

Arthritis, Asthma, & Diabetes

Key Findings

According to the Sandusky County survey data, 34% of Sandusky County adults have been diagnosed with arthritis. The Centers for Disease Control and Prevention (CDC) reports that arthritis is the most common reported cause of disability and the third leading cause of work limitation in the United States. Asthma was responsible for 12.7 million visits to physicians' offices in 2002. (Source: CDC National Center for Health Statistics) In 2005, 12% of Sandusky County adults had been diagnosed with diabetes. The CDC reports from 1980 through 2003, the number of Americans with diabetes more than doubled (from 5.8 million to 13.8 million).

Diabetes

- ◆ The 2005 health assessment project has identified that 12% of Sandusky County adults had been diagnosed with diabetes. The 2004 BRFSS reports a U.S. prevalence of 8% and 9% for Ohio. Sandusky County adults diagnosed with diabetes also had one of the following characteristics or conditions:
 - 59% were obese (compared to 16% of those considered normal weight by Body Mass Index (BMI))
 - 22% had been diagnosed with high blood cholesterol (compared to 7% of those not diagnosed with high blood cholesterol)
 - 22% were age 60 or older (compared to 9% ages 59 and under)
 - 19% had been diagnosed with high blood pressure (compared to 7% of those not diagnosed with high blood pressure)

Facts of Life

- ❖ Diabetes was the 5th leading cause of death in Sandusky County for 1994-2002.
- ❖ In 2000-2002, Sandusky County age-adjusted mortality rates for diabetes by gender were 41 for males (36 Ohio) and 25 (29 Ohio) deaths per 100,000 for females.
- ❖ In the U. S., two-thirds of individuals with diabetes die from cardiovascular disease.

(Source: American Heart Association, ODH Information Warehouse)

Arthritis

- ◆ 34% of Sandusky County adults were diagnosed with arthritis, increasing to 50% of those with incomes less than \$25,000.
- ◆ In 1997, arthritis and other rheumatic conditions resulted in 36 million physician visits and 750,000 hospitalizations. The estimated total cost associated with arthritis (including medical care and lost productivity) exceeded \$86 billion.
- ◆ Adults are at higher risk of developing arthritis if they have any of the following characteristics: female, Caucasian, 65 years of age or older, have less than 8 years of education, overweight, and live an inactive lifestyle (Source CDC).

Asthma

- ◆ 9% of adults were diagnosed with asthma, increasing to 17% of those under the age of 30.
- ◆ In 2004, 12% of adults in Ohio had ever been diagnosed with asthma (Source: 2004 BRFSS).

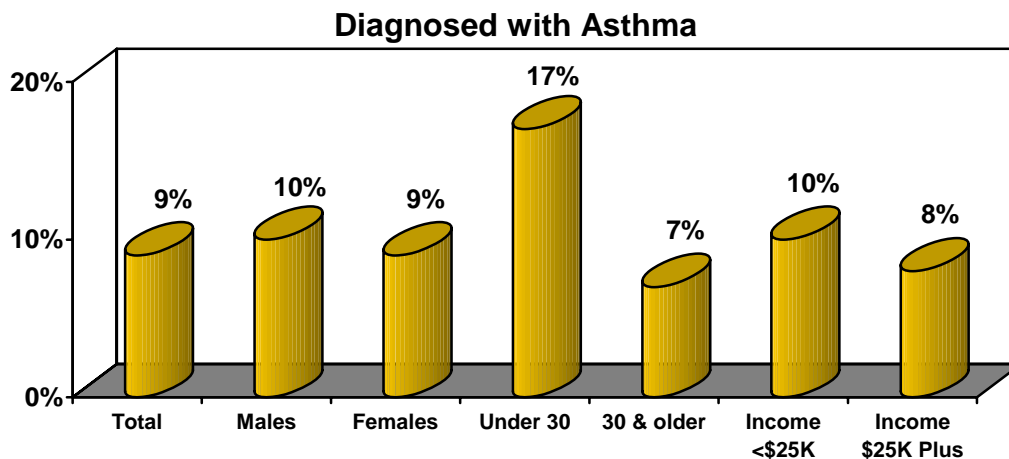
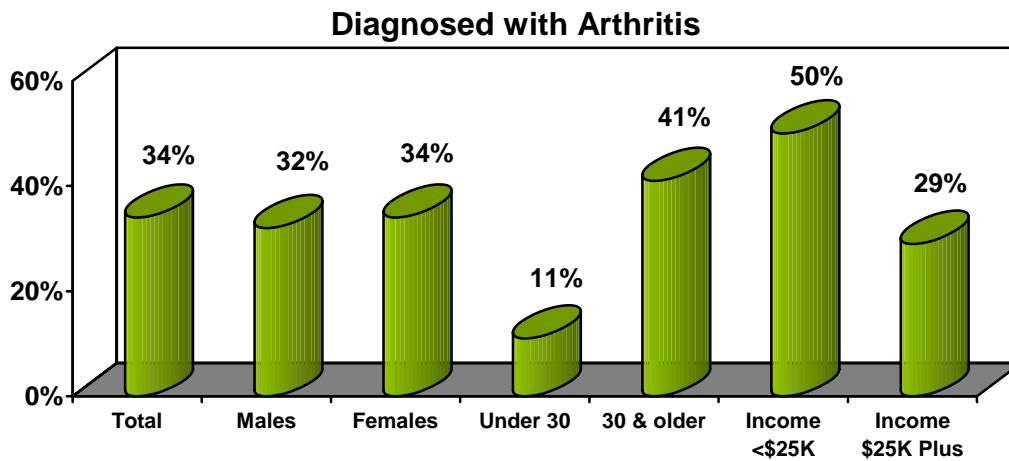
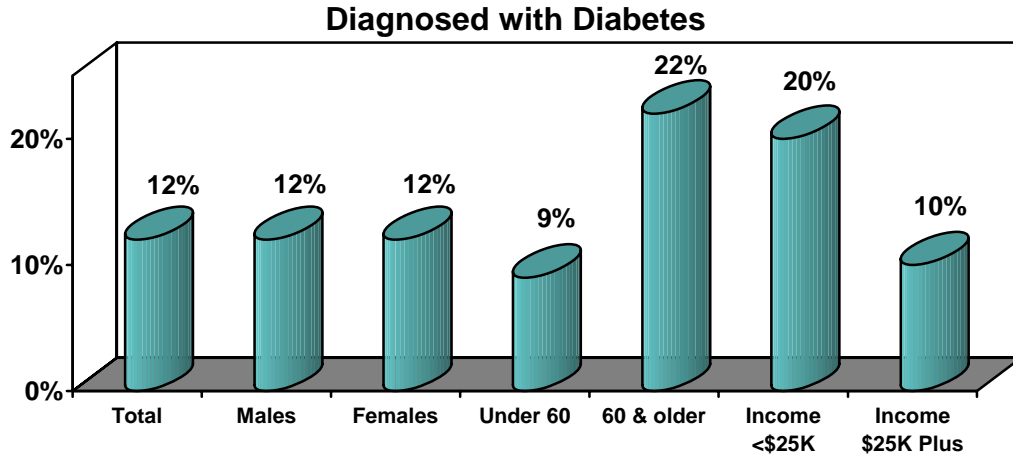
Risk Factors for Type 2 Diabetes Development

- ❖ Being of age 45 or older
- ❖ High blood pressure (140/90 or higher)
- ❖ Abnormal cholesterol (HDL <35 and LDL >249)
- ❖ Polycystic Ovary Syndrome
- ❖ Personal history of gestational diabetes or giving birth to at least one child weighing 9 pounds or greater
- ❖ Personal heritage (specifically, African American, American Indian, Pacific Islander, or Hispanic American/Latino)
- ❖ Being overweight or obese
- ❖ Physical inactivity (exercising <3 times/week)
- ❖ Family history of diabetes (parents or siblings)
- ❖ History of Vascular Disease

(Source: CDC, National Center for Chronic Disease Prevention and Health Promotion, Diabetes Public Health Resource, 11-10-04 and the American Diabetes Association, Diabetes Care, 2005)

Arthritis, Asthma, & Diabetes

The following graphs demonstrate the percentage of Sandusky County adults who had been diagnosed with diabetes, arthritis, and asthma. Examples of how to interpret the information include: 12% of all Sandusky County adults had been diagnosed with diabetes, 9% of adults under age 60 had been diagnosed, and 22% of adults 60 and older reported they had diabetes.



Diabetes

Diabetes Complications

The complications associated with type 2 diabetes are numerous and serious including:

- ❖ **Heart disease and stroke** – 2 of 3 people with diabetes die from heart disease or stroke;
- ❖ **Kidney disease** caused by uncontrolled high blood pressure, uncontrolled blood sugar, and/or genetics;
- ❖ **Glaucoma** – diabetics are 40% more likely to suffer from glaucoma, which can develop into blindness;
- ❖ **Cataracts** – diabetics are 60% more likely to develop cataracts; cataracts can also lead to the development of glaucoma;
- ❖ **Retinopathy** – nonproliferative retinopathy does not cause loss of sight but can develop into proliferative retinopathy which causes loss of vision. Those with type 1 diabetes almost always develop nonproliferative retinopathy as do most people with type 2 diabetes; proliferative retinopathy is rare;
- ❖ **Neuropathy** is one of the most common complications of diabetes and is usually developed by diabetics who have had the disease for a long time or who have uncontrolled blood sugar. There are many forms of neuropathy but it is important to know that it can be very painful and disabling; however, for early neuropathy, symptoms can disappear with tight control of blood sugar, weight loss toward an ideal weight, and regular exercise;
- ❖ Various **Foot Complications** are experienced more commonly with people who have diabetes. Some of these foot complications include **neuropathy**, extremely **dry skin**, **calluses** that can develop into **foot ulcers** that do not heal quickly, **poor circulation**, and **amputation**. Amputation of the foot or leg is more common, usually as a result of decreased circulation, neuropathy, and/or slowly healing wounds;
- ❖ **Skin Complications** – Some of the many skin complications that diabetics are more likely to experience are **fungal infections**, **bacterial infections**, **atherosclerosis** (thickening of the arteries), **diabetic dermopathy** (harmless patches of light brown, scaly skin), **necrobiosis lipoidica diabetorum** (NLD – red skin patches that can be itchy and painful that can break open into sores and need treatment), etc.; and,
- ❖ **Gastroparesis** occurs as a result of neuropathy where the nerves to the stomach are damaged and stop working. Multiple complications can result from the stomach taking too long to empty its contents ranging from uncontrolled blood sugar to complete blockage from the stomach to the small intestine.

(Source: American Diabetes Association, *All About Diabetes, Type 2 Diabetes, Complications*)

Diabetes

Adult Diabetes Screening Standards

The American Diabetes Association maintains that community screening is not recommended since there is no sufficient evidence that community screening for type 2 diabetes is cost-effective, as well as the potential harm caused by lack of continuous care following diagnosis; therefore, screening should be based upon clinical judgment and patient preference. Health care provider type 2 diabetes **screening standards for adults** are as follows:

- ❖ Every three years for those age 45 and over, especially for those with a Body Mass Index (BMI) of 25 or greater;
- ❖ Testing can be done more frequently for those at younger ages who are overweight and have one or more of the risk factors listed in the box on page 1;
- ❖ Patients who experience one or more of the known symptoms for diabetes (e.g. frequent urination, excessive thirst, extreme hunger, unusual weight loss, increased fatigue, irritability, blurry vision, etc.);
- ❖ Patients who have a family history of type 2 diabetes;
- ❖ Patients who belong to certain race/ethnic groups (specifically, African American, American Indian, Pacific Islander, or Hispanic American/Latino);
- ❖ Patients who have signs of or conditions associated with insulin resistance (e.g., high blood pressure, abnormal cholesterol, polycystic ovary syndrome, etc.); and,
- ❖ As deemed necessary by the health care professional.

Youth Diabetes Screening Standards

Since the incidence of type 2 diabetes for children and adolescents has been on the rise, it is important that healthcare providers also follow the standards for screening youth. The American Diabetes Association has a set of standards that have been developed for youth screening. The **standards for screening children and adolescents** are similar to those for adults and are as follows:

- ❖ Only children at high risk for developing or the presence of type 2 diabetes;
- ❖ Overweight youth defined as >85 percentile for BMI or 120% of ideal for weight;
- ❖ Youth experiencing any of the two known symptoms for diabetes (e.g. frequent urination, excessive thirst, extreme hunger, unusual weight loss, increased fatigue, irritability, blurry vision, etc.); and
- ❖ Every two years at age ten or at the onset of puberty for those experiencing symptoms or are overweight.

For more information about diabetes, please visit the American Diabetes Association's website at www.diabetes.org.

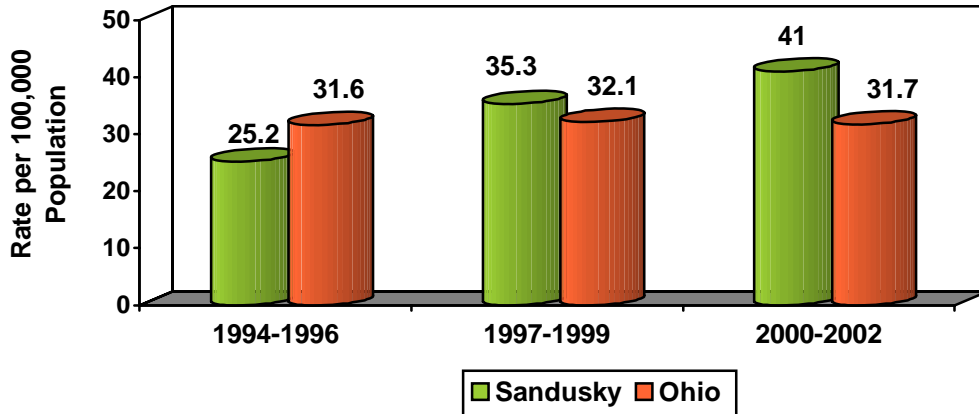
(Source: American Diabetes Association, Diabetes Care, Screening for Type 2 Diabetes, 2005)

Diabetes

The following graphs demonstrate age-adjusted deaths from diabetes for Sandusky County and Ohio residents with comparison to the Healthy People 2010 target objective.

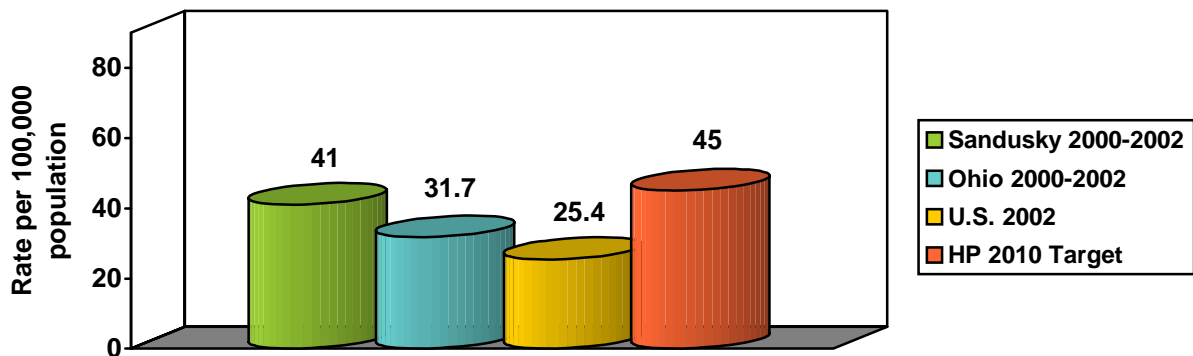
- ◆ Sandusky County’s age-adjusted diabetes mortality rates have increased steadily from 1994-2002.

Diabetes Age-Adjusted Mortality Rates



(Source: ODH Information Warehouse)

Healthy People 2010 Objectives and Age-adjusted Mortality Rates for Diabetes*



*Age-adjusted rates/100,000 population, 2000 standard
 (Source: ODH Information Warehouse and Healthy People 2010, CDC)

Arthritis

Arthritis Management Strategies

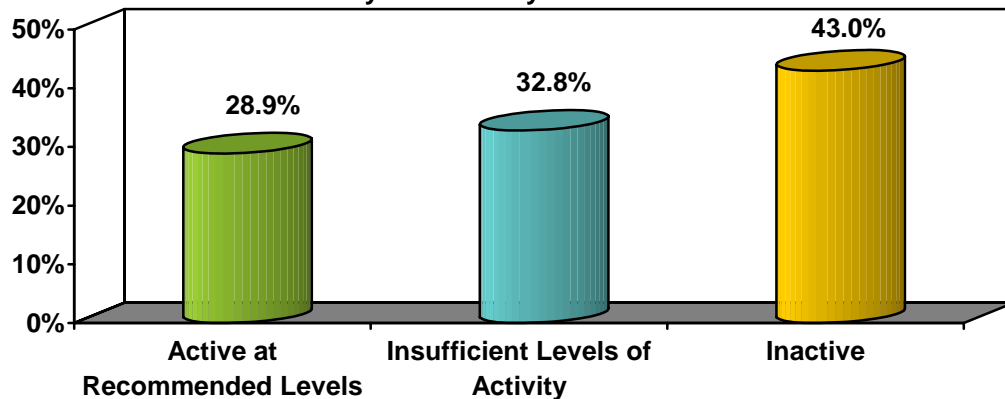
Suggestions from the *National Arthritis Action Plan: A Public Health Strategy* include:

- Increase public awareness of arthritis as the leading cause of disability and an important public health problem.
- Prevent arthritis whenever possible.
- Promote early diagnosis and appropriate management for people with arthritis to ensure them the maximum number of years of healthy life.
- Minimize preventable pain and disability due to arthritis.
- Support people with arthritis in developing and accessing the resources they need to cope with their disease.
- Ensure that people with arthritis receive the family, peer and community support needed.

(Source: Arthritis Foundation, Association of State and Territorial Health Officials and Centers for disease Control and Prevention, 1999)

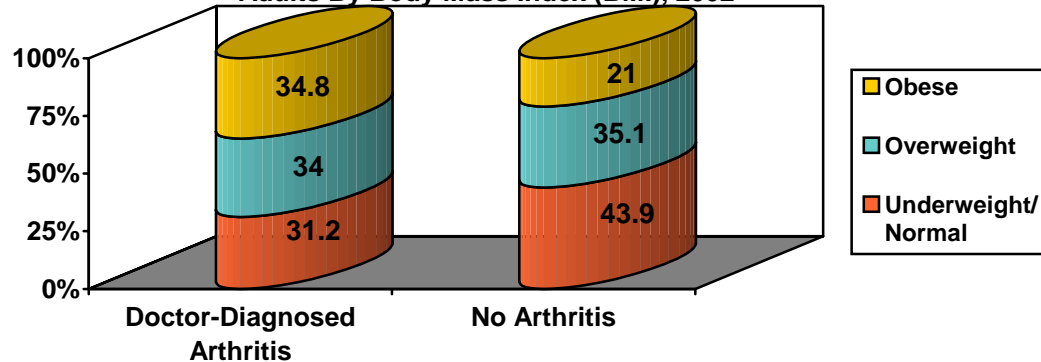
The following graphs demonstrate the prevalence of arthritis and chronic joint symptoms among U.S. adults by physical activity level and by weight classification. It appears that those most at risk for developing these chronic problems are above normal weight and are inactive.

Prevalence of Arthritis or Chronic Joint Symptoms Among U.S. Adults By Physical Activity Level 2002



(Source: Centers for Disease Control, National Center for Chronic Disease Prevention and Health Promotion, Health Topics A to Z)

Prevalence of Doctor-Diagnosed Arthritis and No Arthritis Among U.S. Adults By Body Mass Index (BMI), 2002



(Source: CDC, National Health Interview Survey, Arthritis)

Asthma

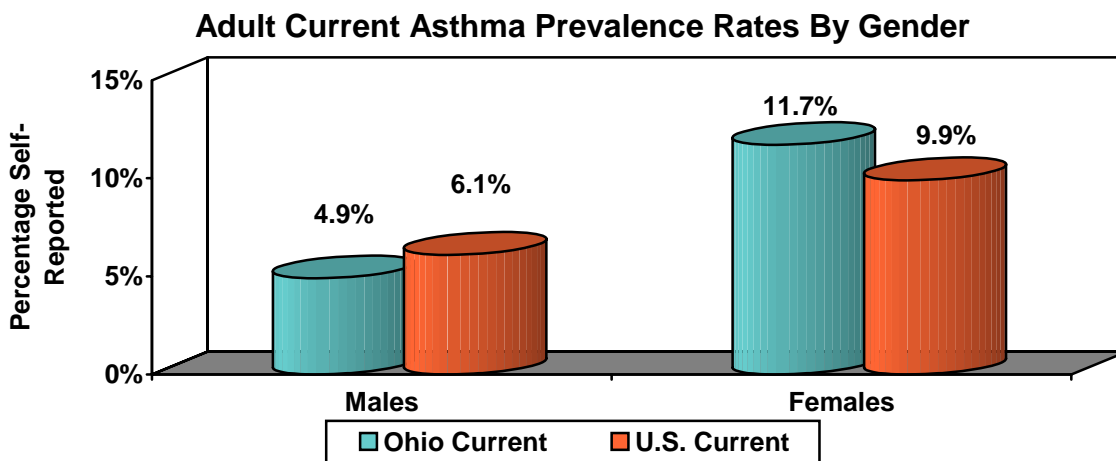
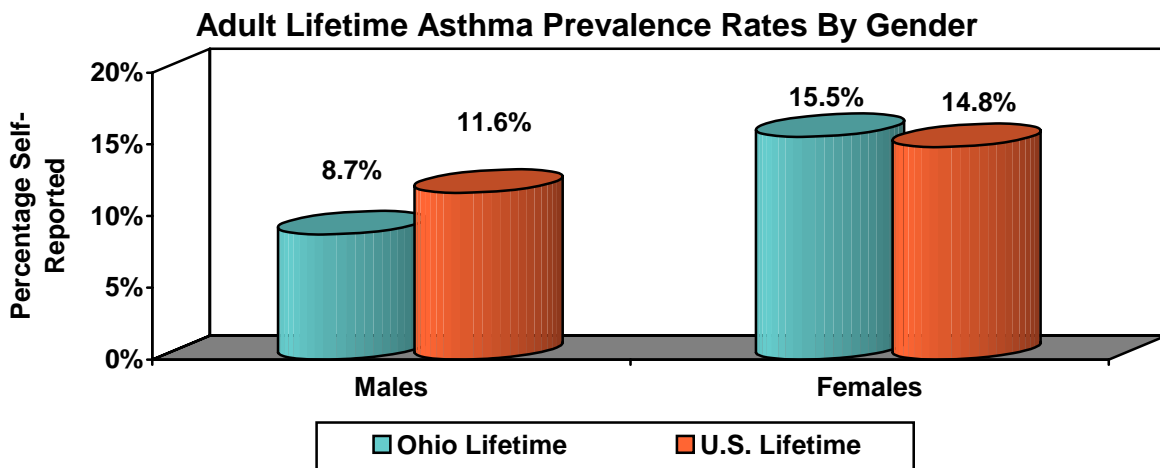
Asthma Control

Recommendations from the CDC's National Asthma Control Program include:

- Tracking: routinely collect and analyze asthma data to determine who is most affected in Sandusky County.
- Interventions: assure that research-based public health practices and programs are implemented to reduce the burden of asthma within the county.
- Partnerships: make sure that all stakeholders have the opportunity to be involved in developing, implementing and evaluating the local asthma control programs.

For youth, the CDC has published *Strategies for Addressing Asthma Within a Coordinated School Health Program, 2002*. The six strategies identified include:

- Establishing management and support systems for asthma-friendly schools.
- Providing appropriate school health and mental health services for students with asthma.
- Providing asthma education and awareness programs for students and school staff.
- Providing a safe and healthy school environment to reduce asthma triggers.
- Coordinating school, family and community efforts to better manage asthma symptoms and reduce school absences among students with asthma.



(Source: Data from BRFSS 2004, reported by Air Pollution and Respiratory Health Branch, National Center for Environmental Health, Centers for Disease Control and Prevention)