

# Our Health

*is in Our Hands*



A Report on the  
Health Status of  
Ingham County 2004

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Ingham County**



# 2004

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## Our Health is in Our Hands

**Ingham County is diverse and dynamic. Through the choices we make every day, both personally and as a community, we impact our own health and the health of everyone who lives here.**

**This report is part of other local and state efforts to help the people of Ingham County recognize the many ways in which our community's health is interconnected and to think about what we can do to influence it. Through knowledge and action, both individually and collectively, we have the power to strengthen the many factors that contribute to our health and to reduce the impact of those that do not. We hope the information presented here will help you recognize that power.**

# CONTENTS

**Executive Summary** .....4

**Introduction** .....5

**Area Description and Population** .....6

**Health Status and Major Influences** .....8-21

**Causes of Preventable Loss of Life** .....8-11

**Physical Activity** .....12

**Overweight and Obesity** .....13

**Tobacco Use** .....14

**Substance Abuse** .....15

**Access to Health Care** .....16

**Immunizations** .....17

**Responsible Sexual Behavior** .....18

**Maternal/Child Health** .....19

**Environmental Quality** .....21

**Injury and Violence** .....22

**Underlying Social Factors** .....23-30

**Disparities** .....24

**Mental Health/Emotional Well-Being** .....26

**Social Connections** .....27

**Population Shifts** .....28

**Health Action Zones** .....29

**Next Steps** .....30



# EXECUTIVE SUMMARY

## This report presents an overall picture of the state of health of Ingham County

and identifies major factors that influence health. The top twelve medical conditions that cause early death account for approximately 80% of preventable loss of life in Ingham County. These medical conditions also present a substantial economic burden and reduce the quality of our lives. Heart disease, cancer, and unintentional injuries have had the greatest impact on our lives over the last decade.

**Major factors** that influence the prevalence of these conditions are health care, the environment, genetics and lifestyle. This report identifies indicators for each of these factors. An indicator, such as "percent of residents who are physically active", can be used to show current status, trends over time, comparison with other localities, and whether we are headed in the right direction.

**Eating behavior and level of physical activity** have a significant impact on heart health. Only 20% of residents eat the recommended amount of fruits and vegetables. Our level of physical activity has improved somewhat over the past ten years, but most of us do not exercise enough and a quarter of our population is sedentary.

**Smoking**, which undermines overall health, has gradually declined over the last five years. Approximately 21% of Ingham adults still smoke and many smoke at home. About 15% of children in the county are exposed to secondhand smoke in their homes.

**Alcohol and substance abuse** underly unintentional injuries and intentional violence. With respect to

alcohol, about one quarter of the Ingham population engages in binge drinking. This is largely unchanged over the last ten years. Homicides and car crashes are related to alcohol abuse. The number of deaths from homicide and car crashes fluctuates from year to year. For the last few years, there has been a gradual increase in homicides and a decrease in auto crash deaths.

**Having health insurance** is a key predictor of access to high quality health care. Approximately 88% of the adult population has health insurance. About 60% of those without insurance have access to care through the Ingham Health Plan. Quality of prenatal care is directly related to access. Over 90% of pregnant women start prenatal care early in their pregnancy. Unfortunately, the rate of low birth weight babies has gradually increased over the past several years to its current level of nearly 9% of all births.

**Teen pregnancy** is a predictor of under-education, low income and ultimately poor health for the family. Teen pregnancy continues to decline in Ingham County and has reached the lowest level in a decade.

**Air and water quality and land use** are used as environmental indicators. Outdoor air quality in Ingham County, as measured by ozone levels, remains largely unchanged over the last ten years, but recent stricter standards have placed the county over the acceptable limit. As a community, Ingham will need to develop an ozone reduction plan. Surface water quality, as measured by E. coli bacteria levels in the Grand River, has been slowly improving over the last six years. (Land use and its impact on health will be the subject of a separate assessment.)

## Deeper consideration of this health information suggests that underlying social factors influence our health.

There are remarkable differences in health between Black and White residents. Ingham County Blacks die earlier from all of the top twelve causes of preventable death compared to Whites. Local research indicates that emotional well-being is a key component of health, and area residents with low emotional well-being are more likely to engage in health risk behaviors and more likely to die early. Residents with positive social connections are more likely to have better health compared to those who are less connected or socially isolated. In Ingham County, trust in others is related to better education, higher income and better health. (Impact of social capital on health of area residents will be the subject of a separate assessment.)

**Health is not evenly distributed** throughout Ingham County. There exists a geography of health where poorer health is concentrated in the urban center of Lansing. Awareness and understanding of the geography of health can help us as a community focus strategies for improvement.

As individuals and as a community, we have a powerful influence on our health. Our health behaviors and self-care have a greater influence on our personal health than the other major factors combined. As family, friends, and neighbors we are the most effective source of support for positive behavior change in others. As government, business, and health care organizations we promote health by encouraging positive relationships between people and appropriate connections to health care services.

# INTRODUCTION

**This report is meant to show how we are doing as a community with respect to health and well-being and to provide a guide for what we can do to improve.**

This report presents a picture of the overall health in Ingham County, reviews changes in the top health conditions that cause preventable loss of life, and considers in factors that influence those conditions. These conditions are in large part responsible for quality of life, as measured by effect on daily activity, and are also the most costly conditions in the United States in terms of impact on total health care spending. It is important to monitor these conditions in Ingham County to determine whether they are on the increase or decline.

The largest portion of this report identifies the major factors influencing longevity and trends in those factors in Ingham County over the last decade, including progress toward Healthy People 2010 Goals for the Nation. “Healthy People 2010 Goals” is a product of the U.S. Dept. of Health and Human Services.

The final section of the report identifies underlying concerns or conditions that, while difficult to quantify, may have formative impacts on health.

This report is about the health of Ingham County residents. Information about Michigan or Capital Area (Ingham, Clinton and Eaton Counties) residents is included in many places for comparison. Data for this report were collected from several sources: Behavior Risk Factor Survey Studies of Ingham County and the Capital Area conducted in 1993, 1997, 2000 and 2003; Social Capital Survey of Ingham County and the Capital Area conducted in 2003; Year 2000 Census; Michigan Department of Community Health Office of Vital and Health Statistics; United States Health and Human Services Healthy People 2010 Project; Ingham County Environmental Health Assessment Project; Michigan Youth Risk Behavior Surveys; and the Search Institute Survey of Student Life. A complete list of resources and website addresses is available at the end of this report.



This health status report is best viewed as part of a comprehensive, community-wide effort to improve health in our community. “Power of We” and “Access to Care” are examples of other documents that summarize work intimately connected to the health status of our community. The information in this report will make a difference only if it is disseminated broadly and becomes part of ongoing community dialogues about health and health improvement strategies.

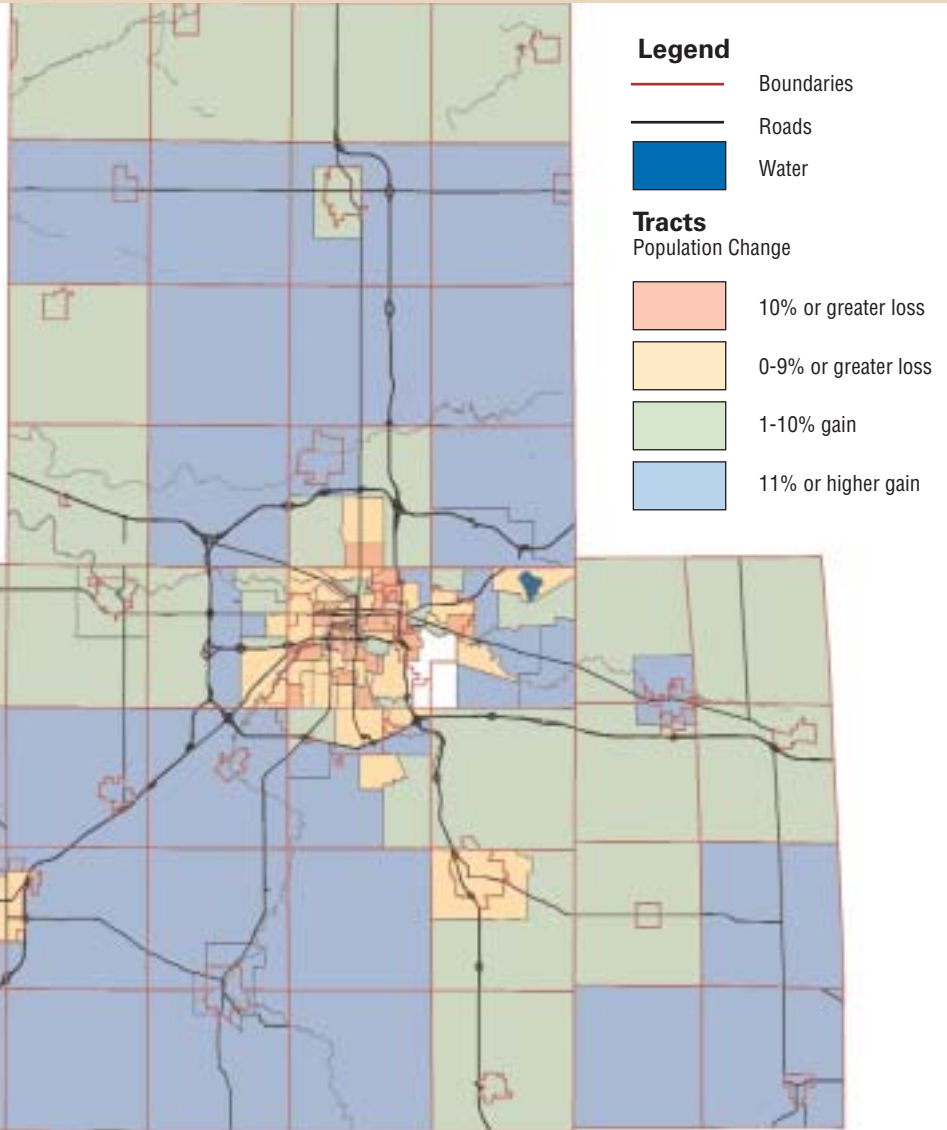
# AREA DESCRIPTION

**Over the past 10 years, there was a 6.7% decrease in the population of Lansing/East Lansing while the populations of Clinton and Eaton Counties increased 11.8% and 11.6%, respectively.**

Percent Change in Population of Clinton, Eaton and Ingham Counties, 1990-2000.

People are moving out of already developed areas, not only in Lansing but also in East Lansing, Mason and Charlotte.

Data are from the US Census and are aggregated by Census Tract.



## Our Setting

Ingham County is home to the urban center of Lansing-East Lansing and is the most populated section of the Capital Area which also includes Eaton and Clinton Counties.

Around the urban center are smaller cities and villages which include Williamston, Stockbridge, Mason, Charlotte, and St. Johns. Surrounding these smaller cities and villages is a

ring of mostly rural land stretching roughly 40 miles south to Jackson, 65 miles west to Grand Rapids, and 85 miles east to Detroit. A good highway system connects Lansing to other areas, but there is limited daily commuting to cities outside the Capital Area.

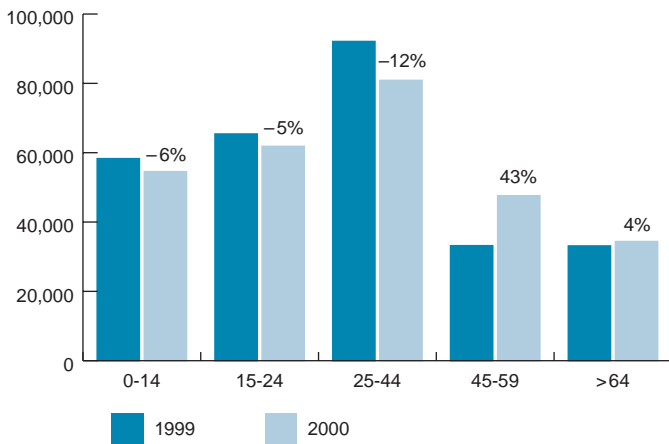
The total population of the Capital Area has changed less than 1% in the last ten years, but there has been

considerable relocation within the region. Over the past 10 years, there was a 6.7% decrease in the population of Lansing/East Lansing while the populations of Clinton and Eaton Counties increased 11.8% and 11.6%, respectively. Development over the last two decades in the formerly farm land sections of the Capital Area has generally not been in an organized pattern around a few growth centers. Rather, many new homes tend to be

# AND POPULATION

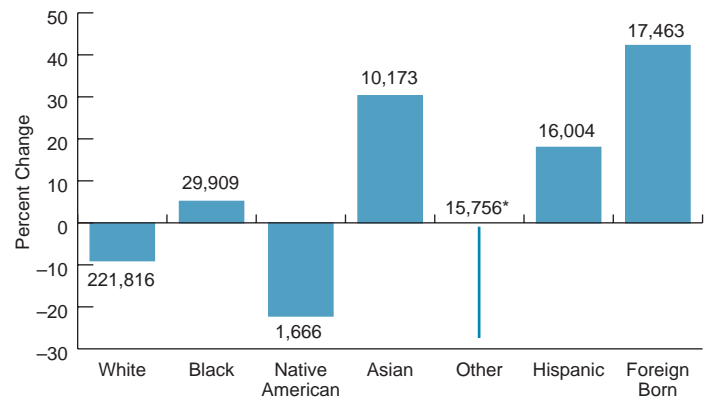
**Ingham County is becoming more diverse in terms of racial and ethnic makeup... Growth in diversity represents important opportunities in our community.**

**Change in Ingham County Population by Age 1990-2000**



Source: US Census

**Percent Change in Ingham County Population Groups 1990-2000 And Population Size in 2000**



Source: US Census

\*In 2000, 15,756 residents were classified as "other", a category that did not exist in 1990.

far from other destinations and driving even for short distances is often easier than walking, biking or taking public transportation.

Over the ten year period from 1990 to 2000, Ingham County's population decreased from 281,912 to 279,320 people. Over the same period, the makeup of the population changed considerably. Continuing a trend that is over two decades old, there has been a decline in

the proportion of residents under 24 years old, and an increase in the proportion over 25, with the largest percent increase among residents over 65.

Ingham County is becoming more racially and ethnically diverse. There have been significant increases in the proportion of Black, Asian, Hispanic, and foreign-born residents within the total population.

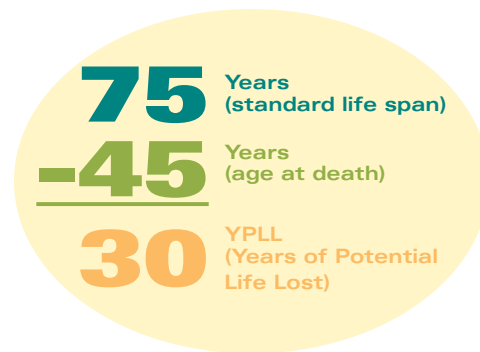
Growth in diversity represents important

opportunities in our community. The Lansing-East Lansing urban center is among the most diverse communities in Michigan and is home to people from all over the world. Cultural diversity presents an array of options for community development.

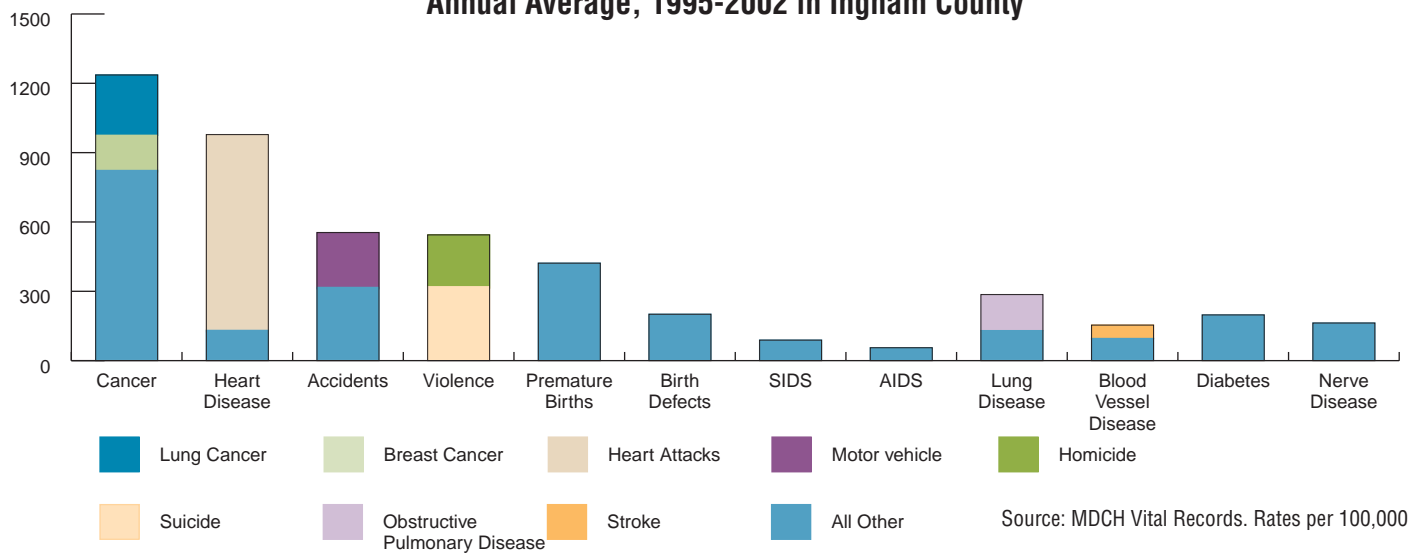


# Preventable Loss of Life

The primary objective of a report on health status is to identify major health problems and their underlying causes and to initiate a community-based process toward improvement.



**YPLL for Leading Causes of Death  
Annual Average, 1995-2002 in Ingham County**



8

One meaningful way of describing major health problems is to identify causes of early death. Heart disease and cancer have been the top causes of early death in Ingham County for over two decades and have been among the leading causes of preventable hospitalization in the county as well. While rates for these major causes of death are generally lower among Ingham County residents than for the State of Michigan as a whole, it is important to note that

Michigan rates are among the highest in the nation.

Causes of early death are ranked by considering the age at which a person dies and involves determining the “years of potential life lost”, (YPLL). YPLL is determined by subtracting the age at death from the standard age of 75. The death of a 45 year old person, for example, would mean 30 years of potential life lost.

The top twelve causes of early death account for approximately 80% of years of potential life lost in Ingham County. While the relative impact of these conditions changes somewhat from year to year, cancer, heart disease, accidents and intentional violence have consistently been the leading causes of early death.

Accidents, probably better called unintentional injuries as a reminder that they are

preventable, are the third most important cause of YPLL. Violence (suicide and homicide) results in almost as many YPLL as accidents.

Conditions that result in early death are also among the most costly in the United States in terms of total health care expenditures. They also have a great impact on quality of life, as measured in terms of loss of activity.

# TOP 15

## NOTABLE FACTS

- Among the top twelve causes of YPLL, five (heart disease, accidents, birth defects, SIDS, AIDS) have improved slightly in recent years. Cancer, intentional violence (homicide and suicide), premature births, lung disease, blood vessel disease, diabetes, and nerve disease have stayed the same or gotten worse.
- Of the leading causes of early death, four (heart disease, accidents, violence, AIDS) have a greater impact on males than females.
- The most common cancers are lung and breast cancer. Lung cancer accounts for approximately 20% of all cancer and deaths, over 90% of lung cancer results from smoking. The remaining YPLL due to cancer represents the cumulative impact of over 20 different cancers diagnosed among Ingham residents.
- Many cancer deaths can be attributed to poor diet and sedentary lifestyle.
- Early detection of cancer, can prevent early death.
- Poor diet, sedentary lifestyle and smoking account for an estimated 25% of early death due to heart disease.
- Motor vehicle crash is the most common type of unintentional injury (accident). Over 30% of motor vehicle crashes involve alcohol.
- Many early deaths due to “accidents” such as drowning, fires, and falls involve alcohol.
- Consistently over the years, suicide claims more years of potential life in Ingham County than does homicide.
- Alcohol and other substances are factors in an estimated half of all suicides and homicides.
- Prematurity, birth defects, and Sudden Infant Death Syndrome are by far the most common causes of infant death. Parental lifestyle also influences risk of infant death.
- Over 95% of the cases of AIDS in Ingham County results from using dirty needles related to drug abuse and unprotected sexual activity.
- Onset and control of diabetes are influenced by diet and physical activity and self care.

## Most costly conditions in the U. S.

| Condition and Ranking               | Impact on Quality of Life |
|-------------------------------------|---------------------------|
| <b>1. Heart Disease</b>             | <b>10</b>                 |
| <b>2. Motor Vehicle Accidents</b>   | <b>8</b>                  |
| <b>3. Respiratory Infection</b>     | <b>3</b>                  |
| <b>4. Diseases of Joints</b>        | <b>1</b>                  |
| <b>5. Hypertension</b>              | <b>12</b>                 |
| <b>6. Back Problems</b>             | <b>5</b>                  |
| <b>7. Mood Disorders</b>            | <b>4</b>                  |
| <b>8. Diabetes</b>                  | <b>2</b>                  |
| <b>9. Cerebrovascular Disease</b>   | <b>6</b>                  |
| <b>10. Cardiac Dysrhythmias</b>     | <b>13</b>                 |
| <b>11. Vascular Disorders</b>       | <b>11</b>                 |
| <b>12. Pulmonary Disease (COPD)</b> | <b>7</b>                  |
| <b>13. Asthma</b>                   | <b>9</b>                  |
| <b>14. Heart Failure</b>            | <b>14</b>                 |
| <b>15. Respiratory Malignancies</b> | <b>15</b>                 |

Source: “The Most Expensive Medical Conditions in America” by Benjamin G. Druss, Steven C. Marcus, Mark Olfson, and Harold Alan Pincus, *Health Affairs*, Volume 21, Number 4, 2001.

## Causes of Preventable Loss of Life (Continued)

**To improve our health we need to understand the factors that contribute to it and learn which of these factors are most responsive to change.**

Over 40 years of epidemiological research and case control studies at the national level have shown that lifestyle or health-related behaviors, environmental conditioning, access to health care, and biological or genetic factors all influence health. Such research is helping us better understand the relative impact of these factors.

While these general factors have been known for many years, only in the last decade have public health researchers estimated their relative impact. National data show that lack of access to appropriate health care accounts

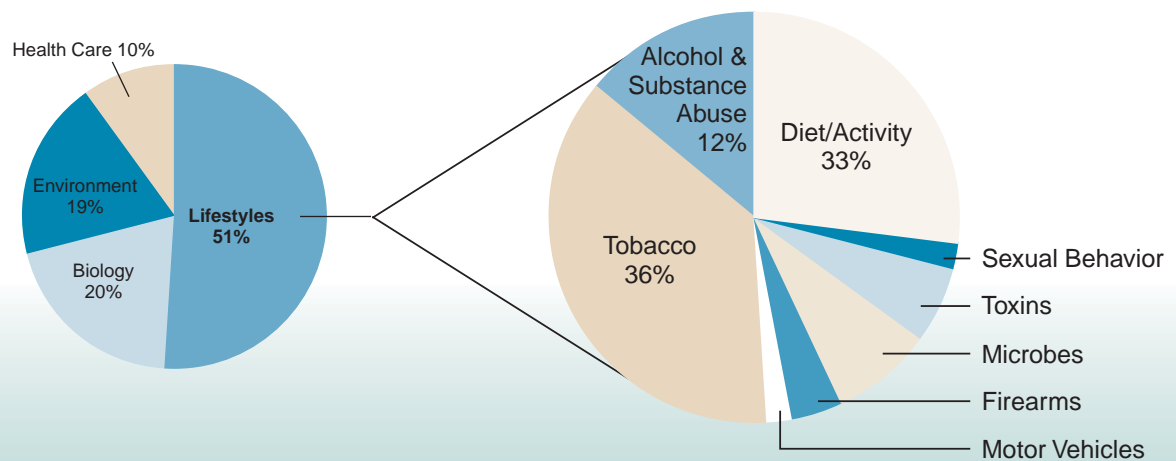
for approximately 10% of premature deaths in our country. Toxic and hazardous conditions in our living and working environments account for nearly 20% of early deaths, and biology or genetic predisposition accounts for another 20%. Lifestyle has the largest influence on preventable deaths.

Approximately half of preventable death in our communities is due to health risk behaviors. Tobacco use is the most significant accounting for around 36% of the lifestyle impact. Behaviors related to

diet and physical activity account for over 33%, while abuse of alcohol and other drugs accounts for approximately 12% of the lifestyle impact on early death. Collectively, other behaviors account for under 25% of the total.

In 2004, the Centers for Disease Control and Prevention projected that the current epidemic of obesity signals that diet/physical activity may replace tobacco use as the leading cause of preventable death in the United States by 2010.

### Factors Contributing to Preventable Death



Source: U.S. Dept. of Health and Human Services, 2004

# MAJOR INFLUENCES ON HEALTH

**The factors in the following sections reflect major public health concerns in Ingham County. Lifestyle, health care and environmental health have significant impacts on our personal and community health and quality of life. These factors are modifiable and can be improved through personal and community health promotion and disease prevention strategies. Improvements in health trends and reduction of disparities between population groups for any one of these factors can have a profound effect on the years of healthy life for Ingham County residents.**

# PHYSICAL ACTIVITY

**Inactivity is not only harmful to health it was responsible for an estimated \$8.9 billion in health care costs in Michigan in 2002.<sup>1</sup>**

<sup>1</sup>Report Governor's Council on Physical Fitness, 2003

Becoming physically active may be the single most important health behavior change for sedentary people. Almost any increase in physical activity is beneficial, but a healthy goal is at least 30 minutes of daily physical activity such as swimming, jogging, bicycling, or brisk walking. This level of activity can improve physical condition and help maintain a healthy body, enhance psychological well-being and prevent early death.

According to a recent study, inactivity is not only harmful to health, it was responsible for an estimated \$8.9 billion in health care costs in Michigan in 2002. Inactivity results in an estimated \$300 million in health care costs in Ingham County.

Approximately 62% of Ingham County adults do not engage in

moderate physical activity at least three times a week. This is similar to the level reported three years ago and is an overall slight improvement over the last decade. In recent years, residents of Ingham County have been about as physically active as residents of Michigan. But this is not a high bar to meet since people in Michigan are among the most inactive in the country.

Almost 80% of Ingham County residents participate in some form of leisure time physical activity. There has been a slow but steady improvement over the last ten years. The Healthy People goal for the Year 2010 is that no more than 10% of the population will be inactive, meaning they undertake no leisure time physical activity. For most, leisure time physical



## What About Kids?

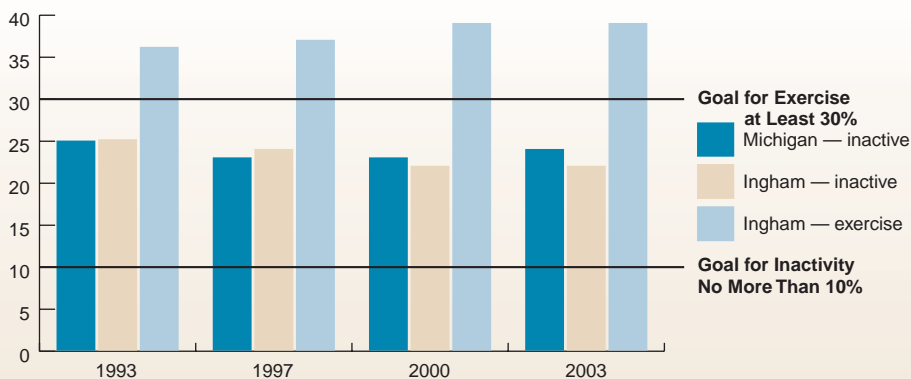
Sixty two percent of Michigan teens are physically active. This is a little less than the 65% for the nation as a whole. Level of physical activity in our youth is declining. Our culture tends to glamorize team sports rather than individual forms of physical activity that can be maintained over a lifetime. Like other health behaviors, lifelong fitness habits start young.

activity is not vigorous and includes gardening or leisurely walking. Most people who engage in even low levels of physical activity will experience health benefits. For example, there are measurable health benefits from taking 2,000 steps each day (including all exercises and physical chores), which is roughly one mile. Health benefits increase up to an activity level of 10,000 steps a day. For many people, some health benefits of physical activity are immediate, like a heightened sense of well-being.

Health behavior research that shows our level of physical activity increases with our level of education and income and varies by area of residence within Ingham County and the Capital Area. Some people may be more physically active than others for a variety of reasons such as greater exposure to information about physical activity, higher personal priority given to physical activity, more opportunities to be active, or more personal experience of the benefits of physical activity.

Our challenge as individuals and as a community is overcoming the psychological and social barriers that inhibit us from experiencing the benefits of physical activity first-hand.

**Percent Inactive and Percent Who Exercise**



Source: Capital Area Behavior Risk Factor Surveys

# WEIGHT & NUTRITION

## Michigan is one of the most overweight states in the country.

Physical activity and food choices work in concert to influence body weight. There is a compelling link between higher body weight and poor heart health, diabetes and premature death. As a nation, we are experiencing an epidemic of obesity. In 1980, only five states had over 25% of their population, classified as obese. Less than 25 years later, all states in the U.S. have over 25% of their population, classified as obese. These changes result primarily from eating more and moving less. Since 1980, youth obesity has increased three fold in the U.S. to include 15% of all youth.

Overweight and obesity are technical terms based on body mass index, which is calculated using a person's height and weight. A chart can be used to determine one's personal BMI, but for a general idea, a 5'4" woman weighing more than 140 pounds is overweight. If she weighs more than 170 pounds, she is considered obese. A 5'8" man over 160 pounds is overweight; if over 190 he is obese. About 58% of the Ingham County adult population is overweight, and the percentage has been increasing over the last ten years. Twenty one percent of the population of Ingham



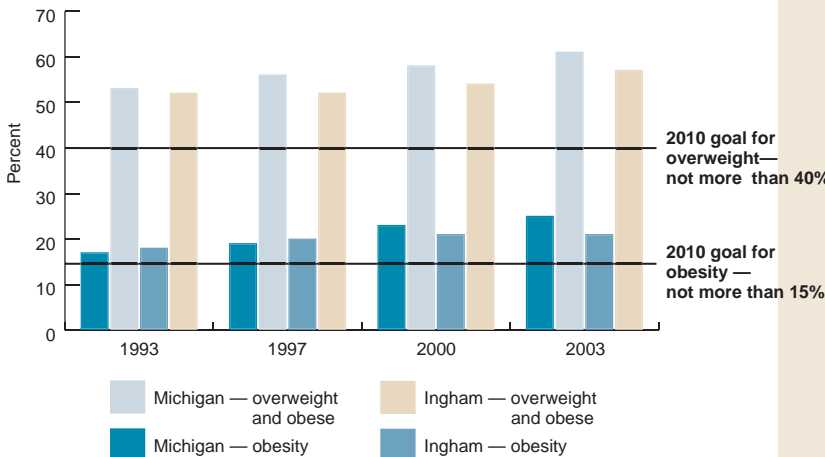
County is obese. The Healthy People 2010 Goal is not more than 15% of the population will be obese.

Ingham County is somewhat less heavy than the State of Michigan as a whole, but Michigan is one of the most overweight States in the country.

Eating the recommended five servings of fruits and vegetables daily is an indicator of a healthy diet. In 2003, only 20% of Ingham County residents ate 5 servings of fruits and vegetables per day, a slight decline from three years ago. This is similar to the state as a whole.

## Approximately 6.4% of Ingham County adults report having diabetes, compared to 4.5% three years ago. Type II diabetes is becoming a problem for children and youth, especially among people of color.

Percent Overweight and Obese



Source: Capital Area Behavior Risk Factor Surveys

## The kinds and amount of food we eat are influenced by:

### Behaviors we learn at home

Ingham kids were twice as likely to eat a healthy breakfast before school if their parents ate a healthy breakfast.

### Emotional well-being

Residents with low emotional well-being were 50% more likely to be obese.

### Economic status

Economic status limits food choices. Low income residents are 40% more likely to be obese.

### Encouragement we receive from family and friends

72% of area residents say family and friends are their support network for health-related behavior change.

### Our perception of our diet quality

Half of Ingham County residents with a poor diet believe their diet is good.

### Access to super markets

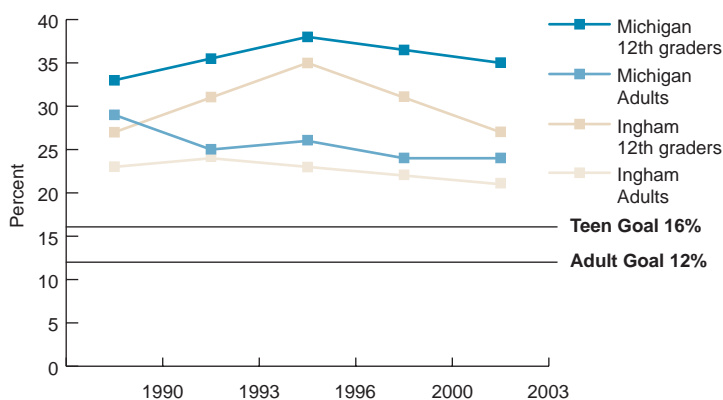
Many low income residents do not have adequate transportation and find it difficult to get to stores that sell fresh fruit and vegetables.

# TOBACCO USE

**Thirty percent of lower income women in Ingham County smoke during pregnancy, over twice the rate among all pregnant women.**



**Percent Who Smoke**



Source: Surveys of Student Life and Mid Michigan BRFS

### What About Kids?

Smoking remains a serious problem among youth although youth smoking has declined in the past decade. Smoking rates peak around age 18, when about 27% of Capital Area 12th graders smoke. Prevalence of youth smoking increases among lower income families. Parental smoking is one of the most important predictors of youth smoking. The Healthy People goal for teen smoking is a reduction to 16% by the year 2010.

Smoking remains the most important health risk behavior. Tobacco smoke is associated with lung cancer, heart disease, bronchitis and low birth weight babies, among other things. An estimated 490 people in Ingham County die from smoking each year, which is more than all deaths from homicide, suicide, car crashes, accidents and AIDS, combined.

Nationally, 14,700 people die from smoking each year and estimated treatment costs for smoking related diseases are \$2.65 billion per year.

Smoking rates have slowly but steadily declined over the last 10 years. Currently in Ingham County, approximately 21% of all adults smoke, about 24% of men and 19% of women. Residents who graduated from college are less than half as likely to

smoke as those who graduated with a high school degree or less. Smoking is related to depression. The greater the number of depressed days experienced in the past month, the more likely that person is to smoke. The Healthy People goal for smoking is to cut it in half, down to 12% of adults by the year 2010.

A non-smoker exposed to the smoke of others is at risk for cancer, heart disease, bronchial and lung disease, and a variety of other health problems, especially if they are sick, elderly or very young.

In Ingham County an estimated 10,000 non-smoking adults and 15,000 children are exposed to secondhand smoke at home. While the number of residents exposed to environmental tobacco smoke (ETS) is high,

this is an improvement over three years ago. Maternal smoking doubles the risk of delivering a low birth weight baby. Babies born very small are more likely to die in their first year of life. Low birth weight babies who survive are more likely to have developmental difficulties and associated problems that may persist throughout life.

In 2002, an estimated 15% of pregnant women in Michigan smoked during pregnancy. The Women, Infants and Children Program (WIC) which serves lower income families asks about certain health behaviors. Approximately 40% of all pregnant women in Ingham County are served by the WIC Program. Almost one third of those women served by WIC reported that they smoked during their pregnancy.

# SUBSTANCE ABUSE

**Nationally, alcohol is associated with homicide, suicide, half the assaults, most child abuse, and over one third of motor vehicle fatalities.**

Alcohol and illicit drugs are associated with serious health problems including motor vehicle crashes, homicides, suicides, child abuse and intimate partner violence, injuries, unintended pregnancies, sexually transmitted infections, and escalating health care costs. Long term heavy drinking can lead to heart disease, cancer and liver disease. The annual economic cost of alcohol and drug abuse has been estimated at \$60 billion in the U.S.

Alcohol is likely the most commonly abused drug in Ingham County. There is no complete accounting of the level of substance abuse, but, based on records of publicly funded substance abuse treatment services, there were more admissions in Ingham County for alcohol abuse than for all other substances combined.

In Ingham County, there is a wide range of alcohol consumption. Approximately 45% of adult women and 25% of adult men report not having any alcohol in the last 30 days. Approximately 6% of residents are heavy drinkers, consuming more than 60 drinks per month. In Ingham County, men are four times more likely to be heavy drinkers than women.

Binge drinking is an indicator of excessive consumption of alcohol and a predictor of alcohol-related health problems. Binge drinking is usually defined as five or more drinks on one occasion for men and four or more drinks for women. Binge drinking is most prevalent among young adults and older teenagers. Twenty-seven percent of Ingham County adults age 18-34 report binge drinking in the past month. Thirty-one percent of Capital Area 12th graders say the same thing. Binge drinking is three times more common among men than women. The Healthy People Goal for Year 2010 is a reduction in binge drinking to 6% for adults.

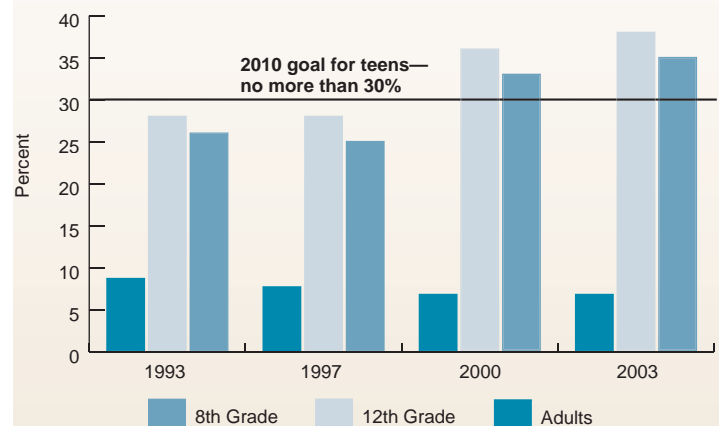
Almost six percent of Ingham County adults say they drove after having too much to drink, and an equal number report being driven by someone who had been drinking. These problems are worse among youth. Twenty one percent of Ingham County 12th graders say they drove after drinking in the previous month. And 31% said they had been driven by someone who had been drinking.



Thirty percent of eighth graders report being driven by someone who had been drinking.

Alcohol abuse is an almost universally recognized health concern, but it is not easy to address because many people are not willing to admit having an alcohol problem which skews our perception of the impact of alcohol. In our social environment, drinking is accepted and often encouraged, making it difficult to recognize substance abuse in ourselves and loved ones. To confront substance abuse, particularly alcohol abuse, we need to create an environment where we can clearly recognize alcohol abuse and understand more completely its impact in impairing health and diminishing the quality of life.

## Driving Drunk or Riding with a Drinking Driver



Source: Surveys of Student Life and Capital Area BRFS

# ACCESS TO HEALTH CARE

**Residents without health insurance are more likely to be young, lower income, employed, and unmarried.**



Receiving proper medical care is a major factor contributing to health. A strong indicator of access to health care is having some form of health insurance, health care coverage or financial resources to pay for care.

In 2003, about 88% of Ingham County residents reported having some type of health insurance coverage. This is similar to the reported coverage since 1996. Health coverage varies with age. Just under 80% of young adults (ages 18 to 24) are covered while almost 100% of adults over 55 have coverage. For those over 65, coverage shifts from employer-provided to mostly Medicare. Coverage varies with

income. Just under 80% of people with annual household income below \$20,000 are covered while nearly 100% of those with incomes over \$50,000 are covered.

All young children all eligible for coverage under Medicaid and MICHild. Some families are not aware of this or do not take advantage of it. An estimated 2,400 children and youth under the age of 18 in Ingham County are uninsured.

Ingham Health Plan (IHP) is not considered health insurance but coverage established for adults without health insurance or the ability to pay for care. IHP provides

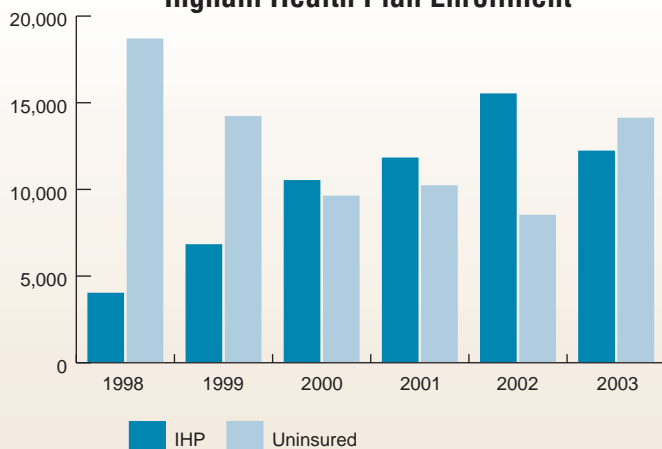
enrollees with a variety of primary and specialty care services and medicines.

IHP has proven itself to be a valuable strategy for helping people get coverage when they cannot afford health insurance. Although the greatest number of people enrolled in the plan at any one time is 16,600, over the five and a half years the plan has existed, more than thirty thousand different Ingham County residents have

been enrolled in IHP.

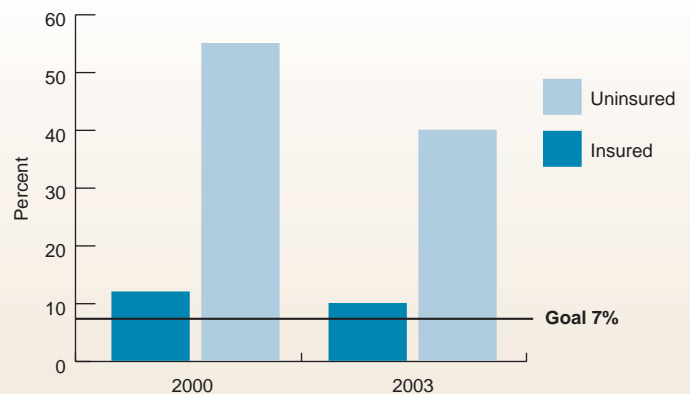
Health insurance does not always assure access. Overall, almost 80% of all Ingham County residents said they needed to see a doctor or other health care professional in the past year, but 15% were unable to do so. Among the uninsured, 41% could not see a doctor when needed, compared to 10% of those with insurance. This difference was mostly due to cost and is an

**Total Uninsured and Ingham Health Plan Enrollment**



Source: Capital Area Behavior Risk Factor Surveys and IHP Records

**Percent of Those Sick Who Could Not See a Doctor**



Source: Capital Area Behavior Risk Factor Surveys

# HEALTHY PEOPLE GOAL:

# 100%

## of residents will have health care.

improvement from three years ago. The situation is similar for dental care where over half of uninsured adults could not see a dentist when needed.

Preventable hospitalization is also used as an indicator of access to care. A preventable hospitalization is one that could have been prevented if care were received at an earlier stage. Preventable hospitalization as an indicator has the advantage of measuring the health impact of lack of access. But lack of insurance is not the only factor influencing preventable hospitalization. Personal factors such as cultural differences,

language barriers, not knowing when or how to seek care, or concerns about confidentiality or discrimination can influence whether one seeks or delays care.

The rate of preventable hospitalization of Ingham County residents has not changed much in the past decade, remaining roughly 30% under the state rate. In 2001, there were approximately 625 preventable hospitalizations in Ingham County. Hospitalization for asthma and diabetes are examples of preventable hospitalizations. Hospitalization rates for both of these conditions increased 15% and 25%, respectively, in the last few years.

### Immunization

Vaccines are among the greatest health achievements of our time. Immunizations can help prevent disability and death from infectious diseases for individuals and can help control the spread of infections within communities. Many of the once common vaccine-preventable diseases in our country are now controlled. Smallpox has been eradicated, polio has been eliminated from the Western Hemisphere, and measles in the United States is at a record low.

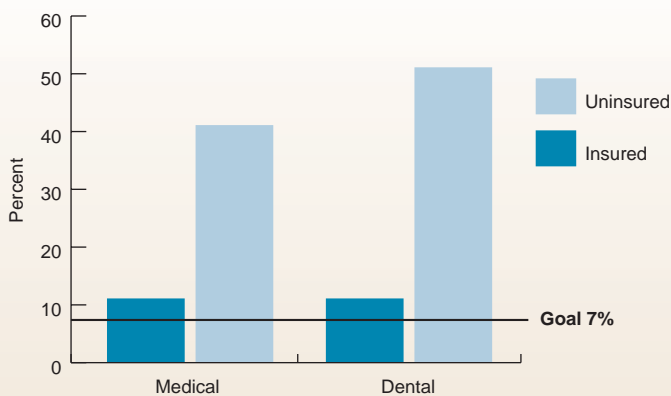
In Ingham County, there were 6 cases of mumps, and 21 cases of pertussis, 3 cases of H. influenza, no cases of measles,

no cases of rubella, and no cases of tetanus in the five years from 1998 through 2002.

Approximately, 50% of Ingham County children 19 to 36 months old are fully immunized (meaning each child has had all DTaP, polio, MMR, Hib, and Hep B vaccines). The Healthy People 2010 target is 90% of children fully immunized.

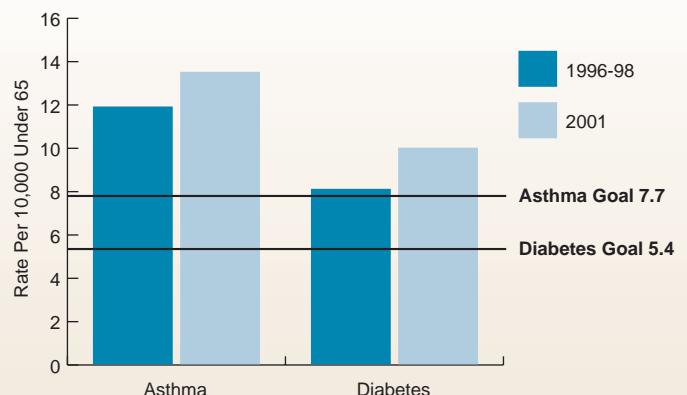
Many adults do not know they need to be re-immunized for some communicable diseases. Adult pertussis is rising nationally. Approximately 30% of Michigan adults over 65 do not receive an annual flu vaccine. Over one third of Michigan adults over 65 are not vaccinated for pneumonia.

**Percent of Ingham County Residents Who Could Not Get Care**



Source: Capital Area Behavior Risk Factor Surveys

**Preventable Hospitalizations Ingham County Residents**



Source: Michigan Inpatient Database

# RESPONSIBLE SEXUAL BEHAVIOR

**In the Capital Area area, 53% of high school seniors reported having had sexual intercourse. Nearly 70% of those used some form of birth control.**

Most 12th graders in Michigan and in the Capital Area report having had sexual intercourse. Unprotected sex can result in unintended pregnancies and sexually transmitted infections, including HIV.

Young people have been taking steps to avoid pregnancy. Over the past 10 years, the teen pregnancy rates (15-19 years old) in Ingham County and in Michigan have declined. In Ingham County, the teen rate has declined by over 35%. The pregnancy rate for younger teens (15 -17) declined by 50% over the period and has reached the Healthy People 2010 Goal for that age group.

Improvement has been the result of both an increase in abstinence and an increase in use of contraception among teens who are sexually active. Last year, nearly 70% of younger teens in the Capital Area and in Michigan (students 15-17 years old) were abstinent. Of those who were sexually active, approximately 65% used some method of birth control.

There has been a corresponding decline over the decade in teen births in Ingham County and in urban and rural areas throughout the state. Statewide, teen births in urban areas have declined from 16.7 % of all births in 1991 to 12.4 % in 2001. It is important to note that the teen birth rate for the City of Lansing has been higher

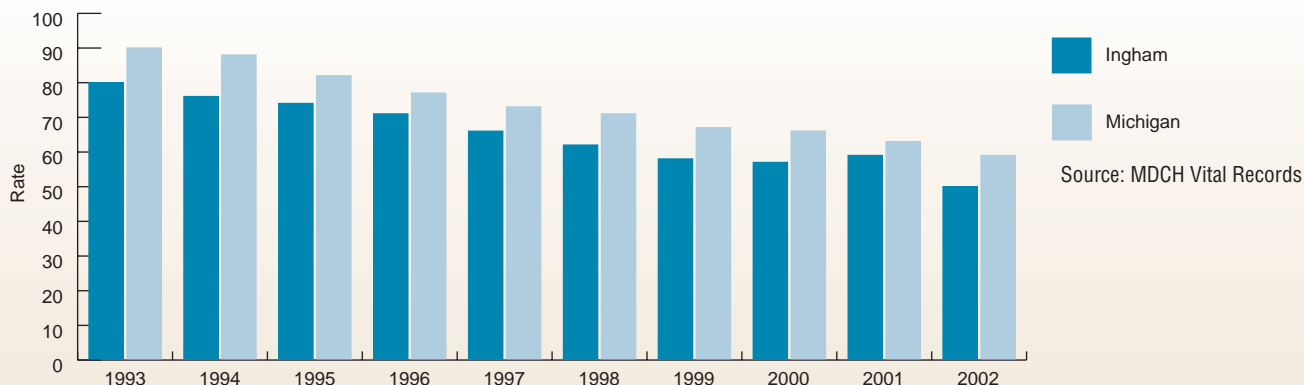


than the state's urban average. In 2001, there were 338 births to Lansing teens, over one quarter of whom were already mothers.

For the most part, a teen birth results in a family who must struggle with low income and under-education as a result of having to raise children at a young age. This will likely have a long term impact on the family.

Chlamydia is a sexually transmitted infection and rates have risen by 50% among Ingham County females, ages 15-24 over the last five years, a pattern similar to that for the state. This indicates many people are using methods other than condoms to prevent pregnancy and is significant because methods such as birth control pills do not protect against sexually transmitted infections, including HIV.

**Teen Pregnancy Rate, Ingham County (15-19)**



# MATERNAL/CHILD HEALTH

**In the late 1990s over 90% of pregnant women received care beginning in the first trimester of pregnancy, but recently that has slipped to 85%.**

Maternal and child health is one of the most important indicators of the health of a community. Underlying risk factors for poor health fall disproportionately on mothers and children. Children who begin their lives in poor health may never catch up to their peers.

Low birth weight is an important indicator of maternal and child health. Healthy mothers are more likely to give birth to babies of normal weight. Babies born small are at greater risk of suffering perinatal diseases and are more likely to have developmental delays. Nationally, the low birth weight rate, which improved steadily until about 1980, has leveled off.

Based on low birth weight rates, maternal and child health in Ingham County and in Michigan has not improved much in the past decade. Over 8% of all births are low birth weight, up from near 6% in 1992.

People with low incomes and people of color are often at greater risk for poor maternal and child health. For example, low birth weight births are almost 50% more common among Black women, women who are poor enough to qualify for Medicaid while pregnant, and women who did not graduate from high school.

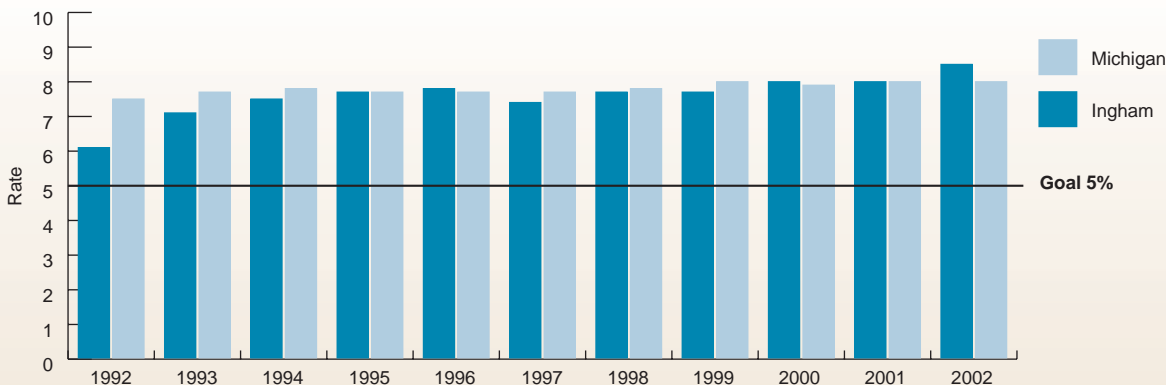


Substance abuse by pregnant mothers place their babies at risk of being born prematurely or suffering fetal damage. In Ingham County, approximately 30% of the low income, pregnant women in WIC report smoking during pregnancy, roughly twice the smoking rate for all pregnant women. About 3% of Ingham County women served by WIC report drinking during pregnancy, down from 10% five years ago. Drinking during pregnancy among low income women in Michigan

declined from 8.1% to 5.7 % over the last five years.

Mothers are more likely to give birth to healthy babies when they have personal support during pregnancy. An Ingham County study found that women who had the support of the baby's father during their pregnancy were more likely to get prenatal care, were half as likely to smoke and drink during pregnancy, and were half as likely to have a low birth weight baby.

**Low Birth Weight Rate – Ingham County**



Source: MDCH Vital Records

# ENVIRONMENTAL QUALITY

**Physical environments play a major role in the health of individuals and communities.**

The characteristics of our environment, including the built environment, influence our exposure to toxic and hazardous materials, walkability and safety.

## Air Quality

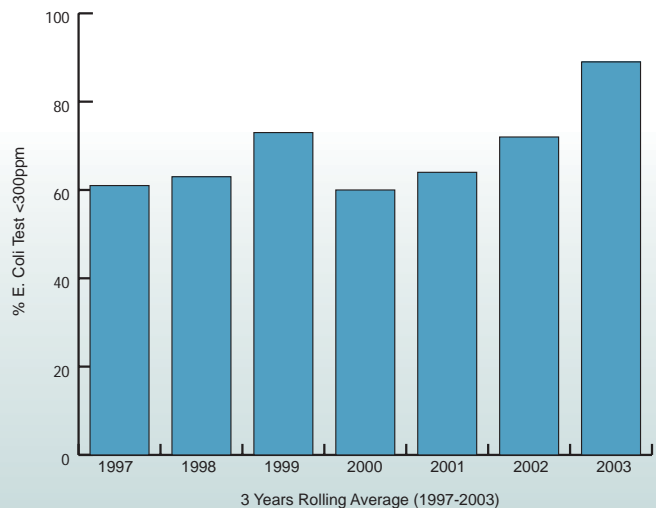
Poor air quality contributes to respiratory illness and other health conditions, particularly for adults and children involved in moderate or strenuous outdoor activities, people with respiratory conditions such as asthma, and individuals with sensitivity to ozone.

Pollutants released into the air each year in Ingham County contribute to the formation of ozone. Most of the ozone in Ingham County is generated locally, and most of it comes from automobile exhaust. For most of the last decade, the three-year average ozone concentration, as measured at air sampling stations in central Lansing and Rose Lake, was around 80 to 85 parts per billion (ppb). Individuals readings during that period sometimes rose above 85 ppb. Based on updated information regarding ozone and health, the EPA recently introduced stricter standards with an acceptable upper limit at 85 ppb.

In 2003, Ingham County ozone levels exceeded the EPA standard. Ingham County and other local governments in the Capital Area are required to develop an ozone reduction plan.



**Surface Water in the Capital Area  
Tests Meeting Recreational Standard**



Source: Ingham County Health Assessment.

## Due to high ozone levels, the Ingham County community will develop an ozone reduction plan.

### Lead

High blood lead levels in children can impair cognitive development, especially in children under 5 years of age. The primary source of high blood lead levels in Ingham County children is fine particles of paint dust that contain lead. Leaded paint was commonly used in homes until 1950. Based on estimates of the number of homes built before then, approximately 23% of homes in Ingham County have high lead content, putting an estimated 4,600 young children at risk for high blood lead levels.

People with older homes, especially those with young children, should have their homes' paint tested for lead content.

### Radon

Radon is an odorless, invisible natural gas found in soil. Radon can enter any home through cracks and gaps in floors and walls. Long term exposure to radon can cause lung cancer, especially for smokers. Approximately 23% of homes tested in Ingham County had radon levels above the recommended limit.

### Groundwater

Groundwater is the primary source of drinking water for Ingham County residents. In general, the quality of groundwater in our area is good and the challenge is to protect it from contamination. Significant prevention efforts include monitoring and repairing leaking underground fuel storage tanks and locating and plugging thousands of uncapped wells open at ground level.

### Sewage Overflow

Sewage water overflow is a source of contamination in rivers and streams in Ingham County. Bacteria can cause people to get seriously ill, even if ingested in small amounts of water while swimming. The bacterium *E.coli* is found in human and animal feces, and levels of *E.coli* in surface water have been used as an indicator of sewage contamination. Results of tests on water collected in the Grand River show that water quality has been improving. In recent years almost 90% of water tested met standards for recreation, like swimming. This

improvement is likely the result of ongoing work to prevent sewage overflow.

### Land Use

Land is being converted throughout the Capital Area. For example, fields are reclaimed in our urban areas, and agricultural land converted for housing in the rural areas. The benefit of such changes depends on perspective. Land use change can revitalize a blighted area in a Lansing neighborhood, increase congestion and reduce safety in the suburbs, or increase the value of agricultural land in rural areas. In general, Lansing residents and rural Ingham County residents view the land use changes they experience around them as positive. Many suburban residents view land use changes in their areas as negative.

# INJURY AND VIOLENCE

**Over 50% of motor vehicle injuries and 35% of motor vehicle deaths involve people under the influence of substances, primarily alcohol.**

The term “unintentional injury” is often used instead of “accident” to emphasize its preventable nature.

Unintentional injury and violence are leading causes of early death and major health problems. In Ingham County, unintentional injury is the third leading cause of early death. Motor vehicle crashes are the most common cause of serious injuries. Significant injuries also result from falls, poisonings, drowning, suffocation and fires. According to the Centers for Disease Control and Prevention, the risk of injury is so great that most persons suffer a significant injury at least once in their lifetime.

From 2000 to 2002, 63 Ingham County residents died and 750

suffered serious injuries as a result of motor vehicle crashes. Death rates and intoxication rates were highest for young drivers under 24 years old. For most years, motor vehicle crashes are the most common cause of death for Ingham County youth under the age of 18. The average number of deaths from automobile crashes has been declining in the last few years, but the rate has been around 11.5 per 100,000 residents, higher than the Healthy People 2010 target of 9 deaths per 100,000 residents.



Impaired drivers are more frequently on the roads during the early morning hours on weekends. In 2003, when asked about drinking behavior in the past 30 days, about 5% of Ingham County adults admitted to driving after having too much to drink. Thirty percent of Capital Area eighth graders said they had been driven in a car whose driver had been drinking, suggesting adult impaired driving is probably under-reported.

Homicide is the most accurately measured crime in the United States and is used as an indicator of violent crime. From 2001 to 2003, there were 33 homicides in Ingham County. For the past five years there has been an average of 16 homicides per year, and approximately 60% involved firearms. Based on previous studies, about half of the victims and perpetrators,

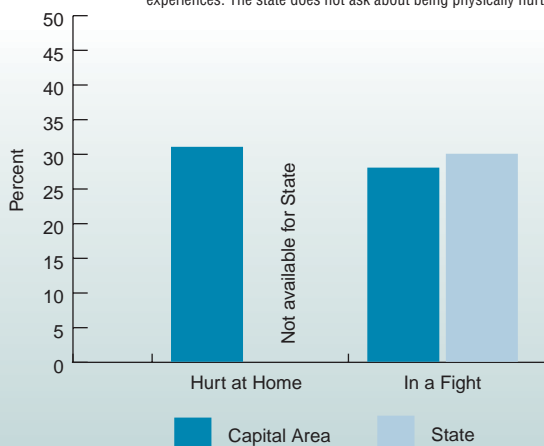
regardless of race, were under the influence of substances, most likely alcohol. Black Ingham County residents are over three times as likely to be murdered as White residents.

Compared to women, men are three times more likely to be victims, and three times more likely to be perpetrators of homicide. Homicide and violence in Ingham County, as elsewhere in the country, often involves people who know each other such as family members, romantic partners or long time acquaintances.

For some high school students, violent behavior is experienced at home. Over 30% of Capital Area high school seniors report having been hurt by a parent or an adult living in their home. Almost 30% of high school seniors said they were in a physical fight one or more times in the past 12 months.

## Indicators of Youth Injury (12th Graders in Capital Area and Michigan)

\*Statewide data are for the past year while the Capital Area questions refer to lifetime experiences. The state does not ask about being physically hurt at home.



Source: Surveys of Student Life

# UNDERLYING SOCIAL FACTORS

**Underlying personal and social factors influence our health as individuals and as a community. The impact of these factors on our health may be subtle and difficult to quantify, but they affect the health-related choices we make and the assistance we receive from our community and the people around us.**

# DISPARITIES

**The factor that has the greatest association with health risk behaviors and access to health care in Ingham County is income.**

Health is not evenly distributed among population groups in Ingham County. Blacks and people with low incomes are much less healthy than the average resident.

On average, women live almost six years longer than men. There are biological factors that account for part of this difference, but not all of it. Men in most other developed countries live longer than men in the U.S. In Ingham County, men are more likely than women to engage in high risk behaviors such as excessive drinking and are more likely to die from accidents, violence and heart disease.

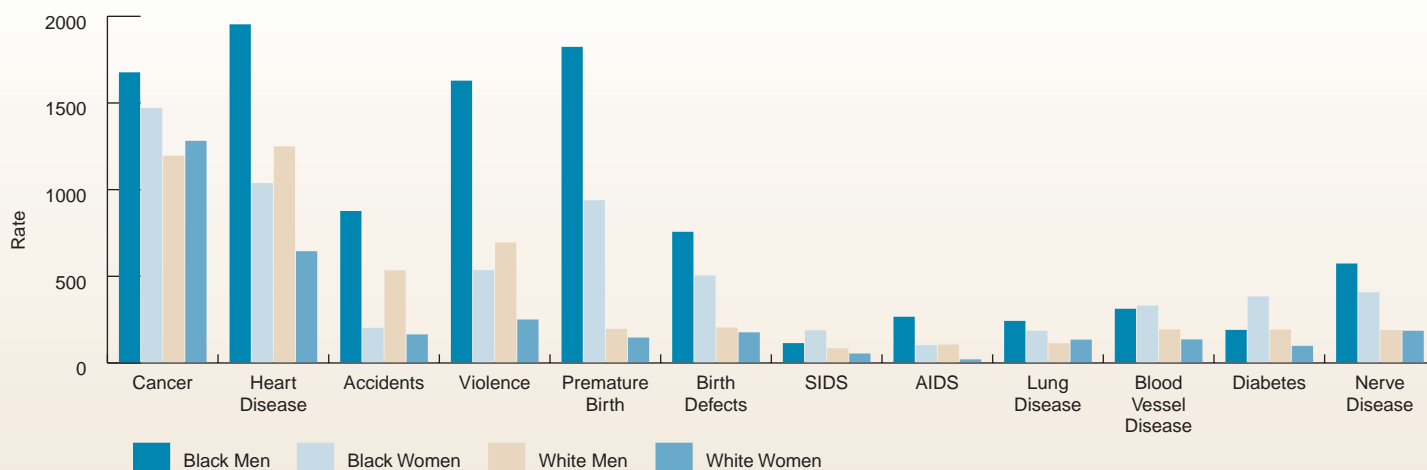
There is also room for improvement in longevity and quality of life for women. For example, smoking rates for women have nearly caught up to rates for men, and disability and early death from lung cancer are increasing for women.



In Ingham County, Blacks die earlier than White residents from all of the top 12 medical conditions. There are no known biological or genetic characteristics that would explain this. Social and behavioral factors are believed to significantly influence these disparities. Hispanic residents in Ingham County suffer similar health disparities.

Disparity in infant mortality between Black and White residents is an important indicator of child health status, and disparities can be viewed as a general indicator of social conditions in our community. In the past decade in Ingham County, Black infant death rates have fluctuated but have often been twice as high as White rates. In the past five years, the infant death rate for Whites has generally been getting better while the infant death rate for Blacks is getting worse.

**Years of Potential Life Lost by Race and Sex**



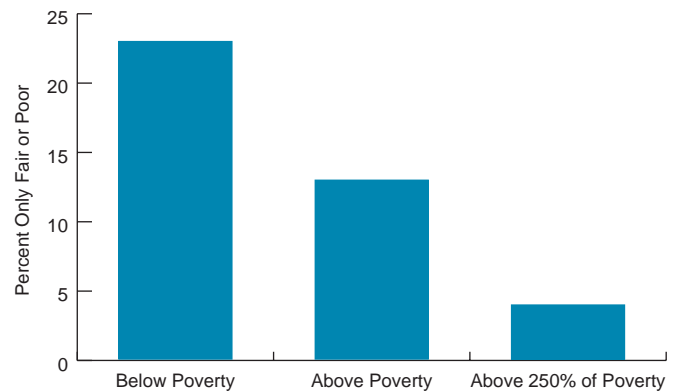
Source: MDCH Vital Records. Rates per 100,000

# DISPARITIES

## Disparities in health between population groups can be an indicator of social conditions in our community.

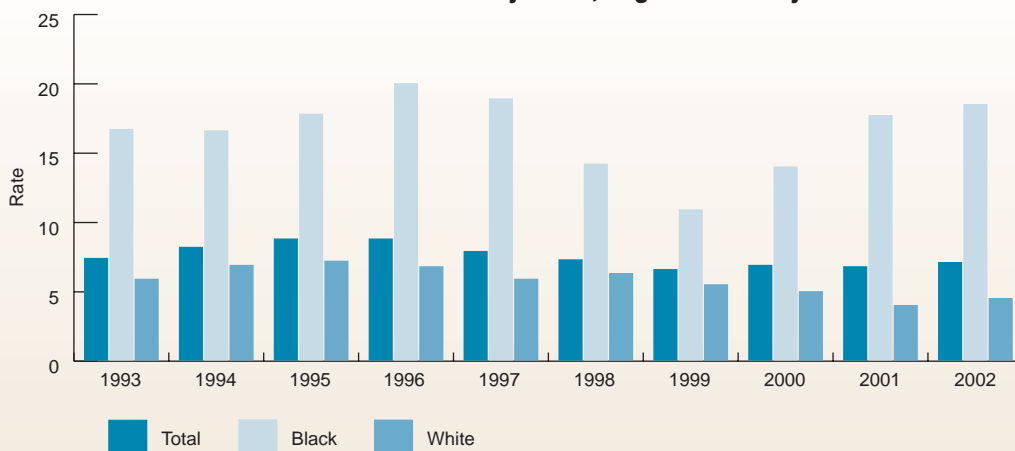
The factor that has the greatest association with prevalence of health risk behaviors and access to health care in Ingham County is income. For a variety of social and behavioral reasons, people living in poverty are more likely to get sick and die early. Ingham County residents with poverty level incomes were five times more likely to say their health was not good compared to people who lived in higher income families. The single biggest predictor of income level is education.

**Percent Saying their Health Status Was Only Fair or Poor by Income Level**



Source: Capital Area Behavior Risk Factor Surveys

**Infant Mortality Rate, Ingham County**



Source: MDCH Vital Records. Rates per 1,000

# MENTAL HEALTH & EMOTIONAL

**58% of Capitol Area teens feel they have control over things that will happen in their lives.**

## WELL-BEING

Our health is more than just physical. It has mental and emotional dimensions as well. When asked how we feel, our response usually reflects the combined effects of our physical and mental condition. Mental/emotional health is essential to personal well-being. Based on a community survey, over 95% of Ingham County residents said physical and mental health were extremely important to them.

Among area residents, it is almost unanimous that mental health and physical health are each important in their own right. A key question is whether emotional well-being influences

our physical health. Studies done elsewhere indicate mental and emotional health are linked to heart disease, cancer, diabetes and other health problems.

In studies over the past 10 years, area residents have responded to survey questions about whether they feel frequently depressed, hopeful, in control, and needed. Results show that low emotional well-being correlates with behaviors such as smoking, poor diet and sedentary lifestyle.

Residents of Ingham County who report better emotional health also suffer fewer days of impairment.

People's emotional well-being matters to them. A person with a mental disorder may be unable to carry out his or her daily responsibilities as a spouse, parent, or employee.

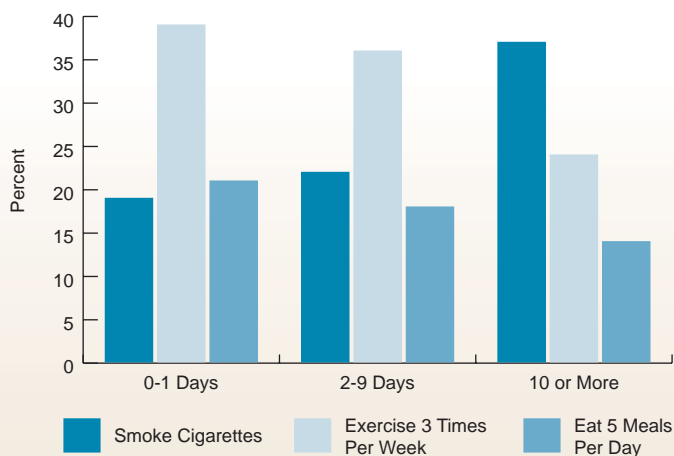
Emotional well-being is positively related to income. This is especially true for people earning lower incomes. People struggling for the necessities of life experience more days of poor emotional health.

It is often difficult for people to acknowledge and seek help for emotional and mental health problems. There are some signs that these attitudes may be changing, in part because as a

community we are coming to see that "mental health" is about much more than mental illness.

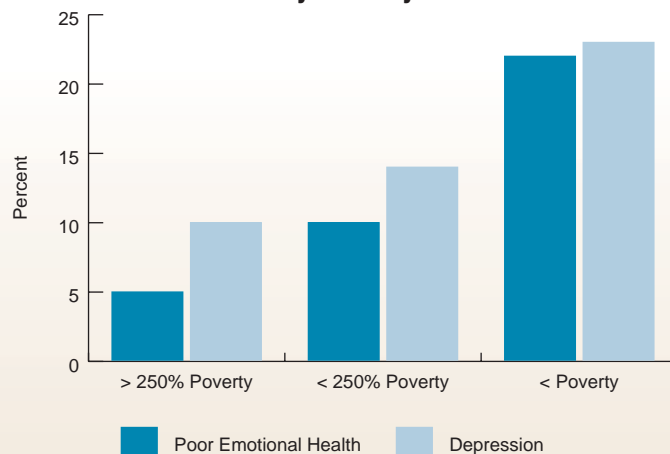
With anti-depressants among the most highly prescribed drugs today, one could say the medical community is responding to emotional and mental health needs. But there is more that we could do as individuals and as a community to improve our overall emotional health.

**Health Behaviors, Ingham County Residents By Days of Poor Emotional Health**



Source: Capital Area Behavior Risk Factor Surveys

**Depression and Poor Emotional Health, Ingham County Residents By Poverty Status**

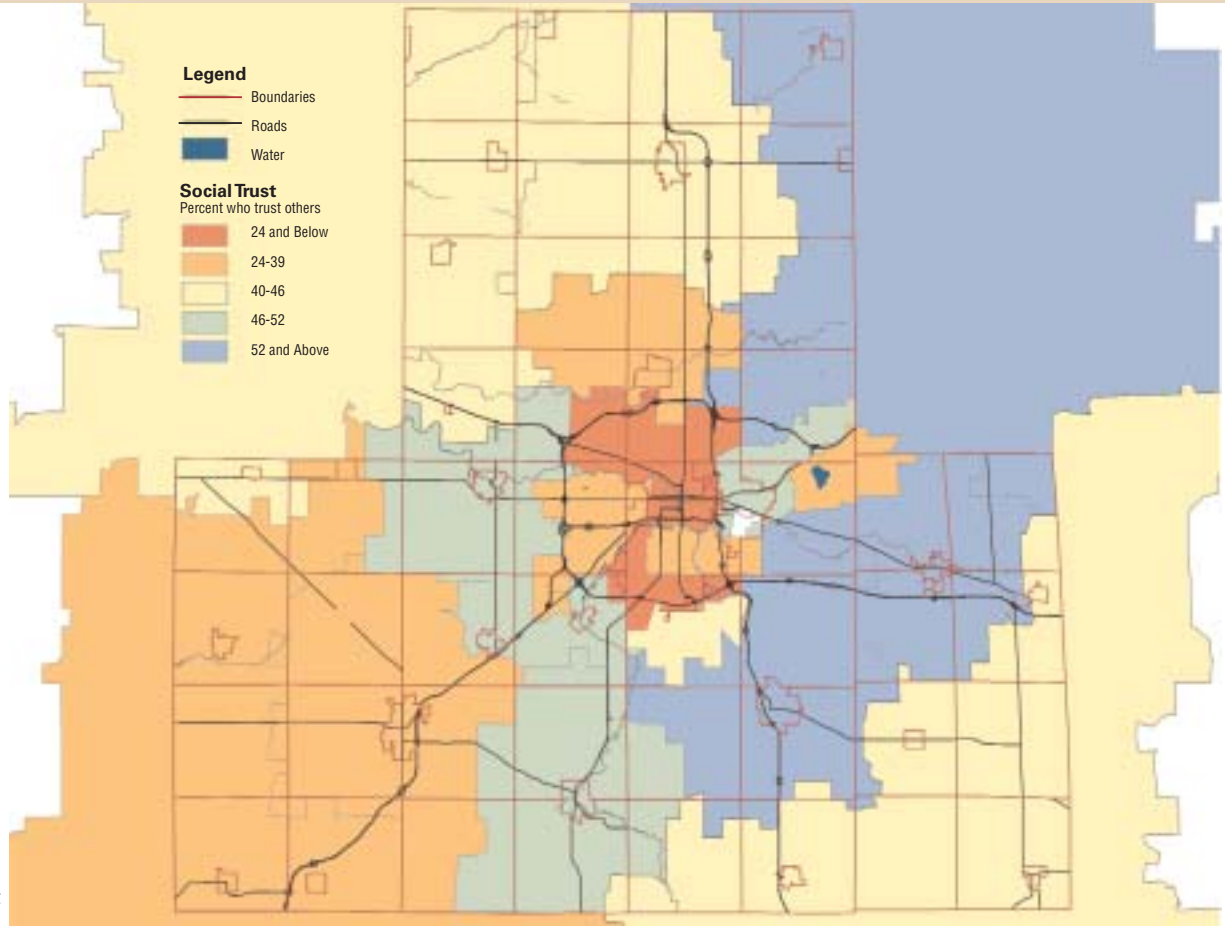


Source: Capital Area Behavior Risk Factor Surveys

# SOCIAL CONNECTIONS

**In the Capital Area, trust is correlated with education; the higher the education a person has the more likely he or she is to trust others.**

Positive interactions between individuals and a sense of community can have measurable benefits in the health and welfare of community residents. This was studied in US immigrant communities at the turn of the 20th century. People in communities where civic participation was high and where people were engaged with and trusted others experienced higher levels of physical health, mental health and average income.



These types of positive connections are sometimes called “social capital.” Studies of social capital in contemporary America indicate that in general social capital is declining, to our detriment.

In a study of social capital in our area, residents were asked questions about visiting with friends, having trust in others, participating in neighborhood meetings, leading groups, and volunteering. The study shows a relationship between having trust in others and health. Residents who said they trusted other people were more likely to rate their own personal health as good or excellent, compared to those who said they trusted others little.

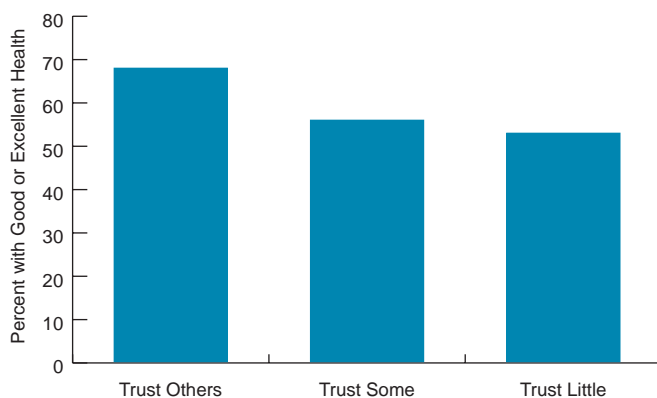
People who have many social connections naturally have increased emotional well-being. They are more likely to be willing to learn from others, to feel safer, and to have access

to more resources. Dialogues in our community suggest that natural support networks like families and neighborhood and faith groups play an important role in elevating our sense of well-being.

Do we influence each others health? When asked about supports for behavior change, area residents most commonly report family and friends to be their strongest supports for positive behavior change.

New studies of “social capital” in Ingham County and the Capital Area are helping us better understand the role of social capital and to track this important component of health.

**Trust in Others by Self-Rated Health Status**



Source: Capital Area Social Capital Survey

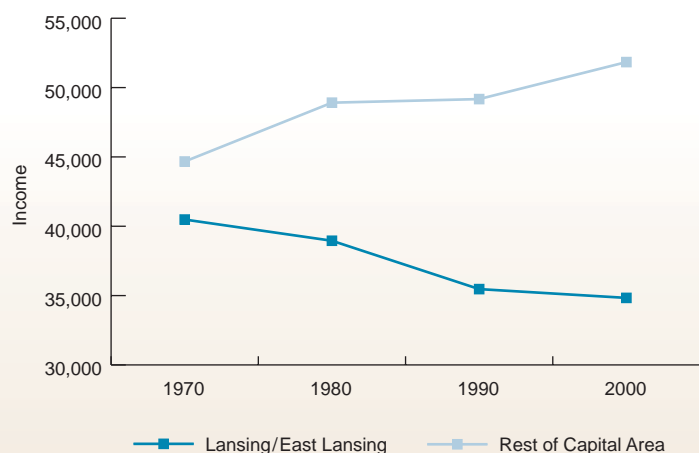
# POPULATION SHIFTS

**Low income communities or communities where there are large disparities in household income are less healthy than those with higher income and smaller economic disparities.**

Much of the population change in our local cities and townships is in large part due to relocations within the Capital Area. Over the last ten years, the total number of people living in Lansing and Ingham County as a whole has decreased while the number of people living in Clinton and Eaton Counties has increased. Movement of people in to or out of a community can change the nature of the community by impacting the level of resources, degree of diversity and overall health.

New development and construction in the Capital Area has occurred mostly outside the Lansing/East Lansing urban center. This is consistent with the state as a whole which consumes land for new development eight times faster than the rate of population growth. Such development patterns have contributed to reshaping the population.

### Median Household Income



Source: US Census



Over the last 20 years, total enrollment in Lansing/East Lansing School Districts has declined by over 30%. Enrollment in the rest of Ingham County has increased nearly 25%. Such population shifts can have significant community impacts. Changes in revenues for community and school development projects can have underlying effects on the health of residents.

Over the years, population shifts in Ingham County have resulted in increasing differences between median household income of Lansing/East Lansing residents and income of area residents living outside the urban center. Over the last ten years, average income increased in Ingham County and in Michigan but declined in Lansing/East Lansing. Disparity in the incomes of Lansing residents compared to the incomes of area residents outside the city has been increasing for over thirty years.

Numerous studies of other communities in the U.S. show that there are measurable health benefits for the entire community when income disparities are reduced. Those benefits accrue to upper income residents as well as to lower income residents.

# HEALTH ACTION ZONES

**It makes sense to focus resources in geographic areas where health needs appear to be higher.**

Our health results from a complex mix of factors such as health behaviors, our environment, emotional well-being, income, education, and social capital. This section describes how these factors generally come together to influence the overall health of a given area.

Years of potential life lost (YPLL) is a good indicator of health. The map shows average YPLL in Census Tracts throughout the Capital Area over the past five years. Red and orange areas have poor health as indicated by higher levels of YPLL. Blue areas have better health and lower YPLL. Green areas have YPLL that is slightly higher than the average.

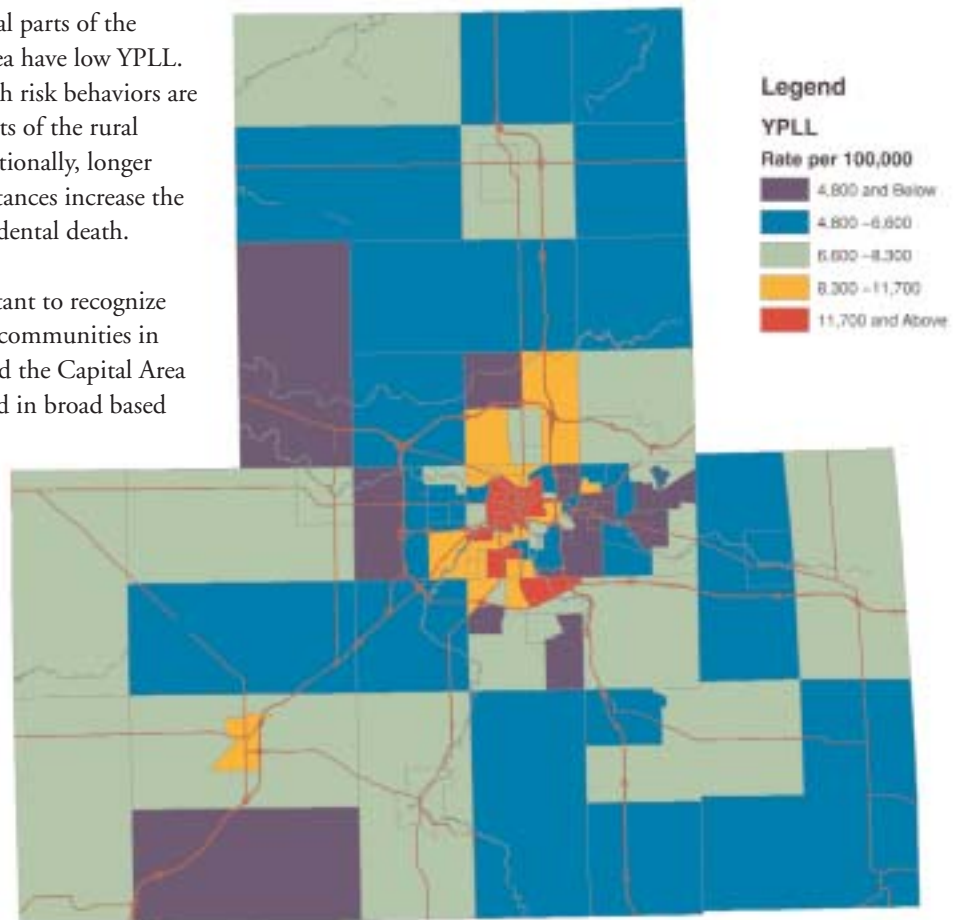
The map shows that YPLL is highest in parts of Lansing. This likely results from relatively high levels of health risks including smoking, substance abuse, poor diet, lack of exercise and lack of access to health care. These factors are concentrated in some areas because of underlying factors including health disparities, lack of social capital and population shifts. Years of potential life lost in some communities has been lowered in the past decade by the accelerating trend of more affluent people moving in.

Not all rural parts of the Capital Area have low YPLL. Some health risk behaviors are high in parts of the rural areas. Additionally, longer driving distances increase the risk of accidental death.

It is important to recognize that many communities in Lansing and the Capital Area are involved in broad based

efforts to improve health and well-being. In some areas, deficit health status persists. Zones with high YPLL may benefit from increased engagement among residents, businesses, government and other organizations throughout the Capital Area.

## Years of Potential Life Lost—Annual Average 1998-2002



Source: MDCH Vital Statistics, aggregated to census tract.

Data were aggregated by Census Tract creating an artificial strati line boundaries between areas.

A broad regional approach could allow consideration of large-scale strategies that can have great impact on aspects of our physical and social environment that influence health.

## Next Steps

**The first step in bettering our health improvement skills is gaining more knowledge about factors that influence health — becoming more aware of roles we play as individuals and obtaining information about community services that can help.**

### Engage

Residents are encouraged to become engaged in organized activities at neighborhood, city, county and regional levels to improve health and well-being in the Capital Area. At every level, individuals, local government, businesses, churches and non-profit organizations are working to better understand what is needed to create solutions to shared problems. Improvement activities may involve forming new partnerships between neighborhoods and agencies, creating new services, coordinating the work of community organizations and groups, and improving existing services and social supports.

These kinds of activities build the capacity of neighborhoods and towns to better serve their residents.

### Learn More

Capital Area residents are encouraged to learn more about health and the factors that contribute to it.

The Capital Area community has created a website, called [CACVoices.org](http://CACVoices.org), to make public information readily accessible. With ready access to accurate information, people can better understand health concerns and learn about resources for improvement. Training is available to learn how to get health-related data and information from the Internet and how to use it.



### The website contains:

- an information and referral system that includes practical information about hundreds of organizations that can help with many kinds of health matters.
- a listing of community activities and opportunities for residents to become involved in improvement efforts.
- a wide variety of maps, ranging from maps showing locations of park facilities to maps of community well-being.
- slide shows that display the results of local surveys and research studies on topics such as “social capital” and “health risk behaviors”.
- Internet forums for local discussions of community issues.
- a warehouse of relevant articles.
- the “Power of We”, a colorful document that provides an overall picture of the well-being of our community.

[www.CACVoices.org](http://www.CACVoices.org)

# Information Resources

- \* **U.S. Census**  
([www.census.gov](http://www.census.gov))
- \* **Vital and Health Statistics, Michigan Department of Community Health**  
(<http://www.mdch.state.mi.us/PHA/OSR/index.asp>)
- \* **Perceptions of Health and Health Care, Capital Area Survey, 1997**  
([CACVoices.org](http://CACVoices.org), click "Data & GIS")
- \* **Behavior Risk Factor Surveys, Capital Area, 1993, 1997, 2000, 2003**  
([CACVoices.org](http://CACVoices.org), click "Data & GIS")
- \* **Social Capital Survey, Capital Area, 2003**  
([CACVoices.org](http://CACVoices.org), click "Data & GIS")
- \* **Healthy People 2010, U.S. Department of Health and Human Services**  
([www.HealthyPeople.gov](http://www.HealthyPeople.gov))
- \* **Michigan Youth Risk Behavior Surveys, 1997 - 2003**  
(<http://www.cdc.gov/brfss/>)
- \* **Michigan Department of Environmental Quality, Air and Water Quality Divisions**  
([www.michigan.gov/deq](http://www.michigan.gov/deq))
- \* **Power of We - Strengthening Community Connections for Action, 2002**  
([CACVoices.org](http://CACVoices.org), click "New Community Data")
- \* **Youth Risk Behavior Surveys**  
(<http://www.cdc.gov/HealthyYouth/yrbs/index.htm>)
- \* **Mid Michigan (Capital Area) Surveys of Student Life**  
([CACVoices.org](http://CACVoices.org), click "Data & GIS")
- \* **Michigan Inpatient Database, MDCH**  
(<http://www.mdch.state.mi.us/PHA/OSR/index.asp>)
- \* **Ingham County Health Department, Lead and Surface Water Quality Projects**  
(for more information contact [jsinno@ingham.org](mailto:jsinno@ingham.org))
- \* **Ingham Intermediate School District**  
([www.inghamisd.org](http://www.inghamisd.org))
- \* **Governor's Fitness Council**  
([michiganfitness.org](http://michiganfitness.org))
- \* **Centers for Disease Control and Prevention**  
([www.cdc.gov](http://www.cdc.gov))
- \* **National Center for Health Statistics**  
([www.CDC.gov/nchs/](http://www.CDC.gov/nchs/))
- \* **Environmental Protection Agency**  
([www.epa.gov](http://www.epa.gov))
- \* **National Highway and Traffic Safety Division**  
(<http://www.nhtsa.dot.gov/nhtsa/whatis/regions/>)
- \* **University of Michigan Transportation Research Institute**  
(<http://www.umtri.umich.edu/>)
- \* **Tri-County Regional Planning Commission**  
(<http://www.tri-co.org/>)

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# **Our Health** *is in Our Hands*



**A Report on the Health Status  
of Ingham County 2004**

## **Community Health Assessment**

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