

**STATE ENVIRONMENTAL HEALTH INDICATORS COLLABORATIVE (SEHIC)
CLIMATE CHANGE INDICATORS**

Indicator: CC4: Vector borne diseases

Measure(s): CC4.1: Annual number and rate of human cases of Lyme disease

MEASURE DESCRIPTION

CC4.1: Annual number and rate of human cases of Lyme disease	
Last updated:	July 2, 2009
Measurement units:	Number and rate per 100,000 population
Geographic scale:	Statewide
Time scale:	Annual, 1999-2008
Significance/background:	Changes in temperature, precipitation and humidity can greatly impact the transmission of Lyme disease, specifically relating to disease incidence and vector range.
Rationale:	Establishing baseline data on the location and count of Lyme disease cases will allow for early detection of changes that may be related to climate issues.
Limitations:	Annual counts for many states are too small for producing stable rate calculations. Other options for presenting rates are to combine years or states (for example, by region).
Data resources:	CDC Wonder Morbidity and Mortality Weekly Report: http://wonder.cdc.gov/mmwr/mmwr morb.asp
Data limitations:	These data do not provide information on where cases are located within a state, which can vary greatly based on differences in geography and environmental conditions.
Related data:	
Related SEHIC measures:	CC4.2: Annual number and rate of human cases of West Nile Virus CC5.1: Prevalence of West Nile virus in Mosquitoes CC5.2: Prevalence of West Nile virus in sentinel species
Related indicators (from other projects):	
Recommendations:	

HOW-TO GUIDE: CC4.1 Annual number and rate of human cases of Lyme disease

Obtain Data from the CDC Wonder Website:

1. Go to the CDC Wonder web site: <http://wonder.cdc.gov/mmwr/mmwr morb.asp>
2. On this first screen, select the last week of the year of interest. For example, week 52 for 2007.
3. On the next screen, select **Table II (part 4)**. This is the section of the Report that contains Lyme disease data. Click **Submit**.
4. The next screen contains the results of the query. In the Lyme disease section of the table, locate the column labelled **Cum 2007** and note the count for the row corresponding to your state. This is the total count of cases for 2007. The total for the previous year is also included in this table.
5. To obtain an annual rate per 100,000 population for your state, divide the total count by the total population of your state for the same year. <put source of pop data>