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Dear Fellow Baltimore City Residents,

This health status report is a comprehensive review of available health data for Baltimore. It describes how the health of Baltimore, as characterized by a variety of health indicators, has changed over the past decade and how we compare to the state of Maryland as a whole. The data presented here reflect the vast scope of the challenges facing Baltimore. These include: high mortality rates, high rates of HIV and other infectious diseases, poor birth outcomes, high rates of drug addiction and violence, hundreds of children still poisoned by lead, high rates of smoking and obesity, and poor access to primary health care.

This report also demonstrates progress. Over the last decade, life expectancy in Baltimore has increased as mortality rates for many major health outcomes such has heart disease, cancer, HIV/AIDS, and drug addiction have decreased. We’ve witnessed a drastic reduction in lead poisoned children, substantial improvements in birth outcomes and decreases in incidence of HIV/AIDS and other STDs. Not only have many key barometers of health improved, in many cases Baltimore has done better than the state and nation. The result is that, in 2008, citizens of Baltimore are leading healthier, longer lives than a decade ago.

We must extend this progress.

In bringing together data about health across the lifespan, this report sets out a framework for public health efforts in the city. Over the next year, the Health Department will strategically align our efforts to address the problems described in the report. We will reach out to key partners across the city who are working on these issues -- and those whose help is urgently needed. Our goal will be to continue developing coherent approaches to major public health challenges that bring about real results.

Mayor Sheila Dixon and I offer my special thanks to those whose hard work made this report possible ... and to those who will use it to contribute to a Healthy Baltimore.

Joshua M. Sharfstein, M.D.
Commissioner
Baltimore City Health Department
Baltimore City’s population peaked in 1950 and declined steadily until the 21st century. Since 2000, the decrease in the City’s population has slowed considerably to the point that population increases were observed in 2003 and 2006.

Age Distribution

Over the past decade and a half, the age distribution of Baltimore City residents has shifted towards older age groups—with a decrease in the number of residents in the 20-39 year age group and an increase in number of residents in the 40-59 year age group. The proportion of Baltimore City’s population over 40 years of age increased from 38% in 1990 to 44% in 2007. In 2007, the median age of a Baltimore City resident was 35.4 years, slightly younger than residents of Maryland and the U.S. as a whole (with median ages of 37.4 and 36.6 years, respectively).
Nearly two thirds of city residents are African American and nearly one third are White.

Over the past decade and a half, the proportion of black Baltimore City residents has increased by 8% and the proportion of white Baltimore City residents has decreased by 17%.

While the classification of Asian race changed from the 1990 to the 2000 census (see note in graph below), the proportion of Asian Baltimore City residents has increased by at least 90% (comparing 1990 to 2007).

Comparing 1990 to 2007, the proportion of the population who were of Hispanic ethnicity has more than doubled—comprising 1% of the population in 1990 and 2.5% in 2007.

Race and Ethnicity Trend

Race and Ethnicity*, Baltimore City residents, 1990, 2000, and 2007**

<table>
<thead>
<tr>
<th>Race/Ethnicity*</th>
<th>1990</th>
<th>2000</th>
<th>2007**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Total Population</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black or African American</td>
<td>59.2%</td>
<td>64.3%</td>
<td>64.0%</td>
</tr>
<tr>
<td>White</td>
<td>39.1%</td>
<td>31.6%</td>
<td>32.5%</td>
</tr>
<tr>
<td>Asian</td>
<td>1.1%</td>
<td>1.5%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Other Race</td>
<td>0.6%</td>
<td>2.3%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Hispanic (any race)</td>
<td>1.0%</td>
<td>1.7%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau - 1990 Census, 2000 Census, and 2007 Population Estimates. *Race categories changed from the 1990 to 2000 census—respondents to the 2000 census were allowed to categorized themselves as more than one race and the categories were adjusted—the "Asian or Pacific Islander" changed to "Asian" and a category for "Native Hawaiian and Other Pacific Islander" was created. In the graph alone, the "Other Race" category includes individuals of the following races: American Indian or Alaska Native alone, Native Hawaiian or other Pacific Islander alone, or individuals of two or more races. **Data for 2007 are derived from a different source than the 1990 and 2000 data (the population estimates program vs. decennial censuses) and represent a 7 year time increment (2000 to 2007) vs. a 10 year increment (1990 to 2000).
Baltimore City Demographics

Economic Characteristics

2007 Household Income, Baltimore City

2007 Household Income, Maryland

Source: U.S. Census Bureau - American Community Survey, 2007

- Forty percent of Baltimore City households reported an income of less than $30,000 in 2007. Statewide, 20% of households reported an income in this range.
- 2007 Baltimore City median household income differed by race of the head of household.
- The 2007 median household income in Baltimore City for all races was $36,949; approximately half of the statewide median income. Maryland had the highest median household income nationwide during 2007 ($68,080).
- Since 1990, the percentage of Baltimore City households reporting an annual median income of $30,000 or greater has increased by almost 50% (from 40% of households in 1990 to 60% in 2007).

<table>
<thead>
<tr>
<th>2007 Median Household Income in the Past 12 months (in 2007 Inflation Adjusted Dollars), Baltimore City</th>
<th>Estimate</th>
<th>Margin of Error*</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Households</td>
<td>36,949</td>
<td>+/- 896</td>
</tr>
<tr>
<td>Black or African American Alone</td>
<td>32,023</td>
<td>+/- 2,126</td>
</tr>
<tr>
<td>White Alone</td>
<td>51,584</td>
<td>+/- 2,805</td>
</tr>
<tr>
<td>Asian Alone</td>
<td>48,689</td>
<td>+/- 11,504</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander Alone</td>
<td>61,711</td>
<td>+/- 1,486</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>34,860</td>
<td>+/- 6,279</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>33,809</td>
<td>+/- 5,883</td>
</tr>
<tr>
<td>White Alone, Not Hispanic or Latino</td>
<td>52,638</td>
<td>+/- 3,624</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2007 American Community Survey (ACS)

*See technical notes for information about data from the ACS.


*Data points for 2007 are derived from a different source than the 1990 and 2000 data (the American Community Survey vs. decennial censuses) and represent a 7 year time increment (2000 to 2007) vs. a 10 year increment (1990 to 2000). See technical notes for more information about data from the Census.
In 2007, a family of four with two adults and two children under 18 years would be considered “below poverty” if their annual income was less than $21,027. [U.S. Census Bureau, 2007 Poverty Threshold—see technical notes for more information].

Three times as many families living in Baltimore City had an income that was below the poverty level compared to Maryland families in 2007.

In 2007, more than three-quarters of Baltimore City residents of all races had incomes that were above the poverty level, however, African American residents of Baltimore City were almost two times as likely than white residents to have a median income below the poverty level.

Baltimore City families with children and a single parent were more likely to have an income below the poverty level compared to families with no children or two parents in 1990, 2000, and 2007.

Over the past decade and a half, the percentage of Baltimore City families whose income was below the poverty level has decreased.
Health Insurance Status

Importance: Health insurance status is an important factor in access to care; those uninsured are more likely to delay or forgo necessary treatment for illness.

National statistic: In 2007, 15.3% of Americans were uninsured. Healthy People 2010 goal: 100% of individuals have health insurance.

Over the past decade, the percentage of Baltimore City adults surveyed who reported having no health insurance has been, on average, 6 percentage points higher than the proportion of Maryland adults without coverage. From 1997 to 2007, the percentage of Baltimore City adults surveyed who reported having no health insurance has been 17% on average.

From 1997 to 2007, on average, 13% Baltimore City adults surveyed reported that they were not able to afford medical care which was greater than the percentage of Maryland adults unable to afford care (4 percentage points higher on average).

Access to Medical Care

Survey respondents were asked if they had "any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare." Question: "Was there a time in the past 12 months when you could not afford to see a doctor?" *2002 survey asked a slightly different question of respondents: "Was there a time in the past year when you needed medical care, but could not get it?"
Maternal and Infant Health

Births

**General Fertility Rate**: The number of births per 1,000 women aged 15-44 years

**National statistic**: 68.5 births per 1,000 women aged 15-44 in 2006

- In 2007, 9,875 babies were born to Baltimore City residents, resulting in a crude birth rate of 15.5 per 1,000 total population and a general fertility rate of 68.5 per 1,000 women aged 15-44 years.
- Since 1997, the general fertility rate has increased by 14% in Baltimore City and by 11% in Maryland.
- Over the past decade the general fertility rate increased by 17% among African American women and 22% among white women in Baltimore City.
- Hispanic women in Baltimore City had the highest general fertility rate in all years for which there are data*. In 2006, the fertility rate among Hispanic women was two times as high as the rate for all Baltimore City women.

*Source: Maryland Department of Health and Mental Hygiene, Vital Statistics Annual Report (2007 data are preliminary and not yet available by race/ethnicity)
*Includes all births to mothers of Hispanic origin of any race, data not available prior to 2003

*Note: Population denominator estimates (especially for small population groups) become less certain with each year between two decennial censuses (the most recent census was in 2000 and the next will be in 2010). An underestimate of the Baltimore City Hispanic female population age 15-44 could lead to an overestimated fertility rate in this group. In 2006, the birth rate among Hispanic women nationwide was 101.5 per 1,000 women age 15-44 years which was almost 50% higher than the rate among U.S. women of all races and ethnicities (68.5 per 1000 women age 15-44 years).
Teen Births

Teen Birth Rate: The number of births per 1,000 females age 15-19 years

Importance: Pregnant teenagers are less likely to receive proper prenatal care and therefore more likely to experience poor birth outcomes compared to older mothers.

National statistic: In 2006, rate of 41.9 live births per 1,000 women aged 15-19 years

In 2006, the birth rate to Baltimore City teens increased for the first time since 1999.

The increase occurred primarily among white and Hispanic teens (rates increased by 13% and 22% in these groups respectively) and among older Baltimore City teens (the rate among 18-19 year olds increased by almost 10% while it decreased by almost 10% among 15-17 year olds.)

The US teen birth rate also increased in 2006, (for the first time since 1991), however that increase was larger than that seen in Baltimore: 3% nationwide vs. 1% in Baltimore (3% from 2005 to 2006).

Preliminary data for 2007 suggest that the teen birth rate in Baltimore City has decreased slightly since 2006.

Since the early nineties, the teen birth rate has declined dramatically in Baltimore City (an overall ten-year decline of 30% and an average decline of about 4% per year since 1997). This decline has been driven by the substantial decline in births to African American teens (a 30% decrease over the past decade). Since 1997, teen births among white teens in Baltimore city decreased by 23%. From 2003 to 2006 births to Hispanic teens have increased by 33% (see note on previous page about Hispanic birth rates).

Baltimore City's teen birth rate was two times greater than Maryland's rate and 1.6 times greater than the national rate in 2006.
Prenatal Care

First Trimester Care: Initial visit within first three months of pregnancy

Importance: Early prenatal care promotes healthy pregnancy and birth outcomes (prevention of birth defects, preterm birth, etc.)

National statistic: In 2005, 83.9% of mothers received care

Healthy People 2010 goal: 90%

- In 2007, approximately three-quarters of Baltimore City mothers received prenatal care during the first trimester of pregnancy.

- From 1997 to 2007, the percentage of births to mothers who received first trimester prenatal care decreased by 2% in Baltimore City. Statewide, this percentage decreased by 9%.

- In 2007, 6% of Baltimore City mothers received late or no prenatal care.

- Compared to 1997, the percentage of African American mothers who received late or no prenatal care has decreased by 2%. Among whites and Hispanics, this percentage has increased—by 93% and 9%, respectively (comparing 2000 to 2007 for Hispanics). Since 2001, the percentage of Asian/Pacific Islander mothers who received late or no prenatal care decreased by 53% (comparing 2001 to 2006).

- In Maryland, the percentage of births to women who had late or no prenatal care increased by 81% since 1997.
Low Birth Weight

**Low Birth Weight**: Babies weighing less than 2,500 grams (approximately 5.5 pounds) at birth

**Importance**: Birth weight is the most important factor affecting neonatal mortality and is a significant determinant of post-neonatal mortality; with a low birth weight, babies are at higher risk for developmental disabilities and respiratory problems.

**National statistic**: In 2005, 8.2% of babies of low birth weight

**Healthy People 2010 goal**: 5.0%

---

Over the past decade, the percentage of low birth weight births has decreased by almost 10% in Baltimore City (from 14.2% in 1997 to 12.8% in 2007). In contrast, in Maryland the percentage of low birth weight births has increased by 3% during this time period (from 8.8% in 1997 to 9.1% in 2007). Despite these trends, Baltimore babies are 30% more likely to be low birth weight than Maryland babies.

In 2007, African American mothers in Baltimore City were almost twice as likely to have a low birth weight baby compared to white mothers.

On average, Hispanic mothers in Baltimore City were half as likely to have a baby of low birth weight from 2000 to 2007 compared to mothers of all races and ethnicities.
Infant Mortality

Infant Mortality: Death of infants less than one year of age (Infant Mortality Rate: the number of infant deaths per 1,000 live births)
Importance: Considered one of the most sensitive health indicators of a population
National statistic: 6.7 infant deaths per 1,000 live births in 2006 (preliminary data). Healthy People 2010 goal: 4.5 per 1,000 live births

<table>
<thead>
<tr>
<th>Year</th>
<th>Baltimore City</th>
<th>African American</th>
<th>White</th>
<th>Maryland</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>14.4</td>
<td>18.1</td>
<td>5.9</td>
<td>8.6</td>
</tr>
<tr>
<td>1998</td>
<td>12.2</td>
<td>14.9</td>
<td>4.7</td>
<td>8.6</td>
</tr>
<tr>
<td>1999</td>
<td>13.3</td>
<td>15.6</td>
<td>8.2</td>
<td>8.3</td>
</tr>
<tr>
<td>2000</td>
<td>11.7</td>
<td>13.5</td>
<td>6.6</td>
<td>7.4</td>
</tr>
<tr>
<td>2001</td>
<td>11.9</td>
<td>14.8</td>
<td>4.3</td>
<td>8.0</td>
</tr>
<tr>
<td>2002</td>
<td>10.3</td>
<td>12.4</td>
<td>3.3</td>
<td>7.6</td>
</tr>
<tr>
<td>2003</td>
<td>13.2</td>
<td>17.5</td>
<td>6.7</td>
<td>8.1</td>
</tr>
<tr>
<td>2004</td>
<td>12.7</td>
<td>15.2</td>
<td>4.6</td>
<td>8.5</td>
</tr>
<tr>
<td>2005</td>
<td>11.3</td>
<td>14.3</td>
<td>7.0</td>
<td>7.3</td>
</tr>
<tr>
<td>2006</td>
<td>12.4</td>
<td>14.8</td>
<td>1.8</td>
<td>7.9</td>
</tr>
<tr>
<td>2007</td>
<td>11.3</td>
<td>15.5</td>
<td>1.8</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Rates for other races and ethnicities are not available due to the small number of events in each subgroup.

Leading Cause of Infant Death in 2006, Baltimore City and Maryland

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause of Infant Death</th>
<th>Baltimore City</th>
<th>Maryland</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Disorders relating to short gestation and unspecified low birth weight</td>
<td>31 317.7 26%</td>
<td>1 123 158.9 20%</td>
</tr>
<tr>
<td>2</td>
<td>Sudden Infant Death Syndrome</td>
<td>20 205.0 17%</td>
<td>3 67 86.5 11%</td>
</tr>
<tr>
<td>3</td>
<td>Congenital Abnormalities</td>
<td>12 123.0 10%</td>
<td>2 110 142.1 18%</td>
</tr>
<tr>
<td>4</td>
<td>Newborn affected by maternal complications of pregnancy</td>
<td>10 102.5 8%</td>
<td>4 46 59.4 8%</td>
</tr>
<tr>
<td>5</td>
<td>Bacterial sepsis of newborn</td>
<td>5 51.2 4%</td>
<td>6 25 32.3 4%</td>
</tr>
<tr>
<td>6</td>
<td>Newborn affected by maternal complications of placenta, cord and membran</td>
<td>4 41.0 3%</td>
<td>5 34 43.9 6%</td>
</tr>
<tr>
<td>7</td>
<td>Newborn affected by other complications of labor and delivery</td>
<td>4 41.0 3%</td>
<td>n/a</td>
</tr>
<tr>
<td>8</td>
<td>Respiratory distress of newborn</td>
<td>4 41.0 3%</td>
<td>n/a</td>
</tr>
<tr>
<td>9</td>
<td>Neonatal hemorrhage</td>
<td>3 30.7 3%</td>
<td>8 15 19.4 2%</td>
</tr>
<tr>
<td>10</td>
<td>Pulmonary hemorrhage originating in the perinatal period</td>
<td>3 30.7 3%</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>All other causes (residual)</td>
<td>25 256.2 21%</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>All Causes</td>
<td>121 1240.1 100%</td>
<td>615 794.3 100%</td>
</tr>
</tbody>
</table>

Source: DHMH Vital Statistics Administration. *Rate per 100,000 live born infants. See technical notes for more information about the ICD-10 code groups for each leading cause of infant death. Causes in Maryland’s top ten that were not in Baltimore City’s top ten: Necrotizing enterocolitis of newborn (9th) and Diseases of the circulatory system (10th).

- In 2007, a total of 112 Baltimore City infants died, resulting in an infant mortality rate of 11.3 per 1,000 live births.
- In 2007, Baltimore City’s infant mortality rate was 1.4 times greater than Maryland’s rate resulting in 33 excess infant deaths.*
- The infant mortality rate among whites in Baltimore decreased by almost 75% from 2006 to 2007. Among African American infants, the mortality rate increased by 5% during this same time period. As a result, African American infants were almost nine times as likely to die in 2007 compared to white infants.
- Disorders related to low birth weight and short gestational age led to the largest number of deaths (26% of all deaths) among Baltimore City infants in 2006. Sudden Infant Death Syndrome was the second leading cause accounting for 17% of Baltimore City infant deaths. Baltimore City infants were two times as likely to die from disorders relating to low birth weight and short gestational age compared to Maryland infants and almost two and a half times as likely to die of Sudden Infant Death Syndrome.

*Excess Infant Deaths: The number of infant deaths in Baltimore City that is in excess of what would be expected if Baltimore City had the same infant mortality rate as Maryland.
Childhood Immunizations

Importance: Vaccines help prevent infectious diseases and save lives. They are responsible for the control of many infectious diseases that were once common in this country, including polio, measles, diphtheria, pertussis (whooping cough), rubella (German measles), mumps, tetanus, and *Haemophilus influenzae* type b.


Estimated Overall Vaccination Coverage Among Children 19-35 Months of Age, Baltimore City, Maryland, and U.S. 2002-2006

<table>
<thead>
<tr>
<th>Year</th>
<th>Baltimore City</th>
<th>Maryland</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>69.1</td>
<td>70.7</td>
<td>66.3</td>
</tr>
<tr>
<td>2003</td>
<td>74.3</td>
<td>77.4</td>
<td>72.5</td>
</tr>
<tr>
<td>2004</td>
<td>80.0</td>
<td>76.0</td>
<td>76.0</td>
</tr>
<tr>
<td>2005</td>
<td>76.5</td>
<td>78.6</td>
<td>76.1</td>
</tr>
<tr>
<td>2006</td>
<td>72.2</td>
<td>78.3</td>
<td>77.0</td>
</tr>
</tbody>
</table>

Source: Centers for Disease Control and Prevention, National Immunization Survey. Overall Immunization Coverage; % of children 19-35 months who receive 4:3:1:3:3:1 vaccine series (i.e., >4 doses of diphtheria, tetanus toxoid, and acellular pertussis vaccine [DTaP]; >3 doses of poliovirus vaccine; >1 dose of measles, mumps, and rubella vaccine [MMR]; >3 doses of *Haemophilus influenzae* type b [Hi] vaccine; >3 doses of hepatitis B vaccine [Hep B]; and >1 dose of VAR).

Childhood Lead Poisoning

Elevated Blood-Lead Level (EBL): A blood lead level of ≥10µg/dL.

Importance: If left unaddressed, elevated blood lead levels can lead to learning disabilities and behavioral issues. At extreme levels, EBLs can cause seizures and prove fatal.

National statistic: In 2006, 1.2% children under 6 years Healthy People 2010 goal: 0%

- In 2007, the state of Maryland led the nation in immunizations for toddlers aged 19-35 months. Estimated coverage for the 4:3:1:3:3:1 series in Maryland was 91.3%.

- The percentage of Baltimore City children tested with elevated blood lead levels has decreased dramatically in the past decade (a decline of over 75%).
- In 2007, 552 Baltimore City children tested had a blood lead level of ≥10µg/dL; 85 children tested had a blood level of ≥20µg/dL (based on “highest venous test” only).

Elevated Blood Lead Levels among Children Tested, Baltimore City 1997-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Children Tested under 6 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>29.2%</td>
</tr>
<tr>
<td>1998</td>
<td>23.2%</td>
</tr>
<tr>
<td>1999</td>
<td>16.7%</td>
</tr>
<tr>
<td>2000</td>
<td>12.1%</td>
</tr>
<tr>
<td>2001</td>
<td>9.5%</td>
</tr>
<tr>
<td>2002</td>
<td>9.4%</td>
</tr>
<tr>
<td>2003</td>
<td>6.4%</td>
</tr>
<tr>
<td>2004</td>
<td>6.2%</td>
</tr>
<tr>
<td>2005</td>
<td>4.8%</td>
</tr>
<tr>
<td>2006</td>
<td>4.3%</td>
</tr>
<tr>
<td>2007</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

Source: Maryland Department of the Environment, Lead Poisoning Prevention Program, Childhood Blood Lead Surveillance in Maryland, Annual Report, Supplement 2. These data represent children determined to have an EBL based on the “highest venous test” only. In Baltimore City, children are required to receive a blood test for lead at 12 and 24 months of age. Approximately 90% of children age 0-6 in Baltimore City were tested for blood lead in 2006 (with the highest testing rates among children 0-2 years of age).

Youth Health
Youth Health

Asthma

**Importance:** According to the CDC, asthma accounts for about 14 million days of school absenteeism annually; the estimated cost of treating children under 18 years is $3.2 billion annually. In 2004, asthma accounted for 7 million doctor visits (958 per 10,000) among children 0-17 years. Among children 0-4 years during this same year, there were 168 per 10,000 emergency department (ED) visits and 60 per 10,000 hospitalizations.

**National statistic:** 8.9% prevalence in children (2005)

**Healthy People 2010 goal:** Visits to an ED: 80 per 10,000 for children under 5 years; 50 per 10,000 for children over 5 years

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**Percentage (and 95% CI) of High School Students Who Had Ever Been Told By a Doctor or Nurse That They Had Asthma, Baltimore City, Maryland, and U.S., 2005 and 2007**

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltimore</td>
<td>24%</td>
<td>25%</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Maryland</td>
<td>22%</td>
<td>24%</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>U.S.</td>
<td>17%</td>
<td>18%</td>
<td>20%</td>
<td></td>
</tr>
</tbody>
</table>

---


See technical notes for a description of the YRBSS data and methodology (error bars represent a 95% confidence interval for the estimate).

Survey asked high school students if they “have ever been told by a doctor or nurse that they had asthma.”

- In 2007, 28% of high school students surveyed in Baltimore City reported having been diagnosed with asthma—40% higher than the percentage among high school students surveyed in the U.S. as a whole.

- From 2005 to 2007, the percentage of high school students surveyed who reported having been diagnosed with asthma increased by 17% and 19% in Baltimore City and the U.S., respectively.
Youth Health

Childhood Injury

Importance: Primary cause of death in children nationwide.
National statistic: Injury mortality in 2005: 14.2 per 100,000 children age 1-17

- On average, 46 children age 1 to 17 years died from injuries in Baltimore City each year from 2002 to 2006.
- The child injury death rate in Baltimore City declined 29% from 2002 to 2006.

Injury Death Rates among Children (1-17 years), Baltimore City, 2002-2006


- The majority of injury deaths among Baltimore City children were due to homicide. From 2002 to 2006, 59% of deaths among children aged 1 to 17 in Baltimore were due to homicide; while 35% were due to accidents, 4% to suicides, and 2% were of undetermined intent.
- From 2002-2006, children were twice as likely to die in Baltimore as in Maryland or the nation as a whole. The rate of injuries among children aged 1 to 17 in Baltimore during 2002-2006 was 30.7 per 100,000 children compared to 14.7 per 100,000 children in the U.S. for 2002-2005 (data not displayed). This difference is primarily due to homicide—the child homicide rate in Baltimore was over eight times higher than the national rate.
### Homicide

**Importance:** Second leading cause of death among young adults age 15-24 years nationwide.

**National statistic:** 6.1 per 100,000 (age-adjusted mortality rate)  
**Healthy People 2010 goal:** 3.0 per 100,000

- In 2006, homicide was the fifth leading cause of death among Baltimore City residents and the leading cause of death among Baltimore City residents age 15-34 years. (Nationwide, homicide was the 15th leading cause of death).
- While mortality rates for Baltimore City residents have been declining since 2000, the death rate due to homicide has increased by 10% over this seven year period.
- Baltimore City African Americans have the highest rate of homicide (55.2 per 100,000 in 2006) compared to other race/ethnicity groups. All race/ethnicity groups in Baltimore City had higher homicide rates than their counterparts statewide in 2006. Baltimore City African Americans, whites, and Asians were more than twice as likely to die of homicide compared to the comparable groups statewide. Hispanics in Baltimore City were more than four times more likely to be victims of homicide compared to Hispanics statewide.

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**Assault (Homicide): Age-Adjusted Mortality Rates, Baltimore City and Maryland, 2000-2006**

![Graph showing age-adjusted mortality rates per 100,000 population for Baltimore City and Maryland, 2000-2006.](image_url)


**Assault (Homicide): Age-Adjusted Mortality Rates by Race, Baltimore City and Maryland, 2006**

![Graph showing age-adjusted mortality rates per 100,000 population by race for Baltimore City and Maryland, 2006.](image_url)

Mental Health

Importance: According to CDC, “Mental disorders are as disabling as cancer or heart disease in terms of premature death and lost productivity. Eighty to ninety percent of mental disorders are treatable using medication and other therapies, however fewer than half of adults and one-third of children with a mental disorder get help.”

National statistic: 26.2 percent of Americans ages 18 and older — about one in four adults — suffer from a diagnosable mental disorder in a given year (National Institutes of Mental Health)

- In 2007, nearly two thirds of Baltimore City adults reported experiencing no days of poor mental health status in the previous month, however, 15% of Baltimore City adults reported experiencing poor mental health status for eight or more days in the previous month.
- The percentage of adults reporting 8 or more days of poor mental health status per month has been slightly higher in Baltimore than Maryland as a whole for the past 5 years.

Source: Maryland Behavioral Risk Factor Surveillance System (BRFSS) *Survey asked respondents: "Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" See technical notes for a description of the BRFSS data and methodology.
Importance: Substance abuse can lead to cognitive and physiological damage, chronic disease, infectious disease (through unsafe needle use) and in some cases death from overdose.

National statistic: In 2005, 8.1% of persons age 12 years or older reported using illicit drugs during previous month; in 2006, the drug-induced death rate nationwide was 11.5 per 100,000.

Healthy People 2010 goal: 1.0 per 100,000 (drug-induced death)

Intoxication Deaths

Intoxication Deaths Associated with Drugs of Abuse or Alcohol According to Medical Examiner Records, Baltimore City Residents, 1995-2007

- Intoxication deaths among Baltimore City residents increased in the late 1990’s but have been decreasing since—intoxication deaths have declined by over 25% since 1999.

- Heroin is the most common drug associated with intoxication deaths. More than three-quarters (78%) of drug and alcohol intoxication deaths among city residents were associated with heroin from 1997-2007. In 2007, 64% of deaths were associated with heroin. This marks a dramatic decrease since the late 1990’s, when heroin was implicated in almost 90% of intoxication deaths. Nonetheless, heroin remains the substance most commonly implicated in fatal intoxication deaths, and it is the most common cause of single-drug intoxication deaths.

- Cocaine was implicated in 30% of the deaths from 1997-2007; cocaine-associated intoxication deaths doubled between 2005 and 2006. Almost all the additional cocaine associated deaths also involved opioids, in particular heroin or methadone. One third of the increase in cocaine-associated deaths could be due improvements in detection of recent cocaine use in toxicological samples. This increase did not persist in 2007.

- Alcohol was involved in a quarter of intoxication deaths. Alcohol-associated deaths peaked between 1997 and 2000, and decreased by more than 50% between 2000 and 2005. As with drug of abuse-associated deaths, alcohol-associated deaths increased in 2006. In 2007, alcohol deaths returned to 2005 levels.
Substance Abuse

Treatment

- Since FY1998, funding to Baltimore City’s publicly funded substance abuse treatment programs has increased by 86%. The number of treatment slots have increased by 26% during this same time period.

- In fiscal year 2007, there were 14,034 admissions of Baltimore City residents to publicly funded inpatient and outpatient drug treatment programs in the state of Maryland. This is a decline of more than 2500 admissions from a peak of 16,556 admissions in FY 2004. In 2006, just over two-thirds of all admissions among Maryland residents to Maryland drug and alcohol treatment centers were publicly funded.

Source: State of Maryland Department of Health and Mental Hygiene Alcohol and Drug Abuse Administration (ADAA)
Chronic Alcohol Use among Baltimore City and Maryland Residents, 2002-2007

- **Approximately 5% of Baltimore City adults** surveyed reported chronic alcohol use from 2002 to 2007, a percentage similar to that reported by Maryland residents over the same time period.

- **Heroin was the most common substance of abuse reported by Baltimore City clients admitted to Maryland publicly funded substance abuse treatment programs; it was associated with almost 65% of admissions in FY2008. (In the rest of the state, alcohol is the most common substance reported at admission to treatment.)

- **From FY2002 to FY2008 the percent of admissions associated with heroin have decreased by 10%. Crack Cocaine and alcohol related admissions have increased by 32% and 4%, respectively. Admissions related to opiates other than heroin have more than doubled, while admissions related to other cocaine products have decreased by 28%.

Substance Use

**Leading Substances of Abuse Mentioned at Admission to Maryland Publicly Funded Clinics, Baltimore City Residents, FY2002-FY2008**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin</td>
<td>71.7</td>
<td>73.0</td>
<td>72.9</td>
<td>70.4</td>
<td>69.9</td>
<td>64.2</td>
<td>64.5</td>
</tr>
<tr>
<td>Crack Cocaine</td>
<td>29.8</td>
<td>32.8</td>
<td>35.3</td>
<td>35.9</td>
<td>37.9</td>
<td>39.9</td>
<td>39.2</td>
</tr>
<tr>
<td>Other Cocaine</td>
<td>25.0</td>
<td>25.9</td>
<td>23.4</td>
<td>22.9</td>
<td>21.4</td>
<td>20.2</td>
<td>18.1</td>
</tr>
<tr>
<td>Alcohol</td>
<td>36.0</td>
<td>37.2</td>
<td>37.9</td>
<td>37.8</td>
<td>37.1</td>
<td>37.8</td>
<td>37.5</td>
</tr>
<tr>
<td>Marijuana</td>
<td>22.0</td>
<td>21.9</td>
<td>19.8</td>
<td>20.7</td>
<td>21.1</td>
<td>23.6</td>
<td>22.1</td>
</tr>
<tr>
<td>Other Opiates</td>
<td>1.2</td>
<td>1.2</td>
<td>1.4</td>
<td>1.8</td>
<td>2.8</td>
<td>2.8</td>
<td>3.1</td>
</tr>
</tbody>
</table>

*Source: Maryland Alcohol and Drug Abuse Administration.
*Up to three substances may be reported for each respondent, so percentages will not add up to 100

**Chronic Alcohol Use among Baltimore City and Maryland Residents, 2002-2007**

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>4.4%</td>
</tr>
<tr>
<td>2003</td>
<td>3.6%</td>
</tr>
<tr>
<td>2004</td>
<td>4.8%</td>
</tr>
<tr>
<td>2005</td>
<td>5.1%</td>
</tr>
<tr>
<td>2006</td>
<td>5.6%</td>
</tr>
<tr>
<td>2007</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

*Source: Maryland Behavioral Risk Factor Surveillance System (BRFSS) - See technical notes for a description of the BRFSS data and methodology.
*More than 2 drinks per day for men and more than 1 drink per day for women.
Infectious Diseases

HIV/AIDS

**Importance:** Incurable infectious disease that is fatal if not treated appropriately  
**National Statistic:** 23.2 new HIV cases per 100,000 per year  
**Healthy People 2010 goal:** AIDS: 1.0 new cases per 100,000

HIV Incidence (newly diagnosed cases)

![HIV Incidence Rate Per 100,000 Population, Baltimore City by Race/Ethnicity and Sex, and Maryland 1997-2006](chart)

- Over the past decade, the rate of newly diagnosed HIV infection has decreased by 10% in Baltimore City.
- The decrease has been most pronounced among non-Hispanic Blacks—over 20% during this same period. The HIV incidence rate among non-Hispanic whites, however, has remained relatively stable over the past 10 years.
- Over the past decade, men were on average two times as likely to become infected with HIV compared to women.
- The number of individuals living with HIV or AIDS (prevalence) in Baltimore City has more than doubled since 1997. In 2006, 15,990 Baltimore City residents were living with HIV/AIDS (a prevalence rate of 2,532.6 per 100,000).

AIDS Incidence (newly diagnosed cases)

![AIDS Incidence Rates Per 100,000 Population, Baltimore City by Race/Ethnicity and Sex, 1997-2006](chart)

- Over the past decade, the yearly rate of new AIDS cases has decreased by 38% in Baltimore City.
- AIDS incidence has decreased by 40% among non-Hispanic Blacks and 23% among non-Hispanic whites since 1997. The rate among Hispanics has almost doubled since 1997.  
  *(Note: The small number of cases and uncertainty of the population estimate for this group could lead to unstable rates.)*
- Over the past decade, the rate of new AIDS cases was on average 2 times greater among men compared to women.
HIV/AIDS Mortality

- On average over the past seven years, Baltimore City’s age-adjusted HIV/AIDS mortality rate has been over 5 times greater than the rate among Maryland residents.

- Mortality from HIV/AIDS increased 22% in Baltimore and 12% in Maryland between 2000 and 2003, then decreased 35% and 27% in Baltimore and Maryland, respectively, between 2003 and 2006.

- Since 1998, the median age of death due to AIDS has increased from 43 to 48 years (data not shown).

- In 2006, Baltimore City African Americans had an HIV/AIDS mortality rate that was almost 8 times higher than the rate among whites; Hispanics had a rate that was 2 times higher.

- In 2006, Hispanics, whites, and African Americans in Baltimore City had a higher age-adjusted mortality rate due to HIV/AIDS compared to these groups statewide by factors of 9, 5, and 2.5, respectively.
Infectious Diseases

Sexually Transmitted Infections (STIs)

Syphilis

Importance: Highly infectious; if untreated, can cause fatal organ, neurological, and cardiovascular damage. Infection during pregnancy increases a mother’s risk of a still-birth or giving birth to a baby who dies shortly after birth. Untreated, an infant with congenital syphilis is a risk for developmental delays, seizures, or death.

National statistic: In 2006, rate of 12.5 per 100,000 Healthy People 2010 goal: 0.2 per 100,000 (Primary & Secondary)

- After a dramatic decline in primary and secondary syphilis incidence following an outbreak which peaked in 1997, rates increased slightly among Baltimore City residents in 2003 and 2004. Since 2004 however, rates have declined to 21 per 100,000 residents.
- In 2007, primary and secondary syphilis incidence rates in Baltimore City were over three times higher than in Maryland.

Gonorrhea

Importance: Major cause of pelvic inflammatory disease (PID) among women in U.S. PID can lead to infertility, ectopic pregnancy, and chronic pelvic pain.

National statistic: In 2006, rate of 120.9 per 100,000 Healthy People 2010 goal: 19 new cases per 100,000

- Over the past decade, gonorrhea incidence rates have decreased by 53% in Baltimore City.
- Despite this decrease, gonorrhea rates in Baltimore in 2007 were four times higher than in the state as a whole.
Infectious Diseases

**Chlamydia**

**Importance:** Chlamydia is the most frequently reported bacterial sexually transmitted infection in the U.S. Untreated infection can progress to serious reproductive and other health problems such as Pelvic Inflammatory Disease (PID).

**National statistic:** In 2006, 347.8 cases per 100,000

**Healthy People 2010 goal:** 3.0% for males and females age 15-24 attending STD or family planning clinics

- Over the past decade, chlamydia incidence rates have increased by 25% in Baltimore City.
- This increase is consistent with U.S. trends—some of the increase is most likely due to better detection of disease in women infected with chlamydia (an increase in testing, higher sensitivity of tests, and better reporting).
- Compared to Maryland, Baltimore City's chlamydia incidence rate was almost three times higher in 2007.

**Chlamydia Incidence Rates,**
**Baltimore City and Maryland, 1997-2007**

![Chlamydia Incidence Rates Graph]

Source: Baltimore City Health Department Bureau of STD/HIV Prevention; Maryland Data - Maryland Department of Health and Mental Hygiene, Community Health Administration, Division of Sexually Transmitted Diseases

**Other Reportable Diseases**

**Incidence of Selected Reportable Diseases, Baltimore City, 1998-2006**

<table>
<thead>
<tr>
<th>Reportable Infectious Disease</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arboviral -- West Nile Virus</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>15</td>
<td>4</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Campylobacteriosis</td>
<td>79</td>
<td>39</td>
<td>50</td>
<td>43</td>
<td>62</td>
<td>40</td>
<td>29</td>
<td>39</td>
<td>40</td>
</tr>
<tr>
<td>Cryptosporidiosis</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>16</td>
<td>7</td>
<td>4</td>
<td>10</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>E. coli O157:H7</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Encephalitis</td>
<td>0</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Giardiasis</td>
<td>20</td>
<td>27</td>
<td>23</td>
<td>21</td>
<td>18</td>
<td>23</td>
<td>28</td>
<td>31</td>
<td>28</td>
</tr>
<tr>
<td>Haemophilus influenzae Group</td>
<td>19</td>
<td>25</td>
<td>26</td>
<td>31</td>
<td>29</td>
<td>24</td>
<td>16</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>Legionellosis</td>
<td>7</td>
<td>7</td>
<td>15</td>
<td>5</td>
<td>8</td>
<td>28</td>
<td>16</td>
<td>26</td>
<td>30</td>
</tr>
<tr>
<td>Listeriosis</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Malaria</td>
<td>4</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Meningitis Aseptic &amp; Other</td>
<td>83</td>
<td>78</td>
<td>144</td>
<td>190</td>
<td>154</td>
<td>205</td>
<td>115</td>
<td>163</td>
<td>75</td>
</tr>
<tr>
<td>Meningococcal</td>
<td>11</td>
<td>10</td>
<td>7</td>
<td>12</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Mumps</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pertussis</td>
<td>15</td>
<td>19</td>
<td>16</td>
<td>8</td>
<td>5</td>
<td>6</td>
<td>12</td>
<td>89</td>
<td>53</td>
</tr>
<tr>
<td>Rocky Mountain Spotted Fever</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Salmonella</td>
<td>148</td>
<td>145</td>
<td>142</td>
<td>120</td>
<td>225</td>
<td>157</td>
<td>152</td>
<td>142</td>
<td>161</td>
</tr>
<tr>
<td>Shigellosis</td>
<td>25</td>
<td>21</td>
<td>48</td>
<td>34</td>
<td>687</td>
<td>168</td>
<td>21</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Vibrio (non-cholera)</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Baltimore City Health Department, Division of Acute and Communicable Diseases
Tuberculosis

Importance: Tuberculosis (TB) is a chronic lung infection that, if not treated properly, can be fatal.
National statistic: In 2007, 4.4 cases reported per 100,000
Healthy People 2010 goal: 1.0 new case per 100,000

The rate of new tuberculosis cases (incidence) has decreased by almost 50% over the past decade in Baltimore City. Statewide, the tuberculosis incidence rate has decreased by almost 25% (from 6.3 per 100,000 in 1998 to 4.8 per 100,000 in 2007).

While Hispanics and Asians made up approximately 2.5% and 2% of Baltimore City’s population (according to Census data), they comprised 9% and 6% of new tuberculosis cases in 2007.

Source: Baltimore City Health Department, Tuberculosis Prevention and Control Program

The rate of new tuberculosis cases (incidence) has decreased by almost 50% over the past decade in Baltimore City. Statewide, the tuberculosis incidence rate has decreased by almost 25% (from 6.3 per 100,000 in 1998 to 4.8 per 100,000 in 2007).

While Hispanics and Asians made up approximately 2.5% and 2% of Baltimore City’s population (according to Census data), they comprised 9% and 6% of new tuberculosis cases in 2007.

Source: Baltimore City Health Department, Tuberculosis Prevention and Control Program

Incident Tuberculosis Cases by Race/Ethnicity, Baltimore City, 2007

Source: Baltimore City Health Department, Tuberculosis Prevention and Control Program
Youth Smoking

**Importance:** Major cause of premature mortality. Accounts for 400,000 deaths annually in the US. Most smokers begin smoking as youth or young adults.

**National statistic:** Current cigarette use among high school students: 20% (2007, YRBSS)

**Healthy People 2010 goal:** 16% (high school students who smoked cigarettes in the past 30 days)

## Middle school students

### Cigarette smoking

- Since 2000, cigarette smoking prevalence among middle school students surveyed has declined by 27% in Baltimore City and by almost 50% statewide.
- Baltimore middle school students were 30-75% more likely to report current smoking than students statewide during 2000-2006.

### Cigar, cigarillo and little cigar smoking

- While this decreasing trend continued statewide from 2002 to 2006, in Baltimore, reported use of cigar products among middle schoolers did not decrease from 2002 to 2006. This stands in contrast to the decrease observed for cigarette smoking in that time period.
- In 2006, cigar smoking prevalence was twice as high among surveyed Baltimore City middle school students compared to middle school students surveyed statewide.
Cigarette smoking

The MYTS reports decreases in both cigarette and cigar smoking among high school students in Baltimore and statewide from 2000 to 2006. According to the MYTS, cigarette smoking prevalence among Baltimore high schoolers declined by approximately 30% from 2000 to 2006, and cigar smoking by 40%.

In contrast, the YRBSS indicates that only cigarette use decreased from 2005 to 2007 while cigar use actually increased. This increase in cigar use in Baltimore was in contrast to the decrease reported by the YRBSS for the state as a whole.

Both surveys reported that Baltimore high school students were less likely to smoke than students statewide. This stands in contrast to middle school students, who were more likely than Maryland students to report smoking. This may be due to the higher high school dropout rate in Baltimore and the fact that students who drop out may be more likely to smoke than students who remain in school.

Cigar, cigarillo and little cigar smoking

Two surveys with similar methodologies assessed smoking trends among Baltimore City high school students: the Maryland Youth Tobacco Survey (MYTS) (administered in Baltimore City middle and high schools in 2000, 2002, and 2006) and the Centers for Disease Control and Prevention’s Youth Behavioral and Risk Factor Surveillance System (YRBSS) (administered in Baltimore City high schools in 2005 and 2007). We present here results from both since they yielded slightly different results, despite similar methodologies.
Adult Smoking

**Importance**: Primary cause of cancer, which is a leading cause of death; also important cause of coronary heart disease (the leading cause of death in the U.S.), increases the risk of stroke, infertility, and emphysema.

**National statistic**: In 2006, approximately 21% of adults smoked cigarettes.

**Healthy People 2010 goal**: 12% of adults.

- Two surveys with similar methodologies assessed smoking prevalence among Baltimore City and Maryland adults: the Maryland Adult Tobacco Survey (MATS) (in 2000, 2002, and 2006) and the Centers for Disease Control and Prevention’s Behavioral and Risk Factor Surveillance System (BRFSS) (in 2005 and 2007). We present the results of both here since they yielded different results despite similar methodologies.

- According to the MATS, adult cigarette smoking in Baltimore decreased by 31% between 2000 and 2006, while decreasing only 18% statewide.

- In contrast, according to the BRFSS, adult smoking in Baltimore has increased by 12% from 2003 to 2007, while decreasing by 15% statewide.

- In both surveys, smoking prevalence in Baltimore exceeded statewide prevalence.

According to the latest data (BRFSS), sex and race/ethnicity differences in smoking prevalence were larger in Baltimore than statewide. In Baltimore, men were 22% more likely than women to be current cigarette smokers. Statewide, this difference was 15%. Baltimore African Americans were 45% more likely than whites to be current cigarette smokers. Statewide, this difference was 9%.

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**Percentage of Adults who Currently Smoke Cigarettes, Baltimore City and Maryland, 1997-2007**

- According to the latest data (BRFSS), sex and race/ethnicity differences in smoking prevalence were larger in Baltimore than statewide. In Baltimore, men were 22% more likely than women to be current cigarette smokers. Statewide, this difference was 15%. Baltimore African Americans were 45% more likely than whites to be current cigarette smokers. Statewide, this difference was 9%.

---

**Percentage of Adults who Currently Smoke Cigarettes by Sex and Race, Baltimore City and Maryland, 2007**

- According to the latest data (BRFSS), sex and race/ethnicity differences in smoking prevalence were larger in Baltimore than statewide. In Baltimore, men were 22% more likely than women to be current cigarette smokers. Statewide, this difference was 15%. Baltimore African Americans were 45% more likely than whites to be current cigarette smokers. Statewide, this difference was 9%.
**Chronic Disease Risk Factors**

**Childhood Obesity**

**Childhood Obesity:** Children and youth (2-18 years) in the ≥ 95th percentile for body mass index, by age and sex, based on reference data

**Importance:** Children who are obese are at greater risk for bone and joint problems, sleep apnea, and social and psychological problems such as stigmatization and poor self-esteem. Obese young people are more likely than children of normal weight to become overweight or obese adults.

**National statistic:** In 2006, 17% (children aged 6 to 11 years); 17.6% (adolescents aged 12 to 19 years)

**Healthy People 2010 goal:** 5% (children and adolescents 6 to 19 years)

- Since 2003, obesity prevalence among 2-5 year olds enrolled in the Women, Infants, and Children (WIC) program has stayed relatively steady in Baltimore, while increasing slightly statewide.

- Over this time period, WIC 2-5 year olds in Baltimore were, on average, 17% less likely to be overweight compared to children enrolled in the program statewide.

**Chronic Disease Risk Factors**

**Childhood Obesity**

**Childhood Obesity:** Children and youth (2-18 years) in the ≥ 95th percentile for body mass index, by age and sex, based on reference data

**Importance:** Children who are obese are at greater risk for bone and joint problems, sleep apnea, and social and psychological problems such as stigmatization and poor self-esteem. Obese young people are more likely than children of normal weight to become overweight or obese adults.

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- Over this time period, WIC 2-5 year olds in Baltimore were, on average, 17% less likely to be overweight compared to children enrolled in the program statewide.

**Chronic Disease Risk Factors**

**Childhood Obesity**

**Childhood Obesity:** Children and youth (2-18 years) in the ≥ 95th percentile for body mass index, by age and sex, based on reference data

**Importance:** Children who are obese are at greater risk for bone and joint problems, sleep apnea, and social and psychological problems such as stigmatization and poor self-esteem. Obese young people are more likely than children of normal weight to become overweight or obese adults.

**National statistic:** In 2006, 17% (children aged 6 to 11 years); 17.6% (adolescents aged 12 to 19 years)

**Healthy People 2010 goal:** 5% (children and adolescents 6 to 19 years)

- Since 2003, obesity prevalence among 2-5 year olds enrolled in the Women, Infants, and Children (WIC) program has stayed relatively steady in Baltimore, while increasing slightly statewide.

- Over this time period, WIC 2-5 year olds in Baltimore were, on average, 17% less likely to be overweight compared to children enrolled in the program statewide.

**Percentage of High School Students Classified as Obese (and 95% CI) According to Body Mass Index (BMI), Baltimore City and Maryland, 2007**

- According to the 2007 Youth Risk Behavioral Surveillance System (a school-based survey of high school students) Baltimore high school students were 40% more likely to be obese than high school students statewide. The difference was largely due to female students: females in Baltimore were more than twice as likely to be obese than their Maryland counterparts, while males had similar obesity rates.

Adult Obesity

Obesity: Range of weight that is greater than what is generally considered healthy for a given height: body mass index (BMI) ≥ 30.0.
Importance: Obesity puts an individual at risk for hypertension, stroke, type 2 diabetes, osteoarthritis, and many other poor health outcomes.
National statistic: National prevalence of obesity increased by approximately 50% between 1996 and 2006. In 2006, 25% of adults were obese.
Healthy People 2010 goal: 15% (adults 20 years and older)

- According to the Behavioral Risk Factor Surveillance System (a telephone survey), in 2007, one third of Baltimore City adults were obese, while one third were overweight.
- Since 2002, obesity prevalence among Baltimore City adults has increased by 46%.

On average, from 2002-2007 obesity prevalence among Baltimore City adults was 26% higher than among adults statewide during the same time period.

The reason why Baltimore adults and high school students would have higher obesity rates than statewide, while WIC enrollees would have lower rates (see previous page) is not understood.

Source: Maryland Behavioral Risk Factor Surveillance System (BRFSS). Survey respondents were classified by BMI calculated using reported weight and height (questions in survey were: "About how much do you weigh without shoes?" and "About how tall are you without shoes?"). See technical notes for a description of the BRFSS data and methodology.
**Cardiovascular Disease**

Percentage of adults who had ever been told by a doctor, nurse, or other health care professional that they had a heart attack, stroke, or angina/chronary heart disease (and 95% CI), Baltimore City and Maryland 2007

<table>
<thead>
<tr>
<th></th>
<th>Heart Attack</th>
<th>Stroke</th>
<th>Angina/Coronary Heart Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltimore City</td>
<td>3.6%</td>
<td>4.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Maryland</td>
<td>3.4%</td>
<td>2.3%</td>
<td>3.9%</td>
</tr>
</tbody>
</table>

Source: 2007 Maryland Behavioral Risk Factor Surveillance System (BRFSS). Survey asked respondents if they had ever been told by a doctor, nurse, or other health care professional that they "had a heart attack (also called a myocardial infarction)," "had angina or coronary heart disease," "had a stroke."

See technical notes for a description of the BRFSS data and methodology (error bars represent a 95% confidence interval for the estimate).

**Heart Disease**

- Since 2000, age-adjusted mortality due to heart disease has declined by over 20% among Baltimore City residents, a trend comparable to the decline in the statewide rate.

- On average over the past seven years, Baltimore City’s age-adjusted heart disease mortality rate has been 30% greater than the rate among Maryland residents.

**Diseases of the Heart: Age-Adjusted Mortality Rates, Baltimore City and Maryland, 2000-2006**


- Since 2000, age-adjusted mortality due to heart disease has declined by over 20% among Baltimore City residents, a trend comparable to the decline in the statewide rate.

- On average over the past seven years, Baltimore City’s age-adjusted heart disease mortality rate has been 30% greater than the rate among Maryland residents.

- In 2007, approximately 4% of Baltimore City adults had ever been told by a health care professional that they had angina or coronary heart disease. 4% had ever been told that they had a heart attack and 4% a stroke.
Cerebrovascular Disease (Stroke)

Among Baltimore City residents, the age-adjusted mortality rate due to cerebrovascular disease has declined by a third since 2000, a comparable decline was seen in Maryland during the same time period.

Compared to African Americans in Maryland, Baltimore City African Americans were almost 2 times as likely to die from cerebrovascular disease in 2006.

Baltimore City whites and Maryland whites had comparable age-adjusted cerebrovascular mortality rates in 2006. Baltimore City Asians had a rate almost 40% higher than Asians statewide; Hispanics in Baltimore City had a rate over two times lower than Hispanics statewide.

Chronic Disease

Cancer Incidence

**Importance:** Cancer is the second leading cause of death in the U.S.

**National statistic:** Incidence rate of 458.2 per 100,000 (2004); Mortality rate of 180.8 per 100,000 (2006)

**Healthy People 2010 goal:** 159.9 per 100,000 (mortality)

- Incidence rates of invasive cancer among Baltimore City residents increased by 3% from 2000 to 2003.
- On average, males in Baltimore City had incidence rates of invasive cancer almost 50% higher than females from 2000-2003.
- African American males were 8% more likely to have an incident case of invasive cancer compared to white males from 2000-2003. African American females, however, were 13% less likely than white females to have an incident case of invasive cancer from 2000-2003.

### Percentage of Total Invasive Cancer Cases at Selected Sites, Baltimore City, 2003

- In 2003, lung cancer accounted for 18% of all incident invasive cancer cases in among Baltimore City residents. Prostate, female breast, and colorectal cancer accounted for 15%, 12%, and 12%, respectively.

### Percentage of Total Invasive Cancer Cases at Selected Sites, Baltimore City, 2003

- **Lung and Bronchus**: 18%
- **Prostate**: 15%
- **Female Breast**: 12%
- **Colon and Rectum**: 12%
- **Oral Cavity and Pharynx**: 3%
- **Cervix Uteri**: 1%
- **Melanoma of the Skin**: 1%
Cancer Mortality

- Since 2000, age-adjusted mortality due to cancer has declined by 12% among Baltimore City residents, a trend comparable to the decline in the statewide rate.

- On average over the past seven years, Baltimore City’s age-adjusted cancer mortality rate has been 25% greater than the rate statewide.

- Baltimore City African Americans had the highest cancer mortality rate (age-adjusted) compared to other race/ethnicity groups in 2006.

- In 2006, both African Americans and whites had higher age-adjusted mortality due to cancer than their counterparts statewide (13% and 20% higher, respectively.) In contrast, Asians and Hispanics in Baltimore City had lower rates compared to their counterparts statewide (20% and 10% lower, respectively.)
Diabetes

Unmanaged or untreated diabetes can lead to severe complications including cardiovascular disease, kidney damage, blindness.

National statistic: The number of Americans with diabetes has nearly doubled since 1980 (from 5.6 to 15.8 million). In 2005, 5.3% of adults nationwide reported having diabetes (~15.8 million people). Healthy People 2010 goal: 2.5 new cases per 1000 (incidence).

• In 2007, approximately 13% of Baltimore City adults surveyed who had ever been told by a doctor that they had diabetes, compared to 9% statewide.

• Since 2002, the percentage of Baltimore City adults surveyed who had ever been told by a doctor that they had diabetes has increased by 55% (statewide the increase was 22% during this same time period).

Since 2000, age-adjusted mortality due to diabetes has declined by 23% among Baltimore City residents, a trend comparable to the decline in the statewide rate.

On average over the past seven years, Baltimore City’s age-adjusted diabetes mortality rate has been almost 50% greater than the rate among Maryland residents.

• In 2006, African Americans had an age-adjusted diabetes mortality rate that was almost twice the rate among whites in Baltimore City.

• Both African Americans and whites in Baltimore City had higher age-adjusted diabetes mortality rates compared to African Americans and whites statewide, (10% and 36% higher, respectively).
In 2006, heart disease, cancer, and cerebrovascular disease were the top three leading causes of death in Baltimore City and nationwide.

HIV/AIDS and homicide were the fourth and fifth leading causes of death in Baltimore City in 2006. In contrast, nationwide homicide was the 15th leading cause; HIV/AIDS was not included in the top 15 causes nationwide for 2006.

In 2006, drug induced deaths of undetermined manner (not accidents, homicides, or suicides) was the 8th leading cause of death in Baltimore City.

Alzheimer’s was the 6th leading cause of death nationwide, but did not figure in the top 12 in Baltimore. Similarly suicide and chronic liver disease are leading causes of death in the US but did not figure in Baltimore’s top 12.
Mortality

All Causes

- In 2006, there were 7,017 deaths among Baltimore City residents (resulting in an all-cause mortality rate of 1083.4 per 100,000).
- Age-adjusted mortality rates for all causes of death have declined by 15% since 2000 among Baltimore City residents, which is slightly greater than the rate of decline statewide for this same period (13%).
- Despite these declines, mortality in Baltimore remains 37% higher than the statewide rate.
- Baltimore residents of all race/ethnicities have rates of mortality that are higher than those of their statewide counterparts (see below).
- Among race/ethnic groups, African Americans had the highest mortality rate both in Baltimore and statewide.

All Cause Age-Adjusted Mortality Rates, Baltimore City and Maryland, 2000-2006

All Cause Age-Adjusted Mortality Rates, Baltimore City and Maryland, 2000-2006


All Cause: Age-Adjusted Mortality Rates by Race, Baltimore City and Maryland, 2006

Years of Potential Life Lost (YPLL)

- Years of potential life lost (YPLL) is a measure of premature mortality: using age 75 as the cut-off, a person who dies at age 65 has lost ten years of potential life.
- Since 2000, years of potential life lost have declined by 11% among Baltimore City residents and by 3% statewide. While only 12% of Maryland’s population, Baltimore City made up 22% of the statewide YPLL in 2006.
- In 2006, heart disease and cancer were the top two leading causes of YPLL in Baltimore City and in Maryland. Cancer was the leading cause statewide (21% of all-cause YPLL) and the second leading cause in Baltimore (15% of all-cause YPLL).
- In 2006, homicide comprised 13% of total all-cause YPLL among Baltimore City residents compared to 6% among residents statewide. In Maryland accidents were the third leading cause of YPLL (9% of total all-cause YPLL); in Baltimore City accidents were the fifth leading cause (4% of total all-cause YPLL).

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause of Death</th>
<th>Total YPLL</th>
<th>YPLL per 100,000</th>
<th>% of Total All-Cause YPLL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Heart Disease</td>
<td>13,479</td>
<td>2,134.9</td>
<td>15%</td>
</tr>
<tr>
<td>2</td>
<td>Cancer</td>
<td>13,039</td>
<td>2,065.2</td>
<td>15%</td>
</tr>
<tr>
<td>3</td>
<td>Homicide</td>
<td>11,372</td>
<td>1,801.2</td>
<td>13%</td>
</tr>
<tr>
<td>4</td>
<td>HIV/AIDS</td>
<td>7,066</td>
<td>1,119.0</td>
<td>8%</td>
</tr>
<tr>
<td>5</td>
<td>Accidents</td>
<td>3,743</td>
<td>592.8</td>
<td>4%</td>
</tr>
<tr>
<td>6</td>
<td>Cerebrovascular Disease</td>
<td>2,653</td>
<td>420.2</td>
<td>3%</td>
</tr>
<tr>
<td>7</td>
<td>Diabetes</td>
<td>1,728</td>
<td>273.6</td>
<td>2%</td>
</tr>
<tr>
<td>8</td>
<td>Septicemia</td>
<td>1,631</td>
<td>258.3</td>
<td>2%</td>
</tr>
<tr>
<td>9</td>
<td>Chronic Lower Respiratory Disease</td>
<td>1,316</td>
<td>208.4</td>
<td>1%</td>
</tr>
<tr>
<td>10</td>
<td>Influenza and pneumonia</td>
<td>1,207</td>
<td>191.1</td>
<td>1%</td>
</tr>
<tr>
<td>11</td>
<td>Drug-induced (all manners)</td>
<td>7,678</td>
<td>1,216.0</td>
<td>9%</td>
</tr>
<tr>
<td>12</td>
<td>Alcohol-induced (all manners)</td>
<td>1,409</td>
<td>223.2</td>
<td>2%</td>
</tr>
<tr>
<td>All Causes</td>
<td></td>
<td>89,729</td>
<td>14,211.9</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause of Death</th>
<th>Total YPLL</th>
<th>YPLL per 100,000</th>
<th>% of Total All-Cause YPLL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Heart Disease</td>
<td>64,160</td>
<td>1,142.5</td>
<td>15%</td>
</tr>
<tr>
<td>1</td>
<td>Cancer</td>
<td>85,548</td>
<td>1,523.4</td>
<td>21%</td>
</tr>
<tr>
<td>4</td>
<td>Homicide</td>
<td>25,036</td>
<td>450.6</td>
<td>6%</td>
</tr>
<tr>
<td>5</td>
<td>HIV/AIDS</td>
<td>13,543</td>
<td>241.2</td>
<td>3%</td>
</tr>
<tr>
<td>3</td>
<td>Accidents</td>
<td>35,890</td>
<td>639.1</td>
<td>9%</td>
</tr>
<tr>
<td>6</td>
<td>Cerebrovascular Disease</td>
<td>10,880</td>
<td>193.7</td>
<td>3%</td>
</tr>
<tr>
<td>7</td>
<td>Diabetes</td>
<td>8,876</td>
<td>158.0</td>
<td>2%</td>
</tr>
<tr>
<td>9</td>
<td>Septicemia</td>
<td>6,374</td>
<td>113.5</td>
<td>2%</td>
</tr>
<tr>
<td>8</td>
<td>Chronic Lower Respiratory Disease</td>
<td>7,233</td>
<td>128.8</td>
<td>2%</td>
</tr>
<tr>
<td>10</td>
<td>Influenza and pneumonia</td>
<td>5,175</td>
<td>92.1</td>
<td>1%</td>
</tr>
<tr>
<td>11</td>
<td>Drug-induced (all manners)</td>
<td>26,653</td>
<td>474.6</td>
<td>6%</td>
</tr>
<tr>
<td>12</td>
<td>Alcohol-induced (all manners)</td>
<td>6,342</td>
<td>112.9</td>
<td>2%</td>
</tr>
<tr>
<td>All Causes</td>
<td></td>
<td>414,509</td>
<td>7,381.2</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Baltimore City Health Department analysis of data from the Maryland Department of Health and Mental Hygiene’s Vital Statistics Administration: 2000 Maryland Vital Statistics Report; 2006 Baltimore City Profile. While the drug-induced death and alcohol-induced death categories are not mutually exclusive with the causes listed in the top 10 ranking (they include deaths of all manners–i.e. accident, homicide, suicide, and undetermined manner), they represent substantial causes of YPLL. (Approximately 90% of drug-induced deaths are of undetermined manner–these deaths comprise 8% of YPLL among Baltimore city residents).
Mortality vs. Years of Potential Life Lost (YPLL)

- Years of potential life lost (YPLL) reflect both how many people are dying of a certain cause as well as the age at which they die. In contrast mortality only reflects the number of people dying of a certain cause. As a result, diseases or conditions that lead to death at a younger age will constitute a larger proportion of YPLL than of mortality. Comparing YPLL and mortality can therefore help identify causes that are killing people earlier in life.
- While homicide accounted for only 4% of deaths in 2006, it accounted for 13% of YPLL among Baltimore City residents. Conversely, heart disease (the leading cause of death in terms of number of deaths) accounted for 25% of all deaths, but only 15% of total YPLL.
- Similar to homicide, HIV/AIDS, drug-induced deaths, and accidents accounted for a larger proportion of total all-cause YPLL compared to their relative contributions to total all-cause mortality.

Source: Baltimore City Health Department analysis of data from the Maryland Department of Health and Mental Hygiene, Vital Statistics Administration: 2006 Baltimore City Profile. Drug-Induced Deaths of undetermined manner - this category does not include deaths due to accident, suicide or homicide ICD-10 codes Y10-Y14. See technical notes for more information on cause of death categories.
Mortality and YPLL in Baltimore vs. Maryland

- The graphs above compare the percentage change in years of potential life lost (YPLL) and the percentage change in mortality by cause between 2000 and 2006 for Baltimore City and Maryland.
- Comparing 2006 to 2000, homicide was the only cause of death that increased among Baltimore City residents.
- During this same period statewide, homicides as well as and drug-induced deaths (undetermined manner) increased.
- Causes of death where changes in YPLL exceed changes in mortality are causes that are more likely to impact younger as opposed to older people; for example HIV/AIDS and drug-induced deaths.

Percentage change in Mortality and YPLL by Cause, Baltimore City, 2000 to 2006

Source: Baltimore City Health Department analysis of data from the Maryland Department of Mental Hygiene’s Vital Statistics Administration: 2000 and 2006 Maryland Vital Statistics Report; 2000 and 2006 Baltimore City Profile. The drug-induced death category is not mutually exclusive (it includes deaths of all manners—i.e. accident, homicide, suicide, and undetermined manner).

Percentage change in Mortality and YPLL rate per 100,000 residents, Maryland 2000 to 2006

Source: Baltimore City Health Department analysis of data from the Maryland Department of Mental Hygiene’s Vital Statistics Administration: 2000 and 2006 Maryland Vital Statistics Report; 2000 and 2006 Baltimore City Profile. The drug-induced death category is not mutually exclusive (it includes deaths of all manners—i.e. accident, homicide, suicide, and undetermined manner).
## Major Health Indicators Summary

The following quick reference table presents, for each major health indicator: Baltimore City data for the period 1997 to 2007 (or the most recent year available), Maryland data for the most recent year available, the percent change in Baltimore and Maryland since 1997, and a Baltimore vs. Maryland comparison for the most recent year available. Also included are the Healthy People 2010 goals (if applicable). Arrows indicate the direction of change, green (light) arrows represent a change for the better, red (dark) arrows a change for the worse.

<table>
<thead>
<tr>
<th>Primary outcome measure(s) (source)</th>
<th>Healthy People 2010 goal</th>
<th>Baltimore City Data over past 10 years</th>
<th>Maryland Data over past 10 years</th>
<th>Percent change over past 10 years (or since most recent year data were available—<em>as shown</em>*</th>
<th>Baltimore compared to Maryland*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall mortality rate (per 100,000, age-adjusted) (1)</td>
<td>n/ap</td>
<td>n/av 1277.1 1232.2 1214.0 1221.0 1114.7 1105.2</td>
<td>108.3</td>
<td>n/av 79.14</td>
<td>-15% -13% 37% higher</td>
</tr>
<tr>
<td>Years of potential life lost (per 100,000)* (1)</td>
<td>n/ap</td>
<td>n/av 15,999 15,791 15,687 15,799 15,045 14,095</td>
<td>14,212</td>
<td>n/av 7,379</td>
<td>-11% -3% almost twice as high</td>
</tr>
<tr>
<td>Life expectancy in years* (1)</td>
<td>n/ap</td>
<td>n/av 69.2</td>
<td>n/av 71.6</td>
<td>n/av 71.8</td>
<td>78</td>
</tr>
<tr>
<td>Black/White Life expectancy ratio (1)</td>
<td>n/ap</td>
<td>n/av 67.2/73.3 92%</td>
<td>n/av 69.8/74.9 93%</td>
<td>n/av 69.9/75.3 93%</td>
<td>74.5/79.0</td>
</tr>
<tr>
<td>Black/White age-adjusted mortality rate ratio (1)</td>
<td>n/ap</td>
<td>n/av</td>
<td>n/av</td>
<td>n/av</td>
<td>similar</td>
</tr>
<tr>
<td>Infant mortality rate (per 1,000 live births) (1)</td>
<td>4.5</td>
<td>14.4 12.2 13.5 11.7 11.9 10.3 13.2 12.7 11.3 12.4 11.3</td>
<td>8.0</td>
<td>1.23</td>
<td>n/av 1.25</td>
</tr>
<tr>
<td>Low birth weight^^ (1)</td>
<td>5.0</td>
<td>14.2 14.3 15.0 13.8 13.5 13.4 13.7 13.6 13.2 13.4 12.8</td>
<td>9.1</td>
<td>1.23</td>
<td>n/av 1.25</td>
</tr>
<tr>
<td>Teen birth rate (per 1,000 15-19 yr old females) (1)</td>
<td>n/ap (teen pregnancy goal avail.)</td>
<td>94.5 90.4 95.6 95.6 83.1 80.1 71.1 68.2 66.2 66.9 66.4</td>
<td>34.4</td>
<td>n/av</td>
<td>94% 1% 2% twice as high</td>
</tr>
<tr>
<td>Childhood Immunizations (%) overall coverage**** (7)</td>
<td>90%</td>
<td>n/av</td>
<td>n/av</td>
<td>69% 74% 80% 77% 72%</td>
<td>n/av 78%</td>
</tr>
<tr>
<td>% of children tested with lead levels &gt;= 10 ug/dL^^^ (2)</td>
<td>0%</td>
<td>29% 23% 17% 12% 10% 9% 6% 5% 4% 4%</td>
<td>4%</td>
<td>1%</td>
<td>3% 9% four times higher</td>
</tr>
<tr>
<td># of children (of those tested) with lead levels &gt;= 10 ug/dL^^^ (2)</td>
<td>0%</td>
<td>503.4 3521 2902 2189 2027 1558 1166 1183 696 639 552</td>
<td>787</td>
<td>503.4</td>
<td>8% -3% -9% five times higher</td>
</tr>
<tr>
<td>% adults insured (3)</td>
<td>100%</td>
<td>83% 76% 85% 86% 84% 85% 82% 76% 85% 86% 84%</td>
<td>87%</td>
<td>100%</td>
<td>-4% -4% -3% lower</td>
</tr>
<tr>
<td>&quot;Drug-induced death rate&quot; Crude rate per 100,000 (1)</td>
<td>1.0</td>
<td>n/av</td>
<td>n/av</td>
<td>47.0 42.5 47.3 44.0 39.9 36.5 39.5</td>
<td>n/av 14.0</td>
</tr>
<tr>
<td>Assault (Homicide) Mortality (rate per 100,000, age-adjusted) (1)</td>
<td>3.0</td>
<td>n/av</td>
<td>n/av</td>
<td>35.0 32.6 34.1 37.0 40.9 37.1</td>
<td>n/av 10.2</td>
</tr>
<tr>
<td>HIV incidence (rate per 100,000) (6)</td>
<td>180.3 215.3 206.3 185.8 194.8 175.9 154.7 167.6 166.4 162.0</td>
<td>n/av 38.3</td>
<td>n/av</td>
<td>44.3</td>
<td>n/av 8.1</td>
</tr>
</tbody>
</table>
## Major Health Indicators Summary

<table>
<thead>
<tr>
<th>Primary outcome measure(s) (source)</th>
<th>Healthy People 2010 goal</th>
<th>Baltimore City Data over past 10 years</th>
<th>Maryland Data over past 10 years</th>
<th>Percent change over past 10 years (or since most recent year data were available—as shown)**</th>
<th>Baltimore compared to Maryland*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gonorrhea incidence (rate per 100,000) (5)</td>
<td>19.0</td>
<td>1,018.3</td>
<td>1,082.6</td>
<td>967.9</td>
<td>863.9</td>
</tr>
<tr>
<td>Chlamydia incidence (rate per 100,000) (5)</td>
<td>n/ap</td>
<td>922.9</td>
<td>877.2</td>
<td>818.8</td>
<td>837.7</td>
</tr>
<tr>
<td>P&amp;S syphilis incidence (rate per 100,000) (5)</td>
<td>0.2</td>
<td>101.8</td>
<td>72.2</td>
<td>38.9</td>
<td>34.5</td>
</tr>
<tr>
<td>Tuberculosis incidence (rate per 100,000) (5)</td>
<td>1.0</td>
<td>13.7</td>
<td>12.7</td>
<td>12.1</td>
<td>10.3</td>
</tr>
<tr>
<td>Heart disease mortality (rate per 100,000) (1)</td>
<td>166</td>
<td>n/ap</td>
<td>340.4</td>
<td>334.6</td>
<td>300.8</td>
</tr>
<tr>
<td>% City residents smoking (3)</td>
<td>12%</td>
<td>23%</td>
<td>31%</td>
<td>22%</td>
<td>30%</td>
</tr>
<tr>
<td>Children 2-5 yrs obese (%) (6)</td>
<td>5%</td>
<td>n/ap</td>
<td>13%</td>
<td>13%</td>
<td>14%</td>
</tr>
<tr>
<td>Adolescent obese (%) (9)</td>
<td>5%</td>
<td>n/ap</td>
<td>18%</td>
<td>19%</td>
<td>13%</td>
</tr>
<tr>
<td>Adult obesity** (%) (3)</td>
<td>15%</td>
<td>24%</td>
<td>26%</td>
<td>21%</td>
<td>28%</td>
</tr>
<tr>
<td>Cancer incidence all sites (Rate per 100,000) (10)</td>
<td>n/ap</td>
<td>507.0</td>
<td>491.0</td>
<td>521.6</td>
<td>521.9</td>
</tr>
<tr>
<td>Cancer mortality (rate per 100,000) (1)</td>
<td>159.9</td>
<td>n/ap</td>
<td>260.2</td>
<td>254.4</td>
<td>263.3</td>
</tr>
<tr>
<td>% Mental health &quot;not good&quot; for &gt; 7 days per month (adults) (3)</td>
<td>n/ap</td>
<td>7%</td>
<td>19%</td>
<td>15%</td>
<td>14%</td>
</tr>
</tbody>
</table>

* Data are presented for most recent year shown (2006 or 2007) **Percent change for Maryland calculated using same years as for Baltimore City* List of Sources (see technical notes for more detailed sources)
2. Maryland Department of the Environment (MDE), Lead Poisoning Prevention Division: Childhood Blood Lead Surveillance in Maryland - Annual Reports
3. Behavioral and Risk Factor Surveillance System (BRFSS)
4. Office of the Chief Medical Examiner (OCME)
5. Baltimore City Health Department (BCHD)
6. Maryland AIDS Administration
7. Centers for Disease Control and Prevention (CDC), National Immunization Survey (NIS)
8. Women, Infants and Children (WIC) Program
9. Youth Risk and Behavioral Surveillance System (YRBSS)
10. Maryland Department of Health and Mental Hygiene (DHMH), Maryland Cancer Registry (MCR)

*75 yrs used as cut-off **Low Birth Weight - infants weighing less than 2500 grams at birth ***Highest venous test for lead **Obesity: An adult who has a Body Mass Index (BMI) of 30 or higher is considered obese. Children with a BMI in the >= 95 percentile based on age and sex are considered obese
**** Overall Immunization Coverage: % of children 19-35 months who receive 4:3:3:1:3:3:1 vaccine series (i.e., >4 doses of diphtheria, tetanus toxoid, and any acellular pertussis vaccine [DTaP]; >3 doses of polio virus vaccine; >1 dose of measles, mumps, and rubella vaccine [MMR]; >3 doses of Haemophilus influenzae type b [Hib] vaccine; >3 doses of hepatitis B vaccine [HepB]; and >1 dose of VAR) n/ap - Data or Information Not Applicable n/ap - Data or Information Not Available
Technical Notes and Data Source Information

Demographic Data and Population Denominators
Data describing the demographic characteristics of Baltimore City residents (including the population denominators used to calculate rates in the 2008 Baltimore City Health Status Report) are derived from several sources as described below.

Demographic and economic data on Baltimore City residents for the years 1990 and 2000 are from the United States Census Bureau’s Decennial Census. The decennial census is conducted every ten years, generally on April 1st in years ending in a zero. Besides enumerating the U.S. population, the decennial census is the primary source of demographic, housing, economic, and social characteristics of the U.S. population. These data are available at various levels of geography—i.e. State, County, and Census Tract. For more information see: http://www.census.gov/main/www/cen2000.html

Data in this report describing the age and race of Baltimore City residents for years between 1990 and 2000 are from the U.S. Census Bureau’s Population Estimates Program. This program updates the population enumerated in the decennial census using various measures of population change. Postcensal population estimates are estimates made for the years following a census, before the next census has been taken (i.e. 2001-2009) and are available for certain geographic levels and for select demographic characteristics. Intercensal years fall between two completed censuses. Estimates for those years incorporate results from both censuses—i.e. 1990 and 2000 for the 1991-1999 estimates. For more information see: http://www.census.gov/popest/estimates.php

The 2002-2006 Baltimore City population estimates presented on page 4 represent challenges to the original estimates issued by the Population Estimates Program. Each year, the U.S. Census Bureau Population Estimates Program accepts challenges to its population estimates. The Baltimore City Department of Planning has challenged the U.S. Census’ Baltimore City population estimates for several years since 2000, successfully arguing for higher numbers. Accepted challenges are incorporated into population estimates (total population only) for subsequent years—i.e. the 2006 challenge appears as the population estimate for 2006 in the 2007 estimates. The 2007 challenge estimate for Baltimore City’s total population was not available at the printing of this report. For more information see: http://www.census.gov/popest/archives/challenges.html

In addition to the Census’ population estimates, the National Center for Health Statistics (NCHS) collaborates with the U.S. Census Bureau and releases bridged-race population estimates of the July 1st resident population of the United States, based on Census 2000 counts, for use in calculating vital rates. These estimates result from "bridging" the 31 race categories used in Census 2000, as specified in the 1997 Office of Management and Budget (OMB) standards for the collection of data on race and ethnicity, to the four race categories specified under the 1977 standards (Asian or Pacific Islander, Black or African American, American Indian or Alaska Native, White). Many data systems, such as vital statistics, are continuing to use the 1977 OMB standards during the transition to full implementation of the 1997 OMB standards.

In this report, Baltimore City birth and death rates are calculated using the Vintage population estimate of the particular year—i.e. the 2005 population denominator for these data is the Vintage 2005 estimate (the rate in 2005 is not recalculated using the updated 2005 estimate issued in the Vintage 2006 estimates). For more information see: http://wonder.cdc.gov/wonder/help/bridged-race.html

Data describing the economic characteristics of Baltimore City residents in 2007 are from the American Community Survey (ACS). This survey, conducted by the U.S. Census Bureau provides population and housing data for years between decennial censuses. Nationwide, about three million households are surveyed each year, and in Baltimore City about one in 12 households were surveyed in 2007. In this report, data on the age, race, and household income of Baltimore City residents are presented for the years 1990, 2000, and 2007. As described above, the methods for collecting the data in decennial censuses (1990 and 2000) are different from the American Community Survey (2007). These differences are important to keep in mind when comparing data for these multiple years. For more information on the ACS see: http://www.census.gov/acs/www/index.html For more information about comparing data from the ACS with data from the decennial census see: http://www.census.gov/acs/www/UseData/Comparison_Guidance.htm#age
Time Trends
Whenever possible, data in the 2008 Health Status report are presented for the years 1997-2007 to look at the past decade.

Race/Ethnicity
Data in this report are presented by race/ethnicity whenever possible to allow for comparison of health indicator data among different race/ethnicity groups. The main race categories in the 2000 Census were: White, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, Some other race and two or more races. Hispanic/Latino ethnicity refers to a person of Cuban, Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race. Birth and death data in this report are presented by race (each race group includes individuals of any ethnicity) and for Hispanics (including individuals of any race). By contrast, HIV/AIDS data are presented for mutually exclusive race/ethnicity groups: white non-Hispanic individuals, black non-Hispanic individuals, and Hispanic individuals. Data were not always available for individuals of Hispanic ethnicity or for certain race groups—rates which were not presented due to the small number of events in a particular subgroup are not presented in this report (as noted in the graph footnote).

Poverty Status
The U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition to detect who is poor. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as being "below the poverty level." In 2007, the poverty threshold for a family of 4 with 2 children under the age of 18 years, the poverty threshold was $21,027. (The poverty thresholds are updated annually for inflation using the Consumer Price Index for All Urban Consumers (CPI-U) and are the same for families nationwide).

Comparing Data for Baltimore City and Maryland
In this report, data for Maryland include events occurring among Baltimore City residents as well as among all other residents statewide. (The data presented for Childhood immunizations are an exception; data are presented for Baltimore City and for Maryland excluding Baltimore City). While Baltimore City makes up only 11% of the statewide total population, for certain health indicators where Baltimore City has a large influence on statewide rates, comparing Baltimore City to all of Maryland may mask some of the difference between Baltimore City and the rest of Maryland.

Survey vs. “100%” Data
The birth and death data presented in this report represent “100% data”—every event is counted. Data on reportable infectious diseases and conditions (such as HIV/AIDS or an elevated blood-lead level in a child) are passively collected and represent a relatively complete count of events. In contrast, data on immunizations, chronic conditions, and risk factors are often derived from surveys—a sample of individuals in a population is surveyed and the results are extrapolated to represent the entire population. As a result, the data are estimates (see next section for more information on confidence intervals for estimates). In addition, the information is based on self-report, which could be biased.

Confidence Intervals for Survey Data
Surveys such as the Maryland Behavioral Risk Factor Surveillance System (BRFSS) do not reach every resident of Baltimore City. As a result, the survey results are only estimates of the true population values. Each estimate is presented with error bars representing the 95% confidence interval around the estimate. The length of the confidence interval quantifies the precision of the estimate.

Maryland Behavioral Risk Factor Surveillance System (BRFSS)
The Behavioral Risk Factor Surveillance System is a random digit-dial telephone survey through which data are collected on health status and healthcare access, chronic disease, risk factors, dietary and physical activity habits, demographics, and more (Sample sizes for Baltimore City: 327 in 2002; 320 in 2003; 285 in 2004; 657 in 2005; and 529 in 2006). 2006 BRFSS report with more information on BRFSS methodology: http://www.marylandbrfss.org/pdf/brfss2006report.pdf
Maryland BRFSS website: www.marylandbrfss.org

Centers for Disease Control and Prevention (CDC), Youth Risk Behavior Surveillance System (YRBSS)
The Youth Risk Behavior Surveillance System is a survey administered in paper format in high schools by the CDC every two years. Baltimore City-specific data were available starting 2005. Data are collected on tobacco, alcohol, and drug use, sexual behaviors, dietary and physical activity habits, and demographics (Sample size of 2613 for Baltimore City in 2005). http://www.cdc.gov/mmwr/PDF/rr/rr5312.pdf CDC’s YRBSS website: http://www.cdc.gov/healthyyouth/yrbs/index.htm
Age-Adjusted Rates
From the Maryland Vital Statistics Report 2006: Age-adjustment is a “methodology used to compare rates among populations with differing age distributions”. Age-adjusted rates in this report were calculated using the direct method of age-adjustment (with 10 year age-groups), “the crude death rate for each age group was multiplied by the proportion of the standard population within that age group; the sum of the products is the age-adjusted rate. Age-adjusted rates in this report were standardized to the projected 2000 U.S. population and are expressed as rates per 100,000 population. Age-adjusted rates should not be compared to crude rates or to adjusted rates calculated using a different standard population”.

Leading Causes of Death
Leading Cause categories (i.e. “Diseases of the Heart”) are based on International Classification of Death, 10th revision (ICD-10) codes. These codes represent the underlying cause of death. Categories in this report for the leading causes of mortality and infant mortality are consistent with those used by the Maryland Department of Health and Mental Hygiene’s Vital Statistic Administration. An exception is the code grouping for “Drug-Induced Deaths of Undetermined Manner or Intent” (ICD-10 Codes Y10-Y14) which was created to represent drug-induced deaths not included in the categories for accidents, suicides, or homicides. These types of deaths were the 8th leading cause of death among Baltimore City residents. For a complete list of code groups, see http://www.vsa.state.md.us/doc/06annual.pdf

Years of Potential Life Lost (YPLL)
Years of potential life lost were calculated using 75 years as the age cut-off and with the following age groups: <1, 1-4, 5-14 . . . 75-84, and 85+.

Data Source Links:
American Fact Finder: http://factfinder.census.gov/home/saff/main.html?_lang=en
Maryland Behavioral Risk Factor Surveillance System (BRFSS): www.marylandbrfss.org
Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System (YRBSS): http://www.cdc.gov/healthyyouth/yrbs/index.htm
Centers for Disease Control and Prevention (CDC), National Immunization Survey (NIS): http://www.cdc.gov/nis/datafiles.htm
Women Infants and Children (WIC): The Women, Infants, & Children program collects data on infants and children every six months as they come in for WIC certification. Data are collected on height and weight, medical and nutritional history, diet and past pregnancies, and demographics.
Baltimore City Child Fatality Review (CFR): Since 2001 the Baltimore City Health Department has chaired a coalition of city and state agencies called the Child Fatality Review (CFR). This multi-disciplinary team meets once a month to discuss every preventable death of a Baltimore City resident younger than 18 years old. Through these case-by-case reviews, CFR identifies factors that contributed to these deaths and develops recommendations for preventing similar deaths in the future. Data in this report were taken from the report: Office of Epidemiology and Planning, Baltimore City Health Department. Childhood Injury Deaths in Baltimore City, 2002-2006. Baltimore City, Maryland: Baltimore City Health Department. February 2008. http://www.baltimorehealth.org/info/2008_02_07.CFR%20Report.pdf
Maryland Alcohol and Drug Abuse Administration (ADAA): http://maryland-adaa.org/ka/index.cfm
Maryland DHMH, Maryland Cancer Registry: http://www.fha.state.md.us/cancer/surveillance/index.cfm
Healthy People 2010 Goals: http://phpartners.org/hp/