Cancer in Indiana

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. If the spread is not controlled, it can result in death. Cancer is caused by both external factors (tobacco, infectious organisms, chemicals, and radiation) and internal factors (inherited mutations, hormones, immune conditions, and mutations that occur from metabolism). During 2007, 28,394 new cancer cases and 12,750 cancer-related deaths occurred among Hoosiers, making it the second leading cause of death in Indiana. Additionally, the American Cancer Society estimates that, during 2010, 33,020 new cancer cases and 12,900 cancer-related deaths will occur among Hoosiers.

Economic Impact of Cancer

The Milken Institute estimated that, in 2003, Hoosiers spent over $1 billion on cancer-related medical treatments. Additionally, they estimated that, by 2023, the annual cost for these services could increase to over $2 billion.

Common Cancers in Indiana

Age-adjusted Incidence and Mortality Rates—2007 (Source: Indiana Cancer Registry, 22 Sept 2009)

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Incidence</th>
<th>Mortality</th>
<th>Disparities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervical Cancer</td>
<td>7.4</td>
<td>2.8</td>
<td>Incidence: 236 new cases; Mortality: 94 deaths; Disparities: During 1998–2007, the incidence rate was 30% higher among black females than white (10.9 compared to 8.4 cases per 100,000 females) and the cervical cancer-related mortality rate was 70% higher (4.4 compared to 2.6 deaths per 100,000 females).</td>
</tr>
<tr>
<td>Melanoma/Skin Cancer</td>
<td>1.154</td>
<td>261</td>
<td>Incidence: 1,154 new cases; Mortality: 261 deaths; Disparities: During 1998–2007, the incidence rate was more than 6.5 times higher among whites than blacks (17.7 compared to 2.7 cases per 100,000 persons); among whites, the incidence rate was 52% higher among males than females (22.3 compared to 14.7 cases per 100,000 persons).</td>
</tr>
<tr>
<td>Colon and Rectum Cancer</td>
<td>4.1</td>
<td>18.4</td>
<td>Incidence: 3,050 new cases; Mortality: 1,183 deaths; Disparities: During 1998–2007, the incidence rate was 38% higher among males than females (65.9 compared to 47.8 cases per 100,000 persons) and 17% higher among blacks than whites (63.9 compared to 54.4 cases per 100,000 persons).</td>
</tr>
<tr>
<td>Lung and Bronchus Cancer</td>
<td>18.6</td>
<td>48.2</td>
<td>Incidence: 4,645 new cases; Mortality: 4,009 deaths; Disparities: During 1998–2007, the incidence rate was 71% higher among males than females (106.2 cases compared to 62.0 cases per 100,000 persons) and the mortality rate was 87% higher (88.4 compared to 47.3 deaths per 100,000 persons).</td>
</tr>
</tbody>
</table>

For further information on this and other chronic diseases, please visit: www.chronicdisease.isdh.in.gov
Female Breast Cancer—2007
- **Incidence**: 3,892 new cases; after increasing during 1995–1999, incidence rates decreased during 1999–2007 by 2.5% per year.
- **Mortality**: 895 deaths
- **Disparities**: While the incidence rate during 1998–2007 was similar for black and white females (117.0 compared to 122.5 cases per 100,000 women, respectively), the breast cancer-related mortality rate was 45% higher for black females than white (36.4 compared to 25.1 deaths per 100,000 women).

Prostate Cancer—2007 (Male-only disease)
- **Incidence**: 3,758 new cases
- **Mortality**: 618 deaths
- **Disparities**: During 1998–2007, the incidence rate was 60% higher among black males than white (210.7 compared to 131.6 cases per 100,000 males) and the mortality rate was almost 2.5 times higher (63.0 compared to 26.7 deaths per 100,000 males).

**What Can You Do?**
- Support policy, environment, and systems changes that promote cancer prevention and control:
  - Support efforts to decrease use of tobacco products and minimize exposure to secondhand smoke
  - Promote physical activity-friendly communities
  - Increase access to fruits and vegetables in various settings
  - Support efforts to strengthen individual access to recommended cancer screenings

**Prevention: Where Are We Now?**

**Percent of Hoosiers Who Received Recommended Cancer Screenings—2008** (Source: Behavior Risk Factor Surveillance System)
- Females (≥40 years) having had a mammogram during the past 2 years: 74%
- Males (≥40 years) having had a PSA test during the past 2 years: 55%
- Persons (≥50 years) ever having had a sigmoidoscopy or colonoscopy: 59%
- Females (≥18 years) having had a Pap test during the past 3 years: 79%

**Percent of Hoosiers Who Demonstrated Preventative Cancer Behaviors—2009** (Source: Behavior Risk Factor Surveillance System)
- Not overweight or obese: 35%
- Physically active for at least 150 minutes per week: 63%
- Did not currently smoke tobacco: 77%
- Ate 5 or more servings of fruit and vegetables per day: 21%
- Adult males who consumed ≤2 drinks and females ≤1 drink per day: 96%

**Indiana Cancer Consortium (ICC)**
- Statewide network of over 100 agencies (including the Indiana State Department of Health) whose mission is to reduce the cancer burden in Indiana through the development, implementation, and evaluation of a comprehensive plan that addresses cancers across the continuum from prevention through palliation.
- The ICC’s *Indiana Cancer Control Plan 2010–2014* ([www.indianacancer.org/indiana-cancer-control-plan](http://www.indianacancer.org/indiana-cancer-control-plan)) provides a roadmap for cancer control in the six following focus areas:
  - Primary Prevention
  - Early Detection
  - Treatment
  - Quality of Life
  - Data
  - Advocacy

**References and Resources**
- Indiana Cancer Registry Statistics Generator: [www.in.gov/isdh/24360.htm](http://www.in.gov/isdh/24360.htm)
- Indiana State Department of Health, Behavioral Risk Factor Surveillance System Reports: [www.in.gov/isdh/22860.htm](http://www.in.gov/isdh/22860.htm)
- Milken Institute’s *An Unhealthy America: The Economic Burden of Chronic Disease*: [www.milkeninstitute.org/publications](http://www.milkeninstitute.org/publications)