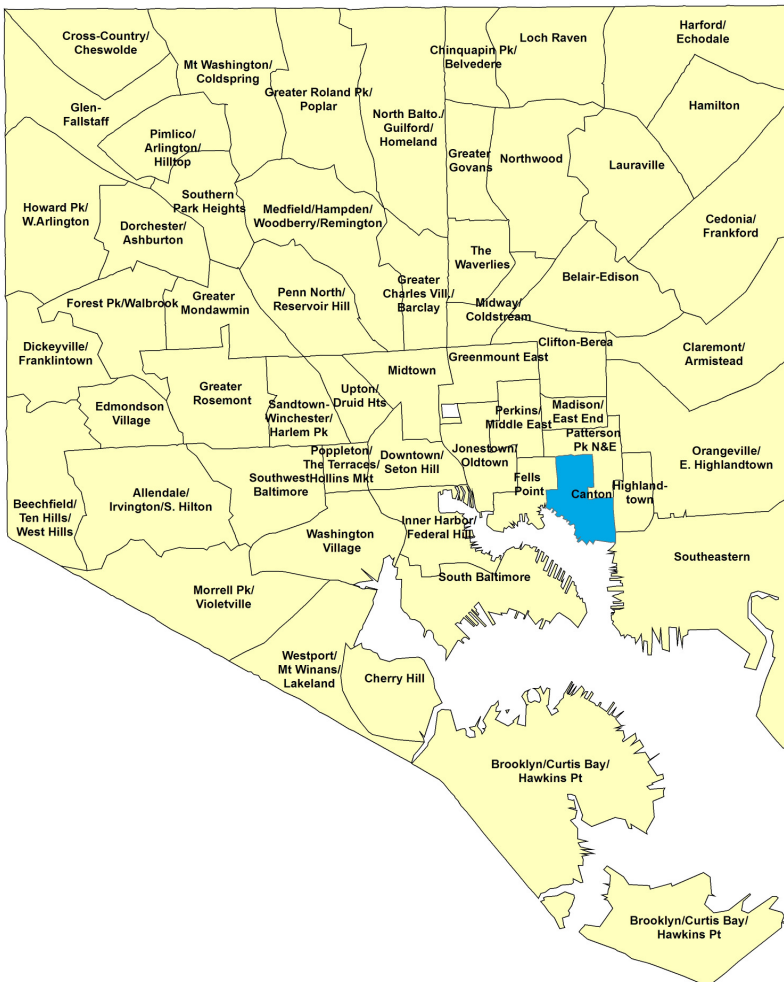# Canton

Health Profile 2008

Baltimore City Health Department

and

Johns Hopkins Bloomberg School of Public Health Sommer Scholars Program

October 2008

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1. Introduction

Baltimore is a city of neighborhoods. The city draws its charm and strength from the diversity of its neighborhoods. Just as neighborhoods in the city may differ in terms of social and economic resources, neighborhoods can also differ in terms of health. In order to allow residents and local organizations to understand the health status of their communities, the Baltimore City Health Department has partnered with the Johns Hopkins Bloomberg School of Public Health to compile this series of Neighborhood Health Profiles. By providing data at the community level, the Health Department hopes to inform and inspire residents to take action to improve the health and well-being of their communities.

The neighborhood units used in this report are the city's 55 Community Statistical Areas (CSAs). These are clusters of neighborhoods used by the City's Planning Department based on recognizable city neighborhoods.

Each Community Health Profile is divided into three sections. The first section provides an overview of demographic information – the age, race and ethnicity, and average socioeconomic level of neighborhood residents. The second section provides data on mortality and causes of death by neighborhood. The third section provides data on maternal and child health outcomes. The final section summarizes how each neighborhood compares to the city as a whole across all the indicators. Technical notes at the end provides details on how the data were collected and tabulated.

2. Socioeconomic Status and Racial and Ethnic Diversity

Canton at a Glance

| **Total Population** The total number of people living in Canton in 2000 | 7,010 |

Age
The age distribution of Canton compared to Baltimore City overall (in the year 2000)

	Canton	Baltimore City
0-17 years	11%	25%
18-24 years	8%	15%
25-44 years	42%	30%
45-64 years	22%	17%
65+ years	18%	13%

Race/Ethnicity
The race and ethnicity distribution of Canton compared to Baltimore City overall (in the year 2000)

	Canton	Baltimore City
African American	2%	64%
Caucasian	90%	31%
Asian American	1.3%	1.5%
Multi-racial	1.8%	1.3%
Other	0.2%	0.5%
Hispanic*	3.9%	1.7%

* Hispanic ethnicity is non-overlapping with other race categories

Education
The percent of the Canton population that has a High School Diploma equivalent only (no further education) compared to Baltimore City overall (in the year 2000)

	Canton	Baltimore City
Percent with HS diploma only	16%	29%

Employment
The percent of the Canton population between the ages of 16-64 years that is not in the labor force (in the year 2000) compared to Baltimore City overall

	Canton	Baltimore City
Percent not in labor force	26%	34%

Household Income
The household income distribution of Canton compared to Baltimore City overall (in the year 2000)

	Canton	Baltimore City
Less than $25,000	33%	43%
$25,000-$40,000	17%	20%
$40,000-$60,000	19%	17%
$60,000-$75,000	9%	8%
Greater than $75,000	23%	13%
Median Household Income	$40,235	$30,078

3. Life Expectancy and Premature Mortality

Life expectancy and premature mortality are measures that summarize health over the entire lifespan. Life expectancy at birth is the average number of years a newborn can expect to live, assuming she or he experiences the currently prevailing rates of deaths throughout her or his lifespan. Years of potential life lost (YPLL) is a measure of the impact of premature mortality on a population. Premature mortality is death before the age of 75. YPLL is calculated by adding together the years of life that were not lived because people died before age 75. Both life expectancy and YPLL are strongly influenced by deaths in the first few decades of life. The mortality rate is the rate at which individuals in a population die. It is expressed in terms of deaths per 10,000 residents per year. Age-adjusted mortality reflects all deaths from all causes.

	Canton	Baltimore City
Life Expectancy at birth (in years)	77.6	70.9
Total Annual Years of Potential Life Lost (in years)	512	96,843
Total Annual Years of Potential Life Lost (years per 10,000 residents)	731	1487
Age-adjusted mortality (deaths per 10,000 residents)	80.6	113.9

Data represent annual averages for the years 2002-2006.

4. Mortality by Age

Examining mortality rates in different age groups allows the identification of the age groups most vulnerable to poor health outcomes.

Age group	Canton	Baltimore City
Less than 1 year old*	81.6	127.5
1-14 years old	0.0	3.3
15-24 years old	8.7	16.2
25-44 years old	10.3	39.4
45-64 years old	85.8	140.6
65-84 years old	356.5	395.3
85 and up	1260.0	1447.4

All rates are deaths per 10,000 residents in that age group. Rates are annual averages for 2002-2006. * The mortality rate for those less than 1 differs from the infant mortality rate presented in the Maternal and Child Health section in that the infant mortality rate uses the number of live births as a denominator, while the less than 1 year old mortality rate uses the number of infants under 1 in the population as a denominator.

5. Top Ten Causes of Death

The top 10 causes of death are the 10 causes of death that account for the largest number of deaths. Looking at the top 10 causes of death for a given population can help determine where efforts and resources should be directed to best prevent premature deaths. Citywide, in 2002-2006, the top 10 causes of death were, in order of first to tenth: heart disease, cancer, stroke, HIV/AIDS, septicemia, homicide, chronic lower respiratory disease, diabetes, drug-induced deaths of undetermined manner, and accidents.

The following table displays mortality rates, percent of deaths and percent of YPLL by cause for the citywide top 10 causes of death, comparing Canton to Baltimore. The mortality rate for each cause provides an absolute measure of the impact of this cause on residents. The percents of deaths and YPLL indicate how important a particular cause is relative to others. Because YPLL gives more weight to deaths that occur earlier in life, causes of death where the percent of YPLL exceeds the percent of deaths are causes that affect people earlier in life. Conversely, causes of death where the percent of YPLL is smaller than the percent of deaths are causes that affect people later in life.

Cause of death	Canton			Baltimore City		
	Rate[1] (deaths per 10,000)	Percent of deaths	Percent of YPLL	Rate[1] (deaths per 10,000)	Percent of deaths	Percent of YPLL
Heart disease	25.7	32%	30%	28.9	25%	16%
Cancer	15.3	19%	12%	23.4	21%	14%
Cerebrovascular disease (Stroke)	3.6	5%	1%	5.8	5%	3%
HIV/AIDS	0.3	0.4%	1%	5.2	5%	10%
Septicemia (Blood poisoning)	3.0	4%	3%	4.0	4%	2%
Homicide	0.3	0.3%	1%	3.6	3%	12%
Chronic lower respiratory disease[2]	4.3	5%	1%	3.9	3%	2%
Diabetes	2.9	4%	3%	3.7	3%	2%
Drug-induced deaths of undetermined manner[3]	1.9	2%	10%	3.7	3%	8%
Accidents	2.9	4%	9%	2.8	2%	5%

[1] Rates are annual averages for 2002-2006 and are age-adjusted. [2] These are deaths due to chronic diseases that affect the lower respiratory tract (which includes the lungs); includes Chronic Obstructive Pulmonary Disease (COPD), emphysema, chronic bronchitis, and asthma. [3] These are deaths due to legal or illegal drug poisoning that are not accidents, suicides, or homicides.

6. Maternal and Child Health

Birth Outcomes

The health of babies is one of the most important and sensitive indicators of a community's health. Death in the first year of life ('infant mortality') is largely preventable through receipt of prenatal care beginning in the first trimester. Babies born with low or very low birthweight tend to have a greater number of health problems throughout life than healthy weight babies. Teenage mothers face an especially high risk of having low or very low birthweight babies, as compared to older mothers.

	Canton	Baltimore City
Infant Mortality Rate (IMR) per 1,000 live births*	4.7	11.7
Percent of infants classified as low birthweight (LBW, <5lbs,8oz.))	8%	13%
Percent of infants classified as very low birthweight (vLBW, <3lbs.,4oz.))	1.7%	3.0%
Percent of mothers receiving prenatal care in the first trimester	87%	76%
Percent of births to teenage mothers (<20 years)	4%	19%

Data above represent annual averages for the years 2002-2006.
* The infant mortality rate differs from the mortality rate for those less than 1 presented in the Mortality by Age section in that the infant mortality rate uses the number of live births as a denominator, while the mortality rate for those under one used the number of infants under 1 in the population as a denominator.

Lead Poisoning

Childhood lead poisoning can substantially impact intellectual and emotional development of children, placing them at risk for poor school performance and difficulties throughout adulthood. All children in Maryland should be tested for lead in the first years of their life. We present here the percent of children ages 0-6 years with elevated blood lead levels out of all children tested in Canton in 2006. An elevated blood lead level is a level exceeding 10µg of lead per dL of blood.

	Canton	Baltimore City
Percent of children with elevated blood lead levels (> 10µg/dL)	1.9%	4.6%

Data are for 2006.

7. Summary

A summary of the community health indicators for Canton compared to the other 54 CSAs in Baltimore City:

	Ranking (1=healthiest, 55=least healthy)	Below Average (Least healthy third)	Average (Middle third)	Above Average (Healthiest third)
Life Expectancy, Death Rates, and YPLL				
Life expectancy at birth	5			◆
Years of potential life lost	4			◆
Age-adjusted mortality rate	5			◆
Causes of Death				
Heart disease	13			◆
Cancer	4			◆
Cerebrovascular disease (Stroke)	4			◆
HIV/AIDS	4			◆
Septicemia (Blood poisoning)	15			◆
Homicide	2			◆
Chronic lower respiratory disease[1]	34		◆	
Diabetes	19			◆
Drug-induced deaths of undetermined manner[2]	12			◆
Accidents	30		◆	
Maternal and Child Health				
Infant Mortality Rate (IMR)	5			◆
Percent of infants classified as low birth weight	4			◆
Percent of infants classified as very low birth weight	7			◆
Percent of mothers receiving prenatal care in the first trimester	7			◆
Percent of births to teenage mothers (15-19 years)	5			◆
Percent of children with elevated blood lead levels	18			◆

Data are based on annual averages for 2002-2006, except for lead poisoning, which is for 2006. [1]These are deaths due to chronic diseases that affect the lower respiratory tract (which includes the lungs); includes Chronic Obstructive Pulmonary Disease (COPD), emphysema, chronic bronchitis, and asthma. [2]These are deaths due to legal or illegal drug poisoning that are not accidents, suicides, or homicides.

8. Technical Notes

Explanation of methods:

Estimated life expectancy at birth: Defined as the average number of years lived for a person born today if observed mortality rates were unchanged over the course of their life. The life expectancy estimate in this report reflects the mortality rates that prevailed among people living in Canton from 2002 to 2006. Babies born today in Canton will experience this life expectancy only if mortality rates do not change over the course of that baby's life.
Life expectancy was calculated using a life table calculator for small area estimatesdeveloped by the South East Public Health Observatory in England (http://www.sepho.org.uk/viewResource.aspx?id=8943). The calculator uses an abridged life table methodology, with five year age groups (except for <5 and above 85 which were treated as <1 , 1-4 and >85) and combines the Chiang and Silcocks methodologies. For more information on this methodology, please refer to: Williams E, Dinsdale H, Eayres D, and Tahzib F. Technical Report – Calculating Life Expectancy in Small Areas. Oxford, England: Southeast England Public Health Observatory, 2005. (available at http://www.sepho.org.uk/Download/Public/9847/1/Life%20Expectancy%20Nov%202005.pdf) Some inaccuracy will result due to use of age groups rather than single year age categories, as well as due to small numbers in certain age groups.

Years of potential life lost (YPLL): The number of years of life lost due to death before age 75. For example, a person dying at age 74 accrues 1 YPLL, while a person dying at age 30 accrues 45 YPLL. YPLL provide a measure of the impact of premature mortality on a population. Deaths that occur earlier in life contribute more years of life lost than deaths later in life, capturing the value society places on young lives. At the neighborhood level, the YPLL was based on the sum of years of life lost for all the people who died in 2002-2006.

Age-adjusted mortality: The number of deaths per 1,000 people per year assuming that each neighborhood had the same age structure (number of people in each age group). Age adjustment is done so that a neighborhood with a proportionally large number of old people (who are more likely to die because of their age) does not show a relatively high mortality rate simply because of the older age of its inhabitants. Age-adjustment was based on 10-year age groups and the 2000 projected U.S. population distribution # 1 from: Klein RJ, Schoenborn CA. Age-adjustment using the 2000 projected U.S. population. Healthy People Statistical Notes, no. 20. Hyattsville, Maryland: National Center for Health Statistics. January 2001.

Cause of death: The top ten causes of death are the ten causes of death that account for the largest number of deaths in Baltimore in 2002-2006.

Maternal and child health:

Birth outcomes: The infant mortality rate is the number of deaths in infants younger than 1 year of age, divided by the number of live births. Note that the infant mortality rate differs from the mortality rate for those less than one in that the infant mortality rate is the number of deaths in those less than one divided by the number of live births, while the mortality rate for those under one is the number of deaths in those under one divided by the number of infants (<1) in the population.

Low birth weight babies are babies weighing less than 2500 grams (5 pounds, 8 ounces) at birth; very low birth weight babies are babies weighing less than 1500 grams (3 pounds, 4 ounces) at birth. The percentages of low birth weight and very low birth weight are out of all live births.

Lead poisoning: Lead poisoning is when a person has elevated lead in their body. This can be determined based on the amount of lead in the blood. The lead poisoning percentages represent the percentage of Baltimore City children age 0-6 years who had an elevated blood-lead level (≥ 10µg/dL) in 2006 out of all children who were tested. The elevated blood level was based on the highest venous or, in the absence of a venous test, the highest capillary test. Venous tests, which require a blood draw, are considered more reliable, however, in their absence, a capillary test (based on a finger prick) can indicate the presence of lead poisoning. In Baltimore City, children are required to receive a blood test for lead at 12 and 24 months of age. However, not all children do get tested. In 2006, approximately 30% of Baltimore City children age 0-6 years were tested for blood lead level; the highest testing rates were among children 0-24 months of age.

Aggregation to the community statistical areas (CSAs): All data were aggregated first to the census tract of residence. Since CSAs are groupings of census tracts, CSA data were obtained by aggregating census tract-level data.

Sources of Data:

Socioeconomic Status, Race and Ethnicity: Sociodemographic data for the community statistical areas and the city as a whole were kindly provided by the Baltimore Neighborhood Indicators Alliance (http://www.bnia.org/). The Baltimore Neighborhood Indicators Alliance (known as BNIA or the Alliance) is an organization consisting of diverse groups committed to promoting, supporting and helping people make better decisions using accurate, reliable, and accessible data and indicators to improve the quality of life in Baltimore City neighborhoods.

Life expectancy, years of potential life lost and mortality rates: Life expectancy, years of potential life lost and mortality rates were computed based on death records for 2002-2006 provided by the Vital Statistics Administration at the Maryland Department of Health and Mental Hygiene, and population denominators obtained from the Census 2000 Summary File 1 for Baltimore City, Maryland.

Maternal and Child Health
Birth outcomes: 2002-2006 Baltimore City birth outcomes were computed from birth records provided by the Vital Statistics Administration of the Maryland Department of Health and Mental Hygiene.
Lead poisoning: 2006 lead poisoning data were from the Maryland Department of the Environment, Lead Poisoning Prevention Program.

Limitations

Mismatched time period for mortality outcomes and population data The only population data available at the neighborhood level were data from the 2000 US Census. However, we used the most recent mortality data available. As a result, there is a time mismatch between the mortality data, which were for years 2002-2006, and the population data used as denominators for the life expectancy, mortality rates and YPLL. This mismatch means that the numbers presented here could be under- or over-estimates, depending on whether the population in Canton has increased or decreased since 2000. As a point of comparison, the total Baltimore population has decreased by less than 2%. Assuming population changes within Baltimore neighborhoods have been similar, the rates presented here should not be too different from the actual rates.

Small numbers Because neighborhoods such as Canton can have small population sizes in certain age groups, there is the possibility that small differences could produce large differences in rates. We addressed this potential issue by grouping years together and thereby estimating rates using larger numbers. Despite this, there is some uncertainty associated with these estimates due to the small population sizes involved.

Data availability These reports only contain data on a select set of health indicators among many other possible indicators. Unavailable are data about health behaviors such as smoking, diet, and exercise, data about the prevalence of chronic diseases, and data about community-level health determinants such as availability of healthy foods and safe recreation spaces.