seatbelts can help cut the mortality rate associated with crash-related injuries by half[1].

Children and adolescents (ages 5 to 19 years) have the highest rate of nonfatal bicycle-related injuries and account for one-third of all bicycle-related injuries seen in U.S. emergency departments[4]. The use of bicycle helmets can reduce the risk of head and brain injury in the event of a crash or fall[4]. 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 has required youth under the age of 18 to wear a bicycle helmet since 1995[5].

Kent County Behavioral Risk Factors: Youth Seatbelt and Helmet Use

Indicator	Status		Time Period	Measure	Kent County[6]		Michigan[7]	United States[7]	National Target[a]
	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	👍 ☺	👍 ☺	2016-2017	Percent	4.5%	5.8%	6.6%	6.1%	**Target: 92% IVP-15: Increase use of safety belts**
Among students who rode a bicycle during the past 12 months, the percentage who never or rarely wore a bicycle helmet	👍 ☺	👍 ☺	2016-2017	Percent	67.1%	87.9%	88.4%	81.4%	**NA**

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☺ When compared, for this health indicator, Kent County is better than the United States.
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.; *Note: Median range values used for United States. Data used from CDC YRBS 2015 Report.*

SUMMARY

Overall, Kent County youth tend to almost always wear a seatbelt when riding in a vehicle being driven by someone else, with only 4.5% of middle school students and 5.8% of high school students reporting that they never or rarely wear a seat belt. Additionally, the use of bicycle helmets is greater among Kent County youth when compared with the state and national numbers.

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *Seat belts: Get the facts*. Retrieved from http://www.cdc.gov/motorvehiclesafety/seatbelts/facts.html.
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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.

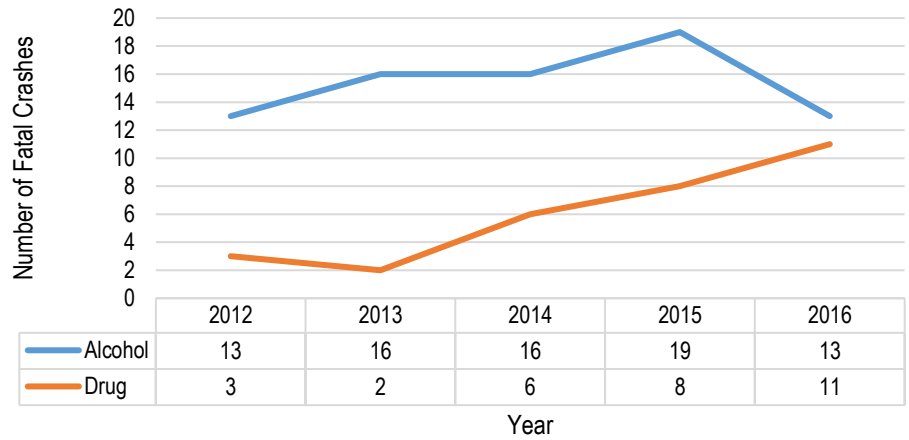


Table 1. Kent County Alcohol and Drug-Involved Motor Vehicle Crashes, Injuries, and Fatalities[2]						
Indicator	Time Period	Measure	Kent County		Michigan	
			Alcohol	Drug	Alcohol	Drug
Total Crashes	2016	Total Number	794	139	9,636	2,574
Fatal Crashes	2016	Total Number	13	11	251	213
Injury-Causing Crashes	2016	Total Number	288	49	3,898	1,192
Number of Persons Killed						
Total	2016	Total Number	14	11	271	236
Gender						
Male	2016	Total Number	--	--	377	337
Female	2016	Total Number	--	--	191	211
Number of Persons Injured						
Total	2016	Total Number	384	85	8,025	2,617
Gender						
Male	2016	Total Number	--	--	5,039	1,523
Female	2016	Total Number	--	--	2,695	980
Unknown	2016	Total Number	--	--	291	114

Table 2. Kent County Behavioral Risk Factors: Driving While Impaired[3] Percentage of Respondents Who Have Driven After Drinking Too Much At Least Once In The Past Month			
Indicator	**Time Period**	**Measure**	**Kent County**
Total	2017	Percent	3.7%
Age			
18 – 24 Years	2017	Percent	2.8%
25 – 34 Years	2017	Percent	4.3%
35 – 44 Years	2017	Percent	4.7%
45 – 54 Years	2017	Percent	2.1%
55 – 64 Years	2017	Percent	6.3%
65+ Years	2017	Percent	1.1%
Gender			
Male	2017	Percent	6.1%
Female	2017	Percent	1.1%
Race/Ethnicity			
White	2017	Percent	2.8%
Black	2017	Percent	3.8%
Hispanic/Latino	2017	Percent	7.4%
Non-Hispanic	2017	Percent	3.5%
Education			
Less Than High School	2017	Percent	4.2%
High School Diploma	2017	Percent	2.8%
Some College	2017	Percent	3.3%
College Graduate	2017	Percent	4.3%
Household Income			
Less Than $15,000	2017	Percent	0.0%
$15,000 to $24,999	2017	Percent	0.0%
$25,000 to $34,999	2017	Percent	5.1%
$35,000 to $49,999	2017	Percent	2.7%
$50,000 Or More	2017	Percent	3.9%

SUMMARY

There was a total of 933 motor vehicle crashes in 2016 that involved drugs or alcohol [Table 1]. The number of fatal crashes involving drugs in Kent County has been increasing in recent years, from 2 drug-associated crashes in 2013 to 11 in 2016 [Figure]. Alcohol-related crashes were increasing from 2012-2015, but decreased in 2016 [Figure].

Nearly 4% of Kent County adults report driving after drinking too much at least once in the past month [Table 2]. Men are more likely than women to drive after drinking, and Hispanic/Latinos are somewhat more likely to do so than other ethnic backgrounds. The age group 55-64 years was most likely to report engaging in this behavior. No individuals with a household income of less than $25,000 reported driving after drinking too much at least once in the past month. There did not appear to be an association with educational attainment.

REFERENCES

1. The Free Dictionary. (n.d.). *DWI*. Retrieved from http://legal-dictionary.thefreedictionary.com/DWI.
2. Michigan State Police. (2017). Criminal Justice Information Center. Traffic Crash Reporting System. Retrieved from http://www.michigan.gov/documents/msp/2016_YE_Report_568742_7.pdf.
3. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.

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[1]. 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.

Figure 1. Kent County Students Who Rode in a Car Driven by Someone Who Had Been Drinking* by Gender, 2015-2016[3]

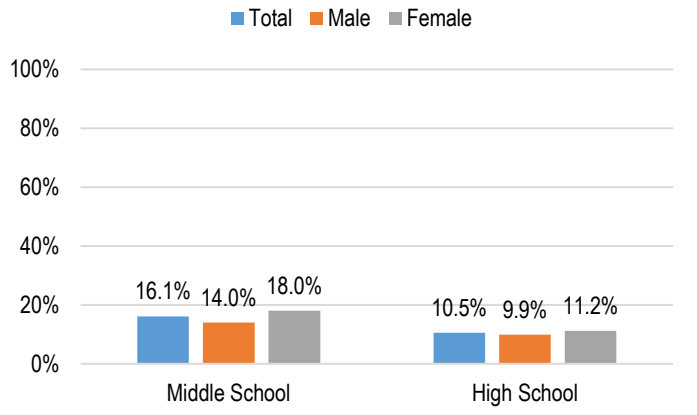
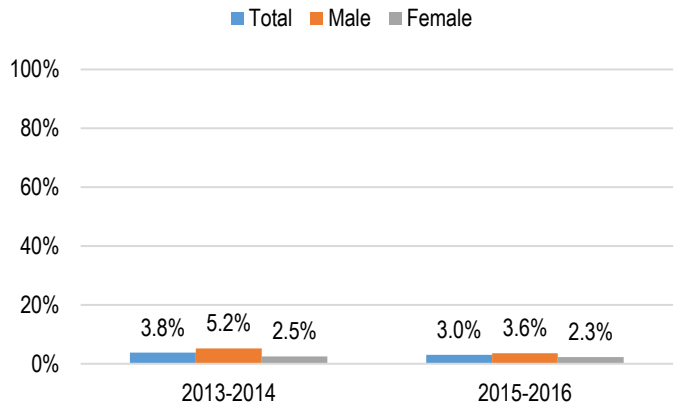


Figure 2. Kent County High School Students Who Have Driven a Vehicle After Drinking, by Gender, 2013-2016[3]



** 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[3]**	**Michigan[4]**	**United States[4]**	**National Target[a]**
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	👍 ☺	2015-2016	Percent	10.5%	18.7%	20.0%	**Target: 25.5% 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	👍 ☺	2015-2016	Percent	3.0%	5.4%	7.8%	**NA**

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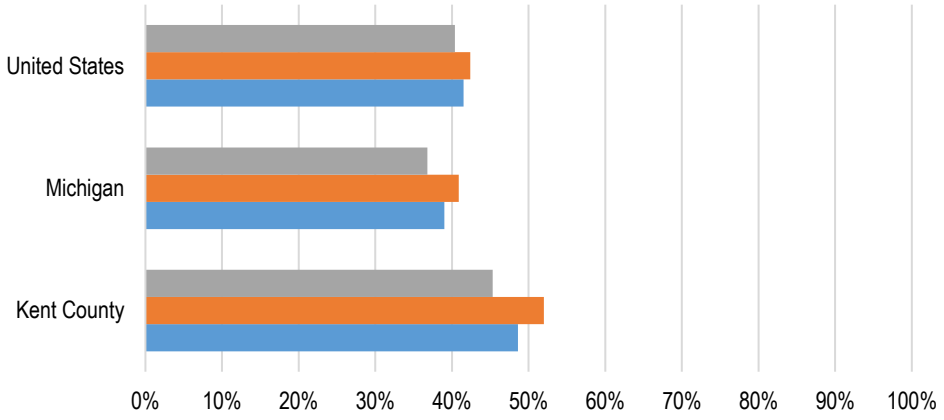
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.

Note: Median range values used for United States. Data used from CDC YRBS 2015 Report.

Figure 3. High School Students Who Texted or E-mailed While Driving a Car or Other Vehicle in the Past 30 Days, by Gender and Geographic Region, 2015-2016[3,4]



	Kent County	Michigan	United States
Female	45.3%	36.8%	40.4%
Male	52.0%	40.9%	42.4%
Total	48.6%	39.0%	41.5%

Summary

An estimated 16% of Kent County middle school students have ever rode in a car driven by someone under the influence of alcohol, and females were more likely than males to report this behavior [Figure 1]. Approximately one in ten high school students participated in this behavior in the past 30 days, with slightly more females than males reporting the behavior [Figure 1].

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 3.0% of Kent County teens reporting that they have driven a vehicle under the influence of alcohol [Table]. Males are more likely to participate in this risky behavior than females, though fewer males reported this behavior in 2015-2016 than 2013-2014 [Figure 2].

Rates of distracted driving appears to be a bigger issue among Kent County youth than among Michigan and United States youth [Figure 3]. More than 50% of Kent County male youth reported texting or emailing while driving, while 45.3% of Kent County female youth reported this behavior.

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3. Michigan Department of Education. (2017). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx.
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BEHAVIORAL RISK FACTORS: KENT COUNTY 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 needed during a routine checkup depends on many factors, including age, gender, health and family history, and lifestyle choices like diet, exercise, and tobacco consumption[1].

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 Target[a]
Total	👍 ☺	2017	Percent	24.2%	26.9%	29.9%	NA
Age							
18 – 24 Years	👍 ☺	2017	Percent	24.8%	34.4%	39.9%	
25 – 34 Years	👍 ☺	2017	Percent	34.9%	43.0%	--	
35 – 44 Years	👍 ☺	2017	Percent	30.9%	32.9%	--	
45 – 54 Years	👍 ☺	2017	Percent	22.7%	25.7%	--	
55 – 64 Years	👍 ☺	2017	Percent	17.5%	21.2%	--	
65+ Years	--	2017	Percent	12.3%	12.3%	12.3%	
Gender							
Male	👍 ☺	2017	Percent	28.4%	30.7%	34.6%	
Female	👍 ☺	2017	Percent	20.1%	23.4%	25.5%	
Race/Ethnicity							
White	👍 ☺	2017	Percent	25.2%	27.2%	29.4%	
Black	👎 ☺	2017	Percent	20.4%	19.9%	21.7%	
Hispanic/Latino	👍 ☺	2017	Percent	24.1%	38.2%	36.7%	
Non-Hispanic	--	2017	Percent	24.4%	--	--	
Education							
Less Than High School	👍 ☺	2017	Percent	24.3%	30.9%	33.8%	
High School Diploma	👎 ☺	2017	Percent	26.4%	26.2%	29.6%	
Some College	👍 ☺	2017	Percent	20.6%	27.3%	30.1%	
College Graduate	👍 ☺	2017	Percent	25.6%	25.7%	28.1%	
Household Income							
Less Than $15,000	👍 ☺	2017	Percent	21.2%	27.9%	32.1%	
$15,000 to $24,999	👎 ☺	2017	Percent	29.4%	28.2%	33.2%	
$25,000 to $34,999	👍 ☺	2017	Percent	22.0%	30.6%	31.8%	
$35,000 to $49,999	👍 ☺	2017	Percent	16.0%	29.6%	30.4%	
$50,000 Or More	👎 ☺	2017	Percent	26.0%	25.0%	28.4%	

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☹ When compared, for this health indicator, Kent County is worse than the United States.
[a] Target is based on Healthy People 2020 Goal.; NA -- National Target was not identified.

Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).

SUMMARY

Kent County adult residents are more likely than state and nationwide to report having a routine checkup within the past 12 months (75.8%, vs. 73.1% and 70.1%, respectively). Kent County males are more likely to have not had a checkup in the past year than females. Older adults (age 65+) and individuals with a household income of $35,000 to $49,999 are the most likely to have had a routine checkup in the past year.

REFERENCES

1. Medline Plus. (2017). *Health checkup*. Retrieved from http://www.nlm.nih.gov/medlineplus/healthcheckup.html.
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2015.

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].

Table 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 Target[a]
Total	👍 ☺	2017	Percent	25.9%	29.9%	35.6%	**51.0%**
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	👍 ☺	2017	Percent	18.0%	30.3%	32.2%	
25 – 34 Years	👍 ☺	2017	Percent	34.1%	38.5%	42.7%	
35 – 44 Years	👎 ☺	2017	Percent	30.7%	28.9%	36.4%	
45 – 54 Years	👍 ☺	2017	Percent	25.5%	28.8%	34.2%	
55 – 64 Years	👍 ☺	2017	Percent	23.2%	27.4%	32.9%	
65+ Years	👍 ☺	2017	Percent	19.4%	27.2%	34.3%	
Gender							
Male	👍 ☺	2017	Percent	25.6%	33.8%	38.4%	
Female	👍 ☺	2017	Percent	26.0%	26.3%	32.9%	
Race/Ethnicity							
White	👍 ☺	2017	Percent	23.2%	28.3%	31.6%	
Black	👎 ☺	2017	Percent	36.9%	36.6%	43.5%	
Hispanic/Latino	👍 ☺	2017	Percent	30.5%	33.8%	45.8%	
Non-Hispanic	--	2017	Percent	25.2%	--	--	
Education							
Less Than High School	👍 ☺	2017	Percent	39.1%	48.3%	56.7%	
High School Diploma	👍 ☺	2017	Percent	33.7%	36.6%	41.1%	
Some College	👍 ☺	2017	Percent	24.8%	28.5%	33.2%	
College Graduate	👎 ☺	2017	Percent	19.6%	15.7%	20.7%	
Household Income							
Less Than $15,000	👎 ☹	2017	Percent	58.2%	50.4%	57.2%	
$15,000 to $24,999	👍 ☺	2017	Percent	43.7%	45.1%	50.0%	
$25,000 to $34,999	👍 ☺	2017	Percent	29.9%	40.5%	38.9%	
$35,000 to $49,999	👍 ☺	2017	Percent	15.1%	32.6%	28.6%	
$50,000 Or More	👎	2017	Percent	17.1%	16.3%	17.1%	

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

Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2014 Nationwide BRFSS (States, DC and Territories).

Table 2. Kent County Behavioral Risk Factors: Oral Health Percentage Of Respondents Age 65+ Who Have Lost All Of Their Natural Teeth Due To Tooth Decay Or Gum Disease							
Indicator	**Status**	**Time Period**	**Measure**	**Kent County[2]**	**Michigan[3]**	**United States[4]**	**National Target[a]**
Total	👍 ☺	2017	Percent	12.1%	13.4%	14.9%	**21.6%**
Gender							**OH-4.2: Reduce the proportion of adults aged 65 to 74 years who have lost all of their natural teeth.**
Male	👍 ☺	2017	Percent	10.2%	14.3%	14.1%	
Female	👎 ☺	2017	Percent	13.7%	12.7%	15.5%	
Race/Ethnicity							
White	👍 ☺	2017	Percent	10.6%	12.7%	14.3%	
Black	👍 ☺	2017	Percent	18.8%	20.5%	22.1%	
Hispanic/Latino	--	2017	Percent	--	--	13.4%	
Non-Hispanic	--	2017	Percent	--	--	--	
Education							
Less Than High School	👎 ☺	2017	Percent	--	36.7%	31.8%	
High School Diploma	👎 ☺	2017	Percent	17.5%	16.5%	18.1%	
Some College	👎 ☹	2017	Percent	13.3%	8.0%	10.7%	
College Graduate	👎 ☹	2017	Percent	4.9%	2.3%	4.3%	
Household Income							
Less Than $15,000	👎 ☹	2017	Percent	33.3%	30.1%	28.3%	
$15,000 to $24,999	👎 ☹	2017	Percent	30.8%	26.1%	23.5%	
$25,000 to $34,999	👍 ☺	2017	Percent	9.5%	13.6%	15.3%	
$35,000 to $49,999	👍 ☺	2017	Percent	6.7%	10.0%	11.4%	
$50,000 Or More	👎 ☺	2017	Percent	4.5%	4.2%	5.7%	

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

Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2014 Nationwide BRFSS (States, DC and Territories).

SUMMARY

Approximately one-quarter of Kent County residents (25.9%) 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 [Table 1]. 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 25 and 44 years, males, African Americans and Latinos, people with educational attainment of a high school diploma or less, and those who have a household income of less than $35,000 [Table 1].

In Kent County, a smaller proportion of people report losing all their natural teeth due to tooth decay or gum disease than the state and nation [Table 2]. Like state and national data, there is an association between household income and reported tooth loss, with individuals in the lowest income group more than seven times more likely to report tooth loss than individuals in the highest income bracket. Other groups more likely to report losing all their natural teeth are African Americans and individuals with a high school diploma.

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4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2014.

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. Breast cancer can be detected early using screening tools such as mammography and clinical breast exams. Current recommendations from the American Cancer Society indicate that women aged 20 to 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[1].

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[2]		Michigan[3]		United States[4]		National Target[a]	
	Two Years			Past Year	Two Years	Past Year	Two Years	Past Year	Two Years	Past Year	Two Years
Total	👍 ☹	2017	Percent	58.7%	75.2%	--	74.0%	--	78.4%	**NA**	**81.1%**
Age										**C-17: Increase the proportion of women who receive a breast cancer screening based on the most recent guidelines.**	
40 – 49 Years	👍 ☺	2017	Percent	54.0%	69.0%	--	64.7%	--	--		
50 – 59 Years	👍	2017	Percent	64.6%	86.5%	--	78.3%	--	--		
60 – 64 Years	👍	2017	Percent	61.2%	79.6%	--	76.4%	--	--		
65+ Years	👍 ☺	2017	Percent	73.4%	87.3%	--	76.0%	--	--		
Race/Ethnicity											
White	👍 ☺	2017	Percent	59.6%	76.4%	--	73.7%	--	72.4%		
Black	👎 ☹	2017	Percent	53.1%	67.3%	--	77.5%	--	77.7%		
Hispanic/Latino	--	2017	Percent	--	--	--	70.2%	--	72.0%		
Non-Hispanic	☺	2017	Percent	58.7%	75.1%	--	--	--	--		
Education											
Less Than High School	--	2017	Percent	--	--	--	63.3%	--	65.9%		
High School Diploma	👍 ☺	2017	Percent	59.0%	74.3%	--	71.9%	--	71.0%		
Some College*	👍 ☺	2017	Percent	57.4%	78.2%	--	74.4%	--	73.1%		
College Graduate	👎 ☹	2017	Percent	60.9%	75.2%	--	79.7%	--	77.3%		
Household Income											
Less Than $15,000	👍 ☺	2017	Percent	46.9%	78.1%	--	70.1%	--	64.3%		
$15,000 to $24,999	👍 ☺	2017	Percent	55.0%	70.0%	--	63.7%	--	66.6%		
$25,000 to $34,999	👎 ☺	2017	Percent	62.5%	72.5%	--	72.5%	--	69.9%		
$35,000 to $49,999	👍 ☺	2017	Percent	56.1%	75.6%	--	70.9%	--	71.6%		
$50,000 Or More	☺	2017	Percent	64.2%	79.1%	--	79.1%	--	77.6%		

👍 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.
☺ 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.
[a] Target is based on Healthy People 2020 Goal.
*"Some College" for United States measure includes some college or more

Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2016 Nationwide BRFSS (States, DC and Territories).

SUMMARY

In Kent County, nearly 60% of women aged 40 years and older report having had a mammogram in the past year, and 75% report having had a mammogram within the past two years. Kent County has a slightly greater screening rate compared to the State of Michigan, but slightly less than the United States. Women in higher income groups and white and non-Hispanic women are the most likely to receive a mammogram in Kent County. Despite Kent County's relatively good screen rates, the Healthy People 2020 Goal of an 81.1% screening rate has not yet been achieved.

REFERENCES

1. American Cancer Society. (2017). *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.
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2016.

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 40 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 21-65 Years Who Have Had A Pap Test Within The Last Three Years

Indicator	Status	Time Period	Measure	Kent County[3]	Michigan[4]	United States[5]	National Target[a]
Total	☺	2017	Percent	81.4%	81.4%	80.1%	**93.0%**
Age							**C-15: Increase the proportion of women who receive a cervical cancer screening based on the most recent guidelines.**
21 – 30 Years	👍	2017	Percent	82.7%	65.4%	--	
31 – 40 Years	👍	2017	Percent	86.9%	85.0%	--	
41 – 50 Years	👎	2017	Percent	75.4%	84.9%	--	
51 – 60 Years	👎	2017	Percent	81.4%	85.0%	--	
61 – 65 Years	👎	2017	Percent	69.8%	80.9%	--	
Race/Ethnicity							
White	👎 ☺	2017	Percent	81.4%	83.4%	81.1%	
Black	👎 ☹	2017	Percent	74.5%	81.7%	82.1%	
Hispanic/Latino	👍 ☺	2017	Percent	82.4%	67.9%	79.6%	
Non-Hispanic	--	2017	Percent	81.0%	--	--	
Education							
Less Than High School	👍 ☺	2017	Percent	79.4%	69.0%	75.2%	
High School Diploma	👎 ☹	2017	Percent	71.4%	78.7%	75.2%	
Some College	👍 ☺	2017	Percent	87.9%	81.8%	79.4%	
College Graduate	👎 ☹	2017	Percent	82.5%	86.0%	85.9%	
Household Income							
Less Than $15,000	👍 ☺	2017	Percent	73.2%	68.5%	71.2%	
$15,000 to $24,999	👎 ☹	2017	Percent	65.5%	77.6%	75.1%	
$25,000 to $34,999	👍 ☺	2017	Percent	85.1%	79.9%	77.0%	
$35,000 to $49,999	👍 ☺	2017	Percent	85.9%	83.5%	79.8%	
$50,000 Or More	👎 ☺	2017	Percent	87.2%	87.8%	81.0%	
HPV Screening							
Total	--	2017	Percent	39.2%	--	--	**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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☹ When compared, for this health indicator, Kent County is worse than the United States.
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified

Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2016 Nationwide BRFSS (States, DC and Territories).

SUMMARY

More than eight in 10 Kent County women report having received a Pap test according to most current recommendations, which is an increase of approximately ten points from the 2014 Kent County BRFSS. However, this rate of screening for cervical cancer is lower than the Healthy People 2020 Goal. The groups of women most likely to receive a Pap test include women aged 21 to 40 years, Hispanic/Latina women, and women with an annual household income of $25,000 or more. An estimated four in ten women in Kent County report being screened for HPV in 2017, an increase from 29% in 2014.

REFERENCES

1. American Cancer Society. (2017). *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. (2016). *Cervical cancer: What should I know about screening?* Division of Cancer Prevention and Control. Retrieved from https://www.cdc.gov/cancer/cervical/basic_info/screening.htm.
3. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
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5. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2016.

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[2]. In 2008, the US Preventive Services Task Force (USPSTF) recommended screening with colonoscopy every 10 years, annual fecal immunochemical test (FIT), annual high-sensitivity FOBT, or flexible sigmoidoscopy every 5 years with high-sensitivity FOBT every 3 years[3]. Current USPSTF recommendations for colorectal cancer screening highlight that screening "substantially reduces deaths from the disease among adults aged 50 to 75 years and that not enough adults in the United States are using this effective preventive intervention"[3]. The data presented below are based on the 2008 USPSTF recommendations for screening [Table].

Kent County Behavioral Risk Factors: Colorectal Cancer Screening
Respondents Age 50-75 Who Met The 2008 USPSTF Recommendations For Colorectal Cancer Screening[b]

Indicator	Status	Time Period	Measure	Kent County[4]	Michigan[5]	United States[6]	National Target[a]
Total	👍 ☺	2017	Percent	72.3%	67.7%	67.6%	**70.5%**
Age							**C-16: Increase the proportion of adults who receive a colorectal cancer screening based on the most recent guidelines.**
50 – 59 Years	👍	2017	Percent	67.4%	61.5%	--	
60 – 69 Years	👍	2017	Percent	76.1%	72.5%	--	
70+ Years	👍	2017	Percent	84.1%	79.9%	--	
Gender							
Male	👍 ☺	2017	Percent	71.3%	69.0%	65.9%	
Female	👍 ☺	2017	Percent	73.0%	71.0%	69.2%	
Race/Ethnicity							
White	👍 ☺	2017	Percent	73.0%	71.1%	70.4%	
Black	👍 ☺	2017	Percent	76.0%	65.0%	66.4%	
Hispanic/Latino	👎 ☹	2017	Percent	47.2%	64.9%	53.4%	
Non-Hispanic	☺	2017	Percent	74.0%	--	--	
Education							
Less Than High School	👍 ☺	2017	Percent	57.6%	57.1%	52.7%	
High School Diploma	👍 ☺	2017	Percent	68.3%	64.7%	64.5%	
Some College	👎 ☺	2017	Percent	73.3%	73.4%	69.9%	
College Graduate	👎 ☺	2017	Percent	76.4%	77.0%	75.4%	
Household Income							
Less Than $15,000	👍 ☺	2017	Percent	61.7%	57.0%	54.5%	
$15,000 to $24,999	👍 ☺	2017	Percent	72.6%	60.5%	58.6%	
$25,000 to $34,999	👍 ☺	2017	Percent	65.1%	64.0%	63.6%	
$35,000 to $49,999	👍 ☺	2017	Percent	75.5%	72.8%	67.9%	
$50,000 Or More	👍 ☺	2017	Percent	76.9%	75.2%	73.6%	

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

Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2016 Nationwide BRFSS (States, DC and Territories).

SUMMARY

Nearly three in four Kent County residents aged 50 to 75 have met the 2008 USPSTF recommendations for colorectal cancer screening. This is a higher proportion than both the State of Michigan and United States, and has exceeded the Healthy People 2020 Goal. The groups most likely to report meeting the recommendations are individuals 70 years and older, females, African Americans, college graduates, and those with a household income of $35,000 or more. Hispanic/Latinos in Kent County have a low screening rate at 47%.

REFERENCES

1. American Cancer Society. (2017). *What are the key statistics about colorectal cancer?* Retrieved from http://www.cancer.org/cancer/colonandrectumcancer/detailedguide/colorectal-cancer-key-statistics.
2. Centers for Disease Control and Prevention. (2017). *Colorectal cancer screening tests*. Retrieved from http://www.cdc.gov/cancer/colorectal/basic_info/screening/guidelines.htm.
3. US Preventive Services Task Force. (2017). *USPSTF Recommendation*. Retrieved from https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/colorectal-cancer-screening2.
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5. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
6. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2016.

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
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 Target[a]
Total	👍 ☹	2017	Percent	36.4%	34.9%	38.4%	**73.6%**
Age							**HIV-14.1: Increase the proportion of adolescents and adults who have ever been tested for HIV.**
18 – 24 Years	👎 ☹	2017	Percent	22.4%	29.2%	30.5%	
25 – 34 Years	--	2017	Percent	55.1%	51.0%	--	
35 – 44 Years	--	2017	Percent	50.8%	57.0%	--	
45 – 54 Years	--	2017	Percent	43.5%	44.4%	--	
55 – 64 Years	--	2017	Percent	28.6%	25.9%	--	
65+ Years	👎 ☹	2017	Percent	9.2%	11.3%	14.7%	
Gender							
Male	👍 ☹	2017	Percent	33.0%	32.9%	37.4%	
Female	👍 ☺	2017	Percent	39.9%	36.7%	39.4%	
Race/Ethnicity							
White	👍	2017	Percent	33.1%	30.6%	33.1%	
Black	👎 ☹	2017	Percent	50.9%	58.4%	61.3%	
Hispanic/Latino	👍 ☹	2017	Percent	42.5%	40.4%	44.6%	
Non-Hispanic	--	2017	Percent	36.0%	--	--	
Education							
Less Than High School	👍 ☺	2017	Percent	40.3%	34.8%	37.6%	
High School Diploma	👍 ☹	2017	Percent	31.3%	30.9%	34.6%	
Some College	👍 ☹	2017	Percent	38.7%	38.0%	40.3%	
College Graduate	👍 ☹	2017	Percent	37.7%	35.3%	40.8%	
Household Income							
Less Than $15,000	👍 ☺	2017	Percent	60.6%	48.3%	44.8%	
$15,000 to $24,999	👎 ☹	2017	Percent	40.9%	41.4%	42.2%	
$25,000 to $34,999	👍 ☺	2017	Percent	38.3%	31.9%	37.7%	
$35,000 to $49,999	👍 ☺	2017	Percent	44.6%	32.9%	38.0%	
$50,000 Or More	👍 ☹	2017	Percent	34.5%	34.0%	38.8%	

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

Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2016 Nationwide BRFSS (States, DC and Territories).

SUMMARY

An estimated 36% of Kent County residents have ever been tested for HIV, which is a higher testing rate than the State of Michigan but lower than the United States. Individuals between the ages of 25 and 54 years, females, African Americans and Hispanic/Latinos, and individuals with some college or more, and those with a household income of less than $15,000 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 Goal of 73.6%.

REFERENCES

1. Healthy People 2020. (2017). *HIV overview*. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/hiv.
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2016.

ENVIRONMENTAL HEALTH

KENT COUNTY
2017 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
- WATERBORNE DISEASES
- FOOD SAFETY
- CHILDHOOD LEAD EXPOSURE
- VECTOR-BORNE DISEASE
- ANIMAL BITES AND RABIES

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 hours	9 ppm	Not to be exceeded more than once per year
			1 hour	35 ppm	
Lead		Primary and Secondary	Rolling 3-month average	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 3 years
		Primary and Secondary	Annual	53 ppb	Annual mean
Ozone		Primary and Secondary	8 hours	0.070 ppm	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particle Pollution	***$PM_{2.5}$***	Primary	Annual	12.0 µg/m^3	Annual mean, averaged over 3 years
		Secondary	Annual	15.0 µg/m^3	Annual mean, averaged over 3 years
		Primary and Secondary	24 hours	35 µg/m^3	98th percentile, averaged over 3 years
	PM_{10}	Primary and Secondary	24 hours	150 µg/m^3	Not to be exceeded more than once per year on average, over 3 years
Sulfur Dioxide		Primary	1 hour	75 ppb	99th percentile of 1 hour daily maximum concentrations, averaged over 3 years
		Secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

REFERENCES

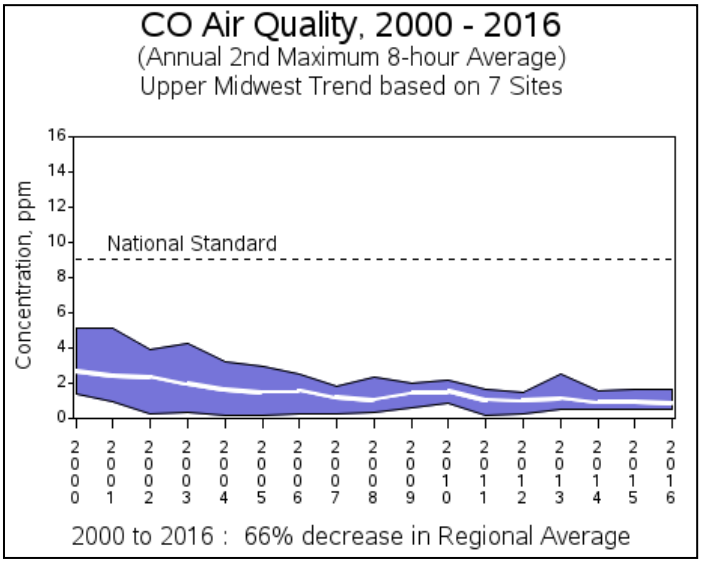
1. US Environmental Protection Agency. (2016). *Air quality planning and standards*. Retrieved from http://www.epa.gov/airquality/index.html.
2. US Environmental Protection Agency. (2017). *National ambient air quality standards*. Retrieved from https://www.epa.gov/criteria-air-pollutants.

Environmental Characteristics: Kent County Carbon Monoxide

Overview: Carbon Monoxide

Carbon monoxide is a colorless, odorless gas that is emitted from combustion processes. Most 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).

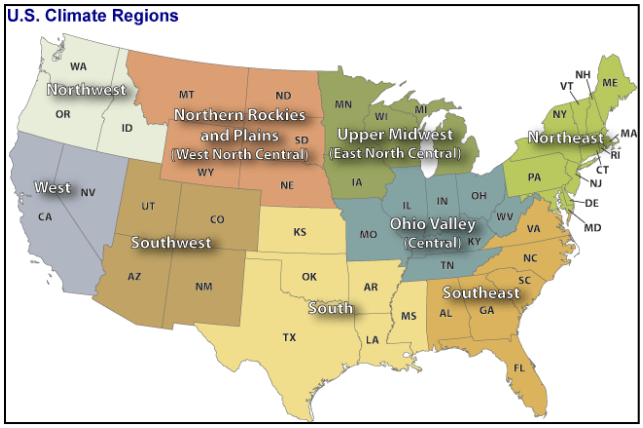


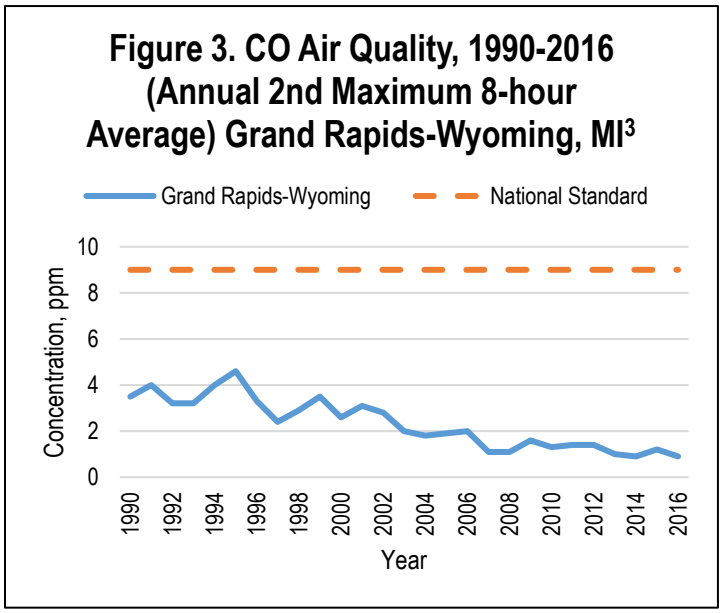
Summary

Figure 1 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 [Figure 2]. As noted in Figure 1, 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 period.

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 Figure 3. Like the regional data, locally, Greater Grand Rapids has regularly reported carbon monoxide concentrations that meet the national standards [Figure 3]. Greater Grand Rapids has also reported a steady decrease in carbon monoxide concentrations.

Above: Figure 1. CO Air Quality in the Upper Midwest[2]
Below: Figure 2. Climate Regions in the United States[2]





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2. US Environmental Protection Agency. (2017). *Carbon monoxide trends*. Retrieved from https://www.epa.gov/air-trends/carbon-monoxide-trends.
3. US Environmental Protection Agency. (2017). *Air Quality Statistics by County, 2016*. Retrieved from https://www.epa.gov/air-trends/air-quality-cities-and-counties.

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].

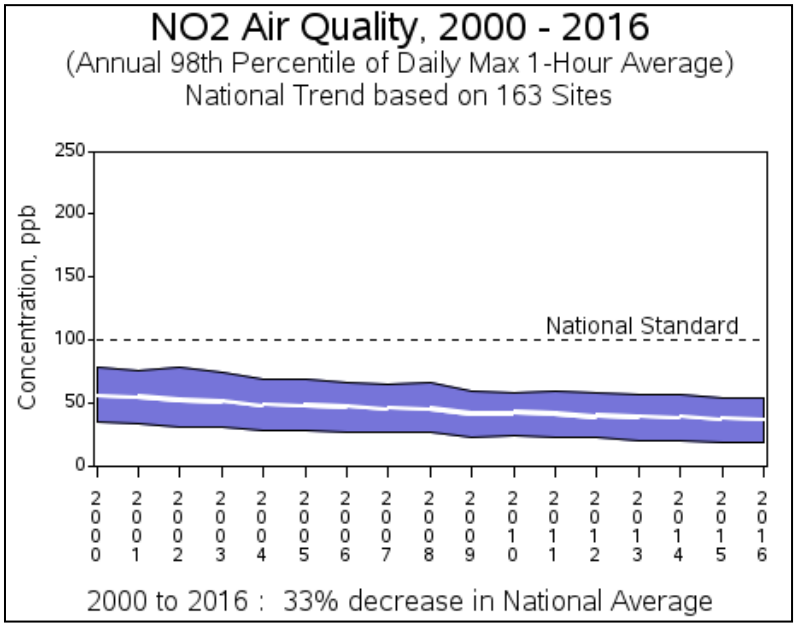
Adverse respiratory consequences associated with nitrogen dioxide have been shown after as little as 30 minutes of exposure. It can cause airway inflammation and increased respiratory symptoms in persons with asthma. These effects most frequently impact vulnerable populations like the elderly, children,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

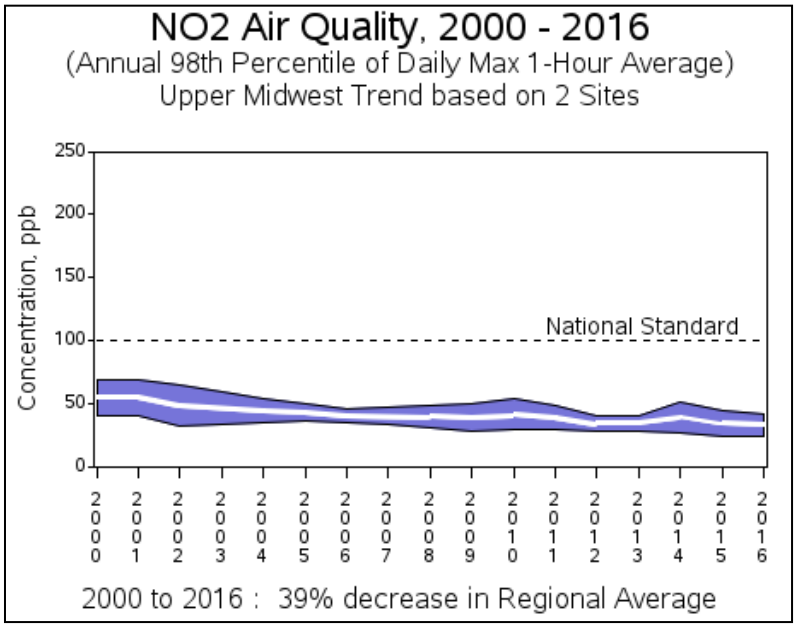
SUMMARY

Figure 1 shows from 2000 to 2016, the average concentration of NO_2 in the air has decreased by 33% nationally, and has consistently met the national standard throughout that period.

Similarly, Figure 2 shows from 2000 to 2016, the average concentration of NO_2 in the air in the Upper Midwest region has decreased by 39%, and has also consistently met the national standard.



Above: Figure 1. NO_2 Air Quality in the United States[3]
Below: Figure 2. NO_2 Air Quality in the Upper Midwest[3]



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3. US Environmental Protection Agency. (2017). *Nitrogen dioxide trends*. Retrieved from https://www.epa.gov/air-trends/nitrogen-dioxide-trends.

ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY GROUND-LEVEL OZONE

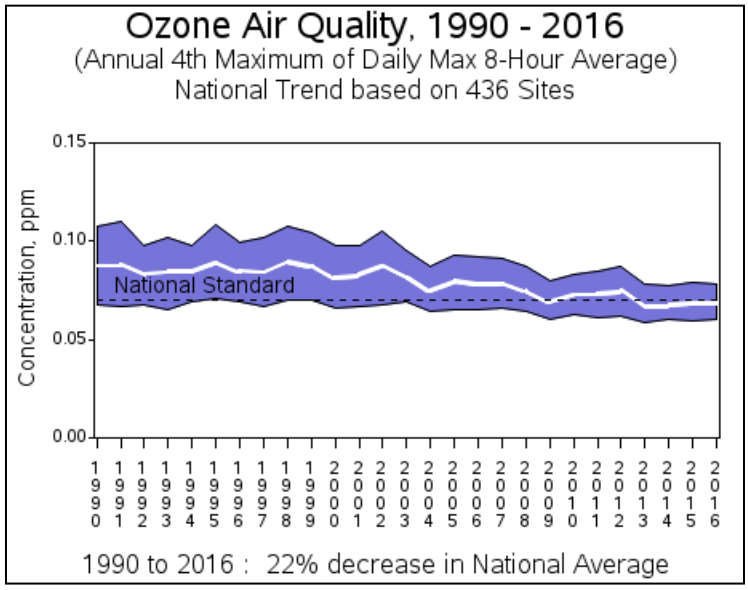
OVERVIEW: GROUND-LEVEL OZONE

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].

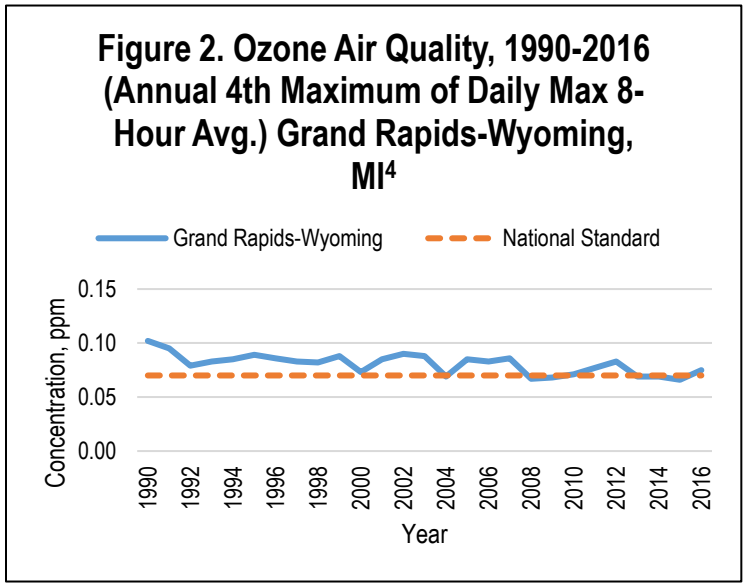
All levels of ozone exposure can be harmful to human health and children, people with lung disease, the elderly, and people who spend a lot of time outdoors are the most sensitive to ozone. Breathing ozone can trigger numerous health issues, including chest pain, throat irritation and congestion. It has been shown to worsen bronchitis, emphysema, and asthma. Repeated exposure can reduce lung function and harm 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 0.070 parts per million (ppm) per 8 hours (average).

The *State of the Air 2016* report from the American Lung Association listed the Greater Grand Rapids Area as the 20th most ozone-polluted metropolitan area in the United States[5].



Above: Figure 1. Ozone Air Quality in the United States[3]



SUMMARY

Figure 1 shows trend data for the annual maximum 8-hour average readings for ozone air quality nationally between 1990-2016[3]. The measured concentration of ozone met the national standard in 2009 and has remained close to or below the national standard since then. From 1990 to 2016, there was a 22% decrease in the average ozone concentration nationally. Locally, a similar trend is reported [Figure 2]. Since 2008, the Greater Grand Rapids area has been consistently close to the national standard, though there was an increase in concentration in 2011 and 2012, and then again in 2016. From 1990 to 2016, there was a 26% decrease in the average ozone concentration locally.

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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[1]. 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[1]. 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 for anyone living where pollution levels are high. However, some people at the greatest risk from exposure include infants, children, and teens; people over 65 years of age; people with lung disease; people with heart disease or diabetes; people with low incomes; and those who work or are active outdoors[2]. Fine particle exposure can cause short-term health effects including eye, nose, throat, and lung irritation, coughing and sneezing, and shortness of breath[3]. Long-term health effects include increased hospital admissions and emergency department visits, and death[3].

Studies have linked long-term fine particulate exposure with increased rates of chronic bronchitis, reduced lung function, and increased mortality from lung cancer and heart disease[3]. Short-term exposure to elevated levels of $PM_{2.5}$ can cause death, diminished lung function, greater use of asthma medication, increased absenteeism in schools, increased hospitalization, heart attacks, and increased emergency room visits[2].

Table 1. $PM_{2.5}$ levels in Kent County, MI on May 28th, 2017 compared to the State of Michigan and National Benchmarks[4]

Kent County $PM_{2.5}$ Level[1]	13 µg/m³ (24-hour average)
State Benchmark	<35 µg/m³ (24-hour average)
National Benchmark	<35 µg/m³ (24-hour average)

Note: May 28th, 2017 was selected as an example to show the levels of $PM_{2.5}$ in the air.

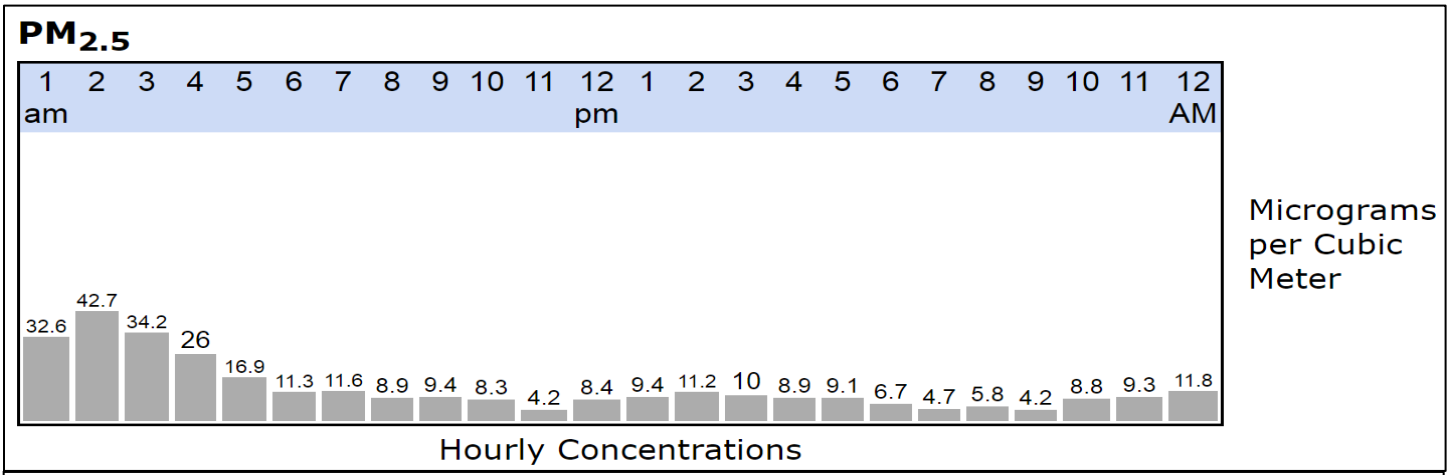
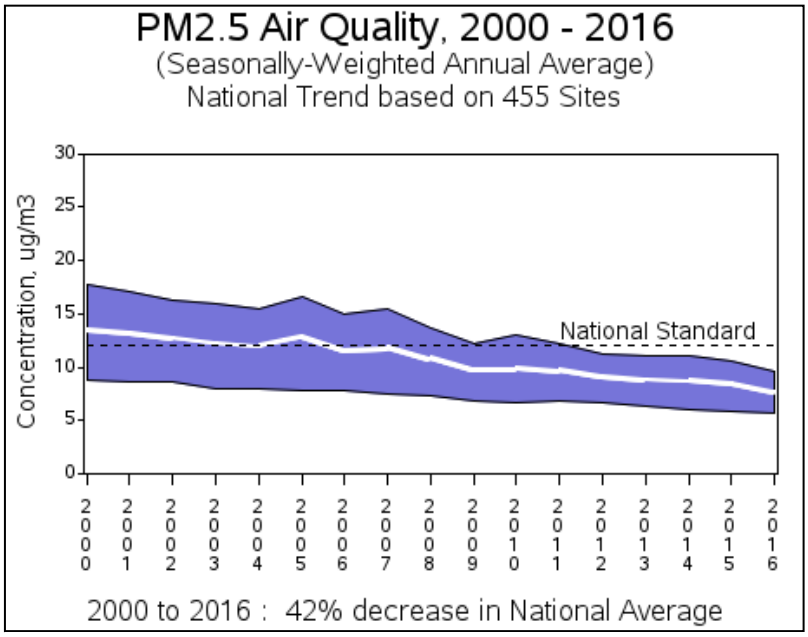


Figure 1. Hourly $PM_{2.5}$ Levels, Kent County, May 28, 2017[4]

Table 2. 98th Percentile Of $PM_{2.5}$ Values, 3-Year Averages, Grand Rapids, 2007-2016[5]

Location	Timeframe								
	2006-2008	*2007-2009*	*2008-2010*	*2009-2011*	*2010-2012*	*2011-2013*	*2012-2014*	*2013-2015*	*2014-2016*
Grand Rapids[a]	29 µg/m³	28 µg/m³	26 µg/m³	26 µg/m³	24 µg/m³	22 µg/m³	23 µg/m³	23 µg/m³	22 µg/m³

This table illustrates the three-year averages of the highest 2% of $PM_{2.5}$ levels between 2006-2016. Grand Rapids is meeting the 24-hour national $PM_{2.5}$ standard of <35 µg/m³. 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/m³.
a. The reported value is an average of the three Grand Rapids monitoring stations



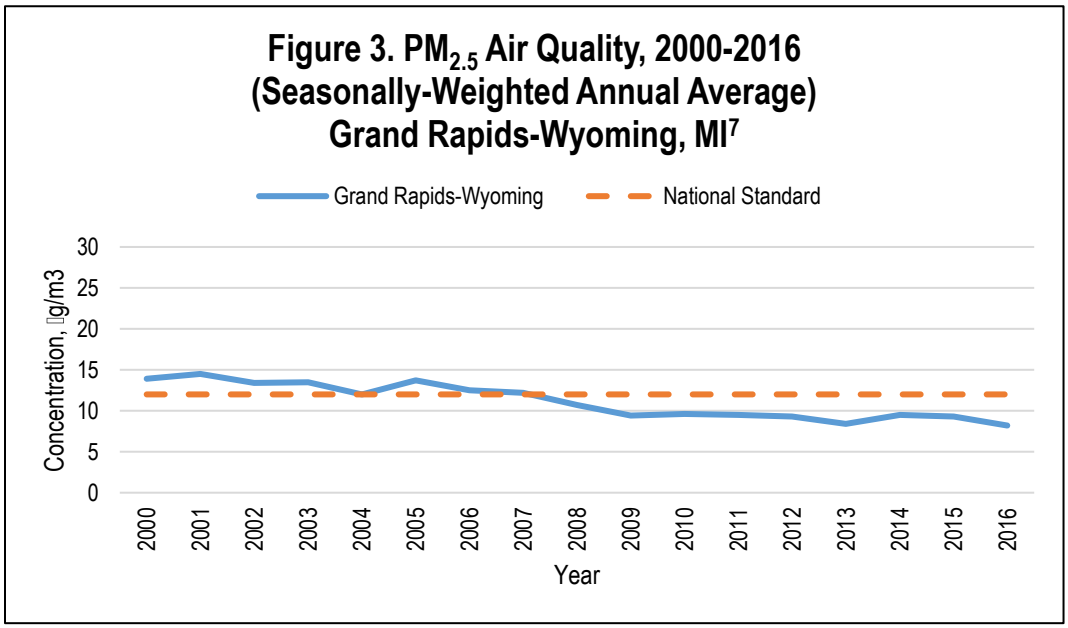
Above: Figure 2. Ozone Air Quality in the United States[6]

Summary

Figure 1 presents an example of $PM_{2.5}$ hourly concentrations within a 24-hour period in Kent County. As shown, $PM_{2.5}$ levels reached a maximum of 42.7 mg/m^3; however, the average for that day was 13 µg/m^3, well below the benchmarks for $PM_{2.5}$ levels [Table 1]. Kent County is consistently reporting 24-hour average $PM_{2.5}$ levels that are within the acceptable air quality standards as prescribed by the EPA [Table 2]. Since 2006, the City of Grand Rapids has been within the acceptable air quality standards when considering the three-year averages [Table 2].

The United States [Figure 2] and Greater Grand Rapids [Figure 3] have shown improved air quality regarding $PM_{2.5}$ concentrations over time. From 2000 to 2016, the United States has had a 42% decrease in the national average, while the Greater Grand Rapids area has had a comparable 43% decrease in the local average.

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



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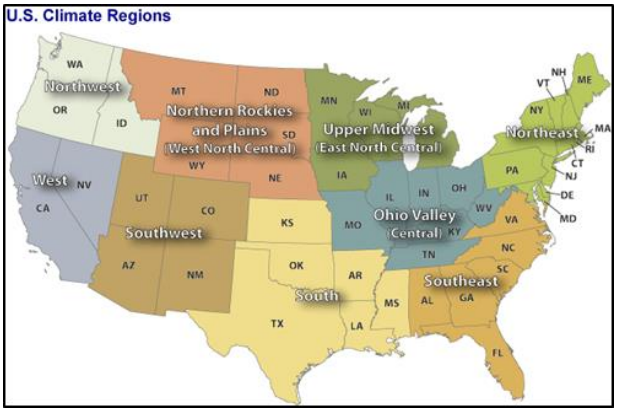
ENVIRONMENTAL CHARACTERISTICS: KENT COUNTY SULFUR DIOXIDE



Above: Figure 1. United States Climate Regions[1]

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 daily maximum one-hour average readings of sulfur dioxide concentrations in the air have been consistently meeting the national standard in the United States since 2002 [Figure 2]. In the Upper Midwest, which includes Michigan [Figure 1], the concentrations of sulfur dioxide have been meeting the national standard since 2000 [Figure 3]. In both the nation and region, sulfur dioxide concentrations have been decreasing over time. From 2000 to 2016, there has been a 72% decrease in the national average and a 61% decrease in the regional average.

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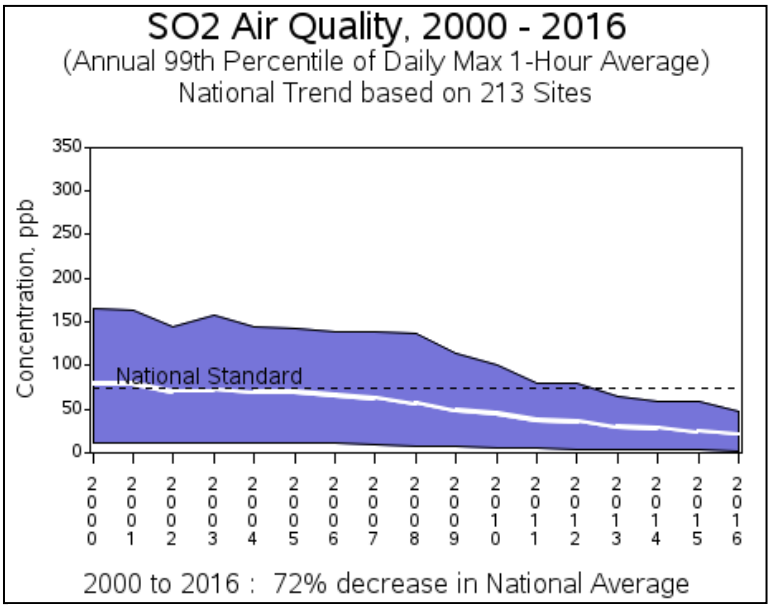
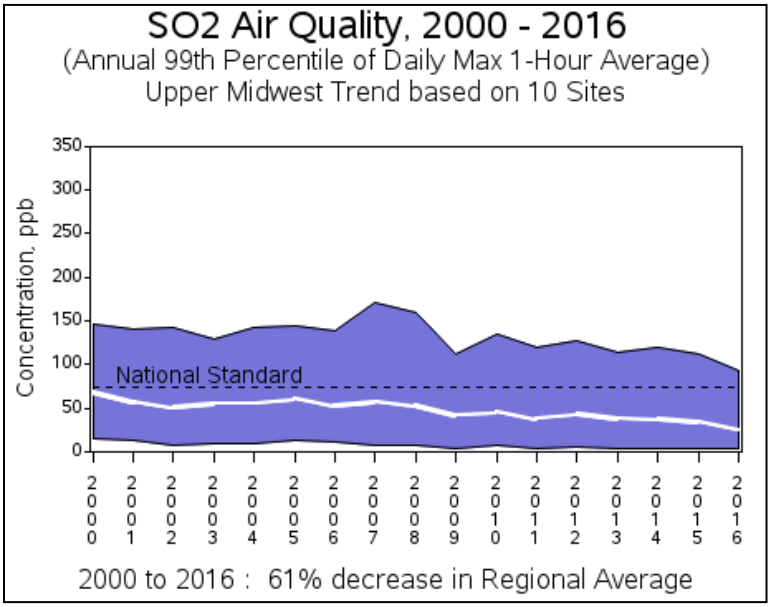
OVERVIEW: SULFUR DIOXIDE

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[2]. 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[3].



Above: Figure 2. Sulfur Dioxide Air Quality in the United States[1]
Below: Figure 3. Sulfur Dioxide Air Quality in the Upper Midwest[1]



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, geothermal, and test wells. From 2009-2014, 3,875 water wells construction permits were issued by the Kent County Health Department. During this same period, an average of 775 wells were issued permits per year[1].

Noncommunity Water Supplies

A noncommunity 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 9,500 noncommunity water supply systems, which include schools, restaurants, motels, campgrounds, and churches. Officials monitor 338 active noncommunity water supplies operating within Kent County. In 2014, 99% of noncommunity 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 2017, there were 484 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, 26,499,000 gallons of discharging untreated sewage waste per year was eliminated.

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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 *Legionella* (accounting for 57% of outbreaks and 13% of illnesses in the United States during 2013-2014), and parasitic infection by *Cryptosporidium* or *Giardia* (accounting for 29% of illnesses)[2]. Recreational water-related outbreaks are most commonly caused by *Cryptosporidium* (accounting for 52% of outbreaks associated with treated recreational water), and *E. coli* (accounting for 33% of outbreaks associated with untreated recreational water)[3]. Table 1 below describes common water-associated pathogens and health-related issues associated with each.

Table 1. Most Frequently Reported Waterborne Diseases

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

Table 2. Kent County Environmental Characteristics: Cases of Common Waterborne Diseases[11]					
	Time Period	Measure	Kent County	Michigan	National Target[a]
Giardia	2016	Total number of cases	36	550	**NA**
	2016	% of total waterborne cases	16.0%	16.1%	**NA**
Legionella	2016	Total number of cases	7	299	**NA**
	2016	% of total waterborne cases	3.1%	8.8%	**NA**
Shigella	2016	Total number of cases	54	603	**NA**
	2016	% of total waterborne cases	24.0%	17.7%	**NA**
Norovirus	2016	Total number of cases	0	250	**NA**
	2016	% of total waterborne cases	0.0%	7.3%	**NA**
Campylobacter	2016	Total number of cases	95	1351	**NA**
	2016	% of total waterborne cases	42.2%	39.6%	**NA**
Cryptosporidium	2016	Total number of cases	33	357	**NA**
	2016	% of total waterborne cases	14.7%	10.5%	**NA**

SUMMARY

In 2016, Kent County had a higher proportion of shigella than the State of Michigan (24.0% vs. 17.7%, respectively) and cryptosporidium (14.7% vs. 10.5%, respectively) [Table 2]. Kent County also had a slightly higher proportion of campylobacter cases than the state [Table 2].

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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[1]. 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 norovirus, *Salmonella*, *Clostridium perfringens, Campylobacter,* and *Staphylococcus aureus*[2]. The foodborne pathogens most likely to lead to hospitalization include *Clostridium botulinum, Listeria,* Shiga toxin-producing *Escherichia coli (E.coli)* O157, and *Vibrio*[2].

Kent County Environmental Characteristics: Common Foodborne Illnesses

Indicator	Status	Time Period	Measure	Kent County[3]	Michigan[3]	United States[4]	National Target[a]
Campylobacter	👎 ☹	2016	Rate per 100,000	15.0	13.0	12.8	**Target: 8.5 FS-1.1: Reduce infections caused by *Campylobacter* species transmitted commonly through food.**
E. coli (STEC) O157:H7	👎 ☹	2016	Rate per 100,000	2.0	1.5	0.9	**Target: 0.6 FS-1.2: Reduce infections caused by Shiga toxin-producing *Escherichia coli* (STEC) O157 transmitted commonly through food.**
Listeriosis	👎 ☺	2016	Rate per 100,000	0.16	0.14	0.20	**Target: 0.2 FS-1.3: Reduce infections caused by *Listeria monocytogenes* transmitted commonly through food.**
Salmonellosis	👎 ☺	2016	Rate per 100,000	11.0	10.0	15.7	**Target: 11.4 FS-1.4: Reduce infections caused by *Salmonella* species transmitted commonly through food**
Yersinia enteritis	👎 ☹	2016	Rate per 100,000	0.99	0.34	0.30	**Target: 0.3 FS-1.7: Reduce infections caused by *Yersinia* species transmitted commonly through food.**
Norovirus	👍	2016	Rate per 100,000	0.0	2.5	--	**--**

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

Note: The 2016 comparative data is based on 2015 HP2020 Objective Data.

SUMMARY

In 2016, Kent County's most commonly reported foodborne illnesses were campylobacter (15.0 per 100,000) and salmonellosis (11.0 per 100,000). Kent County had higher rates of all selected foodborne illnesses than the State of Michigan except norovirus. Kent County achieved the national target for listeriosis and salmonellosis.

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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 μg/dL to 5 μg/dL in 2012[3]. The "reference value" is the level at which evaluation and intervention for lead are recommended.

SUMMARY

In 2015, 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. About 9,800 children under the age of 6 years were tested for elevated BLL in 2015 in Kent County (18% of all children in that age group), and 6.2% had BLL greater than or equal to 5 μg/dL [Figure 1]. Similarly, approximately 7,800 one- and two-year-old children in Kent County were tested (43% of all children in that age group) and 6.2% had BLL greater than or equal to 5 μg/dL. The percentage of confirmed elevated BLL was decreasing between 2011 and 2014, but increased again in 2015. The percentage of children with elevated BLL in Kent County is slightly higher than the State of Michigan and United States.

Figure 1. Kent County Totals Blood Lead Surveillance, 2011-2015[4]

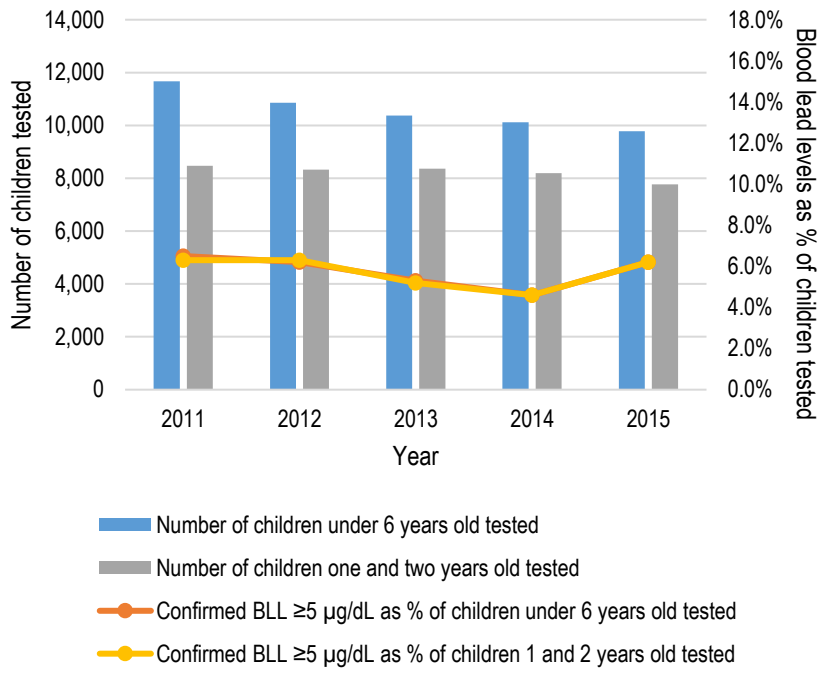
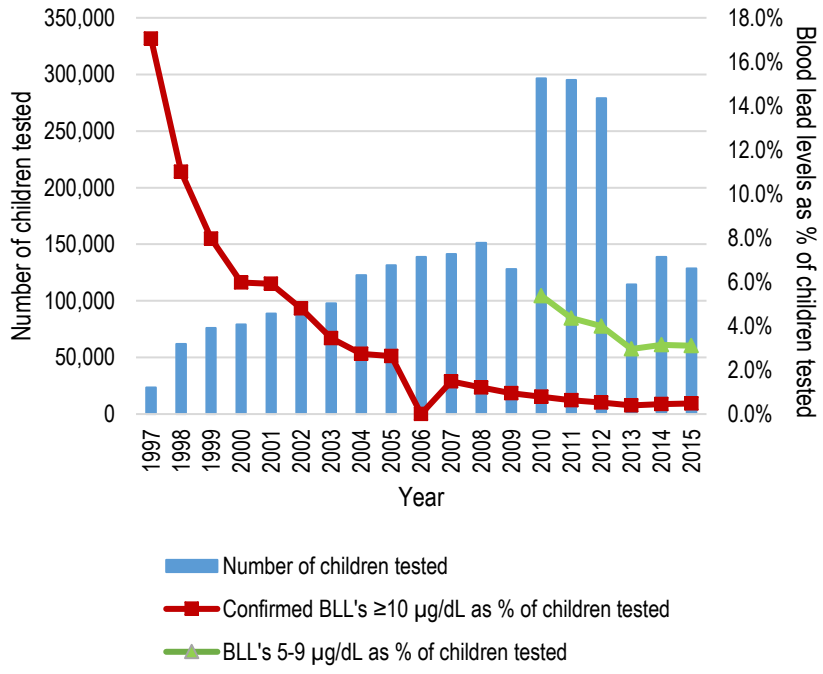


Figure 2. Michigan Totals Blood Lead Surveillance, 1997-2015[5]

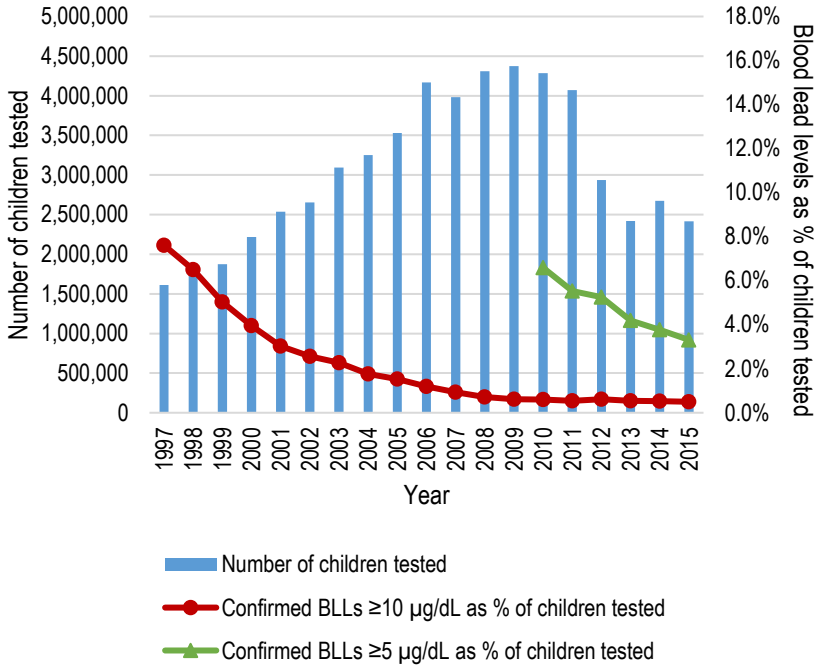


The number of children tested in Michigan and the United States increased around 2010, but has decreased in recent years [Figures 2 and 3]. From 1997 to 2015, the percentage of children with BLL greater than or equal to 10 µg/dL has decreased dramatically. The percentage of children tested with BLL greater than or equal to 5 µg/dL in Michigan and the United States has been decreasing since 2010.

Children with confirmed elevated BLL 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 µg/dL for Kent County was slightly higher than the rate reported for the State of Michigan.

Figure 3. U.S. Totals Blood Lead Surveillance, 1997-2015[5]



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3. Healthy Homes Coalition. (n.d.). *Recommendations on medical management of childhood lead exposure and poisoning*. Retrieved from http://www.healthyhomescoalition.org/uploads/files/5_Medical_Management_AAP.pdf.
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Environmental Characteristics: Kent County Vector-borne Diseases

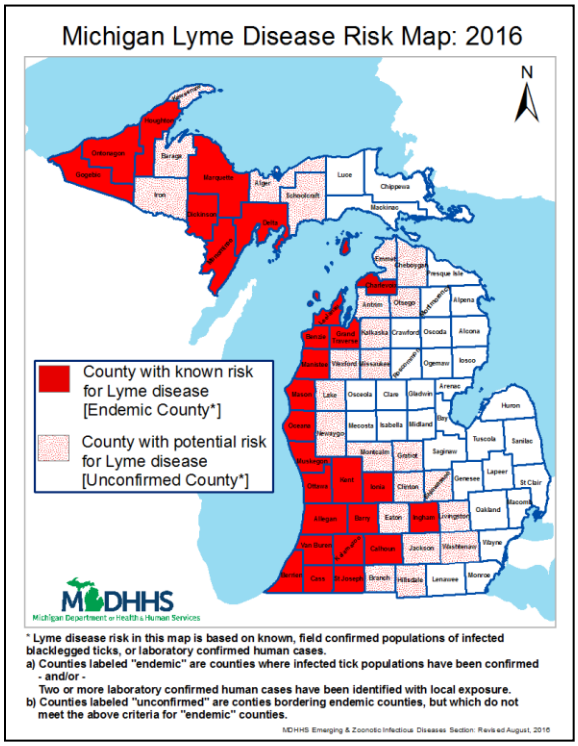
Introduction: Vector-Borne Diseases

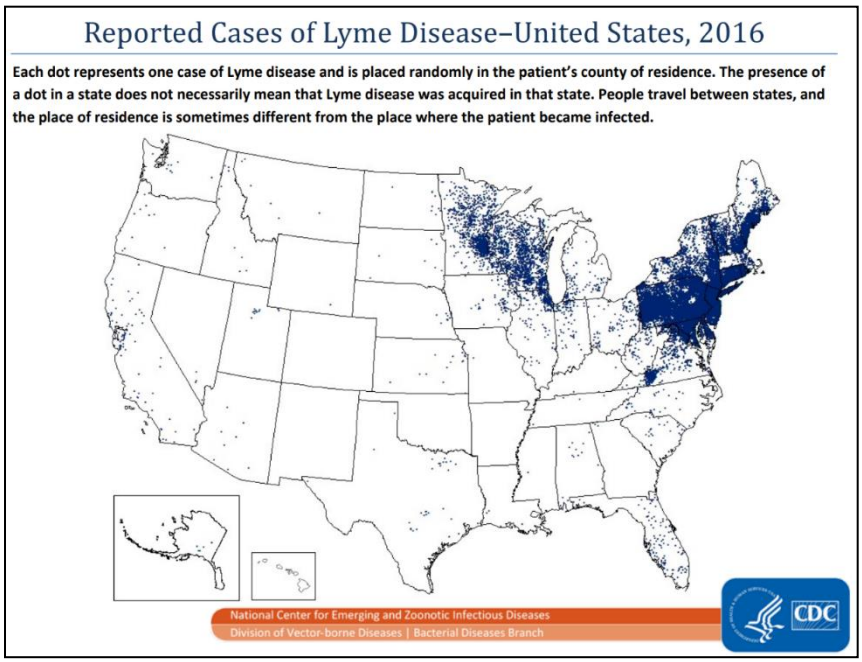
Vector-borne diseases are some of the most complex infectious diseases to prevent and control. These types of conditions are caused by organisms that transmit pathogens and parasites from one infected person or animal to another, causing diseases to spread[1]. The organisms most often responsible for 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.

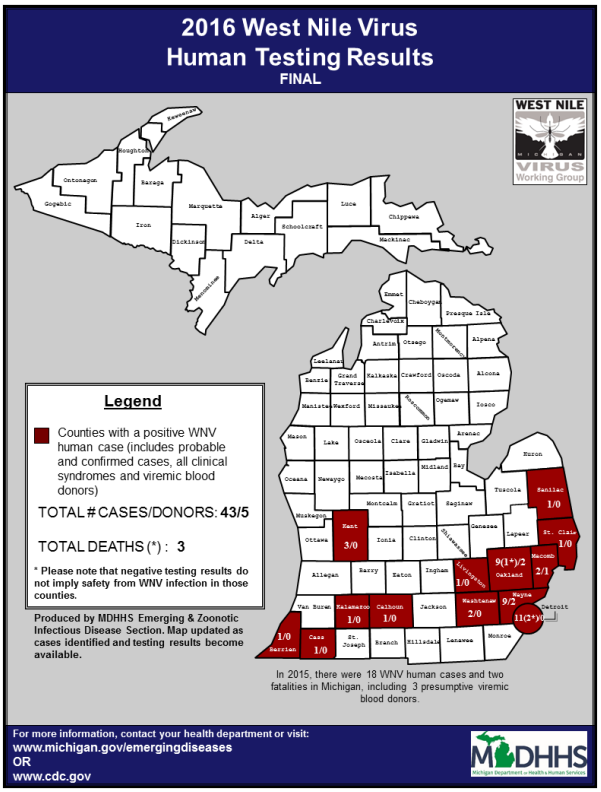
Definitions of Common Vector-borne Disease in Michigan and Kent County		
	Lyme Disease[3,4]	West Nile Virus[5,6]
Transmission	Lyme disease is caused by the bacterium, *Borrelia burgdorferi* and is spread through the bite of infected ticks. The blacklegged tick, or deer tick, spreads the disease in Michigan.	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[8,9,10]
Lyme Disease	2016	Number of cases*	1	164	36,429
West Nile Virus	2016	Number of cases	3	42	2,149
Zika Virus	2016	Number of cases	15[a]	67[a]	5,102[b]





*Confirmed and probable cases; [a]Imported cases; [b]Local (N=224), imported (N=4,830), other (N=48)



Summary

In 2016, Kent County had the third-highest number of West Nile Virus cases in Michigan. Kent County has a surveillance program to monitor activity and identify surges in disease so they could be quickly mediated. The Michigan Department of Health and Human Services identifies Kent County as a community endemic with both West Nile Virus and Lyme disease. In 2016, there was one confirmed locally contracted cases of Lyme disease in Kent County[10]. Kent County had 15 imported cases of Zika virus in 2016.

References

1. World Health Organization. (2014). *About vector-borne disease*. Retrieved from http://www.who.int/campaigns/world-health-day/2014/vector-borne-diseases/en/.
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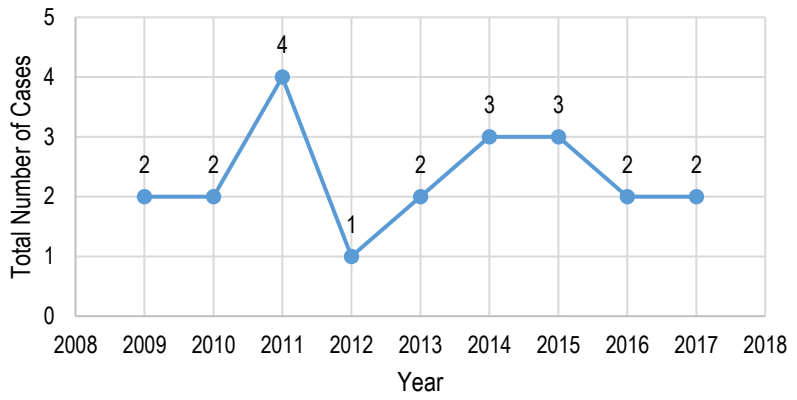
7. MDHHS Michigan Disease Mapper, Zoonotic and Vector Borne (2017). Retrieved from http://www.mcgi.state.mi.us/midiseasemapper/mcgi.html.
8. Centers for Disease Control and Prevention. (2017). *West Nile Virus.* Final Maps & Data for 1999-2016. West Nile virus disease cases reported to CDC by state of residence, 1999-2016. Retrieved from https://www.cdc.gov/westnile/statsmaps/cumMapsData.html.
9. Centers for Disease Control and Prevention. (2017). *Lyme Disease.* Lyme disease data tables. Reported cases of Lyme disease by state or locality, 2006-2016. Retrieved from https://www.cdc.gov/lyme/stats/tables.html.
10. Centers for Disease Control and Prevention. (2017). *Zika Virus*. 2016 Case Counts in the US. Retrieved from https://www.cdc.gov/zika/reporting/2016-case-counts.html.
11. Michigan Department of Health and Human Services. (2017). *West Nile Virus Surveillance Maps.* Retrieved from http://www.michigan.gov/emergingdiseases/0,4579,7-186-81018_25805_26531---,00.html.

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].

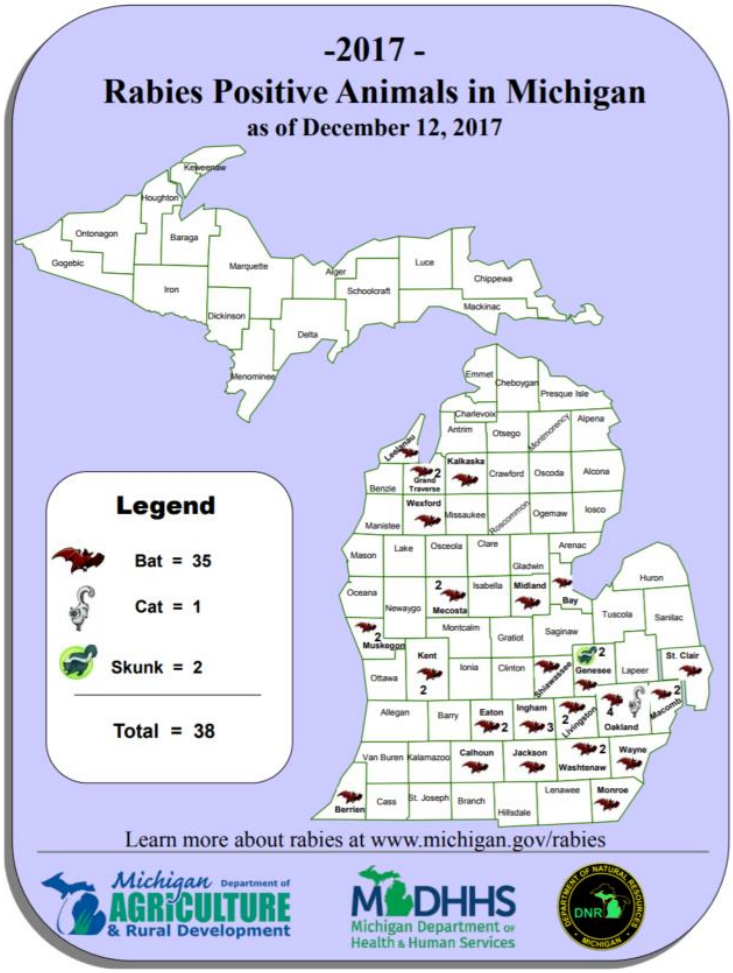
Figure 1. Cases of Confirmed Rabies Positive Animals in Kent County, 2009-2017[3]



SUMMARY

Kent County typically has fewer than five cases of confirmed rabies per year [Figure 1]. In 2016 and 2017 (as of December 12, 2017), two cases of rabies were confirmed in Kent County, both in bats each year[3]. Consistent with national trends, Michigan's most common carriers and transmitters of rabies are wild animals. As of December 12, 2017, Michigan had a total of 38 rabies cases, involving 35 bats, 2 skunks, and 1 cat [Figure 2].

Between 1995 and 2017, there has only been 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].



Above: Figure 2. Rabies Positive Animals in Michigan by County as of December 12, 2017[3]

REFERENCES

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2. Centers for Disease Control and Prevention. (2011). *Rabies in the United States*. Retrieved from http://www.cdc.gov/rabies/location/usa/index.html.
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Section 3: Health Status

KENT COUNTY
2017 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

Subsections

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

SOCIAL AND BEHAVIORAL HEALTH

KENT COUNTY
2017 COMMUNITY HEALTH NEEDS ASSESSMENT

COMMUNITY HEALTH STATUS ASSESSMENT

DEFINITION OF CATEGORY

This category represents social and behavioral factors and conditions which directly or indirectly influence overall health status and individual and community quality of life. Behavioral 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 Behavioral 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[1]. 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[1].

Kent County Social and Behavioral 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[2]	Michigan[3]	United States	National Target[a]
Total	👎	2017	Percent	13.4%	11.9%	--	**NA**
Age							**HRQOL/WB-1.2: Increase the proportion of adults who self-report good or better mental health.**
18 – 24 Years	👎	2017	Percent	18.2%	13.1%	--	
25 – 34 Years	👎	2017	Percent	15.9%	14.5%	--	
35 – 44 Years	👍	2017	Percent	11.7%	13.4%	--	
45 – 54 Years	👎	2017	Percent	14.8%	13.9%	--	
55 – 64 Years	👎	2017	Percent	13.8%	11.7%	--	
65+ Years	--	2017	Percent	6.7%	--	--	
Gender							
Male	👎	2017	Percent	10.5%	9.4%	--	
Female	👎	2017	Percent	16.1%	14.2%	--	
Race/Ethnicity							
White	👎	2017	Percent	14.2%	10.8%	--	
Black	👍	2017	Percent	13.8%	15.0%	--	
Hispanic/Latino	👍	2017	Percent	5.9%	13.7%	--	
Non-Hispanic	👍	2017	Percent	14.0%	20.3%	--	
Education							
Less Than High School	--	2017	Percent	11.8%	--	--	
High School Diploma	--	2017	Percent	15.9%	--	--	
Some College	--	2017	Percent	19.6%	--	--	
College Graduate	--	2017	Percent	7.9%	--	--	
Household Income							
Less Than $15,000	--	2017	Percent	32.3%	--	--	
$15,000 to $24,999	--	2017	Percent	33.3%	--	--	
$25,000 to $34,999	--	2017	Percent	13.0%	--	--	
$35,000 to $49,999	--	2017	Percent	16.9%	--	--	
$50,000 Or More	--	2017	Percent	5.9%	--	--	

👍 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.

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

NA -- National Target was not identified

**Note: The 2017 comparative data is based on 2015 BRFS of Michigan residents.*

SUMMARY

The percentage of Kent Count residents who report 14 or more days of poor mental health in the past 30 days is 13.4%, which is greater than the state average of 11.9%, and higher than Kent County's percentage in 2014 (7.9%). 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 18 to 24 years, females, African Americans and Hispanic/Latinos, and people with an annual household income of less than $25,000.

REFERENCES

1. America's Health Rankings. (2017). *Poor Mental Health Days, United States*. Retrieved from http://www.americashealthrankings.org/ALL/MentalHealth.
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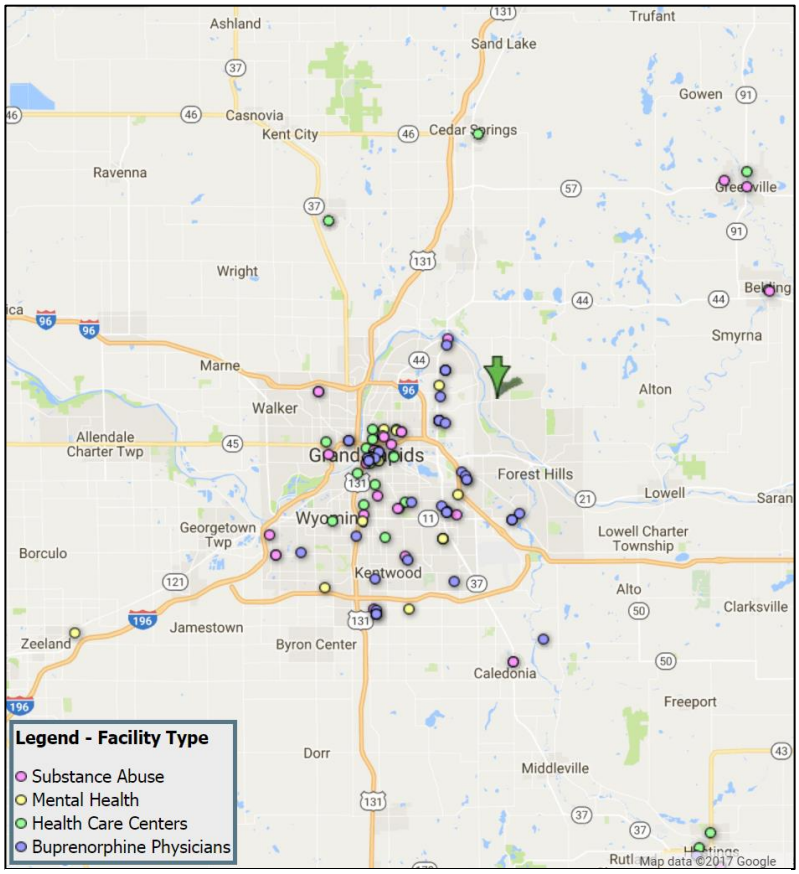
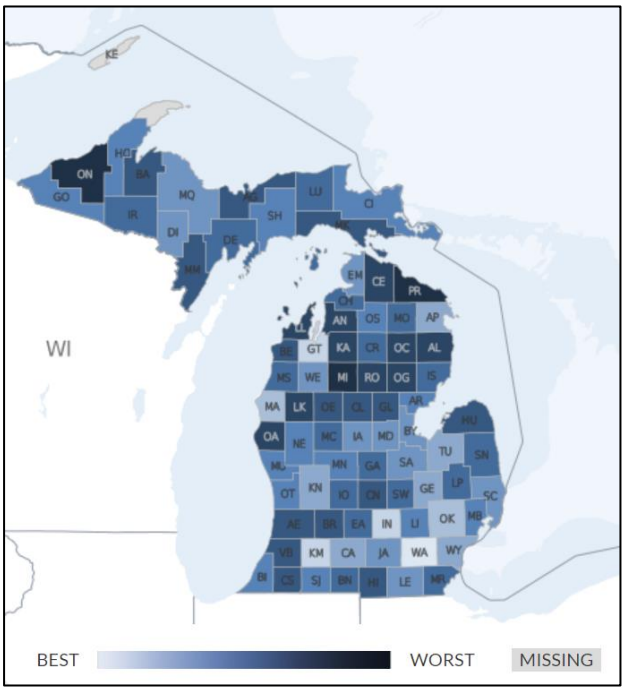
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2015.

OVERVIEW: ACCESS TO BEHAVIORAL HEALTHCARE

One in four Americans do not have adequate access to behavioral health services. Many do not have behavioral 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[1].



Above: Figure 1. Michigan Mental Health Providers[2]



Above: Figure 2. Kent County Mental Health Treatment Facilities[3]

Kent County Social and Behavioral Health: Ratio Of Population To Mental Health Providers[3]						
Indicator	Status	Time Period	Measure	Kent County	Michigan	National Target[a]
Ratio of Population to Mental Health Providers	👍	2016	Ratio	384:1	460:1	**NA**

SUMMARY

Based on County Health Ranking's data from 2016, Kent County is ranked eighth in the state when it comes to access to mental healthcare providers [Figure 2]. There are 1,658 providers practicing in Kent County, which equates to a ratio of 384 patients per provider[3].

According to the Substance Abuse and Mental Health Services Administration Treatment Locator[2], there are 21 mental health care facilities in Kent County, 27 substance abuse facilities, 22 health care centers, 43 buprenorphine physicians [Figure 1]. Kent County has 17 mental health facilities and 10 substance use facilities that accept children and adolescents[2]. 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 Figure 1.

REFERENCES

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Social and Behavioral 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. Daily, 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[1].

Kent County Social and Behavioral Health: Alcohol-Related Motor Vehicle Crashes[2]

Indicator	Status	Time Period	Measure	Kent County	Michigan	National Target[a]
Alcohol-Related Motor Vehicle Crashes						
All Crashes	👎	2016	Rate per 10,000 population	12.4	9.7	NA
Injury Crashes	👎	2016	Rate per 10,000 population	4.2	3.4	
Fatal Crashes	--	2016	Rate per 10,000 population	0.2	0.2	
Property Damage Crashes	👎	2016	Rate per 10,000 population	7.1	5.0	
Drug-Related Motor Vehicle Crashes						
All Crashes	--	2016	Rate per 10,000 population	--	--	NA
Injury Crashes	👍	2016	Rate per 10,000 population	0.5	0.7	
Fatal Crashes	--	2016	Rate per 10,000 population	0.1	0.1	
Property Damage Crashes	👍	2016	Rate per 10,000 population	0.6	0.7	
Alcohol and Drug-Related Motor Vehicle Crash Arrests						
Total	👍	2016	Rate per 10,000 population	26.7	32.9	NA
Gender						
Male	👍	2016	Rate per 10,000 population	20.1	24.0	
Female	👍	2016	Rate per 10,000 population	6.6	8.8	

👍 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.

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

NA -- National Target was not identified

Summary

In 2016, the rate of alcohol-involved crashes in Kent County was 12.4 per 10,000 population, which was higher than the rate reported for the State of Michigan (9.7 per 10,000), and ranked Kent County 26th among all Michigan counties for alcohol-involved crashes. Kent County had higher rates of injuries and property damages, and a comparable rate of fatalities associated with alcohol-related motor vehicle crashes when compared to the state. Kent County had a slightly lower but comparable rate of drug-related motor vehicle injury and property damage crashes than the state, and similar rate of fatal crashes.

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, 26.7 arrests per 10,000 compared to 32.9 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. (2015). *Impaired Driving in Michigan*. Retrieved from http://www.michigan.gov/msp/0,4643,7-123-1878_1711-49577--,00.html.
2. Michigan State Police. (2017). *2016 Michigan Annual Drunk Driving Audit*. Retrieved from http://www.michigan.gov/documents/msp/2016_DDA_577327_7.pdf.

Social and Behavioral 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[1].

Kent County Social and Behavioral Health: Alcohol-Induced Mortality[2]							
Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
Total	☹	2015	Rate per 100,000 population	12.4	9.7	9.1	NA
Age							
25 Years and Under	--	2015	Rate per 100,000 population	--	--	--	
25 – 64 Years	--	2015	Rate per 100,000 population	--	15.5	--	
65+ Years	--	2015	Rate per 100,000 population	--	10.1	--	
Gender							
Male	--	2015	Rate per 100,000 population	--	12.3	13.6	
Female	--	2015	Rate per 100,000 population	--	4.9	5.0	
Race							
White	--	2015	Rate per 100,000 population	--	8.7	9.8	
Black	--	2015	Rate per 100,000 population	--	7.9	6.6	
Gender by Race							
White Male	--	2015	Rate per 100,000 population	--	12.8	14.4	
Black Male	--	2015	Rate per 100,000 population	--	11.0	10.1	
White Female	--	2015	Rate per 100,000 population	--	4.7	5.3	
Black Female	--	2015	Rate per 100,000 population	--	5.2	3.7	

Summary

The rate of alcohol-induced mortality in Kent County was 12.4 deaths per 100,000 in 2015, which is higher than both the state and national 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.

References

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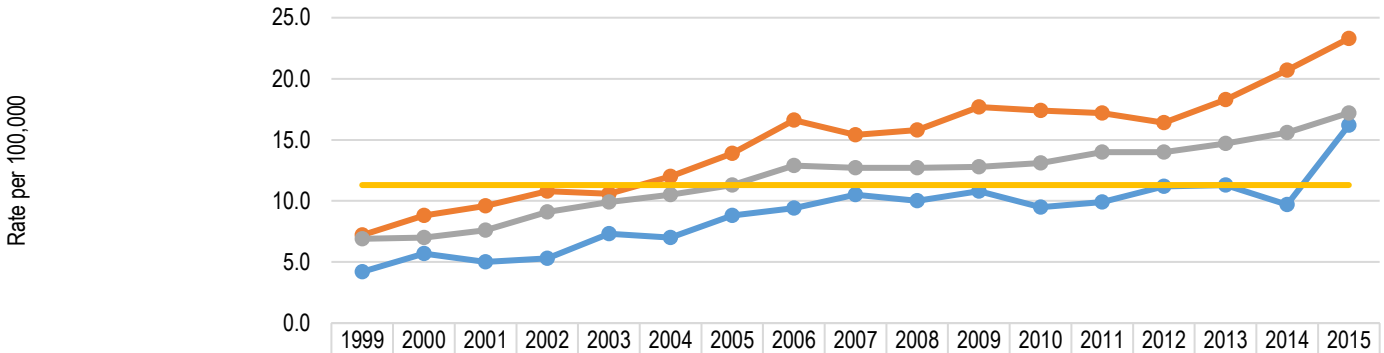
OVERVIEW: SUBSTANCE USE-RELATED MORTALITY

Deaths from drug overdose have become the leading cause of injury-related death in the United States. About 90% of all poisoning deaths are caused by drugs[1]. In addition to causing negative physical and behavioral 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].

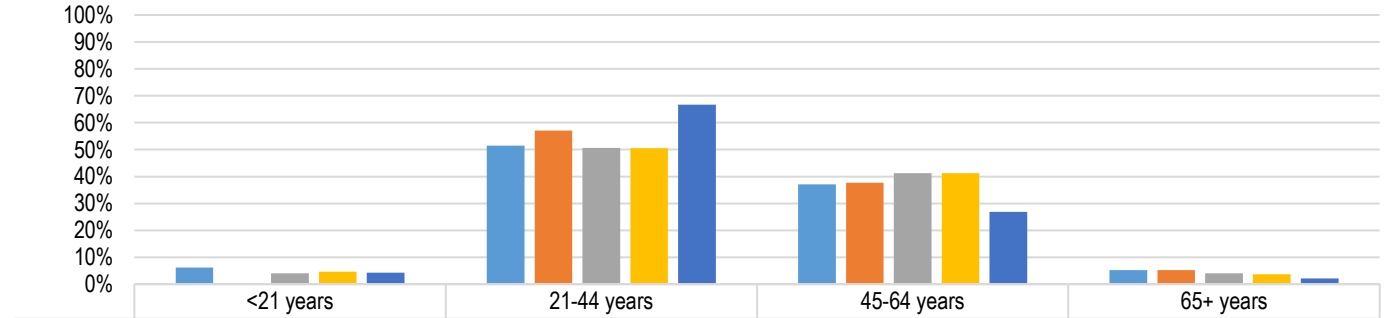
Figure 1. Drug-induced Mortality Rates, Kent County, Michigan, and United States, 1999-2015[3,4]



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Kent County	4.2	5.7	5.0	5.3	7.3	7.0	8.8	9.4	10.5	10.0	10.8	9.5	9.9	11.2	11.3	9.7	16.2
Michigan	7.2	8.8	9.6	10.8	10.6	12.0	13.9	16.6	15.4	15.8	17.7	17.4	17.2	16.4	18.3	20.7	23.3
United States	6.9	7.0	7.6	9.1	9.9	10.5	11.3	12.9	12.7	12.7	12.8	13.1	14.0	14.0	14.7	15.6	17.2
Healthy People 2020 Target	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3

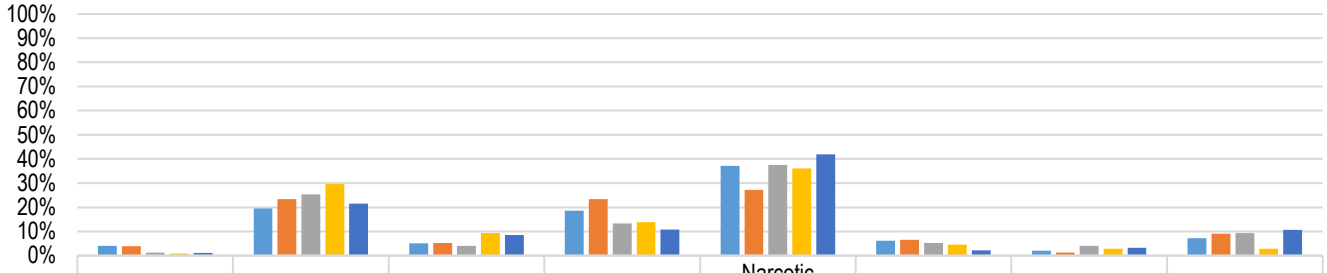
*Healthy People 2020 Target SA-12: Reduce drug-induced deaths[4].
Note: Drug-induced causes of death include not only deaths from dependent and nondependent use of drugs (legal and illegal use), but also poisoning from medically prescribed and other drugs. It excludes accidents, homicides, and other causes indirectly related to drug use[4].

Figure 2. Distribution of Drug-Related Deaths by Age, Kent County, 2012-2016[5]



	<21 years	21-44 years	45-64 years	65+ years
2012: 97	6.2%	51.5%	37.1%	5.2%
2013: 77	0.0%	57.1%	37.7%	5.2%
2014: 75	4.0%	50.7%	41.3%	4.0%
2015: 109	4.6%	50.5%	41.2%	3.7%
2016: 93	4.3%	66.7%	26.9%	2.1%

Figure 3. Distribution of Drug-Related Deaths by Drug of First Mention, Kent County, 2012-2016[5]



	Alcohol	Heroin	Cocaine	Methadone	Narcotic analgesic	Anti-depressant	Anti-psychotic	Other
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%
2014: 75	1.3%	25.3%	4.0%	13.3%	37.5%	5.3%	4.0%	9.3%
2015: 109	0.9%	29.6%	9.3%	13.9%	36.1%	4.6%	2.8%	2.8%
2016: 93	1.1%	21.5%	8.6%	10.8%	41.9%	2.2%	3.2%	10.7%

SUMMARY

The drug-induced mortality rate has steadily increased in recent years for Kent County, Michigan, and the United States [Figure 1]. Kent County has historically had a lower rate than the state and nation, but in 2015, the rate increased by 170% and marked the first year Kent County has not met the Healthy People 2020 Target for this measure.

According to the Kent County Medical Examiner's Office, there were a total of 93 deaths attributed to drug use in 2016 [Figure 2]. Of those deaths, the majority occurred among persons aged 21 to 44 years. Approximately 83% of all drug-related deaths were accidental. The drugs most commonly cited as cause of death include narcotic analgesics (42%), heroin (22%), and methadone (11%) [Figure 3]. These three types of drugs were responsible for about three of every four drug-associated deaths in 2016.

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1. Centers for Disease Control and Prevention. (2017). *Opioid overdose*. Retrieved from https://www.cdc.gov/drugoverdose/index.html.
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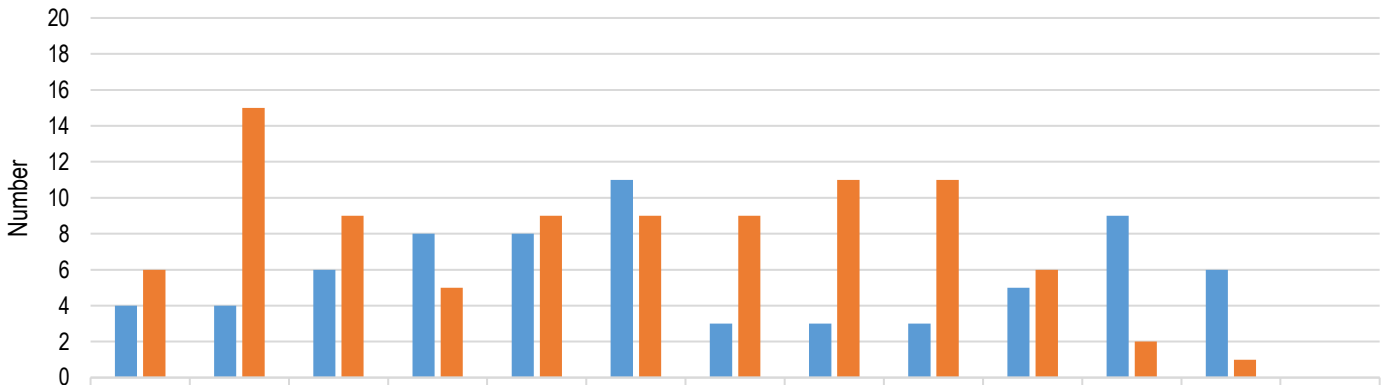
OVERVIEW: OPIOID USE AND ABUSE

One of the most pressing substance use disorders affecting the United States in recent years is *opioid use disorder*. Symptoms of opioid use disorders include strong desire for opioids, inability to control or reduce use, continued use despite interference with major obligations or social functioning, use of larger amounts over time, development of tolerance, spending a great deal of time to obtain and use opioids, and withdrawal symptoms that occur after stopping or reducing use. In 2014, an estimated 1.9 million people had an opioid use disorder associated with prescription pain relievers, while another 586,000 had an opioid use disorder related to heroin use[1].

Opioid overdoses have quadrupled since 1999[2]. Michigan was one of 19 states that saw a significant increase (13.3%) in the overdose death rate from 2014 to 2015[2]. Between 1999 and 2014, overdose rates due to prescription opioids were highest among people aged 25 to 54 years, non-Hispanic whites and American Indian or Alaskan Natives compared to non-Hispanic blacks and Hispanics[3]. Although men were more likely to die from overdose, the gap in mortality rates between men and women is closing.

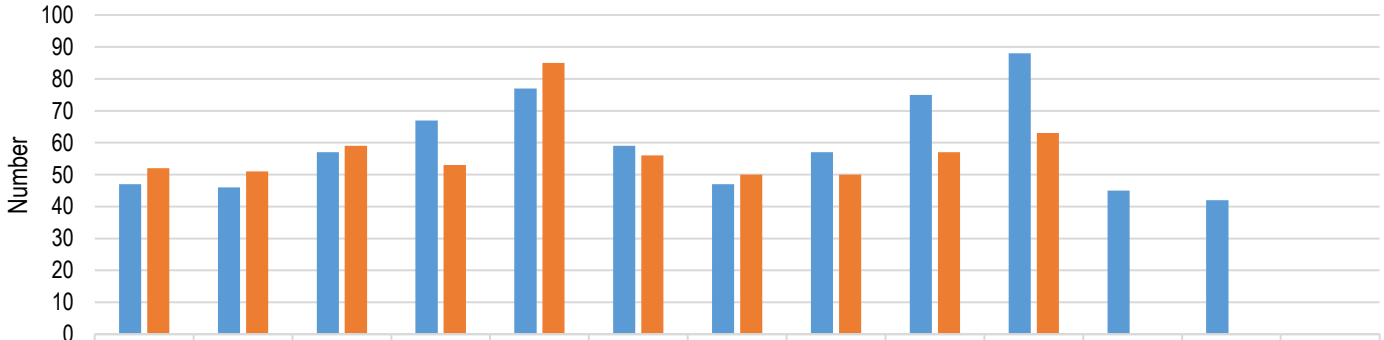
Figure 1. Number of Opioid-related Deaths by Month, Kent County 2016-2017[4]



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2016	4	4	6	8	8	11	3	3	3	5	9	6	70
2017	6	15	9	5	9	9	9	11	11	6	2	1	93

*Data are current as of 2/7/2018

Figure 2: Number of Overdose-related Emergency Department Visits by Month, Kent County 2016-2017[5]



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2016	47	46	57	67	77	59	47	57	75	88	45	42	707
2017	52	51	59	53	85	56	50	50	57	63			576

*Data are current as of 11/8/2017

SUMMARY

Opioid-related emergency department visits and overdose deaths continue to be a community concern within Kent County. Based on data available at the time of this report, the number of overdose deaths in 2017 (93) exceeded those in 2016 (70), indicating there is still a significant need to address this issue within our community [Figure 1].

REFERENCES

1. Substance Abuse and Mental Health Services Administration. (2015). *Substance Use Disorders*. Retrieved from https://www.samhsa.gov/disorders/substance-use.
2. Centers for Disease Control and Prevention. (2017). *Drug Overdose Death Data.* Retrieved from https://www.cdc.gov/drugoverdose/data/statedeaths.html.
3. Centers for Disease Control and Prevention. (2017). *Prescription Opioid Overdose Data*. Retrieved from https://www.cdc.gov/drugoverdose/data/overdose.html.
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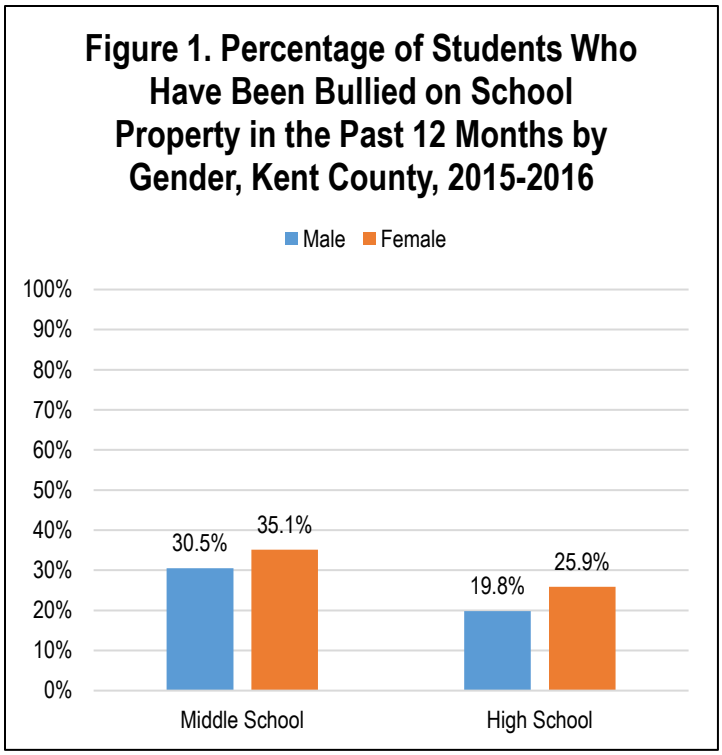
OVERVIEW: BULLYING

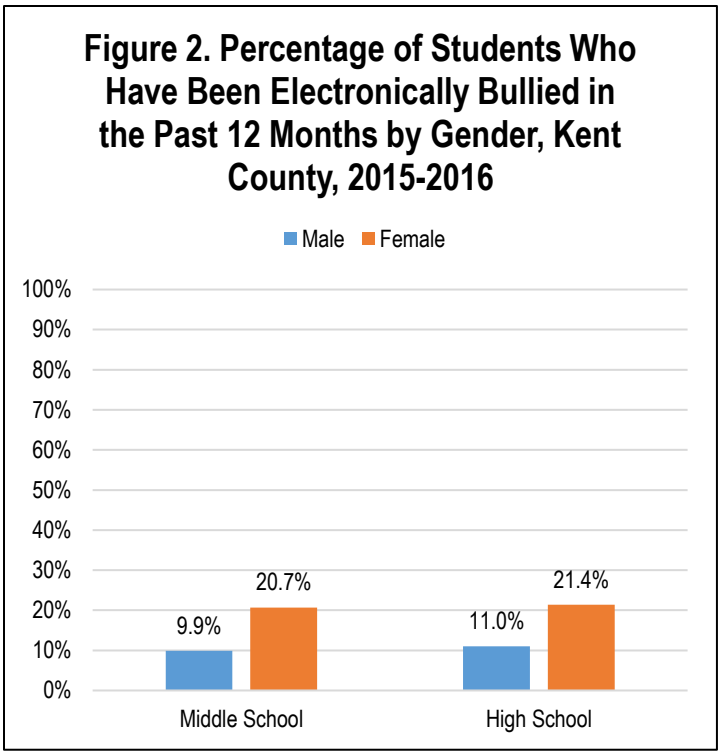
Bullying threatens the wellbeing of young people. It can result in physical injuries, social and emotional difficulties, and academic problems. The Centers for Disease Control and Prevention define bullying as any unwanted aggressive behaviors by another youth or group of youths who are not siblings or current dating partners that involves an observed or perceived power imbalance and is repeated multiple times or is highly likely to be repeated[1]. 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[1].

Kent County Social and Behavioral Health: Bullying									
Indicator	Status		Time Period	Measure	Kent County[2]		Michigan[3]	United States[3]	National Target[a]
	Middle School	High School			Middle School	High School			
Percentage of students who have been bullied on school property in the past 12 months	👎 ☹	👎 ☹	2015-2016	Percent	32.8%	22.8%	25.6%	20.2%	**17.9% IVP-35: Reduce bullying among adolescents.**
Percentage of students who have been electronically bullied in the past 12 months	👎 ☹	👎 ☹	2015-2016	Percent	15.5%	16.2%	18.8%	15.5%	
Percentage of students who have seen students get pushed, hit, or punched one or more times during the past 12 months	--	--	2015-2016	Percent	63.5%	47.7%	--	--	
Percentage of students who have heard students get called mean names or get "put down" one or more times during the past 12 months	--	--	2015-2016	Percent	78.3%	70.8%	--	--	
Percentage of students who have heard students threaten to hurt other students one or more times during the past 12 months	--	--	2015-2016	Percent	48.2%	46.2%	--	--	
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	--	--	2015-2016	Percent	21.8%	30.0%	--	--	

👍 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.

[a] Target is based on Healthy People 2020 Goal.
* Median range values used for United States. Data used from CDC YRBS 2015 Report.





SUMMARY

Bullying is a significant issue among Kent County youth. Approximately one in three middle schoolers and nearly one in four high schoolers report being bullied on school property within the past year, while 15% of middle schoolers and 16% of high schoolers report being bullied electronically within the past year [Table]. These rates fail to achieve the Healthy People 2020 Target of 17.9%.

Females are more likely to report bullying on school property and electronically than males [Figures 1 and 2]. In both high school and middle school females are twice as likely to experience electronic bullying than males [Figure 2]. While bullying on school property appears to occur more frequently in middle school than high school [Figure 1], electronic bullying is equally likely to occur in middle school and high school [Figure 2].

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *Bullying Research.* Retrieved from https://www.cdc.gov/violenceprevention/youthviolence/bullyingresearch/index.html.
2. Michigan Department of Education. (2017). *Michigan School Health Survey System, County Report Generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx.
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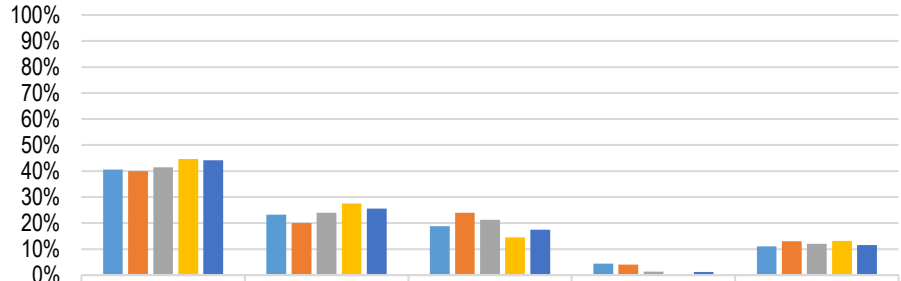
OVERVIEW: INTENTIONAL SELF-HARM

Suicide is a serious public health problem that causes immeasurable pain, suffering, and loss to individuals, families, and communities nationwide. Suicide is the eighth leading cause of death in Kent County and tenth leading cause of death in the State of Michigan[1]. In the United States, one person dies by suicide every 13 minutes. For every person who dies by suicide, more than 25 attempt suicide and survive[2]. Whether the individual completes suicide or survives, family members, coworkers, and others in the community suffer the long-lasting consequences of suicidal behaviors and can be put at a greater risk of dying by suicide[2].

Figure 1. Distribution of Suicide Cases by Method Used, Kent County, 2012-2016[3]

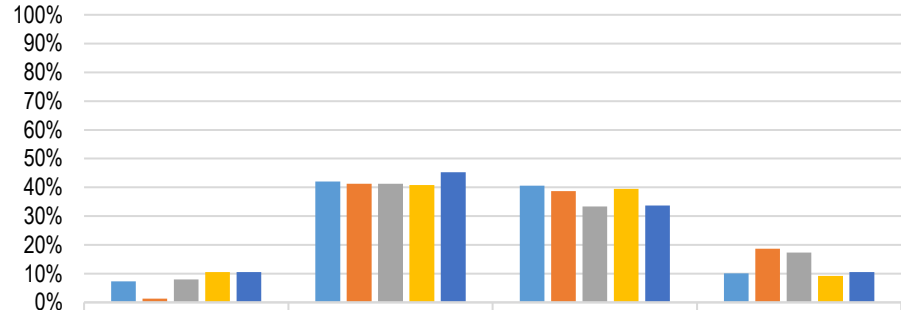


	Gun	Hanging	Drug Overdose	Carbon Monoxide	Other
2012: 69	40.6%	23.2%	18.8%	4.4%	11.1%
2013: 75	40.0%	20.0%	24.0%	4.0%	13.0%
2014: 75	41.4%	24.0%	21.3%	1.3%	12.0%
2015: 76	44.7%	27.6%	14.5%	0.0%	13.2%
2016: 86	44.2%	25.6%	17.4%	1.2%	11.6%

SUMMARY

While the suicide rate in Kent County is lower than the rate for the State of Michigan, the rate in Kent County does not meet the Healthy People 2020 target and has increased by 25% between 2012 and 2016 [Table 1 and Figure 3]. According to the Kent County Medical Examiner's Office, there were 86 cases of suicide in 2016[3]. Comparable to previous years, the most common method of suicide was by gun (44.2% of cases) and among individuals aged 20-64 years (79.0% of cases) [Figures 1 and 2].

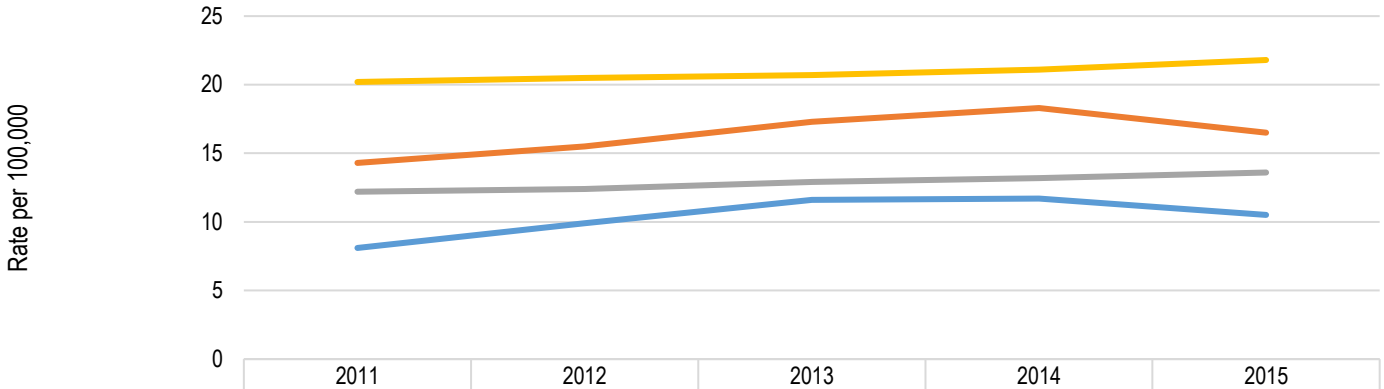
Figure 2. Age Distribution of Suicide Cases, Kent County, 2012-2016[3]



	1-19 years	20-44 years	45-64 years	65+ years
2012: 69	7.3%	42.0%	40.6%	10.1%
2013: 75	1.3%	41.3%	38.7%	18.7%
2014: 75	8.0%	41.3%	33.4%	17.3%
2015: 76	10.5%	40.8%	39.5%	9.2%
2016: 86	10.5%	45.3%	33.7%	10.5%

Suicidal ideation and attempts among Kent County youth is troubling. One in five middle schoolers report ever having considered attempting suicide, and 16% of high schoolers reported that they considered attempting suicide within the past 12 months [Table 2]. Even more concerning, 13% of middle schoolers have ever made a plan and 13% of high schoolers made a plan in the past 12 months of how they would attempt suicide [Table 2]. Nearly 8% of middle schoolers have ever attempted suicide and 7% of high schoolers attempted suicide one or more times in the past 12 months [Table 2]. While Kent County high schoolers have lower rates of suicidal ideation and attempts than the state and nation, Kent County has a higher percentage of high school 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 [Table 2].

Figure 3. Suicide Mortality Rate, Total and Male Gender, Kent County and Michigan, 2011-2015[1]



	2011	2012	2013	2014	2015
Kent County Total	8.1	9.9	11.6	11.7	10.5
Kent County Male	14.3	15.5	17.3	18.3	16.5
Michigan Total	12.2	12.4	12.9	13.2	13.6
Michigan Male	20.2	20.5	20.7	21.1	21.8

Table 1. Kent County Social and Behavioral Health: Intentional Self-Harm (Suicide) Mortality[1]

Indicator	Status	Time Period*	Measure	Kent County	Michigan	United States	National Target[a]
Total	👍 ☺	2015	Rate per 100,000 population	10.5	13.6	13.3	**10.2**
Gender							**MHMD-1: Reduce the suicide rate.**
Male	👍 ☺	2015	Rate per 100,000 population	16.5	21.8	21.0	
Female	--	2015	Rate per 100,000 population	--	5.9	6.0	
Race							
White	👍 ☺	2015	Rate per 100,000 population	11.6	15.1	15.1	
Black	--	2015	Rate per 100,000 population	--	6.1	5.6	

👍 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.
☺ 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.
[a] Target is based on Healthy People 2020 Goal.
* Median range values used for United States. Data used from CDC YRBS 2015 Report.

Table 2. Kent County Social and Behavioral Health: Youth Suicidal Ideation and Attempts

Indicator	Status	Time Period*	Measure	Kent County[4]		Michigan[5]	United States[5]	National Target[a]
	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.	👎 ☹	2015-2016	Percent	23.6%	32.2%	31.7%	29.9%	**Target: 1.7 suicide attempts per 100 population**
Percentage of students who seriously considered attempting suicide during the past 12 months.**	👍 ☺	2015-2016	Percent	20.6%	15.8%	17.3%	17.7%	

Table 2. Kent County Social and Behavioral Health: Youth Suicidal Ideation and Attempts								
Indicator	Status	Time Period*	Measure	Kent County[4]		Michigan[5]	United States[5]	National Target[a]
	High School			Middle School	High School			
Percentage of students who made a plan about how they would attempt suicide during the past 12 months.**	👍 ☺	2015-2016	Percent	13.0%	13.3%	15.0%	14.6%	**MHMD-2: Reduce suicide attempts by adolescents.**
Percentage of students who attempted suicide one or more times during the past 12 months.**	👍 ☺	2015-2016	Percent	7.8%	6.9%	9.2%	8.6%	
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.	👍 ☺	2015-2016	Percent	2.4%	2.0%	2.7%	2.8%	

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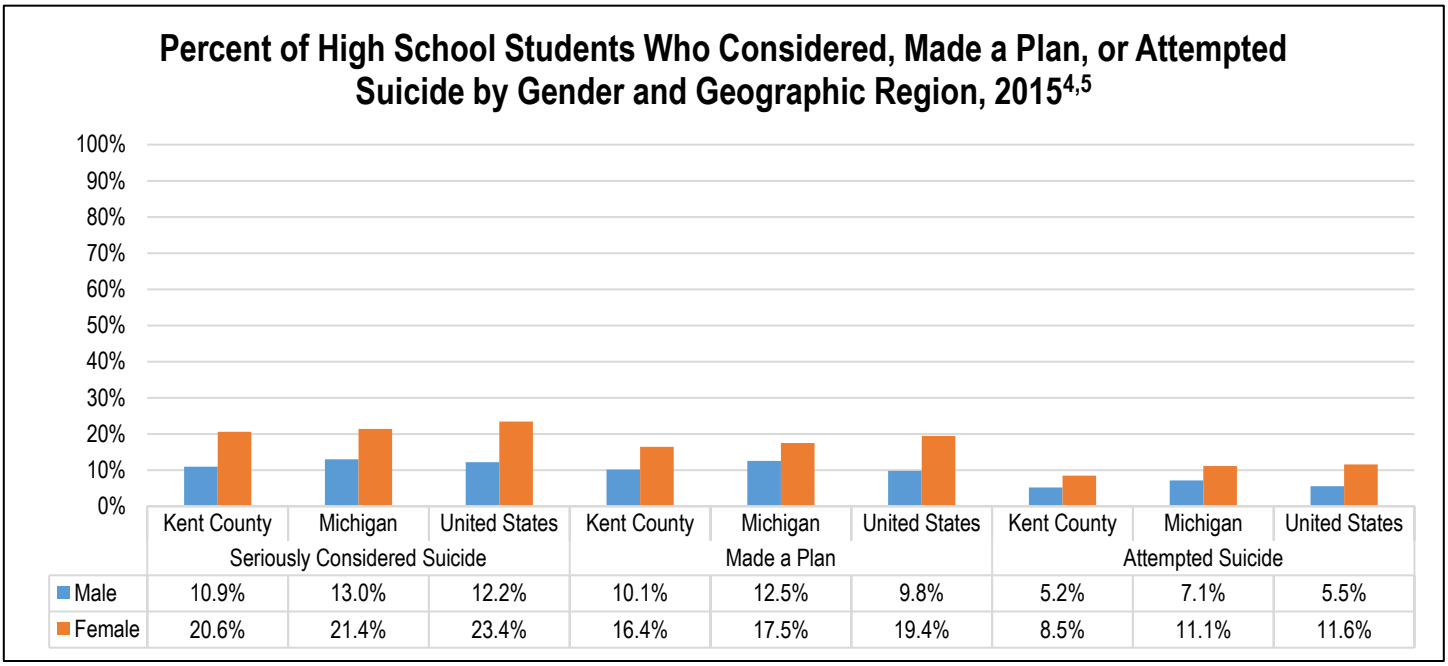
[a] Target is based on Healthy People 2020 Goal.

* Median range values used for United States. Data used from CDC YRBS 2015 Report.

**For middle school values, this indicator measures lifetime risk, not just in the past 12 months



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Social and Behavioral 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 Behavioral Health: Intentional Injury[3]							
Indicator	Status	Time Period	Measure	Michigan	Midwest	United States	National Target[a]
Total Intentional Injury Deaths	👎 ☹	2015	Rate per 100,000 population	20.3	19.7	19.5	NA
Age							
0 – 4 Years	👎 ☹	2015	Rate per 100,000 population	4.2	4.0	3.2	
5 – 9 Years	--	2015	Rate per 100,000 population	--	0.7	0.7	
10 – 14 Years	👎 ☹	2015	Rate per 100,000 population	4.1	3.5	2.8	
15 – 19 Years	👍 ☺	2015	Rate per 100,000 population	17.3	19.9	17.4	
20 – 24 Years	👎 ☺	2015	Rate per 100,000 population	31.0	32.6	29.2	
25 – 29 Years	👍 ☹	2015	Rate per 100,000 population	30.1	30.2	27.7	
30 – 34 Years	👎 ☹	2015	Rate per 100,000 population	28.9	27.6	26.6	
35 – 39 Years	👎 ☹	2015	Rate per 100,000 population	29.7	27.0	24.8	
40 – 44 Years	👎 ☹	2015	Rate per 100,000 population	29.5	25.7	24.2	
45 – 49 Years	👍 ☺	2015	Rate per 100,000 population	24.5	24.9	24.8	
50 – 54 Years	👎 ☹	2015	Rate per 100,000 population	26.4	25.6	25.9	
55 – 59 Years	👎 ☺	2015	Rate per 100,000 population	23.8	22.5	24.2	
60 – 64 Years	👍 ☺	2015	Rate per 100,000 population	18.0	18.2	20.0	
65 – 69 Years	👎 ☺	2015	Rate per 100,000 population	16.0	14.5	17.3	
70 – 74 Years	👎 ☺	2015	Rate per 100,000 population	16.7	15.3	17.3	
75 – 79 Years	👎 ☺	2015	Rate per 100,000 population	19.1	18.1	19.4	
80 – 84 Years	👎 ☺	2015	Rate per 100,000 population	19.6	16.9	20.8	
85+ Years	👎 ☺	2015	Rate per 100,000 population	16.0	15.8	21.2	
Gender							
Male	👎 ☹	2015	Rate per 100,000 population	32.9	31.5	30.8	
Female	👎 ☺	2015	Rate per 100,000 population	8.2	8.1	8.4	
Race							
White	👎 ☺	2015	Rate per 100,000 population	18.2	17.8	19.1	
Black	👍 ☹	2015	Rate per 100,000 population	34.8	36.3	26.3	
American Indian/Alaskan Native	👍 ☹	2015	Rate per 100,000 population	23.5	26.2	19.1	
Asian/Pacific Islander	--	2015	Rate per 100,000 population	--	7.3	8.3	

👍 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.

☺ 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.

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

NA -- National Target 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 between 20 and 44 years of age. 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. (2017). *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 https://www.sophe.org/focus-areas/injury-prevention/violenceintentional-injury/.
3. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. (2017). *WISQARS, Fatal Injury Reports, 1999-2015, for national, regional, and states.* Retrieved from https://webappa.cdc.gov/sasweb/ncipc/mortrate.html.

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.

Figure 1. Most Common Domestic Violence Offenses, Kent County, 2016[2]

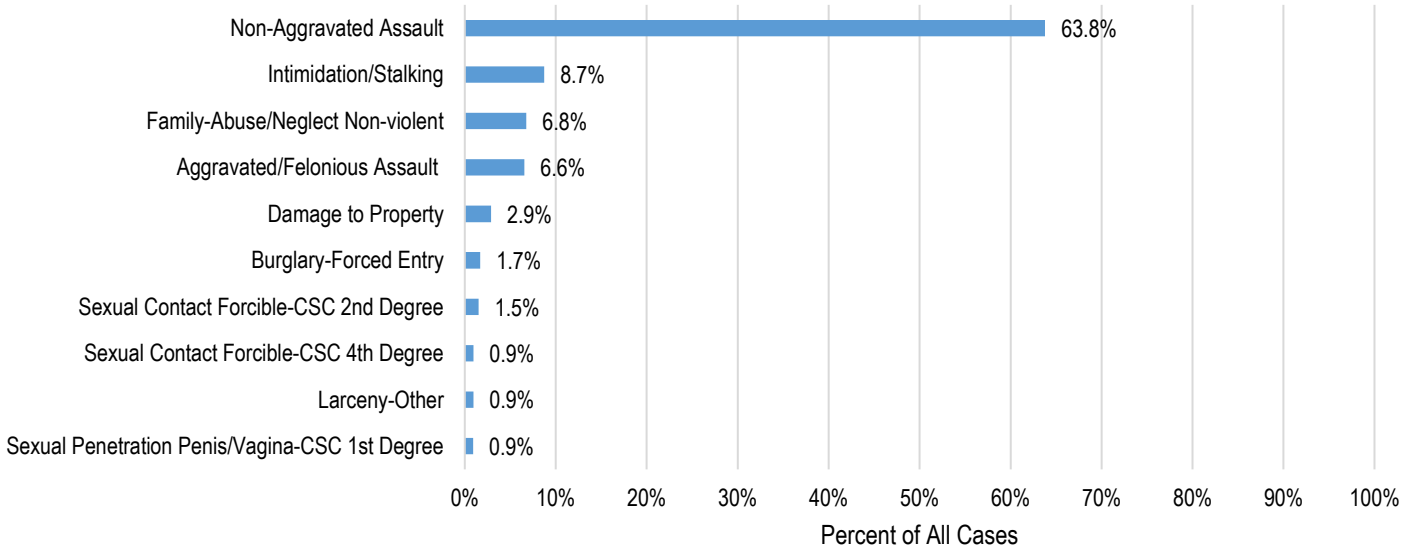
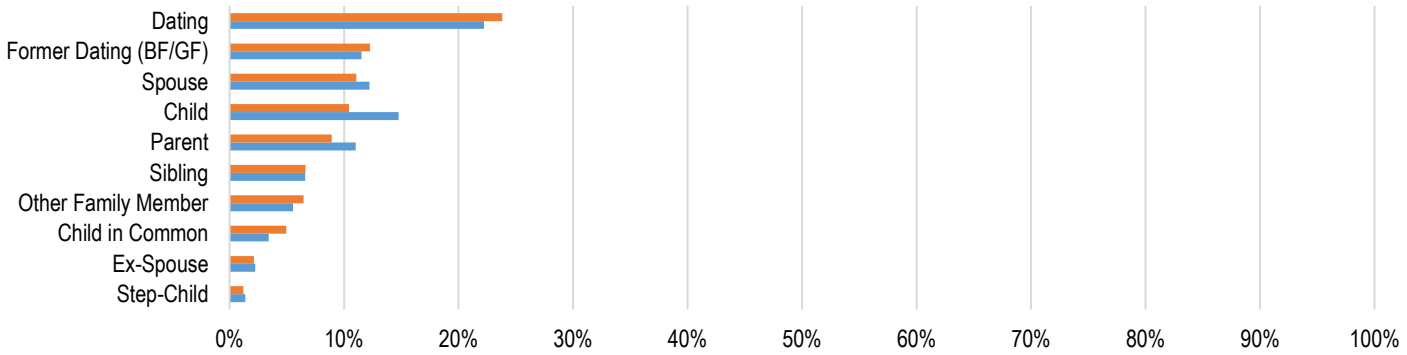
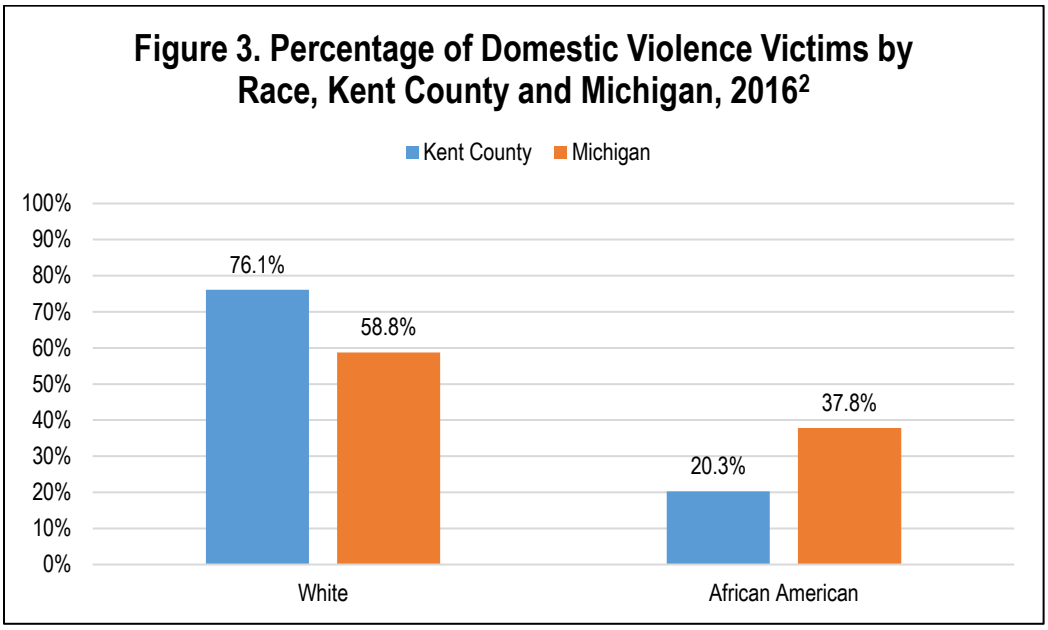
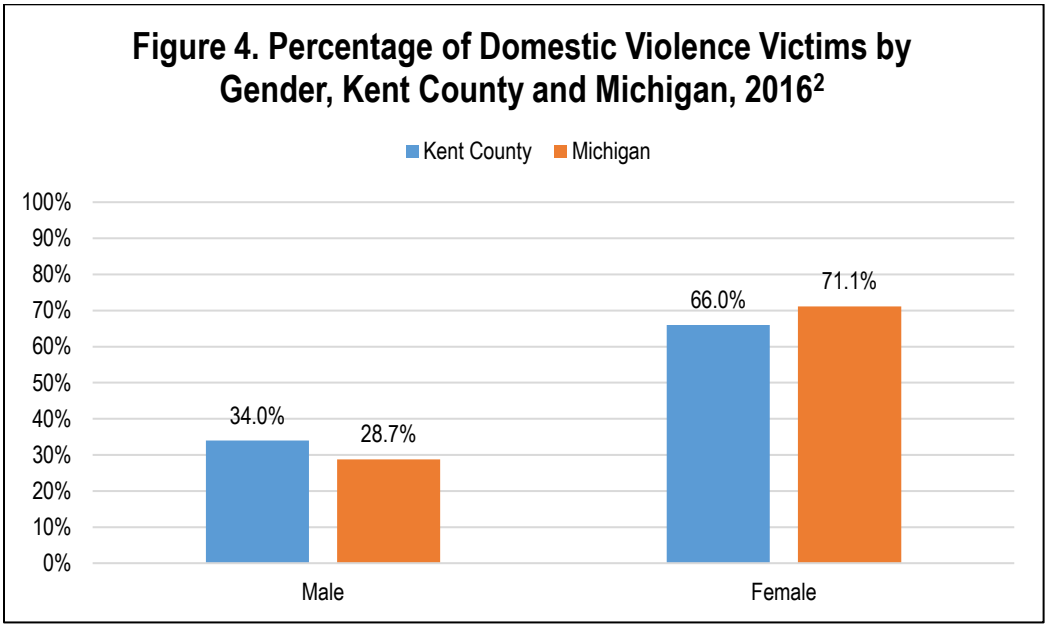


Figure 2. Most Common Victim-to-Offender Relationships, Kent County and Michigan, 2016[2]



	Step-Child	Ex-Spouse	Child in Common	Other Family Member	Sibling	Parent	Child	Spouse	Former Dating (BF/GF)	Dating
Michigan	1.2%	2.1%	5.0%	6.5%	6.6%	8.9%	10.4%	11.1%	12.3%	23.8%
Kent County	1.4%	2.2%	3.4%	5.5%	6.6%	11.0%	14.8%	12.2%	11.5%	22.2%





SUMMARY

The charts provided illustrate basic statistics related to domestic violence in Kent County. Non-aggravated assault is responsible for two-thirds of offenses [Figure 1]. The second and third most common types of domestic abuse involve intimidation/stalking and negligent/non-violent family abuse [Figure 1]. Domestic violence in Kent County is most likely to occur among couples who are dating and to children [Figure 2].

In Kent County, three-quarters of domestic violence victims are white [Figure 3]. There were twice as many female victims of domestic violence as males in Kent County [Figure 4].

REFERENCES

1. National Domestic Violence Hotline. (n.d.). *Abuse Defined: Warning Signs and Red Flags*. Retrieved from http://www.thehotline.org/is-this-abuse/abuse-defined/.
2. Michigan State Police. (2017). *Michigan Incident Crime Reporting, 2016 Domestic Violence Information*. Retrieved from http://www.michigan.gov/documents/msp/I_Domestic_Violence_598825_7.pdf.

Social and Behavioral Health: Kent County Youth Relationship Violence

Overview: Youth Relationship Violence

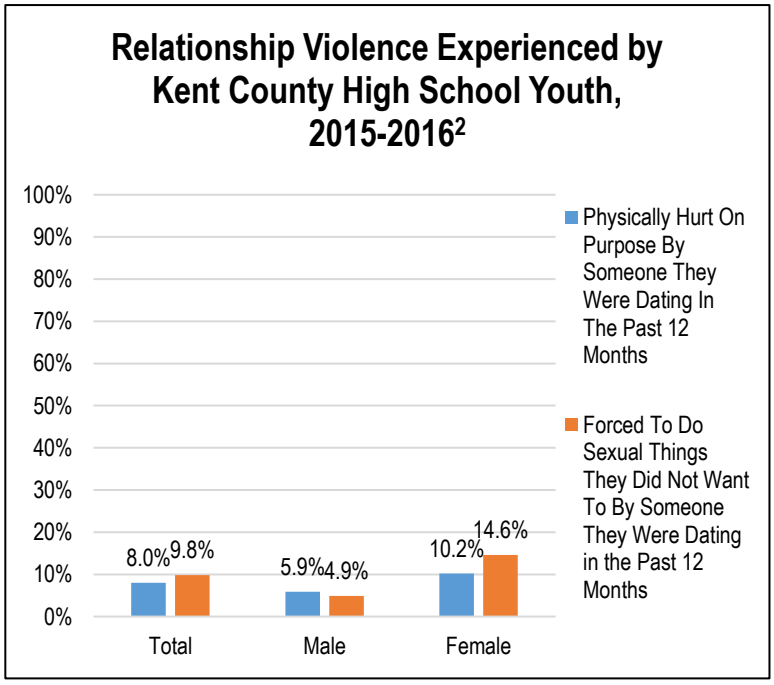
Teen dating violence is defined as "the physical, sexual, psychological, or emotional violence within a dating relationship, including stalking. It can occur in person or electronically and might occur between a current or former dating partner"[1]. Dating violence is widespread and can have long and short-term effects, such as depression, anxiety, engagement in unhealthy behaviors, involvement in antisocial behaviors, and suicidal thoughts. Many teens do not report dating violence because they are afraid to tell family and friends[1].

Kent County Social and Behavioral Health: Youth Relationship Violence								
Indicator	Status	Time Period	Measure	Kent County[2]		Michigan[3]	United States[3]	National Target[a]
	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	👍 ☺	2015-2016	Percent	--	8.0%	8.2%	9.6%	**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*	👎 ☹	2016-2016	Percent	--	9.8%	8.3%	6.7%	**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.
👎 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.
[a] Target is based on Healthy People 2020 Goal.
*The Michigan and United States indicator states "forced to have sexual intercourse"

Summary

Slightly fewer Kent County youth report being physically hurt on purpose by someone they were dating than the State of Michigan and United States [Table]. More females (10.2%) than males (5.9%) report being physically hurt in Kent County [Figure]. Nearly one in ten Kent County high school students report being forced to do sexual things they did not want to do in the past 12 months [Table]. Almost three times as many females in Kent County report being forced to do sexual things they did not want to in the past 12 months [Figure]. However, this percentage cannot be compared to the state and nation, as the indicator for those rates is specific to being forced to have sexual intercourse.



References

1. Centers for Disease Control and Prevention. (2017). *Teen Dating Violence*. Retrieved from https://www.cdc.gov/violenceprevention/intimatepartnerviolence/teen_dating_violence.html.
2. Michigan Department of Education. (2017). *Michigan school health survey system, county report generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx.
3. Centers for Disease Control and Prevention. (2017). *Youth risk behavior surveillance system, United States and Michigan 2015 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx.

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. The term sexual assault encompasses a wide array of offenses, 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)[1]. 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[2].

Kent County Social and Behavioral Health: Sexual Assault (Rape)							
Indicator	**Status**	**Time Period**	**Measure**	**Kent County[3]**	**Michigan[3]**	**United States[4]**	**National Target[a]**
Total Rapes	--	2016	Total Number	381	7,125	114,730	**IVP-40: Reduce rape or attempted rape (developmental)**
Total Rapes	👍 ☹	2016	Rate per 100,000 population	63.2	71.8	41.2	

👍 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.
[a] Target is based on Healthy People 2020 Goal.

SUMMARY

In 2016, there were 381 rapes reported to the various law enforcement agencies that serve Kent County communities. The rate per 100,000 in Kent County is less than the State of Michigan, but higher than the United States.

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *Sexual Violence: Definitions.* Retrieved from https://www.cdc.gov/violenceprevention/sexualviolence/definitions.html.
2. World Health Organization. (2017). *Sexual Violence*. Retrieved from http://www.who.int/reproductivehealth/topics/violence/sexual_violence/en/.
3. Michigan Incident Crime Reporting. *2016 Offenses by County/Agency*. Retrieved from http://www.michigan.gov/documents/msp/o_Offenses_by_County_Agency_598830_7.pdf.
4. US Department of Justice, Federal Bureau of Investigation. (2017). *Crime in the United States, 2016*. Retrieved from https://ucr.fbi.gov/crime-in-the-u.s/2016/crime-in-the-u.s.-2016/topic-pages/rape.

Social and Behavioral 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[1]. 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 highest risk for becoming victims of maltreatment[1].

Kent County Social and Behavioral Health: Child Abuse and Neglect[2]						
Indicator	**Status**	**Time Period**	**Measure**	**Kent County**	**Michigan**	**National Target[a]**
Child Abuse and/or Neglect						
Children Ages 0 – 17 In Investigated Families	👍	2015	Rate per 1,000 population	99.8*	104.7	**NA**
Confirmed Victims of Abuse/Neglect						
Ages 0 – 5	👎	2015	Rate per 1,000 population	29.9	27.8	**8.5 IVP-38: Reduce nonfatal child maltreatment.**
Ages 0 – 8	👎	2015	Rate per 1,000 population	26.6	23.8	
Ages 0 – 17	👎	2015	Rate per 1,000 population	19.9	16.8	
In Out of Home Care Due to Abuse/Neglect						
Children Ages 0 – 5	👎	2015	Rate per 1,000 population	8.1	8.2	**NA**
Children Ages 0 – 8	👍	2015	Rate per 1,000 population	6.7	6.8	
Children Ages 0 – 17	👎	2015	Rate per 1,000 population	4.9	4.8	

👍 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.

[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified
*Kent County data for this measure is from 2014; 2015 data unavailable at the time of this report

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 19.9, as compared with 16.8 for the State of Michigan. The highest rates of abuse and neglect were reported for children under the age of five, at 29.9 per 1,000 population.

References

1. Centers for Disease Control and Prevention. (2017). *Child Abuse and Neglect: Consequences*. Retrieved from https://www.cdc.gov/violenceprevention/childmaltreatment/consequences.html.
2. Annie E. Casey Foundation. (2017). *Kids Count Data Center*. Retrieved from http://datacenter.kidscount.org/locations.

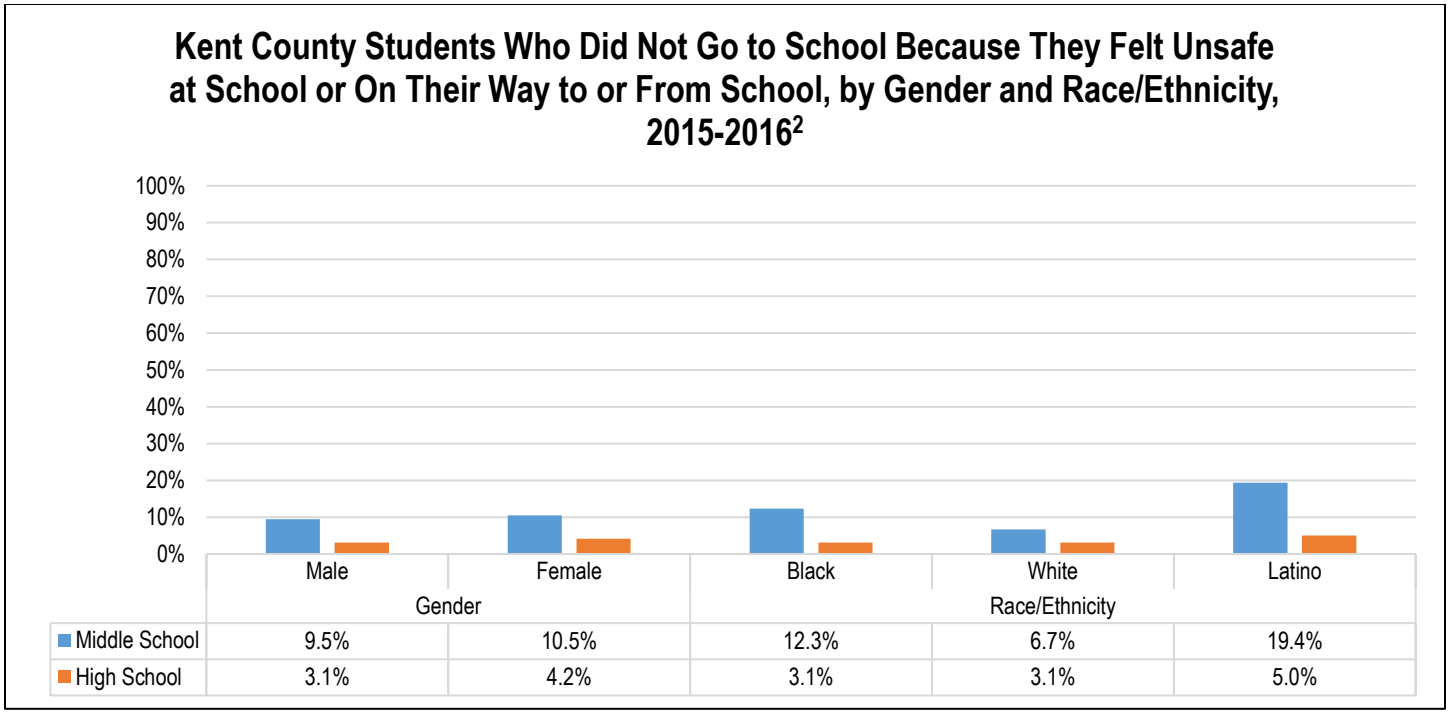
OVERVIEW: VIOLENCE IN SCHOOLS

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[1].

Kent County Social and Behavioral Health: Youth Violence in Schools and the Community								
Indicator	Status	Time Period	Measure	Kent County[2]		Michigan[3]	United States[3]	National Target[a]
	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*	👍 ☺	2015-2016	Percent	31.3%	12.2%	24.8%	16.2%	**NA**
Percentage of students who carried a gun on one or more of the past 30 days	👎 ☹	2015-2016	Percent	--	5.5%	4.6%	5.3%	**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	👍 ☺	2015-2016	Percent	10.1%	3.6%	5.8%	5.6%	**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	👍 ☺	2015-2016	Percent	--	4.7%	6.6%	6.0%	**NA**
Percentage of students who were in a physical fight one or more times during the past 12 months*	👍 ☺	2015-2016	Percent	39.0%	13.8%	20.4%	22.6%	**28.4% 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*	👍 ☺	2015-2016	Percent	3.6%	1.4%	2.7%	2.9%	
Percentage of students who were in a physical fight on school property one or more times during the past 12 months*	👍 ☺	2015-2016	Percent	18.8%	5.9%	7.4%	7.8%	

👍 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.

[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified
*For middle school values, this indicator measures lifetime risk, not just in the past 30 days or 12 months



SUMMARY

Youth violence in schools and communities appears to occur less frequently in Kent County than at the state and national levels [Table]. When considering high school-level data, fewer youth carry weapons in Kent County than youth at the state and national level; however, a slightly higher percentage of Kent County youth report carrying guns in the past 30 days [Table]. Racial and ethnic disparities exist between the levels of violence experienced by youth, particularly during middle school. For example, compared to white students, nearly three times as many Hispanic/Latino students and almost twice as many African American students reported not going to school because they did not feel safe at school or on their way to or from school [Figure]. Comparable percentages of males and females reported not attending school because they felt unsafe [Figure].

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *Youth Violence*. Retrieved from http://www.cdc.gov/violenceprevention/youthviolence/.
2. Michigan Department of Education. (2017). *Michigan School Health Survey System, County Report Generation*. Retrieved from https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx.
3. Centers for Disease Control and Prevention. (2017). *Youth Risk Behavior Surveillance System, United States and Michigan 2015 results*. Retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx.

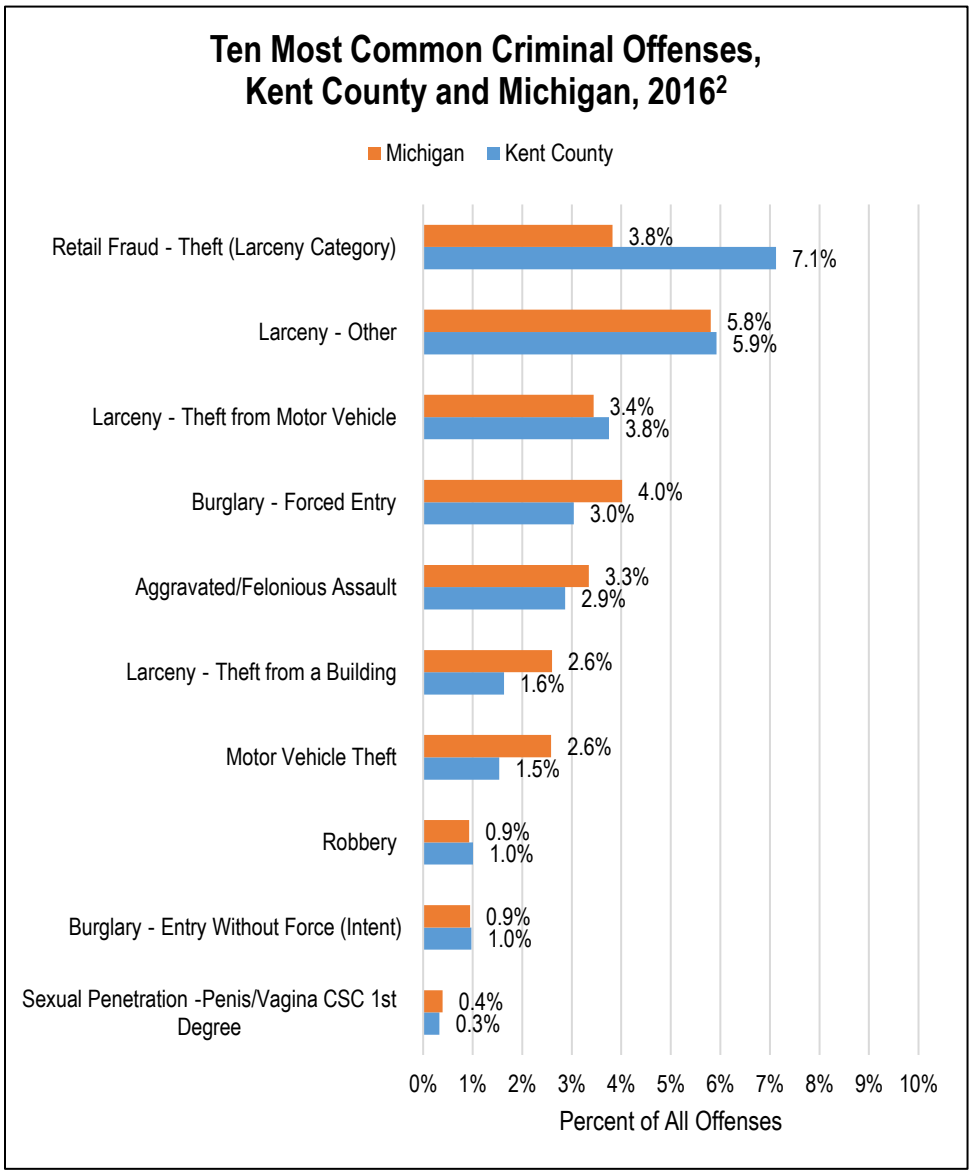
Social and Behavioral Health: Kent County Overall Crime Rate Summary

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 regarding 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[1]. 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 in 2016 were retail theft (7.1%), other theft (5.9%), and theft from a motor vehicle (3.8%).



References

1. County Health Rankings. (2017). *Violent Crime Rate*. Retrieved from http://www.countyhealthrankings.org/explore-health-rankings/what-and-why-we-rank/health-factors/social-and-economic-factors/community-safety/violent-crime-rate.
2. Michigan State Police. (2017). *Michigan Incident Crime Reporting, 2016 All Offenses by County/Agency.* Retrieved from http://www.michigan.gov/documents/msp/o_Offenses_by_County_Agency_598830_7.pdf.

SOCIAL AND BEHAVIORAL 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[1]. Larceny is the unlawful taking, carrying, leading, or riding away of property from the possession, or constructive possession of another person[2]. 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[3]. 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 Behavioral Health: Burglary, Larceny, and Theft[4]				
Indicator	Time Period	Measure	Kent County	Michigan
Total for All Burglary, Larceny, and Theft Crimes	2016	Total Number	11,684	186,389
Retail Fraud – Theft	2016	Total Number	3,386	29,242
Larceny – Other	2016	Total Number	2,815	44,411
Larceny – Theft from a Motor Vehicle	2016	Total Number	1,783	26,298
Burglary – Forced Entry	2016	Total Number	1,445	30,731
Larceny – Theft from a Building	2016	Total Number	775	19,889
Motor Vehicle Theft	2016	Total Number	730	19,755
Burglary – Entry without Force	2016	Total Number	462	7,237
Larceny – Theft of Motor Vehicle Parts/Accessories	2016	Total Number	138	7,047
Larceny – Pocket Picking	2016	Total Number	71	731
Larceny – Purse Snatching	2016	Total Number	52	590
Larceny – Theft from Coin Operated Machine/Device	2016	Total Number	14	238
Retail Fraud - Organized (Larceny Category)	2016	Total Number	13	220

SUMMARY

In 2016, there was a total of 11,684 burglary, larceny, and theft-related cases reported in Kent County. The most common type of offenses was retail theft, larceny-other, theft from a motor vehicle, and forced entry burglary. These categories are generally in alignment with the most common categories in the State of Michigan, as well. The least common types of offenses were purse snatching, larceny from a coin operated machine, and organized retail fraud.

REFERENCES

1. Michigan State Police. (2017). *Michigan Incident Crime Reporting, 2016 Burglary-forced Entry*. Retrieved from http://www.michigan.gov/documents/msp/g_Burglary_598821_7.pdf.
2. Michigan State Police. (2017). *2016 Larceny Offenses*. Retrieved from http://www.michigan.gov/documents/msp/h_Larceny_598822_7.pdf.
3. Michigan State Police. (2017). *2016 Motor Vehicle Theft*. Retrieved from http://www.michigan.gov/documents/msp/i_Motor_Vehicle_Theft_598823_7.pdf.
4. Michigan State Police. (2017). *Michigan Incident Crime Reporting, 2016 All Offenses by County/Agency.* Retrieved from http://www.michigan.gov/documents/msp/o_Offenses_by_County_Agency_598830_7.pdf.

OVERVIEW: HATE AND BIAS CRIMES

According to the FBI, hate crimes are the highest priority of the FBI's Civil Rights Program because of the impact they have on individuals and communities, and because "groups that preach hatred and intolerance can plant the seed of terrorism here in our country"[1]. A hate crime is a "criminal offense against a person or property motivated in whole or in part by an offender's bias against a race, religion, disability, sexual orientation, ethnicity, gender, or gender identity"[1]. Hate itself is not a crime, but traditional offenses like murder or arson with an added element of bias are what comprise hate crime offenses in this country.

Kent County Social and Behavioral Health: Hate/Bias Crime in Kent County, 2014-2016[2]					
Indicator		Measure	Kent County 2014	Kent County 2015	Kent County 2016
Total		Total Number	36	28	13
Bias Type					
Racial	Anti-Asian	Total Number	0	0	2
	Anti-Asian/Pacific Islander	Total Number	1	0	0
	Anti-Black	Total Number	7	8	5
	Anti-Hispanic/Latino	Total Number	2	1	3
	Anti-White	Total Number	18	11	0
Religious	Anti-Islamic	Total Number	0	1	1
	Anti-Jewish	Total Number	1	0	0
	Anti-Multi-Religious Group	Total Number	0	0	1
	Anti-Other Religion	Total Number	1	1	0
	Anti-Protestant	Total Number	2	4	0
Sexual Orientation	Anti-Homosexual	Total Number	1	2	0
	Anti-Female Homosexual	Total Number	0	0	1
	Anti-Male Homosexual	Total Number	1	0	0
Gender	Anti-Female	Total Number	2	0	0
Offense Type					
Disorderly Conduct		Total Number	0	1	0
Family-Abuse/Neglect Non-violent		Total Number	0	1	0
Juvenile Runaway		Total Number	1	1	0
Larceny-Other		Total Number	1	0	0
Liquor Violations-Other		Total Number	0	1	0
Non-Aggravated Assault		Total Number	3	2	0
Intimidation/Stalking		Total Number	8	8	5
Obstructing Justice		Total Number	9	0	0
Obstructing Police		Total Number	0	4	0
Operating Under Influence of Liquor or Drugs		Total Number	0	2	0
Aggravated/Felonious Assault		Total Number	2	0	3
Public Peace-Other		Total Number	2	0	2
Retail Fraud-Theft		Total Number	3	4	0
Trespass		Total Number	1	1	0
Weapons Offense-Concealed		Total Number	0	0	1
Violation of Controlled Substance Act		Total Number	2	1	0
Motor Vehicle Theft		Total Number	0	0	1
Damage to Property		Total Number	4	2	1

SUMMARY

A total of 13 hate/bias crimes were committed in Kent County during 2016, a decrease from previous years [Table]. The most common hate/bias crimes offense types were intimidation and stalking and aggravated/felonious assault. The most frequent bias types were racially-motivated, particularly anti-black.

REFERENCES

1. Federal Bureau of Investigation. (2017). *Hate Crimes*. Retrieved from https://www.fbi.gov/investigate/civil-rights/hate-crimes.
2. Michigan State Police. (2017). *Michigan Incident Crime Reporting, 2016 Hate/bias Crime in Michigan*. Retrieved from http://www.michigan.gov/documents/msp/k_Hate_Bias_Crime_598826_7.pdf.

Social and Behavioral 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[1].

Kent County Social and Behavioral Health: Homicide Rate[2]							
Indicator	Status	Time Period*	Measure	Kent County	Michigan	United States	National Target[a]
Total	👍 ☺	2013-2015	Rate per 100,000	2.8	6.1	5.2	**5.5**
Age							**IVP-29: Reduce homicides.**
Under 25 Years	👍 ☺	2013-2015	Rate per 100,000	3.0	5.9	5.1	
25 to 74 Years	👍 ☺	2013-2015	Rate per 100,000	2.7	6.7	5.6	
75+ Years	--	2013-2015	Rate per 100,000	--	2.1	2.0	

👍 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.

[a] Target is based on Healthy People 2020 Goal.
*Kent County data for this measure is from 2014; 2015 data unavailable at the time of this report

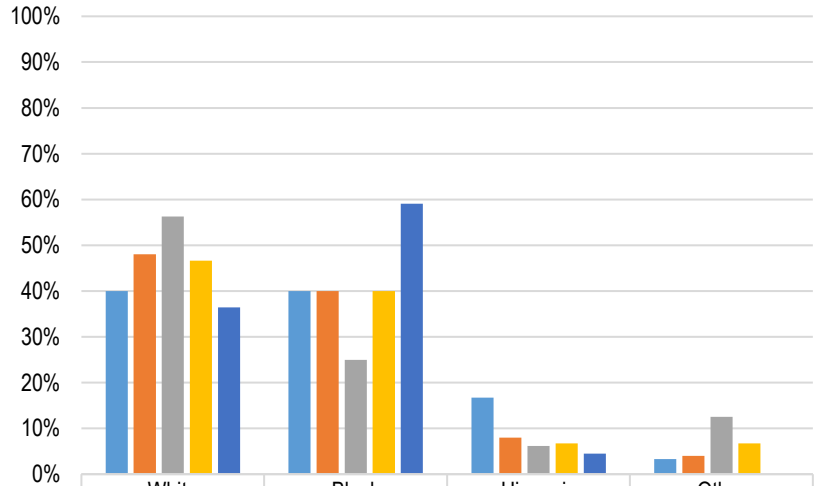
Summary

In the period 2013-2015, the homicide rate for Kent County was 2.8 per 100,000, which is lower than the rates reported for the State of Michigan and for the United States [Table]. Both Kent County and the United States met the Healthy People 2020 target of 5.5 or fewer homicides per 100,000 for the average of the years 2013-2015.

The Kent County Medical Examiner's 2016 Annual Report[3] reported 22 homicides in Kent County in 2016, which was an increase from the number of homicide deaths reported in 2014 and 2015 [Figure 1]. Most victims of homicides in Kent County are African Americans or whites [Figure 1], males [Figure 2], and people between the ages of 20 and 44 years [Figure 4]. Compared to recent years, there was a smaller distribution of homicides in the 0-19 year and 45-64-year age groups [Figure 4].

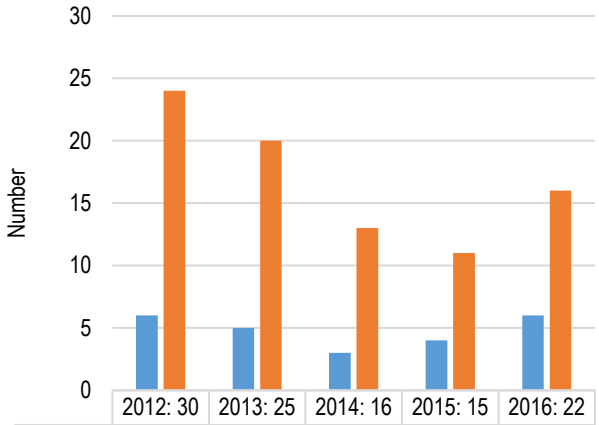
Nearly seven in ten homicides in Kent County in 2016 were committed using a gun [Figure 3].

Figure 1. Homicides by Race/Ethnicity, Kent County, 2012-2016[3]



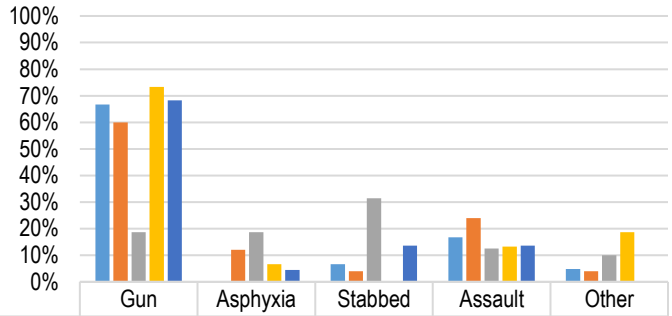
	White	Black	Hispanic	Other
2012: 30	40.0%	40.0%	16.7%	3.3%
2013: 25	48.0%	40.0%	8.0%	4.0%
2014: 16	56.3%	25.0%	6.2%	12.5%
2015: 15	46.6%	40.0%	6.7%	6.7%
2016: 22	36.4%	59.1%	4.5%	0.0%

Figure 2. Homicides by Gender, Kent County, 2012-2016[3]



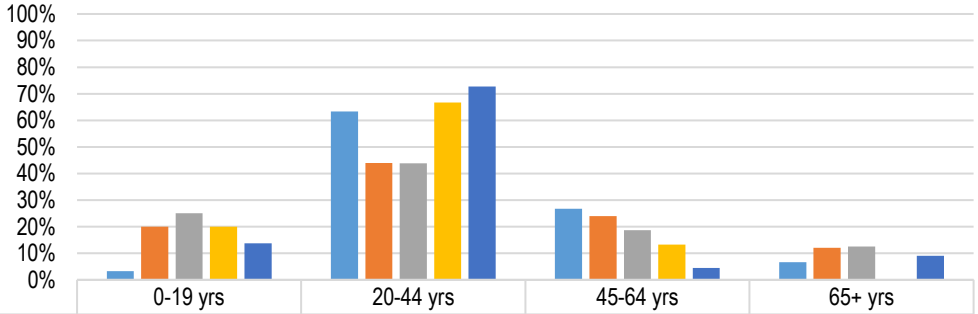
	2012: 30	2013: 25	2014: 16	2015: 15	2016: 22
Female	6	5	3	4	6
Male	24	20	13	11	16

Figure 3. Homicides by Method Used, Kent County, 2012-2016[3]



	Gun	Asphyxia	Stabbed	Assault	Other
2012: 30	66.7%	0.0%	6.6%	16.7%	4.8%
2013: 25	60.0%	12.0%	4.0%	24.0%	4.0%
2014: 16	18.7%	18.7%	31.4%	12.5%	10.0%
2015: 15	73.3%	6.7%	0.0%	13.3%	18.7%
2016: 22	68.3%	4.5%	13.6%	13.6%	0.0%

Figure 4. Homicides by Age, Kent County, 2012-2016[3]



	0-19 yrs	20-44 yrs	45-64 yrs	65+ yrs
2012: 30	3.3%	63.3%	26.7%	6.7%
2013: 25	20.0%	44.0%	24.0%	12.0%
2014: 16	25.0%	43.8%	18.7%	12.5%
2015: 15	20.0%	66.7%	13.3%	0.0%
2016: 22	13.7%	72.7%	4.5%	9.1%

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MATERNAL, INFANT, AND CHILD HEALTH

KENT COUNTY
2017 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
- PRECONCEPTION HEALTH AND FAMILY PLANNING
- PRENATAL CARE
- PREGNANCY RATES
- TEEN BIRTHS
- CHILD MORTALITY

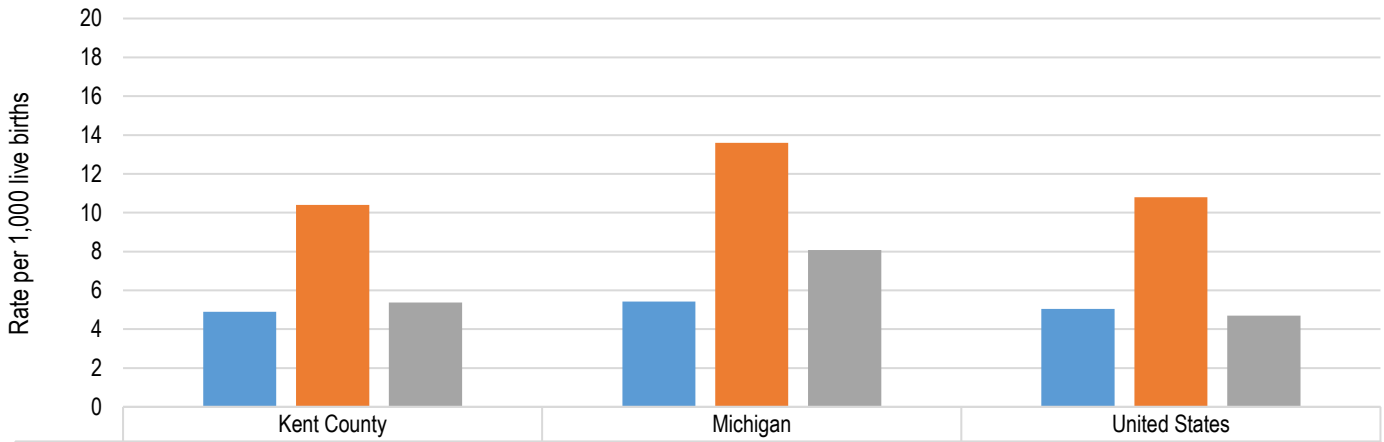
OVERVIEW: INFANT MORTALITY

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].

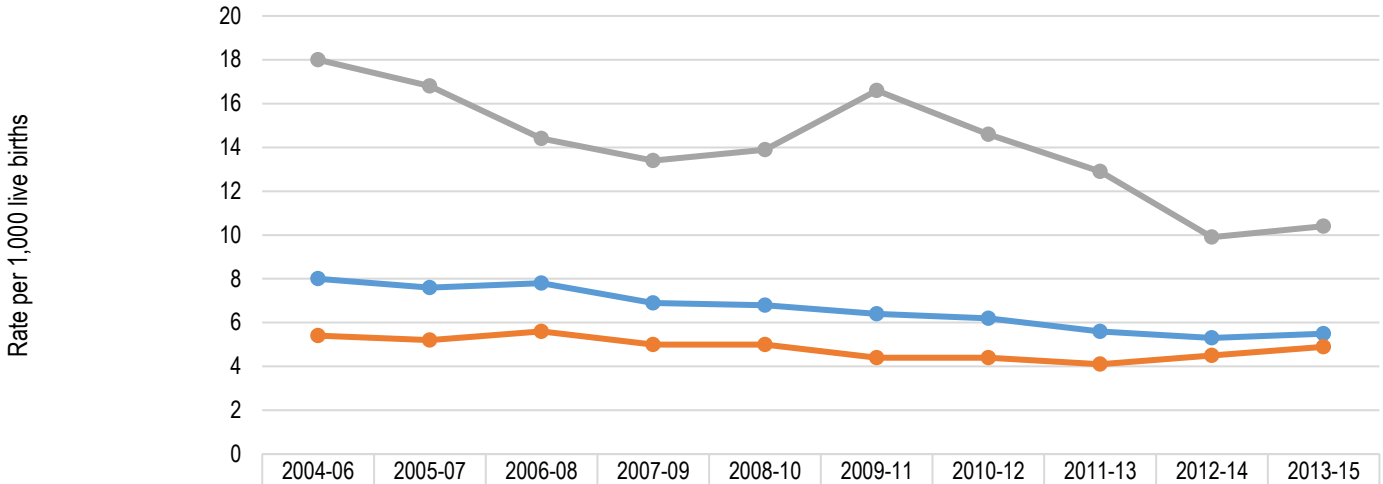
Kent County Maternal, Infant and Child Health: Infant Mortality								
Indicator	Status	Time Period**	Measure	Grand Rapids	Kent County[2]	Michigan[2]	United States[3]	National Target[a]
Total	👍 ☺	2013-2015	Rate Per 1,000 Live Births	5.9	5.5	6.8	5.9	**6.0**
Race/Ethnicity								**MICH-1.3: Reduce the rate of all infant deaths.**
White	👍 ☺	2013-2015	Rate Per 1,000 Live Births	4.2	4.9	5.4	5.0	
Black	👍 ☺	2013-2015	Rate Per 1,000 Live Births	12.0	10.4	13.6	10.8	
Hispanic[3]	👍 ☹	2013-2015	Rate Per 1,000 Live Births	--	5.4	8.1	4.7	

👍 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.
[a] Target is based on Healthy People 2020 Goal.

Figure 1. Infant Mortality Rates by Race/Ethnicity, Kent County, Michigan, and the United States, 2013-2015[2,3]



	Kent County	Michigan	United States
White	4.9	5.4	5.0
Black	10.4	13.6	10.8
Hispanic	5.4	8.1	4.7



	2004-06	2005-07	2006-08	2007-09	2008-10	2009-11	2010-12	2011-13	2012-14	2013-15
Kent County Overall	8	7.6	7.8	6.9	6.8	6.4	6.2	5.6	5.3	5.5
White	5.4	5.2	5.6	5	5	4.4	4.4	4.1	4.5	4.9
Black	18	16.8	14.4	13.4	13.9	16.6	14.6	12.9	9.9	10.4

SUMMARY

The infant mortality rate in Kent County for 2013-2015 was 5.5 deaths per 1,000 live births, which is lower than the City of Grand Rapids, the State of Michigan, and the United States [Table, Figure 1]. 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 clear disparities associated with race [Figure 2]. The infant mortality rate for African American babies in Kent County is more than two times that of white babies. In the City of Grand Rapids, the infant mortality rate is nearly three times greater for African American babies than white babies.

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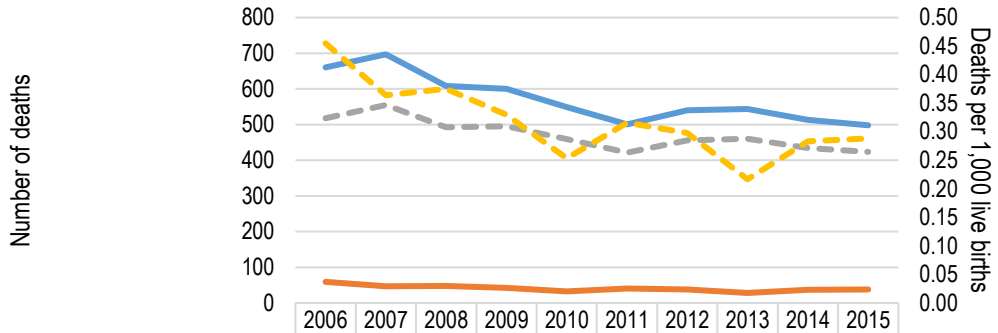
Maternal, Infant and Child Health: Kent County Neonatal and Post-neonatal Mortality

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[1].

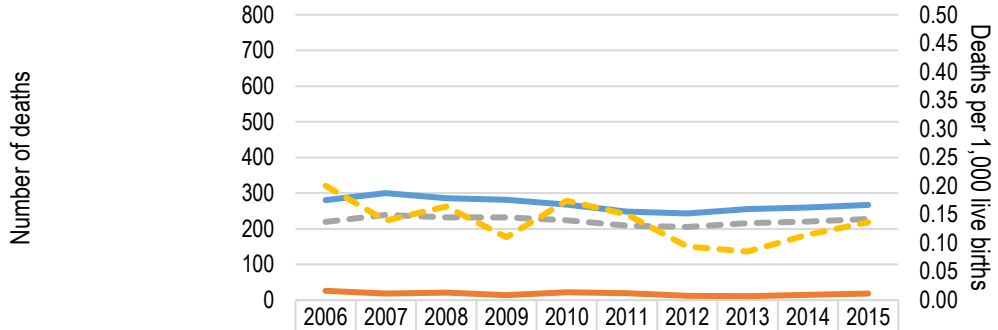
The post-neonatal mortality rate is also an indicator that is a subset of overall infant mortality. Post-neonatal mortality is the number of infant deaths per 1,000 live births that occur during the 28 days to one year following birth. Post-neonatal deaths are more likely to reflect the socioeconomic 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[2].

Figure 1. Total Number and Rate of Neonatal Deaths, Kent County and Michigan, 2006-2015[3]



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Michigan: # of deaths	660	697	608	600	549	501	540	544	513	498
Kent: # of deaths	59	47	48	42	32	40	38	28	37	38
Michigan: Death rate	0.32	0.35	0.31	0.31	0.29	0.26	0.29	0.29	0.27	0.26
Kent: Death rate	0.45	0.36	0.37	0.33	0.25	0.32	0.30	0.22	0.28	0.29

Figure 2. Total Number and Rate of Post-neonatal Deaths, Kent County and Michigan, 2006-2015[3]



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Michigan: # of deaths	280	300	286	281	268	248	243	255	260	267
Kent: # of deaths	26	18	21	14	22	19	12	11	15	18
Michigan: Death rate	0.14	0.15	0.14	0.14	0.14	0.13	0.13	0.13	0.14	0.14
Kent: Death rate	0.20	0.14	0.16	0.11	0.17	0.15	0.09	0.09	0.11	0.14

Summary

Over the past decade, the number of neonatal and post-neonatal deaths in Kent County have decreased steadily [Figures 1 and 2]. In 2016, there was a total of 38 neonatal deaths, with a death rate slightly higher than the State of Michigan [Figure 1]. There were 18 post-neonatal deaths reported in Kent County, with a comparable death rate to the State of Michigan [Figure 2].

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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[1]. Death rates for children have fallen significantly in the past 30 years, though age, gender, and race disparities continue to persist[1]. 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[1].

Table 1. Kent County Maternal, Infant and Child Health: Childhood Mortality Rates
Childhood Deaths Per 100,000 Population

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[2]	United States[3]	National Target[a]
Ages 1 – 14 Years							
Total	👍 ☺	2015	Rate Per 100,000	13.8	17.9	16.4	
Race							
White	👍 ☺	2015	Rate Per 100,000	12.3	14.8	15.2	
Black	--	2015	Rate Per 100,000	--	30.4	24.0	
Ages 15 – 19 Years							**54.3**
Total	👍 ☺	2015	Rate Per 100,000	45.9	49.2	48.3	**MICH-4.2: Reduce the rate of deaths among adolescents aged 15-19 years.**
Ages 15 – 24 Years							
Total	👍 ☺	2015	Rate Per 100,000	46.6	71.1	69.5	
Race							
White	👍 ☺	2015	Rate Per 100,000	44.0	60.5	65.8	
Black	👍 ☺	2015	Rate Per 100,000	75.1	117.2	99.2	

👍 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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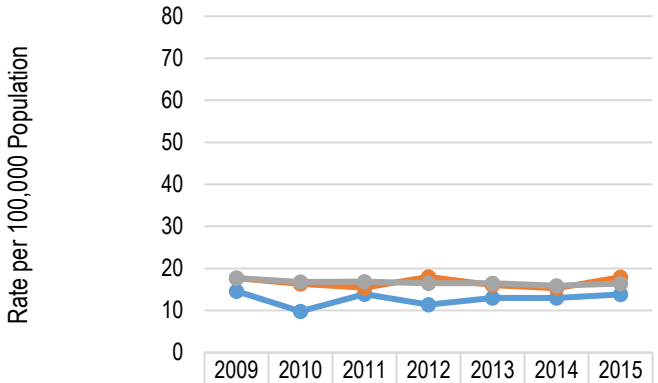
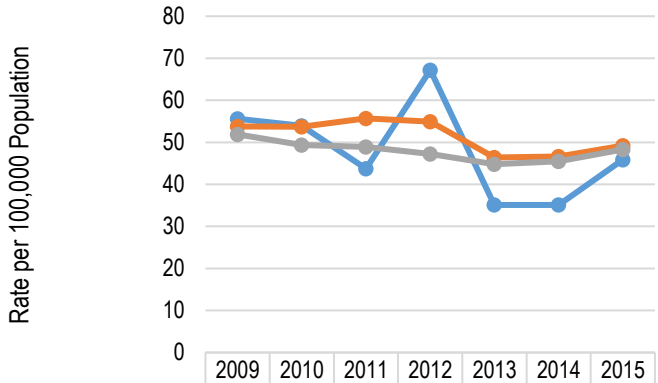
[a] Target is based on Healthy People 2020 Goal.

Figure 1. Trends in Childhood Death Rates by Region, Ages 1 to 14 years, 2009-2015[4]



	2009	2010	2011	2012	2013	2014	2015
Kent County	14.6	9.8	13.9	11.4	13.0	13.0	13.8
Michigan	17.7	16.3	15.4	18.0	16.0	15.3	17.9
United States	17.7	16.8	16.9	16.5	16.5	15.9	16.4

Figure 2. Trends in Teenage Death Rates by Region, Ages 15 to 19 Years, 2009-2015[4]



	2009	2010	2011	2012	2013	2014	2015
Kent County	55.6	53.9	43.7	67.2	35.1	35.1	45.9
Michigan	53.8	53.7	55.7	54.9	46.4	46.6	49.2
United States	51.9	49.4	48.9	47.2	44.8	45.5	48.3

Table 2. Kent County Maternal, Infant and Child Health: Childhood Mortality								
Indicator	Status	Time Period	Measure	Kent County[2]		Michigan[2]		National Target[a]
				Under 1 Year	1-14 Years	Under 1 Year	1-14 Years	
Total	--	2013-2015	Total Number	147	49	2,337	841	NA
By Diagnosis								
Septicemia	--	2013-2015	Total Number	1	1	13	8	
Cancer	--	2013-2015	Total Number	1	6	5	121	
Cardiovascular Disease	--	2013-2015	Total Number	--	1	44	36	
Influenza and Pneumonia	--	2013-2015	Total Number	1	2	19	17	
Chronic Lower Respiratory Disease	--	2013-2015	Total Number	--	--	1	19	
Kidney Disease	--	2013-2015	Total Number	--	--	7	--	
Conditions Originating in the Perinatal Period	--	2013-2015	Total Number	71	3	1,172	14	
Congenital Malformations	--	2013-2015	Total Number	40	4	451	64	
SIDS	--	2013-2015	Total Number	--	--	99	--	
Other - Disease	--	2013-2015	Total Number	5	11	151	179	
Unintentional Injuries (Accidents)	--	2013-2015	Total Number	20	10	276	203	
Intentional Self-Harm (Suicide)	--	2013-2015	Total Number	--	5	--	55	
Assault (Homicide)	--	2013-2015	Total Number	1	5	24	76	
Other – Non-Disease	--	2013-2015	Total Number	--	1	8	15	

SUMMARY

In 2015, the childhood mortality rate for children between the ages of one and 14 years was 13.8 per 100,000 population for Kent County, compared to 17.9 for the State of Michigan and 16.4 for the United States [Table 1]. The mortality rate for children between the ages of 15 and 19 years is 45.9 for Kent County, compared to 49.2 for the state [Table 1]. In general, the trend for teenage mortality has been moving in a positive direction, with an overall decline in the death rate since 2009 [Figure 2]. However, a more unstable trend is presented for children [Figure 1]. 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 other diseases and unintentional injuries [Table 2].

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Maternal, Infant and Child Health: Kent County Preconception Health and Family Planning

Overview: Preconception Health and Family Planning

Preconception health refers to the health of women and men during their reproductive years. The term preconception describes any time that a woman of reproductive potential is not pregnant but at risk of becoming pregnant, or when a man is at risk for getting someone pregnant[1]. According to the Centers for Disease Control and Prevention, family planning is one of the 10 great public health achievements of the 20th century, serving three critical needs: (1) helping couples avoid unwanted pregnancies, (2) reducing the spread of sexually transmitted infections, and (3) reducing rates of infertility. The ability of individuals to determine their family size and the timing and spacing of their children has resulted in improvements in health and in socioeconomic wellbeing[2].

Table 1. Kent County Behavioral Risk Factors: Family Planning[3]
Percentage of Females Aged 18-44 Years Who Reported Using Birth Control During the Most Recent Sexual Intercourse

Indicator	Time Period	Measure	Kent County	National Target[a]
Total	2017	Percent	66.4%	**91.6%**
Age				**FP-6: Increase the proportion of females at risk of unintended pregnancy or their partners who used contraception at most recent sexual intercourse.**
18 – 24 Years	2017	Percent	74.1%	
25 – 29 Years	2017	Percent	83.8%	
30 – 34 Years	2017	Percent	57.8%	
35 – 39 Years	2017	Percent	65.3%	
40 – 44 Years	2017	Percent	57.1%	
Race				
White	2017	Percent	72.1%	
Black	2017	Percent	61.1%	
Hispanic/Latino	2017	Percent	51.4%	
Education				
Less Than High School	2017	Percent	57.1%	
High School Diploma	2017	Percent	54.2%	
Some College	2017	Percent	70.4%	
College Graduate	2017	Percent	70.0%	
Household Income				
Less Than $15,000	2017	Percent	37.5%	
$15,000 to $24,999	2017	Percent	54.5%	
$25,000 to $34,999	2017	Percent	95.5%	
$35,000 to $49,999	2017	Percent	65.3%	
$50,000 Or More	2017	Percent	63.7%	

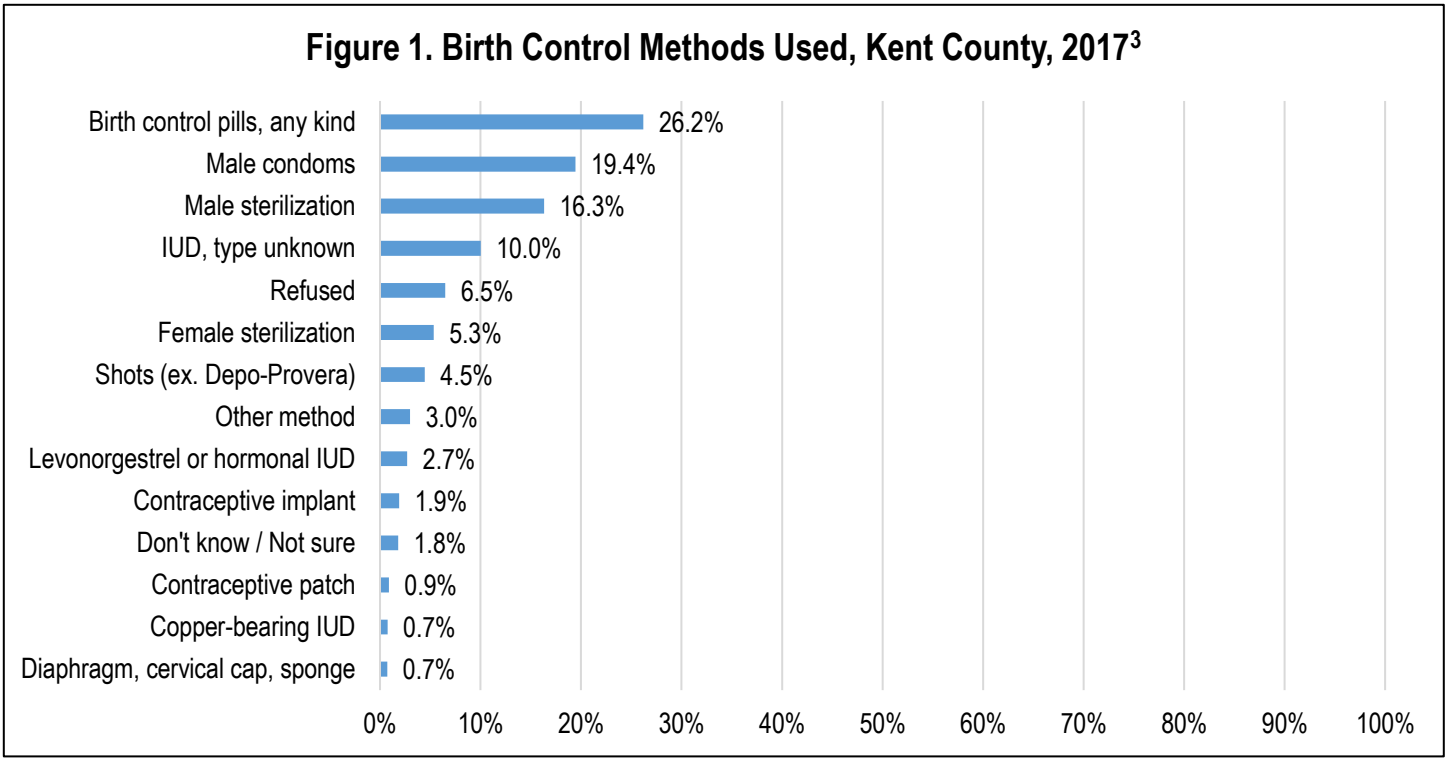
[a] Target is based on Healthy People 2020 target.

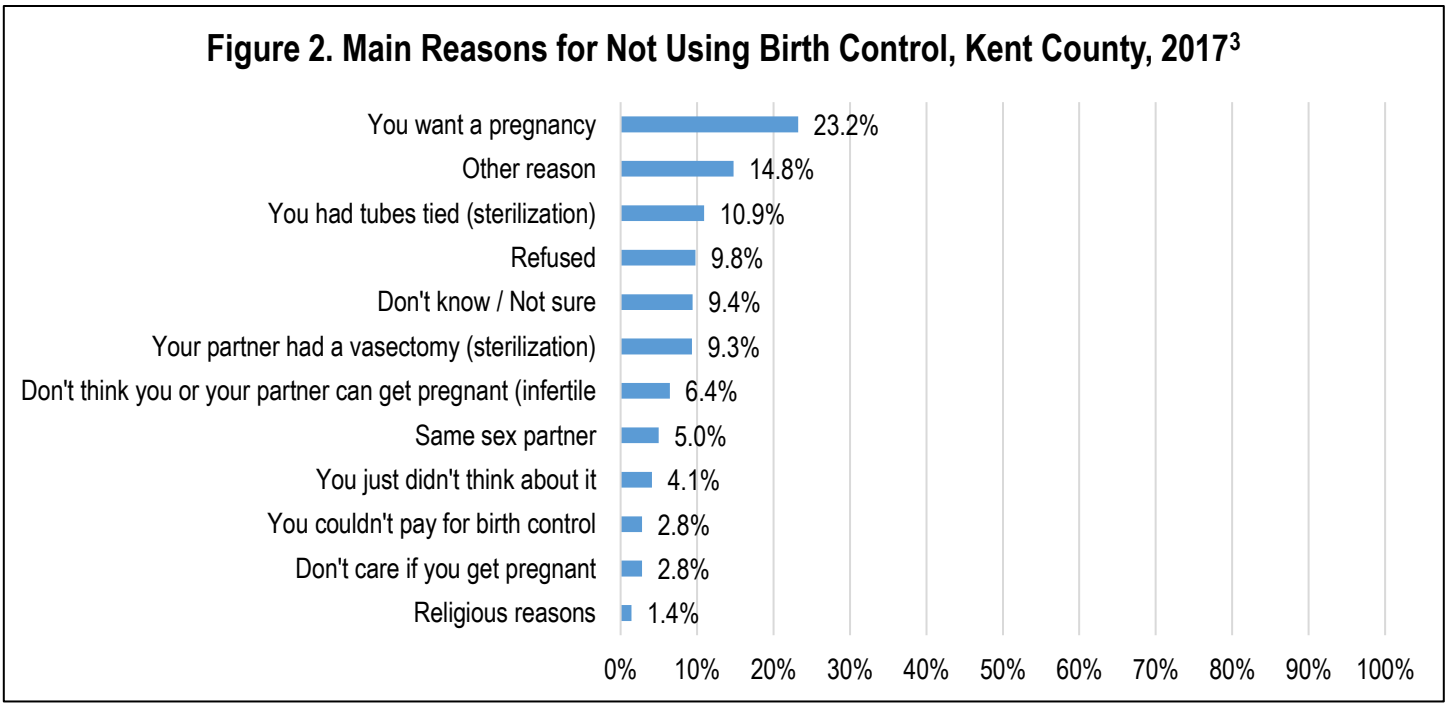
Summary

An estimated two-thirds of females aged 18 to 44 years in Kent County reported using a form of birth control at the most recent sexual intercourse [Table]. This is significantly lower than the Healthy People 2020 goal of 91.6%. Women aged 25 to 29 years were more likely than other age groups to report using birth control. Whites, those with some college or more, and those with an annual household income of $25,000 to $34,999 were also more likely than other groups to report using birth control.

The most common birth control method used was birth control pills (26.2%), followed by male condoms (19.4%) and male sterilization (16.3%) [Figure 1]. Intrauterine devices (IUDs) were another common method when considering all types (13.4%).

The most common reason given for not using birth control during the most recent sexual intercourse was wanting a pregnancy (23.2%) [Figure 2]. Sterilization, when considering both male and female, was another common reason (20.2%).





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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[1]. 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[2].

Table 1. Kent County Maternal, Infant and Child Health: Early Prenatal Care

Indicator	Status	Time Period	Measure	Grand Rapids[3]	Kent County[3]	Michigan[3]	United States[4]	National Target[a]
Total Population	👎 ☺	2015	Percent of Live Births	67.5%	73.0%	73.4%	70.8% (2007)	**77.9%**
WIC Population	👎 ☺	2016	Percent of Live Births	--	81.2%	82.2%	73.7% (2007)	
Age								**MICH-10.1: Increase the proportion of pregnant women who receive prenatal care beginning in first trimester.**
Less than 15 Years	--	2015	Percent of Live Births	--	--	36.7%	--	
15 – 19 Years	👎	2015	Percent of Live Births	53.7%	55.5%	56.5%	--	
20 – 24 Years	👍	2015	Percent of Live Births	62.1%	65.6%	65.3%	--	
25 – 29 Years	👎	2015	Percent of Live Births	68.4%	73.2%	73.8%	--	
30 – 34 Years	👎	2015	Percent of Live Births	71.5%	77.7%	78.0%	--	
35 – 39 Years	👎	2015	Percent of Live Births	69.5%	75.5%	76.9%	--	
40+ Years	👎	2015	Percent of Live Births	64.8%	70.9%	71.5%	--	
Race/Ethnicity								
White	👍	2015	Percent of Live Births	73.5%	77.0%	76.5%	--	
Black	👎	2015	Percent of Live Births	58.8%	59.5%	63.2%	--	
Hispanic	👎	2015	Percent of Live Births	59.3%	62.1%	64.8%	--	
Arab	👎	2015	Percent of Live Births	50.7%	65.0%	70.3%	--	

Table 2. Kent County Maternal, Infant and Child Health: Quality of Prenatal Care
Women With A Live Birth Who Received Adequate Plus Or Adequate Prenatal Care Per The Kotelchuck Index

Indicator	Status	Time Period	Measure	Grand Rapids[3]	Kent County[3]	Michigan[3]	United States[4]	National Target[a]
Total	👍 ☺	2015	Percent of Live Births	72.2%	77.3%	73.6%	70.5% (2007)	**77.6%**
Race/Ethnicity								**MICH-10.2: Increase the proportion of pregnant women who receive early and adequate prenatal care.**
White	👍	2015	Percent of Live Births	76.0%	80.1%	76.3%	--	
Black	👍	2015	Percent of Live Births	65.8%	67.4%	59.7%	--	
Hispanic	👍	2015	Percent of Live Births	68.1%	70.3%	67.8%	--	

👍 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.
[a] Target is based on Healthy People 2020 Goal.

SUMMARY

The percentage of pregnant women in Kent County who entered prenatal care within the first trimester was 73.0%, which is on par with the state and better than the United States and the City of Grand Rapids [Table 1]. 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 [Table 1]. Kent County still has room for improvement on this measure to achieve the Healthy People 2020 target of 77.9% for this measure.

Regarding quality of prenatal care, more than 77% of Kent County pregnant women received adequate plus or adequate prenatal care services, which is a higher percentage than the state, nation, and city of Grand Rapids [Table 2]. Kent County is very close to achieving the Healthy People 2020 target of 77.6% for this measure. 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 more likely than African Americans and Hispanics to receive adequate plus or adequate prenatal care [Table 2]. 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[1]. 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. Adolescents and young adults account for nearly half of the new STI cases that are diagnosed each year and an estimated 22% of all new HIV diagnoses[1].

Kent County Maternal, Infant, and Child Health: Teen Sexual Health									
Indicator	Status		Time Period	Measure	Kent County[1]		Michigan[2]	United States[2]	National Target[a]
	Middle School	High School			Middle School	High School			
Students Who Ever Had Sexual Intercourse	👍 ☺	👍 ☺	2015-2016	Percent	5.5%	21.5%	35.8%	41.2%	**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	👍 ☺	👍 ☺	2015-2016	Percent	1.7%	4.2%	8.8%	11.5%	
Students Who Used a Condom During Last Sexual Intercourse (Intercourse in Past 3 Months)	👎 ☹	👍 ☺	2015-2016	Percent	38.8%	60.3%	57.2%	56.9%	**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 (Intercourse in Past 3 Months)	--	👎 ☺	2015-2016	Percent	--	21.0%	23.3%	18.2%	
Students Who Drank Alcohol or Used Drugs Before Last Sexual Intercourse (Intercourse in Past 3 Months)	👍 ☺	👎 ☹	2015-2016	Percent	9.4%	23.7%	22.2%	20.6%	**NA**
Students Who Had Ever Been Pregnant or Gotten Someone Else Pregnant	--	--	2015-2016	Percent	--	2.7%	--	--	**FP-8: Reduce pregnancies among adolescent females.**
Students Whose First Sexual Partner Was 3 or More Years Older	--	--	2015-2016	Percent	40.0%	15.5%	--	--	**NA**

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👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
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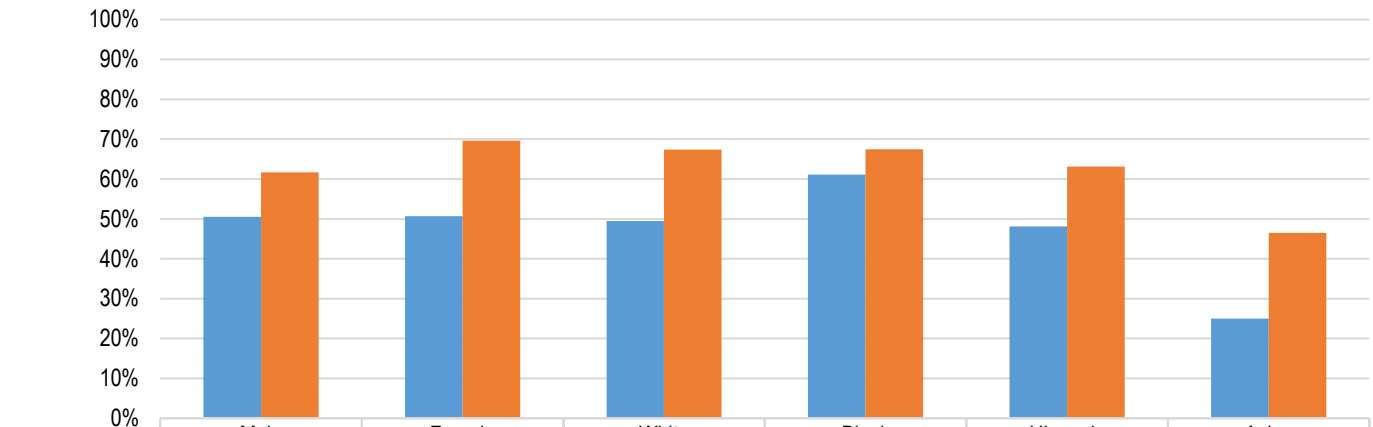
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.
*Three or more people for middle school data
** Median range values used for United States. Data used from CDC YRBS 2015 High School Report.



	Male	Female	White	Black	Hispanic	Asian
	Gender		Race/Ethnicity			
Middle School	50.5%	50.7%	49.5%	61.1%	48.1%	25.0%
High School	61.7%	69.6%	67.4%	67.5%	63.1%	46.5%

SUMMARY

In Kent County, 5.5% of middle schoolers and 21.5% of high schoolers reported ever having sexual intercourse [Table]. Both age groups are less sexually active than youth at the state and national level. Six in ten Kent County high schoolers report using a condom during the last time they had sexual intercourse, which is higher than the state and nation; however, only 39% of middle schoolers report using a condom. Kent County high schoolers report a lower percentage of birth control pill use than the state (21% vs. 23%, respectively), but slightly higher than the nation (18%).

Overall, 65% of high school students and 51% of middle school students report having a talk with parents or other adults about their expected behavior related to sex [Figure]. In both middle school and high school, African American students were the most likely to have had this talk with an adult, while Asian students were the least likely. Females were more likely to have received this information from an adult compared to males.

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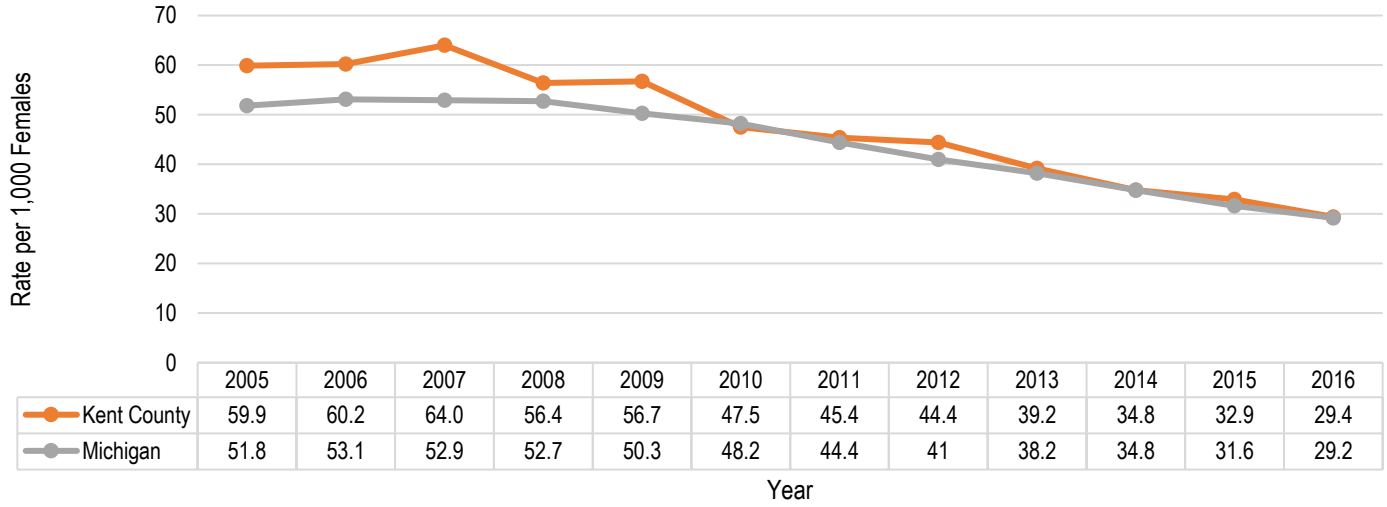
Maternal, Infant and Child Health: Kent County Teen Pregnancy and Births to Teens

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 ages 15 to 19 years.

The measure of births to teens is like the teen pregnancy rate, but focuses on the number of *live* births per 1,000 females aged 15 to 19 years. This measure does not consider 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.



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Kent County	59.9	60.2	64.0	56.4	56.7	47.5	45.4	44.4	39.2	34.8	32.9	29.4
Michigan	51.8	53.1	52.9	52.7	50.3	48.2	44.4	41	38.2	34.8	31.6	29.2

Table 1. 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 Target[a]	
Total		2016	Rate Per 1,000 Females Ages 15-19	29.4	29.2	FP-8: Reduce pregnancies among adolescent females	NA
Age of Mother							
15 to 17 Years	--	2016	Rate Per 1,000 Females Ages 15-19	--	12.6		36.2
18 to 19 Years	--	2016	Rate Per 1,000 Females Ages 15-19	--	53.9		104.6
Race							
White		2016	Rate Per 1,000 Females Ages 15-19	22.3	20.7		NA
Black		2016	Rate Per 1,000 Females Ages 15-19	58.1	64.0		

Table 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[3,4]	National Target[a]
Total	👎 ☺	2016	Rate Per 1,000 Females Ages 15-19	19.5	17.7	20.3	NA
Age of Mother							
15 to 17 Years	--	2016	Rate Per 1,000 Females Ages 15-17	--	7.2	8.8	
18 to 19 Years	--	2016	Rate Per 1,000 Females Ages 18-19	--	33.4	37.5	
Race/Ethnicity							
White[4]	👎 ☺	2016	Rate Per 1,000 Females Ages 15-19	15.0	13.5	16.0*	
Black[4]	👎 ☹	2016	Rate Per 1,000 Females Ages 15-19	36.9	35.0	31.8*	
Hispanic/Latino[4]	👎 ☹	2016	Rate Per 1,000 Females Ages 15-19	44.3	30.9	34.9*	

**United States rates for race/ethnicity are from 2015*

Table 3. 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[5]	Michigan[5]	United States[5]	National Target[a]
Total	👍 ☺	2015	Percent	16.9%	17.0%	17.0%	**NA**

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

SUMMARY

The teen pregnancy rate has been decreasing in recent years; in Kent County, the pregnancy rate has declined by 50% between 2005 and 2016 [Figure]. In 2016, the teen pregnancy rate in Kent County was 29.4 per 1,000 females aged 15 to 19 years, which was slightly higher than the rate for the State of Michigan [Table 1]. There was a clear racial disparity in teen pregnancy in Kent County, with the rate for African Americans 2.6 times higher than that of white teens [Table 1]. The teen birth rate in Kent County (19.5 per 1,000 females aged 15 to 19 years) was also higher than the teen birth rate at the state (17.7), but lower than the national rate (20.3) [Table 2]. A similar racial disparity exists for the teen birth rate, with the rate for African Americans approximately 2.5 times that of white teens [Table 2]. The highest birth rate in Kent County exists for Hispanic/Latino teens, with a rate nearly 3 times higher than that of white teens [Table 3]. Kent County has a lower, but comparable, percentage of teens with repeat births (16.9%) [Table 3].

REFERENCES

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2. Michigan Department of Health and Human Services. (2017). *Natality, Pregnancy, and Abortion Statistics*. Retrieved from http://www.mdch.state.mi.us/pha/osr/index.asp?Id=2.
3. National Vital Statistics Reports. Vol 66. Number 1; Births: Final Data for 2015. Retrieved from https://www.cdc.gov/nchs/data/nvsr/nvsr66/nvsr66_01.pdf.
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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 most births to women 15 to 44 years. Third order births have declined the most and fourth or higher order births have declined the least in 2007-2009[1].

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[2].

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[3].

Kent County Maternal, Infant and Child Health: Birth Rate[4]

Indicator	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
Birth Rate						
Total Birth Rate	2016	Rate Per 1,000	13.7	11.4	12.2	**NA**
Birth Rate by Age of Mother						
10 – 14 years	2016	Rate Per 1,000	--	0.1	--	**NA**
15 – 19 years	2016	Rate Per 1,000	19.5	17.7	--	
20 – 24 years	2016	Rate Per 1,000	75.7	70.8	--	
25 – 29 years	2016	Rate Per 1,000	104.0	109.7	--	
30 – 34 years	2016	Rate Per 1,000	114.2	106.2	--	
35 – 39 years	2016	Rate Per 1,000	49.9	46.1	--	
40 – 44 years*	2016	Rate Per 1,000	10.1	8.7	--	
45 years and over**	2016	Rate Per 1,000	--	0.6	--	
Infection Status and Screening						
Confirmed Group-B Strep Present During Pregnancy	2016	Percent	15.5%	19.2%	--	**NA**
Maternal HIV Performed	2016	Percent	96.3%	83.9%	--	
Other Characteristics						
First Births	2016	Percent	36.5%	36.8%	--	**NA**
Fourth or Higher Order Births	2016	Percent	12.3%	13.1%	--	
Singleton Births	2016	Percent	96.3%	96.1%	--	
Male to Female Ratio^	2016	Ratio	104.9	104.9	--	
Unmarried	2016	Percent	36.1%	41.5%	--	

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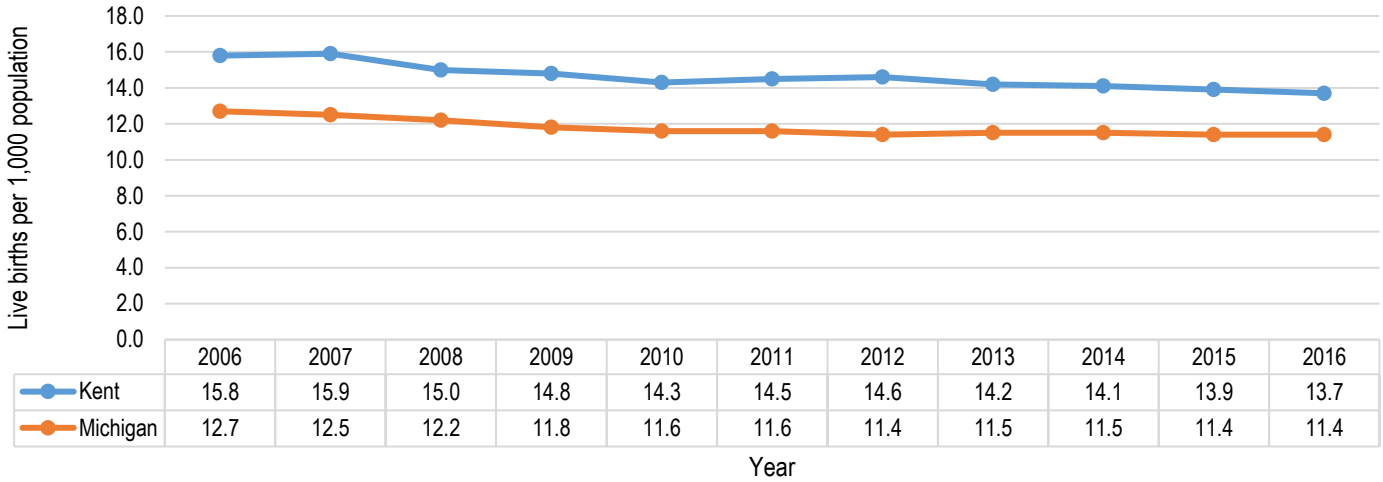
[a] Target is based on Healthy People 2020 Goal.; NA -- National Target was not identified.

** Kent County rate includes 40 years and older*

***Live births per 1,000 women 45-49 years*

^Male/Female ratio is the number of male resident live births divided by the number of female resident live births x 100.



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Kent	15.8	15.9	15.0	14.8	14.3	14.5	14.6	14.2	14.1	13.9	13.7
Michigan	12.7	12.5	12.2	11.8	11.6	11.6	11.4	11.5	11.5	11.4	11.4

SUMMARY

The total birth rate for Kent County in 2016 was 13.7 per 1,000, which is higher than the state and national rates [Table]. Kent County appears to be testing mothers for HIV more frequently than the state, with 96% of mothers receiving an HIV test, compared to 84% for the state [Table]. More than one-third of births in 2016 were to unwed mothers in Kent County, which is lower than the state [Table]. The birth rate has been steadily decreasing in Kent County since 2006, similar to the State of Michigan [Figure]. The birth rate in Kent County has decreased by 10% between 2006 and 2016 [Figure].

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1. Centers for Disease Control and Prevention. (2011). *NCHS data brief: Recent Decline in Births in the United States, 2007-2009*. Retrieved from https://www.cdc.gov/nchs/data/databriefs/db60.htm.
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MATERNAL, INFANT AND CHILD HEALTH: KENT COUNTY PRETERM BIRTHS

OVERVIEW: PRETERM BIRTHS

Term	Definition[2]
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 can 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[1]. The earlier an infant is born, the more severe his or 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[2]	Michigan[2]	United States[3]	National Target[a]
Very Preterm	👎	2015	Percent	1.6%	1.7%	1.6%	**1.5% MICH-9.4: Reduce very preterm births.**
Live Births 32 To 33 Weeks Gestation	👍 ☺	2015	Percent	1.1%	1.2%	1.2%	**1.1% MICH-9.3: Reduce live births at 32 to 33 weeks gestation.**
Late Preterm	👍 ☺	2015	Percent	6.7%	7.0%	6.9%	**6.8% MICH-9.2: Reduce late preterm births.**
Preterm	👍 ☺	2015	Percent	9.4%	9.8%	9.6%	**9.4% MICH-9.1: Reduce total preterm births.**
Preterm, WIC Recipients[5]	👎 ☹	2016	Percent	13.1%	12.3%	11.9%	

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

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 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.

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *Premature Birth*. Retrieved from https://www.cdc.gov/Features/PrematureBirth/.
2. Michigan Department of Health and Human Services. (2017). *Natality, Pregnancy, and Abortion Statistics*. Retrieved from http://www.mdch.state.mi.us/pha/osr/index.asp?Id=2.
3. Healthy People 2020. (2014) *HP2020 objective data search, maternal, infant, and child health*. Retrieved from https://www.healthypeople.gov/2020/data-search/Search-the-Data#topic-area=3492;.
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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[1]. As these children get older, they continue to have an increased risk of health issues like cerebral palsy and developmental delays[1]. 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**	**Kent County[2]**	**Michigan[2]**	**United States[3]**	**National Target[a]**
Total Low Birth Weight Births	👍 ☺	2015	Percent	8.5%	7.9%	8.5%	8.0%	**7.8% MICH-8.1: Reduce low birth weight (LBW).**
WIC Low Birth Weight Births[4]	👎 ☹	2016	Percent	--	9.6%	8.3%	7.8%	
Total Very Low Birth Weight Births	👍 ☺	2015	Percent	1.5%	1.3%	1.5%	1.4%	**1.4% MICH-8.2: Reduce very low birth weight (VLBW).**
Total Low Birth Weight Births by Race/Ethnicity								
White	👍 ☺	2015	Percent	7.5%	6.8%	7.0%	6.9%	
Black	👍 ☹	2015	Percent	15.1%	14.2%	14.4%	13.4%	
Hispanic/Latino	👎 ☹	2015	Percent	--	8.3%	7.5%	7.2%	
Birth Weight (in grams) by Race/Ethnicity								
Less Than 750 Grams								
All Races	👍	2015	Percent	0.4%	0.4%	0.5%	--	
White	--	2015	Percent	0.3%	0.3%	0.3%	--	
Black	👎	2015	Percent	0.8%	1.4%	1.1%	--	
Hispanic	👎	2015	Percent	--	0.6%	0.4%	--	
750 – 1,499 Grams								
All Races	👍	2015	Percent	1.0%	0.9%	1.1%	--	
White	--	2015	Percent	0.9%	0.8%	0.8%	--	
Black	👍	2015	Percent	1.7%	1.8%	2.1%	--	
Hispanic	--	2015	Percent	--	0.9%	0.9%	--	
1,500 – 2,499 Grams								
All Races	👍	2015	Percent	7.8%	6.6%	7.0%	--	
White	👍	2015	Percent	6.3%	5.8%	5.9%	--	
Black	👍	2015	Percent	12.6%	10.9%	11.2%	--	
Hispanic	👎	2015	Percent	7.2%	6.8%	6.2%	--	
2,500 Grams or Greater								
All Races	👍	2015	Percent	90.7%	92.1%	91.5%	--	
White	👍	2015	Percent	92.4%	93.2%	93.0%	--	
Black	👍	2015	Percent	84.9%	85.8%	85.5%	--	
Hispanic	👎	2015	Percent	91.8%	91.7%	92.5%	--	

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

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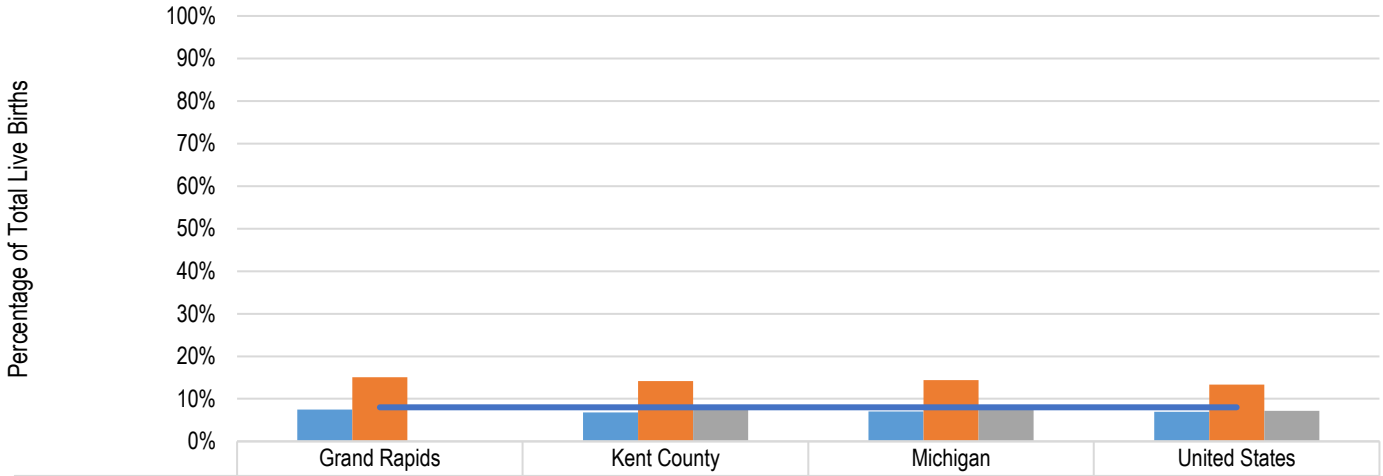

Percent Low Birth Weight Births by Race/Ethnicity, 2015[2,3]

	Grand Rapids	Kent County	Michigan	United States
White	7.5%	6.8%	7.0%	6.9%
Black	15.1%	14.2%	14.4%	13.4%
Hispanic/Latina		8.3%	7.5%	7.2%
National Average	8.0%	8.0%	8.0%	8.0%

SUMMARY

The percent of low birth weight births in Kent County was 7.9% in 2015, while the percent of very low birth weight births was 1.3% [Table]. These statistics indicate the Kent County has achieved the Healthy People 2020 target for very low birth weight and is very close to achieving the target for low birth weight. The City of Grand Rapids, however, has higher rates of low and very low birth weight that match the State of Michigan, but are lower than the United States.

Clear racial disparities are documented for low birth weight in both Kent County and the City of Grand Rapids [Figure]. In 2015, the percent of low birth weight births for African American women was 15.1% in Grand Rapids and 14.2% in Kent County, which is twice the rate for white women and 1.7 times the rate for Hispanic/Latina women.

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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[1]. 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[2]. 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[3]	Michigan[3]	United States[4]	National Target[a]
Cesarean Births	👍 ☺	2015	Percent	29.0%	31.9%	32.0%	**NA**
Low Risk Live Births -- Cesarean Births	👍 ☺	2015	Percent	25.0%	28.7%	25.8%	**23.9% MICH-7.1: Reduce cesarean births among low-risk women with no prior cesarean births.**
Low Risk Live Births --First Cesarean Section	👍	2015	Percent	13.8%	16.5%	--	**NA**
Low Risk Women -- Prior Cesarean Birth	👍	2015	Percent	86.6%	87.0%	--	**81.7% MICH-7.2: Reduce cesarean births among low-risk women giving birth with a prior cesarean birth.**

👍 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.
[a] Target is based on Healthy People 2020 Goal.

SUMMARY

Based on numbers reported for 2015, 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. However, Kent County does appear to have lower rates of elective C-sections than the State of Michigan and the United States.

REFERENCES

1. 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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3. Michigan Department of Health and Human Services. (2017). *Natality 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 PREGNANCY WEIGHT GAIN

OVERVIEW: PREGNANCY WEIGHT GAIN

Appropriate pregnancy weight gain is determined by pre-pregnancy body mass index (BMI) assessments[1]. Healthy weight gain during pregnancy is an important determinant of infant mortality and morbidity. 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[1].

Term	Definition[1]
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[1].

Kent County Maternal, Infant and Child Health: Pregnancy Weight Gain							
Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[2]	United States[3,4]	National Target[a]
Healthy Weight Prior To Pregnancy[4]	👍 ☹	2015	Percent	43.9%	41.0%	45.9%	**53.4%**
Gained Less Than 16 Pounds	👎	2015	Percent	16.0%	15.6%	--	**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	👎	2015	Percent	22.2%	19.9%	--	
WIC Recipients: Less Than Ideal Weight Gain[5]	👎 ☹	2016	Percent	24.0%	19.4%	20.6%	
Recommended Weight Gain During Pregnancy	👍	2015	Percent	33.4%	29.9%	--	
WIC Recipients: More Than Ideal Weight Gain[5]	👍 ☺	2016	Percent	46.2%	51.2%	50.9%	
Excessive Weight Gain During Pregnancy	👍	2015	Percent	44.1%	46.6%	--	

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

SUMMARY

Nearly 44% of Kent County women had a healthy weight prior to pregnancy, as compared with 41% of Michigan women and 46% of women nationally. Approximately two in ten Kent County women had low weight gain during pregnancy while more than four in ten had excessive weight gain. One-third of Kent County women gained the recommended amount of weight during pregnancy. Nearly one-quarter of WIC recipients had less than ideal weight gain during pregnancy, which was a higher rate than the state and nation. Kent County has room for improvement on these measures, as the Healthy People 2020 target has not yet been achieved.

REFERENCES

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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[1].

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 several conditions, including rheumatoid arthritis, cardiovascular disease, hypertension, and breast and ovarian cancers[1].

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[1].

Kent County Maternal, Infant and Child Health: Breastfeeding Characteristics

Indicator	Status	Time Period	Measure	Kent County[2]	Michigan[2]	United States[3]	National Target[a]
Total Population Breastfeeding Characteristics							
Breastfeeding not planned	👍	2015	Percent	10.8%	17.9%	--	**81.9% MICH-21.1: Increase the proportion of infants who are ever breastfed.**
Breastfeeding planned	👍	2015	Percent	69.8%	36.8%	--	
Breastfeeding planned or initiated	👍 ☺	2015	Percent	89.0%	80.9%	79.2%	
Breastfeeding initiated	👎	2015	Percent	19.1%	44.0%	--	
WIC Recipient Breastfeeding Characteristics (Duration)[4]							
One week	👍 ☺	2016	Percent	65.6%	60.0%	63.7%	**60.6% MICH-21.2: Increase the proportion of infants who are breastfed at 6 months.**
Two weeks	👍 ☹	2016	Percent	57.9%	55.3%	60.3%	
Four weeks	👍 ☹	2016	Percent	45.0%	44.6%	50.4%	
Six weeks	👍 ☹	2016	Percent	37.4%	36.7%	41.8%	
Two months	👎 ☹	2016	Percent	32.5%	32.8%	36.4%	**34.1% MICH-21.3: Increase the proportion of infants who are breastfed at one year.**
Six months	👎 ☹	2016	Percent	11.8%	19.7%	20.5%	
Nine months	👎 ☹	2016	Percent	5.4%	14.5%	15.5%	
More than 11 months	👎 ☹	2016	Percent	2.0%	11.6%	12.0%	

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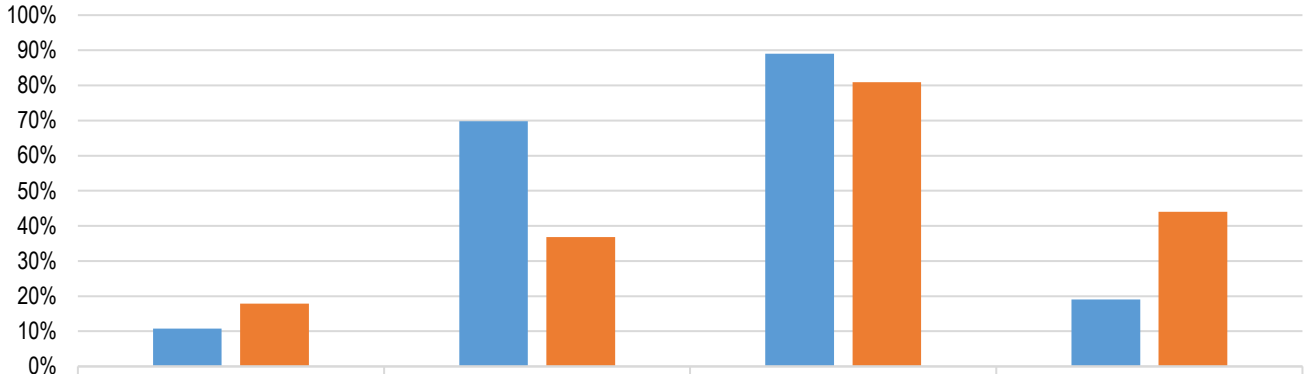
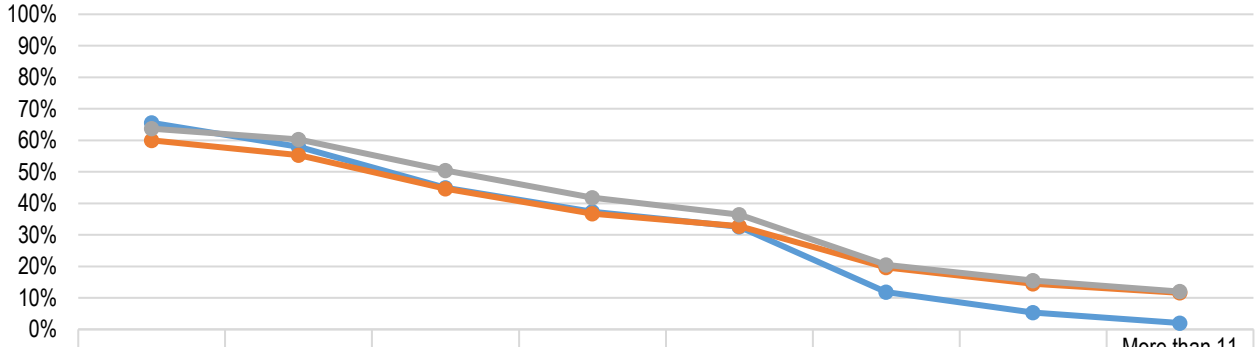
[a] Target is based on Healthy People 2020 Goal.

Figure 1. Breastfeeding Characteristics, 2015[2]



	Breastfeeding not planned	Breastfeeding planned	Breastfeeding planned or initiated	Breastfeeding initiated
Kent County	10.8%	69.8%	89.0%	19.1%
Michigan	17.9%	36.8%	80.9%	44.0%

Figure 2. WIC Recipient Breastfeeding Duration, 2016[4]



	One week	Two weeks	Four weeks	Six weeks	Two months	Six months	Nine months	More than 11 months
Kent County	65.6%	57.9%	45.0%	37.4%	32.5%	11.8%	5.4%	2.0%
Michigan	60.0%	55.3%	44.6%	36.7%	32.8%	19.7%	14.5%	11.6%
United States	63.7%	60.3%	50.4%	41.8%	36.4%	20.5%	15.5%	12.0%

Summary

Although 70% of Kent County women planned to breastfeed, only 19% initiated breastfeeding with their infants, which is quite a bit lower than the state initiation rate of 44% [Table and Figure 1].

Among WIC program participants, the breastfeeding initiation level was much higher, with about two-thirds of Kent County women breastfeeding their babies for at least one week [Figure 2]. At two months post-partum, 32% of Kent County WIC mothers reported continued breastfeeding, which is comparable to the state rate. Between two months and six months, however, breastfeeding rates among Kent County WIC mothers dropped significantly to about 12%.

References

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3. Healthy People 2020. (2017). *HP2020 objective data search, maternal, infant and child health*. Retrieved from https://www.healthypeople.gov/2020/data-search/Search-the-Data#topic-area=3492.
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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[1]. 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[1]. 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[2]	Michigan[2]	United States[3]	National Target[a]
Total Population Maternal Smoking Characteristics							
Mothers Who Smoked While Pregnant	👍	2015	Percent	10.2%	17.3%	--	**98.6% MICH-11.3: Increase abstinence from cigarette smoking among pregnant women.**
Mothers Who Did Not Smoke While Pregnant	👍	2015	Percent	89.6%	81.3%	89.6%*	
WIC Recipient Maternal Smoking Characteristics							
Smoked Three Months Prior to Pregnancy[4]	👍 ☺	2016	Percent	20.2%	28.6%	28.8%	
Smoked Last Three Months of Pregnancy[4]	👍 ☺	2016	Percent	9.8%	15.1%	16.4%	
Quit Smoking by First Prenatal Visit and Stayed Off Cigarettes[4]	👍 ☺	2016	Percent	44.7%	39.3%	36.7%	
WIC Recipient Secondhand Smoke Exposure in the Home							
Prenatal[4]	👍 ☺	2016	Percent	6.7%	11.9%	16.2%	**NA**
Postpartum[4]	👍 ☺	2016	Percent	1.6%	3.4%	7.8%	

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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.

[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.
*Data from 2007

SUMMARY

Overall, Kent County has better rates of abstinence from smoking during pregnancy than the State of Michigan and United States. Nearly 90% of all Kent County women reported that they did not smoke during pregnancy, similar to the national rate. However, Kent County has not reached the Healthy People 2020 Target.

Of WIC program participants in Kent County, 20% reported smoking within the three months prior to pregnancy and nearly 10% reported smoking the last three months of their pregnancies. About 45% of Kent County women stopped smoking by their first prenatal visit and continued cigarette abstinence after the birth of their babies.

REFERENCES

1. Centers for Disease Control and Prevention. (2007). *Preventing smoking and exposure to secondhand smoke before, during, and after pregnancy*. Retrieved from http://www.cdc.gov/nccdphp/publications/factsheets/prevention/pdf/smoking.pdf.
2. Michigan Department of Health and Human Services. (2017). *Natality statistics*. Retrieved from http://www.mdch.state.mi.us/pha/osr/index.asp?Id=2.
3. Healthy People 2020. (2017). *HP2020 objective data search, maternal, infant and child health*. Retrieved from https://www.healthypeople.gov/2020/data-search/Search-the-Data#topic-area=3492.
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Maternal, Infant and Child Health: Kent County Induced Abortion

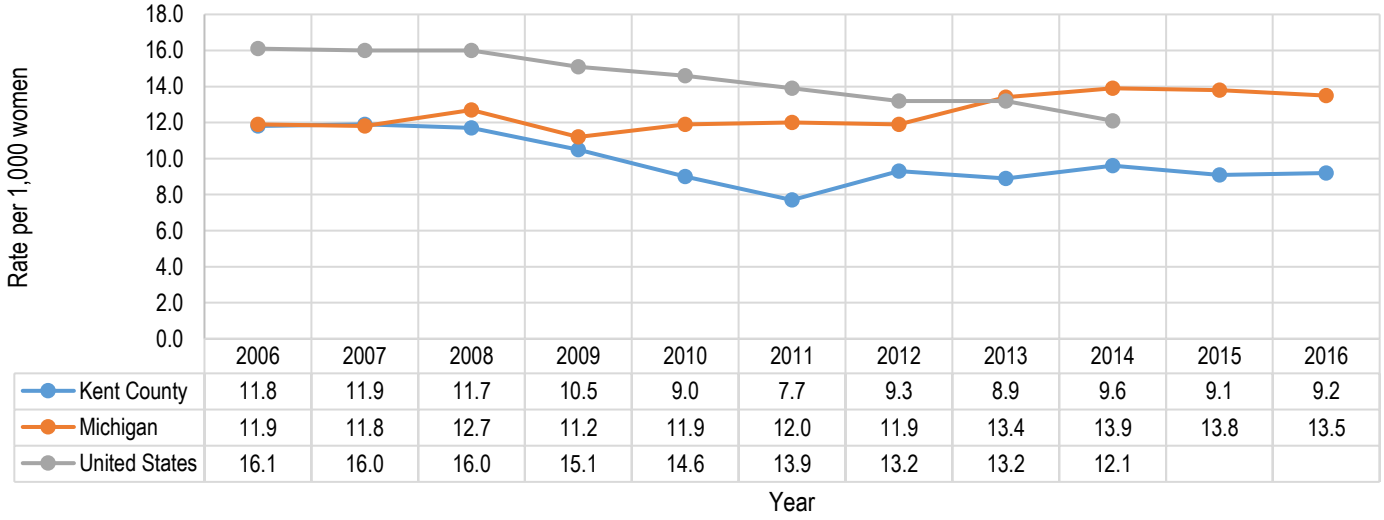
Overview: Induced Abortion

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].

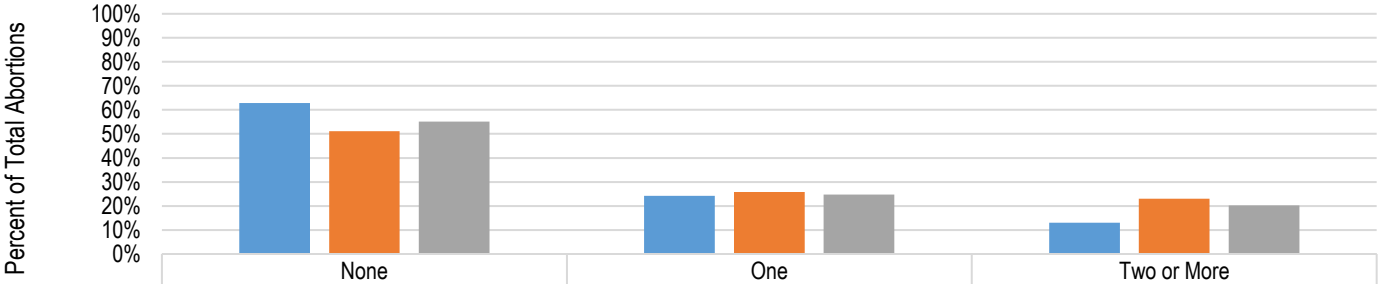
Kent County Maternal, Infant and Child Health: Induced Abortion							
Indicator	Status	Time Period	Measure	Kent County[3]	Michigan[3]	United States[4]	National Target[a]
Abortion Rate	👍 ☺	2016	Rate per 1,000 women aged 15-44	9.2	13.5	12.1	NA
Reported Induced Abortions	--	2016	Number	1,211	25,348	652,639	
Zero Previous Induced Abortions	👍 ☺	2016	Percent	62.8%	51.1%	55.1%	
One Previous Induced Abortion	👍 ☺	2016	Percent	24.2%	25.8%	24.7%	
Two or More Previous Induced Abortions	👍 ☺	2016	Percent	13.0%	23.0%	20.2%	
By Age							
Under 20 Years	👎 ☺	2016	Percent	9.7%	9.6%	10.7%	NA
20 - 24 Years	👎 ☹	2016	Percent	34.5%	31.9%	32.2%	
25 - 29 Years	👍 ☹	2016	Percent	29.2%	29.9%	26.7%	
30 - 34 Years	☺	2016	Percent	16.4%	16.4%	17.1%	
35 - 39 Years	👍 ☺	2016	Percent	8.4%	9.2%	9.7%	
40 Years or Older	👍 ☺	2016	Percent	1.9%	3.0%	3.6%	

Figure 1. Abortion Rate Trends for Kent County, Michigan, and the United States, 2006-2016[3,4]



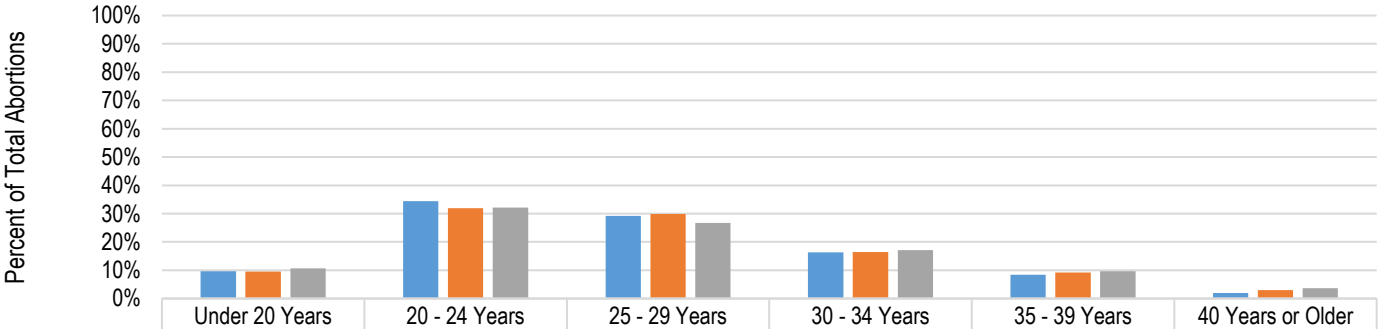
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Kent County	11.8	11.9	11.7	10.5	9.0	7.7	9.3	8.9	9.6	9.1	9.2
Michigan	11.9	11.8	12.7	11.2	11.9	12.0	11.9	13.4	13.9	13.8	13.5
United States	16.1	16.0	16.0	15.1	14.6	13.9	13.2	13.2	12.1		

Figure 2. Percent of Repeat Induced Abortions by Reported Number of Previously Induced Abortions for Kent County, Michigan, and the United States, 2016[3,4]



	None	One	Two or More
Kent County	62.8%	24.2%	13.0%
Michigan	51.1%	25.8%	23.0%
United States	55.1%	24.7%	20.2%

Figure 3. Percent of Total Induced Abortions by Age of Mother for Kent County, Michigan, and the United States, 2016[3,4]



	Under 20 Years	20 - 24 Years	25 - 29 Years	30 - 34 Years	35 - 39 Years	40 Years or Older
Kent County	9.7%	34.5%	29.2%	16.4%	8.4%	1.9%
Michigan	9.6%	31.9%	29.9%	16.4%	9.2%	3.0%
United States	10.7%	32.2%	26.7%	17.1%	9.7%	3.6%

SUMMARY

In 2016, Kent County reported a total of 1,211 induced abortions [Table]. The induced abortion rate for Kent County was 9.2 per 1,000 women, which was lower than the state and national rates. The induced abortion rate in Kent County has decreased since 2006 and remained stable in the past five reported years, while the rate in Michigan has increased slightly over that period [Figure 1]. The lowest induced abortion rate in Kent County was recorded in 2011 (7.7 per 1,000).

Nearly 40% of all abortions performed in Kent County in 2016 were repeat abortions, meaning the mother had had at least one other abortion previously [Figure 2]. Similar to the state and nation, abortions in Kent County were most likely to be performed among women 20 to 29 years of age [Figure 3].

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DEATH, ILLNESS, AND INJURY

KENT COUNTY
2017 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 Target[a]
Total	👍 ☺	2017	Percent	16.1%	18.0%	17.7%	**20.2%[a]**
Age							
18 – 24 Years	👍 ☺	2017	Percent	6.5%	10.9%	8.6%	**HRQOL/WB-1: Increase the proportion of adults who self-report good or better health.**
25 – 34 Years	👍	2017	Percent	8.9%	12.1%	--	
35 – 44 Years	👎	2017	Percent	16.0%	15.2%	--	
45 – 54 Years	👍	2017	Percent	21.9%	20.3%	--	
55 – 64 Years	👍	2017	Percent	22.4%	22.8%	--	
65+ Years	👍 ☺	2017	Percent	20.9%	22.9%	25.5%	
Gender							
Male	👍 ☺	2017	Percent	14.1%	16.9%	16.8%	
Female	👍 ☺	2017	Percent	18.0%	19.1%	18.5%	
Race/Ethnicity							
White	👍 ☺	2017	Percent	13.9%	17.1%	15.3%	
Black	👎 ☹	2017	Percent	27.9%	24.6%	21.3%	
Hispanic/Latino	👎 ☺	2017	Percent	20.2%	17.7%	25.9%	
Non-Hispanic	--	2017	Percent	15.6%	--	--	
Education							
Less Than High School	👎 ☺	2017	Percent	37.5%	35.3%	38.1%	
High School Diploma	👎 ☹	2017	Percent	27.2%	20.8%	20.0%	
Some College	👍 ☹	2017	Percent	15.3%	17.1%	15.0%	
College Graduate	👍 ☺	2017	Percent	7.0%	8.3%	7.4%	
Household Income							
Less Than $15,000	👎 ☹	2017	Percent	45.6%	39.2%	39.5%	
$15,000 to $24,999	👎 ☹	2017	Percent	36.6%	29.1%	28.2%	
$25,000 to $34,999	👍 ☺	2017	Percent	16.7%	20.3%	20.6%	
$35,000 to $49,999	👍 ☺	2017	Percent	11.4%	15.0%	15.0%	
$50,000 Or More	👍 ☺	2017	Percent	7.1%	8.7%	7.9%	

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

**Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

The results of the Kent County BRFS suggest that Kent County residents have a lower rate of self-reported fair or poor general health than their counterparts at the state and national level. The self-reported rate of fair or poor health ratings is highest among residents older than 45 years of age, females, African Americans and Hispanic/Latinos, residents with less than a high school education, and those with an annual household income of less than $25,000.

REFERENCES

1. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
2. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2015.

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 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 Target[a]
Total	👍 ☺	2017	Percent	11.5%	13.0%	12.1%	
Age							
18 – 24 Years	👍 ☺	2017	Percent	0.0%	5.4%	5.4%	NA
25 – 34 Years	--	2017	Percent	0.5%	--	--	
35 – 44 Years	--	2017	Percent	14.8%	--	--	
45 – 54 Years	--	2017	Percent	16.3%	--	--	
55 – 64 Years	--	2017	Percent	18.5%	--	--	
65+ Years	👎 ☹	2017	Percent	18.4%	16.8%	17.1%	
Gender							
Male	👍 ☺	2017	Percent	8.4%	11.8%	10.8%	
Female	👎 ☹	2017	Percent	14.5%	14.1%	13.2%	
Race/Ethnicity							
White	👍 ☺	2017	Percent	12.1%	12.8%	12.2%	
Black	👎 ☹	2017	Percent	15.8%	13.6%	12.5%	
Hispanic/Latino	👍 ☺	2017	Percent	4.2%	14.2%	12.2%	
Non-Hispanic	--	2017	Percent	12.1%	--	--	
Education							
Less Than High School	👍 ☺	2017	Percent	13.2%	21.4%	20.8%	
High School Diploma	👎 ☹	2017	Percent	18.6%	15.9%	13.4%	
Some College	👍 ☺	2017	Percent	10.7%	12.5%	11.8%	
College Graduate	👎 ☹	2017	Percent	7.7%	6.3%	6.4%	
Household Income							
Less Than $15,000	👎 ☹	2017	Percent	38.7%	26.5%	26.1%	
$15,000 to $24,999	👎 ☹	2017	Percent	23.7%	19.4%	17.5%	
$25,000 to $34,999	👍 ☹	2017	Percent	14.8%	15.4%	13.2%	
$35,000 to $49,999	👍 ☹	2017	Percent	10.9%	13.1%	10.6%	
$50,000 Or More	👍 ☺	2017	Percent	5.2%	7.3%	6.6%	

👍 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] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified

**Note: The 2017 comparative data is based on 2015 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).*

SUMMARY

Nearly 12% of Kent County residents report having 14 or more days of poor physical health in the past month. Females, African Americans, people with a high school education or less, and individuals with a household income of less than $25,000 are more likely than their counterparts to report having 14 or more days of poor physical health in the past month. Adults 55 years and older 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), 2017.
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3. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2015.

DEATH, ILLNESS, AND INJURY: KENT COUNTY LEADING CAUSES OF DEATH

OVERVIEW: LEADING CAUSES OF DEATH

Over half of all deaths globally in 2015 were due to the top 10 causes of death, including heart disease and stroke, which have been leading causes of death for the past 15 years[1]. The leading causes of death depend on where in the world a person lives; for example, low-income countries report more infectious diseases such as lower respiratory infections, diarrheal diseases, and HIV/AIDS. In contrast, the leading causes of death in high-income countries like the United States are typically more chronic in nature, such as cancer, chronic obstructive pulmonary disease (COPD), and diabetes[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 Target[a]
1	Heart Disease	👍 ☹	2015	Rate Per 100,000	169.1	195.5	168.5	**103.4**
2	Cancer	👍 ☺	2015	Rate Per 100,000	149.2	164.9	158.5	**161.4**
3	Unintentional Injuries	👎 ☹	2015	Rate Per 100,000	50.1	42.9	43.2	**36.4**
4	Alzheimer's Disease	👎 ☹	2015	Rate Per 100,000	34.9	29.7	29.4	**NA**
5	Chronic Lower Respiratory Diseases	👍 ☺	2015	Rate Per 100,000	33.2	46.7	41.6	**NA**
6	Stroke	👍 ☺	2015	Rate Per 100,000	30.4	36.8	37.6	**34.8**
7	Pneumonia/Influenza	👍 ☺	2015	Rate Per 100,000	12.9	15.0	15.2	**13.6**
8	Intentional Self-harm (Suicide)	👍 ☺	2015	Rate Per 100,000	10.5	13.6	13.3	**NA**
9	Diabetes Mellitus	👍 ☺	2015	Rate Per 100,000	10.0	22.2	21.3	**66.6**
10	Kidney Disease	👍 ☺	2015	Rate Per 100,000	8.0	15.4	13.4	**NA**

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

SUMMARY

The leading causes of death in Kent County are reflected in the chart above. Like 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 to achieve the Healthy People 2020 target. For most of the conditions reflected in the chart above, Kent County's mortality rates are lower than or on par with those reported for the State of Michigan or the United States, however, Kent County does have a slightly higher mortality rate associated with unintentional injuries and Alzheimer's disease.

REFERENCES

1. World Health Organization. (2017). *The top 10 causes of death*. Retrieved from http://www.who.int/mediacentre/factsheets/fs310/en/.
2. Michigan Department of Health and Human Services. (2017). *2015 Michigan Death Certificate Registry*. Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services. Retrieved from https://www.mdch.state.mi.us/osr/deaths/causrankcnty.asp.
3. U.S. Department of Health and Human Services. (2016). *Data table for Figure 3. Number of deaths, percentage of total deaths, and age-adjusted death rates for the 10 leading causes of death in 2015: United States, 2014 and 2015*. NCHS, National Vital Statistics System, Mortality. Retrieved from https://www.cdc.gov/nchs/data/databriefs/db267.pdf.

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]. The 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	☺	2011-2015	Rates per 100,000 population	5,744.5	7,565.2	6,461.8
Gender						
Male	☺	2011-2015	Rates per 100,000 population	7,180.5	9,326.8	8,100.2
Female	☺	2011-2015	Rates per 100,000 population	4,324.7	5,819.6	4,855.5
Race						
White	☺	2011-2015	Rates per 100,000 population	5,401.4	6,909.6	6,204.7
Black	☺	2011-2015	Rates per 100,000 population	8,281.0	11,543.3	9,404.3
All Cancers						
Total	☹	2011-2015	Rates per 100,000 population	1,292.5	1,659.7	1,273.2
Gender						
Male	☹	2011-2015	Rates per 100,000 population	1,404.6	1,747.5	1,355.3
Female	☺	2011-2015	Rates per 100,000 population	1,181.8	1,572.7	1,199.6
Race						
White	☹	2011-2015	Rates per 100,000 population	1,309.8	1,659.2	1,258.6
Black	☺	2011-2015	Rates per 100,000 population	1,281.9	1,832.2	1,625.9
Accidents						
Total	☺	2011-2015	Rates per 100,000 population	915.2	1,042.7	1,073.4
Gender						
Male	☺	2011-2015	Rates per 100,000 population	1,349.9	1,429.0	1,498.2
Female	☺	2011-2015	Rates per 100,000 population	485.4	660.0	646.1
Race						
White	☺	2011-2015	Rates per 100,000 population	878.3	1,015.2	1,151.0
Black	☹	2011-2015	Rates per 100,000 population	1,117.0	1,217.5	969.5
Heart Disease						
Total	☺	2011-2015	Rates per 100,000 population	899.9	1,285.3	917.1
Gender						
Male	☺	2011-2015	Rates per 100,000 population	1,279.5	1,747.2	1,286.6
Female	☺	2011-2015	Rates per 100,000 population	524.6	827.4	565.4
Race						
White	☺	2011-2015	Rates per 100,000 population	823.3	1,127.5	848.2
Black	☺	2011-2015	Rates per 100,000 population	1,498.3	2,260.2	1,597.5
Conditions Originating in the Perinatal Period						
Total	☹	2011-2015	Rates per 100,000 population	351.2	329.7	329.3
Gender						
Male	☹	2011-2015	Rates per 100,000 population	385.5	373.3	359.7
Female	☹	2011-2015	Rates per 100,000 population	317.2	286.4	297.6
Race						

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]
White	☺	2011-2015	Rates per 100,000 population	267.0	218.0	267.8
Black	☹	2011-2015	Rates per 100,000 population	875.4	895.9	654.3
Suicide						
Total	☺	2011-2015	Rates per 100,000 population	328.5	410.4	405.0
Gender						
Male	☺	2011-2015	Rates per 100,000 population	498.7	647.7	625.2
Female	☺	2011-2015	Rates per 100,000 population	160.2	175.2	184.2
Race						
White	☺	2011-2015	Rates per 100,000 population	351.4	442.8	456.7
Black	--	2011-2015	Rates per 100,000 population	--	254.3	206.5
Assault (homicide)						
Total	☺	2011-2015	Rates per 100,000 population	145.9	282.8	235.0
Gender						
Male	☺	2011-2015	Rates per 100,000 population	209.9	465.6	374.5
Female	☺	2011-2015	Rates per 100,000 population	82.5	101.6	92.4
Race						
White	☺	2011-2015	Rates per 100,000 population	88.8	77.3	131.7
Black	☺	2011-2015	Rates per 100,000 population	562.0	1,381.7	824.3
Chronic Liver Disease and Cirrhosis						
Total	☺	2011-2015	Rates per 100,000 population	142.7	202.8	174.5
Gender						
Male	☺	2011-2015	Rates per 100,000 population	184.2	267.4	236.0
Female	☺	2011-2015	Rates per 100,000 population	101.7	138.6	115.7
Race						
White	☺	2011-2015	Rates per 100,000 population	147.7	212.6	187.3
Black	☹	2011-2015	Rates per 100,000 population	129.3	157.5	118.4
Chronic Lower Respiratory Diseases						
Total	☺	2011-2015	Rates per 100,000 population	141.0	236.9	161.9
Gender						
Male	☺	2011-2015	Rates per 100,000 population	140.8	239.6	170.3
Female	☺	2011-2015	Rates per 100,000 population	141.3	234.2	154.1
Race						
White	☺	2011-2015	Rates per 100,000 population	145.3	243.0	164.4
Black	☺	2011-2015	Rates per 100,000 population	152.3	239.1	187.8
Cerebrovascular Diseases						
Total	☺	2011-2015	Rates per 100,000 population	112.1	174.8	153.5
Gender						
Male	☺	2011-2015	Rates per 100,000 population	125.4	188.6	175.8
Female	☺	2011-2015	Rates per 100,000 population	99.0	161.2	132.3
Race						
White	☺	2011-2015	Rates per 100,000 population	105.7	150.2	130.7
Black	☺	2011-2015	Rates per 100,000 population	178.1	311.6	314.9
Diabetes						
Total	☺	2011-2015	Rates per 100,000 population	73.9	195.9	163.1
Gender						
Male	☺	2011-2015	Rates per 100,000 population	75.5	236.0	203.3
Female	☺	2011-2015	Rates per 100,000 population	72.3	156.2	125.0
Race						
White	☺	2011-2015	Rates per 100,000 population	69.0	174.5	144.8
Black	☺	2011-2015	Rates per 100,000 population	127.8	319.8	313.6

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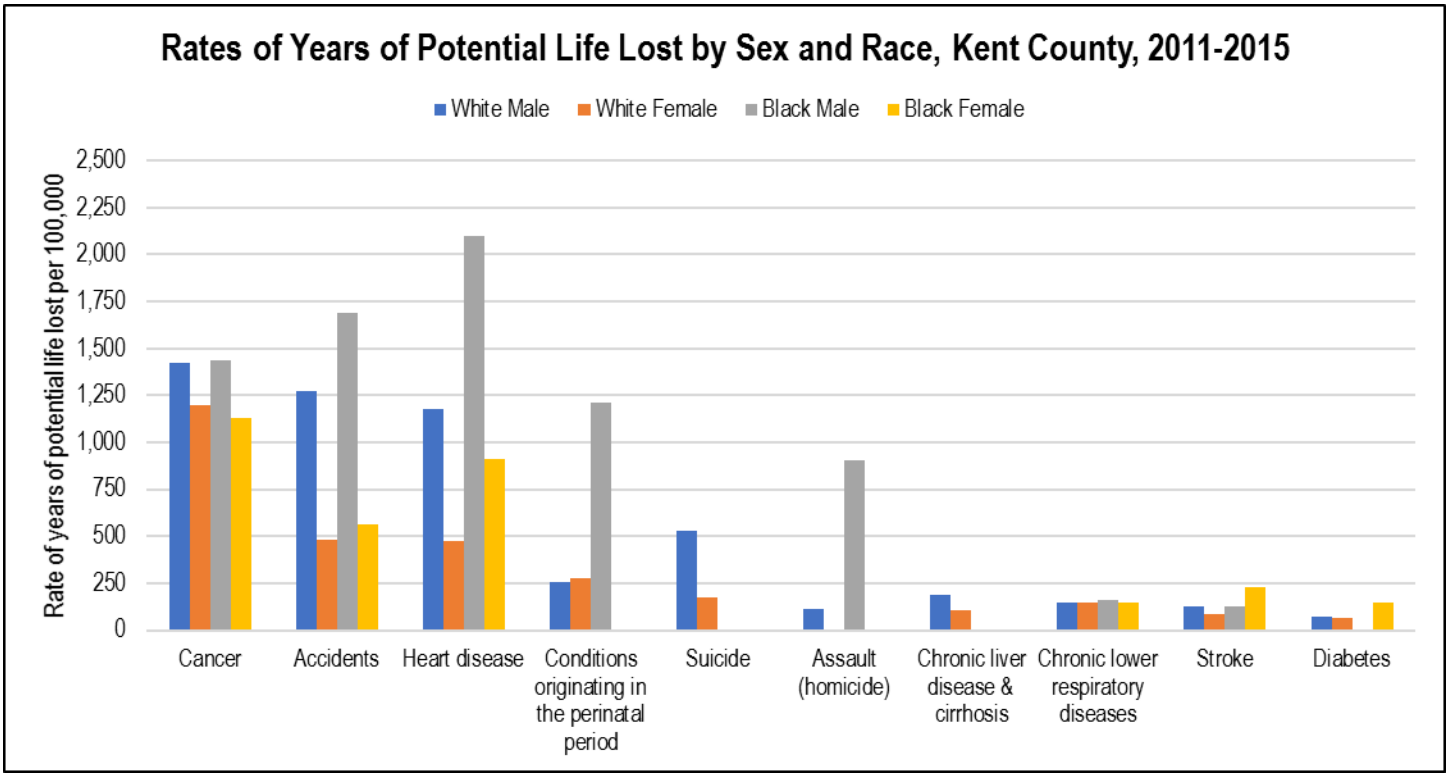

SUMMARY

Kent County has a lower rate of YPLL than the state and nation for most selected causes of death [Table]. However, Kent County does have a higher YPLL rate than Michigan and the United States for conditions originating in the perinatal period, and a higher rate than the United States for cancer [Table].

Some disparities are apparent when YPLL rates are stratified by gender and race [Figure]. In Kent County, the YPLL rate for all cancers is slightly higher among males and relatively similar between whites and African Americans [Figure]. The YPLL rate for accidents is 2.8 times higher for males than females, and highest among African American males [Figure]. African American males have a much higher rate of YPLL due to heart disease, conditions originating in the perinatal period, and assault than other groups [Figure]. White males have a higher rate of suicide than other groups [Figure].

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 https://www.ncbi.nlm.nih.gov/pubmed/2083312.
2. Healthy People 2020. (2017). *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 http://www.dshs.texas.gov/chs/vstat/vs05/ypll.shtm.
4. Michigan Department of Health and Human Services. (2017). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdhhs/0,5885,7-339-73970_2944_4669_4686---,00.html.
5. Centers for Disease Control and Prevention. (2017). *Years of potential life lost reports, 1999-2015*. Retrieved from https://webappa.cdc.gov/sasweb/ncipc/ypll10.html.

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].

Table 1. Kent County Death, Illness, and Injury: Heart Disease

Percentage Of Respondents 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 Target[a]
Total	👍 ☹	2017	Percent	4.3%	5.2%	4.1%	**NA**
Age							
35 – 44 Years	👍	2017	Percent	1.5%	1.7%	--	**HDS-1: Increase overall cardiovascular health in the U.S. population. (Developmental)**
45 – 54 Years	👎	2017	Percent	3.4%	2.8%	--	
55 – 64 Years	👎	2017	Percent	8.2%	8.0%	--	
65+ Years	👍 ☹	2017	Percent	12.6%	13.4%	11.7%	
Gender							
Male	👍 ☹	2017	Percent	5.3%	6.5%	4.8%	
Female	👍	2017	Percent	3.3%	3.9%	3.3%	
Race/Ethnicity							
White	👍	2017	Percent	4.7%	5.6%	4.7%	
Black	👎 ☹	2017	Percent	6.3%	4.0%	3.5%	
Hispanic/Latino	☺	2017	Percent	0.8%	--	2.5%	
Non-Hispanic	--	2017	Percent	4.7%	--	--	
Education							
Less Than High School	👍 ☺	2017	Percent	2.8%	8.8%	5.9%	
High School Diploma	👎 ☹	2017	Percent	6.2%	5.9%	4.5%	
Some College	👎 ☹	2017	Percent	4.9%	4.5%	3.9%	
College Graduate	👍 ☺	2017	Percent	2.7%	3.4%	2.9%	
Household Income							
Less Than $15,000	👎 ☹	2017	Percent	10.3%	6.4%	6.5%	
$15,000 to $24,999	👎 ☹	2017	Percent	8.6%	8.0%	5.2%	
$25,000 to $34,999	👍 ☺	2017	Percent	1.9%	6.4%	5.4%	
$35,000 to $49,999	👍 ☺	2017	Percent	3.6%	5.9%	4.3%	
$50,000 Or More	👍 ☹	2017	Percent	3.2%	3.3%	2.8%	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
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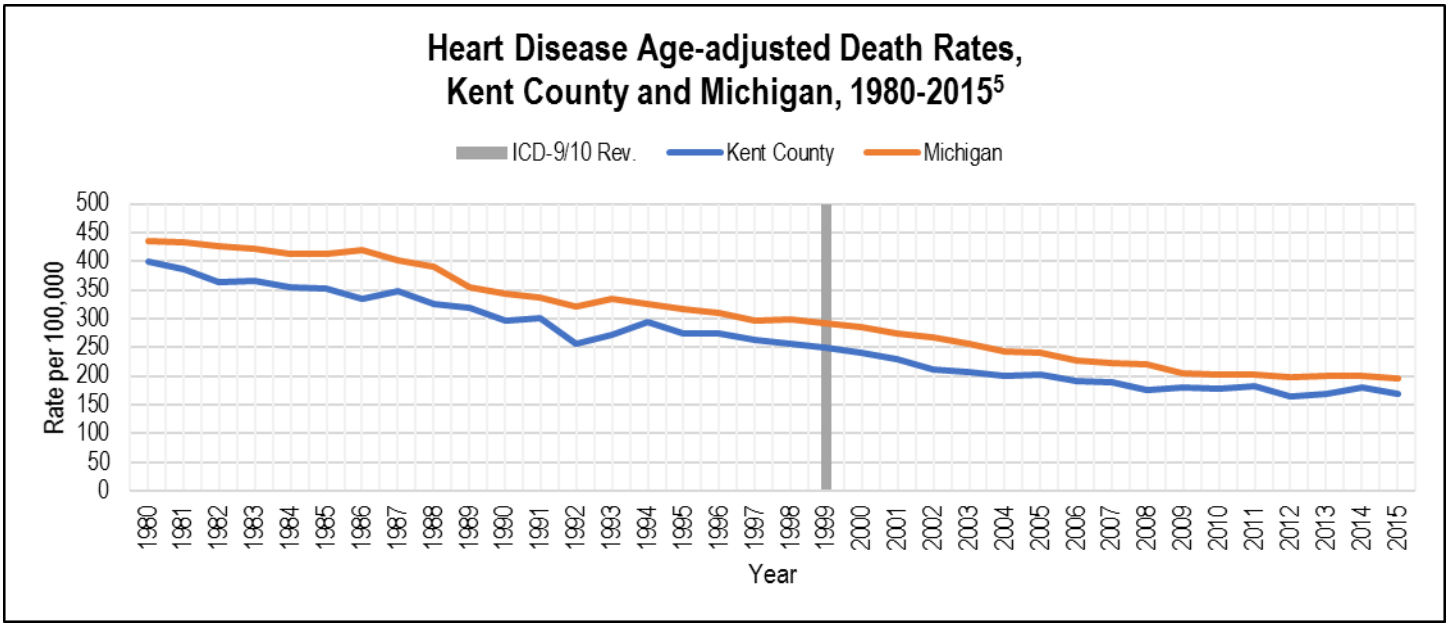
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.

**Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).*

Table 2. Kent County Death, Illness, and Injury: All Heart Disease-Related Mortality					
Indicator	Status	Time Period	Measure	Kent County[5]	Michigan[5]
Total	👍	2015	Rate per 100,000 population	169.1	195.5
Age					
Under 50 Years	👍	2015	Rate per 100,000 population	9.0	15.4
50 – 74 Years	👍	2015	Rate per 100,000 population	231.6	262.8
75+ Years	👍	2015	Rate per 100,000 population	2,119.3	2,333.1
Gender					
Male	👍	2015	Rate per 100,000 population	213.8	242.2
Female	👍	2015	Rate per 100,000 population	133.7	157.9
Race					
White	👍	2015	Rate per 100,000 population	161.0	186.4
Black	👎	2015	Rate per 100,000 population	267.1	264.7

👍 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.



Note: ICD-9/10 Rev. denotes the transition to the International Classification of Diseases 10th Revision (ICD-10)

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 than the State of Michigan, but slightly higher than the United States [Table 1]. In Kent County, the persons most affected by coronary heart disease are those 65 years or older, males, African Americans, those with a high school education, and persons with an annual household income of less than $25,000 [Table 1]. Kent County has a lower mortality rate associated with heart disease than the State of Michigan [Table 2]. The highest reported mortality for heart disease in Kent County exists among those 75 years or older, males, and African Americans [Table 2]. The mortality rates associated with heart disease have been decreasing over time for both Kent County and the State of Michigan [Figure].

REFERENCES

1. Healthy People 2020. (2017). *Heart disease and stroke*. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/heart-disease-and-stroke.
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
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DEATH, ILLNESS, AND INJURY: KENT COUNTY STROKE

OVERVIEW: STROKE

Stroke kills nearly 140,000 Americans each year – that's 1 of every 20 deaths[1]. Including health care services, medications, and lost productivity, stroke costs the nation $34 billion annually[1]. Although the health complications from stroke are great, the risk of stroke can be greatly reduced by getting physical activity, eating a balanced diet, avoiding drinking too much alcohol, and avoiding smoking[1].

Table 1. Kent County Death, Illness, and Injury: Stroke
Percentage Of Respondents 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 Target[a]
Total	👎 ☹	2017	Percent	3.7%	3.1%	3.0%	**NA**
Age							
35 – 44 Years	👎	2017	Percent	2.9%	1.9%	--	**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	👎	2017	Percent	3.9%	2.8%	--	
55 – 64 Years	👍	2017	Percent	4.6%	5.1%	--	
65+ Years	👎 ☹	2017	Percent	10.4%	8.2%	7.7%	
Gender							
Male	👎 ☹	2017	Percent	3.7%	3.2%	3.0%	
Female	👍 ☹	2017	Percent	3.6%	3.8%	3.1%	
Race/Ethnicity							
White	👎 ☹	2017	Percent	3.7%	3.4%	3.2%	
Black	👎 ☹	2017	Percent	6.3%	5.2%	4.1%	
Hispanic/Latino	☺	2017	Percent	1.7%	--	1.8%	
Non-Hispanic	--	2017	Percent	3.8%	--	--	
Education							
Less Than High School	👎 ☹	2017	Percent	9.7%	7.2%	5.2%	
High School Diploma	☹	2017	Percent	4.1%	4.1%	3.4%	
Some College	👎 ☹	2017	Percent	3.2%	3.1%	2.8%	
College Graduate	👎 ☹	2017	Percent	2.9%	1.8%	1.7%	
Household Income							
Less Than $15,000	👎 ☹	2017	Percent	8.8%	7.5%	5.7%	
$15,000 to $24,999	👎 ☹	2017	Percent	5.7%	4.6%	4.8%	
$25,000 to $34,999	👎 ☹	2017	Percent	5.5%	5.3%	3.8%	
$35,000 to $49,999	👍 ☹	2017	Percent	3.0%	3.4%	2.7%	
$50,000 Or More	☹	2017	Percent	1.6%	1.6%	1.5%	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
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[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.

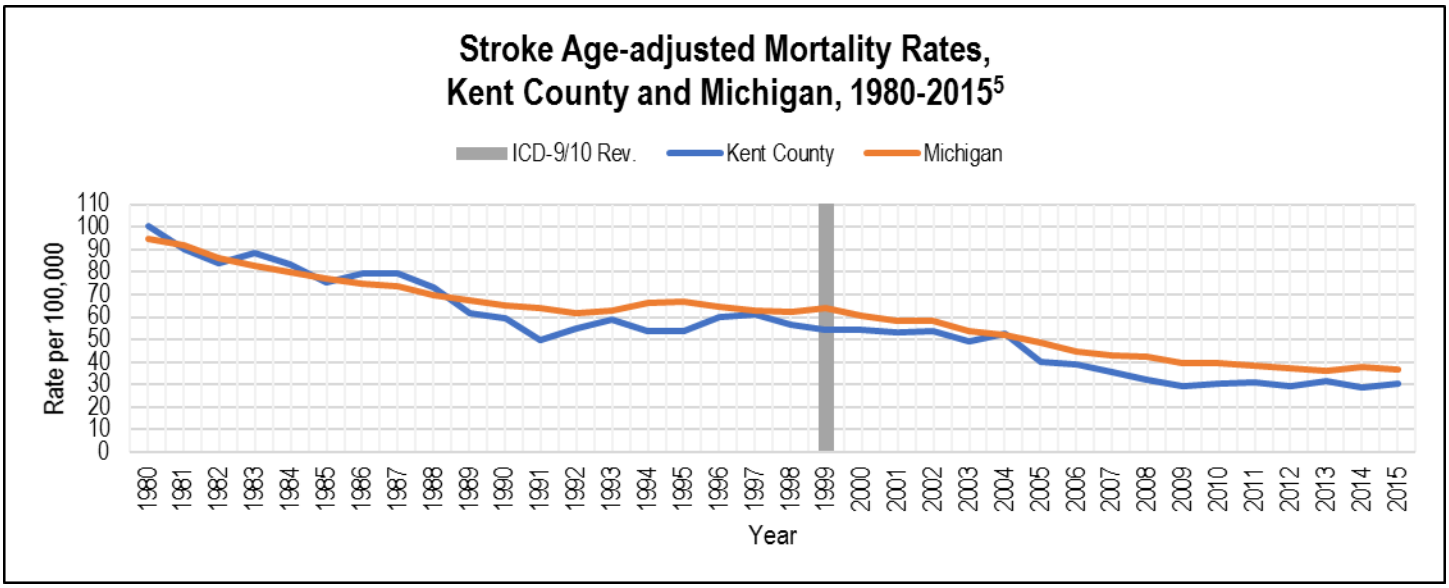
**Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2015 Nationwide BRFSS (States, DC and Territories).*

Table 2. Kent County Death, Illness, and Injury: Stroke-Related Mortality						
Indicator	**Status**	**Time Period**	**Measure**	**Kent County[5]**	**Michigan[5]**	**National Target[a]**
Total	👍	2013-2015	Rate per 100,000 population	30.3	37.0	**34.8**
Age						
Under 50 Years	👍	2013-2015	Rate per 100,000 population	1.5	2.2	**HDS-3: Reduce stroke deaths.**
50 – 74 Years	👍	2013-2015	Rate per 100,000 population	25.0	37.4	
75+ Years	👍	2013-2015	Rate per 100,000 population	444.3	495.3	
Gender						
Male	👍	2013-2015	Rate per 100,000 population	28.1	37.1	
Female	👍	2013-2015	Rate per 100,000 population	31.5	36.3	
Race						
White	👍	2013-2015	Rate per 100,000 population	29.2	35.3	
Black	👍	2013-2015	Rate per 100,000 population	45.9	49.7	

👍 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.

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



Note: ICD-9/10 Rev. denotes the transition to the International Classification of Diseases 10th Revision (ICD-10)

SUMMARY

The overall rate of stroke among Kent County adults age 35 or older is nearly 4%, which is higher than the rates reported for both the State of Michigan and the United States [Table 1]. The population subgroups most affected by stroke in Kent County include persons aged 65 years or older, African Americans, people with less than a high school education, and individuals with an annual household income of less than $35,000 [Table 1]. 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 [Table 2]. Females in Kent County had a slightly higher mortality rate for stroke when compared with males in 2015 [Table 2]. The mortality rate for stroke is 1.6 times greater for African Americans than for whites [Table 2]. The mortality rate associated with stroke has been decreasing over time in Kent County and Michigan [Figure].

REFERENCES

1. Stroke Fact Sheet, Centers for Disease Control and Prevention https://www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_stroke.htm.
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2015.
5. Michigan Department of Health and Human Services. (2017). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdhhs/0,5885,7-339-73970_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]	United States
Total	👍 ☺	2015	Rate per 100,000 population	149.2	164.9	158.5
Age						
Under 50 Years	👍	2015	Rate per 100,000 population	11.5	16.9	--
50 – 74 Years	👍	2015	Rate per 100,000 population	288.8	354.5	--
75+ Years	👍	2015	Rate per 100,000 population	1,278.5	1,297.3	--
Gender						
Male	👍 ☺	2015	Rate per 100,000 population	175.1	194.9	189.2
Female	👍 ☺	2015	Rate per 100,000 population	130.0	142.9	135.9
Race						
White	👍 ☺	2015	Rate per 100,000 population	149.0	162.1	159.4
Black	👍 ☺	2015	Rate per 100,000 population	131.0	189.3	180.1

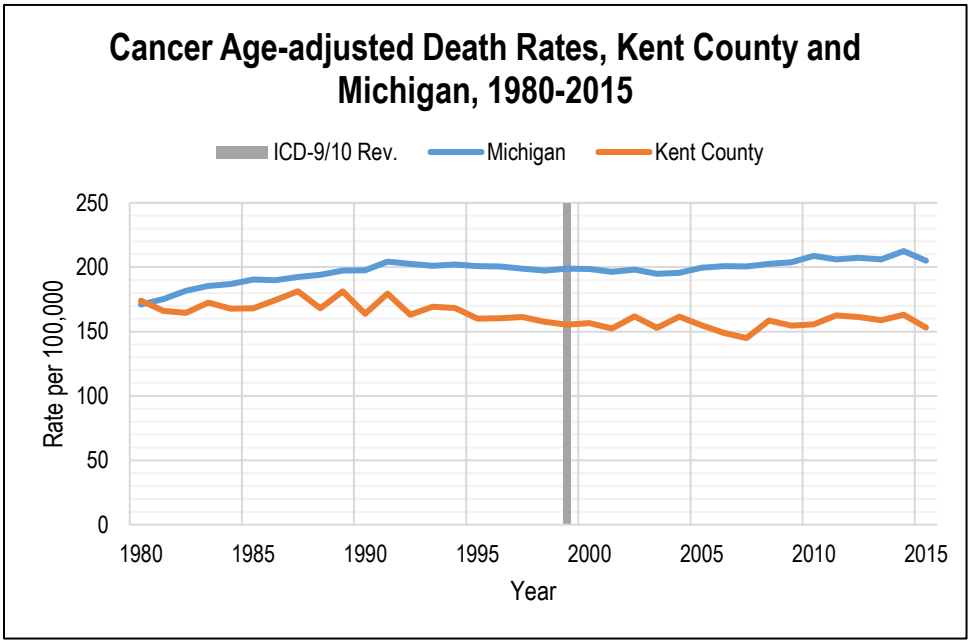
👍 When compared, for this health indicator, Kent County is better than the State of Michigan.

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

SUMMARY

In Kent County in 2015, the mortality rate due to cancer was lower than that of the State of Michigan [Table]. Persons aged 75 years or older have the highest cancer mortality rate in Kent County, and males have a slightly higher rate than females. Differing slightly from the state and national trends, whites have a higher rate of cancer mortality than African Americans in Kent County [Table].

The graph at the right shows age-adjusted cancer death rates since 1980 [Figure]. Kent County has consistently reported fewer cancer-related deaths than Michigan during this period.



REFERENCES

1. Healthy People 2020. (2014). *Cancer*. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/cancer.
2. Michigan Department of Health and Human Services. (2017). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdhhs/0,5885,7-339-73970_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[1]. 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[2]. 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[2]. Breast self-exams, clinical breast exams, and mammograms are the most effective and commonly used tests for detecting breast cancer early[3].

Table 1. Kent County Death, Illness, and Injury: Female Breast Cancer Incidence Rates[4]

Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👎 ☹	2010-2014	Rate per 100,000 population	134.9	122.2	123.6	**NA**
Race/Ethnicity							
White (Includes Hispanic)	👎 ☹	2010-2014	Rate per 100,000 population	137.6	120.5	124.6	**NA**
Black (Includes Hispanic)	👍 ☹	2010-2014	Rate per 100,000 population	123.3	126.4	122.9	
Hispanic (Any Race)	👎 ☺	2010-2014	Rate per 100,000 population	85.9	80.0	92.5	

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

Table 2. Kent County Death, Illness, and Injury: Female Breast Cancer Mortality Rates[4]

Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👍 ☹	2010-2014	Rate per 100,000 population	22.0	22.4	21.2	**20.7**
Race/Ethnicity							
White (Includes Hispanic)	👎 ☹	2010-2014	Rate per 100,000 population	21.9	17.1	14.4	**C-3: Reduce the female breast cancer death rate.**
White Non-Hispanic	👎 ☹	2010-2014	Rate per 100,000 population	22.2	21.4	20.6	
Black (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	25.0	30.8	29.2	

👍 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.
[a] Target is based on Healthy People 2020 Goal.

SUMMARY

From 2010-2014, the average rate of breast cancer in Kent County was higher than the State of Michigan and the United States [Table 1]. When stratified, white women in Kent County had a higher incidence rate than African American women, while Hispanic women experienced the lowest rate [Table 1]. African American women, however, had a higher mortality rate due to breast cancer than white women from 2010-2014 [Table 2].

REFERENCES

1. National Cancer Institute. (2017). *General information about breast cancer*. Retrieved from https://www.cancer.gov/types/breast/patient/breast-prevention-pdq#section/all.
2. American Cancer Society. (2017). *Lifestyle-related breast cancer risk factors.* Retrieved from https://www.cancer.org/cancer/breast-cancer/risk-and-prevention/lifestyle-related-breast-cancer-risk-factors.html.
3. American Cancer Society. (2017). *Can breast cancer be found early*? Retrieved from https://www.cancer.org/cancer/breast-cancer/screening-tests-and-early-detection/american-cancer-society-recommendations-for-the-early-detection-of-breast-cancer.html.
4. National Cancer Institute. (2017). *State Cancer Profiles*. Retrieved from https://www.statecancerprofiles.cancer.gov/index.html.

DEATH, ILLNESS, AND INJURY: KENT COUNTY CERVICAL CANCER

OVERVIEW: CERVICAL CANCER

Cervical cancer starts in the cells lining the cervix[1]. Though cervical cancer typically develops from precancerous cells, only some women who are diagnosed with pre-cancers of the cervix will 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.

Table 1. Kent County Death, Illness, and Injury: Cervical Cancer Incidence Rates[2]

Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	5.5	6.6	7.5	**7.3**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	5.5	6.3	7.3	**C-10: Reduce invasive uterine cervical cancer.**

Table 2. Kent County Death, Illness, and Injury: Cervical Cancer Mortality Rates[2]

Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	1.1	2.1	2.3	**2.2**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	1.1	1.9	2.1	**C-4: Reduce the death rate from cancer of the uterine cervix.**
White Non-Hispanic	--	2010-2014	Rate per 100,000 population	--	1.8	2.1	

👍 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.
[a] Target is based on Healthy People 2020 Goal.

SUMMARY

The average incidence and mortality rates of cervical cancer from 2010-2014 in Kent County were lower than the state and nation, and met the Healthy People 2020 target. The National Cancer Institute notes that the trend for incidence of cancer of the cervix in Kent County has been stable over the past several years.

REFERENCES

1. American Cancer Society. (2016). *What is cervical cancer?* Retrieved from https://www.cancer.org/cancer/cervical-cancer/about/what-is-cervical-cancer.html.
2. National Cancer Institute. (2017). *State Cancer Profiles*. Retrieved from https://www.statecancerprofiles.cancer.gov/index.html.

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 second leading cause of cancer-related deaths in the United States[1]. More than 90% of cases of colorectal cancer occur in persons 50 years of age or older[2]. Other risk factors include a family history of colorectal cancer, inflammatory bowel disease, and lifestyle factors such as a lack of physical activity, poor diet, overweight and obesity, alcohol consumption, and tobacco use[2].

Colorectal cancer screening saves lives[3]. 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 one-third of eligible adults in the United States have never been screened for colorectal cancer[3].

Table 1. Kent County Death, Illness, and Injury: Colorectal Cancer Incidence Rates[4]

Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	35.7	38.5	39.8	**NA**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	34.5	36.8	38.9	
Black (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	43.5	47.6	46.7	
Hispanic (Any Race)	👎 ☹	2010-2014	Rate per 100,000 population	42.2	32.7	35.0	
Gender							
Male	👍 ☺	2010-2014	Rate per 100,000 population	41.2	44.0	45.8	
Female	👍 ☺	2010-2014	Rate per 100,000 population	31.1	34.0	34.8	
Race/Ethnicity by Gender							**NA**
White (Includes Hispanic) - Male	👍 ☺	2010-2014	Rate per 100,000 population	39.8	42.0	44.7	
Black (Includes Hispanic) – Male	👍 ☺	2010-2014	Rate per 100,000 population	49.1	55.1	55.1	
Hispanic (Any Race) – Male	👎 ☹	2010-2014	Rate per 100,000 population	59.5	42.5	42.0	
White (Includes Hispanic) - Female	👍 ☺	2010-2014	Rate per 100,000 population	29.9	32.5	33.9	
Black (Includes Hispanic) – Female	👍 ☺	2010-2014	Rate per 100,000 population	40.1	42.3	40.9	
Hispanic (Any Race) – Female	👎 ☺	2010-2014	Rate per 100,000 population	27.0	24.4	29.4	

👍 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.

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

Table 2. Kent County Death, Illness, and Injury: Colorectal Cancer Mortality Rates[4]							
Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	12.4	14.8	14.8	**14.5**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	11.6	14.2	14.4	**C-5: Reduce the colorectal cancer death rate.**
White Non-Hispanic	👍 ☺	2010-2014	Rate per 100,000 population	11.6	14.2	14.6	
Black (Includes Hispanic)	👎 ☹	2010-2014	Rate per 100,000 population	21.6	20.4	20.0	
Gender							
Male	👍 ☺	2010-2014	Rate per 100,000 population	14.6	17.7	17.7	
Female	👍 ☺	2010-2014	Rate per 100,000 population	10.6	12.7	12.4	
Race/Ethnicity by Gender							
White (Includes Hispanic) - Male	👍 ☺	2010-2014	Rate per 100,000 population	13.4	16.9	17.2	
White Non-Hispanic – Male	👍 ☺	2010-2014	Rate per 100,000 population	13.3	16.9	17.3	
Black (Includes Hispanic) – Male	👎 ☹	2010-2014	Rate per 100,000 population	27.7	25.2	25.3	
White (Includes Hispanic) - Female	👍 ☺	2010-2014	Rate per 100,000 population	10.2	12.1	12.1	

👍 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 worse than the United States.
[a] Target is based on Healthy People 2020 Goal.

SUMMARY

From 2010-2014, the average incidence rate of colorectal cancer in Kent County was lower than the State of Michigan and the United States [Table 1]. African Americans and Hispanic/Latinos experienced higher incidence rates than whites in Kent County [Table 1]. Hispanic/Latino males had the highest incidence of colorectal cancer compared with males of other races/ethnicities and all females [Table 1].

The average colorectal cancer mortality rate in Kent County from 2010-2014 was lower than those reported for the State of Michigan and the United States, and Kent County achieved the Healthy People 2020 target [Table 2]. The highest mortality rates associated with colorectal cancer in Kent County was among African Americans, particularly African American males [Table 2].

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *Colorectal Cancer*. Retrieved from https://www.cdc.gov/cancer/colorectal/.
2. Centers for Disease Control and Prevention. (2017). *What are the risk factors for colorectal cancer?.* Retrieved from https://www.cdc.gov/cancer/colorectal/basic_info/risk_factors.htm.
3. U.S. Preventive Services Task Force. (2017). *Final Recommendation Statement, Colorectal Cancer: Screening.* Retrieved from https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/colorectal-cancer-screening2.
4. National Cancer Institute. (2017). *State Cancer Profiles*. Retrieved from https://www.statecancerprofiles.cancer.gov/index.html.

DEATH, ILLNESS, AND INJURY: KENT COUNTY LUNG CANCER

OVERVIEW: LUNG CANCER

Lung cancer is the second most common cancer in men and women (not counting skin cancer), and the leading cause of cancer death among men and women[1]. Each year, more people die of lung cancer than of colon, breast, and prostate cancers combined[1]. Most lung cancers are at an advanced stage when they are first found, which can be very hard to cure[1].

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[2]. 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[2].

Table 1. Kent County Death, Illness, and Injury: Lung Cancer Incidence Rates[3]

Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	57.4	66.7	61.2	**NA**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	55.6	65.5	62.0	
Black (Includes Hispanic)	👎	2010-2014	Rate per 100,000 population	86.0	76.6	86.0	
Hispanic (Any Race)	👍 ☺	2010-2014	Rate per 100,000 population	26.2	37.2	31.9	
Gender							
Male	👍 ☺	2010-2014	Rate per 100,000 population	67.5	77.2	72.6	
Female	👍 ☺	2010-2014	Rate per 100,000 population	49.7	58.8	52.6	
Race/Ethnicity by Gender							**NA**
White (Includes Hispanic) - Male	👍 ☺	2010-2014	Rate per 100,000 population	65.8	75.2	72.2	
Black (Includes Hispanic) – Male	👎 ☹	2010-2014	Rate per 100,000 population	105.0	96.5	85.7	
White (Includes Hispanic) - Female	👍 ☺	2010-2014	Rate per 100,000 population	47.7	58.3	54.2	
Black (Includes Hispanic) – Female	👎 ☹	2010-2014	Rate per 100,000 population	73.5	63.1	49.1	

👍 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.

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

Table 2. Kent County Death, Illness, and Injury: Lung Cancer Mortality Rates[3]							
Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	40.1	49.8	44.7	**45.5**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	38.7	49.4	45.5	**C-2: Reduce the lung cancer death rate.**
White Non-Hispanic	👍 ☺	2010-2014	Rate per 100,000 population	39.4	49.7	47.9	
Black (Includes Hispanic)	👎 ☹	2010-2014	Rate per 100,000 population	63.7	56.7	48.0	
Gender							
Male	👍 ☺	2010-2014	Rate per 100,000 population	48.2	60.8	55.9	
Female	👍 ☺	2010-2014	Rate per 100,000 population	33.8	41.5	36.3	
Race/Ethnicity by Gender							
White (Includes Hispanic) - Male	👍 ☺	2010-2014	Rate per 100,000 population	46.6	59.6	55.9	
White Non-Hispanic – Male	👍 ☺	2010-2014	Rate per 100,000 population	46.6	59.6	55.9	
Black (Includes Hispanic) – Male	👎 ☹	2010-2014	Rate per 100,000 population	77.8	76.6	68.0	
White (Includes Hispanic) - Female	👍 ☺	2010-2014	Rate per 100,000 population	32.5	41.6	37.5	
White Non-Hispanic – Female	👍 ☺	2010-2014	Rate per 100,000 population	33.0	42.0	39.9	
Black (Includes Hispanic) – Female	👎 ☹	2010-2014	Rate per 100,000 population	54.5	43.2	34.6	

👍 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.
☺ 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.
[a] Target is based on Healthy People 2020 Goal.

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 [Table 1]. It appears there is a racial/ethnic disparity in lung cancer incidence in Kent County, with African Americans disproportionately affected [Table 1]. A gender disparity in lung cancer incidence is also present in Kent County, with males being affected more frequently than females [Table 1].

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 [Table 2]. Despite this, racial/ethnic and gender disparities in lung cancer mortality exist in Kent County, with African Americans and males disproportionately affected [Table 2].

REFERENCES

1. American Cancer Society. (2017). *Lung Cancer*. Retrieved from https://www.cancer.org/cancer/lung-cancer.html.
2. Centers for Disease Control and Prevention. (2017). *Lung Cancer*. Retrieved from https://www.cdc.gov/cancer/lung/.
3. National Cancer Institute. (2017). *State Cancer Profiles*. Retrieved from https://www.statecancerprofiles.cancer.gov/index.html.

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[1]. Oropharyngeal cancer starts in the oropharynx, which is the part of the throat just behind the mouth. In 2017, nearly 50,000 people are estimated to develop oral cancer, and approximately 9,700 people will die of these cancers[1]. The incidence of oral cancer is twice as common in males than females, and equally as common in African Americans and whites[1].

Preventing high risk behaviors, including cigarette, cigar or pipe smoking, use of smokeless tobacco, and excessive use of alcohol, is critical in preventing oral cancers[2]. Early detection is key to increasing the survival rate for these cancers[2].

Table 1. Kent County Death, Illness, and Injury: Oral Cavity and Pharynx Cancer Incidence Rates[3]

Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	11.1	11.6	11.5	**NA**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	10.5	11.6	11.8	**NA**
Black (Includes Hispanic)	👎 ☹	2010-2014	Rate per 100,000 population	14.2	10.7	9.2	
Gender							
Male	👍 ☺	2010-2014	Rate per 100,000 population	16.8	17.3	17.3	
Female	👍	2010-2014	Rate per 100,000 population	6.4	6.6	6.4	
Race/Ethnicity by Gender							
White (Includes Hispanic) - Male	👍 ☺	2010-2014	Rate per 100,000 population	16.1	17.3	17.8	
Black (Includes Hispanic) – Male	👎 ☹	2010-2014	Rate per 100,000 population	21.6	16.4	14.5	
White (Includes Hispanic) - Female	👍 ☺	2010-2014	Rate per 100,000 population	5.8	6.5	6.5	

👍 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.

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

Table 2. Kent County Death, Illness, and Injury: Oral Cavity and Pharynx Cancer Mortality Rates[3]							
Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👎 ☹	2010-2014	Rate per 100,000 population	2.7	2.5	2.5	**2.3**
Race/Ethnicity							
White (Includes Hispanic)	👎 ☹	2010-2014	Rate per 100,000 population	2.6	2.5	2.4	**C-6: Reduce the oropharyngeal cancer death rate.**
White Non-Hispanic	👎 ☹	2010-2014	Rate per 100,000 population	2.6	2.5	2.5	
Gender							
Male	👎 ☹	2010-2014	Rate per 100,000 population	4.4	4.0	3.8	
Female	--	2010-2014	Rate per 100,000 population	1.3	1.3	1.3	
Race/Ethnicity by Gender							
White (Includes Hispanic) – Male	👎 ☹	2010-2014	Rate per 100,000 population	4.4	3.9	3.8	
White Non-Hispanic – Male	👎 ☹	2010-2014	Rate per 100,000 population	4.4	3.9	3.9	
White (Includes Hispanic) - Female	👍 ☺	2010-2014	Rate per 100,000 population	1.1	1.3	1.3	
White Non-Hispanic – Female	👍 ☺	2010-2014	Rate per 100,000 population	1.2	1.3	1.4	

👍 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.
[a] Target is based on Healthy People 2020 Goal.

SUMMARY

The average incidence rate of oropharyngeal cancer in Kent County for 2010-2014 was slightly lower than incidence in the State of Michigan and the United States [Table 1]. African American males in Kent County were disproportionately affected by oropharyngeal cancer when compared with other groups [Table 1].

The mortality rates for oropharyngeal cancer in Kent County for 2010-2014 were higher than the rates reported for the state and nation, and did not achieve the Healthy People 2020 Goal [Table 2]. The mortality rate for males with this type of cancer is more than three times greater than that of females [Table 2].

REFERENCES

1. American Cancer Society. (2017). *Detailed Guide: Oral Cavity and Oropharyngeal Cancer.* Retrieved from https://www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer.html.
2. Centers for Disease Control and Prevention. (2016). *Oral Cancer*. Retrieved from https://www.cdc.gov/oralhealth/conditions/index.html.
3. National Cancer Institute. (2017). *State Cancer Profiles*. Retrieved from https://www.statecancerprofiles.cancer.gov/index.html.

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/Latino men, and the fourth most common among Asian/Pacific Islander men[1]. About one in seven men 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[2]. 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.

Table 1. Kent County Death, Illness, and Injury: Prostate Cancer Incidence Rates[3]

Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👍 ☹	2010-2014	Rate per 100,000 population	126.0	126.3	114.8	**NA**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☹	2010-2014	Rate per 100,000 population	107.6	111.6	105.5	**NA**
Black (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	147.7	194.9	182.9	
Hispanic (Any Race)	👎 ☹	2010-2014	Rate per 100,000 population	110.4	89.8	96.8	

Table 2. Kent County Death, Illness, and Injury: Prostate Cancer Mortality Rates[3]

Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	17.0	19.5	20.1	**21.8**
Race/Ethnicity							
White (Includes Hispanic)	👍 ☺	2010-2014	Rate per 100,000 population	16.8	17.9	18.7	**C-7: Reduce the prostate cancer death rate.**
White Non-Hispanic	👍 ☺	2010-2014	Rate per 100,000 population	16.9	18.0	18.7	
Black (Includes Hispanic)	--	2010-2014	Rate per 100,000 population	--	37.6	42.0	

👍 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.

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

SUMMARY

The average prostate cancer incidence rates for 2010-2014 in Kent County were lower than incidence rates for the State of Michigan and the United States [Table 1]. African American males experiences the highest incidence rate of prostate cancer in Kent County, following the same trend for the state and nation [Table 1]. Kent County also had a lower average mortality rate for prostate cancer than the state and nation, and met the Healthy People 2020 target [Table 2]. According to state and national data, similar disparities exist with mortality as with incidence, with African American males experiencing the highest mortality rates [Table 2].

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *Prostate Cancer*. Retrieved from https://www.cdc.gov/cancer/prostate/.
2. American Cancer Society (2017). *Detailed Guide: Prostate Cancer*. Retrieved from https://www.cancer.org/cancer/prostate-cancer.html.
3. National Cancer Institute. (2017). *State Cancer Profiles*. Retrieved from https://www.statecancerprofiles.cancer.gov/index.html.

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[1]. 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 a much larger proportion of melanomas in African Americans than in whites[1].

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[2]. The most preventable cause of skin cancer is exposure to ultraviolet (UV) light, either from the sun or from artificial sources like tanning beds[3].

Table 1. Kent County Death, Illness, and Injury: Melanoma Skin Cancer Incidence Rates[4]

Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👎 ☹	2010-2014	Rate per 100,000 population	23.0	18.6	20.7	**NA**
Race/Ethnicity							
White (Includes Hispanic)	👎 ☹	2010-2014	Rate per 100,000 population	23.6	20.1	23.4	**NA**
Gender							
Male	👎 ☹	2010-2014	Rate per 100,000 population	28.2	22.7	26.6	
Female	👎 ☹	2010-2014	Rate per 100,000 population	19.3	15.8	16.4	
Race/Ethnicity by Gender							
White (Includes Hispanic) - Male	👎 ☺	2010-2014	Rate per 100,000 population	29.3	24.3	29.7	
White (Includes Hispanic) - Female	👎 ☹	2010-2014	Rate per 100,000 population	19.4	17.2	18.9	

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

Table 2. Kent County Death, Illness, and Injury: Melanoma Skin Cancer Mortality Rates[4]							
Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
All Races (Includes Hispanic)	👎 ☹	2010-2014	Rate per 100,000 population	3.0	2.5	2.7	**2.4**
Race/Ethnicity							
White (Includes Hispanic)	👎 ☹	2010-2014	Rate per 100,000 population	3.3	2.8	3.1	**C-8: Reduce the melanoma cancer death rate.**
White Non-Hispanic	👎 ☹	2010-2014	Rate per 100,000 population	3.4	2.8	3.3	
Gender							
Male	👎 ☹	2010-2014	Rate per 100,000 population	4.8	3.6	4.0	
Female	👍 ☺	2010-2014	Rate per 100,000 population	1.5	1.6	1.7	
Race/Ethnicity by Gender							
White (Includes Hispanic) - Male	👎 ☹	2010-2014	Rate per 100,000 population	5.2	4.1	4.6	
White Non-Hispanic – Male	👎 ☹	2010-2014	Rate per 100,000 population	5.5	4.2	4.9	
White (Includes Hispanic) - Female	👍 ☺	2010-2014	Rate per 100,000 population	1.7	1.8	1.9	
White Non-Hispanic – Female	☺	2010-2014	Rate per 100,000 population	1.8	1.8	2.1	

👍 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.
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☹ When compared, for this health indicator, Kent County is worse than the United States.
[a] Target is based on Healthy People 2020 Goal.

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 [Table 1]. Both male and female incidence rates for Kent County are higher than those reported at the state and national level [Table 1]. Males have a higher rate of melanoma skin cancer than females [Table 1]. Kent County's overall mortality rate for skin cancer is also higher than the mortality rates for the State of Michigan and the United States [Table 2]. Kent County has yet to achieve the Healthy People 2020 mortality rate target of 2.4 deaths per 100,000 population [Table 2].

REFERENCES

1. National Cancer Institute. (2017). *What is Melanoma Skin Cancer?*. Retrieved from https://www.cancer.org/cancer/melanoma-skin-cancer/about/what-is-melanoma.html.
2. American Cancer Society. (2017). *Skin Cancer*. Retrieved from https://www.cancer.org/cancer/skin-cancer.html.
3. Centers for Disease Control and Prevention. (2014). *Skin Cancer*. Retrieved from https://www.cdc.gov/cancer/skin/.
4. National Cancer Institute. (2017). *State Cancer Profiles*. Retrieved from https://www.statecancerprofiles.cancer.gov/index.html.

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 one of the leading causes 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.

Table 1. 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[2]	Michigan[3]	United States[4]	National Target[a]
Total	👍 ☺	2017	Percent	4.8%	8.9%	6.2%	**NA**

Table 2. Kent County Death, Illness, and Injury: Chronic Lower Respiratory Disease Mortality[5]

Indicator	Status	Time Period	Measure	Kent County	Michigan	National Target[a]
Total	👍	2015	Rate per 100,000 population	33.2	46.7	**102.6**
Age						
Under 50 Years	👎	2015	Rate per 100,000 population	1.8	1.6	**RD-10: Reduce deaths from chronic obstructive pulmonary disease (COPD) among adults.**
50 – 74 Years	👍	2015	Rate per 100,000 population	41.5	71.0	
75+ Years	👍	2015	Rate per 100,000 population	408.9	528.4	
Gender						
Male	👍	2015	Rate per 100,000 population	37.9	51.5	
Female	👍	2015	Rate per 100,000 population	30.2	43.6	
Race						
White	👍	2015	Rate per 100,000 population	33.9	48.0	
Black	--	2015	Rate per 100,000 population	--	36.3	

👍 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.
☺ 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.
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target 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 and national levels [Table 1]. Kent County's death rate for chronic lower respiratory disease is lower than the rate for the State of Michigan [Table 2]. The population subgroups with the highest mortality rates for this condition in Kent County include persons aged 75 years or older and males [Table 2].

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *What is COPD?* Retrieved from https://www.cdc.gov/copd/index.html.
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2015.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2015.
5. Michigan Department of Health and Human Services. (2017). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdhhs/0,5885,7-339-73970_2944_4669_4686---,00.html.

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 That Still Have Asthma

Indicator	Status		Time Period	Measure	Kent County[2]		Michigan[3]		United States[4]		National Target[a]	
	Ever Told	Have Now			Ever Told	Have Now	Ever Told	Have Now	Ever Told	Have Now	Ever Told	Have Now
Total	👍 ☺	👍 ☺	2017	Percent	12.2%	7.4%	16.3%	10.9%	13.8%	8.8%	NA	NA
Age												
18 – 24 Years	👍 ☺	👍 ☺	2017	Percent	13.4%	2.5%	24.0%	13.4%	18.9%	10.3%	NA	
25 – 34 Years	👍	👍	2017	Percent	12.7%	7.7%	17.4%	10.5%	--	--		
35 – 44 Years	👍	👍	2017	Percent	12.7%	8.9%	17.0%	11.7%	--	--		
45 – 54 Years	👍	👍	2017	Percent	8.6%	5.6%	15.1%	11.2%	--	--		
55 – 64 Years	👎	👎	2017	Percent	15.5%	11.6%	15.0%	11.5%	--	--		
65+ Years	👎 ☹	👎 ☹	2017	Percent	12.6%	8.8%	12.2%	8.5%	11.9%	8.3%		
Gender												
Male	👍 ☺	👍 ☺	2017	Percent	11.2%	4.4%	14.6%	8.3%	11.7%	6.2%		
Female	👍 ☺	👍 ☺	2017	Percent	13.1%	10.2%	17.9%	13.4%	15.9%	11.3%		
Race/Ethnicity												
White	👍 ☺	👍 ☺	2017	Percent	12.0%	7.6%	15.9%	10.7%	14.0%	9.0%		
Black	👍 ☺	👍 ☺	2017	Percent	11.6%	8.1%	20.9%	14.4%	16.0%	10.7%		
Hispanic/Latino	👍 ☺	👍 ☺	2017	Percent	11.0%	5.9%	12.2%	6.7%	11.9%	7.3%		
Non-Hispanic	--	--	2017	Percent	12.4%	7.7%	--	--	--	--		
Education												
Less Than High School	👍 ☺	👍 ☺	2017	Percent	10.0%	6.9%	24.9%	18.8%	14.6%	10.5%		
High School Diploma	👍 ☺	👍 ☺	2017	Percent	11.1%	6.3%	16.0%	10.6%	13.7%	8.9%		
Some College	👍 ☺	👍 ☺	2017	Percent	14.2%	7.4%	15.8%	10.6%	15.0%	9.4%		
College Graduate	👍 ☺	👍 ☹	2017	Percent	11.8%	8.1%	13.4%	8.3%	12.2%	7.3%		
Household Income												
Less Than $15,000	👍 ☺	👍 ☺	2017	Percent	16.2%	13.2%	28.1%	20.7%	19.2%	14.0%		
$15,000 to $24,999	👍 ☺	👍 ☺	2017	Percent	11.9%	10.3%	19.8%	14.2%	15.5%	10.7%		
$25,000 to $34,999	👎 ☹	👍 ☺	2017	Percent	18.5%	8.3%	16.3%	11.8%	13.1%	8.4%		
$35,000 to $49,999	👍 ☺	👍 ☺	2017	Percent	11.4%	7.2%	15.0%	9.9%	12.9%	8.2%		
$50,000 Or More	👍 ☺	👍 ☺	2017	Percent	10.0%	5.8%	12.6%	7.5%	12.3%	7.3%		

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

**Note: The 2017 comparative data is based on 2016 BRFS of Michigan Residents and 2015 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 and lifetime asthma rates are highest among individuals 55-64 years of age, females, and persons with a household income of less than $35,000 [Table]. Though asthma does not cause high rates of mortality in Kent County, it does lead to many hospitalizations. In 2014, asthma was responsible for 509 hospitalizations for Kent County residents, which equates to a rate of 8.1 hospitalizations per 10,000 population[5].

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 https://www.cdc.gov/asthma/impacts_nation/asthmafactsheet.pdf.
2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2015.
5. Michigan Department of Health and Human Services. (2017). *Twenty Leading Diagnoses for Hospitalizations, Kent County Residents, Michigan 2014*. Retrieved from https://www.mdch.state.mi.us/pha/osr/CHI/HOSPDX/frame.asp.

OVERVIEW: UNINTENTIONAL INJURIES

Deaths from unintentional injuries include deaths due to motor vehicle crashes and other events such as falls, discharge of firearms, drowning and submersion, smoke exposure, fire and flames, poisoning and exposure to noxious substances, other and unspecified injuries and their late effects[1].

Kent County Death, Illness, and Injuries: Unintentional Injury-Related Mortality[1]							
Indicator	Status	Year	Measure	Kent County	Michigan	United States	National Target[a]
Total	👎 ☹	2015	Rate per 100,000	51.5	43.9	43.2	**36.4**
Age							
Under 25 Years	👍 ☹	2015	Rate per 100,000	16.0	16.3	15.2	**IVP-11: Reduce unintentional injury deaths.**
25 – 74 Years	👍 ☹	2015	Rate per 100,000	46.5	47.6	46.4	
75+ Years	👎 ☹	2015	Rate per 100,000	307.0	170.9	176.5	
Gender							
Male	👎 ☹	2015	Rate per 100,000	70.3	59.7	58.7	
Female	👎 ☹	2015	Rate per 100,000	35.2	29.3	28.7	
Race							
White	👎 ☹	2015	Rate per 100,000	51.4	44.6	46.0	
Black	👎 ☹	2015	Rate per 100,000	62.1	44.4	36.8	
Death Rate by Type of Injury							
Fall	👎 ☹	2015	Rate per 100,000	17.9	7.8	9.0	**7.2**
Poisoning	👍 ☹	2015	Rate per 100,000	16.7	17.5	14.8	**13.2**
Transport Fatal Injuries	👎 ☺	2015	Rate per 100,000	9.8	8.9	12.0	**NA**
Suffocation	👎 ☹	2015	Rate per 100,000	3.0	2.7	2.0	**1.8**
Drowning	--	2015	Rate per 100,000	--	0.8	1.1	**1.1**
Burn, Fire/Flame	--	2015	Rate per 100,000	--	0.7	0.8	**0.9**

👍 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.
☺ 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.

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

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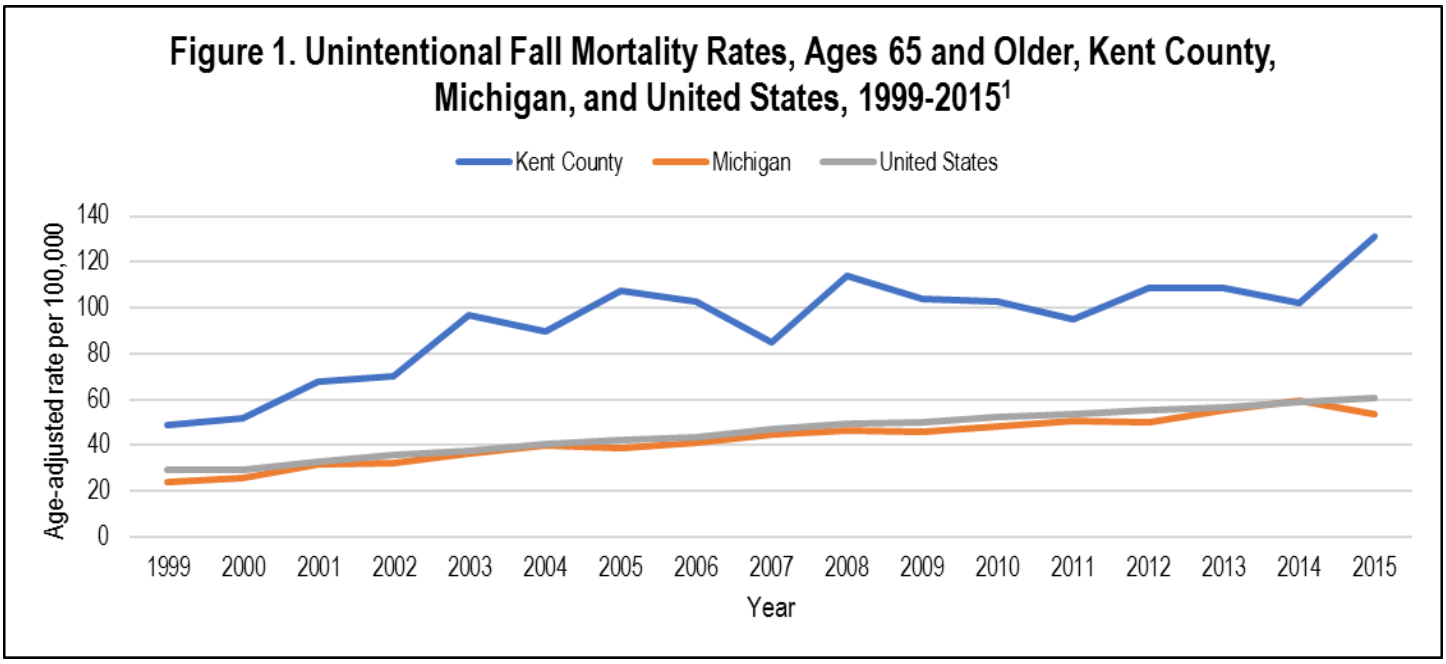

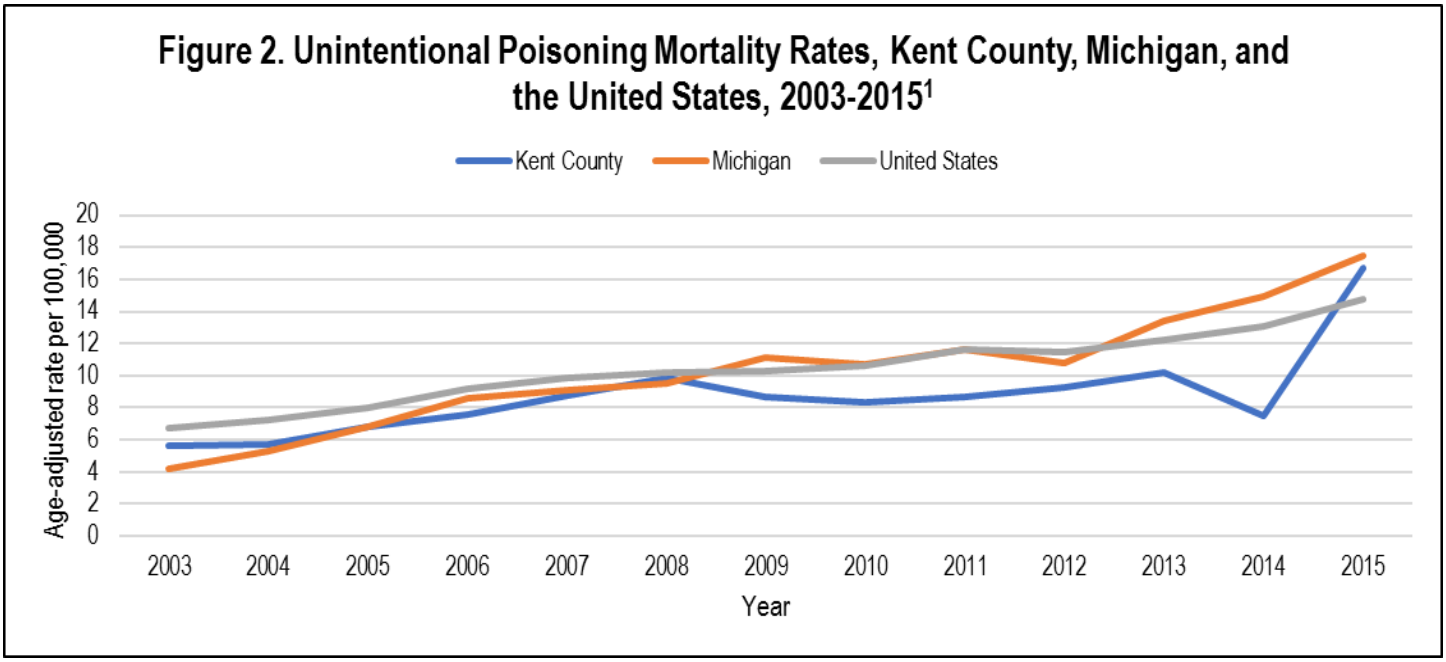

SUMMARY

In 2015, the overall death rate for unintentional injuries in Kent County was 51.5 per 100,000, which was higher than the state and national rates [Table]. The unintentional injury-related mortality rate for males in Kent County is nearly double that of females. In Kent County, the types of unintentional injuries that led to the highest mortality rates include falls, poisonings, and transport-related injuries [Table]. The mortality rate for unintentional falls is particularly high in Kent County compared to the state and nation [Table and Figure 1]. Among Kent County adults 65 years and older, the rate has increased by 2.7 times since 1999 [Figure 1]. Unintentional poisoning rates in Kent County have more than tripled since 2003 [Figure 2].

REFERENCES

1. Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2015 on CDC WONDER Online Database, released December 2016. Data are from the Multiple Cause of Death Files, 1999-2015, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Retrieved from http://wonder.cdc.gov/ucd-icd10.html.

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 Target[a]
Total	👎 ☹	2014	Rate per 100,000	11.0	10.4	10.3	**12.4**
By Type of Crash							
Motor Vehicle Traffic - Occupant	👍 ☺	2014	Rate per 100,000	1.3	2.2	2.5	**IVP-13.1: Reduce motor vehicle crash-related deaths per 100,000 population.**
Motor Vehicle Traffic - Motorcyclist	👎 ☹	2014	Rate per 100,000	1.4	1.2	1.3	
Motor Vehicle Traffic - Bicyclist	--	2014	Rate per 100,000	--	0.2	0.2	
Motor Vehicle Traffic - Pedestrian	☺	2014	Rate per 100,000	1.4	1.4	1.6	
Motor Vehicle Traffic - Unspecified	👎 ☹	2014	Rate per 100,000	5.9	4.7	4.9	
Other Transports - Bicyclist	--	2014	Rate per 100,000	--	0.1	0.1	
Other Transports - Pedestrian	--	2014	Rate per 100,000	--	0.2	0.3	

👍 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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☹ When compared, for this health indicator, Kent County is worse than the United States.
[a] Target is based on Healthy People 2020 Goal.

SUMMARY

In 2014, the mortality rate for motor vehicle-related crashes in Kent County was 11.0 per 100,000, which was higher than the rates for the State of Michigan and the United States. Kent County did meet the Healthy People 2020 target for this indicator. Looking at types of motor vehicle fatalities specifically, Kent County had higher mortality rates for motorcyclists and unspecified motor vehicle than the state and nation.

REFERENCES

1. Michigan Department of Health and Human Services. (2017). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdhhs/0,5885,7-339-73970_2944_4669_4686---,00.html.
2. Centers for Disease Control and Prevention. (2017). *WISQARS, Fatal Injury Data*. National Center for Injury Prevention and Control. Retrieved from https://www.cdc.gov/injury/wisqars/fatal.html.

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 Target[a]
Total	👍 ☹	2015	Rate per 100,000	37.4	38.0	26.6	**NA**
Age							
65 – 74 Years	--	2015	Rate per 100,000	--	21.9	17.9	**NA**
75 – 84 Years	👍 ☹	2015	Rate per 100,000	189.4	197.8	175.4	
85+ Years	👎 ☹	2015	Rate per 100,000	989.4	965.1	936.1	
Gender							
Male	👍 ☹	2015	Rate per 100,000	18.9	19.2	16.6	
Female	👍 ☺	2015	Rate per 100,000	33.6	42.4	36.4	
Race							
White	👍 ☺	2015	Rate per 100,000	29.1	35.7	30.9	
Black	--	2015	Rate per 100,000	--	12.6	12.6	

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

SUMMARY

In 2015, the mortality rate for Alzheimer's disease in Kent County was 37.4 per 100,000, which was lower than the State of Michigan, but higher than the national average. Women had 1.7 times the mortality rate in Kent County than men. The highest mortality rates occurred in populations 75 years and older. Though comparison data was unavailable for African Americans in Kent County, there does appear to be a racial disparity in Alzheimer's-related mortality, with the mortality rate more than twice as high among whites in the state and nation.

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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[1]. Without a properly functioning insulin signaling system, blood glucose levels become elevated, leading to other metabolic abnormalities. Over 30 million adults in the United States have diabetes[1]. About 5% of people with diabetes have type 1, which is caused by an autoimmune reaction that stops the body from making insulin. Type 1 is usually diagnosed in children and young adults. Most people with diabetes have type 2, which occurs when the body is unable to use insulin well and keep blood sugar at normal levels. Type 2 diabetes can be prevented with a healthy diet, maintaining a normal weight, and regular physical activity[1].

Table 1. 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[2]	Michigan[3]	United States[4]	National Target[a]
Total	👍 ☺	2017	Percent	10.0%	11.2%	10.5%	**NA**
Age							
18 – 24 Years	--	2017	Percent	2.4%	--	0.8%	**D-1: Reduce the annual number of new cases of diagnosed diabetes in the population. (Developmental)**
25 – 34 Years	👎	2017	Percent	1.8%	1.7%	--	
35 – 44 Years	--	2017	Percent	6.4%	6.4%	--	
45 – 54 Years	👎	2017	Percent	12.5%	12.2%	--	
55 – 64 Years	👍	2017	Percent	16.2%	16.8%	--	
65+ Years	👍 ☺	2017	Percent	21.5%	22.2%	22.9%	
Gender							
Male	👍	2017	Percent	10.9%	12.1%	10.9%	
Female	👍 ☺	2017	Percent	9.0%	10.3%	10.1%	
Race/Ethnicity							
White	👍 ☺	2017	Percent	8.5%	11.0%	9.8%	
Black	👎 ☹	2017	Percent	20.9%	12.8%	14.3%	
Hispanic/Latino	👎 ☹	2017	Percent	11.9%	9.7%	10.7%	
Non-Hispanic	--	2017	Percent	9.7%	--	--	
Education							
Less Than High School	👎 ☹	2017	Percent	16.9%	15.8%	16.6%	
High School Diploma	👍 ☹	2017	Percent	11.9%	12.5%	11.4%	
Some College	👎 ☹	2017	Percent	12.4%	11.3%	9.9%	
College Graduate	👍 ☺	2017	Percent	6.0%	7.4%	6.9%	
Household Income							
Less Than $15,000	👎 ☹	2017	Percent	17.9%	15.2%	16.4%	
$15,000 to $24,999	👎 ☹	2017	Percent	18.3%	13.8%	14.4%	
$25,000 to $34,999	👍 ☺	2017	Percent	11.9%	13.6%	12.0%	
$35,000 to $49,999	👍 ☹	2017	Percent	11.4%	11.8%	10.3%	
$50,000 Or More	👍 ☺	2017	Percent	5.3%	8.3%	7.5%	

👍 When compared, for this health indicator, Kent County is better than the State of Michigan.
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[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not applicable.

Table 2. Kent County Death, Illness, and Injury: Diabetes Mortality							
Indicator	**Status**	**Time Period**	**Measure**	**Kent County[5]**	**Michigan[5]**	**United States[5]**	**National Target[a]**
Total	👍 ☺	2016	Rate per 100,000	11.2	26.9	24.8	**NA**
Age							
Under 50 Years	--	2016	Rate per 100,000	--	2.3	2.5	**D-2.1: Reduce the rate of all-cause mortality among persons with diabetes. (Developmental)**
50 – 74 Years	👍 ☺	2016	Rate per 100,000	20.8	41.8	41.6	
75+ Years	👍 ☺	2016	Rate per 100,000	99.9	187.4	176.8	
Gender							
Male	👍 ☺	2016	Rate per 100,000	14.2	29.7	27.5	
Female	👍 ☺	2016	Rate per 100,000	9.5	24.2	22.1	
Race							
White	👍 ☺	2016	Rate per 100,000	11.5	26.8	24.5	
Black	--	2016	Rate per 100,000	--	32.7	31.5	
Hispanic/Latino	--	2016	Rate per 100,000	--	14.2	14.9	

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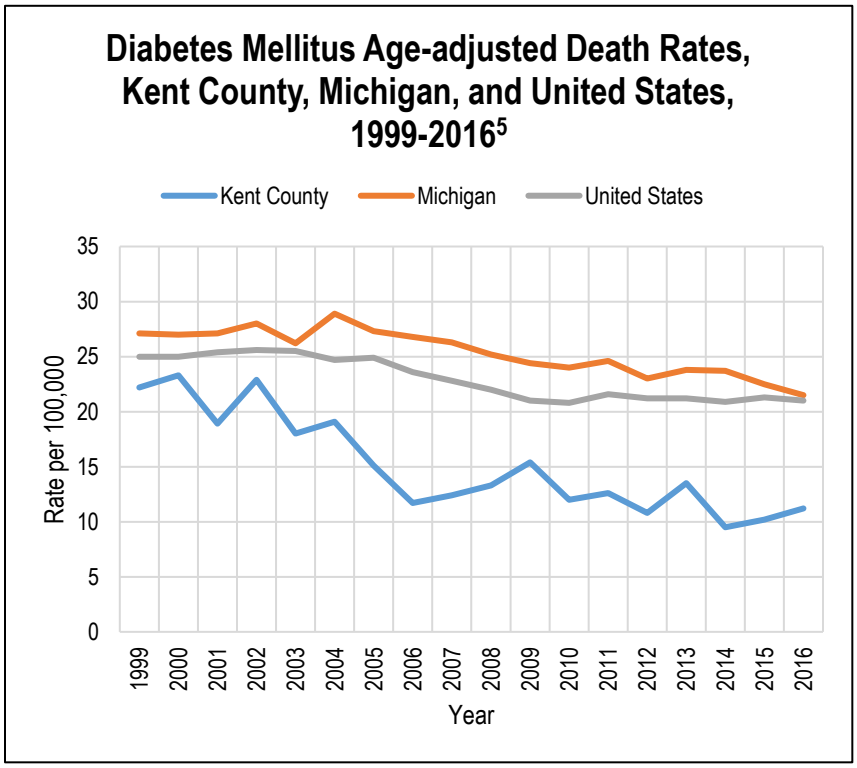
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.

SUMMARY

Nearly one in ten Kent County adults have ever been told by a doctor that they have diabetes, which is lower than reported for the state and nation [Table 1]. The population subgroups most likely to have been told they have diabetes were residents aged 65 years or older, African Americans, and persons with a household income less than $25,000 [Table 1].

The diabetes-associated mortality rate in Kent County has historically been lower than Michigan and the United States, and has been decreasing over time [Figure]. In 2016, Kent County's rate was less than half the statewide rate [Table 2]. Males in Kent County are more likely than females to die from diabetes [Table 2]. There was insufficient data to make racial comparisons at the county level, but state and national data indicate that African Americans have a higher mortality rate associated with diabetes mellitus than whites, and Hispanic/Latinos have a lower rate [Table 2].



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2. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2015.
5. Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December 2017. Data are from the Multiple Cause of Death Files, 1999-2016, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Retrieved from http://wonder.cdc.gov/ucd-icd10.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[1]. Kidney disease is responsible for high healthcare costs, as well as premature death among Americans.

Table 1. 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[2]	Michigan[3]	United States[4]	National Target[a]
Total	👍 ☹	2017	Percent	2.8%	3.7%	2.7%	**13.6%** **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.
[a] Target is based on Healthy People 2020 Goal.

Table 2. Kent County Death, Illness, and Injury: Kidney Disease Mortality[5]

Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
Total	👍 ☺	2016	Rate per 100,000	8.7	14.1	12.9	**NA**
Age							
Under 50 Years	--	2016	Rate per 100,000	--	1.0	0.9	**NA**
50 – 74 Years	--	2016	Rate per 100,000	--	17.4	18.0	
75+ Years	👍 ☺	2016	Rate per 100,000	108.4	174.6	148.9	
Gender							
Male	👍 ☺	2016	Rate per 100,000	9.2	17.5	15.7	
Female	👍 ☺	2016	Rate per 100,000	9.5	18.1	14.8	
Race							
White	👍 ☺	2016	Rate per 100,000	8.3	17.3	15.2	
Black	--	2016	Rate per 100,000	--	23.2	20.2	
Hispanic	--	2016	Rate per 100,000		8.7	6.5	

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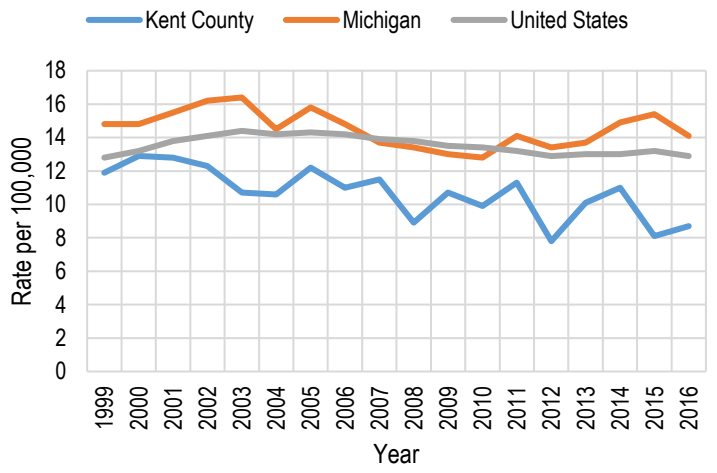
[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.

SUMMARY

Kidney disease is less prevalent in Kent County (2.8%) than the State of Michigan (3.7%), but slightly more prevalent than in the United States (2.7%) [Table 1]. Kent County has met the Healthy People 2020 Target for kidney disease (13.6%).

Kidney disease-related mortality in Kent County has historically been lower than the State of Michigan and United States [Figure]. While the rates in Michigan and the United States have remained relatively stable over time, the rate in Kent County has decreased since 1999 [Figure]. Using state and national data as a reference, the age group most likely to die of kidney disease are individuals 75 years and older [Table 2]. African Americans have a higher kidney disease-associated mortality rate than whites and Hispanics [Table 2].



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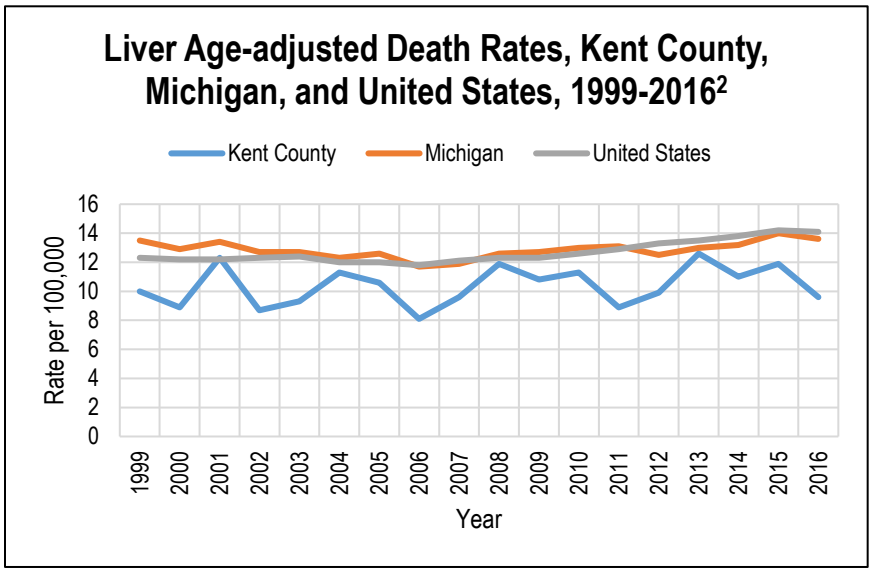
3. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
4. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2015.
5. Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December 2017. Data are from the Multiple Cause of Death Files, 1999-2016, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Retrieved from http://wonder.cdc.gov/ucd-icd10.html.

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[1].

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.



Kent County Death, Illness, and Injury: Chronic Liver Disease Mortality[2]							
Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
Total	👍 ☺	2016	Rate per 100,000	9.6	13.6	14.1	**NA**
Gender							
Male	👍 ☺	2016	Rate per 100,000	12.6	20.4	20.4	**NA**
Female	👍 ☺	2016	Rate per 100,000	8.3	13.2	12.6	
Race							
White	👍 ☺	2016	Rate per 100,000	11.1	17.8	18.4	
Black	--	2016	Rate per 100,000	--	13.0	9.7	
Hispanic	--	2016	Rate per 100,000	--	13.6	13.2	

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

SUMMARY

The mortality rate associated with liver disease in Kent County in 2016 was 9.6 deaths per 100,000, which was lower than the State of Michigan and United States [Table]. Kent County has historically had a lower mortality rate associated with liver disease than the state and nation, and the trend has remained stable over time [Figure]. Males are more likely to die of liver disease than females, and whites have a higher mortality rate than African Americans and Hispanic/Latinos [Table].

REFERENCES

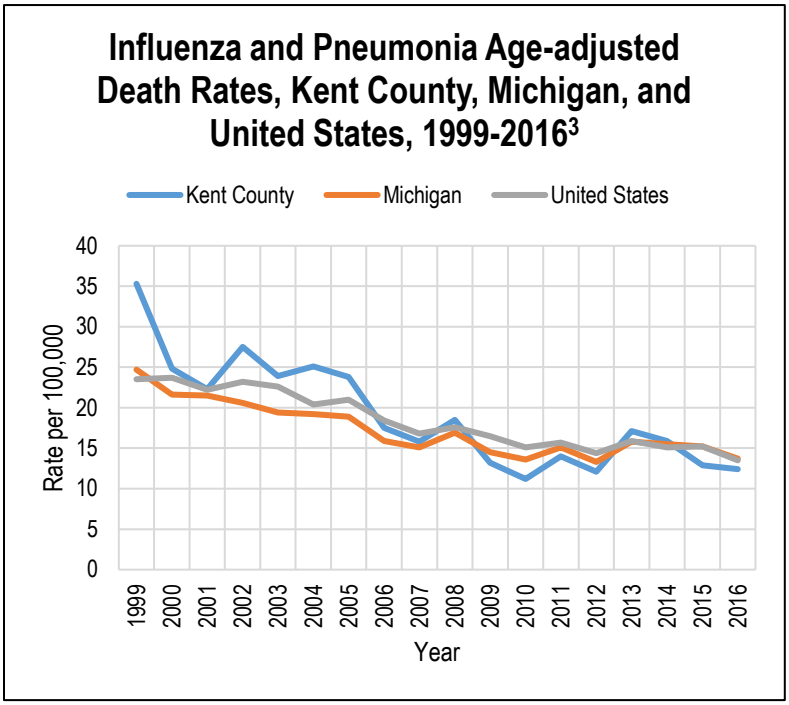
1. University of Maryland Medical Center. (2016). *Liver disease*. Retrieved from http://www.umm.edu/health/medical/ency/articles/liver-disease.
2. Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December 2017. Data are from the Multiple Cause of Death Files, 1999-2016, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Retrieved from http://wonder.cdc.gov/ucd-icd10.html.

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 can recover from pneumonia in one to three weeks, but for those at highest-risk, pneumonia can be life threatening[1].

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[2]. Types A and B are most frequently included in the seasonal influenza vaccine that is produced each year. Pneumonia and influenza can be prevented through vaccination and through frequent hand-washing.



Kent County Death, Illness, and Injury: Pneumonia/Influenza-Related Mortality[3]							
Indicator	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
Total	👍 ☺	2016	Rate per 100,000	12.4	13.7	13.5	**NA**
Age							
Under 50 Years	--	2016	Rate per 100,000	--	1.8	1.3	
50 – 74 Years	--	2016	Rate per 100,000	--	15.8	15.8	
75+ Years	👎 ☹	2016	Rate per 100,000	182.6	161.3	166.4	
Gender							
Male	👍 ☺	2016	Rate per 100,000	10.7	16.4	15.9	
Female	👍 ☹	2016	Rate per 100,000	16.3	17.3	11.8	
Race							
White	👍 ☺	2016	Rate per 100,000	14.8	17.7	17.2	
Black	--	2016	Rate per 100,000	--	14.9	12.3	
Hispanic	--	2016	Rate per 100,000	--	6.5	6.3	

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

SUMMARY

In 2016, the mortality rate for pneumonia and influenza in Kent County was 12.4 per 100,000, which was lower than the rates reported for the State of Michigan and United States [Table]. The elderly (75+ years old) and males were more likely than other groups to die from pneumonia and influenza. 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 were relatively equal.

The provided chart shows a slight decrease in pneumonia and influenza-related deaths among Kent County residents over the past decade [Figure].

REFERENCES

1. American Lung Association (2017). *Pneumonia*. Retrieved from http://www.lung.org/lung-health-and-diseases/lung-disease-lookup/pneumonia/.
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COMMUNICABLE DISEASE

KENT COUNTY
2017 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 situations pose the risk for potential outbreaks of disease.

Table 1. Vaccine Key[1]

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)

There are series of vaccines that are proposed for children, teens, and adults. Tables 1 and 2 included on this page explain which vaccines are included in each series, and who is recommended to receive that particular series. The remaining tables include data describing vaccination coverage for Kent County, Michigan, and the United States.

Table 2. Vaccine Series Overview[2]

Series	Description
4313314	4 or more doses of DTap/DTP/DT, 3 or more doses of Polio, 1 or more dose of MMR, 3 or more doses of Hib, 3 or more doses of Hep B, 1 or more dose of Varicella, 4 or more doses of PCV
43133142	4 or more doses of DTap/DTP/DT, 3 or more doses of Polio, 1 or more dose of MMR, 3 or more doses of Hib, 3 or more doses of Hep B, 1 or more dose of Varicella, 4 or more doses of PCV, 2 or more doses of Hep A
132321	1 or more doses of Tdap, 3 or more doses of Polio, 2 or more doses of MMR, 3 or more doses of HepB, 2 or more doses of varicella vaccine, 1 or more dose of MenACWY
1323213	1 or more doses of Tdap, 3 or more doses of Polio, 2 or more doses of MMR, 3 or more doses of HepB, 2 or more doses of varicella vaccine, 1 or more dose of MenACWY, HPV complete (with 2 or 3 more doses (Males & Females))
2+ HepA	2 or more doses of Hepatitis A vaccine
4+ DTaP	4 or more doses of DTaP/DTP/DT
4+ PCV	4 or more doses of pneumococcal conjugate vaccine
1+ Tdap	1 or more doses of Tdap vaccine
1+ MenACWY	1 or more doses of meningococcal conjugate vaccine

Table 3. Kent County Communicable Disease: Childhood Vaccine Series Rates[3]

	Status	Time Period*	Measure	Kent County	Michigan	United States	National Target[a]
19-35 Months of Age							
Birth Dose Hepatitis B	👍 ☺	2017	Percent	85.4%	79.5%	71.1%	**85%**
Vaccine series 4313314	👍 ☺	2017	Percent	82.6%	75.0%	70.7%	**80%**
Vaccine series 43133142	👍	2017	Percent	66.8%	55.9%	--	**NA**
2+ Hep A	👍 ☺	2017	Percent	68.0%	57.6%	60.6%	**85%**
4+ DTaP	👍 ☺	2017	Percent	84.8%	78.3%	83.4%	**90%**
4+ PCV	👍 ☺	2017	Percent	89.5%	84.4%	81.8%	**90%**
Rota Complete (8-24 months)	👍	2017	Percent	80.1%	71.3%	--	**NA**
WIC coverage (4313314)	👍 ☺	2017	Percent	85.8%	77.4%	67.7%	**NA**
Medicaid coverage (4313314)	👍	2017	Percent	83.5%	75.2%	--	**NA**

Table 3. Kent County Communicable Disease: Childhood Vaccine Series Rates[3]							
	Status	Time Period*	Measure	Kent County	Michigan	United States	National Target[a]
13-17 Years of Age							
Vaccine series 132321	👍	2017	Percent	81.3%	76.3%	--	**NA**
Vaccine series 1323213	👍	2017	Percent	48.8%	37.7%	--	**NA**
1+ Tdap	👍 ☹	2017	Percent	85.0%	79.9%	88.0%	**80%****
1+ MenACWY	👍 ☺	2017	Percent	84.9%	80.0%	82.2%	**80%****
HPV Complete (Females)	👍 ☺	2017	Percent	53.2%	41.4%	49.5%	**80%****
HPV Complete (Males)	👍 ☺	2017	Percent	46.2%	36.0%	37.5%	**NA**
MenACWY Complete (17 years)	👍	2017	Percent	57.5%	46.6%	--	**NA**

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[a] Target is based on Healthy People 2020 Goal, which can be found at https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives.
* Time period is 2017 Q2 for Kent County and Michigan data; 2016 average for United States data
**The adolescent Healthy People 2020 age group is 13 through 15 years

Table 4. Kent County Communicable Disease: Childhood Influenza Vaccination Rates[3]							
	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
6 months – 8 years old†	👍	2016-2017	Percent	40.8%	28.8%	--	**70% IID-12.11: Increase the percentage of children aged 6 months through 17 years who are vaccinated annually against seasonal influenza**
6 months – 17 years old‡	👍 ☹	2016-2017	Percent	38.3%	27.4%	59.3%	

† Measuring Flu Complete = no additional doses of this vaccine are needed
‡ Measuring one or more doses of influenza

Table 5. Kent County Communicable Disease: Adult Vaccination Rates Proportion Of Respondents Age 18 Years And Older Who Have Had A Flu Shot (FLU) In The Past 12 Months And Adults 65 Years And Older Who Have Ever Had A Pneumonia (PNA) Shot												
Indicator	Status		Time Period	Measure	Kent County[4]		Michigan[5]		United States[6]		National Target[a]	
	FLU	PNA			FLU	PNA	FLU	PNA	FLU	PNA	FLU	PNA
Total	👍 ☺	👍 ☺	2017	Percent	41.5%	76.6%	36.4%	71.8%	38.4%	72.0%	**70.0%**	**90.0%**
Age											**IID-12.12: Increase the percentage of adults aged 18 and older who are vaccinated annually against seasonal influenza**	
18 – 64 Years	--	--	2017	Percent	38.0%	--	--	--	--	--		
65+ Years	👍 ☺	👍 ☺	2017	Percent	58.9%	76.6%	56.1%	71.8%	58.6%	72.0%		
Gender												
Male	👎 ☹	👍 ☺	2017	Percent	36.1%	73.4%	43.4%	69.3%	44.3%	69.7%		
Female	👎 ☹	👍 ☺	2017	Percent	46.7%	79.2%	56.6%	73.8%	55.7%	73.7%		
Race												
White	👍 ☺	👍 ☺	2017	Percent	44.9%	77.6%	38.6%	74.5%	41.4%	75.3%		
Black	👍 ☹	👍 ☺	2017	Percent	31.5%	68.8%	27.0%	53.5%	32.6%	61.9%		
Hispanic/Latino	👎 ☹	--	2017	Percent	27.2%	--	33.6%	--	30.2%	53.6%		
Non-Hispanic	--	--	2017	Percent	43.2%	76.4%	--	--	--	--		

Table 5. Kent County Communicable Disease: Adult Vaccination Rates Proportion Of Respondents Age 18 Years And Older Who Have Had A Flu Shot (FLU) In The Past 12 Months And Adults 65 Years And Older Who Have Ever Had A Pneumonia (PNA) Shot												
Indicator	Status		Time Period	Measure	Kent County[4]		Michigan[5]		United States[6]		National Target[a]	
	FLU	PNA			FLU	PNA	FLU	PNA	FLU	PNA	FLU	PNA
Education											IID-13.1: Increase the percentage of non-institutionalized adults aged 65 years and older who are vaccinated against pneumococcal disease	
Less Than High School	👎 ☹	--	2017	Percent	31.0%	--	35.2%	73.2%	34.1%	64.6%		
High School Diploma	👍 ☺	👍 ☺	2017	Percent	34.5%	74.6%	33.6%	71.8%	34.2%	72.2%		
Some College	👍 ☺	👍 ☺	2017	Percent	38.8%	75.0%	33.9%	70.4%	37.2%	73.5%		
College Graduate	👍 ☺	👍 ☺	2017	Percent	49.2%	79.0%	43.8%	73.1%	46.2%	74.5%		
Household Income												
Less Than $15,000	👍 ☺	--	2017	Percent	43.5%	--	31.7%	63.9%	34.1%	64.1%		
$15,000 to $24,999	👎 ☹	👎 ☹	2017	Percent	28.6%	57.1%	34.0%	76.0%	34.6%	70.2%		
$25,000 to $34,999	👍 ☺	👍 ☺	2017	Percent	45.0%	81.0%	32.5%	67.6%	36.6%	73.6%		
$35,000 to $49,999	👎 ☹	👎 ☹	2017	Percent	36.1%	70.0%	36.2%	73.8%	37.0%	72.7%		
$50,000 Or More	👍 ☺	👍 ☺	2017	Percent	43.1%	81.4%	38.8%	71.3%	41.4%	74.8%		

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👎 When compared, for this health indicator, Kent County is worse than the State of Michigan.
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[a] Target is based on Healthy People 2020 Goal.

SUMMARY

For the third quarter of 2017, Kent County's vaccination coverage was generally higher than the State of Michigan and the United States [Table 3]. The only measure for which Kent County had a lower coverage rate than the nation was 1+ Tdap [Table 3]. Kent County achieved the relevant Healthy People 2020 goals for birth dose hepatitis B, vaccine series 4313314, 1+ Tdap, and 1+ MenACWY. Kent County had higher rates of childhood influenza vaccination than the state, but lower than the nation for children aged 6 months to 8 years [Table 4]. Kent County is ranked fourth out of all Michigan counties for influenza vaccination coverage of children 6 months to 17 years, but is far from achieving the Healthy People 2020 target of 70%.

Concerning adult vaccination rates, Kent County had higher rate of adults 18 years and older who have received a flu shot in the past 12 months and a higher rate of persons aged 65 and older who have ever had a pneumonia vaccine when compared with the state and nation [Table 5]. However, Kent County did not meet the Healthy People 2020 targets for either measure [Table 5]. Influenza vaccination is more common among individuals 65 years and older, females, white and non-Hispanics, and college graduates [Table 5]. Similarly, pneumonia vaccination is more common among these same subpopulation groups [Table 5].

REFERENCES

1. Centers for Disease Control and Prevention. (2016). *Vaccine acronyms and abbreviations*. Retrieved from https://www.cdc.gov/vaccines/terms/vacc-abbrev.html.
2. Michigan Department of Health and Human Services. (2017). *County Quarterly Immunization Report Card: Definitions, Data Sources and FAQs.* Retrieved from http://www.michigan.gov/documents/mdch/Report_Card_Defs_447511_7.pdf.
3. Michigan Department of Health and Human Services. (2017). *County Quarterly Immunization Report Card*. Retrieved from http://www.michigan.gov/documents/mdch/Kent_447463_7.pdf.
4. Kent County Behavioral Risk Factor Surveillance System (Kent County BRFSS), 2017.
5. Michigan Behavioral Risk Factor Surveillance System (MI BRFSS), 2016.
6. National Behavioral Risk Factor Surveillance System (USA BRFSS), 2016.

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[1]. 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. In 2016, the rate of chlamydia in Kent County was 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 like 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[2]	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[3]	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[4]	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[5]	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[6]	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[7]	Michigan[7]	United States[8]	National Target[a]
Chlamydia	👎 ☹	2016	Rate per 100,000 population	588.0	495.0	497.3	**NA**
Gonorrhea	👍 ☺	2016	Rate per 100,000 population	128.0	129.0	145.8	**NA**
Syphilis - Primary	👎	2016	Rate per 100,000 population	2.3	1.4	--	**NA**
Syphilis - Secondary	👍	2016	Rate per 100,000 population	1.8	2.4	--	**NA**
Early Latent Syphilis	👎 ☺	2016	Rate per 100,000 population	3.8	3.0	9.0	**NA**
Late Latent Syphilis	👎 ☺	2016	Rate per 100,000 population	5.8	4.3	9.5	**NA**
Congenital Syphilis	👎 ☺	2016	Rate per 100,000 population	0.2	0.1	15.7	**9.6[a]**

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☹ When compared, for this health indicator, Kent County is worse than the United States.
[a] Target is based on Healthy People 2020 target.
NA -- National Target was not identified.

REFERENCES

1. Medline Plus. (2017). *Sexually transmitted diseases*. Retrieved from http://www.nlm.nih.gov/medlineplus/sexuallytransmitteddiseases.html.
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3. Medline Plus. (2017). *Gonorrhea*. Retrieved from http://www.nlm.nih.gov/medlineplus/gonorrhea.html.
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5. Medline Plus. (2017). *HPV*. Retrieved from http://www.nlm.nih.gov/medlineplus/hpv.html.
6. Medline Plus. (2017). *Syphilis*. Retrieved from http://www.nlm.nih.gov/medlineplus/syphilis.html.
7. Michigan Department of Health and Human Services. (2017). *Michigan disease surveillance system (MDSS)*. Retrieved from http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_31274---,00.html.
8. Centers for Disease Control and Prevention. (2017). *2016 sexually transmitted diseases surveillance*. Retrieved from https://www.cdc.gov/std/stats16/toc.htm.

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 and 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[1].

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[1].

Kent County Communicable Disease: HIV/AIDS[2]							
	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
HIV Diagnoses	👍 ☺	2015	Rate per 100,000 population	8.0	8.7	14.8	**NA**
HIV Diagnoses	--	2015	Total Number	42	726	39,741	**32,855 HIV-1: Reduce the number of new HIV diagnoses.**
Persons Living with Diagnosed HIV	👍 ☺	2015	Rate per 100,000 population	174.5	174.6	362.3	**NA**
Persons Living with Diagnosed HIV	--	2015	Total Number	911	14,615	971,524	**NA**
AIDS Diagnoses	--	2015	Rate per 100,000 population	--	4.2	6.9	**NA**
AIDS Diagnoses	--	2015	Total Number	--	352	18,440	**NA**
Persons Living with Diagnosed AIDS	--	2015	Rate per 100,000 population	--	91.7	194.7	**NA**
Persons Living with Diagnosed AIDS	--	2015	Total Number	--	7,678	522,007	**NA**

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

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 2015, the United States reported almost 40,000 new cases of HIV while the national target set through Healthy People 2020 is 32,855 new cases.

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *About HIV/AIDS*. Retrieved from https://www.cdc.gov/hiv/basics/whatishiv.html.
2. Centers for Disease Control and Prevention. (2017). *Atlas Plus: Explore CDC's HIV, Hepatitis, STD, TB Data*. Retrieved from https://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html.

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[1].

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 become 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[1].

Kent County Communicable Disease: Tuberculosis[2]							
	Status	Time Period	Measure	Kent County	Michigan	United States	National Target[a]
Active TB	👎 ☺	2016	Rate per 100,000 population	2.5	1.3	2.9	**1.0 IID-29: Reduce tuberculosis.**

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

SUMMARY

Kent County's rate of TB disease is 2.5 cases per 100,000 population, which fails to achieve the Healthy People 2020 target for this indicator. Kent County has more active TB cases per 100,000 population than the State of Michigan (1.3/100,000), but fewer than the United States (2.9/100,000).

REFERENCES

1. Centers for Disease Control and Prevention. (2016). *Basic TB facts*. Retrieved from https://www.cdc.gov/tb/topic/basics/default.htm.
2. Centers for Disease Control and Prevention. (2017). *Atlas Plus: Explore CDC's HIV, Hepatitis, STD, TB Data*. Retrieved from https://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html.

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 because of bacterial, viral, or even fungal infections. Injuries, cancers, and certain drugs have also been identified as possible, yet less common, causes of meningitis[1].

Meningococcal disease can refer to any illness that is caused by a bacterium known as *Neisseria meningitides*[2]. 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.

	Description[3]	Signs/Symptoms[3]	Causes[3]
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						
	Time Period	Measure	Kent County[3]	Michigan[3]	United States[4]	National Target[a]
Meningococcal Disease	2016	Total number of cases	1	6	372	**1,094 IID-3: Reduce meningococcal disease.**
Meningitis – Bacterial, Other	2016	Total number of cases	20	133	--	**NA**
Meningitis - Aseptic	2016	Total number of cases	99	513	--	**NA**

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

SUMMARY

In 2016, Kent County reported one case of meningococcal disease, 20 cases of bacterial meningitis, and 99 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[5]. At the national level, the United States reported 372 cases, achieving the Healthy People 2020 objective of 1,094 or fewer cases.

REFERENCES

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2. Centers for Disease Control and Prevention. (2017). *Meningococcal disease*. Retrieved from https://www.cdc.gov/meningococcal/.
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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[1]. 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[1]	Signs/Symptoms[1]	Transmission[1]
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.	Most 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[2]	Michigan[2]	United States[3]	National Target[a]
Hepatitis A	👍 ☺	2015-2016	Rate per 100,000 population	0.0	1.1	0.4	**0.3**
Hepatitis B, Acute	👍 ☺	2015-2016	Rate per 100,000 population	0.2	0.5	1.0	**NA**
Hepatitis B, Chronic	👎	2015-2016	Rate per 100,000 population	13.0	4.7	--	**NA**
Hepatitis C, Acute	👍 ☺	2015-2016	Rate per 100,000 population	0.0	1.1	0.8	**0.3**
Hepatitis C, Chronic	👍	2015-2016	Rate per 100,000 population	44.0	48.0	--	**NA**

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

SUMMARY

In 2015-2016, Kent County reported zero cases of hepatitis A and acute hepatitis C, both of which indicate achievement of the national targets set through Healthy People 2020. Chronic hepatitis B infection appears to be the biggest concern in Kent County, with the rate for this infection (13.0 per 100,000) being nearly three times higher than the rate reported for the State of Michigan (4.7 per 100,000). Chronic hepatitis C infection rates in Kent County are similar to infection rates across the state.

REFERENCES

1. Centers for Disease Control and Prevention. (2017). *Viral hepatitis*. Retrieved from http://www.cdc.gov/hepatitis/.
2. Michigan Department of Health and Human Services. (2017). *Michigan disease surveillance system (MDSS)*. Retrieved from http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_31274---,00.html.
3. Centers for Disease Control and Prevention. (2017). *Atlas Plus: Explore CDC's HIV, Hepatitis, STD, TB Data*. Retrieved from https://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html.

SENTINEL EVENTS

KENT COUNTY
2017 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[1]. 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.

Kent County Sentinel Events: Vaccine-Preventable Diseases						
Indicator	Time Period*	Measure	Kent County[1]	Michigan[2]	United States[3]	National Target[a]
Chickenpox (Varicella)	2016	Total number of cases	23	274	9,789	**100,000 IID-1.10: Reduce cases of varicella among persons aged 17 years of age or younger.**
Diphtheria	2016	Total number of cases	0	0	0	**NA**
H. influenza (Hib) Disease	2016	Total number of cases	13	184	4,138	**NA**
Measles	2016	Total number of cases	0	1	150	**30 IID-1.4: Reduce measles cases.**
Mumps	2016	Total number of cases	3	3	1,329	**500 IID-1.5: Reduce cases of mumps.**
Pertussis	2016	Total number of cases	23	302	20,762	**NA**
Polio	2016	Total number of cases	0	0	0	**0 IID-1.8: Maintain elimination of acute paralytic poliomyelitis.**
Rubella	2016	Total number of cases	0	0	5	**10 IID-1.9: Maintain elimination of rubella.**
Shingles	2016	Total number of cases	41	845	--	**NA**
Tetanus	2016	Total number of cases	0	1	29	**NA**

[a] Target is based on Healthy People 2020 Goal.
NA -- National Target was not identified.
*United States data are from 2015

SUMMARY

In 2016, the most prevalent vaccine-preventable diseases in Kent County were shingles (41 cases), pertussis (23 cases), varicella (23 cases), and *Haemophilius influenza*, otherwise known as Hib, (13 cases). The three cases of mumps reported within the State of Michigan in 2016 were all diagnosed among persons who live in Kent County. At the national level, the United States has successfully achieved two of the five Healthy People 2020 objectives featured in this section of the report. These objectives reference the number of cases of polio and rubella.

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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[1]. 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[2]. Invasive, or late stage, breast cancer is much harder to treat and often leads to a poorer prognosis.

Kent County Sentinel Events: Invasive or Late-Stage Breast Cancer Diagnosis[3]						
Indicator	**Status**	**Time Period**	**Measure**	**Kent County**	**Michigan**	**National Target[a]**
Incidence Rates						
Total - Invasive	👎	2009-2013	Rate per 100,000 population	140.3	123.0	**NA**
Total - Late Stage*	👍	2009-2013	Rate per 100,000 population	48.8	50.2	**42.2 C-11: Reduce late-stage female breast cancer**
Age Group Incidence Rates for Invasive Breast Cancer						
Under 50 Years	👎	2011-2013	Rate per 100,000 population	45.3	44.2	**NA**
50 - 74 Years	👎	2011-2013	Rate per 100,000 population	363.9	312.1	
75+ Years	👎	2011-2013	Rate per 100,000 population	447.9	400.8	
Mortality Rate for Invasive Breast Cancer						
Total	👍	2010-2014	Rate per 100,000 population	22.1	22.3	**20.7 C-3: Reduce the female breast cancer death rate**

👍 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.
[a] Target is based on Healthy People 2020 target.
NA -- National Target was not identified.
*Late stage includes the number of diagnosed incident cases of breast cancer (ICD-O-3 codes C50.1-C50.9) in regional or distant stages.

SUMMARY

The incidence rate for late-stage breast cancer in Kent County is 140.3 cases per 100,000 population, which is higher than the rate reported for the State of Michigan (123.0 per 100,000). The incidence rate for invasive breast cancer increases with advanced age, with the highest rates among women aged 75 years and older. Despite the higher incidence rates in Kent County, the mortality rate for late-stage breast cancer in is slightly lower than that reported for the state.

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1. American Cancer Society. (2017). *What are the key statistics about breast cancer?* Retrieved from https://www.cancer.org/cancer/breast-cancer/about/how-common-is-breast-cancer.html.
2. Breast Cancer.org. (2017). *Stages of breast cancer*. Retrieved from http://www.breastcancer.org/symptoms/diagnosis/staging.
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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[1]. 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[2]. The later the stage of diagnosis, the harder it is to treat prostate cancer and the poorer the prognosis becomes.

Kent County Sentinel Events: Invasive or Late Stage Prostate Cancer Diagnosis[3]						
Indicator	**Status**	**Time Period**	**Measure**	**Kent County**	**Michigan**	**National Target[a]**
Incidence Rates for Late-Stage Prostate Cancer						
Total - Invasive	👎	2009-2013	Rate per 100,000 population	141.6	137.0	**NA**
Total - Late Stage*	👎	2009-2013	Rate per 100,000 population	26.6	25.9	**NA**
Age Group Incidence Rates for Invasive Prostate Cancer						
Under 50 Years	👍	2011-2013	Rate per 100,000 population	6.2	6.9	**NA**
50 - 74 Years	👎	2011-2013	Rate per 100,000 population	425.7	411.3	
75+ Years	👍	2011-2013	Rate per 100,000 population	458.9	502.5	
Mortality Rate for Invasive Prostate Cancer						
Total	👍	2010-2014	Rate per 100,000 population	17.1	19.5	**21.8 C-7: Reduce the prostate cancer death rate**

SUMMARY

The incidence rate for late-stage prostate cancer in Kent County is 141.6 cases per 100,000 population, which is slightly higher than the rate reported for the State of Michigan (137.0 per 100,000). As age increases, so does the incidence of late-stage prostate cancer among Kent County and Michigan residents, with the highest rates recorded among males aged 75 years and older. Despite the elevated incidence rates, Kent County's mortality rate for late-stage prostate cancer is lower than that reported for the state.

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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: Colorectal Cancer Diagnosis[3]						
Indicator	**Status**	**Time Period**	**Measure**	**Kent County**	**Michigan**	**National Target[a]**
Incidence Rates for Invasive Colorectal Cancer						
Total	👍	2009-2013	Rate per 100,000 population	38.7	41.2	**39.9 C-9: Reduce invasive colorectal cancer**
Age						
Under 50 Years	👍	2011-2013	Rate per 100,000 population	6.6	7.4	**NA**
50 - 74 Years	👍	2011-2013	Rate per 100,000 population	80.5	87.6	
75+ Years	👎	2011-2013	Rate per 100,000 population	262.3	251.2	
Gender						
Male	👎	2011-2013	Rate per 100,000 population	45.2	44.7	**NA**
Female	👍	2011-2013	Rate per 100,000 population	34.0	35.6	
Mortality Rate						
Total	👍	2010-2014	Rate per 100,000 population	12.6	15.1	**14.5 C-5: Reduce the colorectal cancer death rate**

SUMMARY

The incidence rate for late-stage colorectal cancer in Kent County is 38.7 cases per 100,000 population, which is lower than the rate reported for the State of Michigan (41.2 per 100,000). Males residing in Kent County have a higher incidence rate than females, and have a slightly higher rate than the state. Kent County's mortality rate for late-stage colorectal cancer diagnosis (12.6 per 100,000) is lower than the state rate (15.1 per 100,000). Kent County has achieved the Healthy People 2020 targets for reducing invasive colorectal cancer and for reducing the colorectal cancer death rate.

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1. American Cancer Society. (2017). *About colorectal cancer.* Retrieved from https://www.cancer.org/cancer/colon-rectal-cancer/about.html.
2. National Cancer Institute. (2017). *Colon cancer treatment: Stages of colon cancer*. Retrieved from https://www.cancer.gov/types/colorectal/patient/colon-treatment-pdq#link/_112.
3. Michigan Department of Health and Human Services. (2017). *Michigan mortality*. Retrieved from http://www.michigan.gov/mdhhs/0,5885,7-339-73970_2944_4669_4686---,00.html.

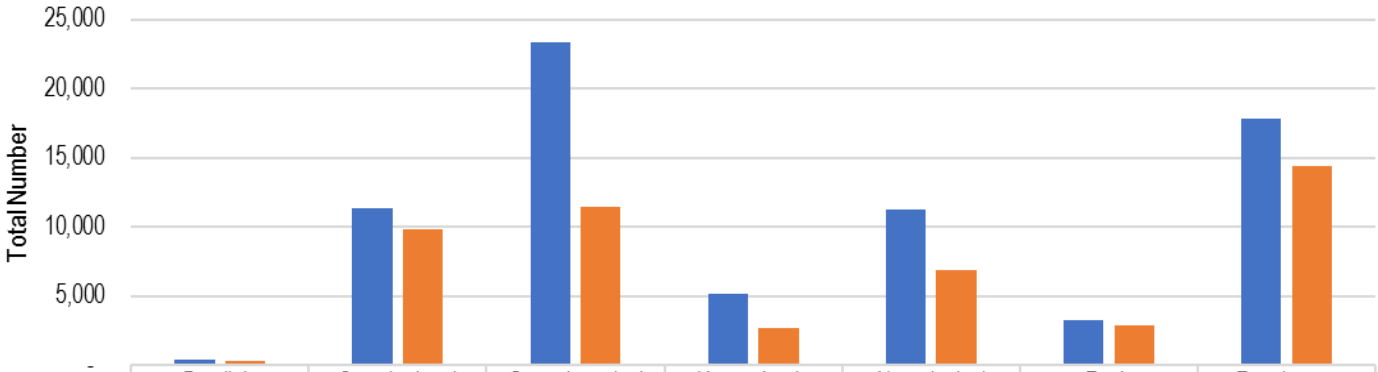
OVERVIEW: EMERGENCY DEPARTMENT UTILIZATION

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[1]. 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 following bar charts describe data collected through MDSS for Kent County in 2016 for unusual outbreaks of illness.

These diagnoses are typically grouped into seven common MSSS categories, including: botulinic, constitutional, gastrointestinal, hemorrhagic, neurological, rash, or respiratory, as described in the table below.

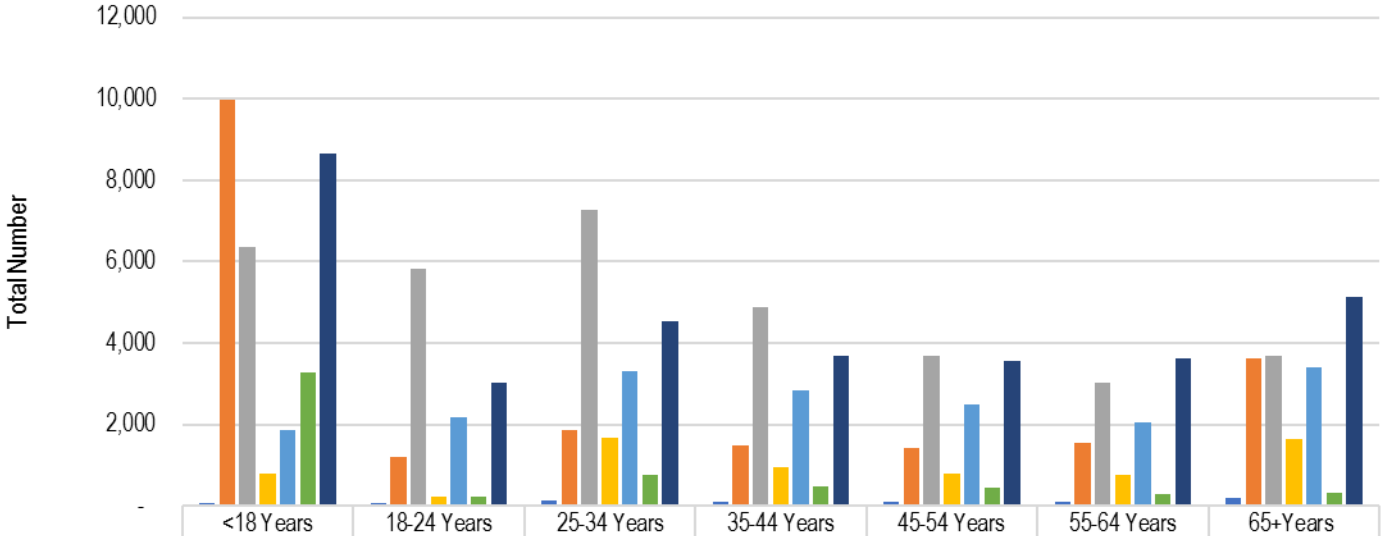
Description Key of MSSS Categories[2]	
Category Name	**Common Diagnoses/Conditions**
Botulinic	Ocular abnormalities (diplopia, blurred vision, photophobia), difficulty speaking (dysphonia, dysarthria, slurred speech), and difficulty swallowing (dysphagia).
Constitutional	Non-localized, systemic problems 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.

Figure 1. Total Number of Emergency Department-Reported Syndromic Cases by Type and Gender of Patient, Kent County, 2016[1]



	Botulinic	Constitutional	Gastrointestinal	Hemorrhagic	Neurological	Rash	Respiratory
Female	420	11,322	23,321	5,145	11,247	3,267	17,852
Male	307	9,822	11,431	2,709	6,881	2,878	14,367

Figure 2. Total Number of Emergency Department-Reported Syndromic Cases by Type and Age of Patient, Kent County, 2016[1]



	<18 Years	18-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65+Years
Botulinic	62	63	123	93	98	98	195
Constitutional	9,968	1,219	1,864	1,483	1,432	1,564	3,631
Gastrointestinal	6,366	5,817	7,281	4,883	3,690	3,022	3,691
Hemorrhagic	785	235	1,676	948	787	754	1,659
Neurological	1,862	2,174	3,300	2,854	2,492	2,049	3,405
Rash	3,281	229	755	471	435	300	317
Respiratory	8,652	3,025	4,543	3,677	3,567	3,616	5,145

SUMMARY

Figures 1 and 2 describe the emergency department utilization in Kent County related to syndromic conditions. In 2016, the most common diagnoses reported through MSSS were within the gastrointestinal and respiratory categories of disease, while the fewest number of cases were in the botulinic, rash, and hemorrhagic categories. Across all categories, females constituted more emergency department cases than males [Figure 1]. For females, the most cases occurred in the gastrointestinal category, while for males, the most cases occurred in the respiratory category [Figure 1]. Children under 18 years of age appear to be affected most often by constitutional and respiratory conditions [Figure 2]. This age group had the most constitutional illness reports when compared with all other age groups [Figure 2]. Individuals 65 years and older had more emergency department cases than other age groups for the botulinic and neurologic categories [Figure 2].

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Organizations Participating in and/or Supporting the 2017 CHNA Data Advisory Committee	
• Baxter Community Center	• Heart of West Michigan United Way
• Calvin College	• KConnect
• Catherine's Health Center/North End Wellness Coalition	• Kent County Health Department
• Cherry Health	• Kent County Prevention Coalition, Network 180
• City of Grand Rapids	• Kent Intermediate School District
• Coalition to End Homelessness	• Mary Free Bed
• Dorothy A. Johnson Center for Philanthropy, GVSU	• Mercy Health
• Essential Needs Task Force	• Metro Health
• Family Futures	• Our Community's Children
• Ferris State University	• Pregnancy Resource Center
• First Steps	• Spectrum Health, Clinical Systems Integration & Improvement
• Grand Rapids Chamber of Commerce	• Strong Beginnings
• Grand Rapids HQ	• The Grand Rapids Red Project
• Grand Rapids Public Schools	• YMCA of Greater Grand Rapids
• Healthy Homes Coalition	

Organizations Participating in and/or Supporting 2017 VoiceKent Surveying Efforts	
• Alger Heights Neighborhood Association	• John Ball Zoo
• Amway Grand Plaza	• JW Marriott
• Area Agency on Aging of West MI	• Kent County Essential Needs Task Force
• Baxter Community Center	• Kent County Health Connect
• Ben Aparicio, Community Member	• Kent County Health Department
• Bethany Christian Services	• Kent County Oral Health Coalition
• Bridge Street House of Prayer	• Latino Community Coalition
• Cherry Health	• LINC First Fridays & Rock the Block
• Cherry Health	• Literacy Center of West Michigan
• Christian Reformed Church	• Lowell Area Chamber of Commerce
• Clinica Santa Maria	• Maranda Park Party
• Community Action of Kent County	• Meals on Wheels of Western Michigan
• Cultura Collective	• Mercy Health Saint Mary's
• Deaf and Hard of Hearing Services	• Midtown Neighborhood Association

Organizations Participating in and/or Supporting 2017 VoiceKent Surveying Efforts	
• Degage Ministries • Diocese of Grand Rapids • Disability Advocates of Kent County • Dorothy A. Johnson Center for Philanthropy, GVSU • Downtown Grand Rapids, Inc. • Eastown Community Association • Family Futures • Fifth Third Bank • Fountain Street Church • Friends of Grand Rapids Parks • Fulton Street Farmers Market • Garfield Park Neighborhoods Association • GRand Jazz Fest • Grand Rapids African American Heath Institute • Grand Rapids Art Museum • Grand Rapids Griffins • Grand Rapids HQ • Grand Rapids Mini Maker Faire • Grand Rapids Pride Festival • Grand Rapids Public Schools • Grand Rapids VegFest • Grand Rapids WhiteWater • GrandCon Gaming and Comic Arts Convention • Grandville Avenue Arts & Humanities • Gus Macker • Heritage Hill Neighborhood Association • Hispanic Center of West Michigan • Inner City Christian Federation • Jazz in the Park • John Ball Area Neighbors	• North End Community Ministry • North End Wellness Coalition • North Kent Connect • Nurse Family Partnership • Oakdale Neighbors • Our Kitchen Table • Polish Heritage Society • Roosevelt Park Ministries • Roosevelt Park Neighborhood Association • Samaritas Foster Care Services • Samaritas Senior Living • Seeds of Promise • Senior Neighbors • South East Area Farmers Market • Sparta Town and Country Days • Spectrum Health • Strong Fathers • T2C Studio • Thrive • United Church Outreach Ministries • Wedgwood Christian Services • West Grand Neighborhood Organization • West Michigan Asian American Association • West Michigan Environmental Action Council • West Michigan Hispanic Chamber of Commerce • West Michigan Mom's Sale • West Michigan Works • Windridge Apartments • YMCA of Greater Grand Rapids

Organizations Participating in and/or Supporting 2017 Photo Voice	
• KCHD Children's Special Health Care Services Parent Support Group • Grand Rapids HQ	• Strong Beginnings HUGS Café Breastfeeding Support Group • The Deborah Project

Organizations Participating in and/or Supporting 2016-17 Healthy Kent Summit Activities	
• Access of West Michigan • Area Agency on Aging of West Michigan • Calvin College Center for Social Research • Catherine's Health Center/North End Wellness Coalition • Cherry Health • Coalition to End Homelessness • Dorothy A. Johnson Center for Philanthropy, GVSU • Essential Needs Task Force • Family Futures • Family Outreach Center • First Steps Kent • Grand Rapids Parks and Recreation	• Kent County Health Department • Kent County Oral Health Coalition • Kent County Prevention Coalition • Kent Intermediate School District • Lakeshore Regional Entity • Mary Free Bed Rehabilitation Hospital • Mercy Health Saint Mary's • Michigan State University College of Human Medicine • Network 180 • Nottawaseppi Huron Band of the Potawatomi Health Department • Pine Rest Christian Mental Health Services

Organizations Participating in and/or Supporting 2016-17 Healthy Kent Summit Activities	
• Grand Rapids Urban League • Great Start Collaborative • Grand Rapids Public Schools • Grand Valley State University • Health Net of West Michigan • Heart of West Michigan United Way • Helen DeVos Children's Hospital	• Priority Health • Spectrum Health • Spectrum Health Healthier Communities • The Grand Rapids Red Project • West Michigan Asian American Association • YMCA of Greater Grand Rapids

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