

*Centers for Disease Control and Prevention,
National Center for Chronic Disease Prevention and Health Promotion,
Division of Population Health, Epidemiology and Surveillance Branch
(CDC/NCCDPHP/DPH/ESB)*

*4770 Buford HWY NE
Atlanta, GA 30341*

Email: 500Cities@cdc.gov

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Introduction:

The 500 Cities Project – Better Health Through Local Data – is a collaboration between the Robert Wood Johnson Foundation, the CDC Foundation, and the Centers for Disease Control and Prevention (CDC). The purpose of the project is to provide high quality small area estimates for behavioral risk factors that influence health status; for health outcomes; and the use of clinical preventive services. These estimates can be used to identify emerging health problems and to inform development and implementation of effective, targeted public health prevention activities.

Data sources:

The CDC Behavioral Risk Factor Surveillance System 2015, 2016 data. The Census Bureau 2010 census population data, American Community Survey 2011-2015 and 2012-2016 estimates. Esri ArcGIS Online basemaps.

Methodology:

CDC used small area estimation (SAE) methodology called multi-level regression and poststratification (MRP) that links geocoded health surveys and high spatial resolution population demographic and socioeconomic data to produce local level health-related estimates. This approach also accounts for the associations between individual health outcomes, individual characteristics, and spatial contexts and factors at multiple levels (e.g. state, county); predicts individual disease risk and health behaviors in a multi-level modeling framework, and estimates the geographic distributions of population disease burden and health behaviors at city and census tract levels.

Further information on the small area estimation methodology can be obtained from:

- [Multilevel Regression and Poststratification for Small-Area Estimation of Population Health Outcomes: A Case Study of Chronic Obstructive Pulmonary Disease Prevalence Using the Behavioral Risk Factor Surveillance System.\[PDF-5.53MB\]](#)
- [Validation of Multilevel Regression and Poststratification Methodology for Small Area Estimation of Health Indicators from the Behavioral Risk Factor Surveillance System.](#)
- [Comparison of Methods for Estimating Prevalence of Chronic Diseases and Health Behaviors for Small Geographic Areas: Boston Validation Study, 2013](#)

Limitations:

All data presented in this map book are model-based estimates that reflect the statistically expected prevalence of each measure. These small area estimates tend to have narrow confidence ranges and may underestimate some areas with high prevalence or overestimate some areas with low prevalence. Because the small area model cannot detect effects due to local interventions, these model-based local estimates should not be used to evaluate the effect of local public health programs, policies, or interventions.

For more information please refer to <http://www.cdc.gov/500cities/>.

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Measure	Crude (%)			Age-adjusted (%)			State Age-adjusted	US Age-adjusted	Footnotes
	Prevalence	Lower 95% CI	Upper 95% CI	Prevalence	Lower 95% CI	Upper 95% CI	Prevalence (%)	Prevalence (%)	
Chesapeake									
VA									
Arthritis among adults aged >=18 years	24.6	24.4	24.8	24.3	24.1	24.5	23.7	23.0	
Current asthma prevalence among adults aged >=18 years	9.0	8.9	9.1	8.9	8.8	9.0	8.5	8.8	
Cancer (excluding skin cancer) among adults aged >=18 years	5.8	5.8	5.9	6.0	6.0	6.0	5.7	5.9	
High blood pressure among adults aged >=18 years	32.9	32.7	33.2	32.5	32.3	32.7	31.4	29.4	
High cholesterol among adults aged >=18 years who have been screened in the past 5 years	35.5	35.3	35.7	31.8	31.6	31.9	30.7	31.1	
Diagnosed diabetes among adults aged >=18 years	10.3	10.2	10.5	10.1	10.0	10.2	9.5	9.6	
Chronic kidney disease among adults aged >=18 years	2.6	2.5	2.6	2.6	2.6	2.6	2.5	2.7	
Chronic obstructive pulmonary disease among adults aged >=18 years	5.7	5.6	5.8	5.6	5.5	5.7	5.5	6.0	
Coronary heart disease among adults aged >=18 years	5.3	5.2	5.4	5.4	5.4	5.5	5.6	5.8	
Stroke among adults aged >=18 years	2.8	2.8	2.9	2.9	2.8	2.9	2.7	2.9	

Health Outcomes

Use of Preventive Services

Unhealthy Behaviors

