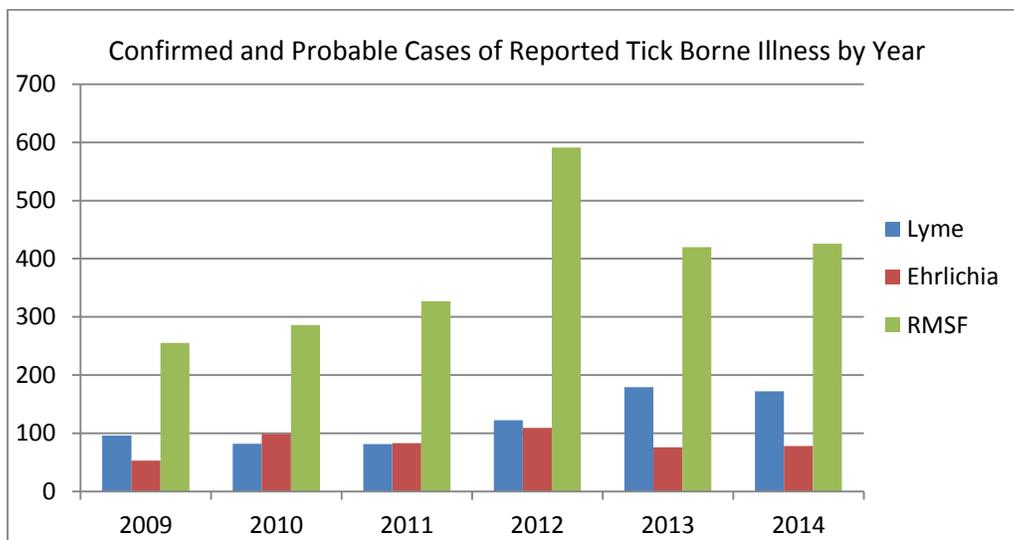


Tick and Mosquito borne disease awareness, April 2015:

With summer fast approaching and people spending more time outdoors it is important for everyone to take precautions to reduce the chances of getting bitten by ticks or mosquitoes. Tick and mosquito borne illness cause illness in a large number of people in North Carolina each year and Governor McCrory has issued a proclamation encouraging all people in NC to be aware of these conditions and take measures to prevent illness:

<http://www.governor.state.nc.us/newsroom/proclamation/20150401/tick-and-mosquito-awareness-month>

Tickborne diseases are common in North Carolina with cases of Rocky Mountain Spotted Fever (RMSF), Lyme disease, and Monocytic Ehrlichiosis reported every year as shown below. These conditions are diagnosed from all regions of the state and can be acquired at any time of year. However, the vast majority occur in the months of June through September.



While Lyme disease is the most commonly reported tick-borne illness in the United States, the tick-borne illness with the highest incidence rate in NC is RMSF. In fact, NC generally has one of the highest rates of reported RMSF in the country: <http://www.cdc.gov/rmsf/stats/>.

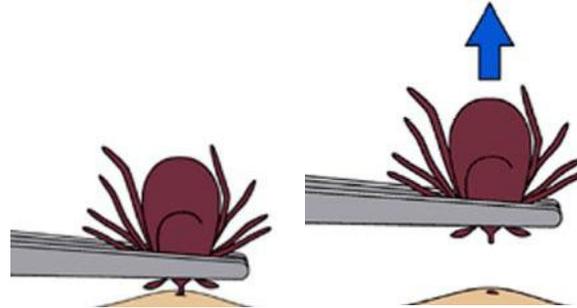
Mosquito borne arboviral diseases are less common than tick borne illness but the Division of Public Health receives reports of encephalitis due to infection with LaCrosse virus and West Nile virus every year. LaCrosse virus infection tends to be focally located in the southwestern portion of the state while West Nile virus infection may occur anywhere. More information can be found here: <http://epi.publichealth.nc.gov/cd/arbo/figures.html>.

The North Carolina Division of Public Health encourages the following activities to help protect against illness caused by ticks and mosquitoes:

**For citizens**

Prevention methods for tick and mosquito bites are similar. In general you should avoid tick habitat which includes wooded, grassy or brushy areas and wear repellents if you can't avoid habitat. If you can't avoid tick habitat, use repellent to reduce the risk of disease. Complete information on reducing your chance of exposure to ticks can be found here: <http://www.cdc.gov/ticks/avoid/index.html>.

If you find a tick attached to your body you should carefully remove it by grasping the tick with a fine tipped tweezers as close as possible to your skin and apply a steady gentle pressure until it releases. These images courtesy of the CDC demonstrate how this is done:



Remember to use precautions when you travel as well. Every year people in North Carolina acquire Malaria, Dengue and Chikungunya while traveling. If you come home with these infections it is possible that you could establish local transmission in NC. The best practice is to avoid acquiring the illness by wearing repellants.

To prevent exposure to mosquitos it is also important to wear repellents as described by the CDC (<http://www.cdc.gov/westnile/fag/repellent.html>) but it is also important to mosquito proof your home by installing or repair screens on windows and doors to keep mosquitoes outside and use your air conditioning, if you have it. Also reduce mosquito breeding by emptying standing water from flowerpots, gutters, buckets, pool covers, pet water dishes, discarded tires, and birdbaths on a regular basis.

#### **For Health Care Providers:**

- Stay abreast of the latest information from the DPH regarding surveillance and diagnosis of tick and mosquito borne illness.
  - Specific information on tickborne illness can be found here:  
<http://epi.publichealth.nc.gov/cd/ticks/providers.html>
  - Specific information on mosquito borne illness can be found here:  
<http://epi.publichealth.nc.gov/cd/arbo/providers.html>
- Review the freely available manual “Tickborne Diseases of the United States.”  
<http://www.cdc.gov/lyme/resources/TickborneDiseases.pdf>

#### **In conclusion:**

While it will not be possible to eliminate all cases of tick and mosquito borne illness in NC you may greatly reduce your risk through application of basic control measures as described above. It is a great time to enjoy North Carolina outdoors, just remember to be mindful of vectorborne diseases and use appropriate control measures for you, your family and your children.