OHIO DEPARTMENT OF HEALTH

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M E M O R A N D U M

DATE: April 21, 2017

TO: Healthcare providers in Ohio

FROM: Sietske de Fijter, MS
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Chief, Bureau of Infectious Diseases

SUBJECT: Lyme disease cases in Ohio continue to increase

Cases of Lyme disease (see **Attachment 1**) have steadily increased in Ohio over the past four years (93 cases in 2013, 119 cases in 2014, 154 in 2015, and 160 in 2016). This increase in cases coincides with the increase in Ohio of the principal vector, *Ixodes scapularis* (the blacklegged tick). Prior to 2010, there were no known established populations of blacklegged ticks in Ohio. Since then, this tick has spread into Ohio and has been found so far in at least 60 counties (see **Attachment 2**), with most being found in eastern and southern regions of the state.

To develop a better understanding of tick-borne diseases in Ohio, the Ohio Department of Health (ODH) would like to ensure that all cases are detected. For this reason, ODH recommends that healthcare providers consider Lyme disease and other tick-borne diseases in the differential diagnosis for patients that present with appropriate symptoms. The following tick-borne diseases are reportable diseases in Ohio, and suspect or confirmed cases should be reported to the local health department where the case resides:

Anaplasmosis and Ehrlichiosis (http://www.odh.ohio.gov/pdf/IDCM/ehrl.pdf)
Babesiosis (http://www.odh.ohio.gov/pdf/IDCM/babesia.pdf)
Lyme disease (http://www.odh.ohio.gov/pdf/IDCM/lyme.pdf)
Rocky Mountain spotted fever (http://www.odh.ohio.gov/pdf/IDCM/rmsf.pdf)

Ensuring that Lyme disease cases are properly reported in Ohio
In order for Lyme disease cases to be properly confirmed and reported in Ohio, it is essential that there is **both** clinical and laboratory evidence of infection. The Centers for Disease Control and Prevention (CDC) still recommends a two-step process to properly test for evidence of antibodies against Lyme disease bacteria (see **Attachment 3**). Additional information can be found at:
http://www.cdc.gov/lyme/healthcare/clinician_twotier.html

Tick-borne diseases typically occur during spring and summer, though blacklegged ticks are active and may transmit disease year-round in Ohio (see **Attachment 4**). More detailed information about blacklegged ticks and tick-borne diseases in Ohio can be found on the ODH website (http://www.odh.ohio.gov/ticks). Please contact your local health department or the ODH's Zoonotic Disease Program at 614-752-1029 if you have questions. Thank you for your consideration to improving tick-borne disease surveillance in Ohio.

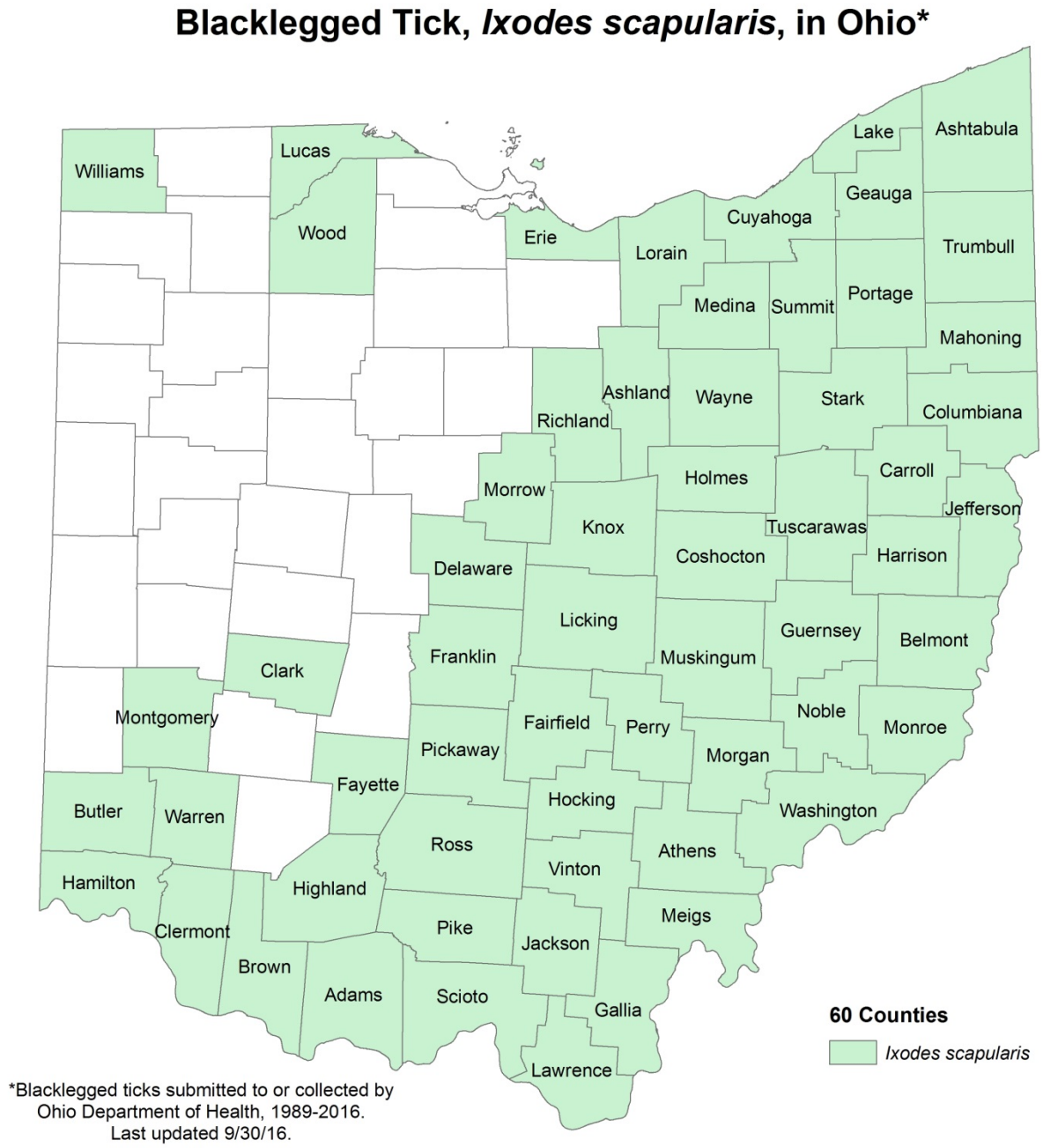
Attachment 1:

Lyme Disease in Ohio
Numbers At-A-Glance
2006-2016

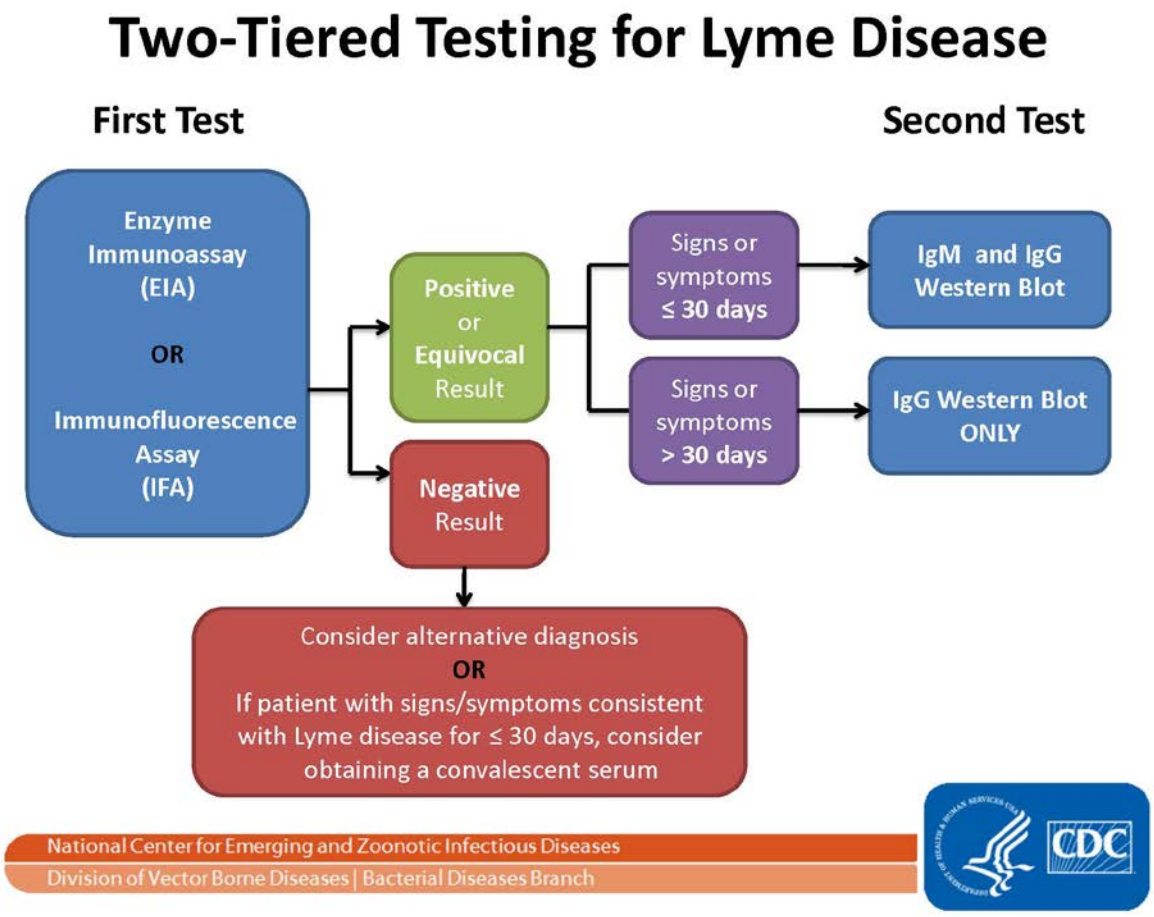
Year	Human Cases	Deaths	Median Age (Years)	Age Range of Cases (Years)	Counties with Reported Lyme Disease Cases
2006	43	0	41	3 - 68	23
2007	33	0	37	7 - 68	24
2008	45	0	30	5 - 74	28
2009	60	0	36.5	2 - 86	28
2010	44	0	36	3 - 63	24
2011	53	0	34	6 - 84	25
2012	66	0	34	3 - 86	30
2013	93	0	43	2 - 84	34
2014	119	0	36	1 - 78	32
2015	154	0	41	1 - 85	44
2016	160	0	37	3-85	40
AVG	**79**	**0**	**37**	n/a	**30**

Source: Ohio Department of Health
Last updated: 04/19/2017

Attachment 2:

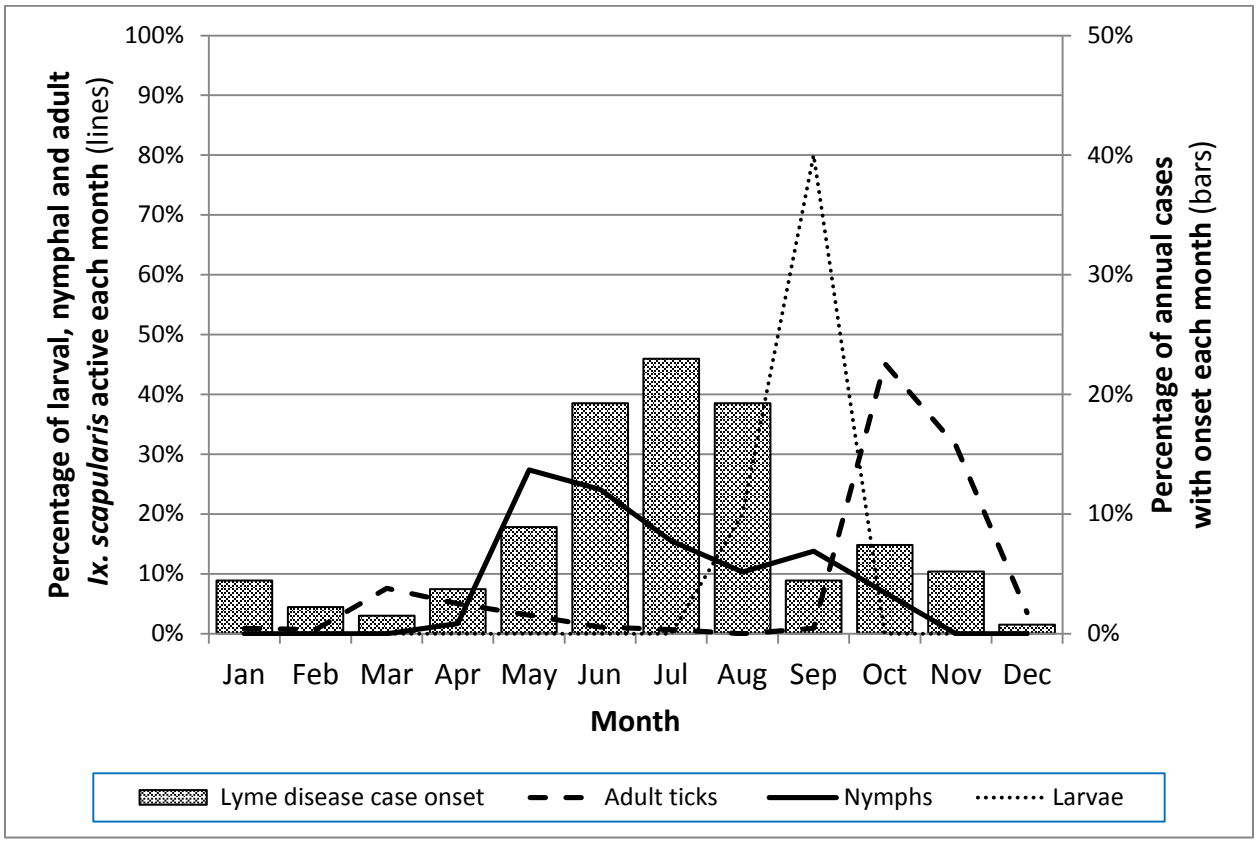


Attachment 3:



Attachment 4:

Timing of Lyme disease case onset and active blacklegged tick stages in Ohio



Blacklegged ticks are active throughout the year in Ohio. The adults are active in spring, fall and winter. The nymphs are active in the spring and summer and the larvae are active late summer. The onset of most Lyme disease cases correspond to the emergence of the nymph stage in spring. (source: ODH, Bureau of Infectious Diseases)