

CDC Report on FY2018 TBD Funding



Photo Credit: James Occi,
(PhD cand.) LDA Scientific
& Professional Advisory
Board

The CDC released a report on FY 2018 tick-borne disease funding, which was requested by the Senate Appropriations Committee. The report includes an overview of the request from the Senate Appropriations Committee. It also provides an update on CDC's work with states and progress in that area. This section includes information on Ticknet, a public health network and on the misuse of the CDC surveillance criteria including a physician survey published in Dec. 2019.

There is also a section that provides an update on how funds were spent when "in FY 2017, CDC received \$10.675M for Lyme disease." Twenty percent (20%) of that went to surveillance, research, and public health program implementation. Seventeen percent (17%) went to state activities, 14% went to Emerging Infection Program cooperative agreement for 10 state health departments who work with academic institutions, federal agencies, public health and clinical labs for vector-borne diseases. That funding also supported CDC's infrastructure for surveillance, research and public health including integrated Pest Management for prevention of vector-borne diseases.

CDC is also working with Colorado State University to develop a new type of test using metabolomics to diagnose early Lyme disease, which CDC says may be more sensitive than the two-tier test.

FROM LDA: Read the 3-page report for more details, but note that the report is unclear and appears to not only address how these monies were expended for Lyme/TBD but also for vector-borne diseases. Also note in the last paragraph of section III, that HHS still maintains an internal tick-borne disease working group with CDC, NIH, and FDA. Do not be confused. That working group is NOT the one Lyme patients and advocates were successful in getting created through legislation and is covered under FACA, meeting in public in DC. This working group meets and deliberates without the benefit of transparency and without a public voice.

[Click here for the CDC report](#)

CDC Focus on Maternal-Fetal Transmission of Lyme Disease

The Centers for Disease Control (CDC) updated its website to include information regarding maternal-fetal transmission of Lyme disease.



Updates from the CDC website:

- [Lyme disease Transmission page](#) under **“Are there other ways to get Lyme disease?”**: “Untreated Lyme disease during pregnancy can lead to infection of the placenta. Spread from mother to fetus is possible but rare. Fortunately, with appropriate antibiotic treatment, there is no increased risk of adverse birth outcomes. There are no published studies assessing developmental outcomes of children whose mothers acquired Lyme disease during pregnancy.”
- [Lyme Disease FAQ page](#) under **“I am pregnant and think I have Lyme disease, what should I do?”**: “If you are pregnant and suspect you have contracted Lyme disease, contact your physician immediately. Untreated Lyme disease during pregnancy can lead to infection of the placenta. Spread from mother to fetus is possible but rare. Fortunately, with appropriate antibiotic treatment, there is no increased risk of adverse birth outcomes.* There are no published studies assessing developmental outcomes of children whose mothers acquired Lyme disease during pregnancy.”

- [Pregnancy and Lyme disease poster](#): information on symptoms, diagnosis, and treatment. Regarding breastfeeding the poster states, “There are no reports of Lyme disease transmission through breast milk.”

LDA President, Pat Smith, said this about the CDC’s recent update, “The maternal-fetal aspect of Lyme disease, mother to baby transmission, has long been known but not well-publicized. The new CDC focus on this Lyme transmission method has been missing in Lyme disease education. A number of advocacy groups, [including the LDA](#), have had information on their websites. [LymeHope](#) in Canada has been strongly advocating for wider recognition of this aspect, in particular nurse Sue Faber, who spoke before the HHS TBD Working Group in DC in January 2020. Now it is up to all of us to call attention to this CDC focus to ensure health departments and physicians are aware of the situation and that they take appropriate steps to ensure pregnant women get the necessary care.”

Visit the CDC [Lyme disease website](#).

View the LDA’s [Pregnancy, Breastfeeding & Lyme Bibliography](#).

CDC Recommends New Lyme Disease Tests Cleared by FDA

The CDC formally recommends several new serologic assay testing methods recently cleared by the FDA. The Lyme disease serologic assays, which utilize a sensitive enzyme immunoassay (EIA) for detecting pathogens, were cleared by the FDA on July



29th, 2019 and have since been determined to be acceptable alternatives for the serologic diagnosis of Lyme disease by the CDC. Serologic assays that utilize EIA rather than western immunoblot assay in a two-test format can be used in place of the western immunoblot assay as the second tier of testing.

In 1994 the CDC and FDA met with several other government health organizations for the Second National Conference on Serologic Diagnosis of Lyme Disease. The consensus reached was a recommendation for a two-test methodology which uses an EIA or immunofluorescence assay as a first test, followed by a western immunoblot assay for specimens yielding positive or equivocal results (cdc.gov). At the time, it was determined that evaluation of any new serologic assays would include blind testing against a comprehensive challenge panel, and that new assays should only be recommended if their specificity, sensitivity, and precision equaled or surpassed the performance of tests used in the recommended two-test procedure (cdc.gov).

Clearance by FDA of the new Lyme disease assays indicates that test performance has been evaluated and is “substantially equivalent to or better than” a legally marketed predicate test (cdc.gov).

According to LDA President Pat Smith, “Although it has been the hope of the Lyme community to have a new Lyme test cleared, it was always with the proviso that new technology needed to be used in test development. With the current two-tier system, which was first implemented in 1994, a positive

or equivocal ELISA test is followed by the Western blot. This method is considered to be about 50% accurate by many, although treating physicians feel the Western blot is perhaps the most significant element of the current Lyme testing protocol.”

“The new two-tier testing system for Lyme disease, the ZEUS ELISA, is now being offered as an alternative to the existing testing protocol. Because ZEUS lacks a Western blot and is not a new technology, it is difficult for many to fathom how this new paradigm, that has been cleared by the FDA as ‘substantially equivalent’ to the existing testing with 50% accuracy, will improve the diagnosis of Lyme disease.”

[Click here](#) to see the CDC’s recommendation of the new serologic assay testing.

TBD Working Group Meeting Summary/Public Comments Now Available – June 4, 2019

The federal Tick-Borne Disease Working Group (TBDWG) held their ninth meeting in D.C. on June 4, 2019 with a focus on developing the next report to be drafted for the HHS Secretary and Congress. The report will include an update on federal tick-borne disease activities and research findings.



[Read Meeting Summary and Written Public Comments –June 4, 2019
TBDWG Meeting](#)

CDC Sounds Warning About Longicornis Tick



The CDC released a series of articles and papers on the new tick *Haemaphysalis longicornis* (Hl), also known as the Asian longhorned tick, which has already spread to 8 other states after being discovered in NJ in 2017. Read about a call to action for vector-borne disease prevention and control to include a national strategy.

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Multistate Infestation with the Exotic Disease–Vector Tick *Haemaphysalis longicornis* – United States, August 2017–September 2018, Morbidity and Mortality Weekly Report (MMWR). Led by Ben Beard (with 31 co-authors).

Describes the emergence of *Haemaphysalis longicornis* (Hl), also known as the Asian longhorned tick, in 9 states.

Click here
https://www.cdc.gov/mmwr/volumes/67/wr/mm6747a3.htm?s_cid=mm6747a3_w

What you need to know about Asian longhorned ticks—a new tick in the United States.

Click here:

<https://www.cdc.gov/ticks/pdfs/AsianLonghornedTick-P.pdf>

Combatting the Increasing Threat of Vector-Borne Disease in the United States with a National Vector-Borne Disease Prevention and Control System, The American Society of Tropical Medicine and Hygiene.

Authors: Lyle R. Petersen, Charles B. Beard and Susanna N. Visser.

A call for action for vector-borne disease prevention and control, in light of emergence of *H1* as the latest public health threat.

Click here:

<https://www.ajtmh.org/content/journals/10.4269/ajtmh.18-0841>

Asian Longhorned Tick Spreading Widely in U.S. – CDC investigating disease threat posed by fast-multiplying exotic tick

CDC Press Release – Thursday, November 29, 2018

Click here:

<https://www.cdc.gov/media/releases/2018/p1129-tick-spreading-widely.html>

New tick species capable of transmitting deadly disease is spreading in the U.S., by Lena H. Sun. Washington Post, November 29, 2018

Covers the CDC releases, featuring Lyle Petersen, director of the CDC's Division of Vector-Borne Diseases.

[Click here](#)

[Longhorned Tick Now Confirmed: NJ, VA, WV, AR, NC, NY, PA, CT & NH](#) – History of spread of Longhorned tick in US – LDA website

Centers for Disease Control & Prevention Announces Higher than Ever Lyme Disease Cases

In a press release by the Centers for Disease Control & Prevention (CDC) on the state of tick-borne diseases in the US, CDC introduced its new platform for reporting Lyme disease statistics. The release indicates that there has been an increase in all tick-borne diseases, not just Lyme disease, and that it is the highest total annual number of Lyme cases ever reported at 42,743 cases, and a total of all reported tick-borne diseases of 59,349, which includes Lyme, anaplasmosis/ehrlichiosis, spotted fever rickettsiosis, babesiosis, tularemia, and Powassan virus.

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The Lyme Disease Association, Inc. reminds the public that Lyme is underreported by a factor of 10, therefore, 427,430

cases of Lyme disease probably occurred in 2017 in the U.S. alone.

[Click here for CDC Release](#)

[Announcement by CDC in Vital Signs Monthly Report](#)

Nov. 14: HHS Tick-Borne Disease Working Group Announces Release of Report to Congress; Centers for Disease Control & Prevention Announces Higher than Ever Lyme Disease Cases

Two major releases from the US Government today confirm what advocates and patients have long known – there is a growing Lyme & tick-borne diseases problem sweeping the land and Congress needs to take action to curb the spread.



In a release long awaited by the Lyme community, the US Department of Health & Human Services announced today that the federal Tick-Borne Disease Working Group (WG) issued its first

report to Congress, the Secretary of the Department of Health & Human Services, and the public—with 2 more reports to follow over the next four years.

Recommendations to Congress include improvement in diagnosis & treatment including new rapid & accurate tests; development of antibiotic combinations and/or therapeutic options for acute and persistent illness; strengthening national surveillance; pathogen-host interaction; federal strategic plan development; funding for TBD; and effects of TBD on national security/service members/veterans/families.

According to Lyme Disease Association, Inc. (LDA) President Pat Smith—one of the 14 members of the Working Group—speaking on behalf of the LDA, “Patients and advocates have waited decades for a government report that contains insights from Lyme patients/family members and advocates as this report does, both from WG members and from the public at large. The report is a first step to unlocking the political gridlock surrounding tick-borne diseases, particularly Lyme.”

She added, “Many of us are horrified that after 45 years of Lyme disease, new generations of babies continue to become infected and not receive the proper diagnosis and treatment needed to prevent lifelong suffering. Now this document, prepared using expert and “real world” input, will be used to inform Congress so they can act to provide the necessary funds to stop this tick-borne disease epidemic sweeping our country.”

[Click here for Working Group Press Release](#)

[Click here for Working Group Report to Congress](#) (Click on “2018 TBDWG Report to HHS Secretary and Congress – PDF”)

[Click here for story on report & new CDC numbers](#)

[Click here for Congressman Chris Smith’s Press Release](#)

[Click here for Asbury Park Press – Lyme Disease: Federal panel recommends testing overhaul, more changes to Congress](#)

CDC Report on Case Numbers

In a separate release by the Centers for Disease Control & Prevention (CDC) on the state of tick-borne diseases in the US, CDC introduced its new platform for reporting Lyme disease statistics. The release indicates that there has been an increase in all tick-borne diseases, not just Lyme disease, and that it is the highest total annual number of Lyme cases ever reported at 42,743 cases, and a total of all reported tick-borne diseases of 59,349, which includes Lyme, anaplasmosis/ehrlichiosis, spotted fever rickettsiosis, babesiosis, tularemia, and Powassan virus.

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2017 Tick-Borne Disease

Numbers are Out: The News is Not Good

Although the numbers of tick-borne diseases have been out several days on



CDC's Wonder platform, a new data set format for tick-borne diseases has just been introduced today by CDC for 2017. It includes much pertinent information including the state numbers, state incidence map and rate, rate per 100,000 by age group, by race, by ethnicity, by sex, for Lyme disease—all which will be in an easy layout to follow. Other TBDs totals are also there. Something the LDA has requested since last year, a disclaimer, has been made on the map concerning MA. MA has changed its reporting so that it relies primarily on lab reports, so it has not been able to have most of its numbers reported out by CDC as it does not meet the case definition set by the Council of State & Territorial Epidemiologists (CSTE). A similar disclaimer should be made for NY. CDC will be releasing more information early next week.

2017 reported case numbers for Lyme, 42,743, is appears to be the largest total reported by CDC. Considering the disease is underreported by a factor of 10, that means 427,430 cases occurred in the US in 2017.

CDC Results show a record number of tick-borne diseases.

Reported Tick-borne Diseases, U.S.

Reported Tick-borne Diseases, U.S.	2016	2017
Lyme Disease (confirmed and probable)	36,429	42,743
Anaplasmosis/Ehrlichiosis [†]	5,750	7,718
Spotted Fever Rickettsiosis [§]	4,269	6,248
Babesiosis ^{§§}	1,910	2,368
Tularemia	230	239
Powassan virus	22	33
Total	48,610	59,349

The LDA has listed the states in rank order for Lyme disease reported case numbers by state for 2017:

1. PA (11,900); 2. NY (5,155); 3. NJ (5,092); 4. WI (3,000);
5. MN (2,318); 6. CT (2,051); 7. MD (1,891); 8. ME (1,850);
9. VA (1,657); 10. NH (1381); 11. VT (1,092); 12. RI (1,132);
13. WV (648); 14. DE (608); 15. NC (295)

The LDA has listed the states in rank order for Lyme disease

incidence by state for 2017 for states CDC classifies as high incidence states:

1. ME (106.6), 2. VT (103.6), 3. PA (72.2), 4. NH (71.2), 5. RI (56.2), 6. DE (43.8), 7. NJ (40.3), 8. CT (38.5), 9. WI (31.0), 10. WV (27.7), 11. MD (19.7), 12. NY (17.6), 13. VA (12.3), 14. DC (8.9), 15. MA (4.7)

The LDA has listed the top 10 age groups in rank order for Lyme diseases reported cases for 2017:

1. 60-64 (3,836); 2. 55-59 (3,717); 3. 5-9 (3,536); 4. 65-69 (3,479); 5. 50-54 (3119); 6. 10-14 (2,953); 7. 40-44 (2,886); 8. 70-74 (2,594); 9. 45-49 (2,447); 10. 15-19 (2098)

CDC Links to data:

(case count summary) <https://www.cdc.gov/ticks/data-summary/index.html>

(state data) <https://www.cdc.gov/lyme/datasurveillance/maps-recent.html>

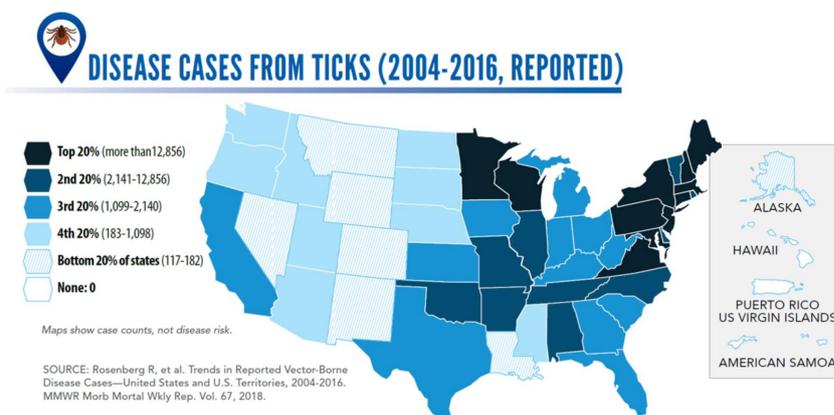
(charts and figures) <https://www.cdc.gov/lyme/datasurveillance/charts-figures-recent.html>

(data tables) <https://www.cdc.gov/lyme/datasurveillance/tables-recent.html>

[increasing trend of reported tickborne diseases.](#)

Tick, Mosquito, Flea-Borne Infections Triple, says CDC's MMWR

Just in time for May Lyme Disease Awareness month, the CDC has released the Morbidity and Mortality Weekly Report (MMWR).



Results as reported by the New York Times: “The number of people getting diseases transmitted by mosquito, tick and flea bites has more than tripled in the United States in recent years, federal health officials reported on Tuesday. Since 2004, at least nine such diseases have been discovered or newly introduced here.”

The Washington Post: “Officials say the actual number of people who have become sick is much higher, in part because many infections are not reported or recognized. Some patients may experience mild symptoms and not seek medical attention, and not all diseases were reported for the full 13-year analysis period or from all states and territories. The data ‘substantially underestimate disease occurrence,’ the report said.”

Abstract of MMWR:

Introduction: Vectorborne diseases are major causes of death and illness worldwide. In the United States, the most common vectorborne pathogens are transmitted by ticks or mosquitoes, including those causing Lyme disease; Rocky Mountain spotted

fever; and West Nile, dengue, and Zika virus diseases. This report examines trends in occurrence of nationally reportable vectorborne diseases during 2004–2016.

Methods: Data reported to the National Notifiable Diseases Surveillance System for 16 notifiable vectorborne diseases during 2004–2016 were analyzed; findings were tabulated by disease, vector type, location, and year.

Results: A total 642,602 cases were reported. The number of annual reports of tickborne bacterial and protozoan diseases more than doubled during this period, from >22,000 in 2004 to >48,000 in 2016. Lyme disease accounted for 82% of all tickborne disease reports during 2004–2016. The occurrence of mosquito-borne diseases was marked by virus epidemics. Transmission in Puerto Rico, the U.S. Virgin Islands, and American Samoa accounted for most reports of dengue, chikungunya, and Zika virus diseases; West Nile virus was endemic, and periodically epidemic, in the continental United States.

[Click here for CDC MMWR Press Release](#)

[Click here for Map of Disease Cases from Ticks \(2006 – 2014, Reported\) by CDC](#)

[Click here for New York Times article](#)

[Click here for Washington Post article](#)