

# 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 1<sup>st</sup> 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 appear 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](http://www.census.gov/acs/www/UseData/Comparison_Guidance.htm#age)

# Technical Notes and Data Source Information

## **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).

For more information see: <http://www.census.gov/hhes/www/poverty/poverty.html>

## **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](http://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/yrebs/index.htm>

# Technical Notes and Data Source Information

## 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, 10<sup>th</sup> 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 8<sup>th</sup> 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:

**U.S. Census Bureau: 2000 Decennial Census, 2007 Population Estimates Program, 2007 American Community Survey**

**American Fact Finder:** [http://factfinder.census.gov/home/saff/main.html?\\_lang=en](http://factfinder.census.gov/home/saff/main.html?_lang=en)

**Maryland Department of Health and Mental Hygiene, Vital Statistics Administration:** <http://www.vsa.state.md.us/html/reports.html>

**Maryland Behavioral Risk Factor Surveillance System (BRFSS):** [www.marylandbrfss.org](http://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](http://www.baltimorehealth.org/info/2008_02_07.CFR%20Report.pdf)

**Office of the Chief Medical Examiner (OCME):** Data on drug and alcohol intoxication deaths came from the OCME and were analyzed at the Baltimore City Health Department and presented in the report: *Office of Epidemiology and Planning, Baltimore City Health Department. Intoxication Deaths Associated with Drugs of Abuse or Alcohol. Baltimore City, Maryland: Baltimore City Health Department. January 2008.* [http://www.baltimorehealth.org/info/2008\\_01\\_24.IntoxicationDeaths.pdf](http://www.baltimorehealth.org/info/2008_01_24.IntoxicationDeaths.pdf) (Fourth Quarter of 2007: [http://www.baltimorehealth.org/info/2008\\_05\\_21.DrugIntoxicationDeaths.pdf](http://www.baltimorehealth.org/info/2008_05_21.DrugIntoxicationDeaths.pdf))

**Maryland Alcohol and Drug Abuse Administration (ADAA):** <http://maryland-adaa.org/ka/index.cfm>

**Baltimore Substance Abuse Systems (BSAS):** <http://www.bsasinc.org/>

**Maryland DHMH AIDS Administration:** <http://www.dhmh.state.md.us/AIDS/Data&Statistics/index.htm>

**Maryland DHMH, Maryland Cancer Registry:** <http://www.fha.state.md.us/cancer/surveillance/index.cfm>

**National Center for Health Statistics (NCHS):** Heron MP, Hoyert DL, Xu J, Scott C, Tejada-Vera B. *Deaths: Preliminary data for 2006. National vital statistics reports; vol 56 no 16. Hyattsville, MD: National Center for Health Statistics. 2008.*

**Healthy People 2010 Goals:** <http://phpartners.org/hp/>