

The Health Of Kent County,
2005



HEALTH
DEPARTMENT
Caring today for a healthy tomorrow

October, 2005

To the Citizens of Kent County:

The Health of Kent County, 2005 is a unique and compelling look at the health status of our community. In this report, we examine several categories of community health indicators and allow for comparisons between Kent County, the State of Michigan and the United States as a whole. Far from being an end in itself, this report represents a work in progress and exemplifies our commitment to assessing the health of our community.

The Health of Kent County, 2005 is a proclamation of the Kent County Health Department's commitment to assess, monitor and diagnose the health status of our community, to report that information in a timely and objective fashion and, in doing so, provide the foundation for informed community decision-making.

It is our hope that the information in this report will serve as a baseline against which we can measure future progress. As our community continues to grow and change, the Kent County Health Department remains committed to making Kent County a healthier place to live.

Sincerely,

A handwritten signature in cursive script that reads "Cathy Raeovsky".

Cathy Raeovsky
Administrative Health Officer
Kent County Health Department

The Health of Kent County, 2005

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Introduction

Assessing Community Health Status in Kent County

The Health of Kent County, 2005 is a report on the community health status of Kent County residents. It examines several categories of community health indicators and allows for comparisons between Kent County, the State of Michigan and the United States. While some categories of data are considered primary indicators of community health – maternal and child health, cancer and heart disease, for example – this report also contains less common but equally compelling indicators: substance abuse, violence and family planning, among others.

The Health of Kent County, 2005 is modeled to track the objectives set forth by *Healthy People 2010*, the nationwide health promotion and disease prevention agenda of the U.S. Department of Health and Human Services. *Healthy People 2010* contains 467 health objectives organized into 28 focus areas, each representing an important public health matter. The objectives include benchmark targets for improvement to be achieved by the end of the decade. *The Health of Kent County, 2005* presents information on a sub-set of these objectives, based upon data that is readily accessible. The objectives in this report contain numbers and titles that correspond to those of *Healthy People 2010*.

The Health of Kent County, 2005 should serve as a data book and provide information on the extent to which health problems affect the Kent County community. It is intended to act as a resource for

our community health partners and to help guide the disposition and distribution of health care resources. The data presented in this report includes five-year trends. These trends give an indication of the community's progress toward reaching the target health goals set forth by *Healthy People 2010*. Presenting data in this manner also presents a means by which the impact of existing public health interventions can be measured. In addition, the data gives an indication of what interventions may still be needed to meet the health needs of the community.

While reviewing this report, it is important to remember that tracking community health indicators is an ongoing process. Indeed, the best way to assess the true meaning of the data contained in this report will be to revisit these indicators in the future. *The Health of Kent County, 2005* is an important tool in an ongoing dialogue with the citizens of Kent County. The ultimate objective of this dialogue is to improve the health of our community.

Ten Leading Causes of Death, 2003 Age-Adjusted Death Rates per 100,000 Population

Cause of Death	Kent	Michigan
Heart Disease	206.8	252.4
Cancer	176.0	192.0
Stroke	49.6	52.9
Unintentional Injuries	41.1	32.3
Chronic Lower Respiratory Diseases	39.3	43.8
Alzheimer's Disease	33.0	20.6
Pneumonia/Influenza	23.4	18.9
Diabetes Mellitus	17.7	25.8
Kidney Disease	10.6	16.3
Intentional Self-harm (Suicide)	8.1	10.0
All Other Causes	171.4	181.4
Total	777.1	846.4

Age-adjusted death rates are based on age-specific death rates per 100,000 population in specified group. Age-adjusted death rates are computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.

Source: 2002 Michigan Resident Death File, Vital Records & Health Data Development Section, Michigan Department of Community Health; Population Estimate (latest update 3/2004), National Center for Health Statistics.

Access to Quality Health Services

Goal: Improve access to comprehensive, high-quality health care services.

Access to health care has been defined as “the attainment of timely, sufficient, and appropriate health care of adequate quality such that health outcomes are maximized” (1). With access to health care, an individual is more likely to obtain preventive services that are essential to staying healthy: immunizations, early prenatal care, periodic health check ups, and cancer screening procedures including Pap smears. Without access to health care, health problems may go undiagnosed for long periods of time and may worsen, becoming more difficult and costly to treat.

Although the proportion of persons who have health insurance is often used as a measure of access to health

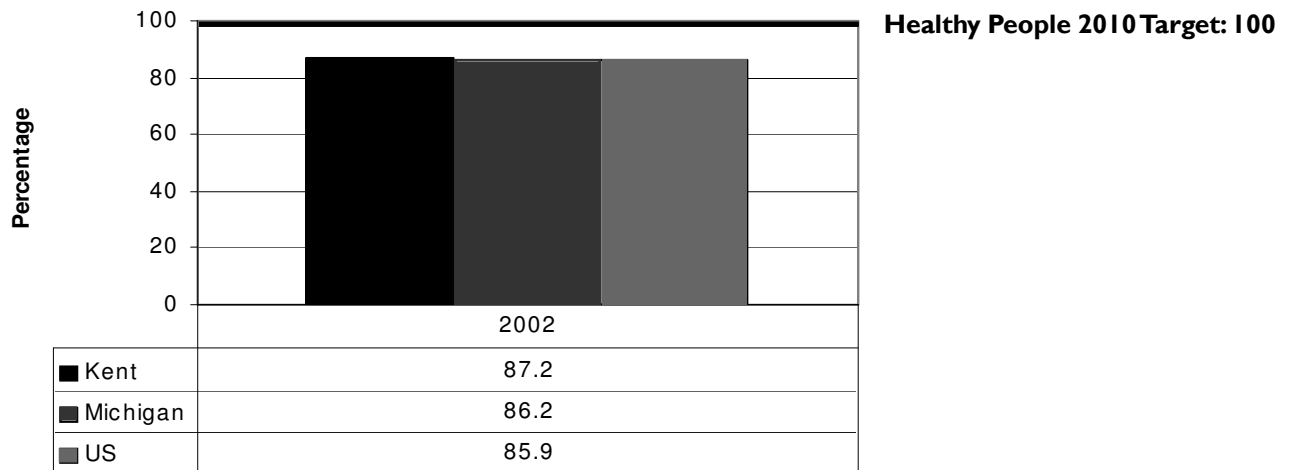
care, it is important to understand that there is more to access than simply having health insurance.

An individual’s ability to pay for fees not covered by insurance, availability of transportation, cultural acceptance of providers or patients, and hours of service can all impact how, and if, an individual might choose to access health care. These factors, however, are much more difficult to assess. Striving to remove all barriers to health care access is important to eliminating health disparities and increasing the quality and years of healthy life for all persons in the United States. In this report, we present data on the percentage of Kent County residents who have health insurance.

(1) Weisman JS and Epstein AM [Falling Through the Safety Net](#) 1994

I-1 Increase the proportion of persons with health insurance.

Persons with Health Insurance, 2002



Source: Kent County Behavioral Risk Factor Survey;
 Michigan Behavioral Risk Factor Survey;
 US Behavioral Risk Factor Surveillance System www.cdc.gov/brfss.

Cancer Incidence and Mortality

Goal: Reduce the number of new cancer cases (incidence) as well as the illness, disability and death caused by cancer.

Cancer is second only to heart disease as the leading cause of death nationwide. Overall, Michigan ranks 27th in cancer mortality rates among the 50 states and Washington, D.C (1). The American Cancer Society estimates that in 2005, 50,220 new cases of cancer will be diagnosed in Michigan, and 20,860 cancer deaths will occur (2).

Although there are more than 100 types of cancer, the American Cancer Society estimates that in 2005, lung and bronchus cancer will be the leading cause of cancer deaths. Prostate cancer deaths in men and breast cancer deaths in women will rank second and colon and

rectal cancers will rank third. This section presents incidence and mortality rates for these four cancers.

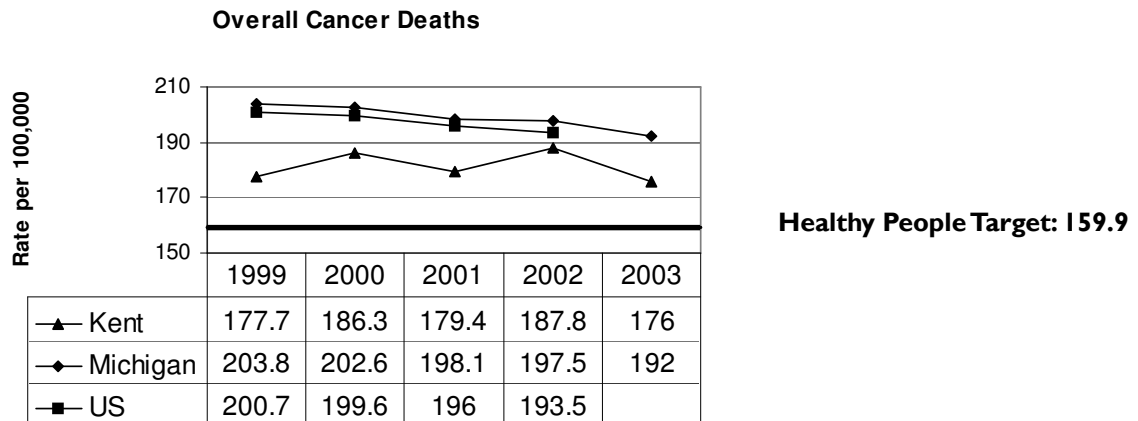
To reduce the number of new cancer cases, sustained prevention efforts are vital. Healthy lifestyle behaviors — such as eliminating tobacco, eating a healthy low fat diet full of beneficial fruits and vegetables, engaging in regular physical activity and using sunscreen with at least SPF 15 — can play an important role in preventing cancers. In addition, early detection through routine screening examinations increases the likelihood of successful treatment and can help reduce the illness, disability and death caused by cancer.

1) America's Health: State Health Rankings - 2004 Edition. Retrieved September 28, 2005, <http://www.unitedhealthfoundation.org/shr2004/states/Michigan.html>

(2) April is National Cancer Control Month. (2005). Retrieved April 7, 2005, http://www.michigan.gov/documents/NatlCACControlMonthFactSheet-April05_87986_7.pdf

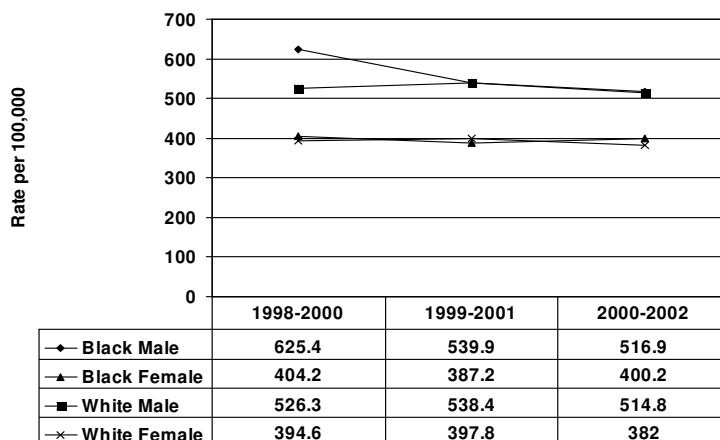
3-1 Reduce the overall cancer death rate.

Age-Adjusted Cancer Mortality Rate (All Cancers), 1999-2003



Age-Adjusted Rates are per 100,000 population. Age-adjusted rates are computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.
 Source: Michigan Resident Death Files, Vital Records & Health Data Development Section, Michigan Department of Community Health, National Vital Statistics System
 National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS

Age-adjusted Cancer Incidence Rate (All Sites) Three-Year Moving Averages, Kent County, 1998-2002

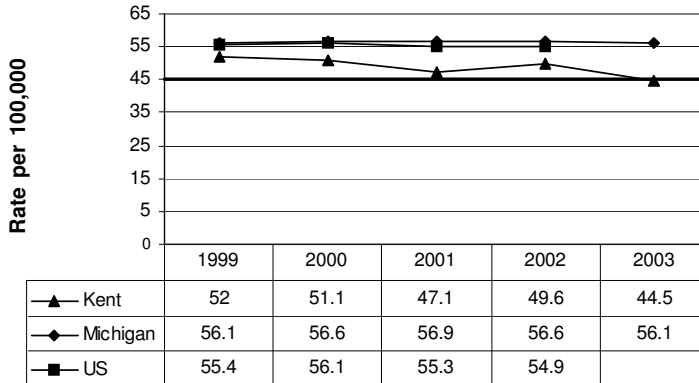


Age-Adjusted Rates are per 100,000 population. Age-adjusted rates are computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.

Source: Michigan Resident Cancer Incidence File. Updated with cases processed through November 16, 2004.
 Vital Records & Health Data Development Section, Michigan Department of Community Health.

3-3 Reduce the lung cancer death rate.

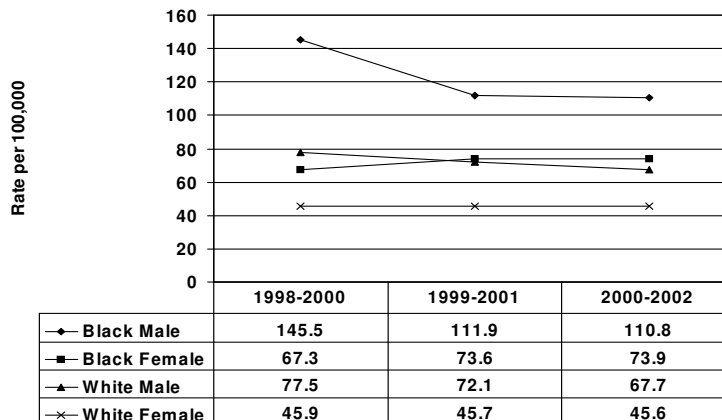
Age-Adjusted Lung Cancer Mortality Rate, 1999-2003



Healthy People Target: 44.9

Age-Adjusted Rates are per 100,000 population. Age-adjusted rates are computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.
 Source: Michigan Resident Death Files, Vital Records & Health Data Development Section, Michigan Department of Community Health, National Vital Statistics System.
 National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS

Age-adjusted Lung Cancer Incidence Rates, Three Year Moving Averages, Kent County, 1998-2002

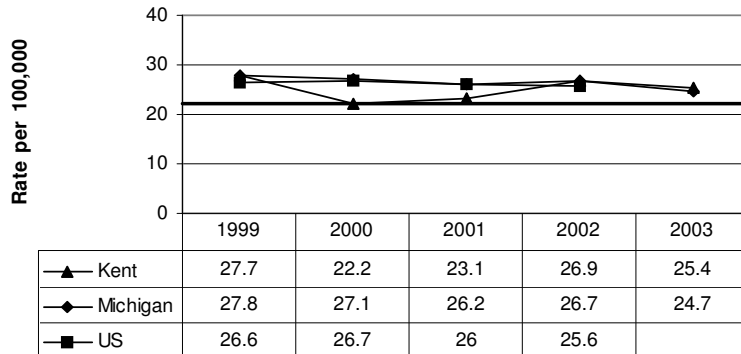


Age-Adjusted Rates are per 100,000 population. Age-adjusted rates are computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.

Source: Michigan Resident Cancer Incidence File. Updated with cases processed through November 16, 2004.
 Vital Records & Health Data Development Section, Michigan Department of Community Health.

3-3 Reduce the breast cancer death rate.

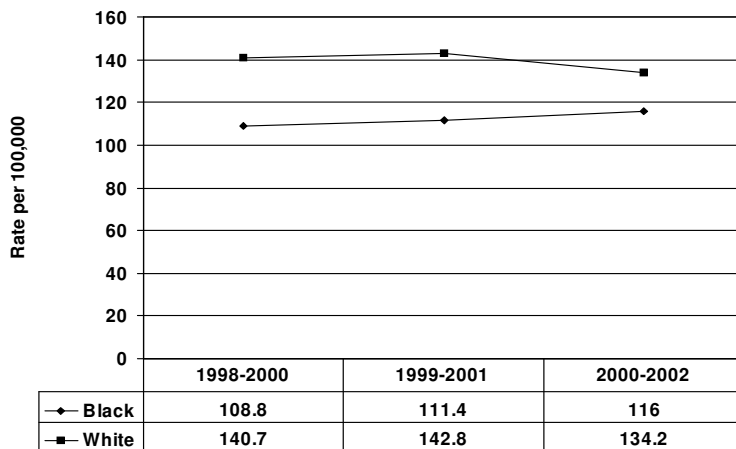
Age-Adjusted Breast Cancer Mortality Rate, 1999-2003



Healthy People Target: 22.3

Age-Adjusted Rates are per 100,000 population. Age-adjusted rates are computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.
 Source: Michigan Resident Death Files, Vital Records & Health Data Development Section, Michigan Department of Community Health, National Vital Statistics System
 National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS

Age-adjusted Breast Cancer Incidence Rates, Three-year moving averages, Kent County, 1998-2002

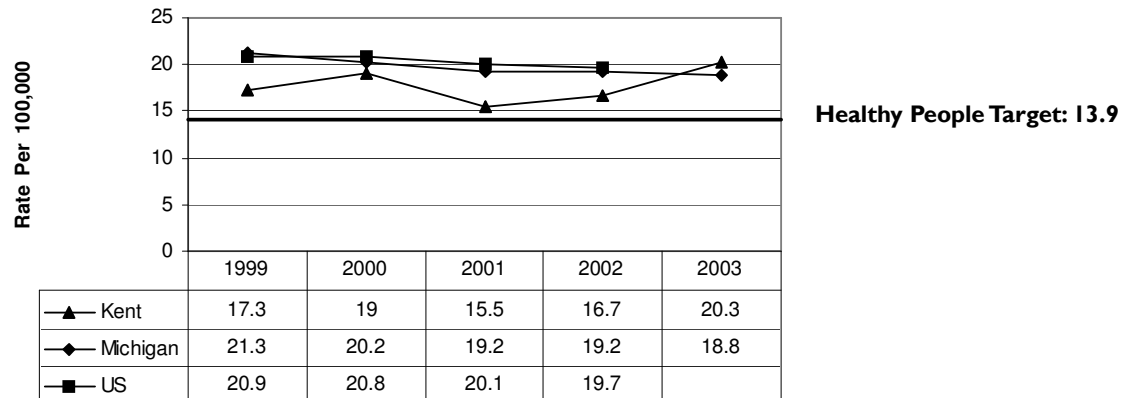


Age-Adjusted Rates are per 100,000 population. Age-adjusted rates are computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.

Source: Michigan Resident Cancer Incidence File. Updated with cases processed through November 16, 2004.
 Vital Records & Health Data Development Section, Michigan Department of Community Health.

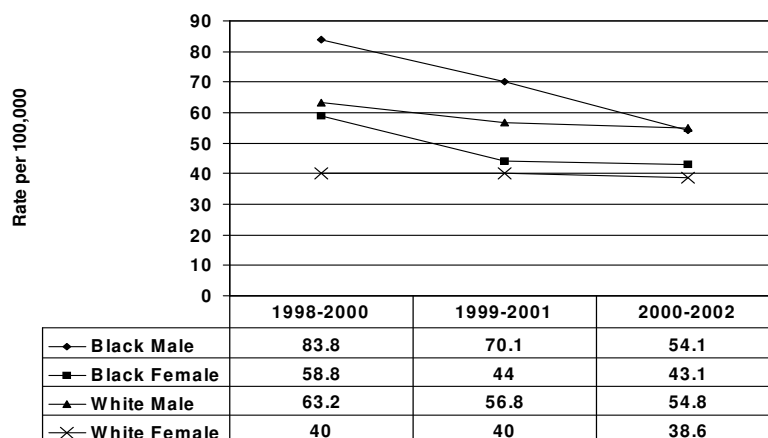
3-5 Reduce the colorectal cancer death rate.

Age-Adjusted Colorectal Cancer Mortality Rate, 1999-2003



Age-Adjusted Rates are per 100,000 population. Age-adjusted rates are computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.
 Source: Michigan Resident Death Files, Vital Records & Health Data Development Section, Michigan Department of Community Health, National Vital Statistics System
 National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS

Age-adjusted Colorectal Cancer Incidence Rates, Three-Year Moving Average, Kent County, 1998-2002

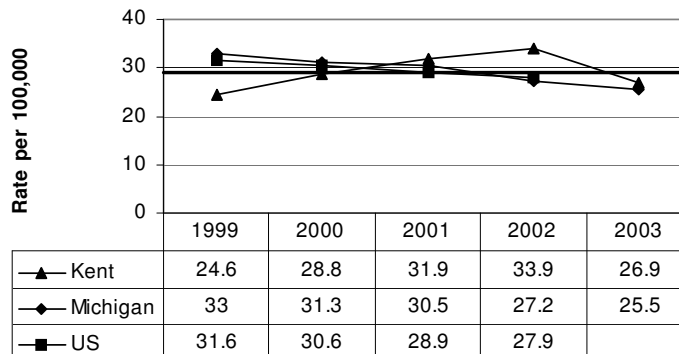


Age-Adjusted Rates are per 100,000 population. Age-adjusted rates are computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.

Source: Michigan Resident Cancer Incidence File. Updated with cases processed through November 16, 2004.
 Vital Records & Health Data Development Section, Michigan Department of Community Health.

3-7 Reduce the prostate cancer death rate.

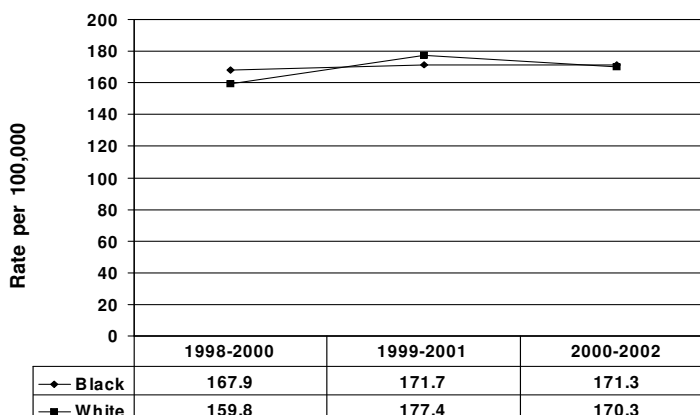
Age-Adjusted Prostate Cancer Mortality Rate, 1999-2003



Healthy People Target: 28.8

Age-Adjusted Rates are per 100,000 population. Age-adjusted rates are computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.
 Source: Michigan Resident Death Files, Vital Records & Health Data Development Section, Michigan Department of Community Health, National Vital Statistics System
 National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS

Age-adjusted Prostate Cancer Incidence, Three-year Moving Averages, Kent County, 1998-2002



Age-Adjusted Rates are per 100,000 population. Age-adjusted rates are computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.

Source: Michigan Resident Cancer Incidence File. Updated with cases processed through November 16, 2004.
 Vital Records & Health Data Development Section, Michigan Department of Community Health.

Diabetes Incidence and Mortality

Goal: Through prevention, reduce the incidence and economic burden of diabetes and improve the quality of life for all persons who have or are at risk for diabetes.

Diabetes is a chronic disease that results from the body's inability to sufficiently produce and/or use the hormone insulin. Insulin is used by the body's tissue and organs to utilize glucose, one of the body's key sources of energy. The two forms of diabetes disease, type 1 and type 2, are characterized by the manner in which the body is insulin-deficient. Type 1 diabetes – also known as insulin-dependent diabetes – occurs mainly in children and adolescents 18 years and younger when the body does not produce insulin. People with type 1 diabetes must take insulin to live. In type 2 diabetes, the body's tissues become unable to use its own limited amount of insulin effectively (1). Type 2 diabetes typically occurs in adults over 30 years of age and is thus sometimes referred to as “adult-onset” diabetes. Type 2 diabetes is strongly associated with obesity. It has been increasingly diagnosed in children as childhood obesity in the U.S. has reached epidemic proportions.

Diabetes can lead to serious complications: heart disease, kidney disease, blindness, nerve damage and foot and skin complications.

Before individuals develop type 2 diabetes, they are likely to develop “pre-diabetes” – blood glucose levels that are higher than normal but not yet high enough to be diagnosed as diabetes (2). Based on a study sponsored by the National Institutes of Health, individuals with pre-diabetes can delay or prevent the onset of type 2 diabetes by eating a healthy diet and increasing physical activity.

Using the Michigan Behavioral Risk Factor Survey System (BRFSS), the Michigan Department of Community Health estimated that in 2000 approximately 23,658 Kent County adults (aged 18 and up) had been diagnosed with diabetes (3); national studies suggest that an additional 10,470 Kent County adults have diabetes but are not aware of it (4). In 2003, diabetes was the eighth leading cause of death for residents in Kent County (5). The data presented here includes diabetes diagnoses and deaths in Kent County.

(1) Healthy People 2010: Understanding and Improving Health. (2001). Retrieved June 23, 2004, from <http://www.healthypeople.gov/Document/tableofcontents.htm#volume1>

(2) American Diabetes Association: What is Pre-Diabetes (n.d.). Retrieved June 25, 2004, from <http://www.diabetes.org/pre-diabetes.jsp>

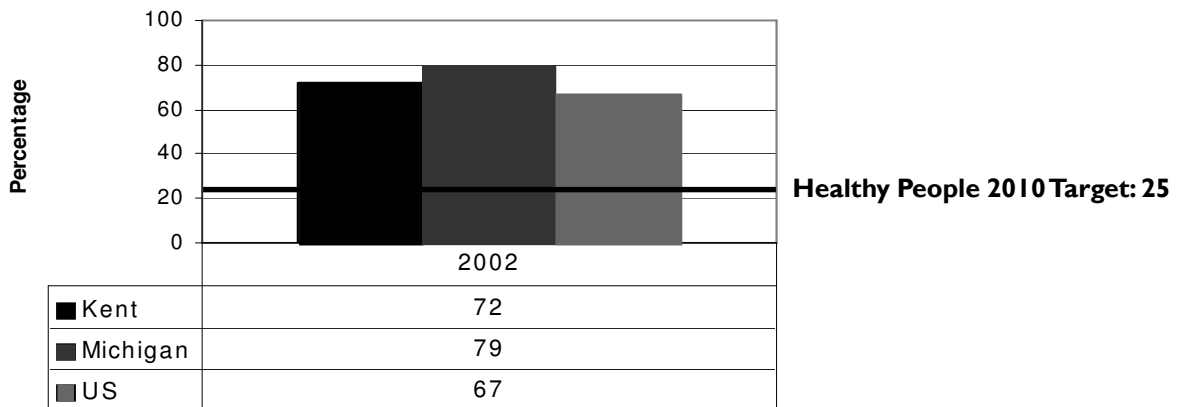
(3) Diabetes Fact Sheets: Diabetes in Kent County. (2002). Retrieved June 23, 2004, from <http://www.michigan.gov/mdch/0,1607,7-132-2940-13768--,00.html>

(4) US Health and Human Services news release, March 27, 2002

(5) 2003 Michigan Resident Death File, Vital Records & Health Data Development Section, Michigan Department of Community Health; Population Estimate (latest update 3/2004), National Center for Health Statistics.

5-3 Reduce the overall rate of diabetes that is clinically diagnosed.

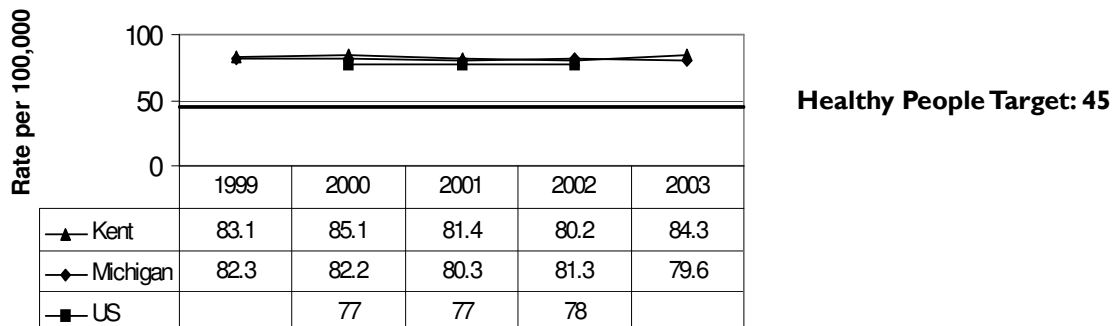
Percentage of people who responded “yes” to the question “Have you been told by a doctor that you have diabetes?”



Source: Kent County BRFSS, 2002
Michigan and US Behavioral Risk Factor Surveillance System: www.cdc.gov/brfss

5-5 Reduce the diabetes death rate.

Age-Adjusted Diabetes Related Mortality Rate, 1999-2003



Diabetes-related Death Rates: Rates are per 100,000. Computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.
Source: 1999 - 2003 Michigan Resident Death Files, Vital Records & Health Data Development Section, Michigan Department of Community Health.
National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS

Environmental Health

Goal: Promote health for all through a healthy environment.

The World Health Organization describes Environmental Health as comprising “those aspects of human health, disease, and injury that are determined or influenced by factors in the environment” (1). Indicators related to air quality, lead levels in children and residential testing for radon are summarized in this section.

A vital air quality standard is maintaining acceptable levels of ground-level ozone. Most Kent County residents are familiar with Ozone Action Days, the periodic summer warnings of increased ozone air pollution levels, which affect respiratory functioning. The monitoring of Hazardous Air Pollutants (HAPs) includes 188 substances known or suspected of causing cancer and other serious health effects. HAPs include mercury, arsenic, PCBs, pesticides and other toxic substances.

Lead poisoning is the leading childhood environmental hazard and can have profound developmental effects on young children.

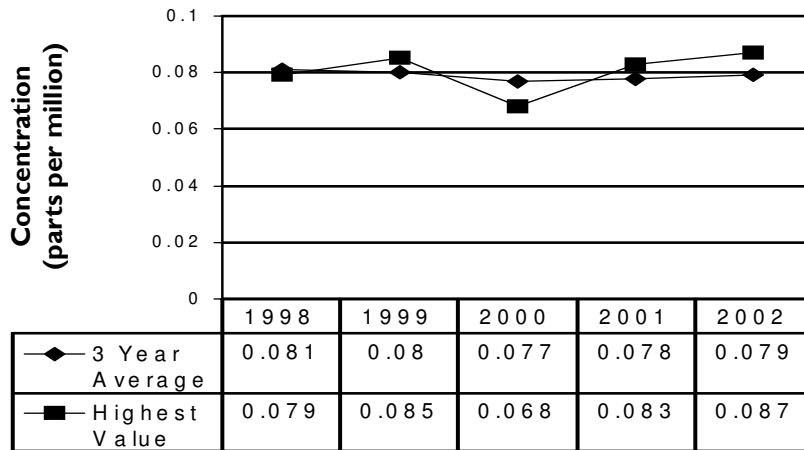
Exposure to lead in the home occurs primarily from two sources: 1) lead paint dust that accumulates around windows and on floors and 2) the soil around homes that is tainted by exterior paint and residual leaded gasoline emissions. Because lead paint was banned in 1978, most lead hazards occur in older homes. Fortunately, there has been a steady decline in recent years in the percentage of Kent County children with an elevated blood lead level.

Radon is a colorless, odorless gas, a byproduct of the radioactive decaying process of radium in soil. The National Academy of Sciences estimates that 10-15% of all lung cancer deaths could be attributed to residential exposure to radon. Nearly 16% of Kent County homes tested since 1998 have had a radon level above what is considered safe.

(1) World Health Organization (WHO). *Indicators for Policy and Decision Making in Environmental Health*. (Draft). Geneva, Switzerland: WHO, 1997.

8-1 Reduce the proportion of persons exposed to air that does not meet the U.S. Environmental Protection Agency’s health-based standards for harmful air pollutants.

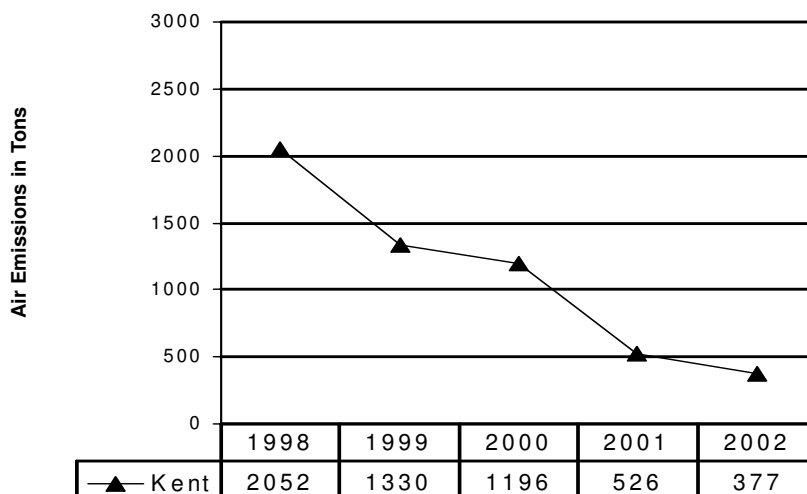
8-1a Ambient Air: Ground-Level Ozone,* 8-Hour Standard, 1998-2002



NAAQS Standard: 0.08 ppm**
Ground level ozone:
Important criteria pollutant.
Principal component of urban smog that impairs respiratory functioning.

*A major component of smog, ground level ozone is a reaction of NOx , VOCs, and sunlight.
 ** National Ambient Air Quality Standard
 Source: Michigan Department of Environmental Quality: 2002 Annual Air Quality Report

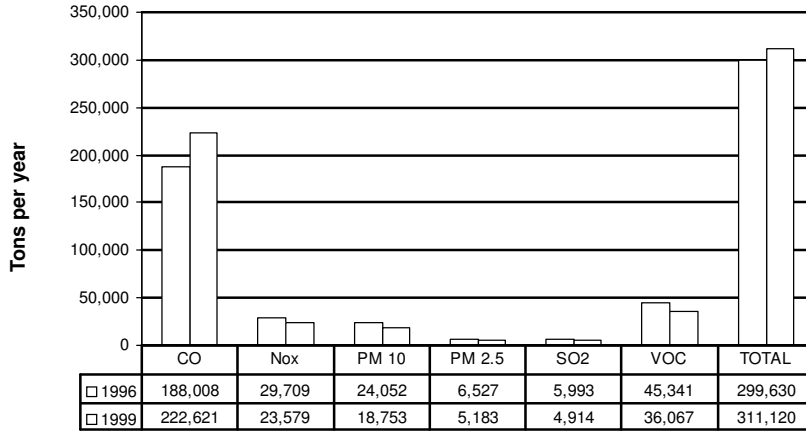
8-1b Toxic Release Inventory,* 1998-2002



Toxic Release Inventory:
Record, by facility, of use, storage, or release of hazardous chemicals and compounds.

* Total for air releases, reported point sources
 Source: Michigan Department of Environmental Quality, Air Division

8-1c Source Emissions: Criteria Air Pollutants,* 1996 and 1999

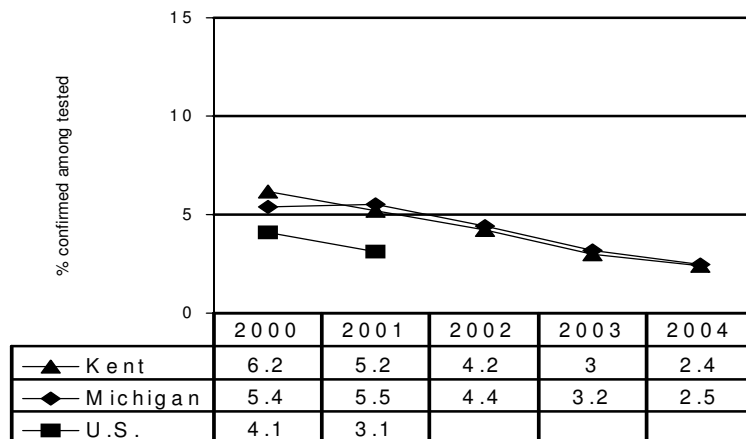


Criteria Air Pollutants: A well-known family of chemicals measured at regional Michigan Department of Environmental Quality ambient air monitoring sites.

*Air pollutants that can be reasonably anticipated to endanger public health.
 CO carbon monoxide; NOx nitrogen oxide; PM 10 particulate matter 10 microns;
 PM 2.5 particulate matter 2.5 microns; SO2 sulfur dioxide; VOC volatile organic compounds.
 Source: Michigan Department of Environmental Quality: National Emissions Inventory.

8-11 Eliminate elevated blood lead levels in children.

Elevated Blood Lead Levels*, 2000-2004

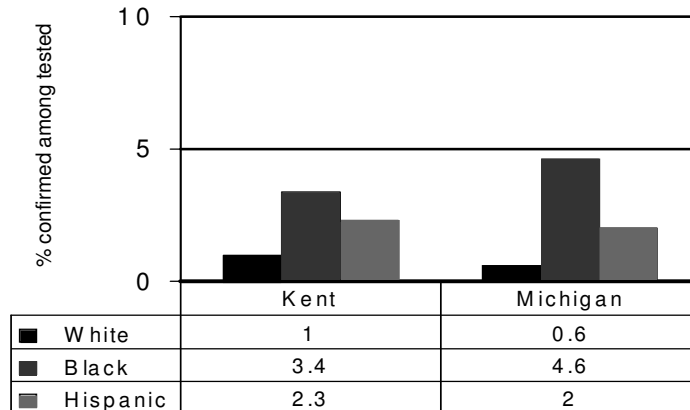


Healthy People 2010 Target: 0%

* Children < 6 years old with confirmatory test ≥ 10 ug/dL
 Source: STELLAR database: Michigan Department of Community Health, Kent County Health Department; MMWR, V. 52 SS-10, Centers for Disease Control.

8-1 | Eliminate elevated blood lead levels in children.

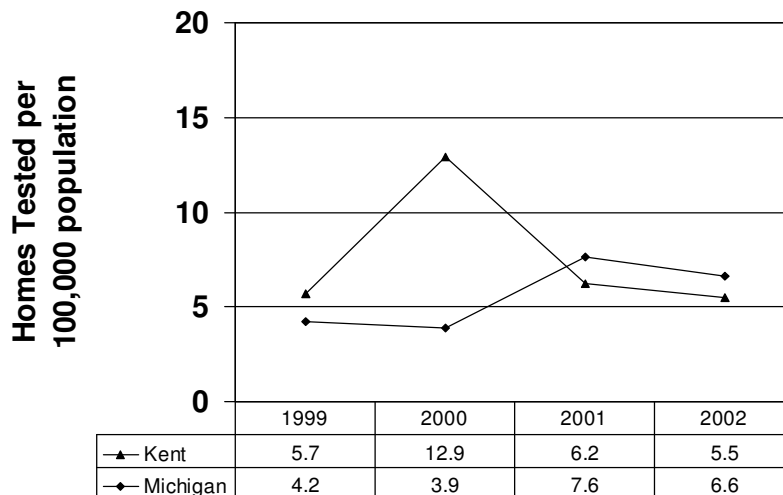
Elevated Blood Lead Levels * 2004



Healthy People 2010 Target: 0%

*Children < 6 years old with confirmatory test ≥ 10 ug/dL
 ** 2001 data
 Source: STELLAR database: Michigan Department of Community Health, Kent County Health Department; MMWR, V. 52 SS-10, Centers for Disease Control.

8-18 Increase the proportion of persons living in homes tested for radon concentrations.



Source: Michigan Department of Community Health, Kent County Health Department.

Family Planning

Goal: Improve pregnancy planning and spacing and prevent unintended pregnancy.

Although sufficient methods exist to prevent many unintended pregnancies, approximately half of all pregnancies in the United States are unintended (1). Unintended pregnancies have the potential to lead to several unfavorable outcomes, including decreased educational achievement for the parent(s), lower education levels for the child, greater welfare dependency, increased potential for child abuse and other consequences that can negatively impact the health of the family. Pregnancies in adolescents account for a large number of unintended pregnancies; nearly one million teenage pregnancies occur each year in the United States (2).

Teen-age mothers are less likely to be married and more likely to live in poverty. In addition, children born to mothers under age 15 have an increased risk of low birth weight and sudden infant death syndrome.

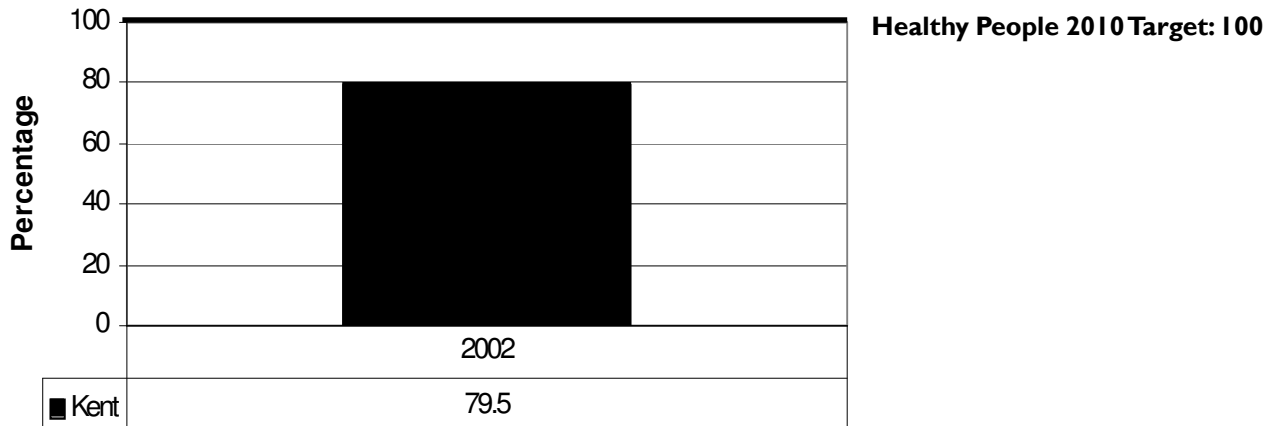
Reducing the number of unintended pregnancies is a vital part of improving public health. The rate of contraception use and the rate of adolescent pregnancies are just two measurements that can be used to demonstrate the effectiveness of public health programs aimed at pregnancy planning.

(1) National Center for Health Statistics (NCHS). *Healthy People 2000 Review, 1997*. Hyattsville, MD: Public Health Service (PHS), 1997.

(2) Henshaw, S.K. *U.S. Teenage Pregnancy Statistics*. New York, NY: The Alan Guttmacher Institute, 1998.

9-3 Increase the proportion of females at risk of unintended pregnancy (and their partners) who use contraception.

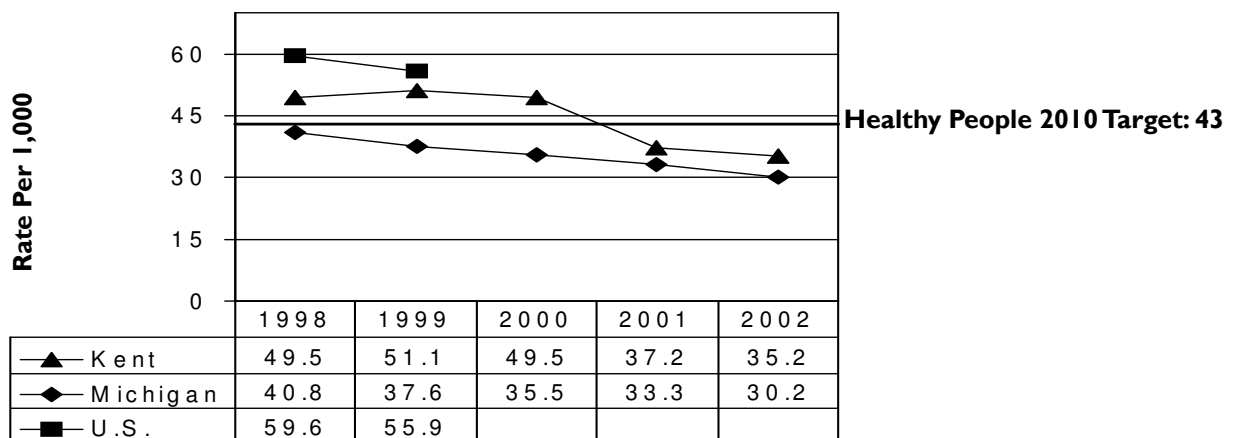
Proportion of Adult Women at Risk for Unintended Pregnancy Who Use Contraception



* Data is for 15-44 year old females
Sources: Kent County Behavioral Risk Factor Survey

9-7 Reduce pregnancies among adolescent females.

Pregnancy Rate Among Females Ages 15-17, 1998-2002



Sources: Vital Records and Health Data Development Section, Michigan Department of Community Health; Ventrura, SJ, Abma JC, Mosher WD, Henshaw S. Revised pregnancy rates, 1990-97, and new rates for 1998-99: United States. National vital statistics reports; vol 52 no 7. Hyattsville, MD: National Center for Health Statistics 2003.

Food Safety

Goal: Reduce food-borne illnesses.

There are two primary reasons that many food-borne illnesses are not reported to local health departments. First, many individuals do not associate gastrointestinal illness with food they have eaten and second, many individuals are unaware that local health departments investigate complaints of foodborne illness. Unfortunately, this underreporting results in data that does not present the true scope of food-borne illness.

It is not generally known that food-borne illness can sometimes lead to long-term complications. Bacterial food-borne illnesses such as *Campylobacter* enteritis and Salmonellosis can lead to arthritis and other syndromes. *Campylobacter* can also cause Guillain-Barré, a paralytic syndrome that can last for weeks. *Salmonella* can cause Reiter's syndrome, a disease that causes pain in the joints, painful urination, and irritation of the eyes that can last months or years. In 2-7% of cases, *E. coli* O157:H7 infections can lead to a complication called hemolytic uremic syndrome, which can result in kidney failure.

Whether resulting in short or long-term complications, food-borne illnesses are associated with fairly substantial economic costs.

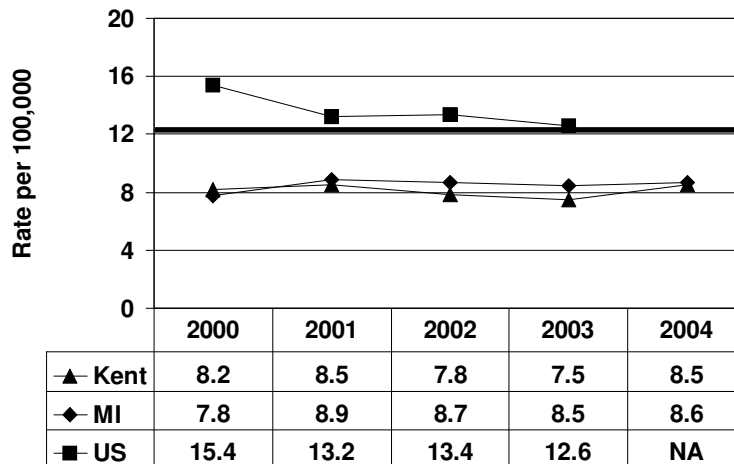
Treatment costs include those associated with hospitalization and medication. Those who become sick may be required to take time off from work or school resulting in costs due to lost productivity. When people become sick from eating a food product, it can result in negative publicity for the food industry and this industry may see reductions in sales and additional costs associated with measures put in place to regain the public's trust.

Multiple efforts are being made to protect the public from food-borne illness. At the local level, the Environmental Health Division of the Kent County Health Department operates an inspection and licensing program for all temporary and permanent food service establishments in the county. This program helps ensure that food service establishments maintain sanitary conditions and follow safe food handling practices.

This section presents data on reported cases of five major food-borne pathogens obtained through Kent County's communicable disease surveillance system. Data from the Health Department's Environmental Health division inspection and licensing program is also presented here.

10-1a Reduce infections caused by *Campylobacter* species.

Campylobacter Infection Rate, 2000-2004 (Reported Cases)

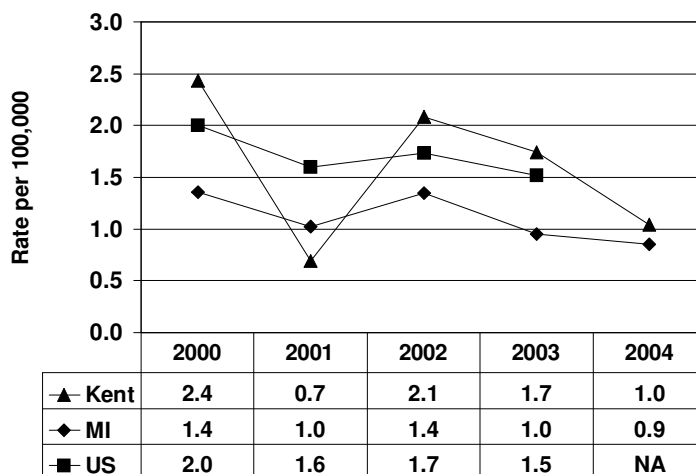


Healthy People 2010 Target: 12.3

Kent County Data: KCHD Monthly Notifiable Disease Report
 MI Data: Michigan Department of Community Health
 US Data : Center's for Disease Control, Foodnet.

10-1b Reduce infections caused by *Escherichia coli* 0157:H7.

E. Coli Infection Rate, 2000-2004 (Reported Cases)

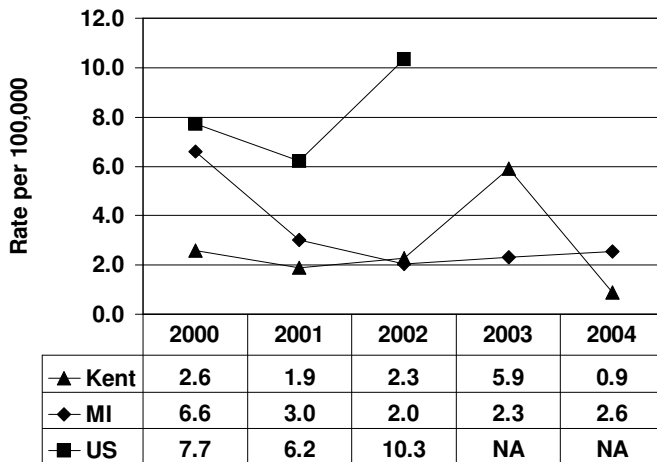


Healthy People 2010 Target: 1.0

Kent County Data: KCHD Monthly Notifiable Disease Report
 MI Data: Michigan Department of Community Health
 US Data : Centers for Disease Control, Foodnet.

10-1c Reduce infections caused by *Shigella* species.

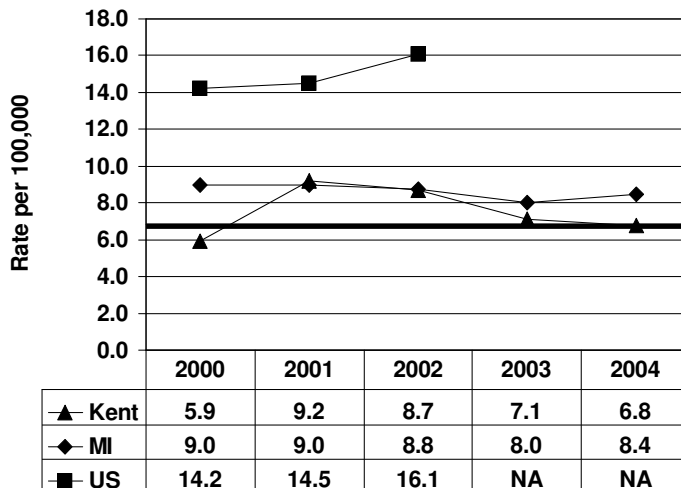
Shigella Infection Rate, 2000-2004 (Reported Cases)



Kent County Data: KCHD Monthly Notifiable Disease Report
 MI Data: Michigan Department of Community Health
 US Data: Centers for Disease Control, Foodnet

10-1d Reduce infections caused by *Salmonella* species.

Salmonella Infection Rate, 2000-2004 (Reported Cases)

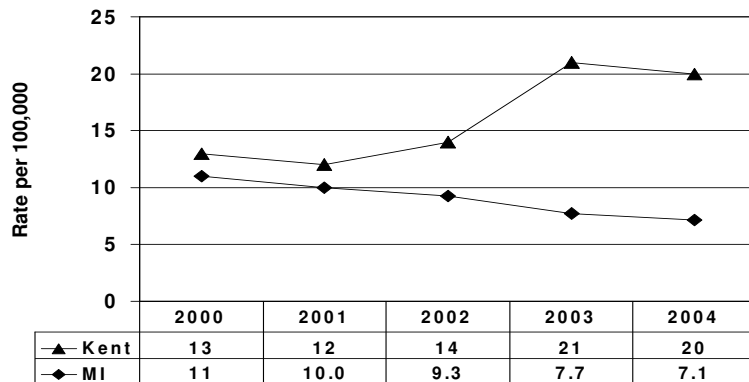


Healthy People 2010 Target: 6.8

Kent County Data: KCHD Monthly Notifiable Disease Report
 MI Data: Michigan Department of Community Health
 US Data : Centers for Disease Control, Foodnet

10-1e Reduce infections caused by *Giardia lamblia*.

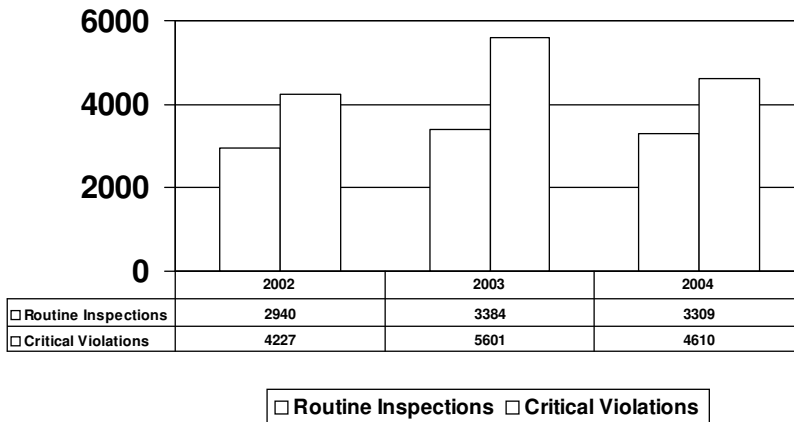
Giardia Infection Rate, 2000-2004 (Reported Cases)



Kent County Data: KCHD Monthly Notifiable Disease Report
 MI Data: Michigan Department of Community Health
 U.S. Data: This disease is not nationally reportable.

10-6 Improve food employee behaviors and food preparation practices that relate directly to food borne illnesses.

Kent County Food Service Establishment Inspections and Critical Violations*



*Violations from the Food Service Establishment Inspection Report having the highest risk of causing a food-borne illness.
 Source: Kent County Health Department; Environmental Health Division.

Heart Disease and Stroke

Goal: Improve cardiovascular health and quality of life through the prevention, detection, and treatment of risk factors; early identification and treatment of heart attacks and strokes; and prevention of recurrent cardiovascular events.

Heart disease and stroke, the principal components of cardiovascular disease, are the first and third (respectively) leading causes of death for both men and women (1). Each year, more than 930,000 Americans die from cardiovascular disease, a rate of approximately one death every 34 seconds (1). Although heart disease and stroke are often thought of as diseases that primarily affect men and older people, they are also major killers of women and people in the prime of life (2). High blood pressure and high blood cholesterol are two leading risk factors for cardiovascular disease.

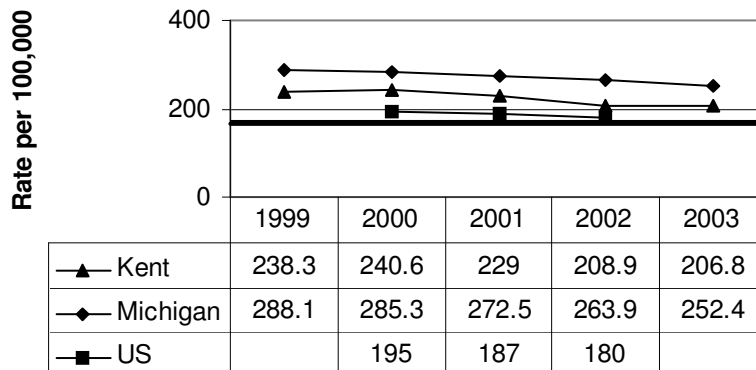
Accordingly, experts recommend that all adults have their blood pressure checked regularly and their blood cholesterol levels checked every five years (1). In addition, diabetes, tobacco use, physical inactivity, poor nutrition, and overweight/obesity are all significant risk factors for cardiovascular disease. Identifying and addressing these risk factors can help reduce the risk of heart disease and stroke. This section presents data on death rates from coronary heart disease and stroke.

(1) Centers for Disease Control: Preventing Heart Disease and Stroke; Addressing the Nation's Leading Killers. (2004). Retrieved June 28, 2004, from http://www.cdc.gov/nccdphp/aag/aag_cvd.htm

(2) Centers for Disease Control: Chronic Disease Prevention; Preventing Heart Disease and Stroke. (2004). Retrieved June 28, 2004, from http://www.cdc.gov/nccdphp/bb_heartdisease/index.htm

12-1 Reduce Coronary Heart Disease Deaths

Age-Adjusted Coronary Heart Disease Death Rate, 1999-2003

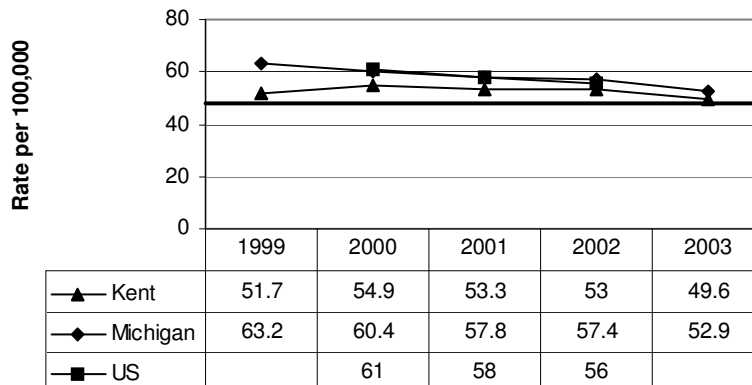


**Healthy People 2010
Target: 166**

Heart Disease Death Rates: Rates are per 100,000. Computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.
Source: 1999 - 2003 Michigan Resident Death Files, Vital Records & Health Data Development Section, Michigan Department of Community Health, Population Estimate (latest update 9/2004), National Center for Health Statistics National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS.

12-7 Reduce Stroke Deaths

Age-Adjusted Stroke Death Rate, 1999-2003



**Healthy People 2010
Target: 48**

Stroke Death Rates: Rates are per 100,000. Computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.
Source: 1999 - 2003 Michigan Resident Death Files, Vital Records & Health Data Development Section, Michigan Department of Community Health, Population Estimate (latest update 9/2004), National Center for Health Statistics National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS.

HIV and AIDS

Goal: Prevent human immunodeficiency virus (HIV) infection and its related illness and death.

Human Immunodeficiency Virus (HIV) is the virus that causes AIDS. However, having HIV disease is not the same as having AIDS. After becoming infected with HIV, a person may not develop AIDS for many years. HIV attacks cells that are important to the body's immune system, the mechanism by which the body fights off infection. As HIV disease progresses, more and more of the cells are damaged by the virus. When the number of healthy cells reaches a very low number in a person infected with HIV, their immune system is considered seriously damaged and they are classified as having AIDS. With AIDS, the body is at a greater risk for infection because it has very little defense against it.

As of January, 2005, the Michigan Department of Community Health estimated that there were approximately 850 people living with HIV in Kent County. While the number of new HIV cases (incidence) has remained relatively level in Kent County, the number of existing cases (prevalence) is increasing. This is due to the fact that new cases of HIV are continually diagnosed and people with HIV and AIDS are living longer.

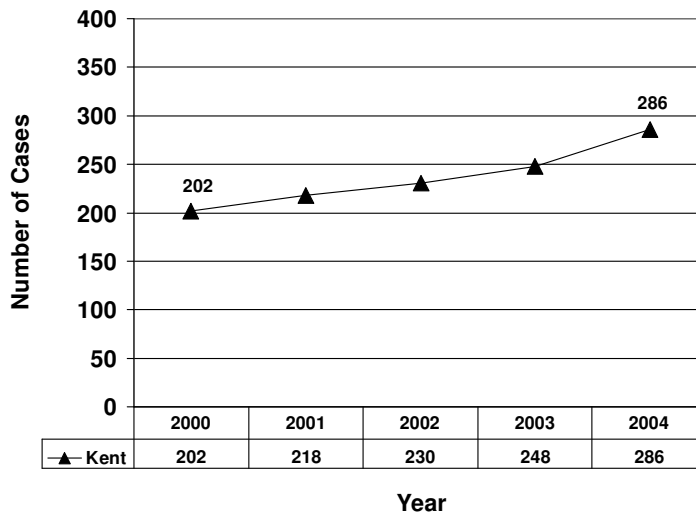
Getting an accurate count of people living with HIV/AIDS presents a unique challenge to public health. Although a test for detecting HIV was developed and made widely available in the 1980s, certain barriers existed to the reporting of HIV infection. Adequate treatment was not available until 1995. When treatment became available, concerns about lack of confidentiality and the discrimination that could result from a positive test led to underreporting of HIV disease. Until recently, AIDS cases were only required to be reported to MDCH by physicians. As of April 1, 2005, Michigan's Public Health Act 514 requires that clinical laboratories report HIV-related test results to local or state health departments. Because tracking HIV provides a more accurate and timely means of assessing both the incidence and prevalence of the disease, it is hoped these measures will help make key HIV baseline data available.

(1) Michigan Department of Community Health: Characteristics of Michigan Residents Living with HIV or AIDS. (January 1, 2004). Retrieved July 2, 2004, from http://www.michigan.gov/documents/Jan2004_noextra_83980_7.pdf

(2) Healthy People 2010: Understanding and Improving Health. (2001). Retrieved June 23, 2004, from <http://www.healthypeople.gov/Document/tableofcontents.htm#volume1>

13-1 Reduce AIDS among adolescents and adults.

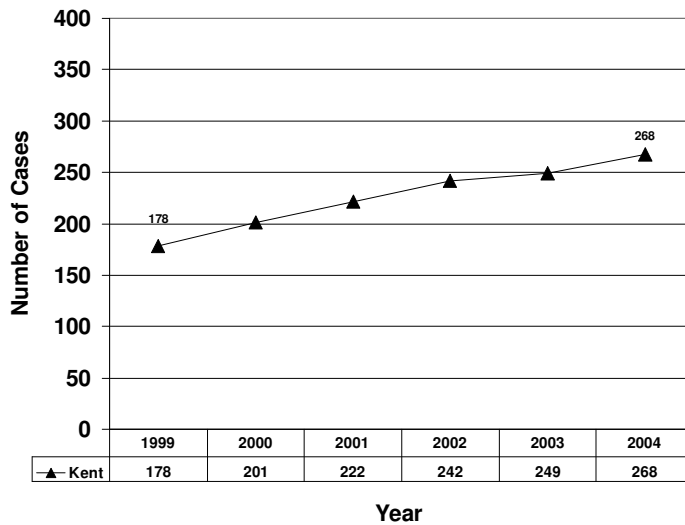
Persons Living with AIDS (All ages)



Source: Kent: Monthly Notifiable Disease Report

13-5 Reduce the number of cases of HIV infection among adolescents and adults.

Persons Living with HIV (not AIDS)- All ages



Source: Kent: Monthly Notifiable Disease Report

Immunization and Infectious Disease

Goal: Prevent disease, disability and death from infectious diseases, including vaccine-preventable diseases.

Vaccination – also known as immunization or inoculation – can prevent the debilitating and fatal effects of infectious diseases in a population. Having high levels of vaccinations in a community can provide disease protection not only to those who become vaccinated, but also to individuals who are unable to receive vaccines because they are too young or are otherwise unable to receive vaccination. This is called group (or “herd”) immunity and works by reducing the number of sick people to whom unvaccinated individuals are exposed. However, if vaccination levels in a population drop, this immunity declines and diseases preventable through vaccination have the opportunity to reemerge (1). Some diseases that were very close to being eradicated are coming back (polio), while some that have been eradicated have the potential to resurface in the form of bioterrorism (smallpox).

Although vaccines are beneficial in preventing illness, infectious diseases remain a major cause of illness, disability and death. Despite attempts by the medical community, there remain many infectious diseases for which vaccines are not available (hepatitis C for example).

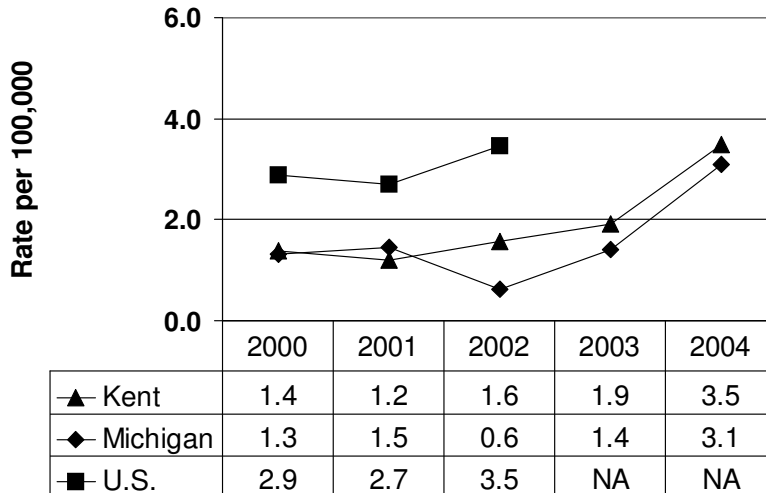
The ease and speed of worldwide travel also presents the opportunity for the introduction of new infectious organisms into a population. These organisms can be introduced by an infected person or through importation of food from foreign lands. These types of organisms present great danger to a population that has never been exposed, for they have minimal protection from becoming infected.

In the past few years, newly identified diseases (such as West Nile Virus and SARS) have shown great potential to cause widespread illness. Additionally, ordinary organisms that have become resistant to the medications used to treat them contribute to the greater possibility of a worldwide epidemic of many types of infectious diseases (1). Planning, disease surveillance, disease response, research and training are vital to preventing epidemics and improving health worldwide. This section provides data for the vaccine preventable diseases varicella (chicken pox) and pertussis (whooping cough), the respiratory illness tuberculosis (TB) and chronic hepatitis C.

(1) Healthy People 2010: Understanding and Improving Health. (2001). Retrieved June 26, 2004, from <http://www.healthypeople.gov/Document/tableofcontents.htm#volume1>

14-1a Reduce or eliminate indigenous cases of pertussis (children under age 7).

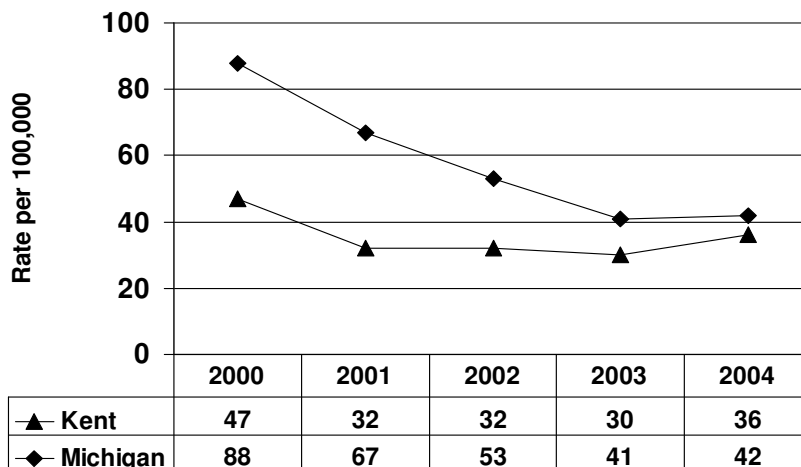
Pertussis Infection Rate (all ages), 2000-2004



Source: Kent County Data: KCHD Monthly Notifiable Disease Report
 MI Data: Michigan Department of Community Health
 US Data: Summary of Notifiable Diseases, Center's for Disease Control

14-1b Reduce or eliminate indigenous cases of chicken pox.

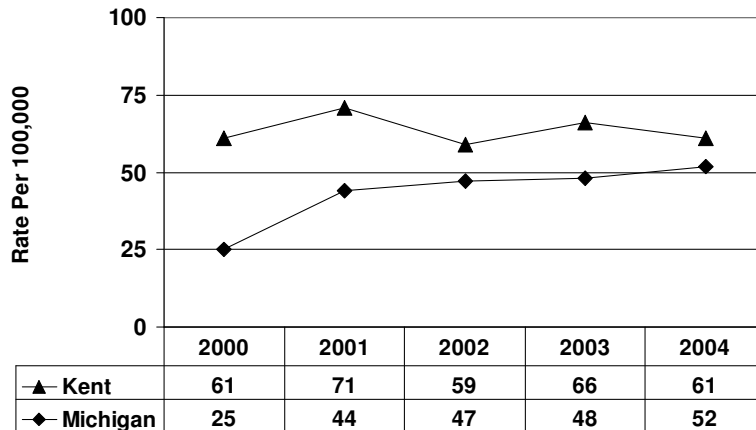
Chicken Pox Infection Rate, 2000-2004



Source: Kent County Data: KCHD Monthly Notifiable Disease Report
 MI Data: Michigan Department of Community Health
 US Data: Summary of Notifiable Diseases, Center's for Disease Control

14-10 Increase the proportion of persons with chronic Hepatitis C infection who are identified by state and local health departments.

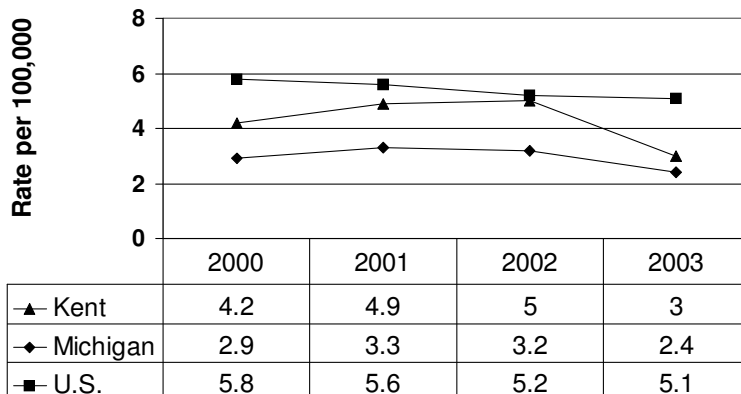
Chronic/Unknown Hepatitis C Infection Rate, 2000-2004



Source: Kent County Data: KCHD Monthly Notifiable Disease Report
 MI Data: Michigan Department of Community Health

14-11 Reduce Tuberculosis

Tuberculosis Infection Rate, 2000-2003



Source: Kent County Data: KCHD Monthly Notifiable Disease Report
 MI Data: Michigan Department of Community Health
 US Data: Summary of Notifiable Diseases, Center's for Disease Control

Injury and Violence Prevention

Goal: Reduce injuries, disabilities and deaths due to unintentional injuries and violence.

Most people sustain a significant injury sometime during their lives (1). The majority of these injuries are unintentional and preventable, yet millions of Americans are incapacitated by unintentional injuries, with many suffering permanent disability. Unintentional injury is the leading cause of death for persons ages 1-34. Deaths from motor vehicle crashes account for nearly half of the unintentional injury deaths (2). While unintentional injuries are among the leading causes of death among younger age groups, the actual death rate from injuries is higher in the elderly than among younger persons (1). Injuries incurred in falls are among the leading causes of injury death in the elderly.

Homicide rates are especially high among African American and Latino youth. The murder rate among African American youth is twice that of their Latino counterparts and nearly 14 times the rate in the non-Latino white youth population (3). Non life-threatening injuries resulting from violence are prevalent in the U.S. The elderly, females and children are often victimized by physical and sexual assault, crimes frequently perpetrated by persons they know.

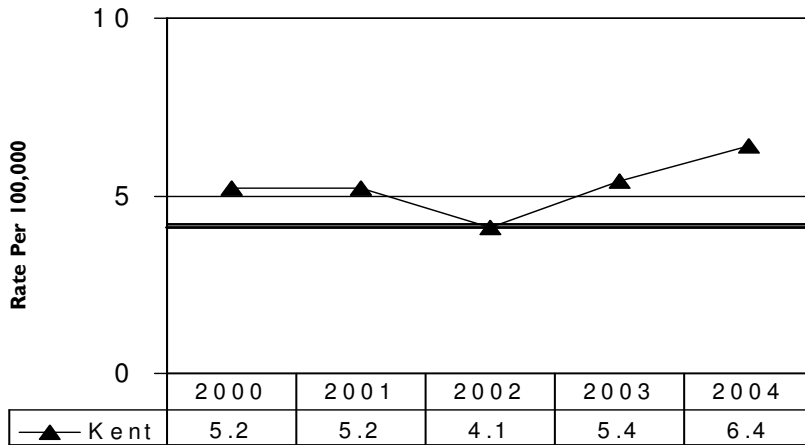
(1) Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS). Deaths: Final data for 1997. *National Vital Statistics Reports* 47(19), June 1999.

(2) HHS, CDC, National Center for Injury Prevention and Control (NCIPC). *Ten Leading Causes of Injury Deaths*. Atlanta, GA: HHS, CDC, NCIPC, 1997.

(3) Anderson, R.N.; Kockanck, K.D.; and Murphey, S.L. Report of final mortality statistics, 1995. *Monthly Vital Statistics Report* 45(Suppl. 2):11, 1997.

15-3 Reduce firearms-related deaths.

Death rate from firearms related incidents 2000-2004

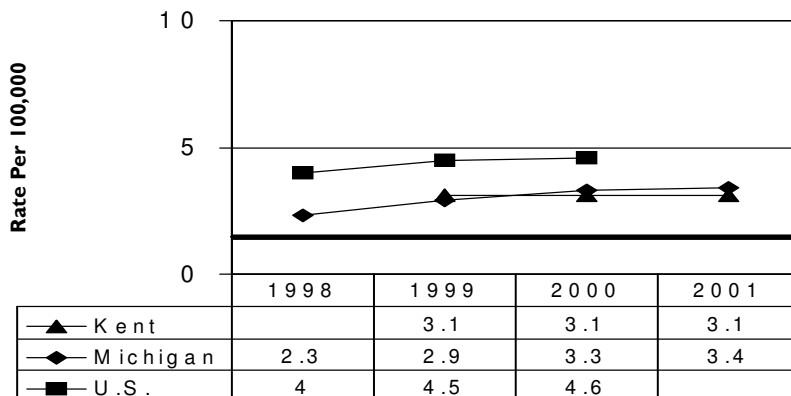


Healthy People 2010 Target: 4.1

Source: Kent County Medical Examiner 2004 Annual Report

15-8 Reduce deaths from poisoning.

Death rate from poisoning, 1998-2001

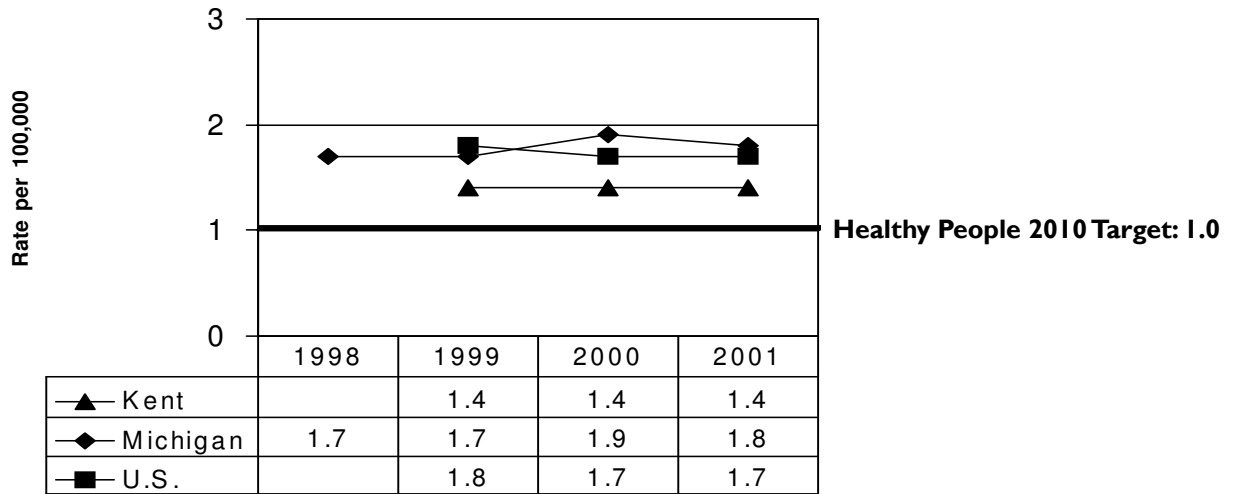


Healthy People 2010 Target: 1.5

Source: Injury Mortality in Michigan: 1999-2001, Michigan Department of Community Health.

15-16 Reduce pedestrian deaths on public roads.

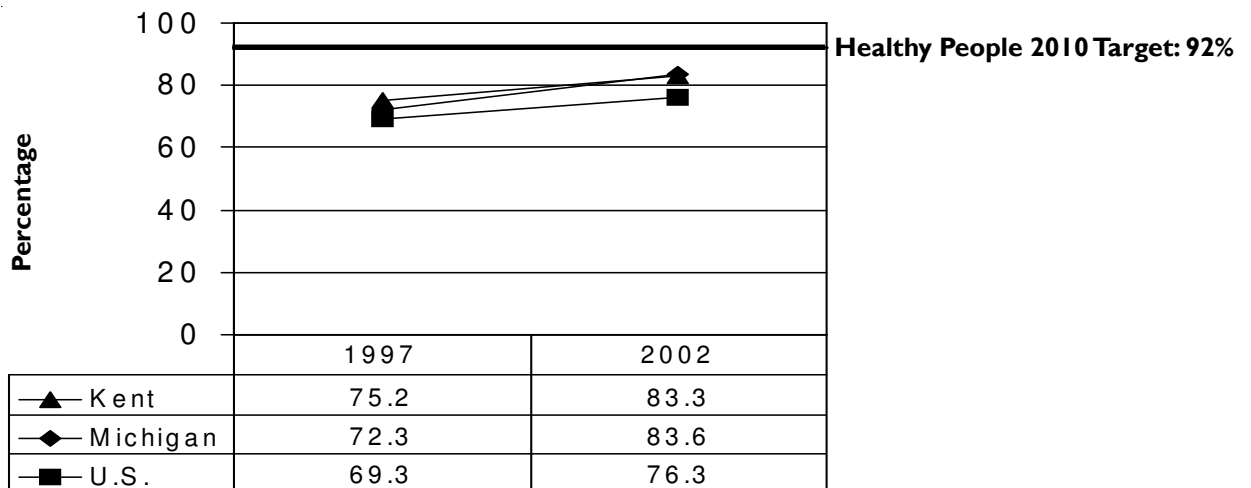
Pedestrian Death Rate, 1998-2001



Source: Injury Mortality in Michigan: 1999-2001, Michigan Department of Community Health, Healthy People 2010 Database, Centers for Disease Control.

15-19 Increase use of seatbelts.

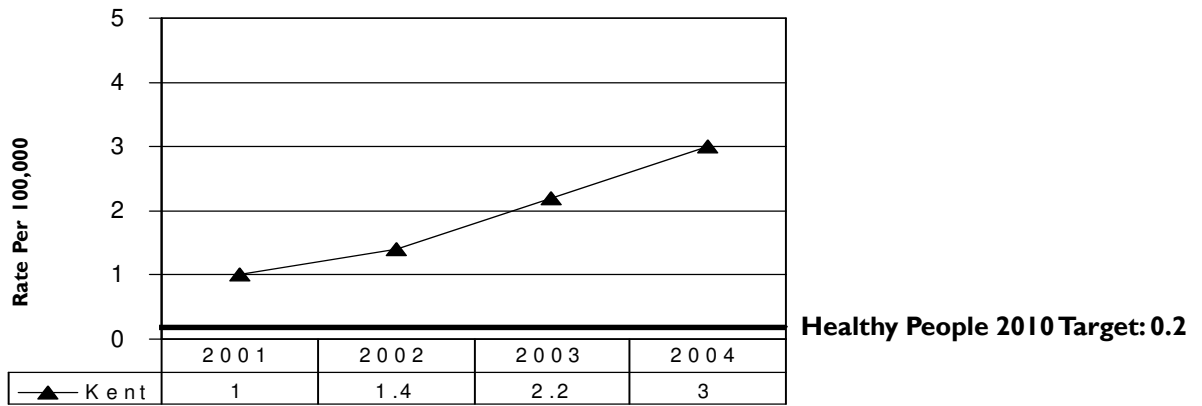
Percentage of People Reporting They "Always" Use Seatbelts, 1997 and 2002



Source: 1997, 2002 Behavioral Risk Factor Survey, Michigan Department of Community Health, Centers for Disease Control, Kent County Health Department.

15-25 Reduce residential fire deaths.

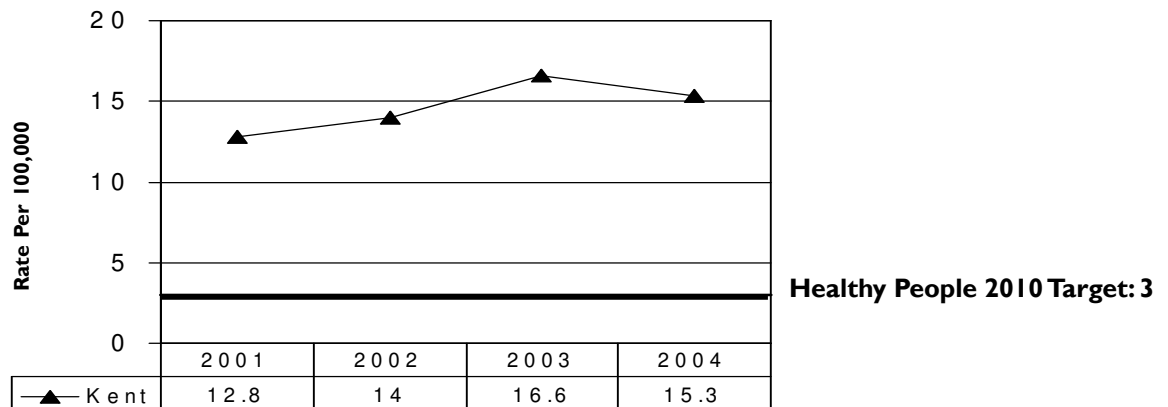
Death rate from Residential Fires 2001-2004



Source: Kent County Medical Examiner 2004 Annual Report

15-27 Reduce deaths from falls.

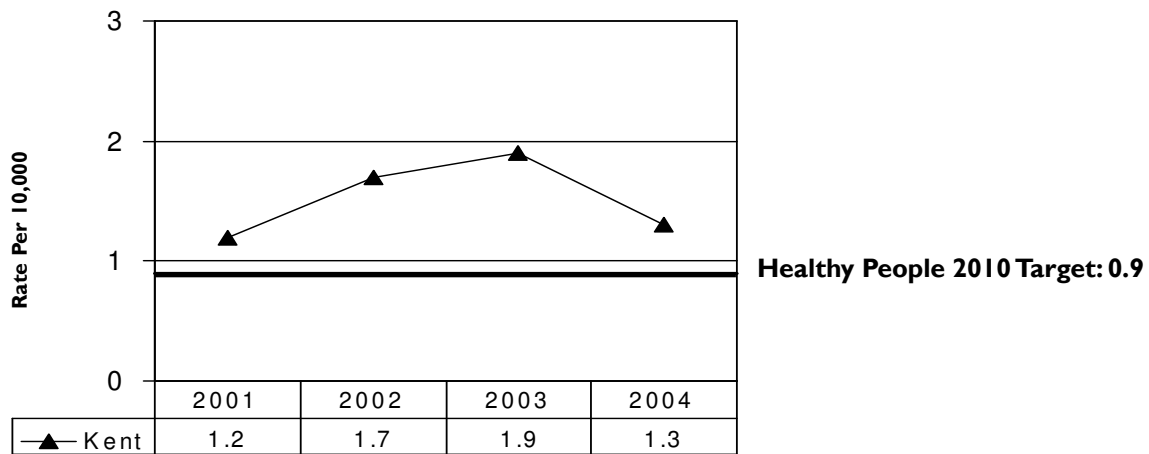
Death Rate from Falls, 2001-2004



Source: Kent County Medical Examiner 2004 Annual Report

15-29 Reduce deaths from drowning.

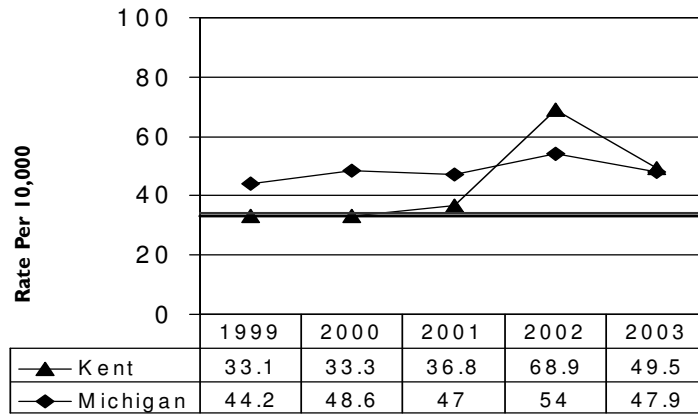
Death Rate from Drownings, 2001-2004



Source: Kent County Medical Examiner 2004 Annual Report

15-34 Reduce the rate of physical assaults by current or former intimate partners.

Rate of Reported Domestic Violence Offenses, 1999-2003

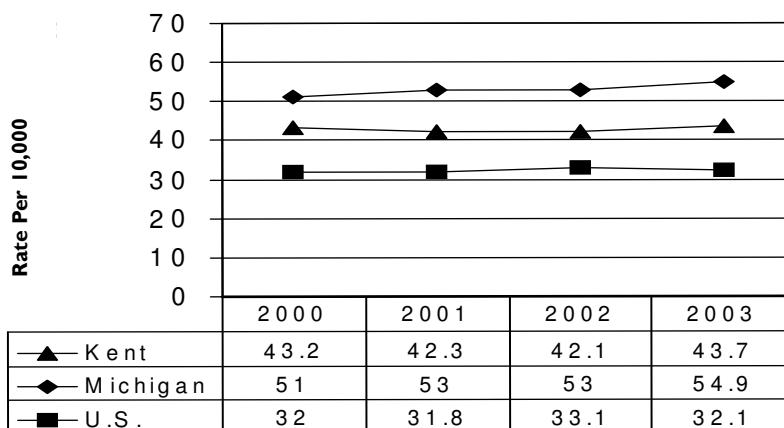


Healthy People 2010 Target: 33

Source: Michigan State Police, Uniform Crime Report.

15-35 Reduce the annual rate of rape or attempted rape.

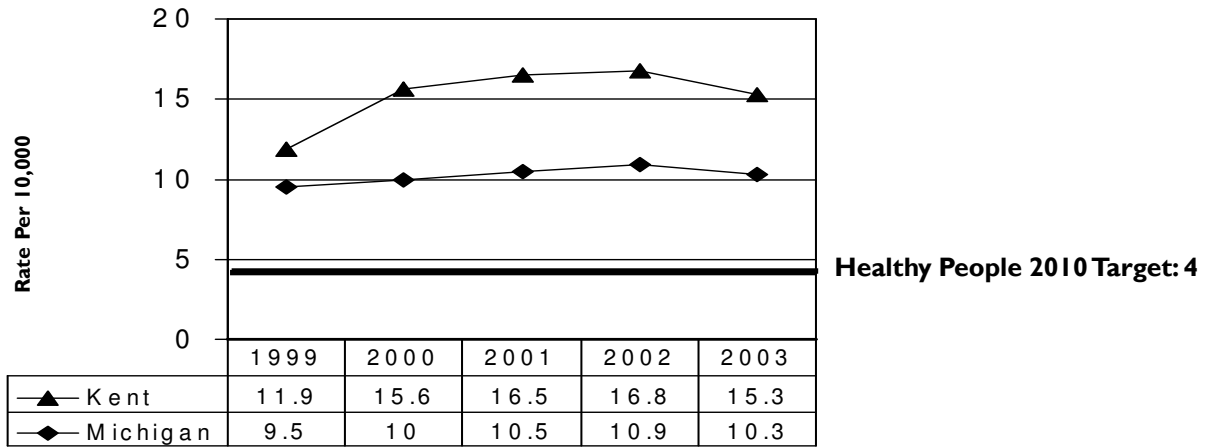
Reported Rape Rate, 2000-2003



Source: Michigan State Police: Uniform Crime Reports
Federal Bureau of Investigation: Uniform Crime Reports

15-36 Reduce sexual assaults other than rape.

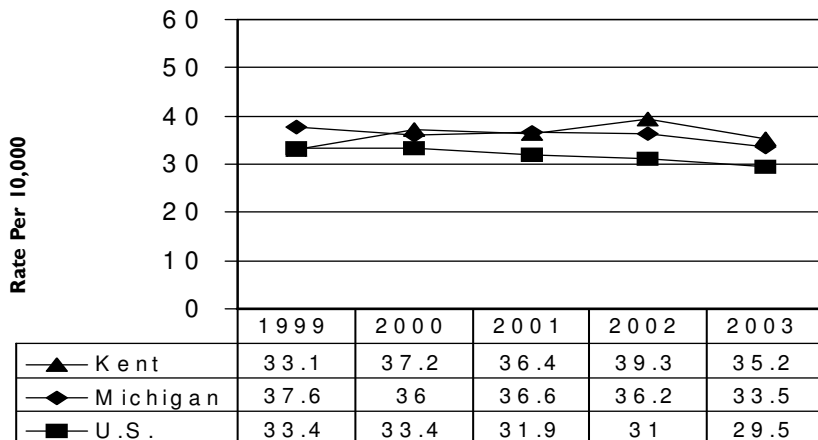
Rate of Sexual Assaults, 1999-2003



Source: Michigan State Police, Uniform Crime Report.

15-37 Reduce physical assaults.

Reported Aggravated Assault Rate, 1999-2003



Source: Federal Bureau of Investigation: Uniform Crime Reports;
Michigan State Police, Uniform Crime Report.

Maternal and Child Health

Goal: Improve the health and well-being of women, infants, children and families.

The National Institutes of Health monitors maternal and child health indicators with the goal of ensuring that “every person is born healthy and wanted, that women suffer no harmful effects from the reproductive process, and that all children have the chance to fulfill their potential to live healthy and productive lives, free from disease or disability” (1). Maternal behaviors before, during and after pregnancy are associated with both positive and adverse health outcomes for both mother and child. Unfortunately, many of the adverse health outcomes result in lifelong complications. As a result, maternal and child health indicators are widely recognized as not only a reflection of the current health and well-being of a

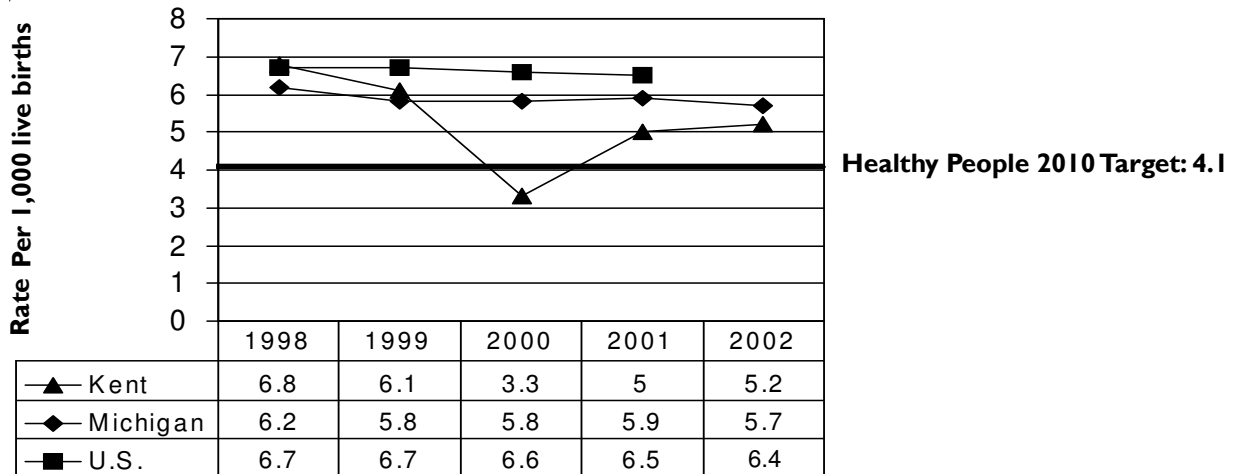
population, but also as a predictor of the health of the future generation.

This section summarizes indicators for infant mortality, child deaths, maternal deaths, prenatal care, low birth weight, cesarean births, preterm births, weight gain during pregnancy, cigarette use during pregnancy, alcohol use during pregnancy and mother’s education level. Continual and consistent monitoring of these indicators is critical to determining trends in our population, developing effective prevention programs and directing policy decisions to ensure the health of our current and future generations.

(1) National Institute of Child Health and Human Development Mission Statement. (n.d.). Retrieved June 9, 2004, from <http://www.nih.gov/about/almanac/organization/NICHHD.htm>

16-1a Reduce fetal deaths at 20 or more weeks of gestation.

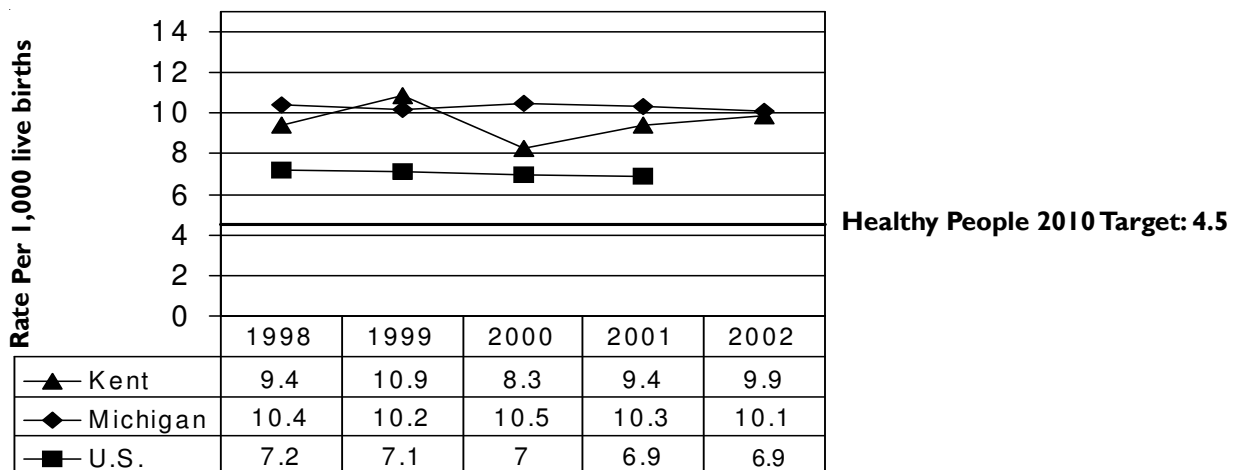
Fetal Death Rate, ≥ 20 Weeks Gestation, 1998-2002



Source: 1998-2002 Michigan Resident Death and Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health; Healthy People 2010 Database, Centers for Disease Control.

16-1b Reduce perinatal deaths (28 weeks or more gestation to less than 7 days after birth).

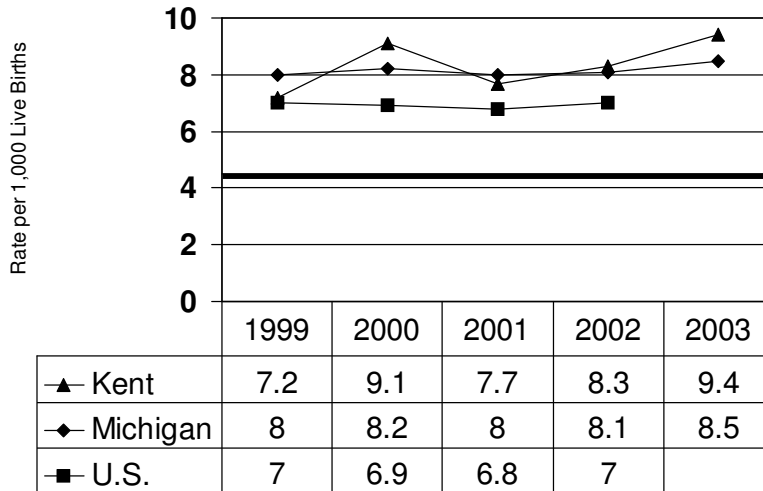
Perinatal Death Rate, 1998-2002



Source: 1998-2002 Michigan Resident Death and Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health; Healthy People 2010 Database, Centers for Disease Control.

16-1c Reduce all infant deaths (within infant age of one year).

Infant Death Rate, 1999-2003

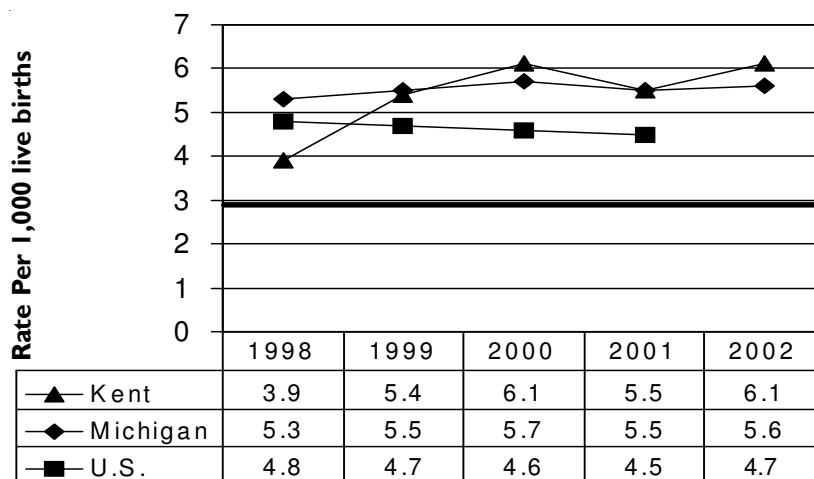


Healthy People 2010 Target: 4.5

Source: 1998-2003 Michigan Resident Death and Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health.

16-1d Reduce neonatal deaths (within first 28 days of life).

Neonatal Death Rate, 1998-2002

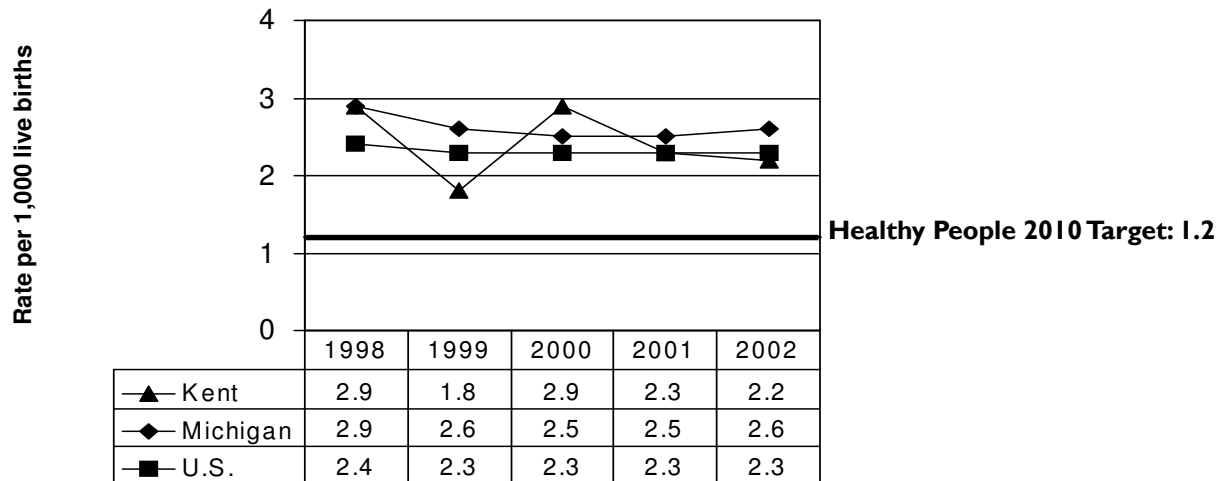


Healthy People 2010 Target: 2.9

Source: 1998-2002 Michigan Resident Death and Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health; Healthy People 2010 Database, Centers for Disease Control.

16-1e Reduce post-neonatal deaths (between 28 days and one year of life).

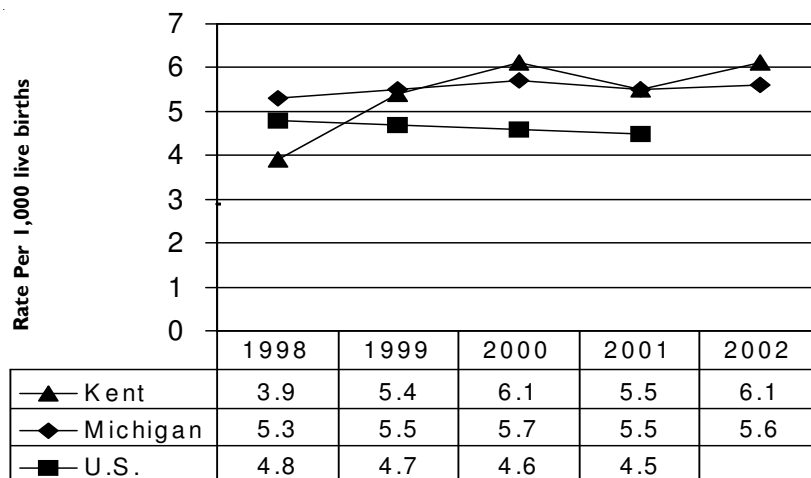
Post-neonatal Death Rate, 1998-2002



Source: 1998-2002 Michigan Resident Death and Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health.

16-1g Reduce infant deaths due to congenital heart defects (<1 year of age).

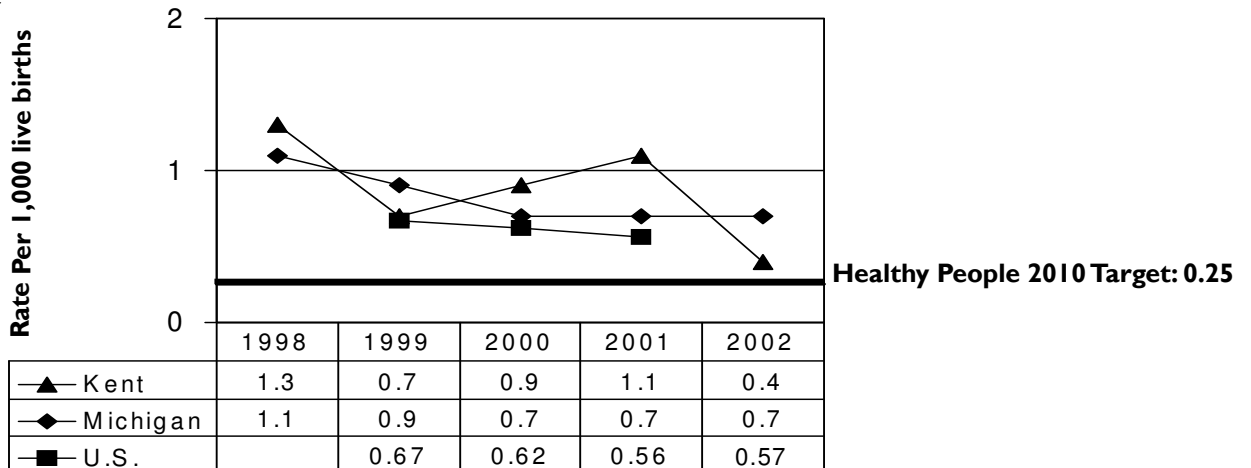
Infant Death Rate from Congenital Heart Defects 1998-2002



Source: Source: Michigan Birth Defects Registry, Michigan Department of Community Health; Cases Processed Through October 28, 2003.

16-1h Reduce Sudden Infant Death Syndrome (SIDS) deaths (<1 year of age).

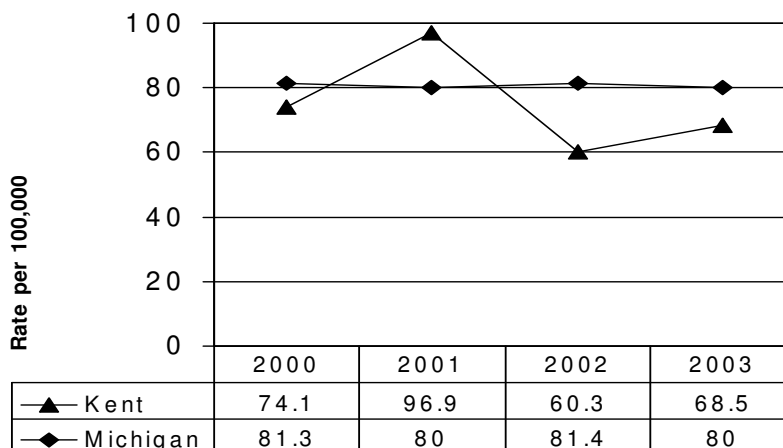
SIDS Death Rate, 1998-2002



Source: 1998-2002 Michigan Resident Death and Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health; Healthy People 2010 Database, Centers for Disease Control.

16-2a, 16-3a Reduce child deaths ages 1 to 14 years.

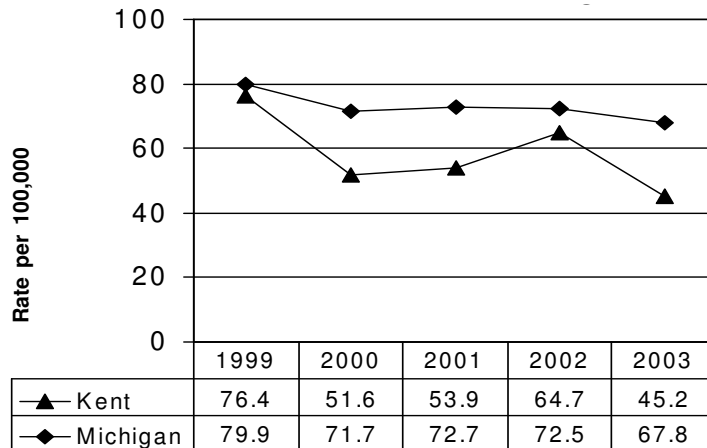
Child Death Rate (1 to 14 yrs), 2000-2003



Source: 2000-2003 Michigan Resident Death Files, Vital Records and Health Data Development Section, Michigan Department of Community Health.

16-3b, 16-3c Reduce adolescent deaths ages 15 to 24 years.

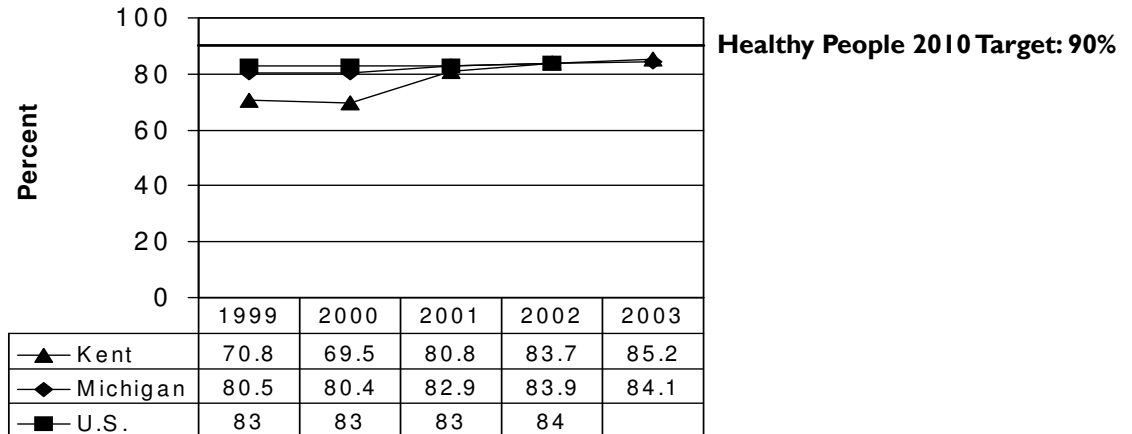
Child Death Rate (15-24 Yrs), 1999-2003



Source: 1999-2003 Michigan Resident Death Files, Vital Records and Health Data Development Section, Michigan Department of Community Health Note: 1998 age-adjusted death rates are computed by the direct method, using the age distribution of the total U.S. population as enumerated in 1940. 1999-2001 age-adjusted death rates are computed by the direct method, using the age distribution of the total U.S. population as projected for the year 2000. 2002 age-adjusted death rates are computed by the direct method, using the age distribution of the total U.S. population for the year 2000.

I6-6a Increase the percentage of women who receive prenatal care beginning in first trimester of pregnancy.

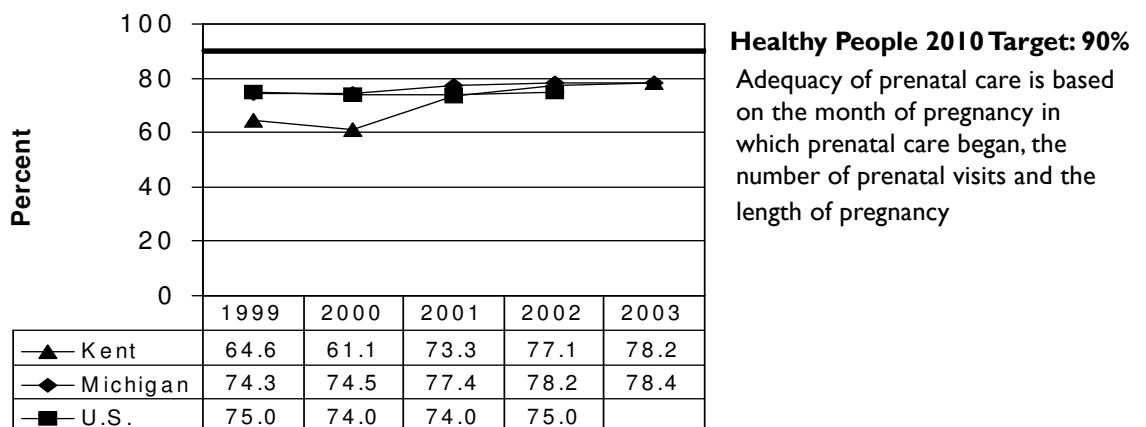
Percentage of women receiving prenatal care in the first trimester, 1999-2003



Source: 1999-2003 Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health; Healthy People 2010 Database, Centers for Disease Control.

I6-6b Increase the percentage of woman who receive early and adequate prenatal care.

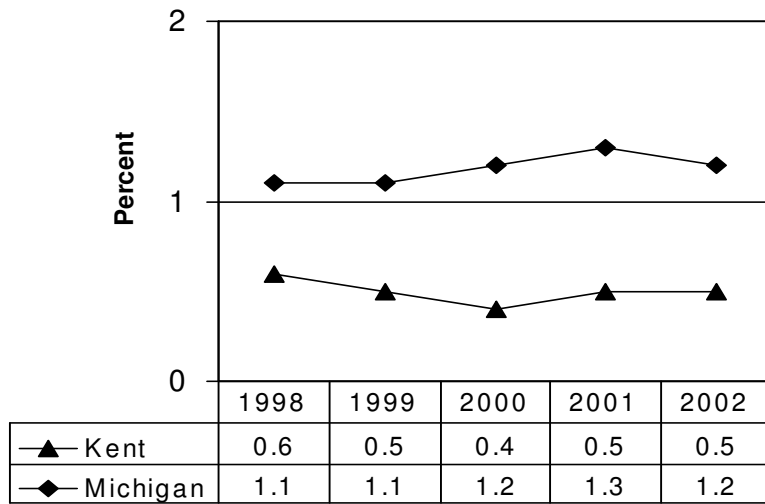
Women Receiving Early and Adequate Prenatal Care, 1999-2003



Source: 1999-2003 Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health; Healthy People 2010 Database, Centers for Disease Control.

16-6c Reduce percentage of women who receive no prenatal care.

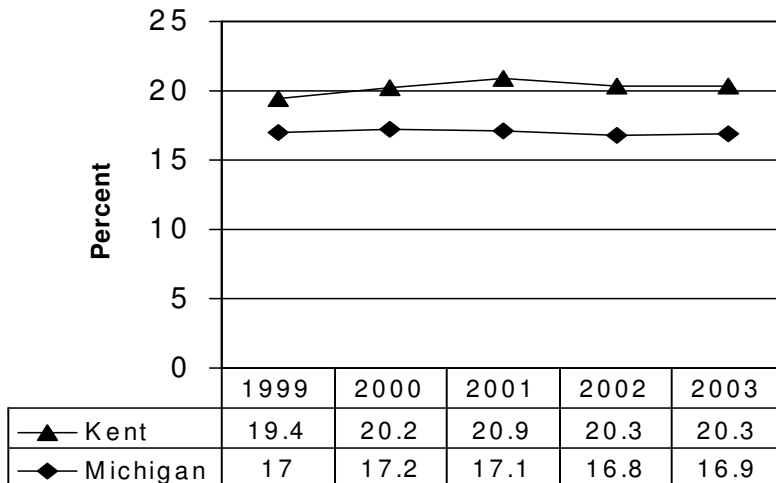
Women Who Reported Receiving No Prenatal Care, 1998-2002



Source: 1998-2002 Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health.

16-6d Education level of mother.

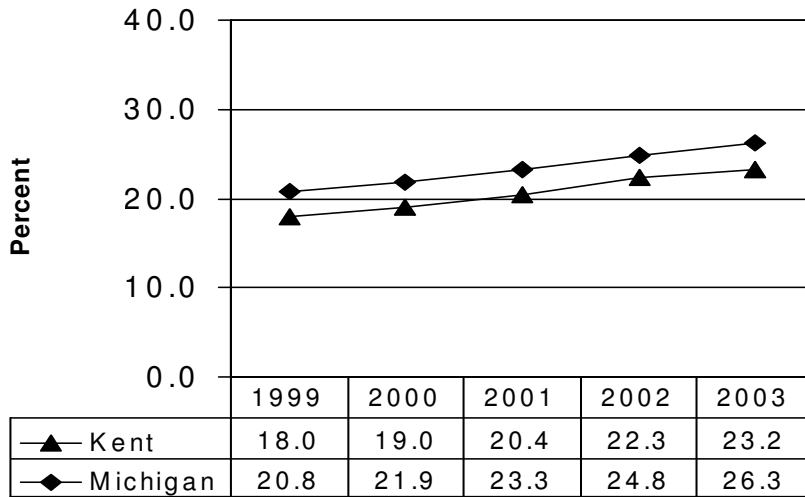
Mothers with <12 Years of Education, 1999-2003



Source: 1999-2003 Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health.

16-9a Cesarean births.

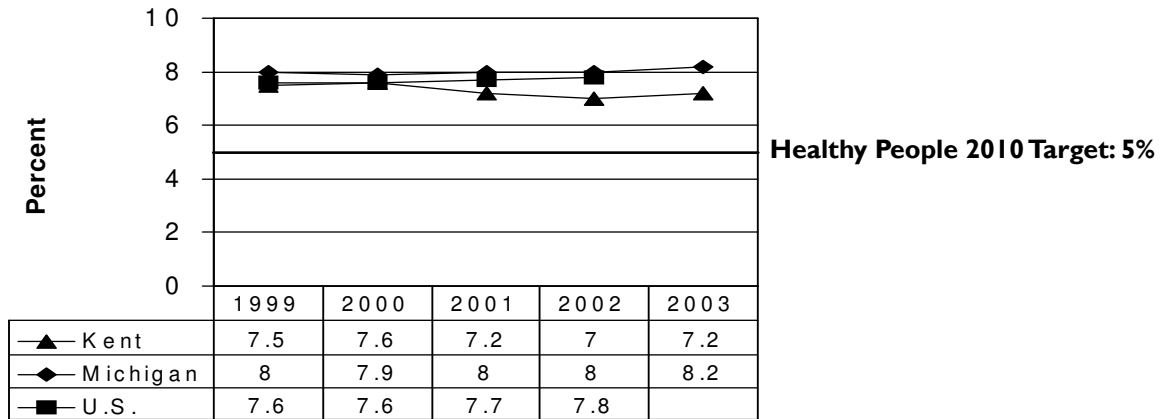
Births by Cesarean Section, 1999-2003



Source: 1999-2003 Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health.

16-10a Reduce low birth weight (<2500 grams).

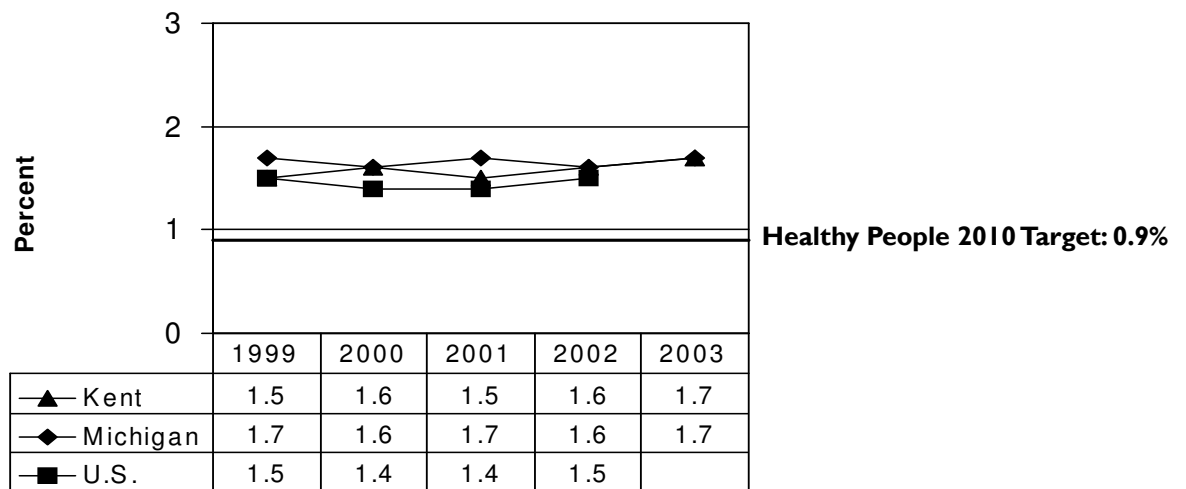
Infants with Low Birth Weight, 1999-2003



Source: 1999-2003 Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health; Healthy People 2010 Database, Centers for Disease Control.

16-10b Reduce very low birth weight (<1500 grams).

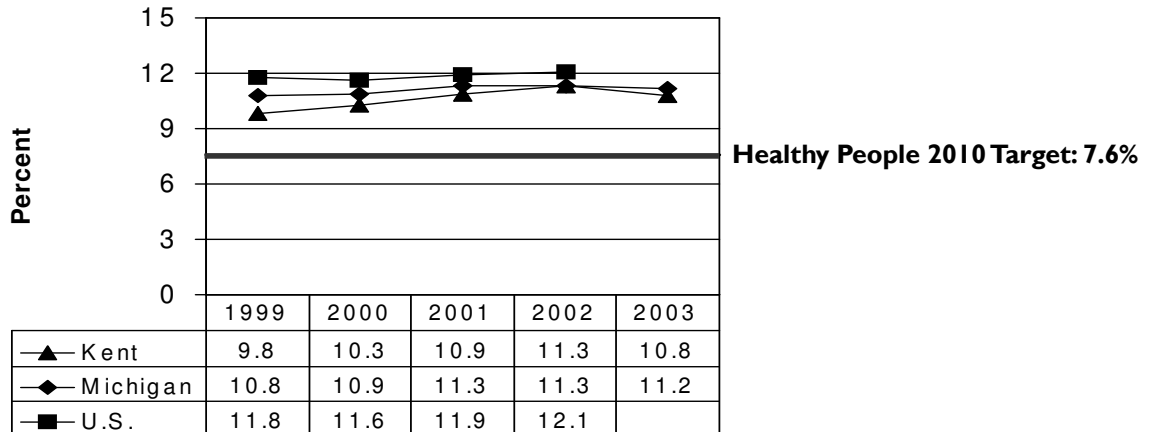
Infants with Very Low Birth Weight, 1999-2003



Source: 1999-2003 Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health; Healthy People 2010 Database, Centers for Disease Control.

16-11a Reduce pre-term births (<37 weeks gestation).

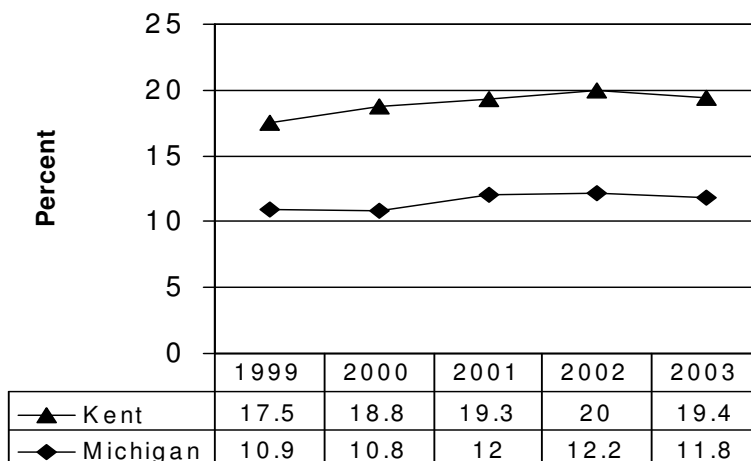
Pre-term Births, 1999-2003



Source: 1999-2003 Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health; Healthy People 2010 Database, Centers for Disease Control.

16-12 Increase proportion of mothers who achieve recommended weight-gain during pregnancy.

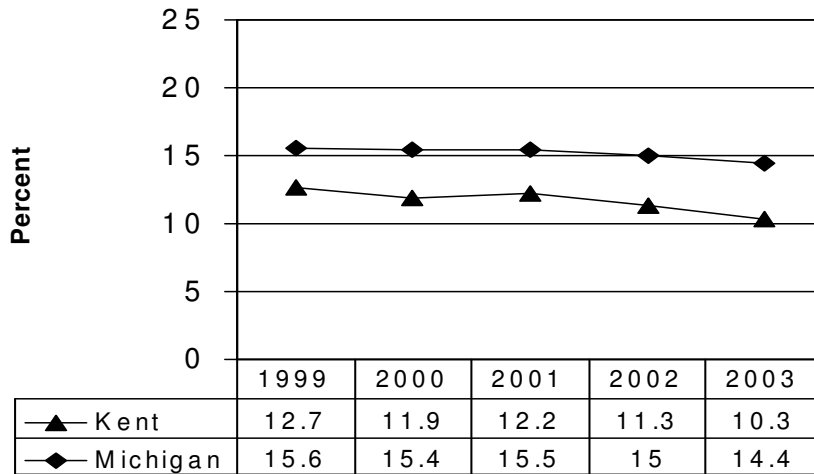
Women Who Gained <16 Pounds During Pregnancy, 1999-2003



Source: 1999-2003 Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health.

16-17c Reduce smoking during pregnancy.

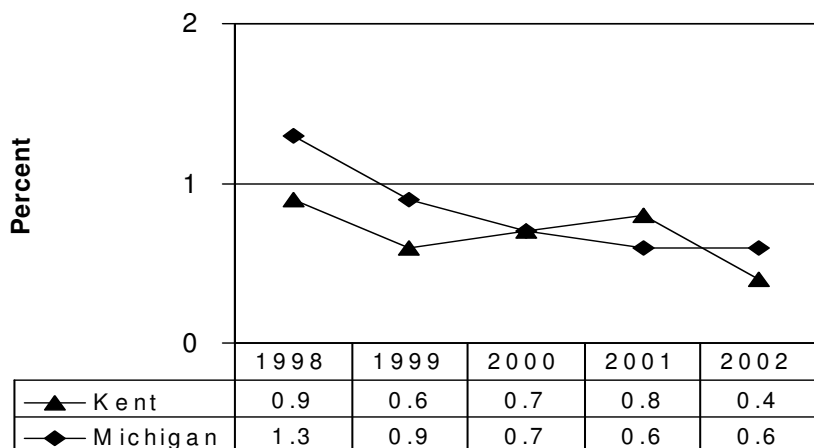
Women Who Reported Smoking During Pregnancy, 1999-2003



Source: 1999-2003 Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health.

16-17d Reduce drinking alcohol during pregnancy.

Women Who Reported Drinking Alcohol During Pregnancy, 1999-2002



Source: 1999-2003 Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health.

Mental Health and Mental Disorders

Goal: Improve mental health and ensure access to appropriate, quality mental health services.

When discussing the subject of health, the focus is often on the physical state of health and threats to it. However, mental health is an important aspect of overall health that is often both overlooked and under-funded.

Mental health refers to a state of successful performance of mental function resulting in productive activities, fulfilling relationships and the ability to adapt to change and cope with hardship.(1)

Mental disorders are health conditions characterized by changes in thinking, mood, or behavior and which are associated with distress and/or impaired functioning. Mental disorders include such conditions as schizophrenia, depression, and anxiety disorders

and can lead to a number of problems including disability, pain, or death. (1)

Mental illness refers to a collection of mental disorders. Mental illness does not discriminate; mental disorders affect persons of all ages, all racial and ethnic groups, all educational and socioeconomic groups and both males and females. (1)

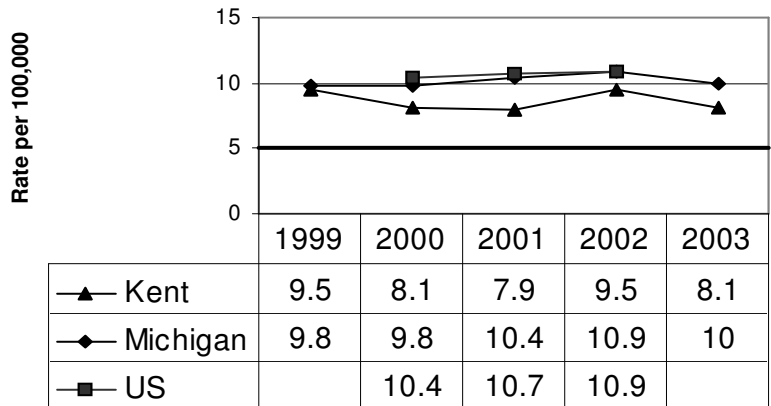
As a cause of disability, mental illness is on par with heart disease and cancer in the U.S. and is taxing to the health care system (2). Research has also shown a very low awareness of the impact of mental illness on the overall health and productivity of the United States. Suicide occurs most frequently as a consequence of mental illness and continues to be a public health problem.

(1) Healthy People 2010: Understanding and Improving Health (2001)
Retrieved June 24, 2004 from <http://www.healthypeople.gov/document/html/volume2/18Mental.htm>

(2) Murray, C.J.L., and Lopez, A.D. *The Global Burden of Disease*.
Cambridge, MA: Harvard University Press, 1996.

18-I Reduce the suicide rate.

Suicide Rate, 1999-2003



Healthy People 2010 Target: 5

Suicide Death Rates: Rates are per 100,000. Computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000.

Source: 1989 - 2003 Michigan Resident Death Files, Vital Records & Health Data Development Section, Michigan Department of Community Health, Population Estimate (latest update 9/2004), National Center for Health Statistics;
 US - National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS.

Nutrition and Overweight

Goal: Promote health and reduce chronic disease associated with diet and weight.

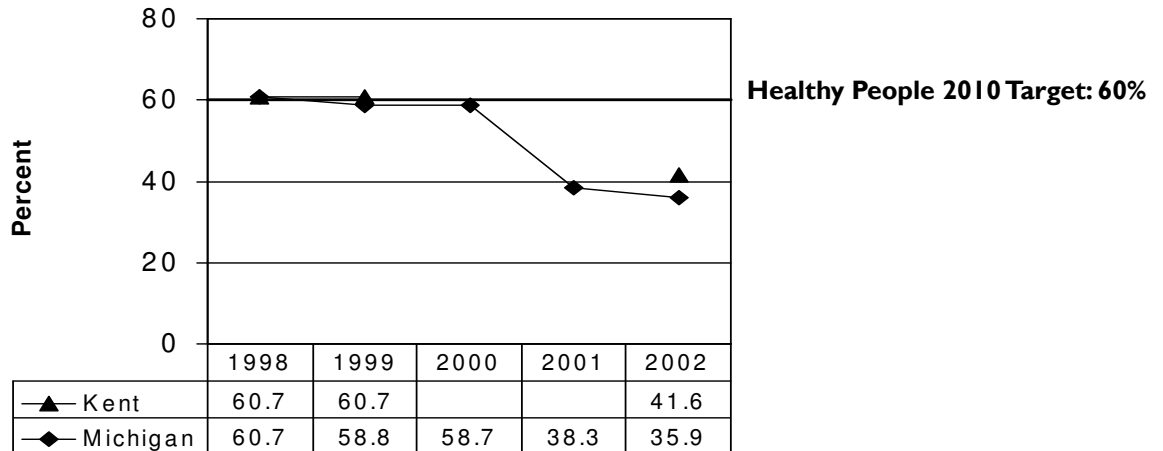
Nutrition and weight directly impact the risk of developing many chronic diseases. Persons who are overweight or obese are at increased risk for high blood pressure, type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea, respiratory problems and some types of cancer (1). Choosing a diet high in fruit and vegetable content and decreasing total fat and saturated fats provides beneficial vitamins, minerals, and fibers necessary to reduce the risk of obesity-related diseases and improve health outcomes. In addition, vitamins provided by many fruits and vegetables can lessen cell damage, the common pathway to the development of cancers and the aging process.

Body Mass Index (BMI) is a measure that is used to categorize individuals as normal weight, overweight, or obese. BMI is calculated using an individual's weight and height and is used to estimate total body fat. Although the BMI measure is not perfect, it is the most convenient way to assess total body fat. A BMI of 25-29.9 is considered overweight and a BMI of 30 or greater is considered obese. This section presents BMI data as well as data on fruit and vegetable consumption.

(1) Wolf, A.M., and Colditz, G.A. Current estimates of the economic cost of obesity in the United States. *Obesity Research* 6(2):97-106, 1998. [PubMed; PMID 9545015.](#)

19-1 Increase the proportion of adults who are at a healthy weight.

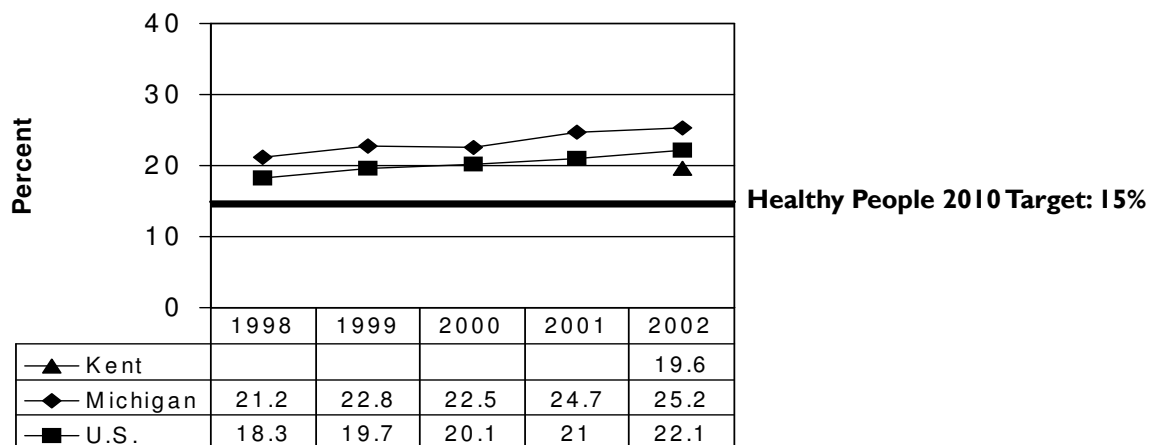
Adults who report being at a healthy weight *1998-2002



*1998-2000: Percentage of respondents whose Body Mass Index (BMI) is between 15th and 85th percentile; 2001-2002: 18.5≤BMI<25.
 Source: 1997, 2000, 2002 Behavioral Risk Factor Survey, Michigan Department of Community Health; Kent County Health Department.

19-2 Reduce the proportion of adults who are obese.

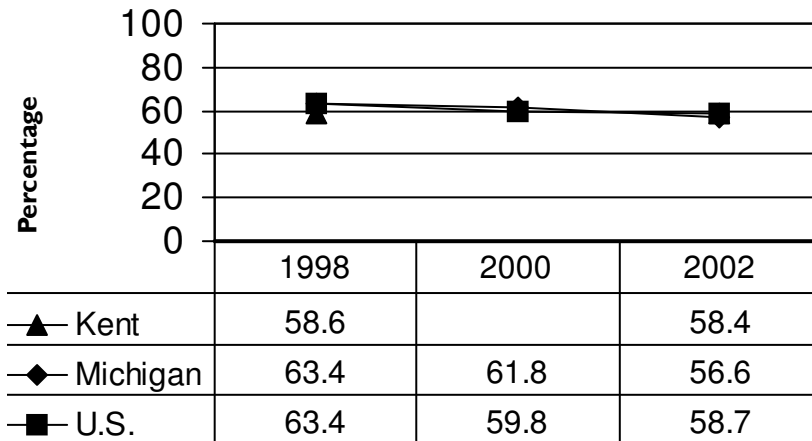
Adults Who Report Being Obese,* 1998-2002



*Body Mass Index (BMI) of 30 or greater.
 Source: Behavioral Risk Factor Survey, Michigan Department of Community Health, Centers for Disease Control, Kent County Health Department.

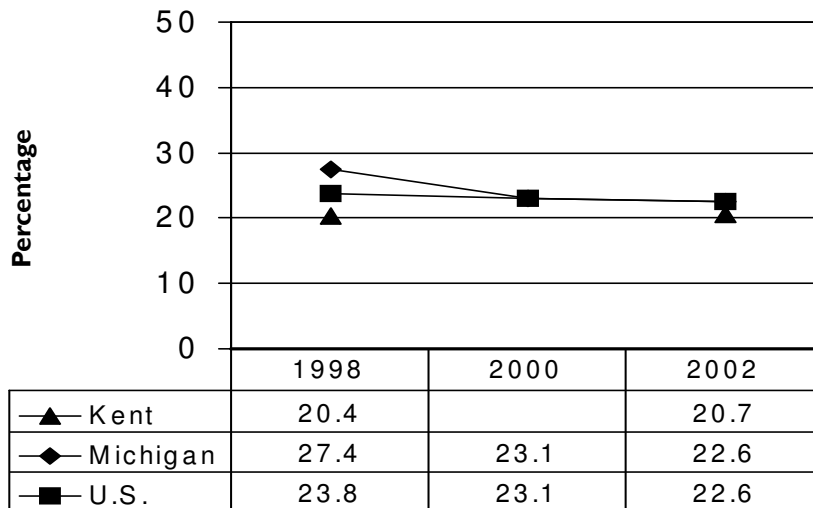
19-5, 19-6 Increase the proportion of persons who consume three daily servings of vegetables and at least two daily servings of fruit.

Adults Who Report Eating At Least Three Daily Servings of Fruits and Vegetables, 1998, 2000, 2002



Source: 1997, 2000, 2002 Behavioral Risk Factor Survey, Michigan Department of Community Health, Centers for Disease Control, Kent County Health Department.

Adults Who Report Eating At Least Five Daily Servings of Fruits and Vegetables, 1998, 2000, 2002



Source: 1997, 2000, 2002 Behavioral Risk Factor Survey, Michigan Department of Community Health, Centers for Disease Control, Kent County Health Department.

Physical Activity

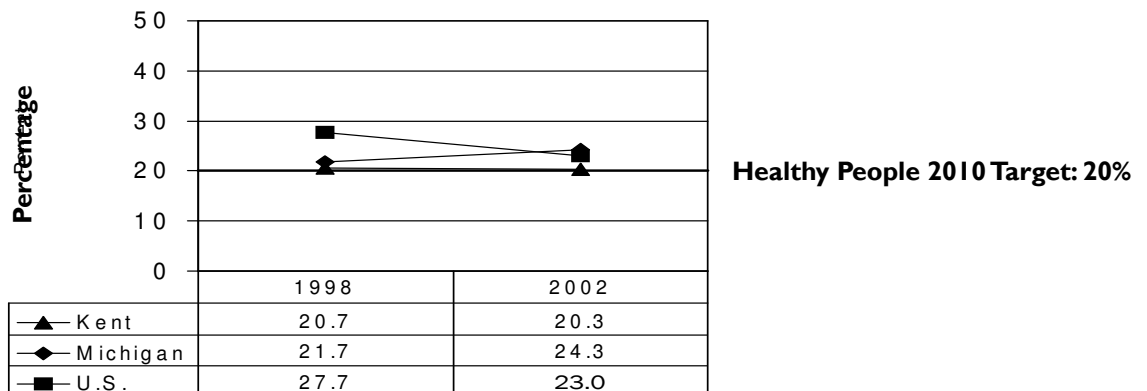
Goal: Improve health, fitness and quality of life through daily physical activity.

Regular physical activity is associated with lower death rates in adults of all ages. This decrease in death rate is likely due to the fact that physical activity decreases the risk of heart disease, diabetes, colon cancer and reduces symptoms of depression. (*Healthy People 2010*)

Despite these health benefits, the low level of physical activity among Kent County adults is disturbing. According to the 2002 Kent County Behavioral Risk Factor Survey, less than 50% of Kent County adults engage in the recommended regimen of thirty minutes of moderate exercise, five times a week.

22-1 Reduce the proportion of adults who engage in no leisure-time physical activity.

Adults Who Report Engaging in No Leisure-time Physical Activity, 1998, 2002



Source: Behavioral Risk Factor Survey, Michigan Department of Community Health, Centers for Disease Control, Kent County Health Department.

22-2 Increase the proportion of adults who engage regularly in moderate physical activity.

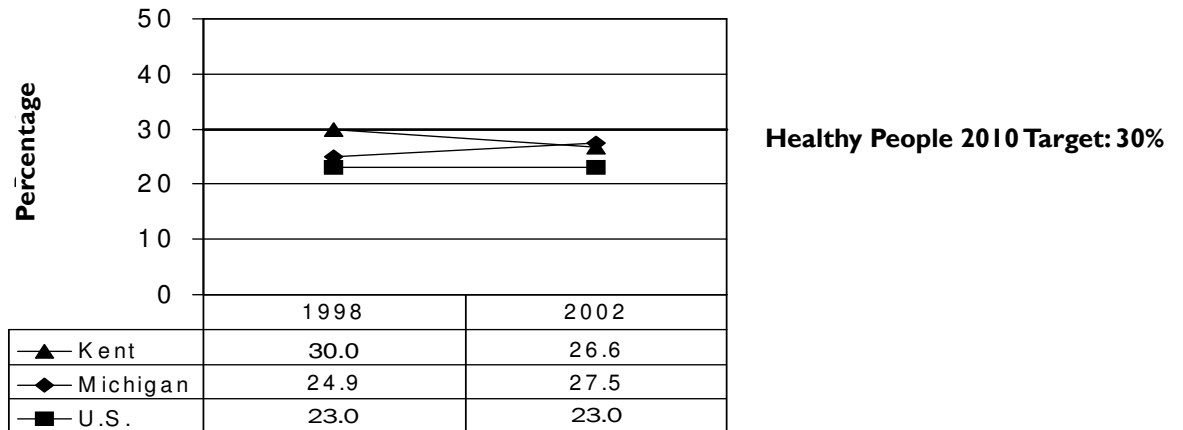
Adults Who Report Engaging Regularly in Moderate Physical Activity,* 1998, 2002



* 5 days/week for at least 30 minutes at a time: brisk walking, bicycling, etc.
 Source: Behavioral Risk Factor Survey, Michigan Department of Community Health, Kent County Health Department; Health People 2010 Database, Centers for Disease Control.

22-3 Increase the proportion of adults who engage regularly in vigorous physical activity.

Adults Who Report Engaging Regularly in Vigorous Physical Activity,* 1998, 2002



*3 days/week for at least 20 minutes at a time: running, aerobics, etc.
 Source: Behavioral Risk Factor Survey, Michigan Department of Community Health,
 Kent County Health Department; Health People 2010 Database, Centers for Disease Control.

Respiratory Diseases

Goal: Promote respiratory health through better prevention, detection, treatment and education efforts.

Asthma has become one of the most significant diseases in the United States. It ranks as one of the top ten chronic conditions leading to restricted activity and is the second leading cause of chronic illness in children (1). The number of people with asthma increased 102% between 1980 and 1994 (2). The economic impact is also large; direct medical costs are estimated at \$3.64 billion while indirect costs are approximately \$2.6 billion (3).

approximately 5,000 people die from asthma each year in the U.S. (4). In addition, there are roughly 500,000 hospitalizations annually in the United States due to asthma (4). Statistics on mortality, hospitalizations and emergency room visits due to asthma can be used to help measure the status of respiratory health in the community and enable health care providers to provide timely screening and care. This section provides data on hospitalizations for asthma.

Although most asthma can be effectively managed by prevention, detection, treatment and education,

(1) Benson, V., and Marano, M.A. Current estimates from the National Health Interview Survey, 1995. *Vital and Health Statistics* 10(199):1-428, 1998.

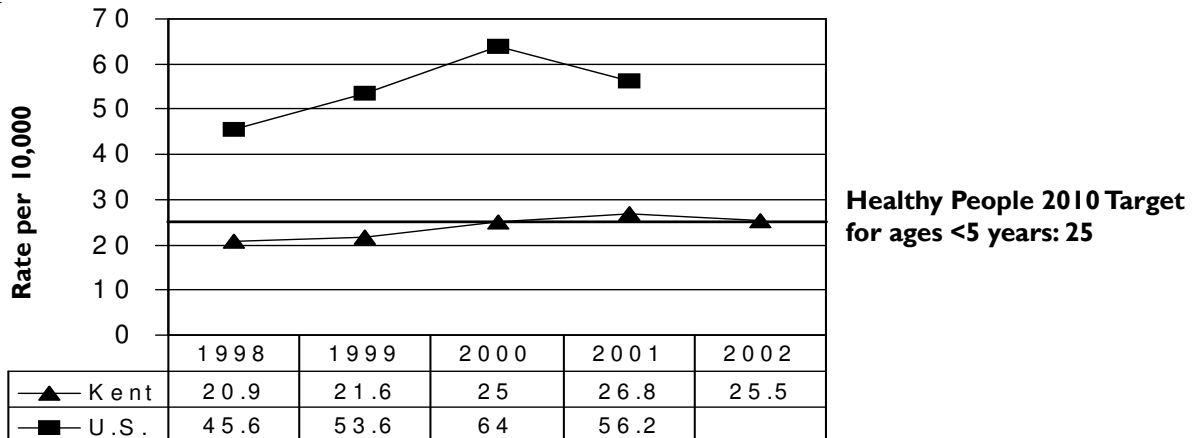
(2) National Center for Health Statistics (NCHS). Current estimates from the National Health Interview Survey, 1990. *Vital and Health Statistics* 10(194), 1997.

(3) Weiss, K.B.; Gergen, P.J.; and Hodgson, T.A. An economic evaluation of asthma in the United States. *New England Journal of Medicine* 326:862-866, 1992.

(4) National Heart, Lung, and Blood Institute (NHLBI). *Data Fact Sheet. Asthma Statistics*. Bethesda, MD: National Institutes of Health (NIH), Public Health Service (PHS), 1999.

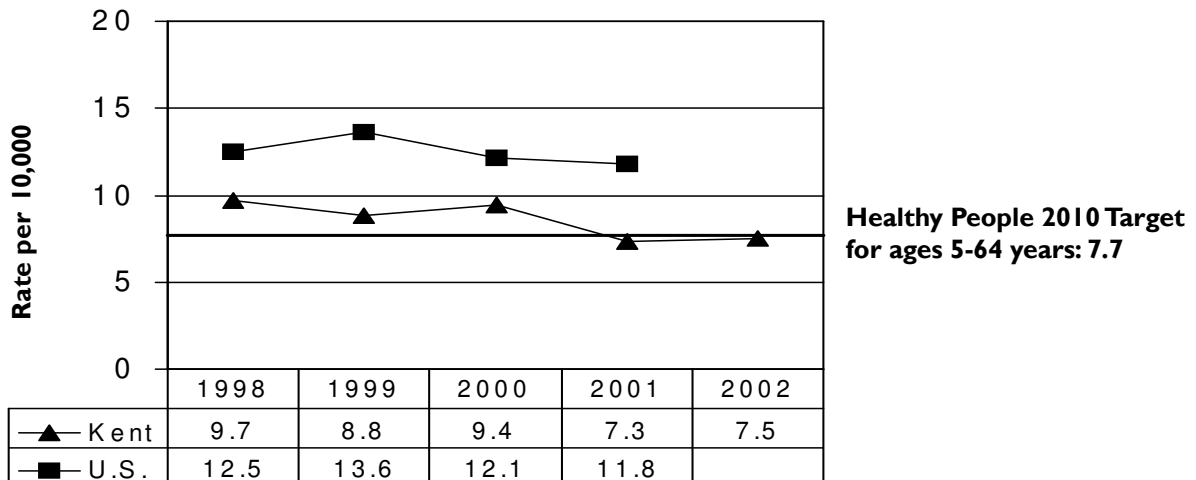
24-2 Reduce hospitalizations for asthma.

Rate of Hospitalizations for Asthma in Children Under Age 5, 1998-2002



Asthma hospitalization defined as a primary discharge diagnosis of asthma, ICD-9-CM=493.XX. For Kent County, population estimates are taken from the Michigan annual population estimates, 1990-2002. Source: Michigan Inpatient Database, Division for Vital Statistics and Health Statistics, Michigan Department of Community Health.

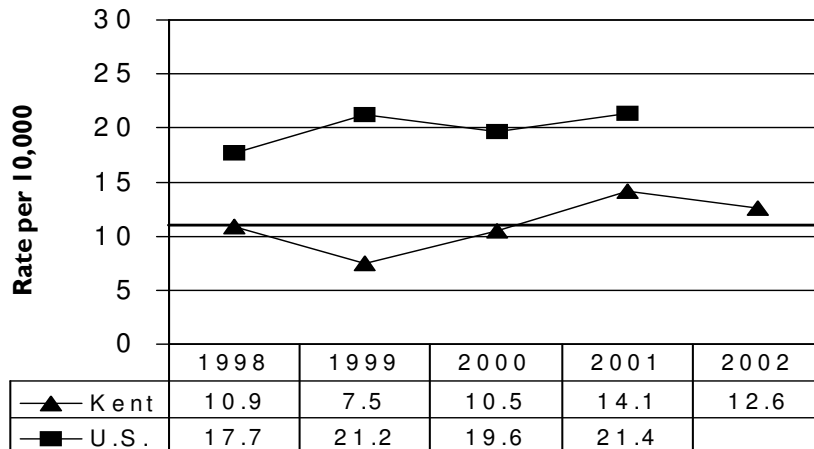
Rate of Hospitalizations for Asthma in Individuals Ages 5-64, 1998-2002



Asthma hospitalization defined as a primary discharge diagnosis of asthma, ICD-9-CM=493.XX. For Kent County, population estimates are taken from the Michigan annual population estimates, 1990-2002. Rates are age adjusted to the 2000 US standard population by the direct standardization method. Source: Michigan Inpatient Database, Division for Vital Statistics and Health Statistics, Michigan Department of Community Health; National Hospital Discharge Survey, National Center for Health Statistics, Center for Disease Control.

24-2 Reduce hospitalizations for asthma.

Rate of Hospitalizations for Asthma in Individuals Ages >64, 1998-2002



**Healthy People 2010 Target
for ages >64 years: 11**

Asthma hospitalization defined as a primary discharge diagnosis of asthma, ICD-9-CM=493.XX. Population estimates are taken from the Michigan annual population estimates, 1990-2002. Rates are age adjusted to the 2000 US standard population by the direct standardization method. Source: Michigan Inpatient Database, Division for Vital Statistics and Health Statistics, Michigan Department of Community Health; National Hospital Discharge Survey, National Center for Health Statistics, Center for Disease Control.

Sexually Transmitted Diseases

Goal: Promote responsible sexual behaviors, strengthen community capacity, and increase access to quality services to prevent sexually transmitted diseases (STDs) and their complications.

With more than 25 infectious organisms transmitted through sexual activity, sexually transmitted diseases (STDs) are behavior-linked diseases that result from unprotected sex. STDs are harmful to the body and can often cause costly and irreversible damage to reproductive health, as well as fetal and perinatal health. Untreated, STDs can also cause long-term chronic diseases such as cancer.

Based on worldwide human immunodeficiency virus (HIV) studies, STDs also are linked to a causal chain of events in the sexual transmission of HIV infection (i.e. people who have had an STD are at an increased risk for HIV) (1).

STD detection is often difficult as many STDs do not produce any symptoms or signs, or symptoms are so mild they are disregarded (1). For example, as many as 85% of women and up to 50% of men with chlamydia have no symptoms (2, 3, 4, and 5). Access to high-quality health care plays a key role in early detection, treatment, and behavior-change counseling for STDs (1). Often, groups with the highest rates of STDs are the same groups whose access to health care is most limited (1). This section provides data on three STDs; Chlamydia, gonorrhea and syphilis.

(1) Healthy People 2010: Understanding and Improving Health. (2001). Retrieved June 23, 2004, from <http://www.healthypeople.gov/Document/tableofcontents.htm#volume1>

(2) Fish, A.; Fairweather, D.; Oriel, J.; et al. *Chlamydia trachomatis* infection in a gynecology clinic population: Identification of high-risk groups and the value of contact tracing. *European Journal of Obstetrics, Gynecology and Reproductive Biology* 31:67-74, 1989. PubMed: PMID 2653896

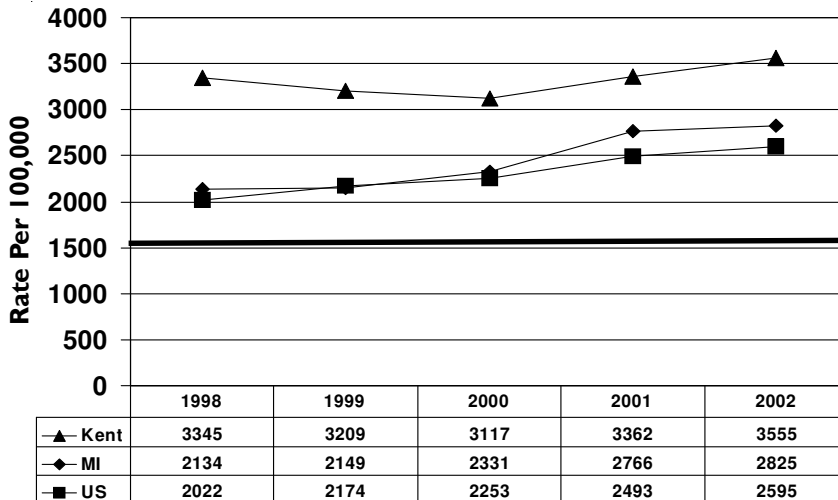
(3) Handsfield, H.; Jasman, L.; Roberts, P.; et al. Criteria for selective screening for *Chlamydia trachomatis* infection in women attending family planning clinics. *Journal of the American Medical Association* 255:1730-1734, 1986. PubMed: PMID 3081742

(4) Judson, F. Gonorrhea. *Medical Clinics of North America* 74:1353-1367, 1990. PubMed: PMID 2123279

(5) Stamm, W., and Holmes, K. *Chlamydia trachomatis* infections in the adult. In: Holmes, K.; Mardh, P.A.; Sparling, P.; et al.; eds. *Sexually Transmitted Diseases*. 2nd ed. New York, NY: McGraw-Hill, Inc., 1990, 181-193.

25-I Reduce the proportion of females ages 15-24 with Chlamydia trachomatis infections.

Chlamydia in Females Ages 15-24, 1999-2002

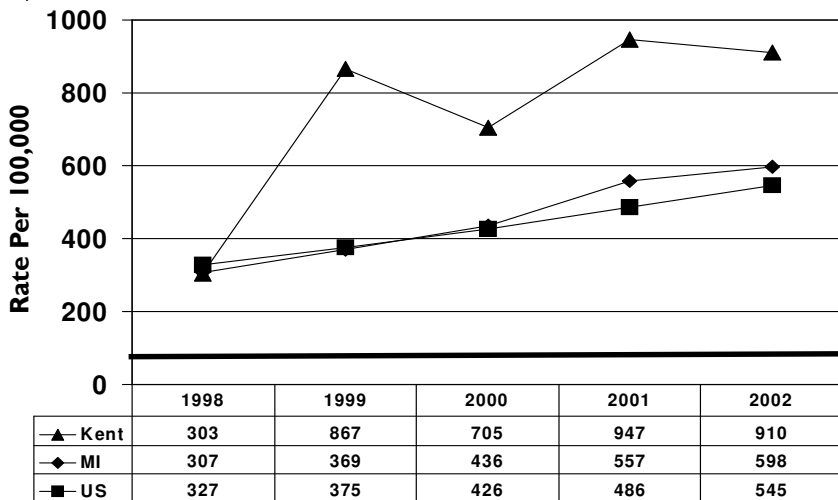


**Healthy People 2010 Target:
75 % reduction; 1516 (est.)**

Source: Kent and MI: Michigan Department of Community Health
U.S. : Sexually Transmitted Disease Surveillance, CDC.

25-Ic Reduce the proportion of males ages 15-24 with Chlamydia trachomatis infections.

Chlamydia in Males Ages 15-24, 1998-2002

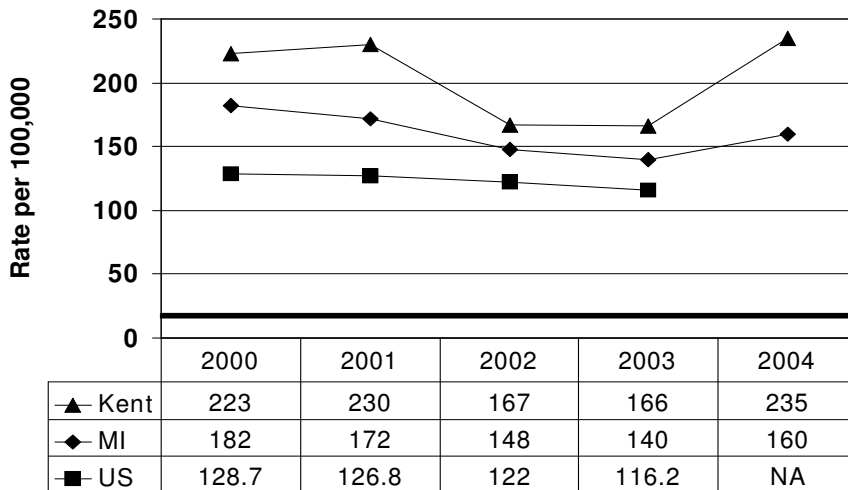


**Healthy People 2010 Target:
80 % reduction (109 est.)**

Source: Kent and MI: Michigan Department of Community Health
U.S. : Sexually Transmitted Disease Surveillance, CDC.

25-2 Reduce gonorrhea.

Gonorrhea Infection Rate, 2000-2004

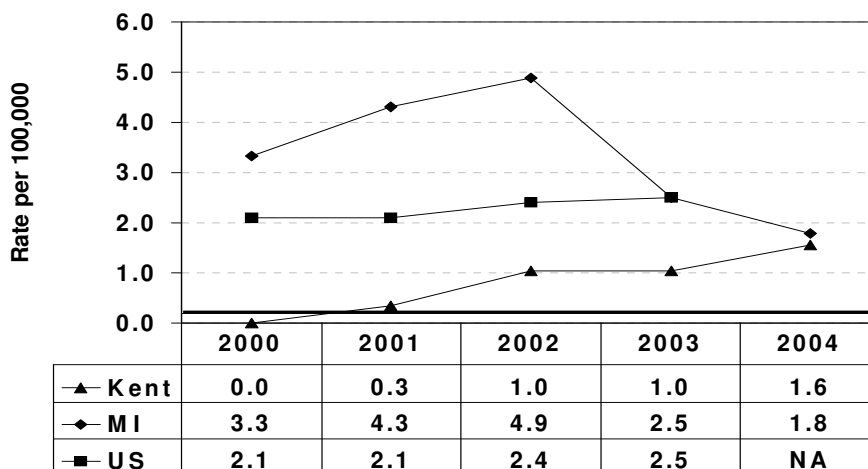


Healthy People 2010 Target: 19

Source: Kent and MI: Michigan Department of Community Health
 U.S. : Sexually Transmitted Disease Surveillance, CDC.

25-3 Eliminate sustained domestic transmission of primary and secondary syphilis.

Primary and Secondary Syphilis Infection Rate, 2000-2004



Healthy People 2010 Target: 0.2

Source: Kent and MI: Michigan Department of Community Health
 U.S. : Sexually Transmitted Disease Surveillance, CDC.

Substance Abuse

Goal: Reduce substance abuse to protect the health, safety, and quality of life for all, especially children.

Substance abuse accounts for significant health problems in the community. Alcohol, the most widely abused substance, has been associated with numerous negative health outcomes such as automobile accidents, drowning, homicides, suicides, violence, child abuse and high-risk sexual behavior (1). Approximately 100,000 deaths occur each year in the United States related to alcohol consumption (2).

Excessive alcohol consumption can lead to cirrhosis and other diseases of the liver. Alcohol abuse is also associated with an increased risk for heart disease, stroke and cancer.

In addition, women who drink alcohol while pregnant are at risk for having babies with fetal alcohol syndrome, resulting in brain damage and growth deficits.

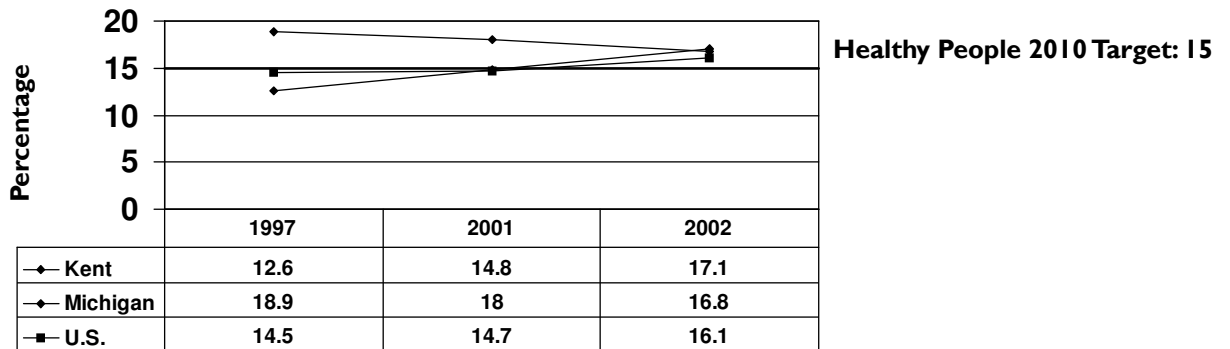
The number of binge drinkers is one of many indicators of community health with respect to substance abuse. Consuming five or more alcoholic drinks on one occasion in the past month has been defined as binge drinking. Information such as this can assist agencies who offer programs to reduce substance abuse in the community.

(1) National Institutes of Health, Substance Abuse and Mental Health Services Administration. Section 26: Substance Abuse. *Healthy People 2010*.

(2) McGinnis, J.M., and Foege, W.H. Actual causes of death in the United States. *Journal of the American Medical Association* 270:2207-2212, 1993.

26-1 Ic Reduce the proportion of adults engaging in binge drinking of alcoholic beverages during the past month.

Percentage of Adults Who Reported Binge Drinking 1997, 2001, 2002



Source: Kent County Behavioral Risk Factor Survey; Michigan Department of Community Health; National Health Interview Survey, Centers for Disease Control.

Tobacco Use

Goal: Reduce illness, disability and death related to tobacco use and exposure to secondhand smoke.

Tobacco use has been shown to cause heart disease, chronic lung disease and cancers of the lung, larynx, esophagus, pharynx, pancreas, kidney, cervix, mouth and bladder. Smoking during pregnancy also causes spontaneous abortions, low birth weight, and is associated with an increased risk of sudden infant death syndrome (1). (Smoking during pregnancy data is available in the Maternal and Child Health Section).

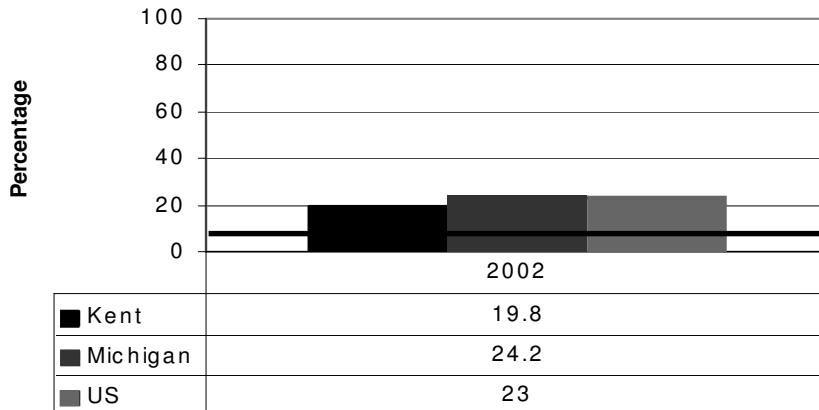
According to the U.S. Centers for Disease Control and Prevention (CDC), tobacco use is responsible for more than 430,000 deaths every year among adults in the United States, representing more than 5 million years of potential life lost (1). If current tobacco use patterns persist in the United States, an estimated 5 million persons under age 18 years will die prematurely from a smoking-related disease (2).

(1) Healthy People 2010: Understanding and Improving Health. (2001). Retrieved June 24, 2004, from <http://www.healthypeople.gov/Document/tableofcontents.htm#volume1>

(2) MMWR Weekly, Cigarette Smoking Among Adults – United States, 2002. (May 28, 2004). Retrieved June 24, 2004, from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5320a2.htm>

27-1 Reduce tobacco use by adults.

Percentage of Adults Who Reported Being Current Smokers, 2002

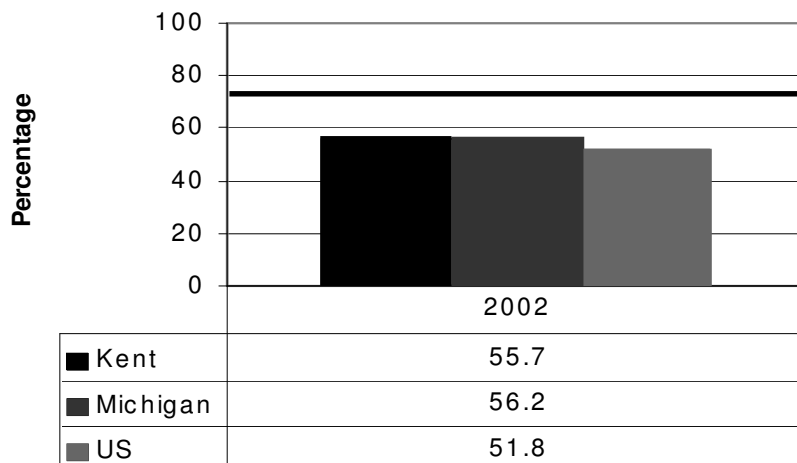


Healthy People 2010 Target: 12

Source: 2002 Kent County Behavioral Risk Factor Survey
 Michigan and US data: Behavioral Risk Factor Surveillance System www.cdc.gov/brfss.

27-5 Increase smoking cessation attempts by adults.

Percentage of Adult Smokers Who Attempted to Quit, 2002



Healthy People 2010 Target: 75

Source: 2002 Kent County Behavioral Risk Factor Survey
 Michigan and US data: Behavioral Risk Factor Surveillance System www.cdc.gov/brfss.

The Health of Kent County, 2005

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Document/tableofcontents.htm](http://www.healthypeople.gov/Document/tableofcontents.htm).

Kent County Health Department
700 Fuller NE
Grand Rapids, Michigan 49503
(616) 632-7100
