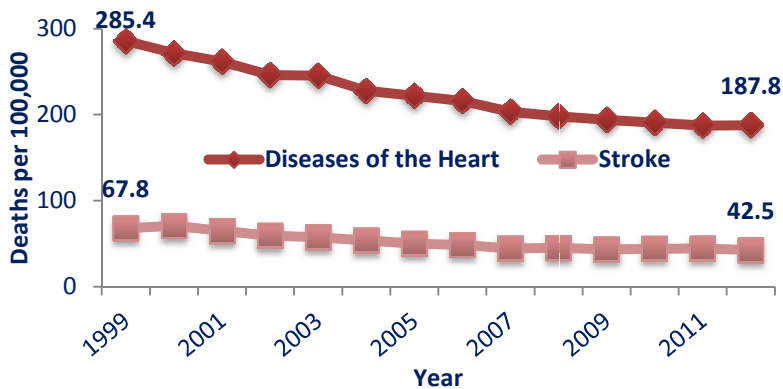




HEART DISEASE AND STROKE

CARDIOVASCULAR DISEASE (CVD) is a term used to describe a group of diseases that affect the heart or blood vessels, including those in the brain. While CVD includes many conditions, this fact sheet focuses on heart disease and stroke. Although their respective mortality rates have declined over time, heart disease and stroke are still responsible for almost one-third of all Indiana deaths and remain a major public health issue [Fig 1].^{1*}

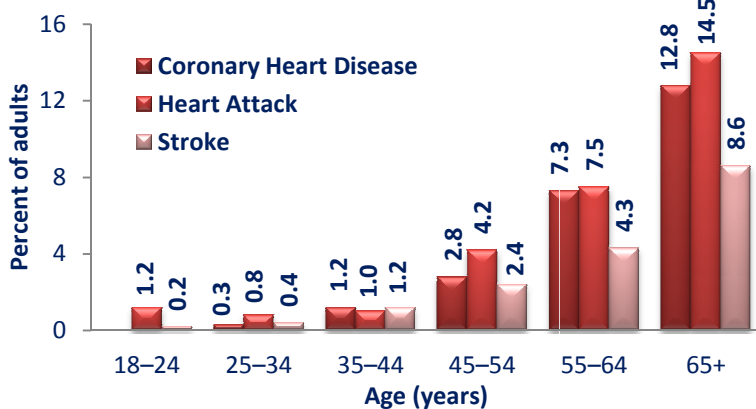
Figure 1. Mortality from heart disease* and stroke, Indiana, 1999–2012^{1†}



Indiana prevalence (2013)²

- Prevalence of coronary heart disease (CHD), heart attack, and stroke typically increased with age [Fig 2].[‡]
- Males experienced CHD and heart attacks more often than females, but stroke prevalence was comparable.
- Higher income and educational levels were associated with lower prevalence of CHD, heart attack, and stroke.

Figure 2. Cardiovascular disease prevalence by age and type, Indiana, 2013^{2‡}



* For heart disease mortality, all forms of CVD are included, except stroke, essential hypertension, hypertensive renal disease, atherosclerosis, and vessel disease.

† Mortality rates are age-adjusted per 100,000 people using the 2000 U.S. Standard Population.

‡ For prevalence, coronary heart disease is captured as angina or ischemic heart disease exclusive of myocardial infarction (heart attack).

Heart attacks and **strokes** are typically sudden events caused by a blockage that prevents normal blood flow to the heart or brain (ischemic stroke), respectively.³

- The most common cause of blockage is **atherosclerosis**, the hardening and narrowing of arteries due to the accumulation of fats, cholesterol and other substances.
- Strokes can also result from a ruptured or leaking blood vessel in the brain (hemorrhagic stroke).

Transient ischemic attacks (TIA) occur when the brain's blood supply is briefly interrupted. Symptoms produced are similar to a stroke, but are usually short-term with no permanent damage.

- TIAs are sometimes called “mini-strokes.”
- Almost one in three ischemic strokes is preceded by a TIA.⁴

Heart disease and stroke emergency department (ED) visits and hospitalizations (Indiana, 2012)⁵

Emergency Department Visits

- Heart disease: 85.7 per 10,000 people
- Stroke: 7.4 per 10,000 people

Inpatient Hospitalizations

- Heart disease: 79.5 per 10,000 people
- Stroke: 20.7 per 10,000 people

Heart disease and stroke mortality (Indiana, 2013)¹

- 13,630 Indiana residents died of heart disease, making it the leading cause of death overall.
 - Heart disease was the leading cause of death among white residents, and the second leading cause of death among black and Hispanic residents.
- 3,061 Indiana residents died of stroke, making it the fourth leading cause of death overall.
 - Stroke was the fourth leading cause of death among white residents, third leading cause of death among black residents, and fourth leading cause of death among Hispanic residents.



Heart disease and stroke risk factors²

Managing risk factors is a key component of a comprehensive CVD prevention or management plan.

In Indiana, during 2013:

- 33.5% of adults reported having **high blood pressure**.
- 39.8% of adults reported having **high cholesterol**.
- 21.9% of adults currently **smoked cigarettes**.
- 67.2% of Indiana adults were considered **overweight** or **obese**.
- **Diabetes** is a major risk factor for negative CVD outcomes.
 - 38.0% of people with CHD reported having diabetes.
 - 35.5% of people who had a heart attack reported having diabetes.
 - 30.2% of people who had a stroke reported having diabetes.

Economic impact of heart disease and stroke³

United States

- The estimated direct and indirect cost of cardiovascular disease for 2010 is \$315.4 billion.
- By 2030, total direct medical costs of cardiovascular disease are projected to increase to roughly \$918 billion (in 2012 dollars).

TAKE ACTION: Steps you can take to prevent or manage heart disease and stroke

- Be **tobacco free**
- Maintain a healthy **blood pressure**
- Maintain healthy **cholesterol** levels
- Ask your health care provider if **aspirin therapy** will help reduce your risk of heart attack or stroke
- Properly manage your **diabetes** with guidance from health care professionals
- Eat a healthy **diet**
- Avoid excess **sodium** (salt)
- Participate in regular **physical activity**
- Maintain a **healthy weight**
- Manage stress
- Practice good hygiene
 - Regular hand washing can help prevent viral or bacterial infections that can place stress on your heart
 - Regular brushing and flossing can help prevent viral or bacterial infections that can increase the risk of cardiovascular events
- Get an annual flu shot
 - If you have a cardiovascular condition, having the flu places you at greater risk for a heart attack
- Learn to recognize the warning signs of a **heart attack** or **stroke**. Fast response can save lives.

Community resources

- **Living a Healthy Life**: a six-week workshop for people with chronic illnesses, which empowers them to manage their disease, control symptoms, and learn how health problems affect their lives.
- **Million Hearts**: a national initiative to prevent 1 million heart attacks and strokes over five years.
- **Diabetes Prevention Program (DPP)**: a program that aids in prevention of type 2 diabetes for people who are at risk of diabetes.
- **Indiana Tobacco Quitline**: a free phone-based counseling service to help Indiana smokers quit. For support call 800-QUIT-NOW (800-784-8669).
- For mental health services, call the **Indiana Family Helpline** at 1-855-HELP-1ST (855-435-7178) or visit the **Community Mental Health Services Locator**.

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1. Indiana State Department of Health. (2014). *Vital Records, 2012*.
2. Indiana State Department of Health. (2014). *Behavioral Risk Factor Surveillance System, 2013*.
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4. Rothwell, P.M. & Warlow, C.P. (2005). *Timing of transient ischemic attacks preceding stroke*. *Neurology*. 64:817–20.
5. Indiana State Department of Health. (2014). *Indiana Hospital Discharge Data Files, 2013*.