

Thank you for taking part in this survey to understand tick surveillance activities in the United States.

We will be asking questions related to tick surveillance and control within your jurisdiction. The purpose of this survey is to identify current efforts within federal, state, and county/local agencies on tick surveillance and tick control. Your responses will help us gain a more robust understanding of tick surveillance and control program operations, capacity, and challenges.

Questions in this survey cover topics including the types of tick surveillance activities that are currently implemented, which ticks are targeted, the capacity for pathogen testing, and barriers to operating surveillance and control programs.

We also hope to learn about discontinued tick surveillance or control programs that may have existed in the past.

Your responses will raise awareness of efforts by public health and vector control professionals in defining when and where people are at risk for exposure to ticks and tickborne pathogens, and will help to identify gaps in resources to support tick surveillance and control initiatives. Results from this survey will be summarized into a report documenting where and how groups are conducting tick surveillance and tick control in the US.

This survey should take roughly 25 minutes to complete. Your participation in this survey is voluntary. You may refuse to answer any question, and you can stop the survey at any time. Your responses to this survey will remain anonymous, with your confidentiality protected. If you have any questions about this survey, please contact one of the representatives listed below.

For the purposes of this survey, please refer to the following definitions:

- *Tick surveillance* - the collection of tick specimens and other relevant environmental samples to identify tick species in a given area and/or test for the presence of tick-borne pathogens; this does not include the monitoring and reporting of clinical cases of tick-borne disease in human patients.
- *Tick control* - the implementation of practices to reduce or eliminate the presence of ticks in the environment. There are several methods of surveillance and control, and these will be contextualized as they arise in the questionnaire.

One last disclaimer - if you are taking this survey on a mobile device, some question items may be cut off due to the narrow screen. We suggest rotating your device to a horizontal position while completing the survey.

If you consent to participate, please click '**Continue**' to begin.



PACIFIC SOUTHWEST CENTER OF EXCELLENCE IN VECTOR-BORNE DISEASES



CDC Southeastern Center of Excellence in Vector Borne Diseases
The Gateway Program



NEVBD
NORTHEAST REGIONAL CENTER FOR EXCELLENCE IN VECTOR-BORNE DISEASES

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Demographics

In which state do you currently work?

Please categorize the agency where you work using the following options:

	Local/municipal jurisdiction	County/district jurisdiction	State jurisdiction	Federal jurisdiction
Department/agency of agriculture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department/agency of environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department/agency of health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department/agency of natural resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department/agency of public works	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mosquito/vector control district/unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Agricultural or Cooperative Extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public health laboratory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Academic center	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Local/municipal
jurisdiction

County/district
jurisdiction

State
jurisdiction

Federal
jurisdiction

Other (please list):

What is the name of the agency or organization where you currently work?

(If you indicated that your agency operates in a local/municipal or county/district jurisdiction, please include the name(s) of that jurisdiction)

For the purposes of this survey, please refer to the following definitions:

- Active surveillance - focused collection of tick samples from the field for identification, testing, or analysis
- Passive surveillance - accepting tick samples submitted by the public, veterinarians, physicians, etc., for identification, testing or analysis.

Please describe your level of involvement with tick surveillance and/or control activities (select all that apply):

- I am directly involved in tick surveillance and/or control activities
- I supervise others who are directly involved in tick surveillance and/or control activities
- My working unit is responsible for tick surveillance and/or control, but I am not directly involved in these activities
- My work is on human disease surveillance for tick-borne diseases
- My working unit is not directly involved in or connected to tick surveillance and/or control activities
- Other (please describe):

The following questions ask about active and passive tick surveillance program objectives and operations. If you are not familiar with tick surveillance programs in your jurisdiction, please select the appropriate response below to skip to the next section of the survey.

Are you involved with, or otherwise aware of the details about, one or more of the tick surveillance programs in your state/jurisdiction?

- Yes, I can comment on the operation of one or more tick surveillance programs
- No, I am not familiar with these programs. Take me to the next section of the survey.

To the best of your knowledge, which of the following forms of tick surveillance are **currently** conducted by **at least one agency** in your jurisdiction and/or state? (select all that apply)

Note: If you represent a federal or multi-state agency, or an academic center, please select the forms of tick surveillance applicable to your program(s).

	Conducted in Your State/Jurisdiction?			
	Yes	No	I'm Not Sure	Program Discontinued
Routine, regularly implemented active tick surveillance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irregular/ad hoc active tick surveillance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Passive tick surveillance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Is your state or jurisdiction interested in further developing or restarting one of the following forms of tick surveillance?

- Routine, regularly implemented active tick surveillance
- Irregular/ad hoc active tick surveillance
- Passive tick surveillance
- No, we are not interested in developing or restarting a tick surveillance program

Please comment on what factors contributed to program discontinuation for the applicable activity below:

Factors Contributing to Discontinuation

- >> Routine, regularly implemented active tick surveillance
- >> Irregular/ad hoc active tick surveillance
- >> Passive tick surveillance

What are the years of operation for the tick surveillance program?

Example formats:
 1994 - 2004
 1994 - present

	Program Years of Operation	
	Start	Conclusion
>> Routine, regularly implemented active tick surveillance	<input type="text"/>	<input type="text"/>
>> Irregular/ad hoc active tick surveillance	<input type="text"/>	<input type="text"/>
>> Passive tick surveillance	<input type="text"/>	<input type="text"/>

To the best of your knowledge, which public agencies are or have been involved in conducting tick surveillance? (if multiple agencies collaborate, select all that apply)

Program Jurisdiction Level

	Local/Municipal Program	County/District Program	State Program	Federal Program
Department/agency of agriculture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department/agency of environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department of health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department/agency of natural resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department/agency of public works	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mosquito/vector control district/unit(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Agricultural or Cooperative Extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Public Health Laboratory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please describe): <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Does your program work with private or academic partners to conduct **tick surveillance**?

	Partner with your Program?			Partner Organization Name
	Yes	No	I'm Not Sure	
Academic institutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Private organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>

Please indicate the objectives of your tick surveillance program:

	Current Program Objective	Objective Desired but Not Currently Feasible	Not a Program Objective
Detect the presence of ticks by species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evaluate tick abundance by species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitor the current distribution of tick species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitor the geographic spread of tick species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitor the emergence of new tick species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Detect the presence of tick-borne pathogens in ticks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evaluate the prevalence of tick-borne pathogens in ticks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evaluate the prevalence of tick-borne pathogens in reservoir hosts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitor the abundance of ticks that are of public health concern	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assess infection rates of ticks that are of public health concern	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evaluate or calculate risk of tick-borne illness to humans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Current Program Objective
 Objective Desired but Not Currently Feasible
 Not a Program Objective

Other (please describe):

If your program monitors or otherwise tracks the introduction of new species to your area (native and/or invasive to the United States), please describe your general approach to conducting this work:

Which tick species are of importance to your tick surveillance program?

	Level of Importance in Program				
	High	Medium	Low	Not Important	I'm Not Sure
<i>Amblyomma americanum</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Amblyomma maculatum</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Dermacentor albopictus</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Dermacentor andersoni</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Dermacentor occidentalis</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Dermacentor variabilis</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Haemaphysalis longicornis</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Ixodes affinis</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	High	Medium	Low	Not Important	I'm Not Sure
<i>Ixodes pacificus</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Ixodes scapularis</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Rhipicephalus (Boophilus) annulatus</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Rhipicephalus (Boophilus) microplus</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Rhipicephalus sanguineus</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Ornithodoros spp.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introduction of any exotic species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please indicate):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input style="width: 100%; height: 15px;" type="text"/>					

How is your tick surveillance program funded (select all that apply)?

- State funding through appropriations
- State funding through grants
- Federal funding through agency grants/cooperative agreements
- Federal funding through appropriations
- County/municipal tax-based funding
- Other (please describe):

The following questions ask specifically about **active tick surveillance** methods. If your program is not involved in active tick surveillance activities, please select the appropriate option below:

- My program is involved in active tick surveillance activities, and I can answer questions in this area
- My program is involved in active tick surveillance, but I am not familiar with these activities. Please take me to the next section.
- My program is **not** involved in active tick surveillance activities. Please take me to the next section.

Does your tick surveillance program employ the following active surveillance methods?

	Yes	No	I'm Not Sure
Dragging with cloth drags	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Active collection from host/reservoir animals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aspiration of excavated burrows/nests of hosts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using live, caged sentinel animals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flagging with cloth flags	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of baited CO2 traps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please describe): <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you use a dragging or flagging method for active tick surveillance, please indicate which sampling arrangement you use:

- Drag/flag within grid system
- Drag/flag in transect paths
- Drag/flag using both grid systems and transect paths
- Timed collections (e.g., ticks collected per unit time)
- Other (please describe):
- I'm Not Sure
- Not Applicable - our program does not sample with dragging/flagging

Please indicate which active tick surveillance sampling approach applies to your program:

*Note: For the purposes of this survey, **sampling site** is defined as a specific patch within a landscape identified through GPS coordinates. A location, such as a state park, can have multiple sites within it.*

Same Site in Same Location

Different Sites in Same Location

Different Sites in Different Locations

	Same Site in Same Location	Different Sites in Same Location	Different Sites in Different Locations
Sampled each season	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampled every-other season	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampled on rotational basis across multiple seasons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Randomly sampled across seasons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampled in response to disease cases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please describe): <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How many times do you **normally** sample a site in a given season?

- Usually more than once
- Usually just once
- Dependent on incidence of disease cases in the site location
- Other (please describe):

Please describe how you select sampling sites for your active tick surveillance program:

The following questions ask specifically about **passive tick surveillance** methods. If your program is not involved in passive tick surveillance activities, please select the appropriate option below:

- My program is involved in passive tick surveillance activities, and I can answer questions in this area
- My program is involved in passive tick surveillance, but I am **not familiar** with these activities. Please take me to the next section.
- My program is **not** involved in passive tick surveillance activities. Please take me to the next section.

Does your tick surveillance program employ the following passive surveillance methods?

	Yes	No	I'm Not Sure
Use of domestic animals as sentinels for human disease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Passive surveillance of ticks found on humans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Passive surveillance of ticks found on pets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Passive surveillance of ticks found on domestic livestock	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Yes	No	I'm Not Sure
Passive surveillance of ticks found on wildlife	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please describe): <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

From what jurisdictional areas do you accept tick samples for your passive surveillance program?

- Only a single county within state
- Multiple counties within state
- Entire state
- Multiple states in my region
- Entire United States
- National and international locations
- Other (please describe):

From what organizations or groups do you typically receive tick samples?

	High Volume	Medium Volume	Low Volume
Veterinarian offices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General public	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medical providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Citizen science projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public agencies (e.g., Dept. of Health, Dept. of Agriculture)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research consortiums	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please list): <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following questions ask about the testing of ticks or other samples for tick-borne pathogens. If you are not familiar with tick-borne pathogen testing programs in your jurisdiction, please select the appropriate response below to skip to the next section of the survey.

Are you familiar with the tick-borne pathogen testing activities your program/jurisdiction is involved in?

- Yes, and I can answer questions about tick-borne pathogen testing in my jurisdiction
- No, I am not familiar with tick-borne pathogen testing activities. Take me to the next section of the survey.

Does your program and/or jurisdiction conduct or provide financial support for testing of ticks or other samples for tick-borne pathogens?

- Yes

- No
- I'm Not Sure

If tick-borne pathogen testing is conducted for your program and/or jurisdiction, please indicate the type of testing performed (check all that apply):

	Tick Sample(s) Tested			Who conducts testing?			C
	Ticks from Environmental Collections	Ticks from Humans	Ticks from Animals	State-Owned Lab	Academic Lab	Private lab	
<i>Anaplasma phagocytophilum</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Babesia microti</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Borrelia burgdorferi</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Borrelia mayonii</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Borrelia miyamotoi</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other relapsing fever spirochetes (e.g., <i>Borrelia hermsii</i> , <i>B. turicatae</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bourbon virus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Ehrlichia spp.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heartland virus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Powassan virus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Rickettsia spp.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please indicate) <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following questions ask about tick control activities. If you are not familiar with tick control activities in your jurisdiction, please select the appropriate response below to skip to the next section of the survey.

Tick control activities can include pesticide application, host animal reduction, and vegetation management.

Are you familiar with the **tick control** activities conducted in your jurisdiction?

- Yes, and I can answer questions about tick control activities in my jurisdiction
- No, I am not familiar with tick control activities. Take me to the next section of the survey.

Does your program and/or jurisdiction conduct or financially support any tick control activities, such as spraying of pesticides, host animal reduction, vegetation management?

- Yes
- No

I'm Not Sure

To the best of your knowledge, which public agencies are involved in conducting tick control activities? (if multiple agencies collaborate, select all that apply)

	Program Jurisdiction Level			
	Local/Municipal Program	County/District Program	State Program	Federal Program
Department/agency of agriculture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department/agency of environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department of health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department/agency of natural resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Department/agency of public works	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mosquito/vector control district/unit(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Agricultural or Cooperative Extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Public Health Laboratory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please describe): <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Does your program and/or jurisdiction work with private or academic partners to conduct tick control?

	Partner with your Program?			Partner Organization Name <input type="text"/>
	Yes	No	I'm Not Sure	
Academic institutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Private organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>

Please indicate the forms of tick control used by your program:

	Tick Control Method Performed?			
	Performed In-House	Contracted Out to Private Company	Joint effort of multiple programs	Cont Metho Use
Application of conventional or synthetic chemical pesticides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Application of botanical pesticides/biopesticides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Host species reduction programs (e.g., deer culling)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Host species exclusion programs (e.g., deer fences)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Treatment of host species with pesticides (e.g., rodent bait boxes, deer four-posters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Host species exclusion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vegetation modification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please describe): <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you indicated that your program uses the application of conventional or synthetic chemical pesticides, please indicate which are used (select all that apply):

- Bifenthrin (Talstar®, Ortho® products)
- Carbaryl (Sevin®)
- Cyfluthrin (Tempo®, and other brands)
- Deltamethrin (DeltaGard®, Suspend®)
- lambda*-cyhalothrin (Scimitar®, Demand®)
- Permethrin (Permethrin, Astro®, Ortho® products, Bonide® products)
- Pyrethrins (Pyrenone®, Kicker®)
- Other (please list):
- I'm Not Sure
- Not Applicable - Conventional/synthetic pesticides are not used by my program

If you indicated that your program uses the application of botanical or biopesticides, please indicate which are used (select all that apply):

- Metarhizium brunneum/anisopliae* entomopathogenic fungus (Met52®)
- Garlic oil
- Rosemary oil
- Peppermint oil
- Cedar oil
- Nookatone
- Mixed essential oils (lemongrass, thyme, geraniol)
- Other (please list):
- I'm Not Sure
- Not Applicable - Botanical/biopesticides are not used by my program

If you indicated that your program applies treatment to tick hosts, please indicate which methods are used (select all that apply):

- Topical acaricide rodent bait box (Select TCS™)
- Tick Tubes (Damminix®)
- 4-Poster Tickicide (deer)
- Anti-tick vaccine
- Oral Lyme disease vaccine bait
- Oral tick growth regulator
- Other (please list):
- I'm Not Sure
- Not Applicable - My program does not perform tick host treatments

Does your program and/or jurisdiction conduct or financially support any pesticide resistance monitoring/assessments among local tick populations?

- Yes
- No
- Not Sure

If you indicated that your program conducts or financially supports pesticide resistance monitoring or assessment, please briefly describe these activities:

Please describe how information from your tick surveillance, tick-borne pathogen testing, and/or control program is shared/disseminated:

- Information not shared
- Results drafted into summary reports available online
- Results incorporated into maps made available online
- Results drafted into summary reports sent to specific stakeholder audiences
- Results drafted into educational materials to inform public/communities
- Reported to CDC through appropriate databases
- Reported to CDC through annual ELC or EIP reports
- Results shared with local health departments
- Results shared with partner agencies within state
- Results shared with partner agencies in neighboring states
- Results shared with medical providers
- Data made available to the public online
- Data shared with academic partners for analysis
- Other (please describe):
- Not Applicable

Please describe any barriers you face in sharing tick-related information with the public:

	Major Barrier	Minor Barrier	Not a Barrier
Lack of funds to develop public-facing materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of personnel trained in communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of software to develop public-facing materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Major Barrier	Minor Barrier	Not a Barrier
Language barriers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural barriers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Restrictive institutional policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Complexity of tick-borne disease topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please describe): <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please describe any barriers you face in sharing tick surveillance, testing, and/or control data with partners and/or stakeholders:

	Major Barrier	Minor Barrier	Not a Barrier
Lack of minimum data set requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of standardized protocols across agencies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time & effort costs of preparing data for sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of trained personnel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of necessary software	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incompatibility between surveillance databases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of data sharing guidance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Restrictive institutional data sharing policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal data protection laws	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficulty establishing data sharing agreements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intellectual property rights/data ownership concerns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please describe): <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What are the most significant barriers to developing and/or enhancing tick surveillance and control in your program or jurisdiction? (select all that apply)

	Barrier to Tick Surveillance	Barrier to Tick Control
Funding constraints	<input type="checkbox"/>	<input type="checkbox"/>
Lack of trained personnel	<input type="checkbox"/>	<input type="checkbox"/>

	Barrier to Tick Surveillance	Barrier to Tick Control
Competing priorities for limited program resources (e.g., mosquito, flea, bed bug)	<input type="checkbox"/>	<input type="checkbox"/>
Limitations in facilities/equipment	<input type="checkbox"/>	<input type="checkbox"/>
Lack of access to testing labs/resources	<input type="checkbox"/>	<input type="checkbox"/>
Coordination among agencies/units	<input type="checkbox"/>	<input type="checkbox"/>
Lack of guidelines for best practices	<input type="checkbox"/>	<input type="checkbox"/>
Lack of evidence-based, large-scale tick management practices	<input type="checkbox"/>	<input type="checkbox"/>
Other (please describe): <div style="border: 1px solid black; height: 60px; width: 100%; margin-top: 5px;"></div>	<input type="checkbox"/>	<input type="checkbox"/>

When thinking about **tick surveillance**, what efforts or activities do you think could resolve barriers to program development or enhancement?

When thinking about **tick control**, what efforts or activities do you think could resolve barriers to program development or enhancement?

Please use the space below to share additional details about tick surveillance, tick-borne pathogen testing, and/or tick control in your area that have not otherwise been addressed in this survey.

You have finished answering all of the questions in this survey. If you would like to take this moment to review your answers and make any changes, please do so by selecting the **"back"** button below.

If you are satisfied with your responses, please select **"continue"** to submit your survey.

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