MRP Limitations

- Models the statistically expected prevalence
- Small area estimates tend to have narrow ranges and tend to underestimate those small areas with high prevalence and overestimate areas with low prevalence
- Cannot detect effects due to local interventions—cannot be used for program or policy evaluations
Relationship to Existing Efforts

- Complements similar public health surveillance data that are specifically defined and well-accepted measures of chronic conditions and their risk factors

- **County Health Rankings**
  - County-level, not city or neighborhood

- **America’s Health Rankings**
  - State-level, not city or neighborhood

- **Chronic Disease Indicators**
  - State-level, not city or neighborhood
500 CITIES – ONLINE INFORMATION, DATA, AND MAPS
Online Information – 500 Cities Homepage

Two Phases

- http://www.cdc.gov/500cities
- The current version contains links to
  - Dataset (Open Data)
  - Mapbooks (PDFs)
- A revised version will launch in early 2017 with an embedded interactive web application
- The homepage is designed to be the primary portal for the 500 Cities project
- The dataset can also be accessed through CDC’s Chronic Data Portal
500 Cities – Open Data

- Available now!
- CDC Chronic Data Portal
- https://chronicdata.cdc.gov/health-area/500-cities
- One of several “Health Areas”
500 Cities – Open Data (2)

- Complete datasets in two formats
  - Socrata
  - GIS-friendly (one for cities, one for census tracts)
500 Cities – Open Data (3)

- Filtered Views
- GIS Boundary Files
500 Cities – Open Data (4)

- Example Charts

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500 Cities: Bar graph comparing prevalence of adults with high cholesterol to the prevalence of adults who have been screened for cholesterol in the past five years. This graph shows the prevalence of adults with high cholesterol compared to those who have been screened for cholesterol in the past five years. The project provides model-based small area estimates for 27 measures of chronic disease related to unhealthy behaviors (S), health outcomes (O), and use of preventive services (P). Data were provided by the Centers for Disease Control and Prevention (CDC), Division of Population Health, Epidemiology and Surveillance Branch. The project was funded by the Robert Wood Johnson Foundation (RWJF) in conjunction with the CDC Foundation. It represents a first-of-its-kind effort to release information on a large scale for cities and for small areas within those cities. It includes estimates for the 500 largest US cities and approximately 25,000 census tracts within those cities. These estimates can be used to identify emerging health problems and to inform development and implementation of effective, targeted public health prevention activities. Because the small area model cannot detect effects due to local interventions, users are cautioned against using these estimates for program or policy evaluations. Data sources used to generate these measures include Behavioral Risk Factor Surveillance System (BRFSS) data (2013-2014), Census Bureau 2010 census population data, and American Community Survey (ACS) 2009-2013, 2010-2014 estimates. More information about the methodology can be found at www.cdc.gov/500cities.

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500 Cities: Bubble chart by population and measure for cities. This chart can be joined with city-level spatial data in a geographic information system (GIS) to produce maps of 27 measures at the city level. City-level spatial data also can be downloaded from this site.

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500 Cities: Chart of prevalence of high blood pressure and adults taking medications for high blood pressure. This is a chart comparing the prevalence of adults with high blood pressure to the prevalence of adults taking medications for high blood pressure. This project provides model-based small area estimates for 27 measures of chronic disease related to unhealthy behaviors (S), health outcomes (O), and use of preventive services (P). Data were provided by the Centers for Disease Control and Prevention (CDC), Division of Population Health, Epidemiology and Surveillance Branch. The project was funded by the Robert Wood Johnson Foundation (RWJF) in conjunction with the CDC Foundation. It represents a first-of-its-kind effort to release information on a large scale for cities and for small areas within those cities. It includes estimates for the 500 largest US cities and approximately 25,000 census tracts within those cities. These estimates can be used to identify emerging health problems and to inform development and implementation of effective, targeted public health prevention activities. Because the small area model cannot detect effects due to local interventions, users are cautioned against using these estimates for program or policy evaluations. Data sources used to generate these measures include Behavioral Risk Factor Surveillance System (BRFSS) data (2013-2014), Census Bureau 2010 census population data, and American Community Survey (ACS) 2009-2013, 2010-2014 estimates. More information about the methodology can be found at www.cdc.gov/500cities.

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500 Cities: Bar graph of the prevalence of men and women aged 65 and older who are up-to-date with the recommended core set of clinical preventive services. This project provides model-based small area estimates for 27 measures of chronic disease related to unhealthy behaviors (S), health outcomes (O), and use of preventive services (P). Data were provided by the Centers for Disease Control and Prevention (CDC), Division of Population Health, Epidemiology and Surveillance Branch. The project was funded by the Robert Wood Johnson Foundation (RWJF) in conjunction with the CDC Foundation. It represents a first-of-its-kind effort to release information on a large scale for cities and for small areas within those cities. It includes estimates for the 500 largest US cities and approximately 25,000 census tracts within those cities. These estimates can be used to identify emerging health problems and to inform development and implementation of effective, targeted public health prevention activities. Because the small area model cannot detect effects due to local interventions, users are cautioned against using these estimates for program or policy evaluations. Data sources used to generate these measures include Behavioral Risk Factor Surveillance System (BRFSS) data (2013-2014), Census Bureau 2010 census population data, and American Community Survey (ACS) 2009-2013, 2010-2014 estimates. More information about the methodology can be found at www.cdc.gov/500cities.
500 Cities – Open Data (5)

- View
- Filter
- Visualizations
Open Data – 500 Cities (6)

- Embed
- Export
Binge drinking prevalence among adults aged ≥18 years by census tract, Atlanta, GA, 2014

Classification:
Jenks natural breaks (9 classes) based on data for all 500 cities’ census tracts. Legend depicts only those data classes within this map extent.

Census tracts with population less than 50 were excluded from the map.

Data sources:
Chronic obstructive pulmonary disease among adults aged ≥18 years by census tract, Atlanta, GA, 2014

Classification:
Jenks natural breaks (9 classes) based on data for all 500 cities' census tracts. Legend depicts only those data classes within this map extent.

Census tracts with population less than 50 were excluded from the map.

Data sources:
Sleeping less than 7 hours among adults aged ≥18 years by census tract, Atlanta, GA, 2014

Classification:
Jenks natural breaks (9 classes) based on data for all 500 cities' census tracts. Legend depicts only those data classes within this map extent.

Census tracts with population less than 50 were excluded from map.

Data sources:
Fecal occult blood test, sigmoidoscopy, or colonoscopy among adults aged 50-75 years by census tract, Atlanta, GA, 2014

Classification:
Jenks natural breaks (9 classes) based on data for all 500 cities' census tracts. Legend depicts only those data classes within this map extent.

Census tracts with population less than 50 were excluded from the map.

Data sources:
Interactive Web Application – Coming Soon

- A more interactive tool to explore the data
- Census tract data are difficult to visualize
- GIS-enabled interactive maps
- Deployment in early 2017
The 500 Cities Project Delivering Data to Improve Population Health

Timely, high-quality, small-area epidemiologic data to:

- Identify emerging health problems
- Establish key health objectives
- Inform the development and implementation of effective and targeted prevention activities
The 500 Cities Project Reflects Cutting Edge Public Health

- Reflects innovations in generating valid small-area estimates for population health.
- Complements existing sets of surveillance indicators that report state, metropolitan area, and county-level data.
- Releases uniformly-defined selected data for cities, many of which cover multiple counties or don’t follow county boundaries, and for census tracts.
- Delivers health data on a large scale for cities and small areas within cities, for the first time.
- Enables retrieval, visualization, and exploration of city and tract-level data for the largest 500 US cities for behaviors, health outcomes, and preventive services that have a substantial impact on population health.
www.cdc.gov/500cities

For more information please contact Centers for Disease Control and Prevention

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.