BALTIMORE CITY HEALTH DEPARTMENT

The State of Health of Baltimore City: City Council Health Committee Hearings

November 20th, 2019
Presented by Letitia Dzirasa, MD

Bernard C. "Jack" Young
Mayor, Baltimore City
Letitia Dzirasa, M.D.
Commissioner of Health, Baltimore City

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health.baltimorecity.gov

Agenda

- Baltimore City Health Department: Overview
- Life expectancy and Mortality
- Environment
  - Socioeconomic
  - Education
  - Store Density
  - Safety
  - Food
- Health Outcomes
- Call To Action

Baltimore City Health Department Overview

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Mission and Vision

Vision: An equitable, just, and well Baltimore where everyone has the opportunity to be healthy and to thrive.

Mission: To protect health, eliminate disparities, and enhance the wellbeing of everyone in our community through education, coordination, advocacy, and direct service delivery.

Core Values

Data Driven
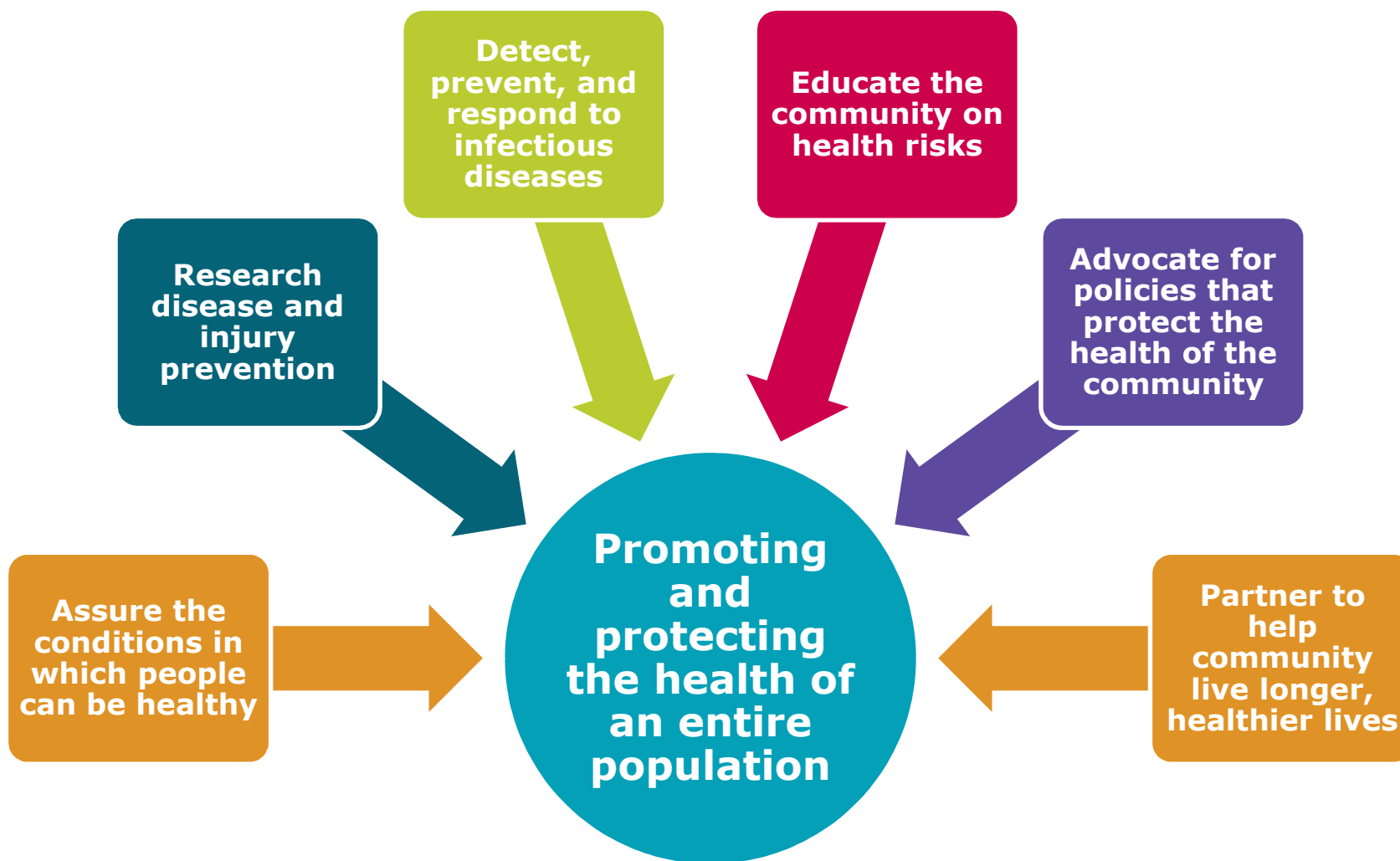
Integrity

Innovation

Collaboration

Empowerment

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Role of Public Health

Detect, prevent, and respond to infectious diseases

Educate the community on health risks

Research disease and injury prevention

Advocate for policies that protect the health of the community

Assure the conditions in which people can be healthy

Promoting and protecting the health of an entire population

Partner to help community live longer, healthier lives

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A Public Health Approach
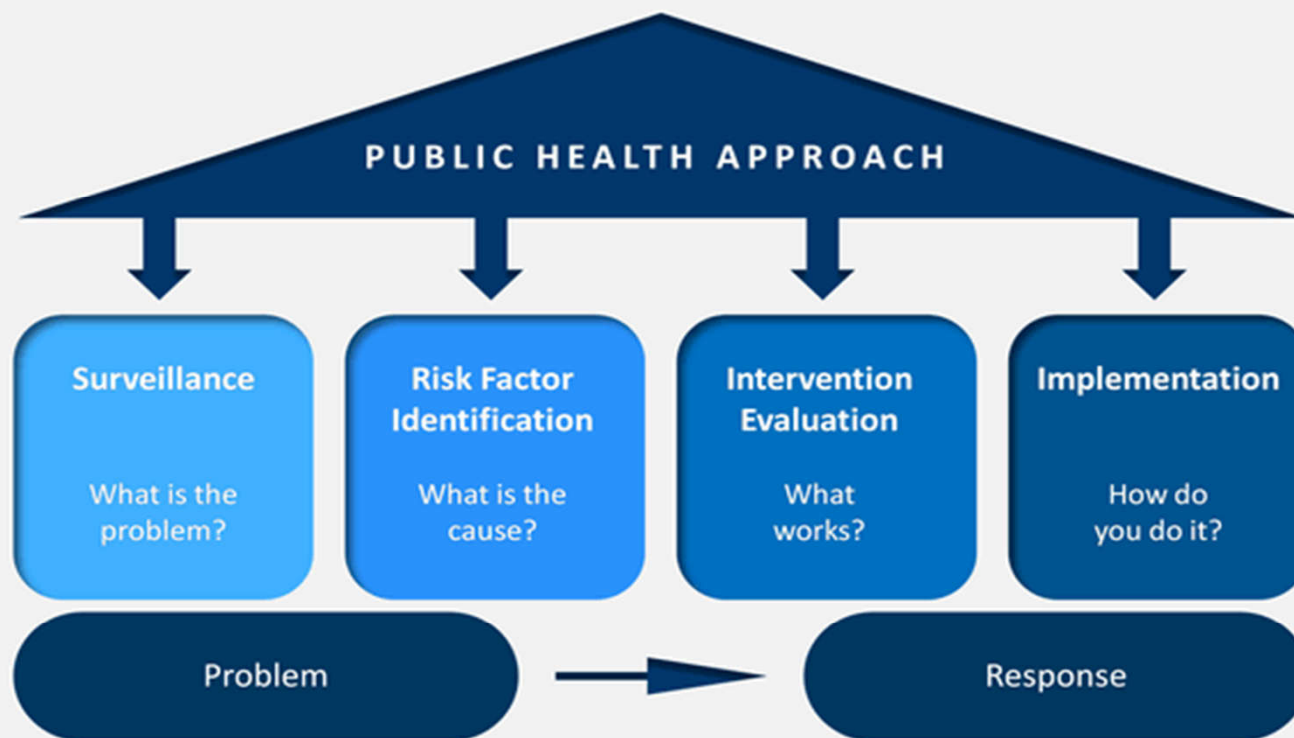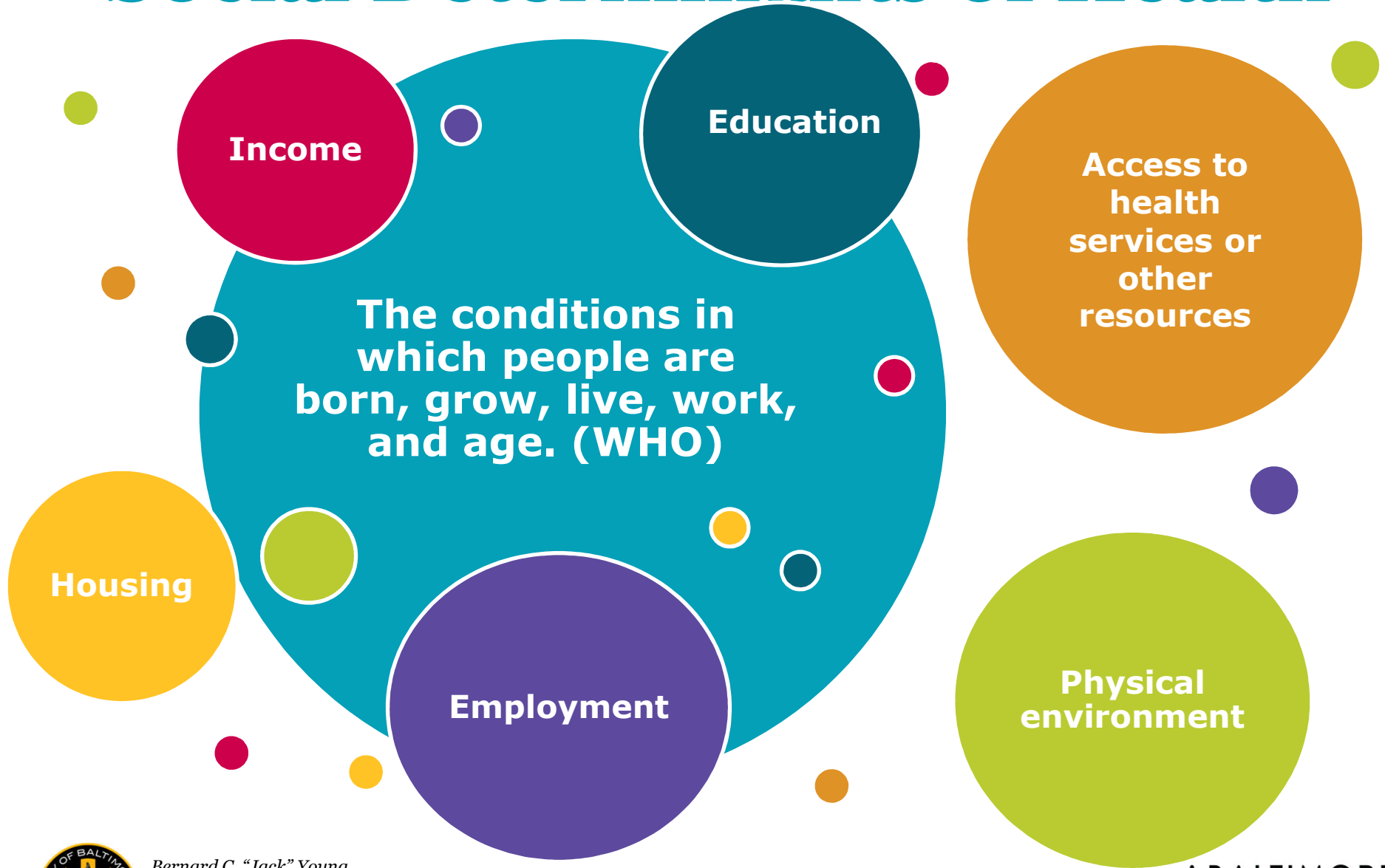
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Social Determinants of Health

Income

Education

Access to health services or other resources

The conditions in which people are born, grow, live, work, and age. (WHO)

Housing

Employment

Physical environment

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Baltimore City Demographics

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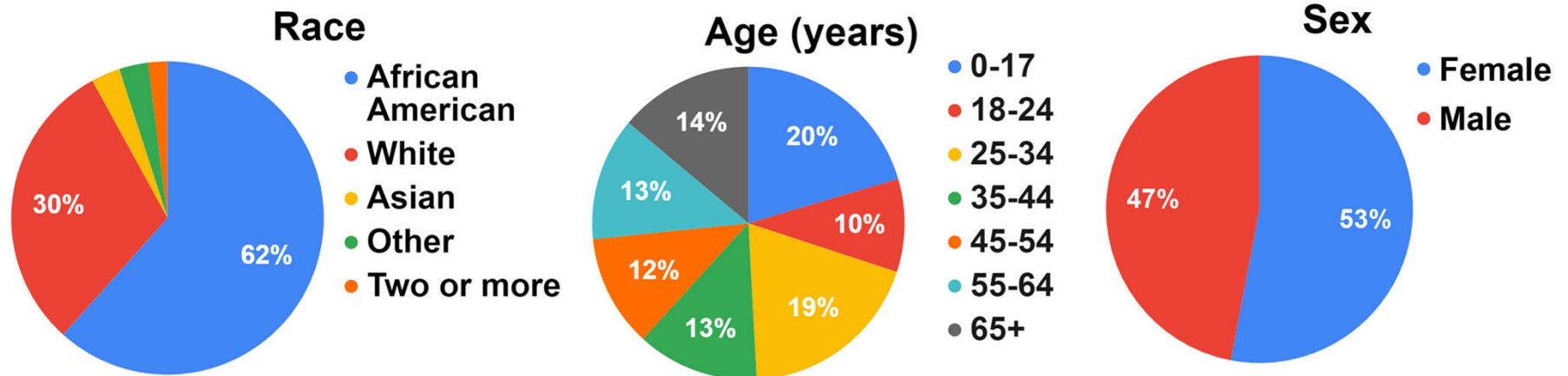*Letitia Dzirasa, M.D.*
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Baltimore City Demographics, 2018

Total population	602,495

Race

- African American
- White
- Asian
- Other
- Two or more

62%, 30%

Age (years)

- 0-17
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

20%, 10%, 19%, 13%, 12%, 13%, 14%

Sex

- Female
- Male

53%, 47%

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American Community Survey,
2018, 1-year estimates

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Baltimore City Demographics, 2018 (continued)

Percentage of children in single-parent households	61.8%
Percentage of population who report speaking English less than "very well"	3.3%

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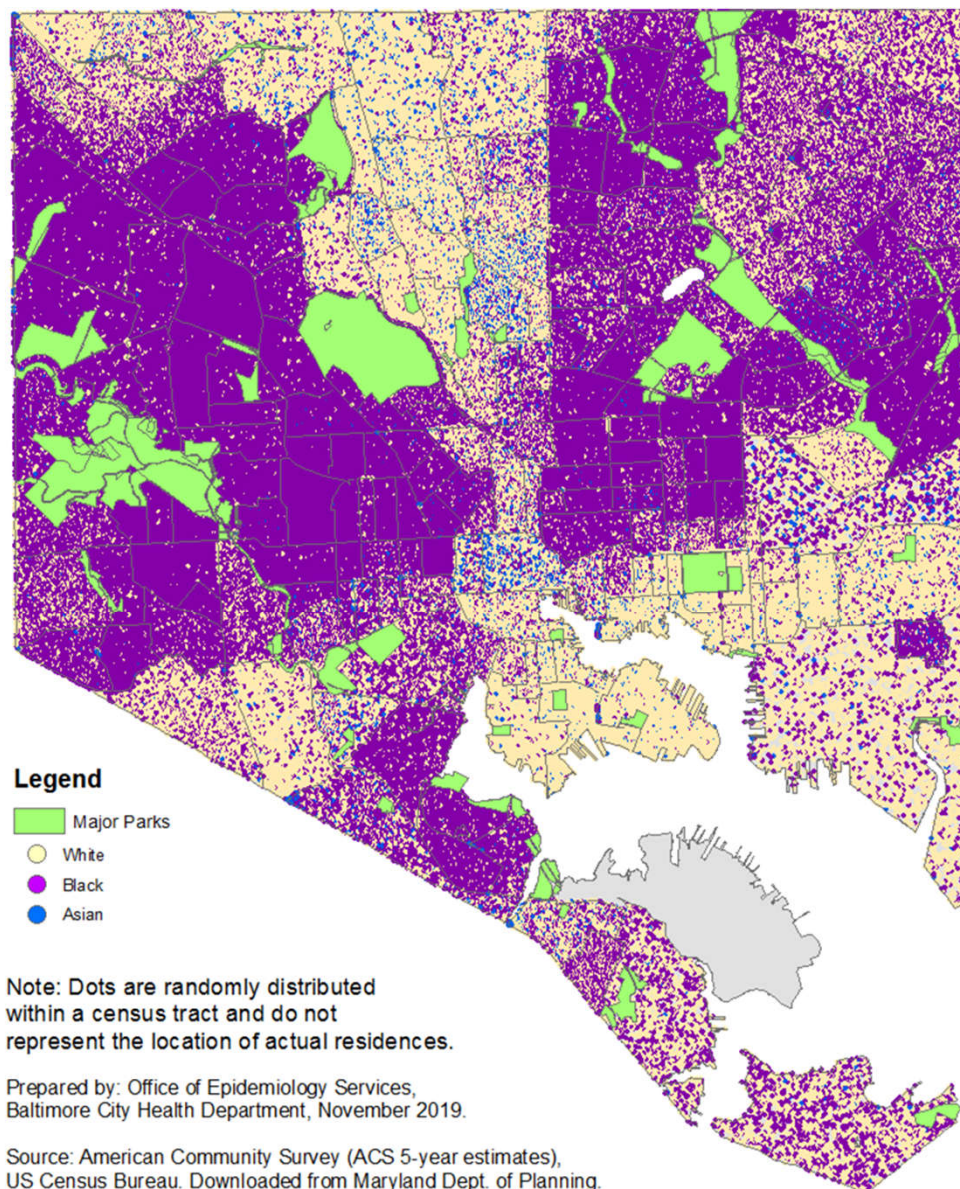*Letitia Dzirasa, M.D.*
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American Community Survey, 2018, 1-year estimates

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Geographic Distribution of Residents by Race, 2013-2017

Residential patterns by race are due to historical policies such as the "West Ordinance" and redlining

5.5% of the city's population is Hispanic (i.e., LatinX)

Legend

- Major Parks
- White
- Black
- Asian

Note: Dots are randomly distributed within a census tract and do not represent the location of actual residences.

Prepared by: Office of Epidemiology Services, Baltimore City Health Department, November 2019.

Source: American Community Survey (ACS 5-year estimates), US Census Bureau. Downloaded from Maryland Dept. of Planning.

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Baltimore City data for map: American Community Survey (ACS), 2013-2017; Data on ethnicity: ACS 2018

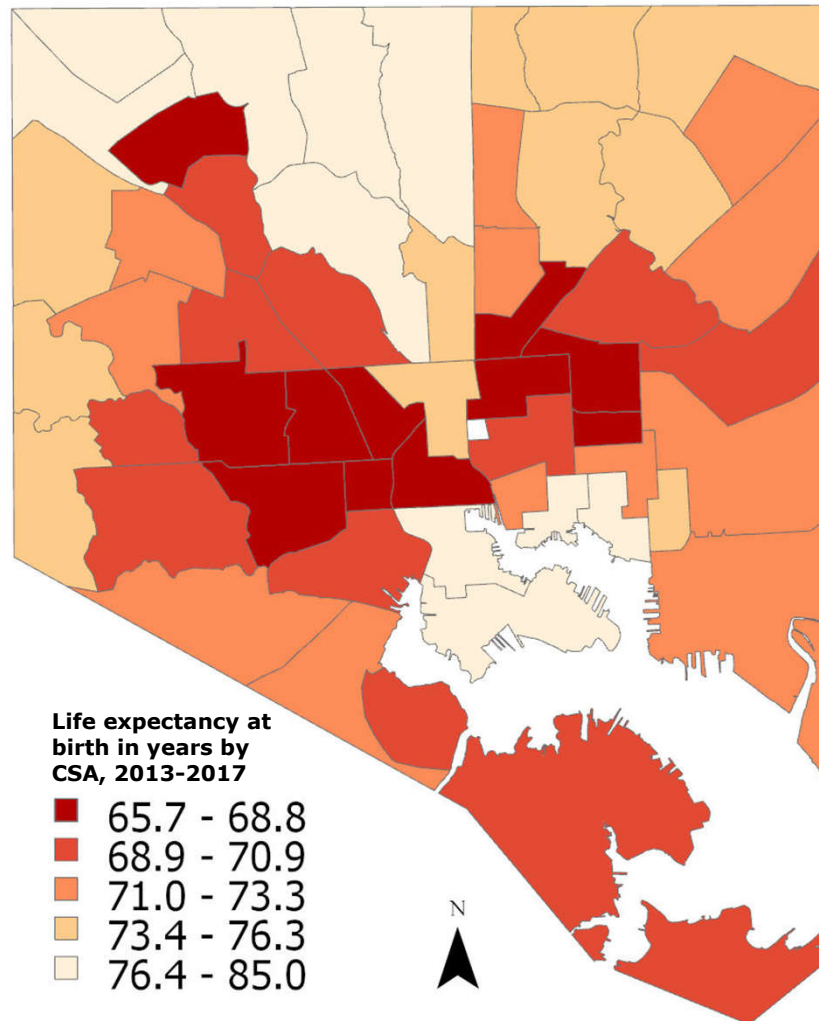BALTIMORE CITY HEALTH DEPARTMENT

Life Expectancy and Mortality

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Life Expectancy

Life expectancy in the wealthiest neighborhoods in Baltimore City is 80+ years old, but the most disadvantaged neighborhoods in Baltimore City have significantly lower life expectancy, the lowest at about 66 years.
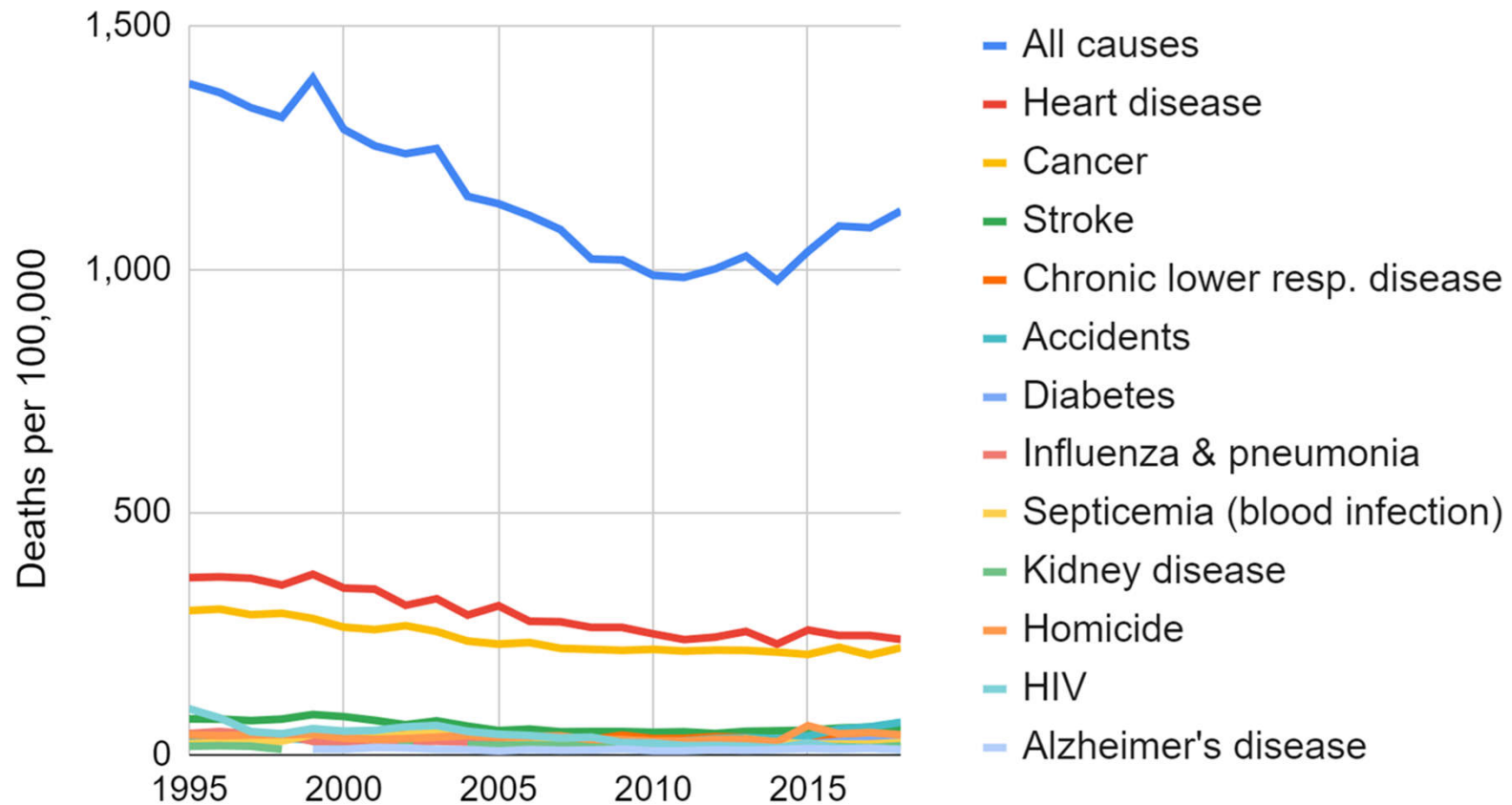
Life expectancy at birth in years by CSA, 2013–2017

- 65.7 - 68.8
- 68.9 - 70.9
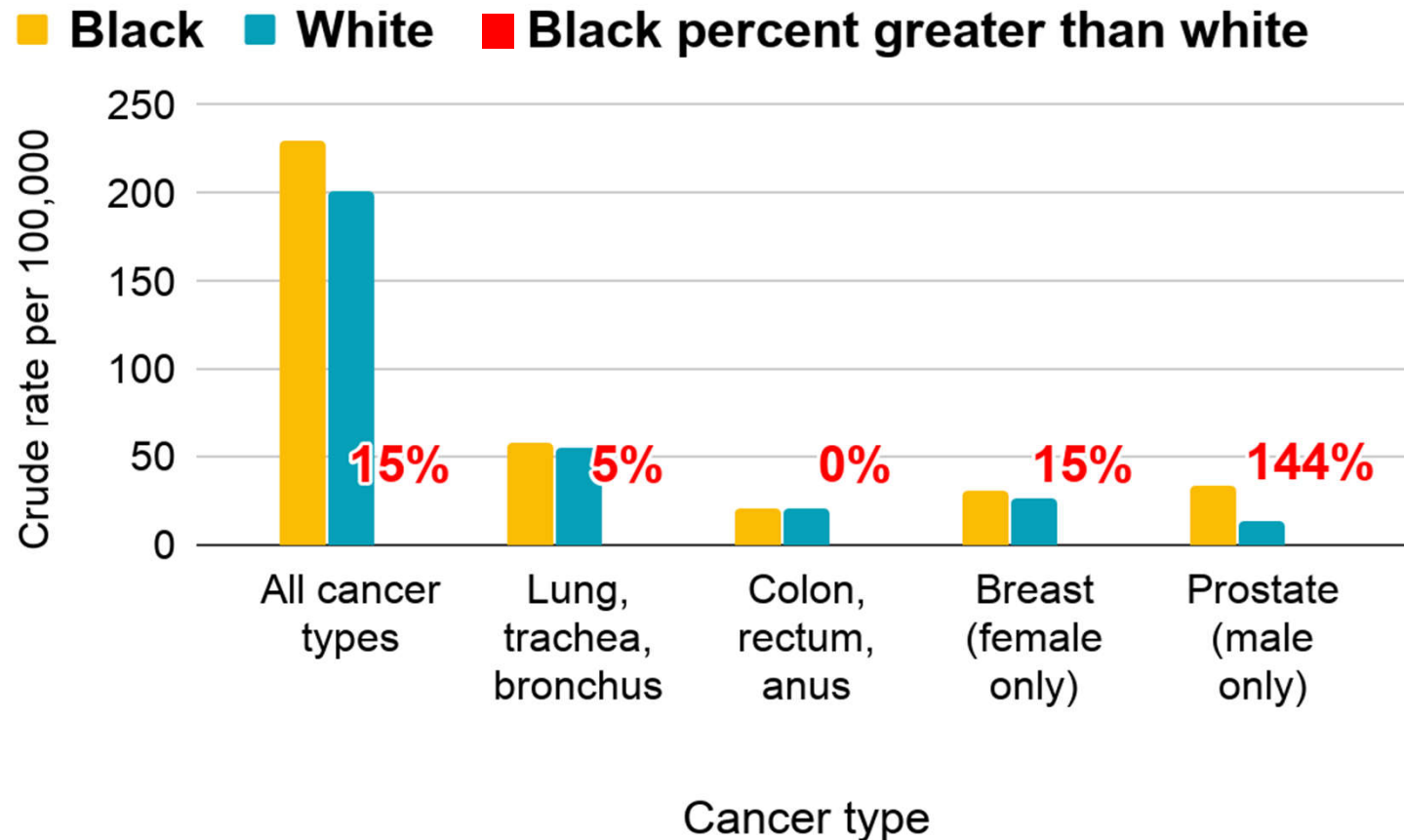- 71.0 - 73.3
- 73.4 - 76.3
- 76.4 - 85.0

N

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BCHD calculations of Maryland Department of Health Vital Statistics Administration data for 2013-2017; Community Statistical Areas (CSAs) are groupings of census tracts that approximate neighborhoods, Data categorized into quintiles

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Crude Mortality Rates by Cause of Death and Year, 1995-2018

Legend:
- All causes
- Heart disease
- Cancer
- Stroke
- Chronic lower resp. disease
- Accidents
- Diabetes
- Influenza & pneumonia
- Septicemia (blood infection)
- Kidney disease
- Homicide
- HIV
- Alzheimer's disease

Baltimore City data from Maryland Department of Health
Vital Statistics Annual Reports

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Disparities in Cancer Mortality, 2016-2017

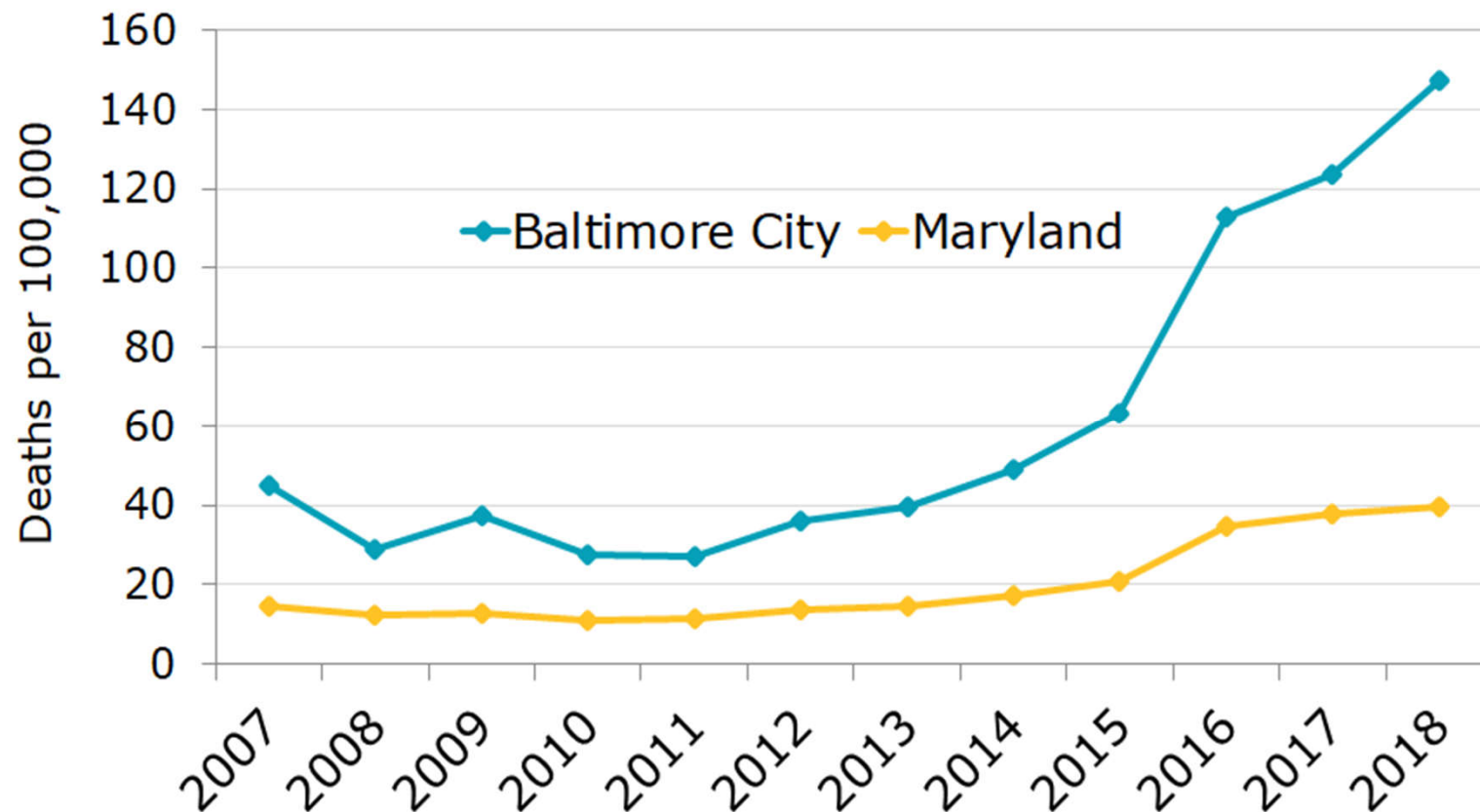CDC WONDER, Underlying Cause of Death, mortality rates by various cancers listed in ICD-10 113 Cause List by race for Baltimore City, 2016-2017

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Crude Overdose Mortality Rate, Baltimore City vs. Maryland, 2007-2018

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BCHD calculations of Maryland
Department of Health Vital Statistics
Administration data

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Profile of an "Average" Overdose Death, Baltimore City, 2017

- Male
- 45-54 years old
- African American
- Non-Hispanic

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Addressing Substance Use and Overdose in Baltimore City

- Expanding access to substance use treatment – Hub and Spokes Advocacy

- Crisis Stabilization Center

- Hospitals Levels of Care

- Mobile SPOT Van – Bupe prescribing (Spoke)

- Naloxone trainings and distribution

- BCHD syringe exchange program since 1994

- www.DontDie.org

- Citywide Fentanyl Taskforce - evaluates outcomes and recommends policy changes

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Social Determinants of Health

Socio-economics | Education | Food |Safety

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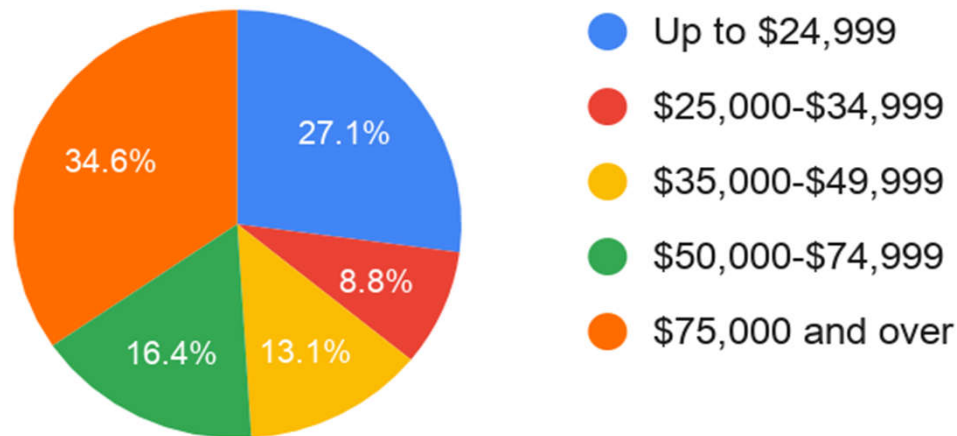*Letitia Dzirasa, M.D.*
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Baltimore City: Socioeconomic Environment

Median Annual Household Income
$51,000

Percentage of all households in Baltimore City whose annual household income is in the following range:

Household Annual Income

- Up to $24,999 — 27.1%
- $25,000-$34,999 — 8.8%
- $35,000-$49,999 — 13.1%
- $50,000-$74,999 — 16.4%
- $75,000 and over — 34.6%

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American Community Survey, 2018, 1-year estimates

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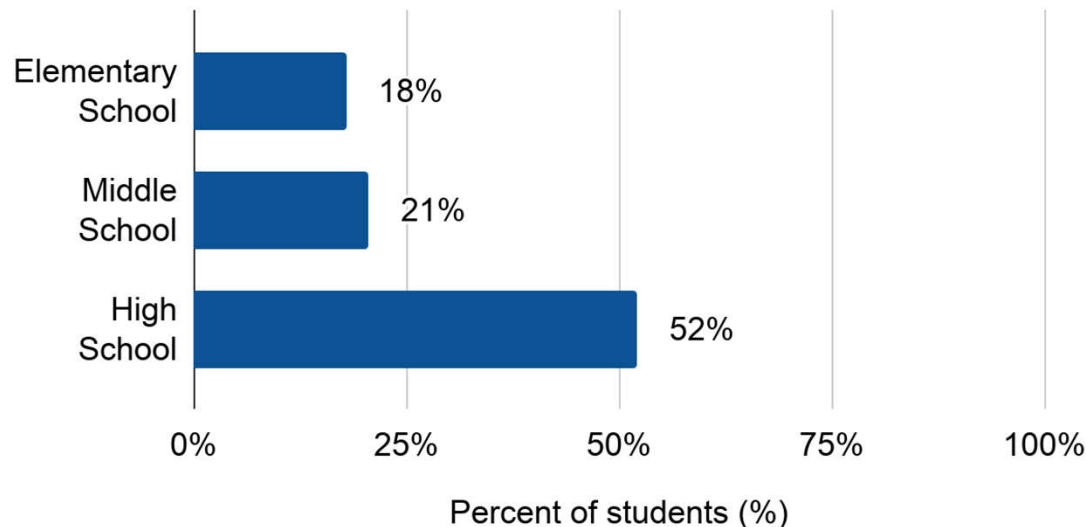# Baltimore City: Educational Environment

Percent of kindergartners "fully ready to learn"

38.0%

Percent of 3rd Graders who Met or Exceeded PARCC Reading   13.4%

Percent of 8th Graders who Met or Exceeded PARCC Reading

13.8%

Percent of Students Chronically Absent (Missing at least 20 days) by Grade Level, BCPS, 2016-2017
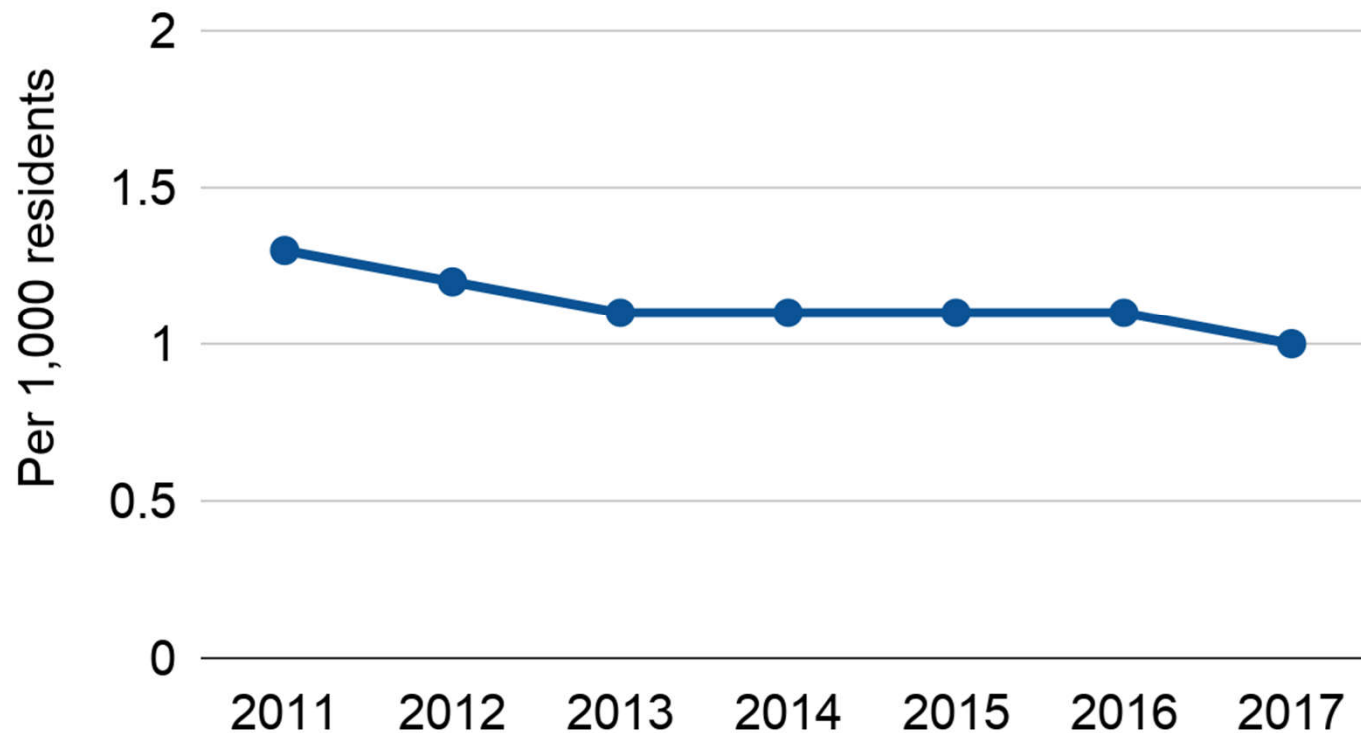

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School Year 2016-2017 data; BCPS = Baltimore City Public Schools; PARCC = Partnership for Assessment of Readiness for College and Careers; Data source: BCPS via Baltimore Neighborhood Indicators Alliance

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Baltimore City: Environment - Alcohol

Liquor Outlet Density by Year, Baltimore City, 2011-2017

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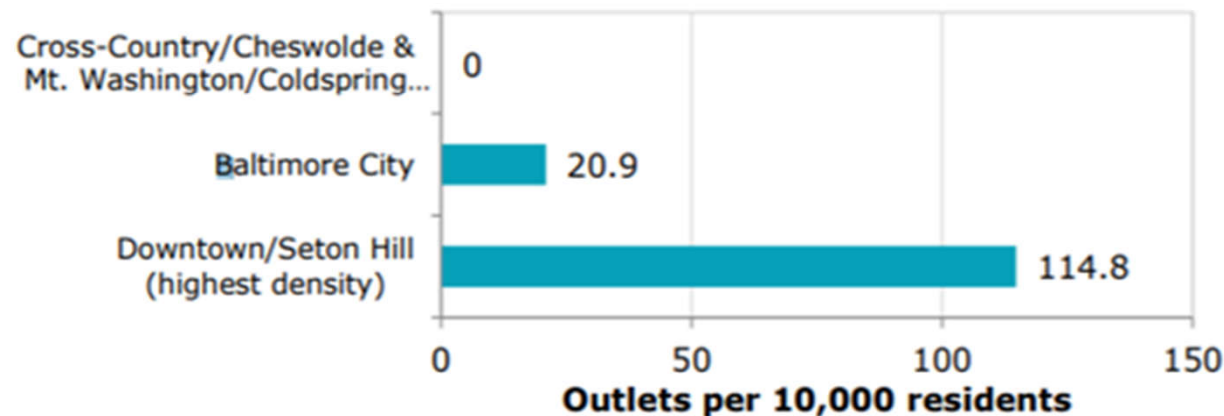*Letitia Dzirasa, M.D.*
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Data include Class A and Class BD7 Licenses;
Data source is Baltimore City Liquor Board via Baltimore
Neighborhood Indicators Alliance

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Baltimore City: Environment - Tobacco

Number of tobacco stores per 10,000 residents   20.9

**Tobacco Store Density, Two Neighborhoods
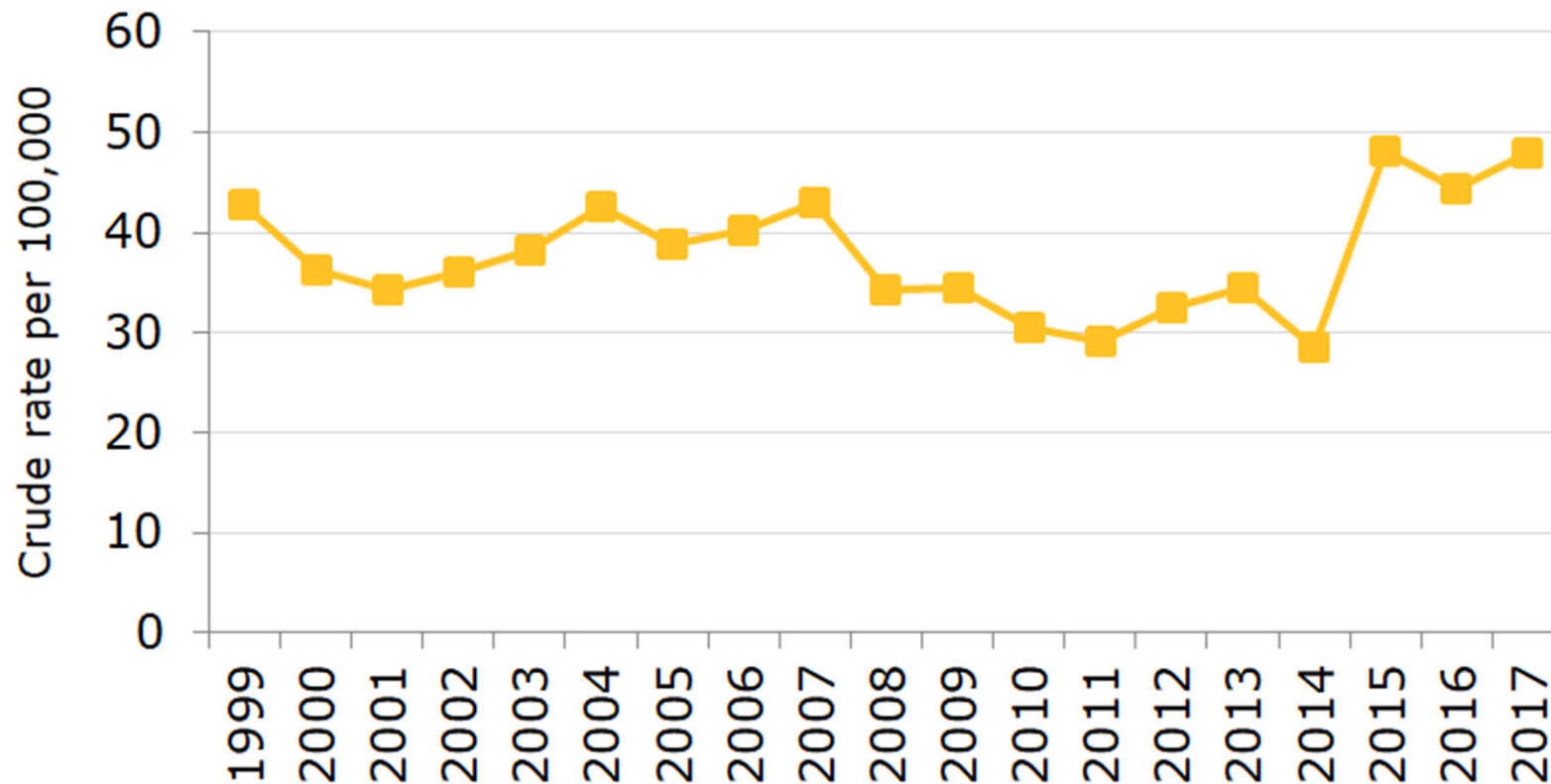vs. Baltimore City Overall, 2016**

Cross-Country/Cheswolde &
Mt. Washington/Coldspring... : 0

Baltimore City : 20.9

Downtown/Seton Hill
(highest density) : 114.8

Outlets per 10,000 residents

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BCHD analysis of data provided by the
Maryland Office of the Comptroller for 2016

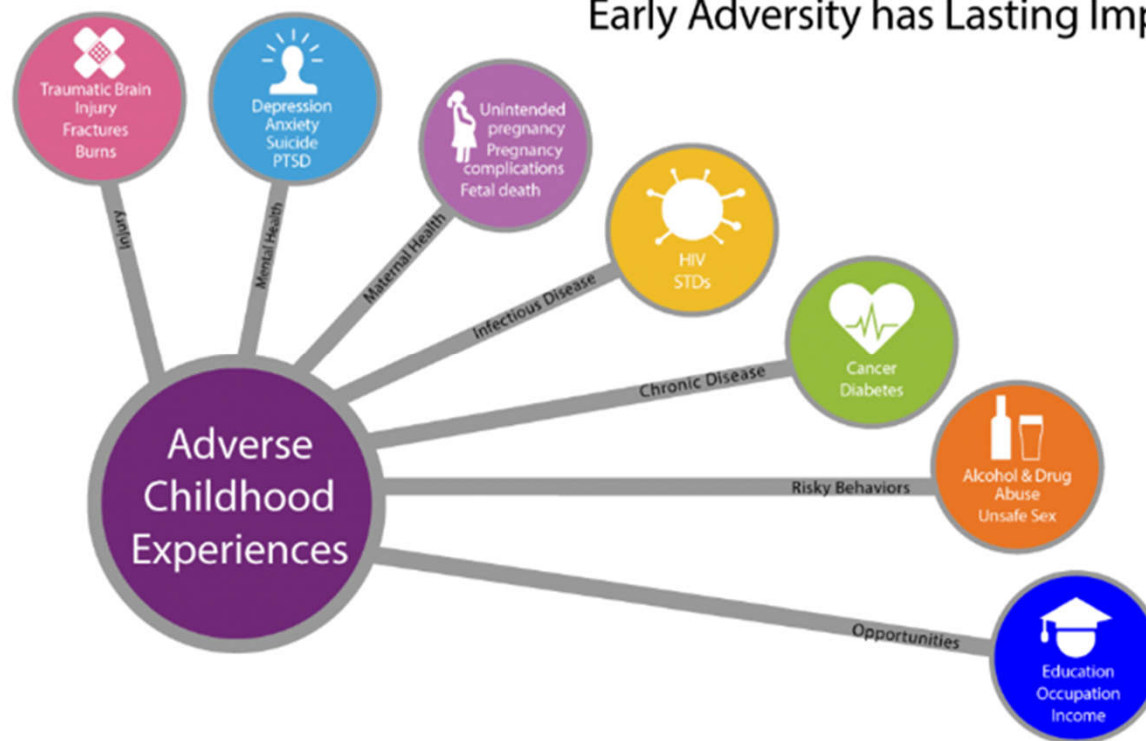# Baltimore City: Safety Environment, Homicide Rate, Baltimore City, 1999-2017

Adverse Childhood Experiences (ACEs)

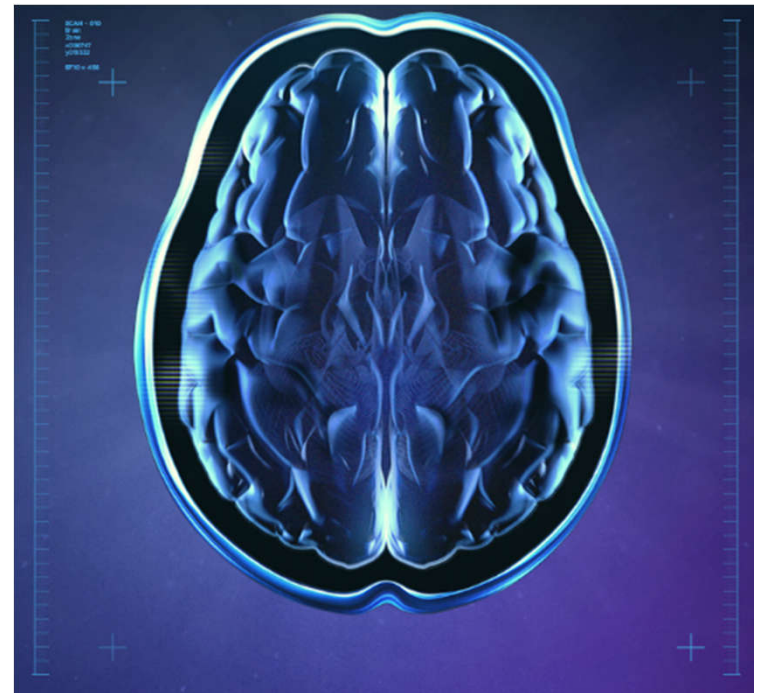Early Adversity has Lasting Impacts

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Source: CDC

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Trauma Impacts Brain Child Development and Early Death

- "The more a child witnesses violence, the more neural connections are created in regions of the brain that involve fear, anxiety, and impulsiveness."
    - https://changingmindsnow.org/

- Research has shown that on-average 7 to 10 family members are impacted by each homicide victim.
    - https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829865/

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Food Environment: 2018 Healthy Food Priority Areas

2018
Baltimore City
Healthy Food Priority Areas

- Healthy Food Priority Areas*
- Neighborhood Boundaries
- Harbor, Lakes, & Streams
- Major Parks

* A Healthy Food Priority Area is an area where: 1) The average Healthy Food Availability Index score for all food stores is low, 2) The median household income is at or below 185% of the Federal Poverty Level, 3) Over 30% of households have no vehicle available, and 4) The distance to a supermarket is more than 1/4 mile.

0 ¼ ½
Miles

JOHNS HOPKINS
CENTER for A LIVABLE FUTURE

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Baltimore
Development Corporation

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Baltimore City's Food Environment:
2018 Report, Map 6

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Percentage Living in Healthy Food Priority Areas by Race/Ethnicity and by Age Group, Baltimore City, 2018

Citywide Average
23.5%

African American 32%
Other 16%
Latino 11%
Asian 7%
White 9%
Children 28%
Adults 22%
Seniors 24%

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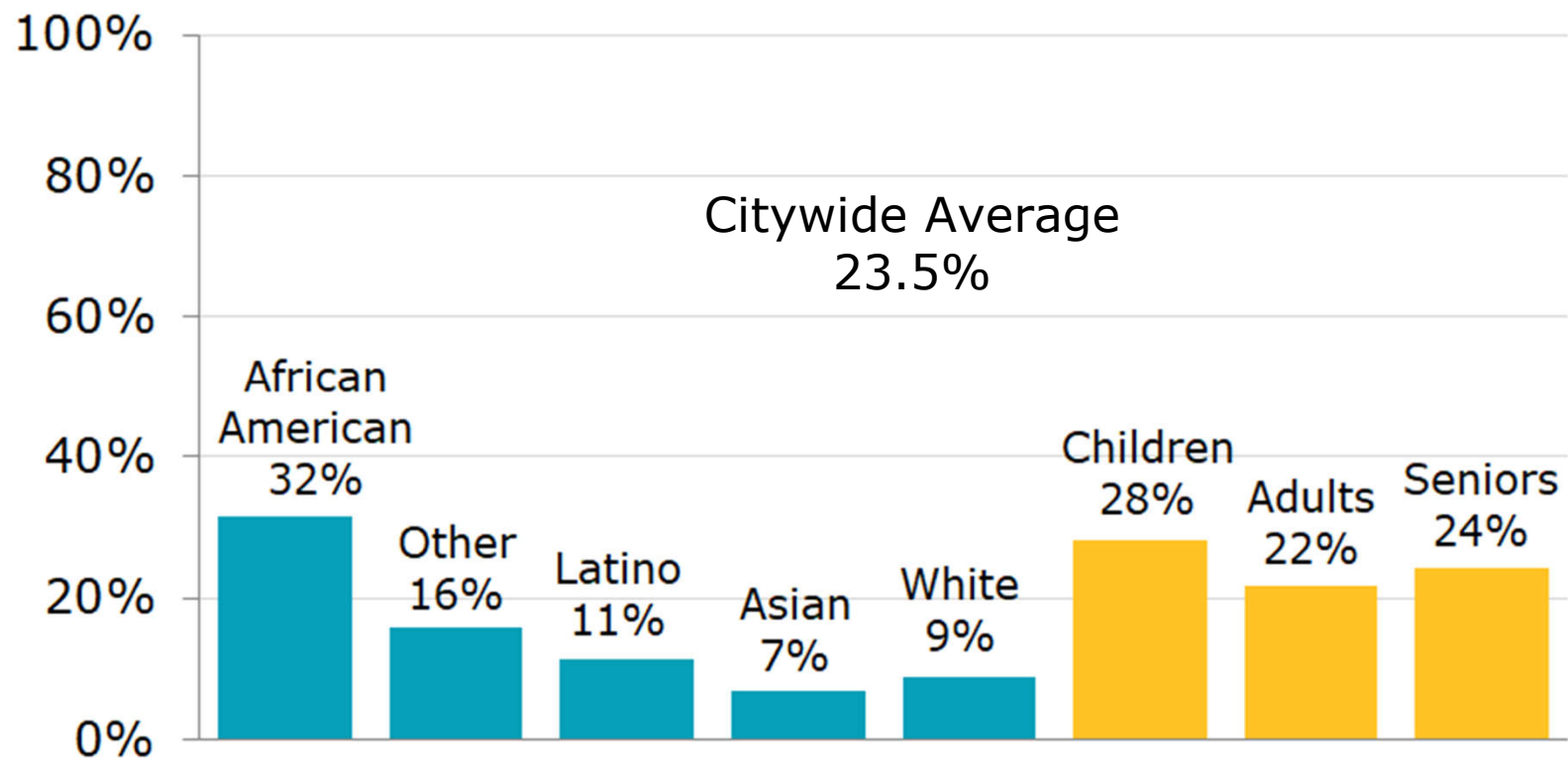Baltimore City's Food Environment:
2018 Report, Figure 3

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Improving Access to Healthy Foods in Baltimore City

- Baltimore City Health Department (BCHD) Virtual Supermarket
  - Online grocery ordering and delivery at designated public housing, low-income senior housing, libraries
- BCHD Healthy Corner Stores
  - Stock and sell fruits, vegetables, whole grain foods, low-fat dairy, healthy snacks, etc.
- BCHD Neighborhood Food Advocates
- Congregate meals and meal deliveries for older adults

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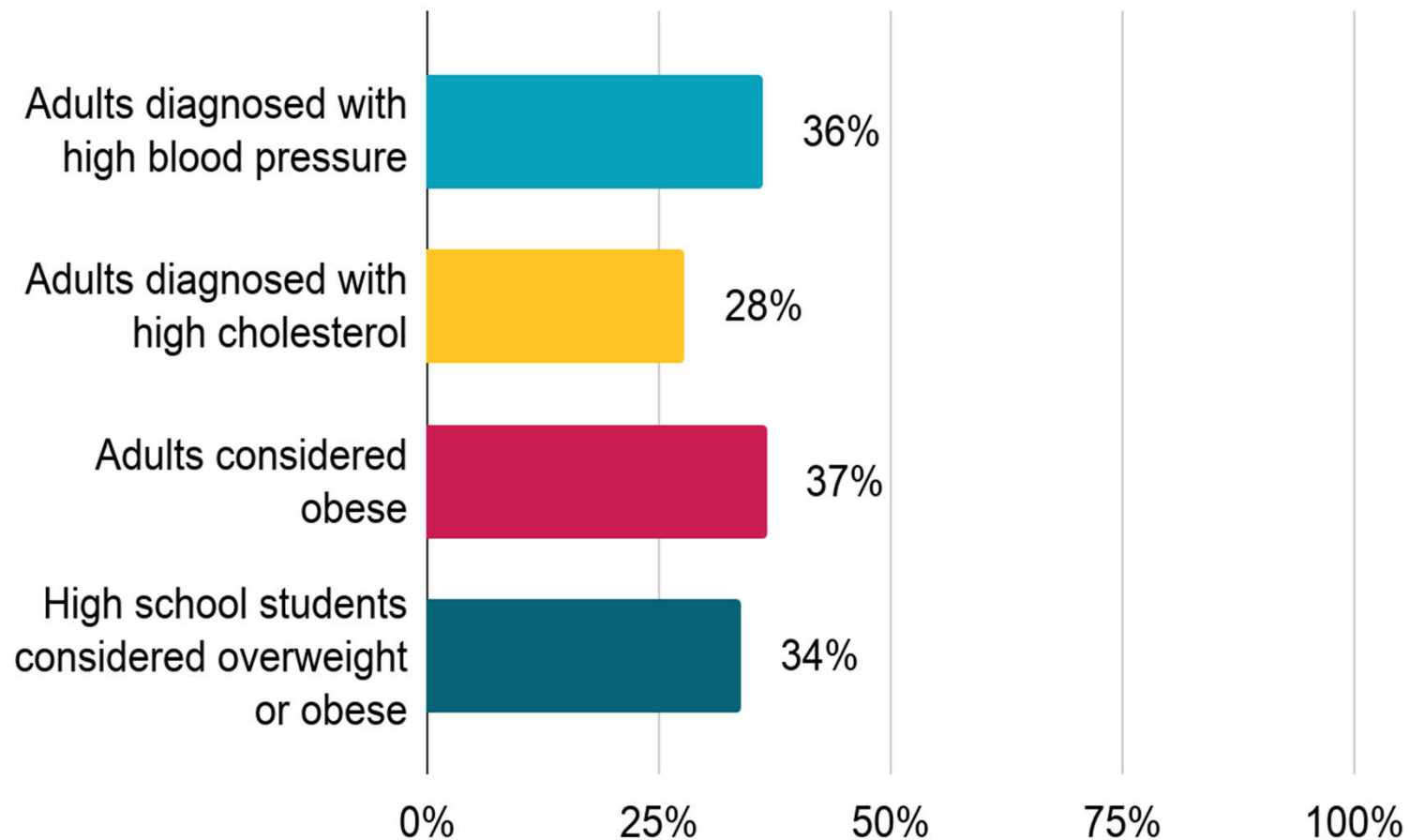*Letitia Dzirasa, M.D.*
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Health Outcomes

Areas of Need

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Percent of Residents Affected by Various Chronic Diseases, 2017

- Adults diagnosed with high blood pressure — 36%
- Adults diagnosed with high cholesterol — 28%
- Adults considered obese — 37%
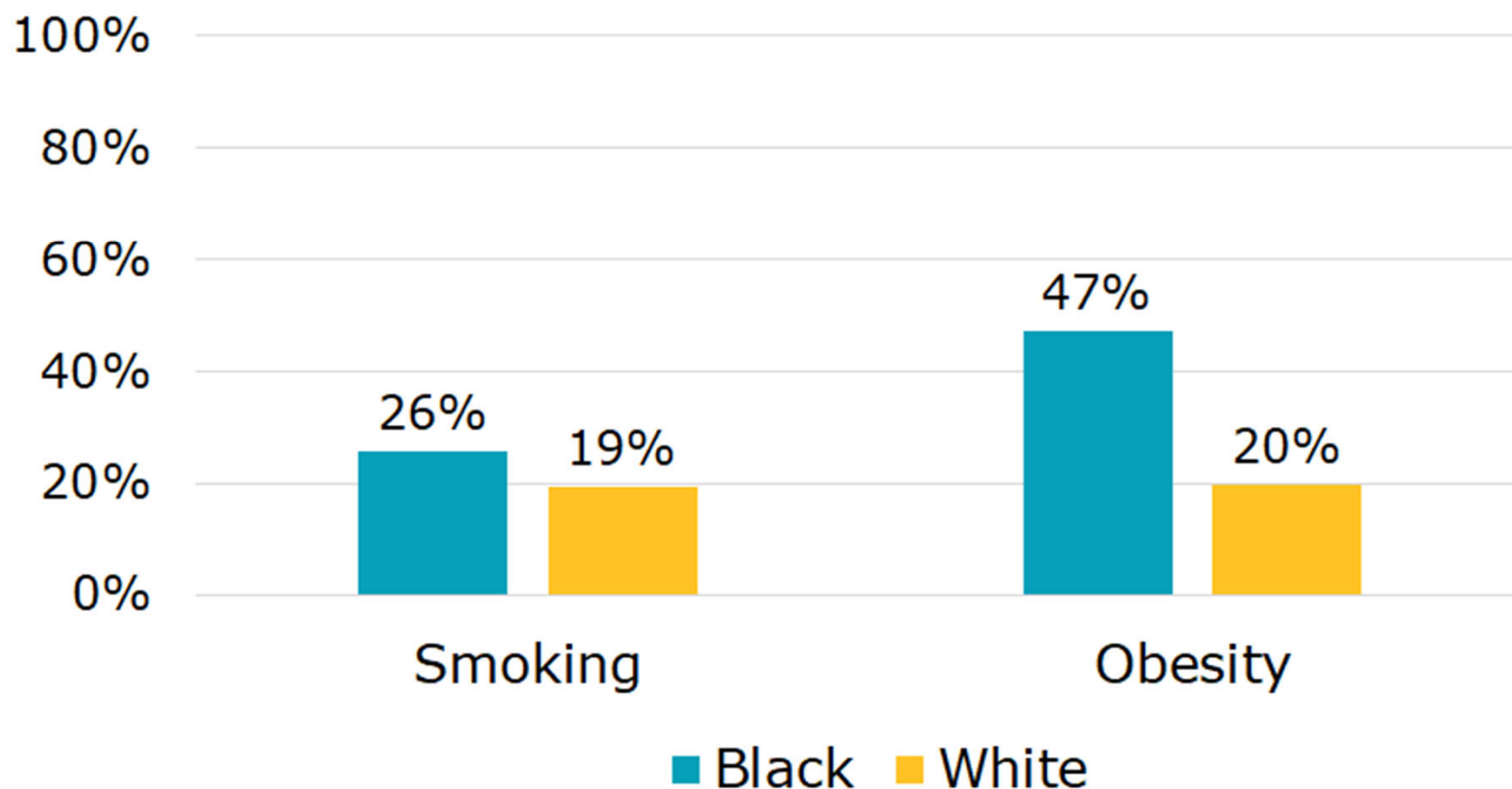- High school students considered overweight or obese — 34%

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Baltimore City data from Maryland BRFSS 2017 (adults) and Youth Online YRBS 2017 (high school students)

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Prevalence of Smoking and Obesity by Race, Baltimore City, 2017

Maryland Behavioral Risk Factor Surveillance System (BRFSS),
https://ibis.health.maryland.gov/query/Introduction.html

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Estimated Prevalence of Current Smoking among Adult Residents by Census Tract with CSA Boundaries (white outlines), Baltimore City, 2016
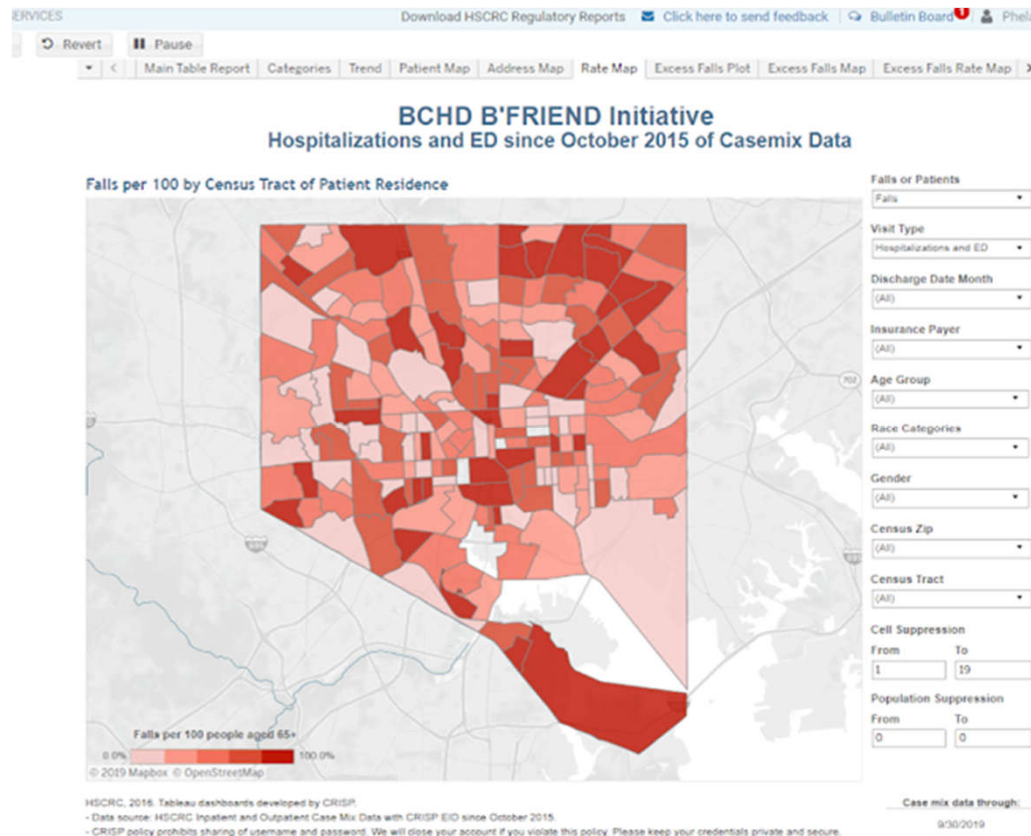

Legend

Estimated prevalence (%) of current smoking among adults by census tract

8%

39%

CSA = Community Statistical Area. CSAs are groupings of census tracts that approximate neighborhoods. Adults are defined by ages 18+ years. Data source is the CDC's 500 Cities Project. Please note that these data represent estimates and not actual observations. Map prepared by BCHD, 9/17/2019.

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Falls Among Older Adults

Falls are the leading cause of fatal and non-fatal injury among older adults

In Baltimore City, we have near real-time data on emergency department visits and hospitalizations related to falls among older adults

Data are used to target falls-prevention interventions

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B'FRIEND Initiative; Snapshot of BCHD internal dashboard of fall-related ED visits and hospitalization rates among older adults in Baltimore City with cell suppression engaged for Oct 2015 - Sept 2019; Nov 18, 2019

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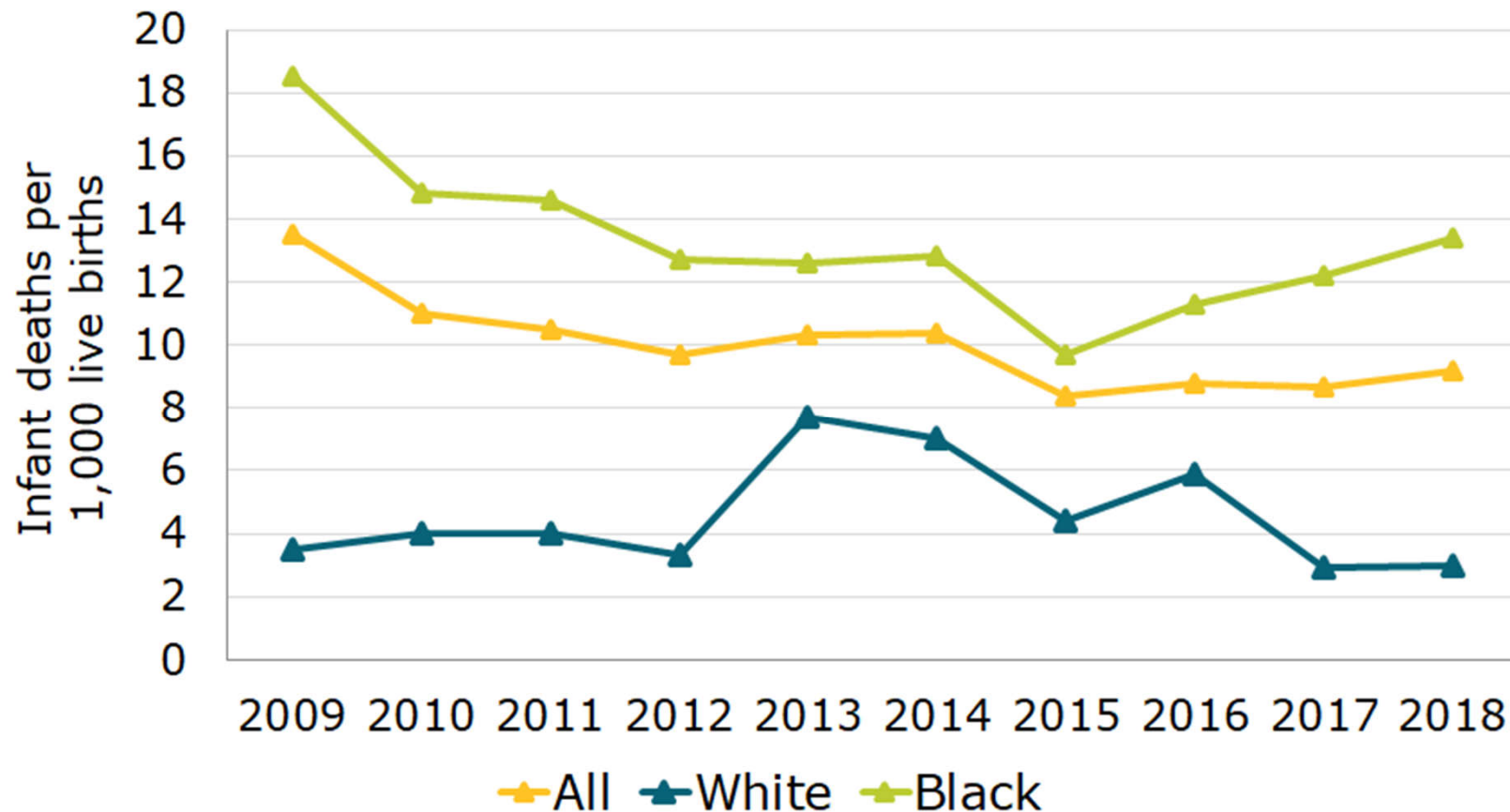
Health Outcomes

Positive Trends: Highlights

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Infant Mortality Rate by Race, Baltimore City, 2009-2018

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Maryland Department of Health Vital Statistics
Administration Infant Mortality Reports

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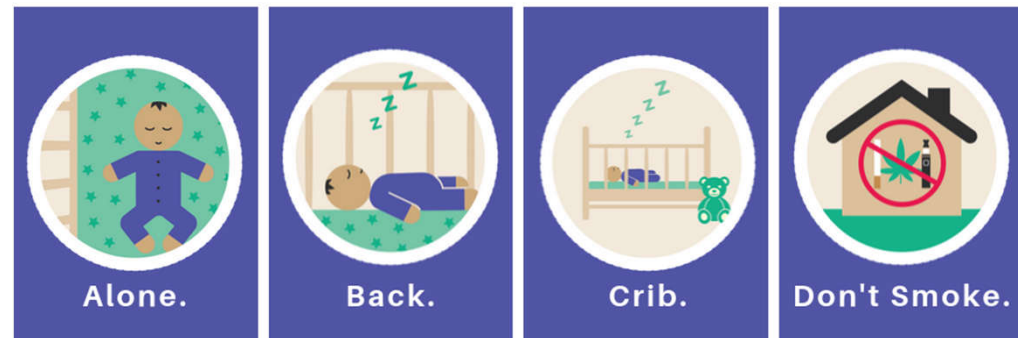DEPARTMENT

Reducing Infant Mortality in Baltimore City

IN 2018, 13 BALTIMORE BABIES DIED WHILE SLEEPING

None were sleeping safely

These tragedies can be prevented. For every night and every nap, make sure babies SLEEP SAFE.

- Dozens of community partners
- Life Course Model

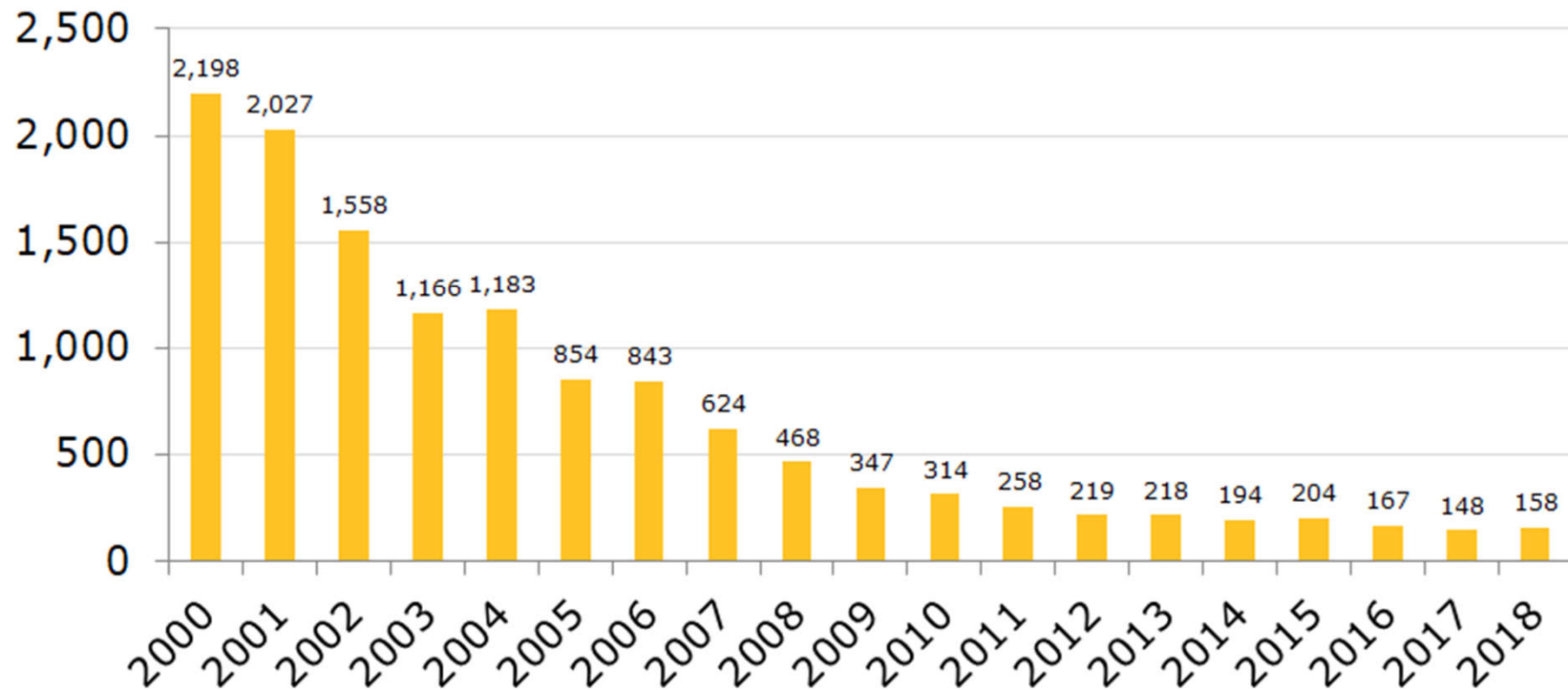Alone.   Back.   Crib.   Don't Smoke.

Child Lead Poisoning, Baltimore City, 2000-2018

Number of Cases of Child Elevated Blood Lead Levels (≥10mg/dl), 2000-2018

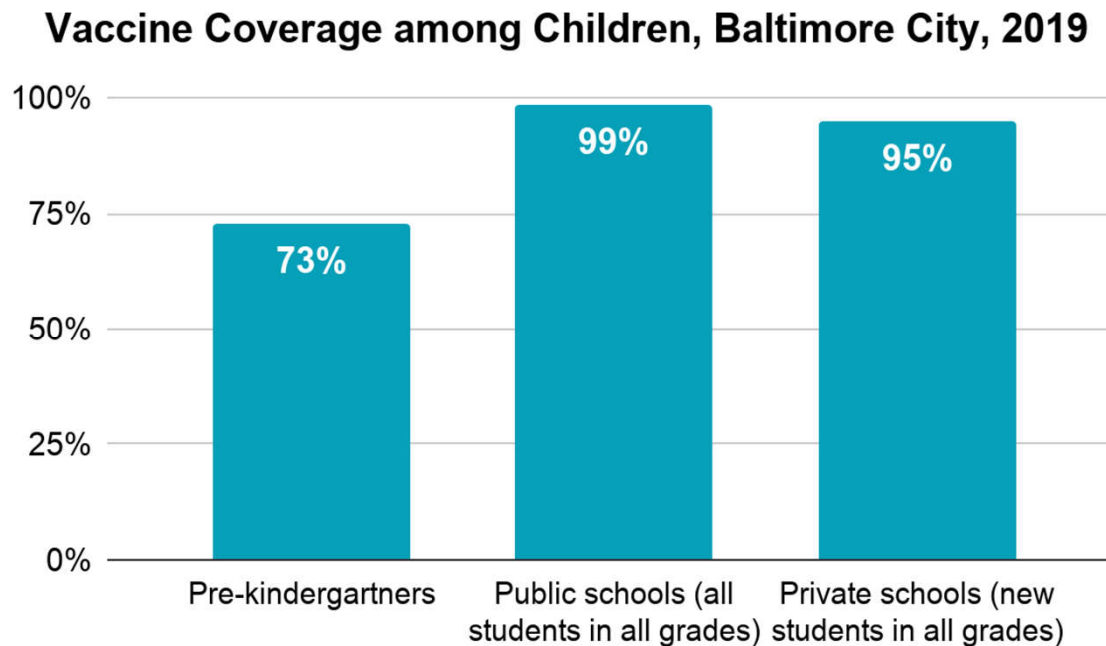| Year	Cases
2000	2,198
2001	2,027
2002	1,558
2003	1,166
2004	1,183
2005	854
2006	843
2007	624
2008	468
2009	347
2010	314
2011	258
2012	219
2013	218
2014	194
2015	204
2016	167
2017	148
2018	158

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Maryland Department of Environment
Childhood Blood Lead Surveillance in Maryland
Annual Reports

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Childhood Immunizations

BCHD immunized about 8% of the city's children through its TIKE clinics and school-based health centers for the year ending Sept 2019

Vaccine Coverage among Children, Baltimore City, 2019

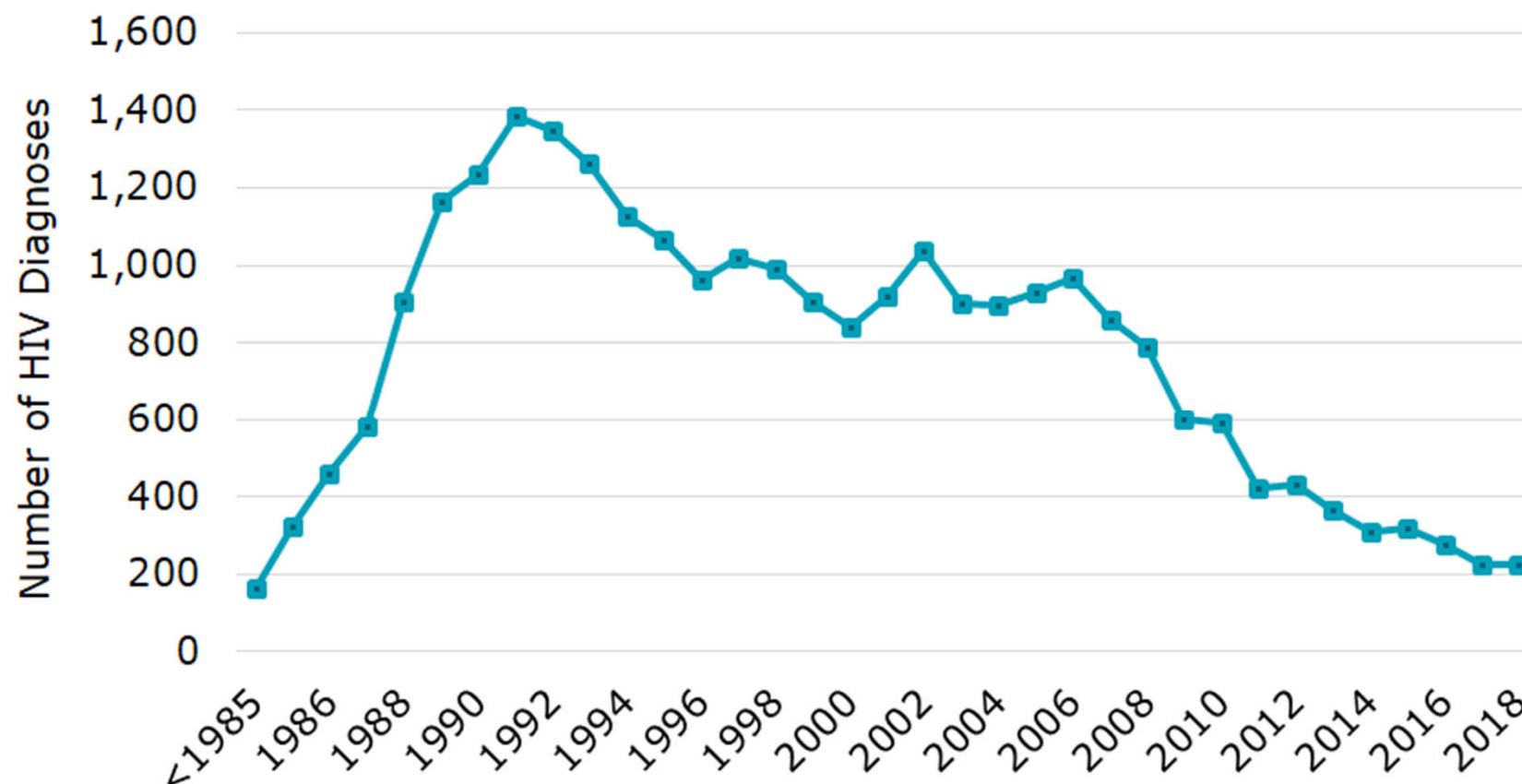BCHD responded to a measles outbreak in spring 2019

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Commissioner of Health, Baltimore City

TIKE = To Immunize Kids Everywhere; Pre-K includes ages 19-35 months old; coverage is for 4:3:1:4:3:1:4 vaccine series; Data source is BCHD Immunization Program and ImmuNet

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Reported HIV Diagnoses among Residents, Baltimore City, 1985-2018

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Baltimore Syringe Exchange Team

Prevented 1,891 new cases of HIV in Baltimore over the past 10 years.

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https://health.baltimorecity.gov/news/bmore-healthy-blog/2018-01-26-public-health-heroes-needle-exchange-team
Monica et al., Using Interrupted Time Series Analysis to Measure the Impact of Legalized Syringe Exchange on HIV Diagnoses in Baltimore and Philadelphia. J Acquir Immune Defic Syndr. 2019 Dec 1;82 Suppl 2:S148-S154

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Ending the HIV Epidemic: #PeopleWhoLookLikeMe

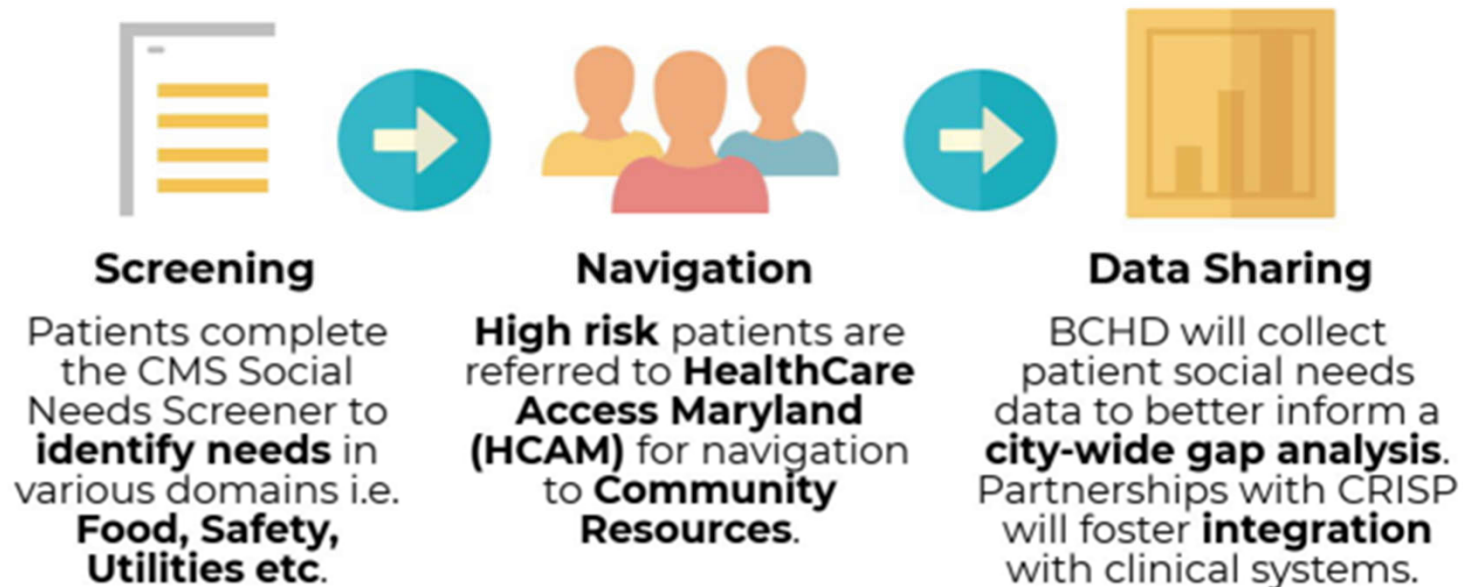*Bernard C. "Jack" Young,*
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https://health.baltimorecity.gov/hivstd-services/peoplewholooklikeme

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Accountable Health Community Process

Screening

Patients complete the CMS Social Needs Screener to **identify needs** in various domains i.e. **Food, Safety, Utilities etc.**

Navigation

High risk patients are referred to **HealthCare Access Maryland (HCAM)** for navigation to **Community Resources.**

Data Sharing

BCHD will collect patient social needs data to better inform a **city-wide gap analysis.** Partnerships with CRISP will foster **integration** with clinical systems.

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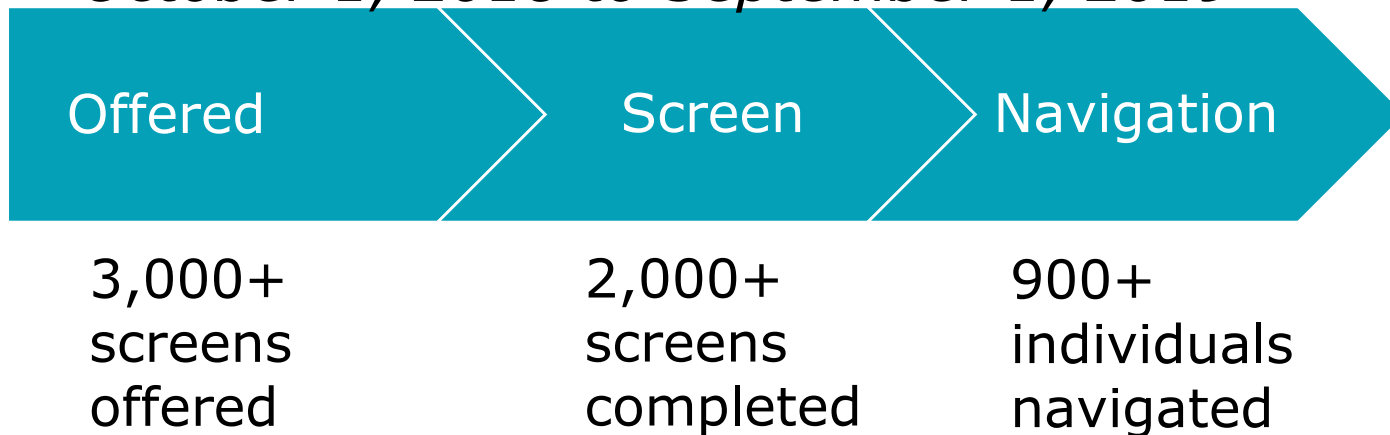*Letitia Dzirasa, M.D.*
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Baltimore Accountable Health Community Results to Date

- 10 Clinical Sites participating
  - 9 Hospitals
  - 1 Federally Qualified Health Center
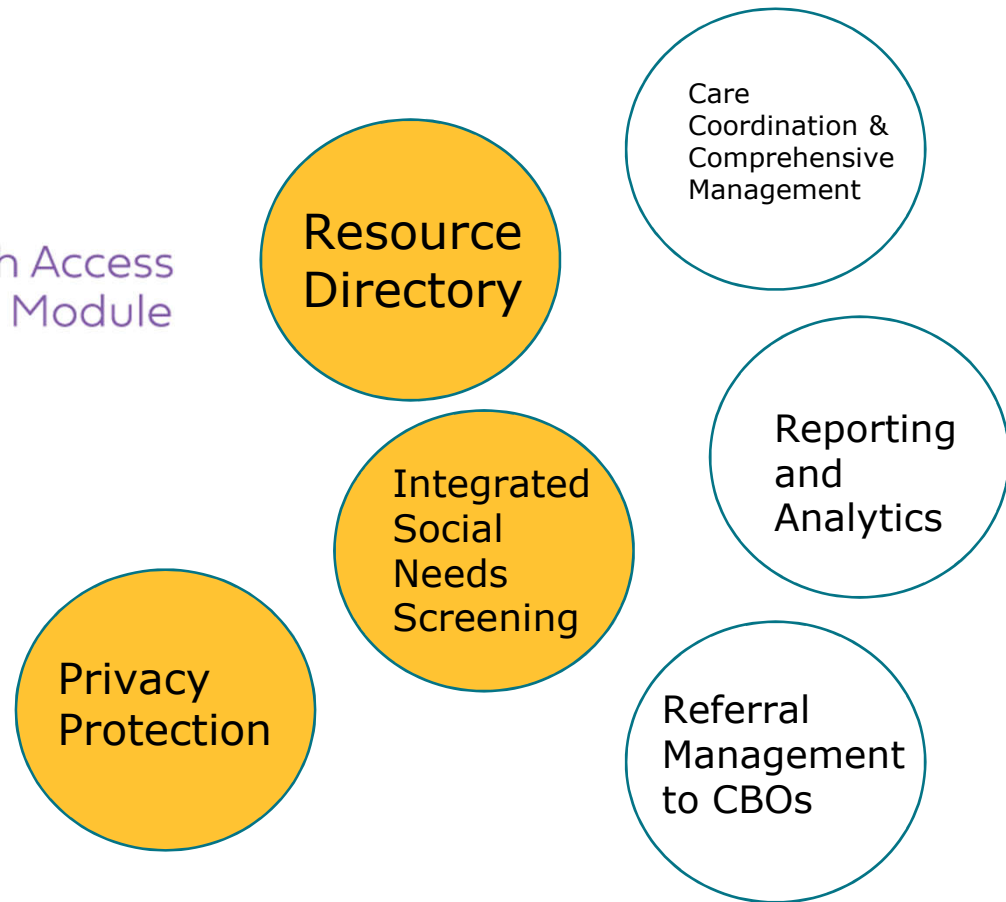
October 1, 2018 to September 1, 2019

Offered	Screen	Navigation
3,000+ screens offered	2,000+ screens completed	900+ individuals navigated

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Funded by Centers for Medicare and Medicaid Innovation

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CHARMCare.org

CHARMcare
Community Health Access and Resource Module

- Resource Directory
- Care Coordination & Comprehensive Management
- Integrated Social Needs Screening
- Reporting and Analytics
- Privacy Protection
- Referral Management to CBOs

A Call to Action: What can we do to address health disparities?

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Overarching Strategies and Principles

1. Health-In-All-Policies
2. Work "upstream" and address the social determinants of health
3. Ensure a strategic focus on communities at greatest risk
4. Reduce barriers in access to quality health care
5. Improve workforce, infrastructure, data to identify and address disparities

Thank You for Your Time and Support!

🌐 health.baltimorecity.gov

📱 410 396 4398

ⓕ /BaltimoreHealth

🐦 @Bmore_Healthy

📷 @Bmore_Healthy

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Letitia Dzirasa, M.D.
Commissioner of Health, Baltimore City

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