



## A Guide to Community Health Data in Virginia

**databrief**

### What's in this brief?

- ⇒ Types of available community health data for Virginia localities.
- ⇒ What users should know about using community health data.

The term “community health data” refers to various indicators or metrics that can be used to describe the health of a population living in a single community. These measures include:

- ◆ summary measures of health status, such as average life expectancy and all-cause mortality, and
- ◆ determinants of health, such as the use of preventive care, prevalence of behavioral risk factors that contribute to premature death, like smoking and excessive drinking, information on demographic and socioeconomic traits, and measures of the physical environment.

Many studies have examined how best to measure health determinants and the relative importance of each type of measure to population health. One widely-used weighting system for health determinants is reported below.

### Health Determinants by Type and by Contribution to Health Status

<i>Determinants</i>	<i>Examples</i>	<i>Weight</i>
Social and economic factors	Unemployment, children in poverty, high school graduation, violent crime rate	40%
Health risk behaviors	Adult smoking, drinking and obesity, physical inactivity, STIs, motor vehicle crash death rate	30%
Clinical care	Uninsured %, preventable hospital stays, diabetic screening %, primary care physicians	20%
Environmental factors	Air pollution days, access to recreational facilities, fast food restaurants %	10%

Source: Booske, Bridget C., Athens, Jessica K., Kindig, David A., Park, Hyojun, and Remington, Patrick L. 2010. “Different Perspectives for Assigning Weights to Determinants of Health.” County Health Rankings Working Paper, Madison, WI: University of Wisconsin Population Health Institute.

Community health data allows communities to more effectively identify problems and set priorities, implement plans to address problems, and monitor progress toward community health goals. Community health data can help “tell a story” about each community’s health, a story that will hopefully “lead to local conversations about what the community can do to learn more about its health and take action to make improvement” (Community Health Status Indicators Project Working Group. 2009. “Data Sources, Definitions, and Notes for CHIS2009.” Department of Health and Human Services, Washington, D.C., p. 3).

**This brief summarizes findings related to health data use from:** “Health Outcomes and Health Determinants in the Historic Triangle.” A report prepared for the Williamsburg Community Health Foundation.

## Sources of Community Health Data

### 1. County Health Rankings Data. Available at <http://www.countyhealthrankings.org/>.

Each year, since 2010, the *County Health Rankings and Roadmaps* program releases the County Health Rankings (CHR), which rank the health of almost all counties or county-equivalents in the United States relative to other counties in the same state. In this report, there is detailed information on 29 different measures of population health and determinants of population health.

*What users should know when using these data:*

- Many of the measures in a given year's report are constructed by pooling multiple years of data. Pooling multiple years increases the precision of the estimates in any one year; however, it does mean that the data are not necessarily the best way to track progress over time. Also, the CHR program uses slightly different measures for health factors (or health determinants) from one year to the next.
- Several measures of health and determinants of health are not available for smaller localities because small populations can make statistical estimates too imprecise. When this is the case, the measure is reported as "n.a." or "not available" for the locality, and data from the state, as a whole, is used for ranking purposes. This means that the ranking of a smaller locality may be less reliable than rankings for larger localities.
- Three of the five measures of clinical care reported by the CHR pertain to the Medicare population; so, this is a particularly good source of data on preventive care used by seniors.

### 2. Virginia Atlas of Community Health. Available at <http://www.atlasva.com/>.

The Virginia Atlas of Community Health is an online source of community health indicators for Virginia, produced and published as a community service, by Community Health Solutions (CHS) of Richmond. The most recent release of the Virginia Atlas contains 177 measures of health and health-related variables in seven areas: 1) demographic and economic data, 2) maternal and infant health, 3) mortality, 4) prevention quality, 5) health coverage, 6) adult health risks, and 7) child health risks.

*What users should know when using these data:*

- The measures in the adult risk profile are based on synthetic estimations using a model developed several years ago. The measures were not intended to be tracked over time. Newer measures from an updated model will be available in the 2013 Virginia Atlas.
- The measures of adult health risks in the Virginia population may differ somewhat from the estimates reported by the CDC; because, CHS combines several years of survey data while the CDC uses only one year of data.
- The measures in the child health risk profile are based on data released by the Virginia Foundation for Healthy Youth and collected in its 2010 Obesity Survey.



Estimates are not locality specific but reported by Virginia region—North, Southwest, Central, and Southeast.

- The measures of prevention quality, including indicators of clinical care, are defined using patients' zip code of residence taken from hospital discharge records. In Virginia, certain zip codes may be valid for both a city and an adjacent county. As a result, sometimes the rates can be affected by these nuances.

3. Areawide Quality Indicators from Virginia Health Information. Available at [http://www.vhi.org/research\\_home.asp](http://www.vhi.org/research_home.asp).

Areawide Quality Indicators (AQIs) are a set of measures of healthcare quality. Virginia Health Information (VHI) constructed this set of measures for all localities, and the state as a whole, for 2005, 2006, and 2007, using inpatient Virginia hospital discharge records. The VHI website provides downloadable quality indicators in four areas: 1) Prevention Quality Indicators, 2) Inpatient Quality Indicators, 3) Patient Safety Indicators, and 4) Pediatric Quality Indicators. The Prevention Quality Indicators (PQI) and Pediatric Quality Indicators (PDI) are particularly useful for measuring the quality of and access to outpatient care.

*What users should know when using these data:*

- These data do not contain admissions of Virginians to out-of-state hospitals. As a result some rates may be lower than reported. Some cities and counties have prisons, and those admissions may inflate rates for certain conditions.
- Patients are listed as admissions from cities or counties based on the zip code recorded by the hospital as their place of residence. Certain zip codes may be valid for both a city and an adjacent county; this could affect reported rates.
- The 2012 Virginia Atlas also contains several Prevention Quality Indicators, constructed by Community Health Solutions, using hospital discharge records from VHI in calendar year 2010. These data are not directly comparable to the downloadable 2005-2007 data from VHI primarily because of differences in the method of risk adjustment used by the two sources.

4. Centers for Disease Control and Prevention WONDER Data. Available at <http://wonder.cdc.gov/cmfi-icd10.html>.

Data on mortality rates, a key measure of population health, are available from the Centers for Disease Control and Prevention (CDC) WONDER data (Wide-ranging Online Data for Epidemiologic Research).

*What users should know when using these data:*

- Compressed Mortality Files (CMF) have county-level, age-adjusted mortality rates. Age-adjusted rates allow for meaningful comparisons across populations with different population age characteristics.



- Cause specific mortality rates, including rates for deaths stemming from heart disease, cancer, and stroke, can be constructed from the CDC WONDER data.
- CDC WONDER data on mortality rates from other causes of death, such as diabetes and HIV, also exist, but, in some localities, the data are based on too few deaths to be deemed reliable by the CDC.

5. Vital Statistics Data from the Virginia Department of Health (VDH). Available at <http://www.vdh.state.va.us/HealthStats/stats.htm>.

VDH provides data on cancer mortality, low birthweight rates, and early prenatal care use rates for multiple years, and in some cases, by subgroups defined by race. These data can be useful for examining changes over time and examining differences within subgroups of the population. Cancer mortality rates are available for each locality and the state from 2000 through 2007. Low birthweight and prenatal care use rates are available for each locality, and the state, for each year, from 1997 through 2010. These data give a longer perspective on changes in cancer mortality and infant health in the Historic Triangle. Race-specific estimates of cancer mortality and low birthweight for whites and blacks are valuable for examining racial disparities in health.

*What users should know when using these data:*

- Data on overall death rates and death rates, by cause, can be easily downloaded from the VDH website; however, the downloadable data are age-adjusted starting only in 2007. Interested users may be able to obtain age-adjusted death rates for earlier years upon request from VDH, or may wish to use CDC WONDER data on mortality rates.
- VDH also publishes which locality-specific cancer death rates are *significantly higher* or *significantly lower* than the state rate.

6. U.S. Census Bureau Data. Available at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

The U.S. Census Bureau is an excellent source of data on the demographic traits of the population. In addition, various measures of economic traits are also reported by the Census.

*What users should know when using these data:*

- American FactFinder is the Census' interactive web query tool. Users can search for data from the Census by topic (e.g., age, income, year, employment, family status), geographic location, race and ethnic groups, and industry.
- Students attending college may affect the population estimates for localities with a college. Students living outside of their parents' home, while attending a U.S. College, are counted by the Census at the residence where they live most of the time. A large student population may cause population estimates to reflect a lower average age and a higher poverty rate than the 'permanent resident' population.

