Kent County Health Department

2008 Behavioral Risk Factor Survey

HEALTH DEPARTMENT
Caring today for a healthy tomorrow

Introduction

In 1990, Healthy People 2000, National Health Promotion and Disease Prevention Objectives, was released to the public. The document outlined the U.S. government's plan to improve the health of individuals, communities, and the nation. In 1999, the revised Healthy People 2010 plan documented health objectives organized into 28 focus areas (page 2, top). The objectives address factors such as behavior, biology, physical environment and social environment that interact to influence health. In addition to the 28 focus areas named in the 2010 report, a smaller subset of ten indicators called Leading Health Indicators (page 2, bottom) were developed. The intent of these indicators is to monitor progress on priorities and provide a picture of the nation's health at specific points in time. According to the Department of Health and Human Services, the Leading Health Indicators "reflect the major public health concerns in the United States and were chosen based on their ability to motivate action, the availability of data to measure their progress, and their relevance as broad public health issues."

Behaviors are individual responses or reactions to internal stimuli and external conditions. It has been estimated that individual behaviors and environmental factors are responsible for about 70 percent of all premature deaths in the United States. Obtaining information surrounding behaviors that put one at risk for poor health is instrumental in developing policies and interventions. The behaviors that put Kent County residents at risk for poor health are explored here. Leading Health Indicators are presented accompanied by their Healthy People 2010 objective that will be measured over time. These indicators are accompanied by other focus area indicators. Questions not relating to leading health indicators or focus areas will be addressed in future behavioral risk factor surveys.

Healthy People 2010 Focus Areas

1. Access to Quality Health Services
2. Arthritis, Osteoporosis, and Chronic Back Conditions
3. Cancer
4. Chronic Kidney Disease
5. Diabetes
6. Disability and Secondary Conditions
7. Educational and Community Based Programs
8. Environmental Health
9. Family Planning
10. Food Safety
11. Health Communication
12. Heart Disease and Stroke
13. HIV

14. Immunization and Infectious Diseases
15. Injury and Violence Prevention
16. Maternal, Infant, and Child Health
17. Medical Product Safety
18. Mental Health and Mental Disorders
19. Nutrition and Overweight
20. Occupational Safety and Health
21. Oral Health
22. Physical Activity and Fitness
23. Public Health Infrastructure
24. Respiratory Diseases
25. Sexually Transmitted Diseases
26. Substance Abuse
27. Tobacco Use
28. Vision and Hearing

Healthy People 2010 Leading Health Indicators

- Access to Health Care
- Environmental Quality
- Immunization
- Injury and Violence
- Mental Health
- Overweight and Obesity
- Physical Activity
- Responsible Sexual Behavior
- Substance Abuse
- Tobacco Use

Methodology

The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing, state-based telephone surveillance system supported by the Centers for Disease Control and Prevention (CDC). Through a series of monthly telephone interviews, states uniformly collect data on the behaviors and conditions that place adults at risk for the chronic diseases, injuries, and preventable infectious diseases that are the leading causes of illness and death in the United States. The annual Michigan surveys follow the overall CDC telephone survey protocol for the BRFSS. Michigan Behavioral Risk Factor Survey (BRFS) data are collected quarterly by the Institute for Public Policy and Social Research (IPPSR) at Michigan State University.

For the most recent iteration of the survey, and to obtain an estimate of the prevalence of these behaviors and conditions in Kent County, the Kent County Health Department retained the services of Precision Research to administer the 2008 BRFS interview via telephone to randomly selected adults from a sample of households in Kent County. The Kent County Behavioral Risk Factor Surveys follow the CDC protocol for the BRFSS and use the standardized core questionnaire.

The sample of telephone numbers was selected using a list-assisted, random-digit-dialed methodology with disproportionate stratification based on "listedness." The BRFS data were weighted to adjust for the probabilities of selection (based on the probability of telephone number selection, the number of adults in the household, and the number of residential phone lines) and a post-stratification weighting factor that adjusted for sex, age, and race (using 2005 estimated Kent County population distributions with bridged race categories).

Sample Results

All of the respondents who were included in the final sample were drawn from a random sample of Kent County residents. Among the calls that were attempted, there were 1,205 completed interviews, 1,120 refusals, 1,955 non-working or disconnected numbers, 5,836 no answers, 566 numbers that were not private residences, 195 households with no eligible member, 332 eligible respondents selected but not interviewed, 652 eligible respondents with language barriers, 292 busy numbers, and 100 interviews that were terminated or partially complete. The Council of American Survey Research Organizations (CASRO) response rate was 44%. The refusal rate was 6.23%.

All of the interviews were completed between September 24 and October 4, 2008, each completed interview lasting, on average, approximately 18 minutes.

Analysis of Selected Risk Factors

Summary Table

| Factor	Kent County	Michigan*
Perceived Health Status (fair/poor)	10.8	14.5
Quality of Life: Poor physical health (14+ days)	8.3	10.7
Quality of Life: Poor mental health (14+ days)	10.0	10.6
Disability	19.3	22.7
No Health Care Coverage (age 18-64)	14.5	13.7
Limited Health Care Coverage: No personal health care provider	13.9	11.6
Limited Health Care Coverage: No health care access due to cost	12.7	12.3
No Routine Checkup	26.9	32.2
No Flu Shot In Past Year (age 65 and over)	32.9	29.9
Never Had A Pneumococcal Vaccination (age 65 and over)	31.1	33.6
Motor Vehicle Safety: Do not always wear seatbelt	7.7	11.4
Motor Vehicle Safety: Ever drive after drinking too much	1.4	2.4
Obesity (BMI $\geq$ 30)	23.6	30.1
No Leisure-Time Physical Activity	18.0	25.1
Alcohol Consumption: Binge Drinkers	15.1	17.6
Alcohol Consumption: Heavy Drinkers	3.2	5.5
Current Smokers	20.6	20.2
Breast Cancer Screening: Mammogram in past 2 years (age 40 and over)	86.0	79.1
Cervical Cancer Screening: Pap test in past 3 years (age 18 and over)	88.5	80.5
Colorectal Cancer Screening: No fecal blood testing past 2 years (age 50 and over)	48.3	77.6
Colorectal Cancer Screening: Never had a sigmoidoscopy/colonoscopy (age 50 and over)	27.7	31.4
Prostate Cancer Screening: DRE in the past year (age 50 and over)	55.5	52.7
Diabetes: Ever told by a doctor of having diabetes	6.2	9.1
Heart Disease: Ever told had angina or coronary artery disease (age 35 and over)	4.6	4.7
Stroke: Ever told had a stroke (age 35 and over)	2.4	3.0
HIV Testing: Ever had an HIV test (age 18-64)	41.3	37.3
Oral Health: Not visited oral health care provider in the past year	21.1	25.2
Asthma: Ever told had asthma	12.2	15.4
Nutrition: 3+ fruits & vegetables per day	57.5	N/A
Nutrition: 5+ fruits & vegetables per day	25.7	21.7

Note:: Based on 2008 BRFS of Michigan residents.

Perceived Health Status

A primary goal of Healthy People 2010 is to help individuals improve their quality of life. 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.

The results of the Kent County BRFS suggest that overall, residents of Kent County have a lower rate of self-reported fair or poor general health. Indeed, the rate of respondents stating that their health is either fair or poor had dropped slightly since 2002 (from 12.9% to 10.8%), which is contrary to the results observed for the State of Michigan over a similar time frame, where the rate increased from 13.5% to 14.5%.

Similar to the results observed in past iterations of the survey, the self-reported rate of fair/poor ratings is highest among residents older than 65 years of age (15.6%), African American residents (19.9%), less educated residents (26.7%) and lower income residents (31.3%).
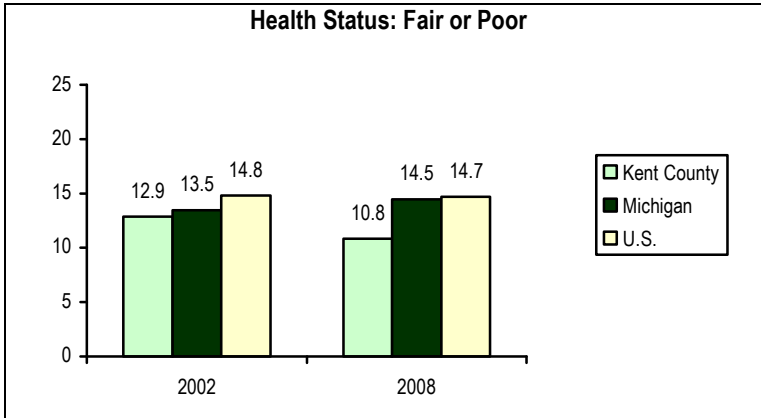
Percentage of respondents who said their health, in general, was fair or poor.

Demographic Characteristics	General Health Fair or Poor
Total	**10.8**
Age	
18-24	13.1
25-34	5.3
35-44	8.1
45-54	13.0
55-64	12.6
65+	15.6
Gender	
Male	8.9
Female	12.6
Race	
White	10.0
Black	19.9
Hispanic	11.5
Non-Hispanic	10.7
Education	
< High School	26.7
High school graduate	11.4
Some college	10.8
College graduate	6.5
Household Income	
< $20,000	31.3
$20,000-$34,999	9.5
$35,000-$49,999	3.6
$50,000-$74,999	5.2
$75,000 or more	2.6

Health Status: Fair or Poor

|	Kent County	Michigan	U.S.
2002	12.9	13.5	14.8
2008	10.8	14.5	14.7

Note: Comparisons to Michigan and national results are based on the 2002 and 2008 Michigan and U.S. Behavioral Risk Factor Surveys

Quality of Life

Health-related quality of life reflects a personal sense of physical and mental health and the ability to react to factors in the physical and social environments. The literature indicates that younger adults tend to experience a higher number of days of poor mental health than physical health, but the opposite seems to be true for older adults. The key indicator used in this analysis is the number of days in the past month that residents experienced physical or mental health problems, and in particular, whether they had experienced problems for 14 or more days within that timeframe.

While nearly 1-in-10 Kent County residents surveyed (8.3%) reported having 14 or more days of poor physical health, and 10.0% stated that they had 14 or more days of poor mental health, both fall slightly below the rates observed in the State of Michigan survey. Notably, the results of the Kent County survey indicate that the trends mentioned above hold true for Kent County as well, with younger residents demonstrating lower rates of self-reported physical health issues, while older residents report fewer days of mental health problems.

Additionally, residents who have less than a high school education, and residents who have a household income of less than $20,000 are substantially more likely to report both physical and mental health problems.
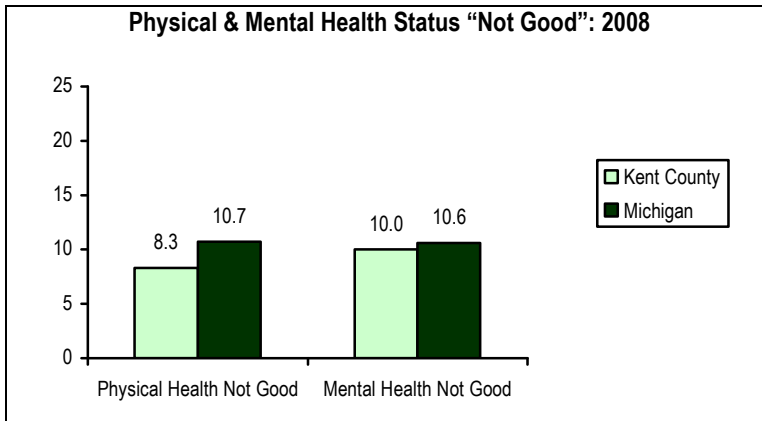
## Percentage of respondents with 14 or more days of poor physical or mental health

Demographic Characteristics	Physical Health Not Good	Mental Health Not Good
Total	**8.3**	**10.0**
Age		
18-24	5.9	16.0
25-34	3.4	11.3
35-44	7.4	9.0
45-54	10.5	9.8
55-64	12.5	8.1
65+	12.5	5.4
Gender		
Male	7.4	7.3
Female	9.1	12.6
Race		
White	8.3	8.7
Black	5.8	19.6
Hispanic	5.3	5.2
Non-Hispanic	8.4	10.3
Education		
< High School	14.0	20.6
High school graduate	9.8	10.8
Some college	10.4	11.7
College graduate	4.2	5.6
Household Income		
< $20,000	19.6	20.6
$20,000-$34,999	8.6	11.5
$35,000-$49,999	5.8	4.5
$50,000-$74,999	3.8	4.5
$75,000 or more	3.1	5.4

Physical & Mental Health Status "Not Good": 2008

Kent County / Michigan

Physical Health Not Good: 8.3 / 10.7
Mental Health Not Good: 10.0 / 10.6

*Note: Comparisons to Michigan results are based on the 2008 BRFS of Michigan residents.

Disability

One Healthy People 2010 goal is to "promote the health of people with disabilities, prevent secondary conditions, and eliminate disparities between people with and without disabilities in the U.S. population." There are many ways in which disability can be defined, ranging from experiencing difficulty in participating in certain activities (such as lifting and carrying objects, seeing, hearing, talking, walking or climbing stairs) to having more severe disabilities that require assistance in personal care needs (i.e. bathing) or routine care needs (i.e. housework). Disability is defined in this report as being limited in any activities because of physical, mental, or emotional problems.

Nearly 1-in-5 (19.3%) of the Kent County adult residents surveyed live with a disability, compared with nearly one-fourth of Michigan residents (22.7%). Similar to the statewide results, there appears to be a relationship between the age of the respondent and the incidence of self-reported disability, with older respondents reporting higher rates of disability. Unlike the statewide results, there appear to be no gender-based differences. The proportion of adults who have a disability appears to decline with higher education and income levels.
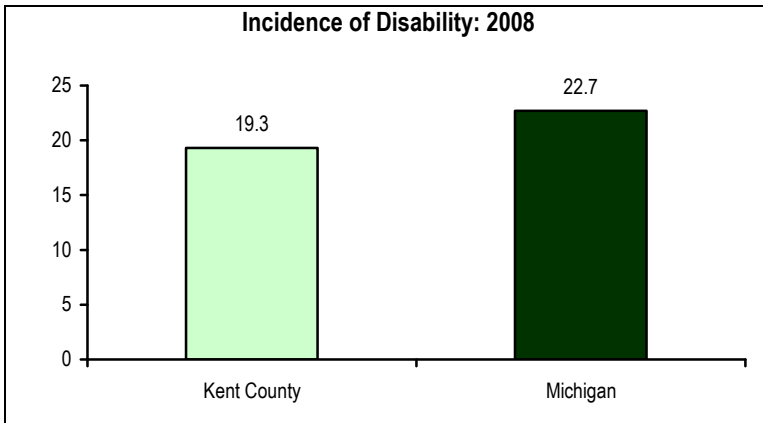
Percentage of respondents limited in activities because of physical, mental or emotional problems.

Demographic Characteristics	Disability
Total	**19.3**
Age	
18-24	12.3
25-34	12.3
35-44	16.4
45-54	19.2
55-64	27.9
65+	34.3
Gender	
Male	18.8
Female	19.8
Race	
White	19.1
Black	20.0
Hispanic	15.3
Non-Hispanic	19.5
Education	
< High School	28.7
High school graduate	20.4
Some college	23.3
College graduate	13.2
Household Income	
< $20,000	35.4
$20,000-$34,999	20.2
$35,000-$49,999	15.1
$50,000-$74,999	14.0
$75,000 or more	10.2

Incidence of Disability: 2008

Kent County	Michigan
19.3	22.7

*Note: Comparisons to Michigan results are based on the 2008 BRFS of Michigan residents.

Access to Health Care

Healthy People 2010 objective 1-1: Increase the proportion of persons under 65 with health insurance.

Adults who do not have health care coverage are less likely to access health care services, including preventive care, primary care, and tertiary care, and delay getting needed medical attention. Utilization of preventive health care 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.

An estimated 14.5% of the Kent County residents between the ages of 18 and 64 who were surveyed reported that they have no health insurance coverage, a rate that is similar to the statewide rate (13.7%), but is below national trends. Importantly, access to health care coverage appears to be closely related to several socio-economic factors. Results reveal that non-white groups have substantially lower rates of health care coverage than their white counterparts. Less highly educated respondents and residents with a household income less than $35,000 per year are also more likely to be uninsured.

Additionally, age and gender are closely associated with health care coverage, with women more likely than men to report that they have health insurance coverage, and respondents in the older age cohorts more likely to report health care coverage.

Percentage of respondents age 18-64 years who reported that they had no health care insurance coverage.

Demographic Characteristics	No Health Insurance
Total	**14.5**
Age	
18-24	25.9
25-34	18.5
35-44	10.0
45-54	10.8
55-64	5.8
Gender	
Male	17.0
Female	12.0
Race	
White	12.0
Black	22.2
Hispanic	33.5
Non-Hispanic	12.7
Education	
< High School	26.4
High school graduate	19.6
Some college	15.3
College graduate	7.9
Household Income	
< $20,000	36.0
$20,000-$34,999	19.8
$35,000-$49,999	9.1
$50,000-$74,999	11.2
$75,000 or more	3.4
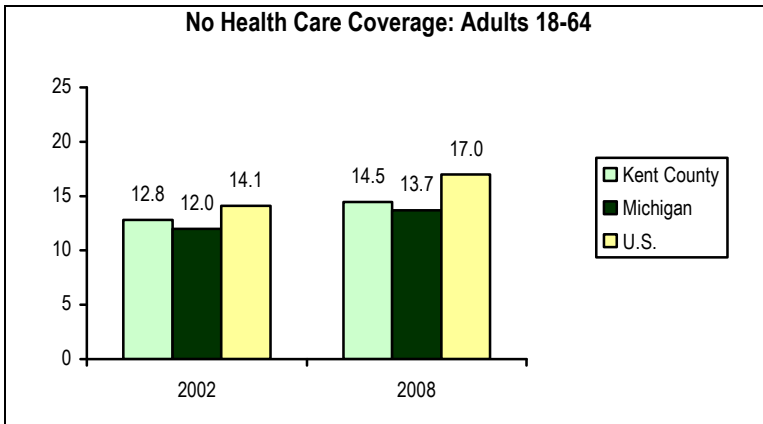
No Health Care Coverage: Adults 18-64

	Kent County	Michigan	U.S.
2002	12.8	12.0	14.1
2008	14.5	13.7	17.0

Note: Comparisons to Michigan and national results are based on the 2002 and 2008 Michigan and U.S. Behavioral Risk Factor Surveys

Limited Health Care Coverage

Two additional indicators that address issues related to health care access include not having a personal doctor or health care provider and having had a time during the past 12 months when health care was needed but could not be obtained because of cost.

Similar to the rates observed statewide, an estimated 13.9% of Kent County adults do not have a personal doctor or health care provider. Again, similar to the statewide results, the proportion of Kent County adult residents who needed to see a doctor in the past year but could not due to the cost was estimated to be 12.7%.

Men were substantially more likely than women to have no personal health care provider (20.2% vs. 8.0%), but equally likely to have no health care access during the past 12 months due to cost (12.1% vs. 13.3%). The proportion within both categories decreased with higher levels of education and income. The results based on race suggest that the proportion of whites without a personal health care provider and access to care due to cost was lower than for blacks or Hispanics.

Percentage of respondents with no personal health care provider and percentage of respondents who reported an instance of not obtaining care due to cost.

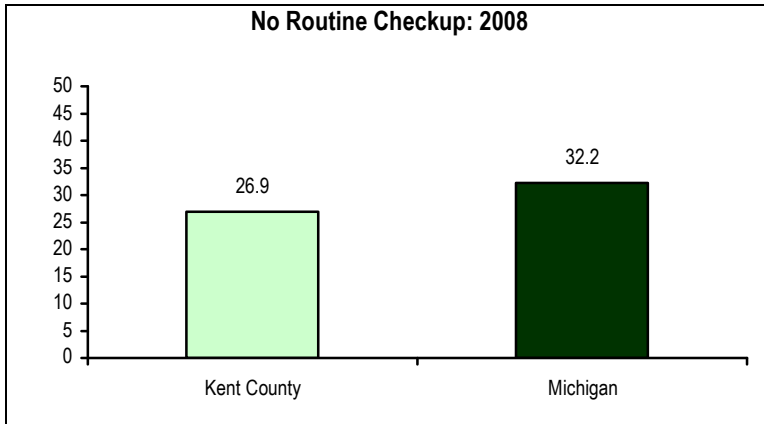| Demographic Characteristics	No Personal Health Care Provider	No Health Care Access Due to Cost
Total	**13.9**	**12.7**
Age		
18-24	25.9	19.5
25-34	18.8	16.1
35-44	13.8	10.4
45-54	8.3	18.2
55-64	7.9	5.3
65+	5.8	3.3
Gender		
Male	20.2	12.1
Female	8.0	13.3
Race		
White	12.3	10.9
Black	21.7	20.9
Hispanic	19.8	20.7
Non-Hispanic	13.4	11.9
Education		
< High School	26.4	22.9
High school graduate	18.7	15.3
Some college	9.5	14.7
College graduate	10.7	6.8
Household Income		
< $20,000	22.7	29.4
$20,000-$34,999	17.7	17.9
$35,000-$49,999	11.9	8.3
$50,000-$74,999	10.5	6.6
$75,000 or more	7.9	5.3

Limited Coverage: 2008
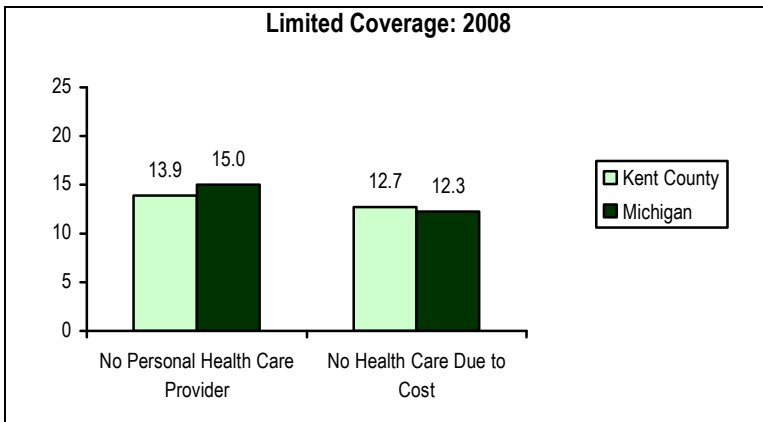
Note: Comparisons to Michigan results are based on the 2008 BRFS of Michigan residents.

No Routine Checkup

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.

Based on the most recent survey results, Kent County adult residents are somewhat more likely (73.1%) than adult residents statewide (67.8%) to report having a routine checkup within the past 12 months. Adult men (64.4%) within the Kent County geographic footprint are substantially less likely than women (81.4%) to indicate that they have had a routine checkup in the past year. Additionally, older residents are more likely to state that they have had a recent checkup than younger adult residents.

Demographic Characteristics	No Routine Checkup in Past Year
Total	**26.9**
Age	
18-24	32.0
25-34	35.4
35-44	28.2
45-54	28.6
55-64	16.9
65+	12.9
Gender	
Male	35.6
Female	18.9
Race	
White	27.6
Black	21.4
Hispanic	22.9
Non-Hispanic	27.3
Education	
< High School	31.7
High school graduate	25.3
Some college	27.5
College graduate	26.7
Household Income	
< $20,000	25.8
$20,000-$34,999	32.5
$35,000-$49,999	27.9
$50,000-$74,999	27.6
$75,000 or more	24.1

No Routine Checkup: 2008

	Kent County	Michigan
	26.9	32.2

*Note: Comparisons to Michigan results are based on the 2008 BRFS of Michigan residents.
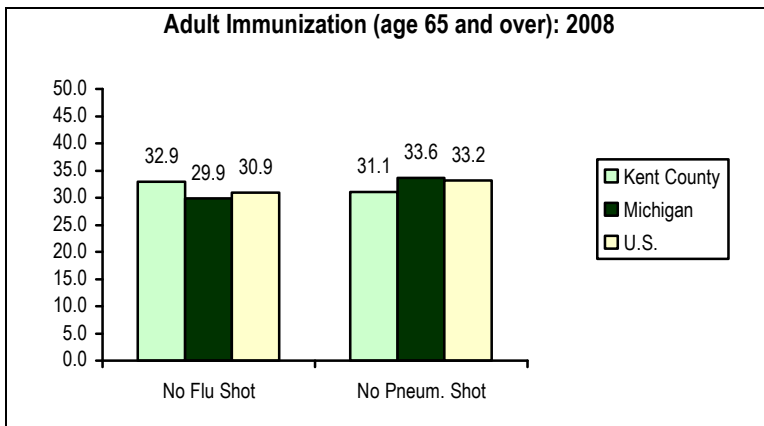
Adult Immunization

Healthy People 2010 objective 14-29a: Increase the proportion of non-institutionalized adults aged 65 and older who are vaccinated annually against influenza.

Adult immunizations against influenza and pneumococcal disease are important health indicators that need to be routinely monitored since morbidity and mortality are associated with both of these diseases among different demographic groups. Influenza and pneumonia were the 8th leading cause of death in 2007 in Michigan, attributing to just over 1,600 deaths. [1] *A Healthy People 2010 objective is to ensure that 90% of adults aged 65 years and older are vaccinated annually against influenza and ever vaccinated against pneumococcal disease.*

Overall, approximately two-thirds (67.1%) of the Kent County residents over the age of 64 who were surveyed reported that they had a flu shot, with a similar proportion (68.9%) having a pneumococcal shot. The rates observed among Kent County residents are similar to both statewide and national results.

Proportion of respondents age 65 years and older who said that they had not had a flu shot in the past 12 months.

Demographic Characteristics	No Flu Shot
Total	**32.9**
Age	
65-74	39.2
74+	24.3
Gender	
Male	29.8
Female	35.0
Race	
White	32.1
Black	+
Hispanic	+
Non-Hispanic	32.8
Education	
< High School	26.5
High school graduate	37.8
Some college	35.2
College graduate	26.0

Adult Immunization (age 65 and over): 2008

	Kent County	Michigan	U.S.
No Flu Shot	32.9	29.9	30.9
No Pneum. Shot	31.1	33.6	33.2

*Note: Comparisons to Michigan and national results are based on the 2002 and 2008 Michigan and U.S. Behavioral Risk Factor Surveys

+ Indicates fewer than 50 respondents.

Motor Vehicle Safety: Seatbelt Use

Healthy People 2010 objective 15-15a: Reduce deaths caused by motor vehicle crashes.

Healthy People 2010 objective 15-19: Increase the use of safety belts.

In 2008, 980 people died in automobile accidents in Michigan, with an additional 74,568 people injured. [2] *Seatbelt use has been proven to save lives and prevent injuries. Forty-six percent (46%) of passenger vehicle occupants who died were unrestrained.* [3] *Nationwide, it has been estimated that seatbelt use saves $50 billion in medical care, productivity, and other injury-related costs.*

Over the past 15 years, there has been a marked increase in the proportion of Kent County adult residents who report that they "always" wear their seat belt while driving. Indeed, in a measure that may be partly attributed to the impact of social marketing campaigns and increased public awareness of health and safety, currently, fewer than 1-in-10 (7.7%) Kent County residents report that they do not always wear their seat belt.

Younger (18-24 years of age, 12.0%) and male (11.2%) residents are more likely than their older and female counterparts to indicate that they do not always wear their seat belts.

Seat Belt Use

Seat Belt Use: 2008
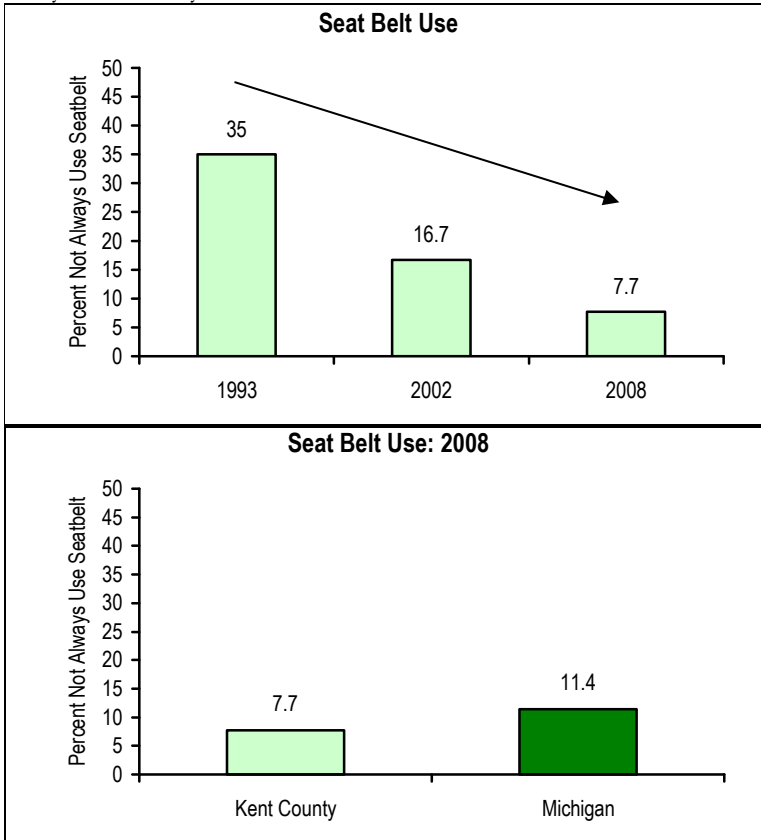
Percentage of respondents who reported that they do not always use seatbelts when driving or riding in the car.

Demographic Characteristics	Do Not Always Use Seatbelt
Total	**7.7**
Age	
18-24	12.0
25-34	7.5
35-44	9.1
45-54	6.7
55-64	3.1
65+	6.0
Gender	
Male	11.2
Female	4.4
Race	
White	7.6
Black	8.1
Hispanic	10.7
Non-Hispanic	7.4
Education	
< High School	9.6
High school graduate	8.4
Some college	8.2
College graduate	6.3
Household Income	
< $20,000	11.8
$20,000-$34,999	8.1
$35,000-$49,999	6.4
$50,000-$74,999	6.9
$75,000 or more	8.1

Note: Comparisons to Michigan results are based on the 2008 BRFS of Michigan residents.

# Motor Vehicle Safety: Driving While Drinking

Healthy People 2010 objective 15-15a: Reduce deaths caused by motor vehicle crashes.

In Michigan, 3.5% of all crashes were reported to involve drinking in 2008. **3**
During this same time period, three out of every ten fatal motor vehicle crashes involved drinking. Consumption of alcohol is a major factor in the more serious types of motor vehicle crashes.

The proportion of Kent County adults who reported that they had driven when they had too much to drink at least once in the previous month was 1.4%, nearly half the rate observed statewide (2.4% in 2008). Though the proportion is low, men were six times more likely to drive after drinking compared with women (2.4% vs. 0.4%) and whites were less likely than blacks or Hispanics to drive after drinking. Younger (18-24 years of age) residents were also more likely to claim that they have driven a vehicle after drinking than older residents.

Percentage of respondents who have driven after drinking too much at least once in the past month.

Demographic Characteristics	Drove Vehicle After Drinking
Total	**1.4**
Age	
18-24	2.6
25-34	1.1
35-44	1.5
45-54	1.0
55-64	1.5
65+	+
Gender	
Male	2.4
Female	0.4
Race	
White	0.9
Black	2.8
Hispanic	7.2
Non-Hispanic	1.2
Education	
< High School	8.5
High school graduate	0.7
Some college	0.9
College graduate	1.4
Household Income	
< $20,000	0.6
$20,000-$34,999	2.2
$35,000-$49,999	0.3
$50,000-$74,999	2.0
$75,000 or more	1.2

Drinking and Driving: 2008
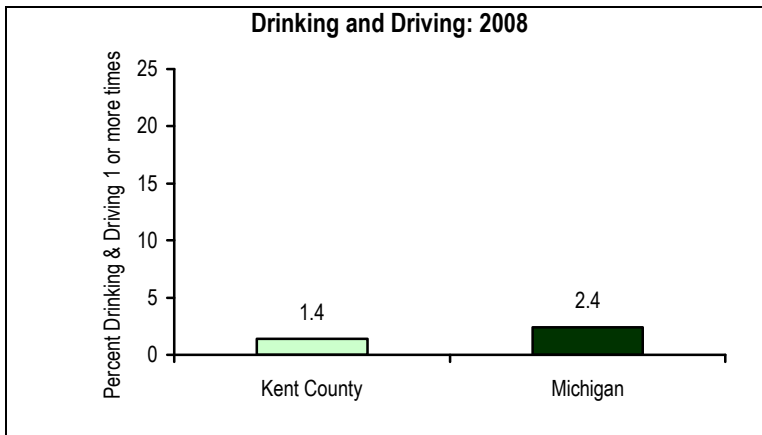
Note: Comparisons to Michigan results are based on the 2008 BRFS of Michigan residents.

**+ Indicates fewer than 50 respondents.**

Obesity

Healthy People 2010 objective 19-2: Reduce the proportion of adults who are obese (BMI ≥ 30.0).

Obese and overweight adults are at a higher risk than adults who are at a healthy weight to develop chronic conditions such as high blood pressure, diabetes, gallbladder disease, osteoarthritis, and high cholesterol. In Michigan, obesity-related medical expenditures have been estimated to be $2.9 billion in 2003 dollars. 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.

Similar to trends observed both statewide and nationally, the rate of obesity in Kent County has continued to increase since 1993 (17.0% in 1993 to 23.6% currently). Based on the results of the most recent survey, nearly one-fourth of Kent County adults (23.6%) fall into the obese category based on BMI calculations. Still, the rate of obesity among Kent County residents continues to lag behind both statewide and national results.

Rates of obesity are highest among Kent County adults in the lower income brackets (< $35,000 per annum), as well as African American residents (35.2%). The lowest rates of obesity were observed within the youngest age cohort (7.5% among 18-24 year olds).
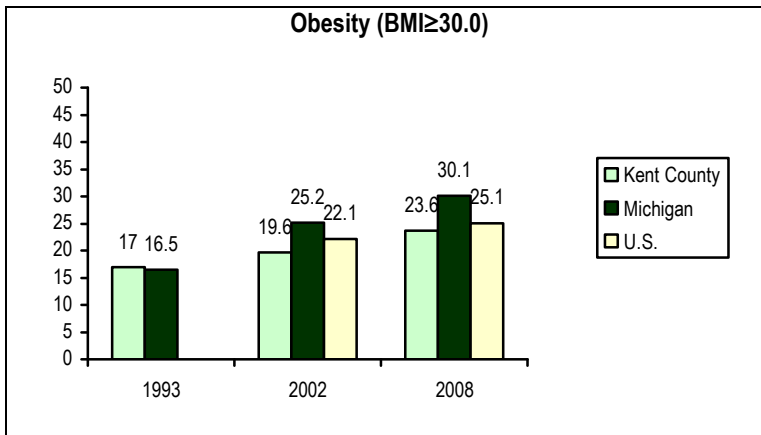
Body mass index (BMI), is defined as weight divided by height squared. A BMI of 30 or greater is considered obese.

Demographic Characteristics	Obesity (BMI≥30.0)
Total	**23.6**
Age	
18-24	7.5
25-34	25.0
35-44	25.7
45-54	27.4
55-64	30.5
65+	25.9
Gender	
Male	24.7
Female	22.5
Race	
White	22.3
Black	35.2
Hispanic	20.9
Non-Hispanic	23.9
Education	
< High School	24.7
High school graduate	25.1
Some college	27.3
College graduate	19.4
Household Income	
< $20,000	32.7
$20,000-$34,999	31.0
$35,000-$49,999	17.1
$50,000-$74,999	26.7
$75,000 or more	18.2

Obesity (BMI≥30.0)

Note: Comparisons to Michigan and national results are based on the 2002 and 2008 Michigan and U.S. Behavioral Risk Factor Surveys
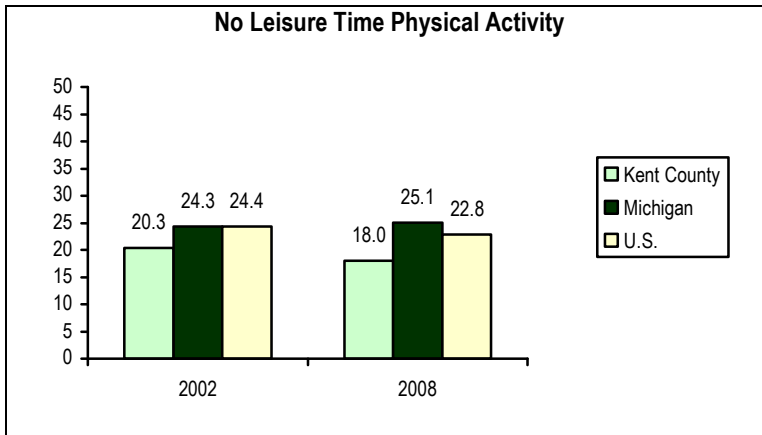
Physical Activity

Healthy People 2010 objective 22-2: Increase the proportion of adults who engage regularly in moderate physical activity for at least 30 minutes per day.

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

The rate of adult residents in Kent County who report at least some leisure-time physical activity stands at approximately 80%, slightly above the rates observed both statewide and nationally. However, it should be noted that the rate has increased slightly since the 2002 iteration of the survey.

Leisure-time physical activity appears to me most prevalent among the 25-34 year old age cohort (86.9%), as well as among residents with a college education (89%) and residents with the highest levels of household income ($75,000 or more, 91.6%). Indeed, leisure-time activity appears to have a direct relationship with household income, as those with lower income are less likely to report participating in leisure-time physical activity.

Percentage of respondents who reported no leisure-time physical activity.

Demographic Characteristics	No Physical Activity
Total	**18.0**
Age	
18-24	22.0
25-34	13.1
35-44	16.9
45-54	16.2
55-64	19.6
65+	23.8
Gender	
Male	17.8
Female	18.2
Race	
White	15.1
Black	28.6
Hispanic	37.2
Non-Hispanic	16.3
Education	
< High School	22.6
High school graduate	23.9
Some college	20.1
College graduate	11.0
Household Income	
< $20,000	30.2
$20,000-$34,999	23.8
$35,000-$49,999	17.3
$50,000-$74,999	13.9
$75,000 or more	8.4

No Leisure Time Physical Activity

|	Kent County	Michigan	U.S.
2002	20.3	24.3	24.4
2008	18.0	25.1	22.8

Note: Comparisons to Michigan and national results are based on the 2002 and 2008 Michigan and U.S. Behavioral Risk Factor Surveys

Alcohol Consumption

Healthy People 2010 objective 26-11c: Reduce the proportion of adults engaging in binge drinking of alcoholic beverages during the past month.

Alcohol abuse has been associated with serious health problems such as cirrhosis of the liver, high blood pressure, stroke, and some types of cancer, and can increase the risk for motor vehicle accidents, injuries, violence, and suicide. In Michigan, the percent of fatal motor vehicle crashes that involved any alcohol was 32.4% in 2008.[3] In 2008, an estimated 17.6% of Michigan adults were estimated to have engaged in binge drinking, i.e., the consumption of five or more drinks per occasion (for men) or 4 or more drinks per occasion (for women) at least once in the previous month.

While the rate of binge drinking among Kent County adult residents has dropped since 2002 (from 17.1% to 15.1%), rates of binge drinking remain high among males (20.8%), those with higher income ($75,000+, 22.7%) and residents in the 25-34 year age cohort (21.1%). Indeed, there appears to be a direct relationship between income and binge drinking, with higher levels of income associated more closely with binge drinking. Similar patterns are observed among residents' rate of heavy drinking.
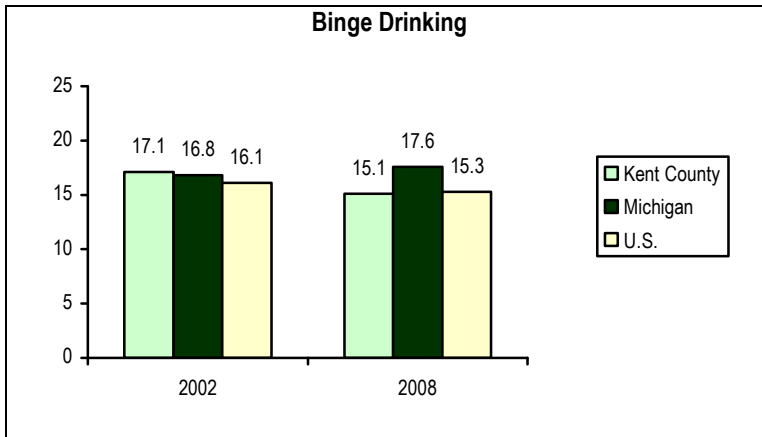
Percentage of respondents reporting heavy drinking and percentage of respondents reporting binge drinking.[a]

Demographic Characteristics	Heavy Drinking	Binge Drinking
Total	**3.2**	**15.1**
Age		
18-24	0.6	18.4
25-34	3.2	21.1
35-44	3.0	19.8
45-54	4.8	13.3
55-64	5.0	10.9
65+	2.9	1.7
Gender		
Male	4.0	20.8
Female	2.4	9.8
Race		
White	3.1	16.1
Black	3.2	10.8
Hispanic	5.3	10.0
Non-Hispanic	1.7	5.3
Education		
< High School	2.0	13.9
High school graduate	2.7	19.9
Some college	4.2	11.8
College graduate	3.0	14.4
Household Income		
< $20,000	2.7	11.8
$20,000-$34,999	2.9	13.8
$35,000-$49,999	1.8	16.5
$50,000-$74,999	4.5	13.2
$75,000 or more	5.3	22.7

Binge Drinking — 2002: Kent County 17.1, Michigan 16.8, U.S. 16.1; 2008: Kent County 15.1, Michigan 17.6, U.S. 15.3

a. Heavy drinking is defined as having consumed more than two alcoholic drinks per day for men and more than one drink per day for women in the past month. Binge drinking is defined as having consumed five or more drinks on one occasion for men and four or more for women in the past month.

*Note: Comparisons to Michigan and national results are based on the 2002 and 2008 Michigan and U.S. Behavioral Risk Factor Surveys

Smoking

Healthy People 2010 objective 27-1a: Reduce cigarette smoking by adults.

Smoking contributes to the development of many kinds of chronic conditions, including cancers, respiratory diseases, and cardiovascular diseases, and "remains the leading preventable cause of premature death in the United States." It has been estimated that smoking costs the United States $167 billion in annual health-related economic losses and over 5.5 million years of potential life lost each year. Current smoking status was defined as ever having smoked 100 cigarettes (five packs) in their life and smoking cigarettes now, either every day or on some days.

Overall, approximately 1-in-5 (20.6%) Kent County adult residents surveyed indicated that they are current smokers, based on the above-mentioned definition of a current smoker. This rate represents a relatively stable figure when compared to 2002 (19.8%), but has not dropped at the same rate as either state (20.2%, down from 24.1% in 2002) or national (20.0%, down from 23.0% in 2002) proportions of current smokers.

Prevalence of smoking is most common among younger, less highly educated and less affluent adult residents, as well as among African American adults who reside in Kent County.

Percentage of respondents who reported that they had ever smoked at least 100 cigarettes in their life and that they smoke cigarettes now.	
Demographic Characteristics	**Current Smoker**
Total	**20.6**
Age	
18-24	36.3
25-34	18.6
35-44	19.6
45-54	20.3
55-64	19.0
65+	11.4
Gender	
Male	22.6
Female	18.8
Race	
White	18.9
Black	38.0
Hispanic	14.6
Non-Hispanic	21.1
Education	
< High School	38.3
High school graduate	30.7
Some college	22.2
College graduate	7.8
Household Income	
< $20,000	35.5
$20,00-$34,999	22.4
$35,000-$49,999	19.6
$50,000-$74,999	17.5
$75,000 or more	12.3
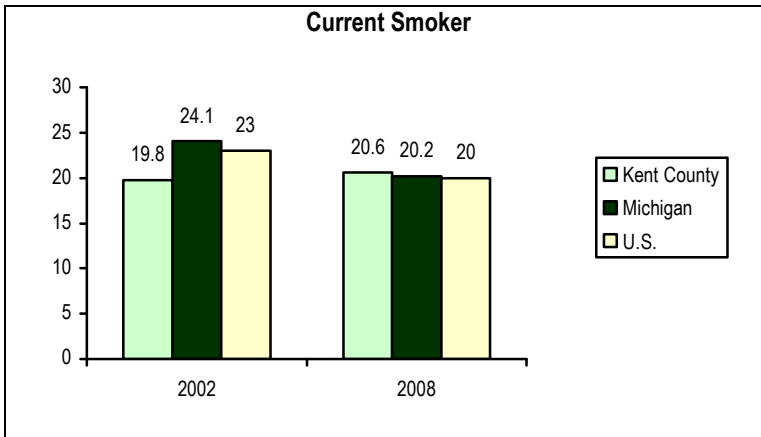
Current Smoker

*Note: Comparisons to Michigan and national results are based on the 2002 and 2008 Michigan and U.S. Behavioral Risk Factor Surveys

Breast Cancer Screening

Healthy People 2010 objective 3-13: Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding two years.

Breast cancer is the second leading cause of cancer deaths among United States women. In 2007, there were 1,456 deaths among Michigan women due to breast cancer.[1] Early detection of breast cancer can occur through the use of screening tools such as mammography and clinical breast exams. Current recommendations from the American Cancer Society indicate that women aged 20-39 years should have a clinical or physical breast exam by a health professional every three years, and women aged 40 years and older should have both a clinical breast exam (CBE) and mammogram annually.

Currently, an estimated 7-in-10 Kent County women 40 years of age and older (69.9%) claim to have had a mammogram in the past year, compared to 63.5% of women aged 40 years and older statewide. Additionally, 86% of women in the same age cohort indicate that they have had a mammogram in the past two years, up from 77.2% in 2002.

Compliance with regular mammograms is most prevalent among women 40 years of age and older in the more highly educated and higher income categories.
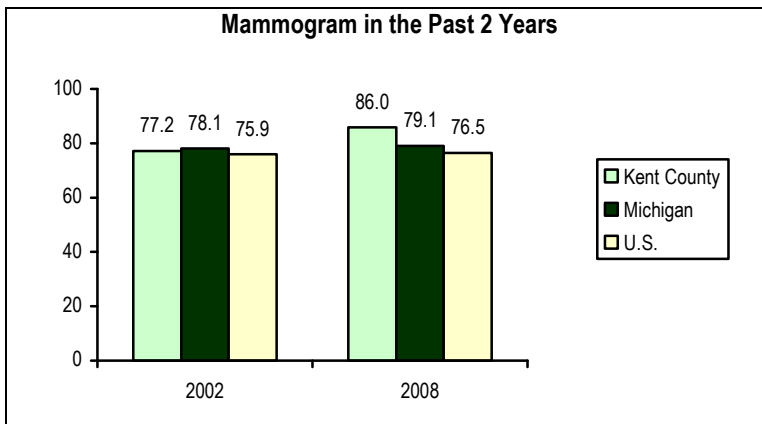
Percentage of female respondents age 40 and over who reported having had a mammogram in the past year or in the past two years.

Demographic Characteristics	Had Mammogram	
	Past Year	Past 2 Years
Total	**69.9**	**86.0**
Age		
40-49	68.6	84.8
50-59	65.6	87.8
60-69	79.7	91.6
70+	70.3	81.2
Race		
White	68.7	85.4
Black	80.1	96.2
Hispanic	+	+
Non-Hispanic	69.5	85.8
Education		
< High School	56.8	73.2
High school graduate	71.3	83.6
Some college	72.3	89.1
College graduate	68.7	86.9
Household Income		
< $20,000	62.1	82.8
$20,000-$34,999	66.9	82.5
$35,000-$49,999	66.8	79.7
$50,000-$74,999	68.8	87.9
$75,000 or more	72.9	88.5

Mammogram in the Past 2 Years

Year	Kent County	Michigan	U.S.
2002	77.2	78.1	75.9
2008	86.0	79.1	76.5

*Note: Comparisons to Michigan and national results are based on the 2002 and 2008 Michigan and U.S. Behavioral Risk Factor Surveys

**+ Indicates fewer than 50 respondents.**

Cervical Cancer Screening

Healthy People 2010 objective: Increase the prevalence of women aged 18 years and older who received a Pap test within the preceding three years to 90%.

Cervical cancer screening has helped reduce the number of deaths from cervical cancer by 70%. Current guidelines for cervical cancer screening recommend that Pap testing should begin within three years after the onset of sexual intercourse, or at least by 21 years of age. Once three or more annual tests have been normal, at the discretion of the physician, Pap tests can be performed less frequently, but at least once every three years.

The results of the most recent BRFS indicate that nearly 9-in-10 (88.5%) Kent County women are getting appropriately timed Pap tests (within the past 3 years), exceeding the statewide rate of 80.5%.

Regular Pap tests are most common among younger and non-white female residents, as well as women in the higher income categories.
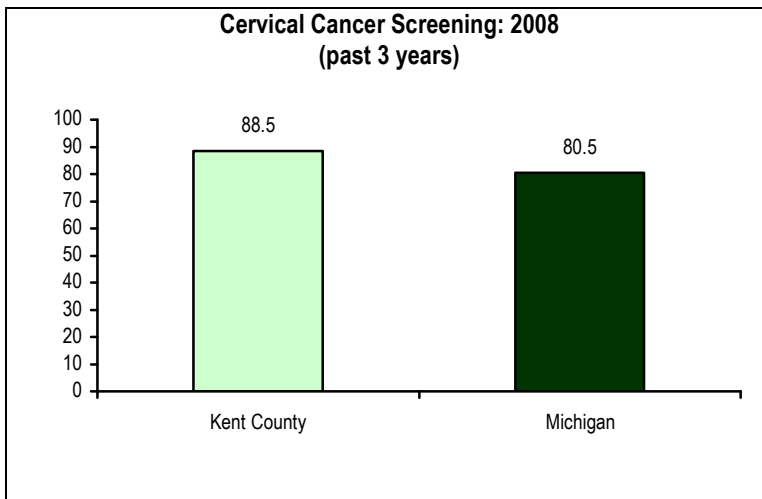
Percentage of women respondents who have had a Pap test within the last three years.

Demographic Characteristics	Had Appropriately Timed Pap Test
Total	**88.5**
Age	
18-24	100.0
25-34	99.6
35-44	93.4
45-54	87.6
55-64	73.1
65+	64.4
Race	
White	87.5
Black	95.1
Hispanic	97.8
Non-Hispanic	88.1
Education	
< High School	84.7
High school graduate	85.4
Some college	82.3
College graduate	91.2
Household Income	
< $20,000	83.3
$20,000-$34,999	82.3
$35,000-$49,999	88.1
$50,000-$74,999	90.6
$75,000 or more	96.4

Cervical Cancer Screening: 2008 (past 3 years)

Kent County: 88.5
Michigan: 80.5

*Note: Comparisons to Michigan results are based on the 2008 BRFS of Michigan residents.
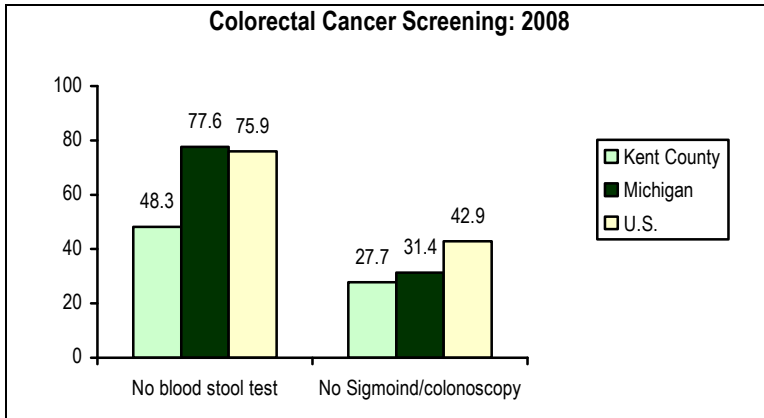
Colorectal Cancer Screening

Healthy People 2010 objective 3-12: Increase the proportion of adults who receive a colorectal cancer screening examination.

In 2007, colorectal cancer was the second leading cause of cancer-related deaths in Michigan with 1,812 deaths.[1] *Fecal occult blood tests, sigmoidoscopy, and colonoscopy are screening procedures that are performed to detect colorectal cancer in the early stages. In the United States Preventive Services Task Force review of research literature, they have found evidence that periodic fecal occult blood testing and sigmoidoscopy reduces mortality from colorectal cancer; colonoscopy has not been studied adequately yet. One Healthy People 2010 objective is to increase the proportion of adults aged 50 years and older who have received a fecal occult blood test within the preceding two years to 33%.*

With an estimated 51.7% of Kent County adults aged 50 years and older having a blood stool test in the past two years, this rate far outpaces statewide results of 22.4% among a similar group of respondents. Additionally, the rates of compliance with sigmoid and colonoscopy screening also outpace both statewide and national trends. Women are more likely than men to participate in colorectal cancer screening regimens.

Percentage of respondents age 50 and over who did not have a blood stool test within the last two years using a home kit, and percentage of respondents who had never received a sigmoidoscopy or a colonoscopy.

Demographic Characteristics	No Blood Stool Test	Never Had a Sigmoid or Colonoscopy
Total	**48.3**	**27.7**
Age		
50-59	59.3	36.3
60-69	42.1	23.6
70+	37.9	18.1
Gender		
Male	53.5	34.1
Female	44.3	22.6
Race		
White	46.8	26.6
Black	58.2	34.1
Hispanic	+	+
Non-Hispanic	48.0	27.4
Education		
< High School	63.3	36.7
High school graduate	46.9	29.6
Some college	49.6	25.6
College graduate	45.4	25.5
Household Income		
< $20,000	46.7	34.6
$20,000-$34,999	43.3	21.5
$35,000-$49,999	41.7	27.4
$50,000-$74,999	55.9	28.0
$75,000 or more	50.4	27.3

Colorectal Cancer Screening: 2008

Bar chart showing No blood stool test: Kent County 48.3, Michigan 77.6, U.S. 75.9; No Sigmoind/colonoscopy: Kent County 27.7, Michigan 31.4, U.S. 42.9

*Note: Comparisons to Michigan and national results are based on the 2002 and 2008 Michigan and U.S. Behavioral Risk Factor Surveys

+ Indicates fewer than 50 respondents.

Prostate Cancer Screening

Healthy People 2010 objective 3-10e: Increase the proportion of primary care providers who counsel about Proctoscopic examinations.

Prostate cancer is the second leading cause of cancer deaths among males in Michigan; there were 946 deaths in 2007 (22.9 deaths per 100,000 male population, age adjusted).[1] The American Cancer Society recommends that health care professionals should offer the digital rectal exam (DRE) and prostate-specific antigen (PSA) blood test screenings to men aged 50 and older who have at least a ten-year life expectancy. Men who have an increased risk for prostate cancer should begin testing earlier. Some of the risk factors that are associated with prostate cancer, other than age, include race, nationality, family history, and diet. Screening can detect the disease in its early stages, but it is still undetermined whether screening improves health outcomes.

While rates of prostate cancer screening have remained stable statewide, the overall rate among Kent County men in the 50+ age cohort has dropped slightly over a similar timeframe from 72.4% in 2002 to 55.5% currently. Higher rates of compliance with having a DRE are somewhat more closely associated with men in the more highly educated categories.
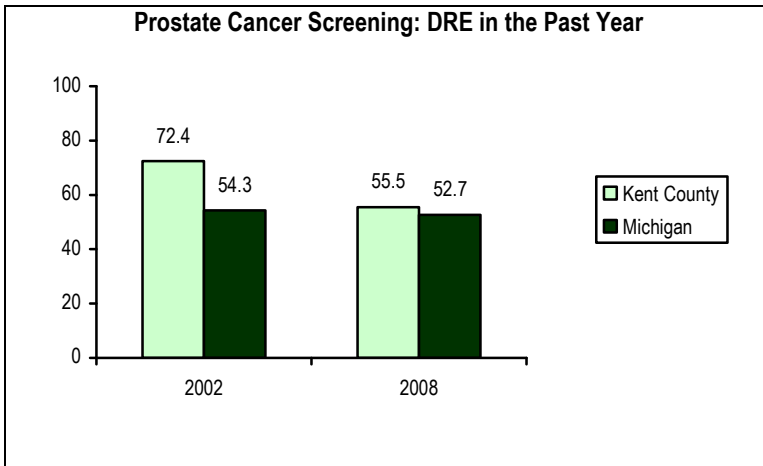
Percentage of male respondents age 50 and over who reported having had a digital rectal exam.

Demographic Characteristics	Had Digital Rectal Exam	
	Past Year	Ever
Total	**55.5**	**83.6**
Age		
50-59	51.9	79.2
60-69	62.2	86.7
70+	60.0	87.8
Education		
< High School	47.1	62.5
High school graduate	51.2	82.9
Some college	42.9	83.0
College graduate	70.1	90.8
Household Income		
< $20,000	52.9	78.8
$20,000-$34,999	59.4	90.3
$35,000-$49,999	65.5	96.4
$50,000-$74,999	51.9	77.8
$75,000 or more	59.4	90.9

Prostate Cancer Screening: DRE in the Past Year

Bar chart showing:
- 2002: Kent County 72.4, Michigan 54.3
- 2008: Kent County 55.5, Michigan 52.7

Legend: Kent County, Michigan

Note: Comparisons to Michigan results are based on the 2002 and 2008 Behavioral Risk Factor Surveys of Michigan residents.

Diabetes

Healthy People 2010 objective 5-3: Reduce the overall rate of diabetes that is clinically diagnosed.

Diabetes mellitus is a chronic disease characterized by high glucose levels, owing to insufficient production of insulin by the pancreas or to a reduction in the body's ability to use insulin. In Michigan, diabetes was the sixth leading cause of death with 2,825 individuals in 2007 and was considered the primary cause in 3.3% of all deaths.[1] Obesity, poor diet, physical inactivity, and high blood pressure are just a few risk factors that are associated with the increase in diabetes prevalence nationwide..

Among Kent County adult residents, incidence of diabetes is slightly lower than levels observed at a statewide or national level, down from 7.2% in 2002 to 6.2% currently. Incidence of diabetes appears to increase substantially with the age of the resident, but is also closely associated with lower levels of household income and less highly educated residents.
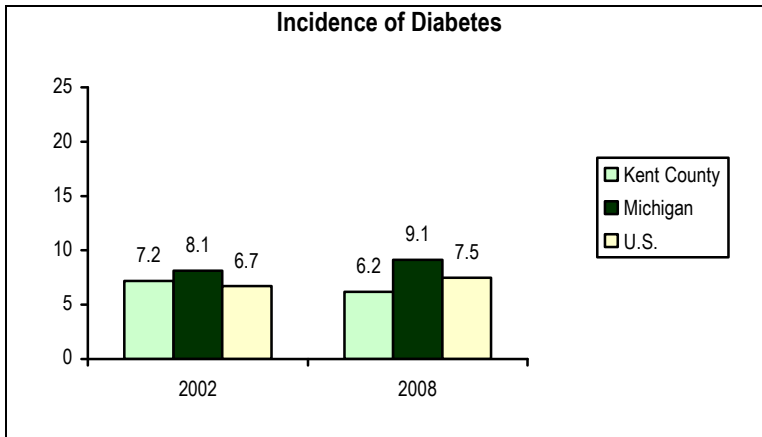
Percentage of respondents who reported they had ever been told by a doctor that they have diabetes (excluding gestational diabetes).

Demographic Characteristics	Ever Told You Have Diabetes
Total	**6.2**
Age	
18-24	+
25-34	1.3
35-44	4.3
45-54	8.8
55-64	10.7
65+	16.0
Gender	
Male	7.7
Female	4.9
Race	
White	5.9
Black	6.6
Hispanic	7.5
Non-Hispanic	6.1
Education	
< High School	12.1
High school graduate	6.5
Some college	7.6
College graduate	3.4
Household Income	
< $20,000	10.8
$20,000-$34,999	6.9
$35,000-$49,999	7.6
$50,000-$74,999	4.8
$75,000 or more	3.5

Incidence of Diabetes

	2002	2008
Kent County	7.2	6.2
Michigan	8.1	9.1
U.S.	6.7	7.5

Note: Comparisons to Michigan and national results are based on the 2002 and 2008 Michigan and U.S. Behavioral Risk Factor Surveys

**+ Indicates fewer than 50 respondents.**

Heart Disease

Healthy People 2010 objective 12-16: Increase the proportion of persons with coronary heart disease who have their LDL-cholesterol level treated to a goal of less than or equal to 100 mg/dL.

Heart disease and stroke are leading causes of death in the United States for both genders and all racial-ethnic groups. More than 287 thousand people die each year with heart failure and another 550 thousand new cases are diagnosed each year. Cardiovascular disease costs an estimated $300 billion annually. Modifying risk factors offers the greatest potential for reducing death and disability from cardiovascular disease.

Among Kent County adults 35 years of age and older, approximately 1-in-20 (4.6%) have been told at some point in time that they have angina or coronary heart disease (CHD). This figure represents a drop since 2002, and is in line with results observed statewide.

Men and, not surprisingly, residents older than 65 years of age report a higher rate of incidence than women and younger residents. Additionally, adults from the lower income categories report higher levels of coronary artery disease than higher income residents.
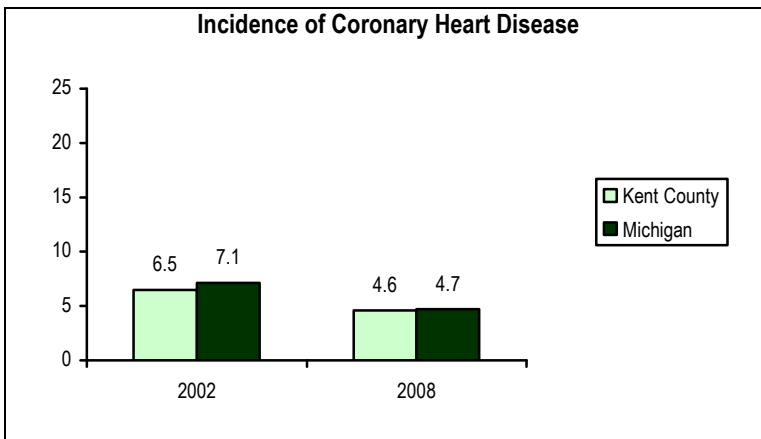
Percentage of respondents age 35 and over who reported a doctor has told them they had angina or coronary heart disease.

Demographic Characteristics	Ever Told You Have Angina or Coronary Heart Disease
Total	**4.6**
Age	
35-44	1.1
45-54	2.4
55-64	3.2
65+	13.6
Gender	
Male	5.3
Female	4.0
Race	
White	4.6
Black	4.2
Hispanic	2.1
Non-Hispanic	4.7
Education	
< High School	1.5
High school graduate	5.3
Some college	5.9
College graduate	3.5
Household Income	
< $20,00	8.4
$20,00-$34,999	9.3
$35,000-$49,999	4.1
$50,000-$74,999	3.0
$75,000 or more	0.7

Incidence of Coronary Heart Disease

Legend: Kent County, Michigan
2002: 6.5, 7.1
2008: 4.6, 4.7

Note: Comparisons to Michigan results are based on the 2002 and 2008 Behavioral Risk Factor Surveys of Michigan residents.

Stroke

Healthy People 2010 objective 12-8: Increase the proportion of adults who are aware of the early warning symptoms and signs of a stroke.

Stroke and CHD share many of the same risk factors. Although the health complications from stroke are great, the risk of stroke can be greatly reduced by increasing physical activity, reducing fat and salt in the diet, and quitting smoking. When we look at the risk factors for CHD and stroke, it is evident that the objectives of Healthy People 2010 are aimed at reducing the risky behaviors that may lead to these serious health problems.

The overall rate of stroke among Kent County adults age 35 or older is approximately 2.4%, just slightly lower than the rate observed among similarly age residents statewide (3.0%).

Again, stroke is most common in the oldest age cohort (65+, 5.1%), among African American residents (6.5%), and within the lowest income categories (< $20,000 per year, 7.1%).

Percentage of respondents age 35 and over who reported a doctor has told them they had a stroke.

Demographic Characteristics	Ever Told Had a Stroke
Total	**2.4**
Age	
35-44	1.9
45-54	1.4
55-64	1.3
65+	5.1
Gender	
Male	2.1
Female	2.6
Race	
White	2.2
Black	6.5
Hispanic	3.8
Non-Hispanic	2.3
Education	
< High School	1.9
High school graduate	6.7
Some college	0.4
College graduate	0.8
Household Income	
< $20,000	7.1
$20,000-$34,999	1.5
$35,000-$49,999	1.6
$50,000-$74,999	1.6
$75,000 or more	1.0
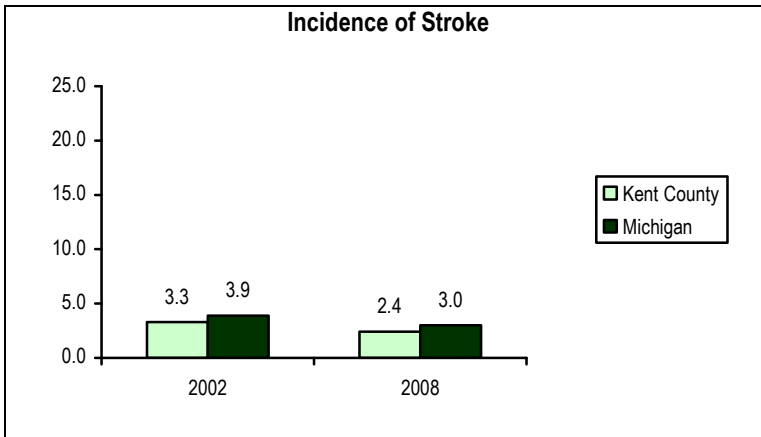
Incidence of Stroke

|	Kent County	Michigan
2002	3.3	3.9
2008	2.4	3.0

Note: Comparisons to Michigan results are based on the 2002 and 2008 Behavioral Risk Factor Surveys of Michigan residents.

HIV Testing

Healthy People 2010 objective 13-5: Reduce the number of cases of HIV infection among adolescents and adults.

It is estimated that 18,210 people are living with HIV/AIDS in Michigan [4], a fair proportion of whom do not know that they are infected. Early awareness of an HIV infection through HIV testing can prevent further spread of the disease, and an early start on antiretroviral therapy can increase the quality of life among those who are living with HIV/AIDS.

A rate somewhat higher than that observed among residents statewide, approximately 41.3% of Kent County adults aged 18-64 years had ever been tested for HIV, apart from blood donations, versus 37.3% of respondents statewide. Younger respondents, and especially those between the ages of 25 and 34 (54.4%) are substantially more likely to report that they have been tested versus respondents in the 55 to 64 year old age band (23.9%). Women were more likely than men (48.0% vs. 34.5%) to have ever been tested and African Americans (68.8%) were more likely to have been tested than both whites (38.1%) and Hispanics (46.7%).
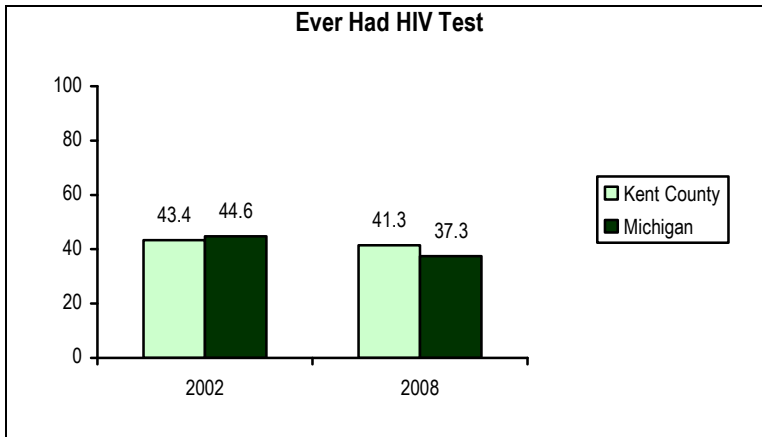
Percentage of respondents who reported ever having had an HIV test, excluding HIV tests when donating blood.

Demographic Characteristics	Ever Tested for HIV
Total	**41.3**
Age	
18-24	40.3
25-34	54.4
35-44	45.6
45-54	31.2
55-64	23.9
Gender	
Male	34.5
Female	48.0
Race	
White	38.1
Black	68.8
Hispanic	46.7
Non-Hispanic	40.9
Education	
< High School	42.4
High school graduate	39.4
Some college	43.2
College graduate	41.0
Household Income	
< $20,000	50.7
$20,000-$34,999	47.4
$35,000-$49,999	36.6
$50,000-$74,999	37.8
$75,000 or more	42.5

Ever Had HIV Test

Kent County / Michigan
- 2002: 43.4 / 44.6
- 2008: 41.3 / 37.3

Note: Comparisons to Michigan results are based on the 2002 and 2008 Behavioral Risk Factor Surveys of Michigan residents.

Oral Health

Healthy People 2010 objective 21-2d: Reduce the proportion of adults with untreated dental decay.

Oral health is an important part of one's general health and quality of life. Regular dental care includes preventive dental services such as teeth cleaning, and permits early diagnosis and treatment of tooth decay and periodontal diseases. It has been estimated that low income adults aged 18 years and older are three times more likely to have at least one untreated decayed tooth compared with higher income adults (33% vs. 11%).

Overall, approximately 1-in-5 Kent County residents (21.1%) have not visited an oral health care provider in the past year. Still, the rate of non-compliance with a healthy oral health care routine remains lower than the rates observed at the state (25.2%) or national (29.7%) levels.

While few differences were noted based on respondent gender, substantial differences were observed between white (19.0%) and African American (31.8%) residents. Additionally, significant proportions of residents with less than a high school education (43.8%) and residents from lower income households (< $20,000/year, 44.8%) indicate that they have not had an oral health care visit in the past year.
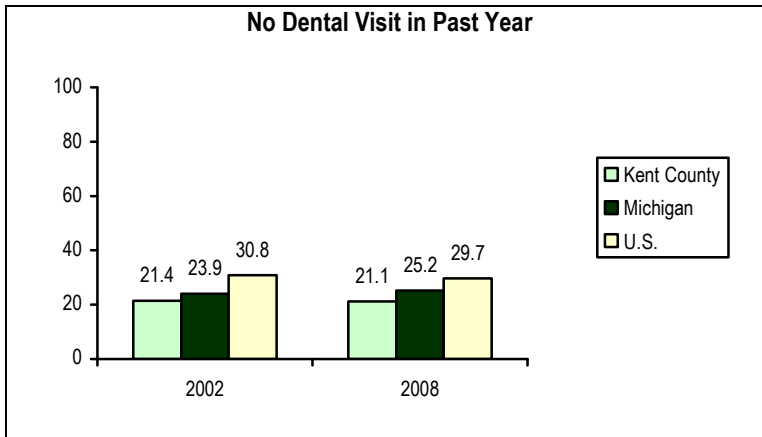
Demographic Characteristics	Not Visited Dentist in the Past year
Percentage of respondents who reported not having visited a dentist or dental clinic within the past 12 months.	
Total	**21.1**
Age	
18-24	21.9
25-34	20.2
35-44	22.5
45-54	17.9
55-64	21.0
65+	22.7
Gender	
Male	20.7
Female	21.4
Race	
White	19.0
Black	31.8
Hispanic	22.5
Non-Hispanic	21.0
Education	
< High School	43.8
High school graduate	24.0
Some college	22.6
College graduate	12.4
Household Income	
< $20,000	44.8
$20,000-$34,999	30.6
$35,000-$49,999	16.1
$50,000-$74,999	11.0
$75,000 or more	8.1

No Dental Visit in Past Year

Kent County, Michigan, U.S.

2002: 21.4, 23.9, 30.8
2008: 21.1, 25.2, 29.7

Note: Comparisons to Michigan and national results are based on the 2002 and 2008 Michigan and U.S. Behavioral Risk Factor Surveys
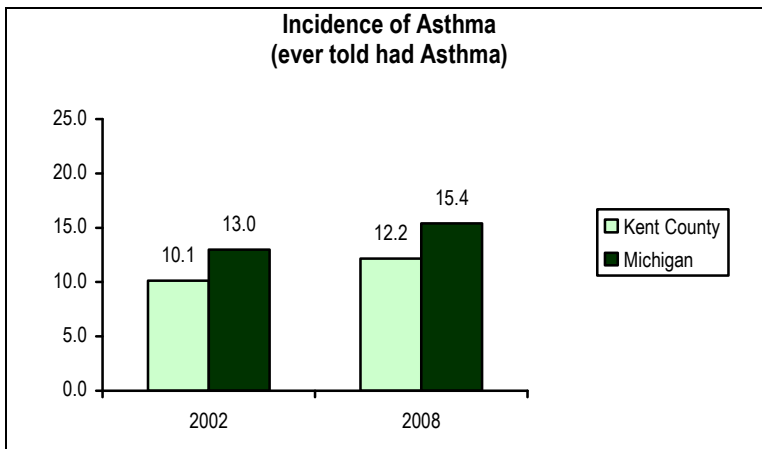
Asthma

Healthy People 2010 objective 24-7: Increase the proportion of persons with asthma who receive appropriate asthma care.

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.

The overall incidence of self-reported asthma among Kent County adults has increased slightly since 2002, with 12.2% stating that they had been told they have asthma. Approximately 1-in-10 respondents (9.9%) indicated that they still have asthma.

Asthma appears to be somewhat more prevalent among female (15.0%), African American (21.0%), less highly educated (18.8% of less than high school education) and lower income (20.9% among households with less than $20,000 per year) residents.

Percentage of respondents who reported that they had ever been told by a doctor that they had asthma, and percentage of respondents who reported that they still had asthma.

Demographic Characteristics	Ever Told Have Asthma	Still Have Asthma
Total	**12.2**	**9.9**
Age		
18-24	12.9	9.0
25-34	8.1	6.8
35-44	15.4	12.7
45-54	13.2	11.4
55-64	10.9	9.2
65+	11.9	9.7
Gender		
Male	9.1	7.3
Female	15.0	12.3
Race		
White	11.3	9.0
Black	21.0	17.8
Hispanic	8.3	7.0
Non-Hispanic	12.5	10.2
Education		
< High School	18.8	18.4
High school graduate	12.1	9.6
Some college	12.7	9.9
College graduate	10.3	8.2
Household Income		
< $20,000	20.9	17.1
$20,000-$34,999	7.4	5.1
$35,000-$49,999	8.4	8.0
$50,000-$74,999	13.5	10.3
$75,000 or more	11.4	8.9

Incidence of Asthma (ever told had Asthma)

Kent County: 2002 = 10.1, 2008 = 12.2
Michigan: 2002 = 13.0, 2008 = 15.4

Note: Comparisons to Michigan results are based on the 2002 and 2008 Behavioral Risk Factor Surveys of Michigan residents.

Nutrition

Healthy People 2010 objective 19-5: Increase the proportion of persons aged two years and older who consume at least two servings of fruit.

Nutrition, the quantity and quality of what we eat, directly impacts our risk factors for the majority of diseases highlighted in this report. The Dietary Guidelines for Americans call for decreasing the importance of fat as a proportion of caloric intake, while increasing fruit and vegetable intake to three to five servings of each per day. Fruits and vegetables provide such beneficial minerals as potassium, calcium, and magnesium, in addition to soluble fiber, vital in preventing heart disease and diabetes. Antioxidants, present in vitamin A and E, and beta-carotene laden dark green leafy vegetables and dark yellow or orange fruits and vegetables, defend cells from damage by free radicals. Cellular damage is the common pathway to development of cancers, the aging process, and other diseases.

Among the adult residents surveyed as part of this research effort, about 6-in-10 (57.5%) reported that they are eating at least three fruits or vegetables daily. This figure represents an increase from 37% in 2002. Notably, only about one-fourth (25.7%) of Kent Count adults are getting the recommended daily allowance of five fruits or vegetables.

It is important to note that this result cuts across all of the demographic subgroups under investigation. However, the percentage of adults from the more highly educated cohort (college education) and women report higher levels of compliance with healthy eating guidelines.
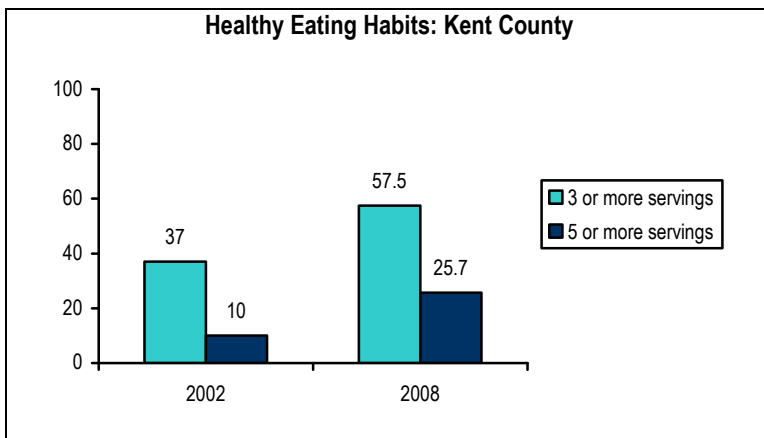
Percentage of respondents who reported consuming, on average, three or more servings of fruits or vegetables a day, and percentage of respondents who reported consuming, on average, five or more servings of fruits or vegetables a day.

Demographic Characteristics	3+ Fruits & Veg. Per Day	5+ Fruits & Veg. Per Day
Total	**57.5**	**25.7**
Age		
18-24	52.3	29.9
25-34	53.4	23.9
35-44	55.4	23.2
45-54	56.4	24.2
55-64	61.0	26.3
65+	71.3	28.5
Gender		
Male	50.7	19.1
Female	63.8	31.9
Race		
White	59.2	26.6
Black	48.4	22.3
Hispanic	45.0	18.3
Non-Hispanic	57.9	30.0
Education		
< High School	34.7	13.9
High school graduate	48.9	19.0
Some college	59.2	27.5
College graduate	68.0	32.3
Household Income		
< $20,000	49.5	21.7
$20,000-$34,999	52.6	25.9
$35,000-$49,999	59.4	26.8
$50,000-$74,999	58.2	27.9
$75,000 or more	63.2	24.3

Healthy Eating Habits: Kent County

Legend: 3 or more servings; 5 or more servings

2002: 37 (3 or more servings), 10 (5 or more servings)
2008: 57.5 (3 or more servings), 25.7 (5 or more servings)

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