

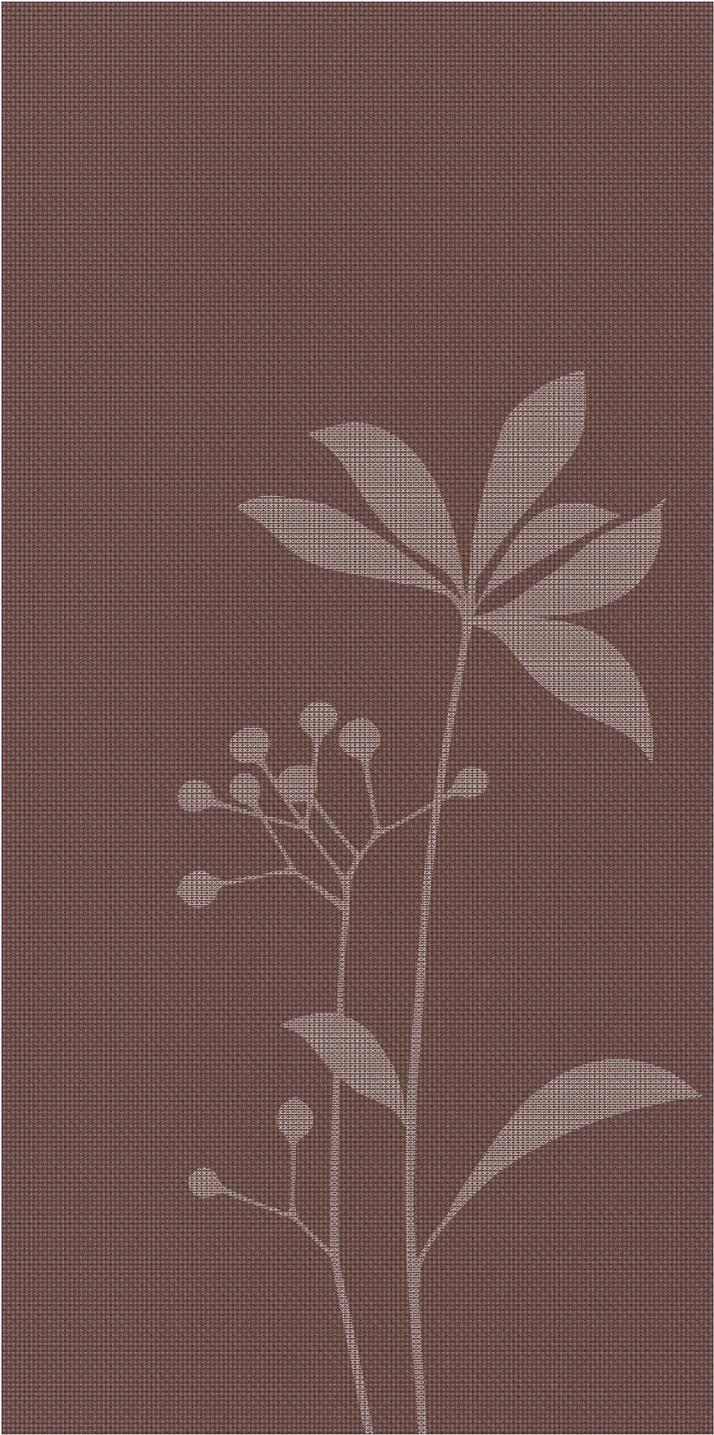


# Identifying Communities At Risk

Results from Maryland's Home  
Visiting Needs Assessment

Maryland Department of Health and Mental Hygiene  
Center for Maternal and Child Health

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# Methodology

Maryland Department of Health and Mental Hygiene  
Center for Maternal and Child Health

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# Needs Assessment Methodology

- Prenatal, Maternal, Newborn Health Indicators

Metric	Source	Granularity	Years
% Preterm (<37 weeks) births	DHMH, VSA	Census Tract	2004-2008
% LBW (<2500 g) births	DHMH, VSA	Census Tract	2004-2008
% Late (3 <sup>rd</sup> trimester) or no prenatal care	DHMH, VSA	Census Tract	2004-2008
Teen (15-19 yrs) birth rate	DHMH, VSA	Census Tract	2004-2008
Infant Mortality Rate	DHMH, VSA	Census Tract	2004-2008

# Needs Assessment Methodology

- Poverty Indicators

Metric	Source	Granularity	Years
% of families with children (< 18 yrs) living below the poverty level	MDP (US Census Bureau)	Census Tract	2000
% of population enrolled in Medicaid	MD Medicaid	Zip Code	2005-2009
WIC participation rate	MD WIC Program	Zip Code	2005-2009
% Unemployed	MD DLLR	Jurisdiction	2009

# Needs Assessment Methodology

- Crime, Domestic Violence, Child Maltreatment Indicators

Metric	Source	Granularity	Years
Crime rate (all offenses)	MD State Police (Uniform Crime Report)	Jurisdiction and Municipalities	2007-2008
Protective and peace order filing rate	MD Judiciary	Jurisdiction	2008-2009
Child abuse and neglect investigations (indicated and unsubstantiated)	MD DHR	Census Tract	2006-2009

# Needs Assessment Methodology

- Substance Abuse Indicator

Metric	Source	Granularity	Years
Treatment rate for substance abuse among women of childbearing (15-44 yrs) age	MD DHMH, Alcohol and Drug Abuse Administration	Zip Code	2004-2008

# Needs Assessment Methodology

- Education Indicators

Metric	Source	Granularity	Years
% High school dropouts	MSDE	Jurisdiction	2008-2009
% of Children entering kindergarten ready to learn	MSDE	Jurisdiction	2009-2010 school year

# Methodology

- Compute rates at the smallest granularity possible.
- Multiple years of data were aggregated in order to get reasonable numbers of events in each census tract/zip code
- Any census tracts or zip codes with fewer than 5 events did not have rates computed (unstable), and are not displayed
- Map the rates

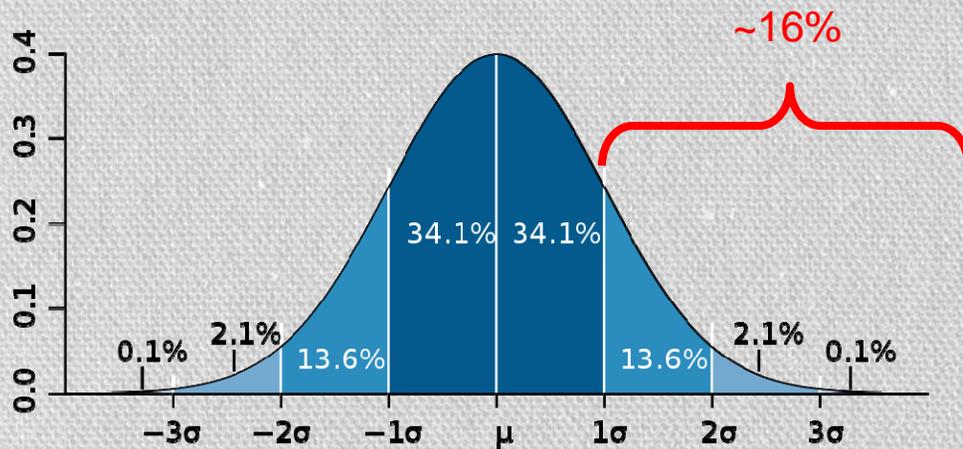
# Limitations

- There is some error introduced because not all addresses listed on the individual records could be geocoded
- Some denominator data was limited to the 2000 Decennial Census

# Creating the Indicator Index

- Needed to combine the results from 15 indicators
- Normalize the metrics
  - For each metric, compute the Z Score for each value (census tract, zip code, or jurisdiction)

$(\text{Value} - \text{Mean}) / \text{Standard Deviation}$



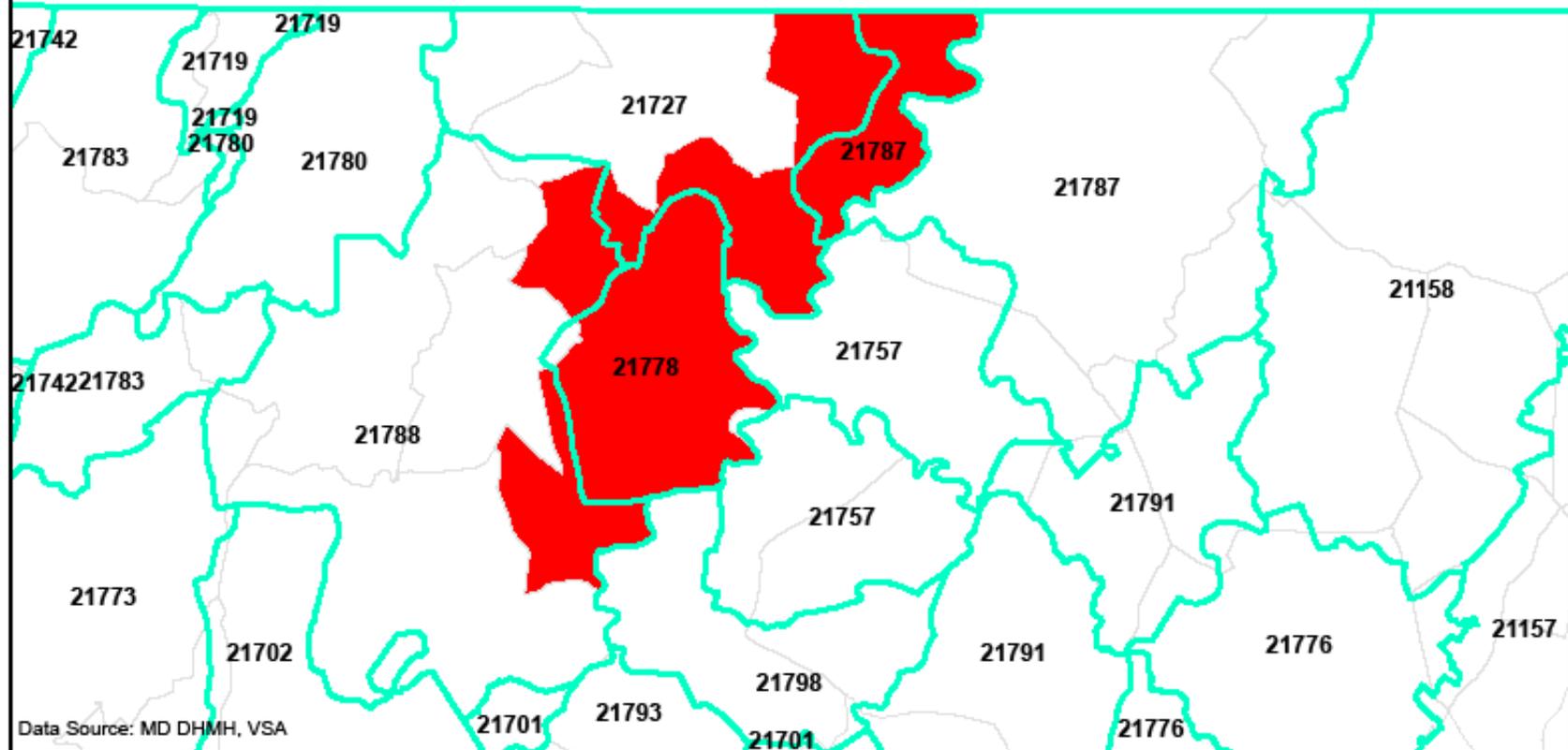
# Methodology

- Define the at-risk population as living within those census tracts (zip codes or jurisdictions) that are at or above 1 standard deviation from the mean.
- Overlay Zip Codes (or Community Statistical Areas, CSAs, in Baltimore City)
- Assign a 1 to Zip Codes containing at least one census tract at-risk, 0 otherwise.

# Percent of Births that were Preterm (<37 weeks) by Census Tract, with Zip Codes, Maryland, 2004-2008

## Legend

- Zip Code
- < 1 Std Dev
- >= 1 Std Dev



Data Source: MD DHMH, VSA

# Methodology

- Repeat process for each metric.
- Add up scores for each zip code across the metrics.
- Total Score for Zip Code (n) = Preterm Birth Score + LBW Score + IMR Score + ...

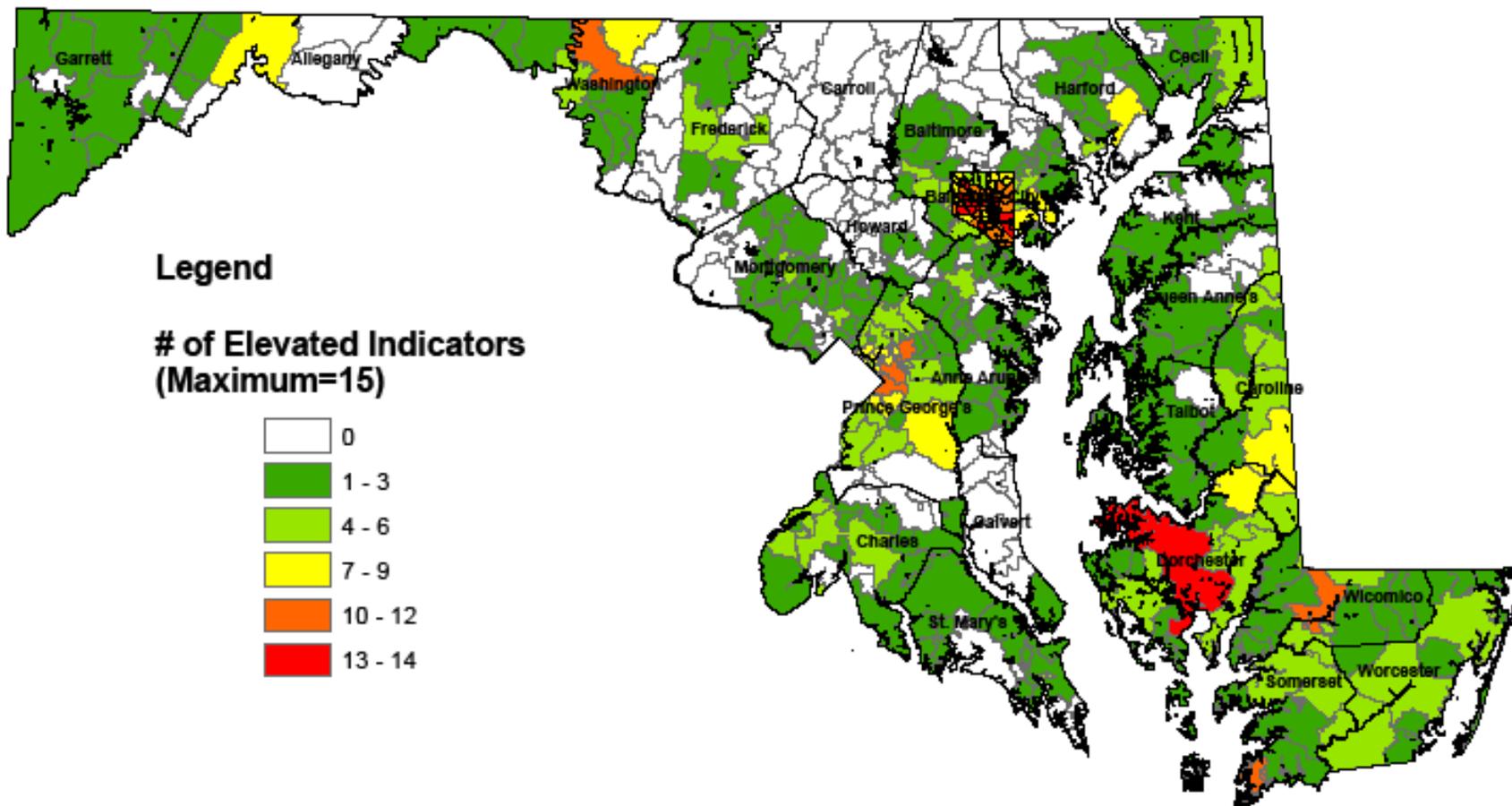
## Example

$$20942 = 1 + 0 + 0 + 1 + 0 + 1 + 1 + 1 + 0 + 0 + 1 + 1 + 0 + 0 + 0$$
$$= 7$$

- Rank Zip Codes (or CSAs in Baltimore City) by their total score

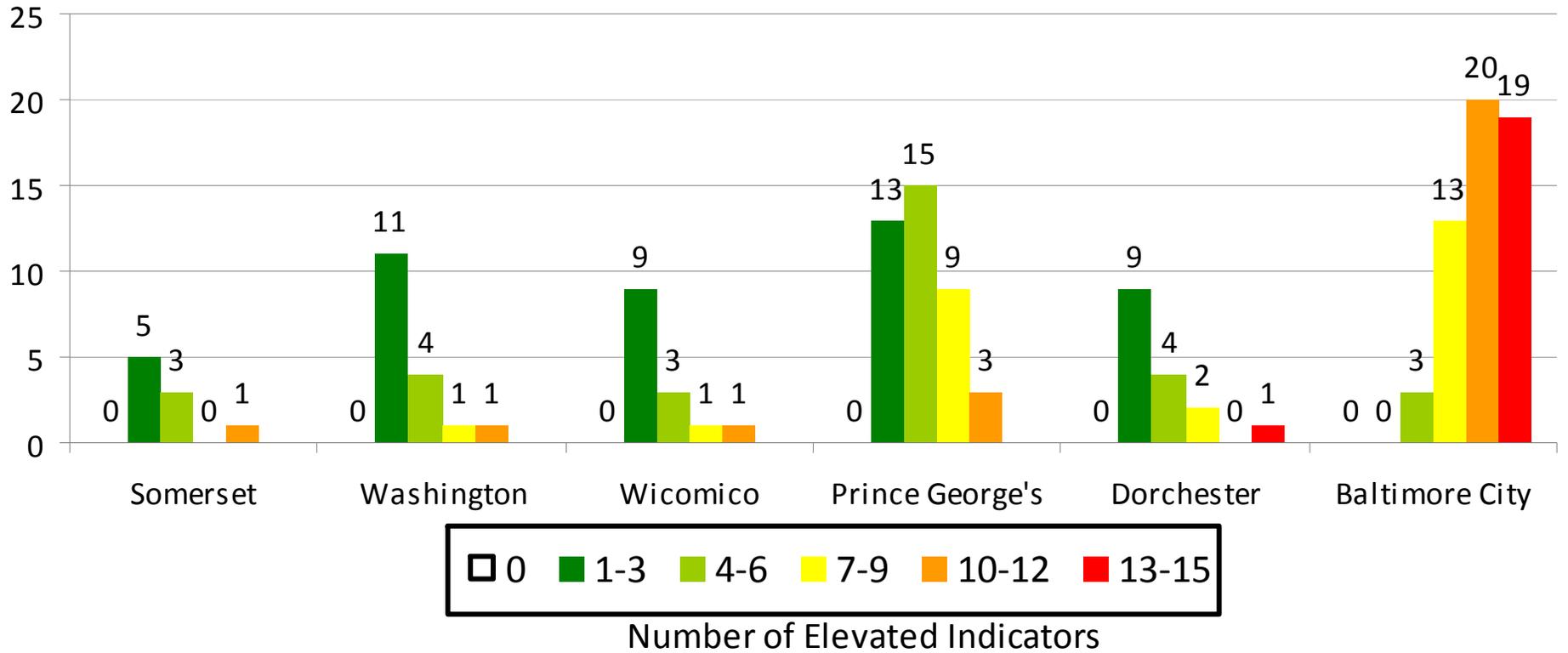
# Results

## Number of Elevated Indicators by CSA (Baltimore City) or Zip Code, Maryland



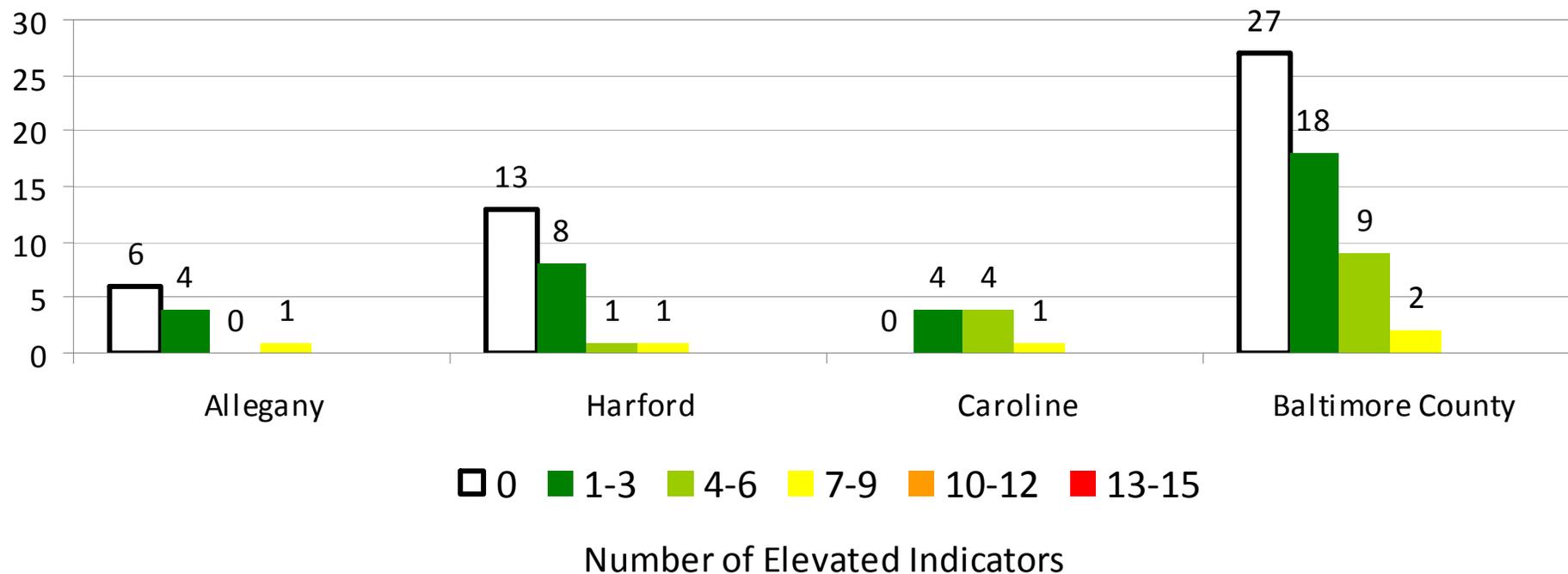


## Maryland Jurisdictions by Number of ZIP Codes/CSAs Containing Elevated Indicators\* - Tier 1



\* Indicators measured at census tract, zip code, or jurisdiction level, depending on the indicator  
 Prepared by MD DHMH, Center for Maternal and Child Health

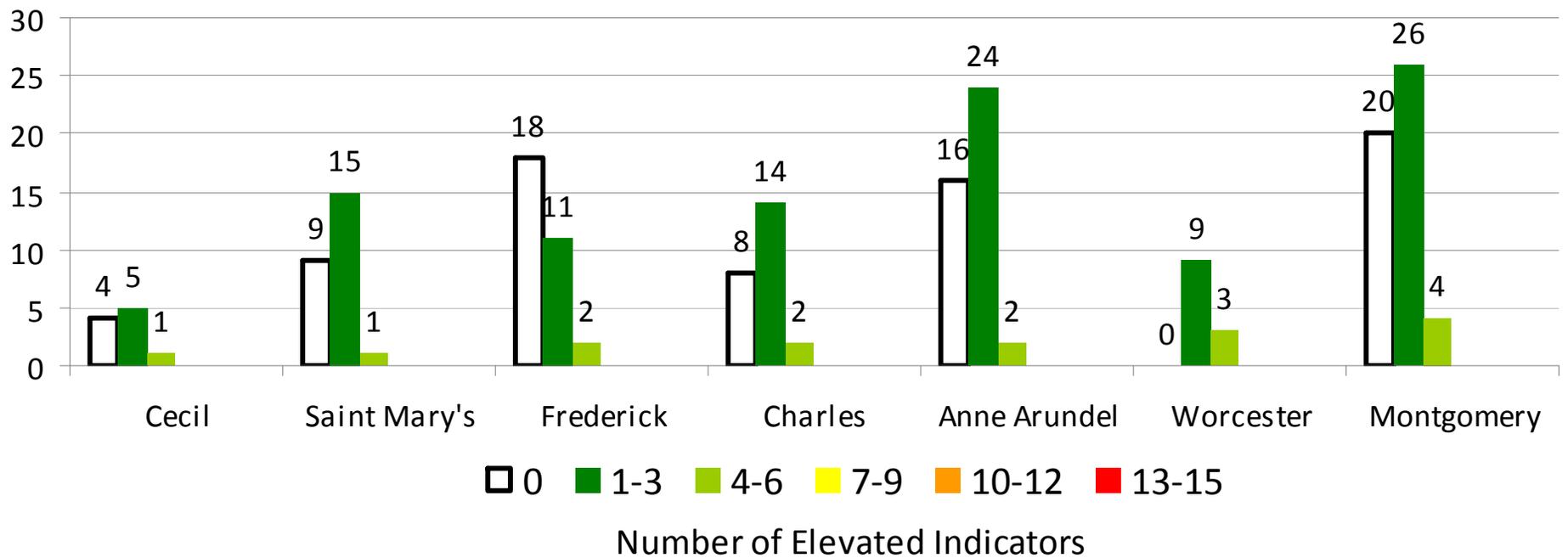
## Maryland Jurisdictions by Number of ZIP Codes Containing Elevated Indicators\* - Tier 2



\* Indicators measured at census tract, zip code, or jurisdiction level, depending on the indicator

Prepared by MD DHMH, Center for Maternal and Child Health

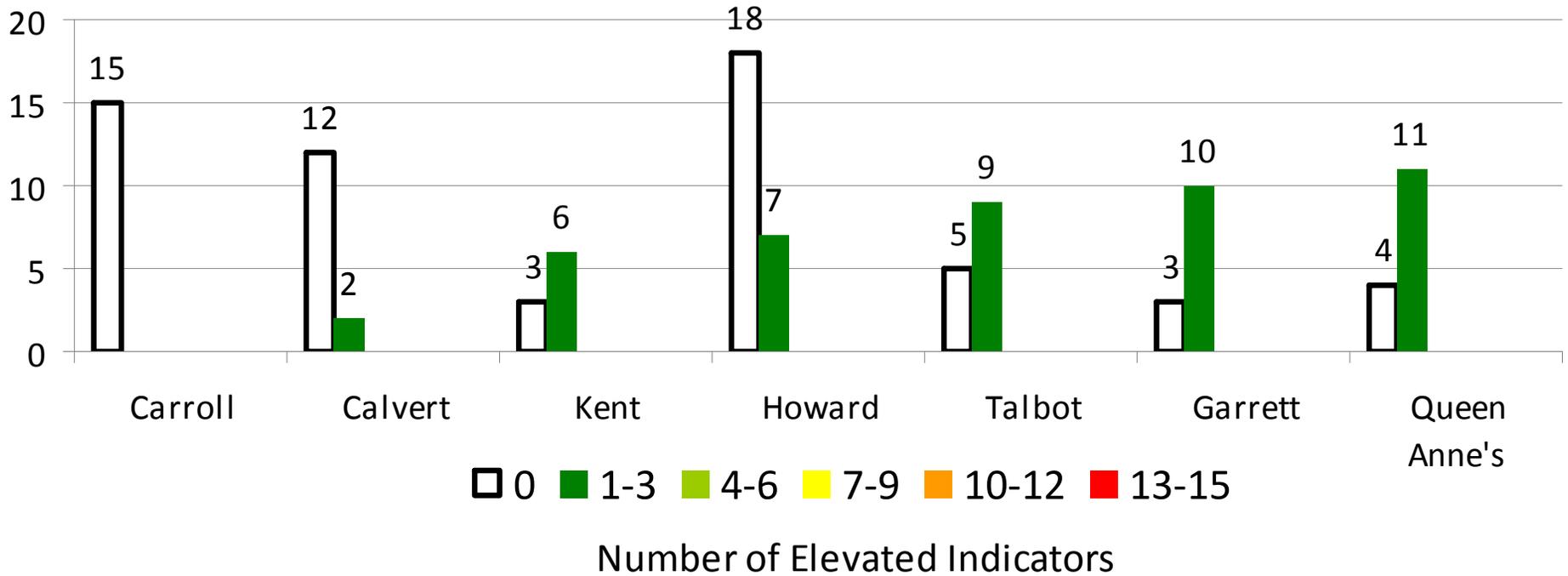
## Maryland Jurisdictions by Number of ZIP Codes Containing Elevated Indicators\* - Tier 3



\* Indicators measured at census tract, zip code, or jurisdiction level, depending on the indicator

Prepared by MD DHMH, Center for Maternal and Child Health

## Maryland Jurisdictions by Number of ZIP Codes Containing Elevated Indicators\* - Tier 4



\* Indicators measured at census tract, zip code, or jurisdiction level, depending on the indicator

Prepared by MD DHMH, Center for Maternal and Child Health

# Questions?

Maryland Department of Health and Mental Hygiene  
Center for Maternal and Child Health

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