

## Knowledge, Attitudes, and Practices (KAP) about body lice- and flea-borne diseases: Survey for Shelter Workers

**Instructions to Interviewer:** Please read the italicized information to the participant before starting the block of survey questions. Read the participant the entire question and then ask the participant to choose the answer. If needed, you may prompt them with the answer options. If any material is in **bold** within the question box, please do not read that portion to the participant (**bolded text** is instructional for you). You may also need to remind participants that questions about lice are about **BODY** lice, not head lice. Some homeless service sites prefer the term “guests” rather than “clients”; please adjust your terminology accordingly. As a reminder, participants can choose to skip any question that they prefer not to answer.

Location ID: \_\_\_\_\_

Participant ID: \_\_\_\_\_

*“Thank you for your time and participation. We are working with [local public health/academic partner(s)] to learn more about vector-borne disease among people experiencing homelessness. People can get vector-borne diseases after being bitten by infected bugs such as lice and fleas. This survey will help us provide useful information about these diseases to workers and volunteers in shelters serving people experiencing homelessness. Your participation in this survey is completely voluntary; feel free to skip any questions that you don’t want to answer or to stop the survey at any time.”*

*“First, I’d like to ask you some questions about **body** lice and fleas.”*

<b>KL1</b>	Which of the following pictures shows <b>body</b> lice?  <b>Show participant the laminated photo page.</b>	<input type="checkbox"/> Image A <input type="checkbox"/> Image B <input type="checkbox"/> Image C <input type="checkbox"/> Image D <input type="checkbox"/> None of these images <input type="checkbox"/> I don’t know <input type="checkbox"/> Prefer not to say
<b>KF1</b>	Which of the following pictures shows flea bites?  <b>Show participant the laminated photo page.</b>	<input type="checkbox"/> Image A <input type="checkbox"/> Image B <input type="checkbox"/> Image C <input type="checkbox"/> Image D <input type="checkbox"/> None of these images <input type="checkbox"/> I don’t know <input type="checkbox"/> Prefer not to say

“I have a few questions about **body lice**. Please let me know if you think that each sentence is ‘True’ or ‘False’. You can also say “I don’t know.”

<b>KL2</b>	Body lice can spread directly from person-to-person.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KL3</b>	Body lice lay their eggs in seams of clothing.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KL4</b>	Sharing clothes, sleeping bags, or bedding can lead to body lice moving from one person to another.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KL5</b>	Body lice live on cats and dogs.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KF6</b>	Body lice live on mice and rats.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KL7</b>	Washing clothes and bedding can kill body lice. <b>Instructions to Interviewer: If people ask, state that this question assumes washing with HOT water and with drying on high heat.</b>	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KL8</b>	Body lice live outside in wooded areas.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KL9</b>	Showering or bathing can prevent body lice.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KL10</b>	Medicines applied to the skin must be used to treat severe body lice.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KL11</b>	The best treatment for severe body lice is permethrin. Some other names for permethrin are Nix and Elimite.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say

“Now I have a few questions about **fleas**. Please let me know if you think that each sentence is ‘True’ or ‘False’. You can also say “I don’t know.”

<b>KF2</b>	Fleas can spread directly from person-to-person.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KF3</b>	Fleas may lay their eggs in seams of clothing.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KF4</b>	Sharing clothes, sleeping bags, or bedding can lead to fleas moving from one person to another.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KF5</b>	Fleas live on cats and dogs.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KF6</b>	Fleas live on mice and rats.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KF7</b>	Washing clothes and bedding can kill fleas.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KF8</b>	Fleas live outside in wooded areas.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>KF9</b>	Showering or bathing can prevent fleas.	<input type="checkbox"/> True <input type="checkbox"/> False <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say

“Now I’d like to ask you some questions about some bugs that can affect people experiencing homelessness. Body lice and fleas are two of these bugs. Here are some pictures of **body lice** and their eggs, or ‘nits’, which are often found in the seams of clothing. We’re talking about **body lice**, which are often found in the seams of clothing, not head lice, which are often found in hair.”

<b>PL1</b>	Have any clients here ever had body lice?  <b>IF Yes, GO TO PL2</b> <b>IF No, I don’t know, OR Prefer not to say, GO TO PL3</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I don’t know <input type="checkbox"/> Prefer not to say
<b>PL2</b>	About what percentage of clients have had body lice in the last 12 months?	<input type="checkbox"/> ____% of clients <input type="checkbox"/> Have not worked or volunteered here during past 12 months <input type="checkbox"/> Prefer not to say
<b>PL3</b>	What happens at this shelter when a client is found to have body lice? _____	<input type="checkbox"/> (Free response) <input type="checkbox"/> I don’t know <input type="checkbox"/> Prefer not to say
<b>PL4</b>	Do shelter workers check clients for body lice?  <b>IF Yes, GO TO PL5</b> <b>IF No, I don’t know, OR Prefer not to say, GO TO PL6</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I don’t know <input type="checkbox"/> Prefer not to say
<b>PL5</b>	How often do these checks occur?	<input type="checkbox"/> At admission <input type="checkbox"/> At regular intervals <input type="checkbox"/> Only when body lice are suspected <input type="checkbox"/> I don’t know <input type="checkbox"/> Other _____ <input type="checkbox"/> Prefer not to say
<b>PL6</b>	If a person is found to have body lice, are they kept away from other people?  <b>IF Yes, GO TO PL7</b> <b>IF No, I don’t know, OR Prefer not to say, GO TO PF1</b>	<input type="checkbox"/> Yes, individually <input type="checkbox"/> Yes, kept separate with other people who have lice infestation <input type="checkbox"/> No <input type="checkbox"/> I don’t know <input type="checkbox"/> Other _____ <input type="checkbox"/> Prefer not to say
<b>PL7</b>	For how long are people with body lice kept separate?	<input type="checkbox"/> _____ Days <input type="checkbox"/> I don’t know <input type="checkbox"/> Other _____ <input type="checkbox"/> Prefer not to say

“Now I’d like to ask a few questions about fleas. Fleas are small bugs that can bite humans. Here are some pictures of fleas which can cause bites that look like this.”

**Show laminated photos of fleas and flea bites.**

<b>PF1</b>	Have any clients here ever had fleas or flea bites?	<input type="checkbox"/> Yes
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	<b>IF Yes, GO TO PF2</b> <b>IF No, I don't know, OR Prefer not to say, GO TO PF3</b>	<input type="checkbox"/> No <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>PF2</b>	About what percentage of clients have had fleas or flea bites in the last 12 months?	<input type="checkbox"/> ____% of clients <input type="checkbox"/> Have not worked or volunteered here during past 12 months <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>PF3</b>	What is done when a client is found to have flea bites? _____	<input type="checkbox"/> (Free response) <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>PF4</b>	Do shelter workers check clients for fleas or flea bites? <b>IF Yes, GO TO PF5</b> <b>IF No, I don't know, OR Prefer not to say, GO TO PF6</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I don't know <input type="checkbox"/> Prefer not to say
<b>PF5</b>	How often do these checks occur?	<input type="checkbox"/> At admission <input type="checkbox"/> At regular intervals <input type="checkbox"/> Only when fleas or flea bites are suspected <input type="checkbox"/> I don't know <input type="checkbox"/> Other _____ <input type="checkbox"/> Prefer not to say
<b>PF6</b>	If animals such as pets, companion animals, or service animals, are allowed, are these animals screened for fleas and flea bites?	<input type="checkbox"/> Yes, at admission <input type="checkbox"/> Yes, at regular intervals (specify) _____ <input type="checkbox"/> No <input type="checkbox"/> N/A (animals are not allowed) <input type="checkbox"/> Prefer not to say

<p><b>PF7</b></p>	<p>Are steps taken to treat fleas at this shelter?</p>	<p><input type="checkbox"/> Yes, at admission for all people and animals</p> <p><input type="checkbox"/> Yes, at admission for any person or animals found to have fleas</p> <p><input type="checkbox"/> Yes, at regular intervals for all people or animals (specify) _____</p> <p><input type="checkbox"/> Yes, at regular intervals for any person or animal found to have fleas (specify) _____</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> I don't know</p> <p><input type="checkbox"/> Prefer not to say</p>
<p><b>PF8</b></p>	<p>If a <u>person</u> is found to have fleas or flea bites, are they kept away from other people?</p> <p><b>IF Yes, GO TO PF9</b>  <b>IF No, I don't know, OR Prefer not to say, GO TO PF10</b></p>	<p><input type="checkbox"/> Yes, individually</p> <p><input type="checkbox"/> Yes, kept separate with other people who have flea infestation</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> I don't know</p> <p><input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Prefer not to say</p>
<p><b>PF9</b></p>	<p>For how long are people kept separate?</p>	<p><input type="checkbox"/> _____ Days</p> <p><input type="checkbox"/> I don't know</p> <p><input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Prefer not to say</p>
<p><b>PF10</b></p>	<p>If an <u>animal</u> found to have fleas or flea bites, are they kept away from other people and animals?</p> <p><b>IF Yes, GO TO PF11</b>  <b>IF No OR Prefer not to say, GO TO PG1</b></p>	<p><input type="checkbox"/> Yes, individually</p> <p><input type="checkbox"/> Yes, kept separate with other animals with flea infestations</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> I don't know</p> <p><input type="checkbox"/> Prefer not to say</p>
<p><b>PF11</b></p>	<p>For how long are animals kept separate?</p>	<p><input type="checkbox"/> _____ Days</p> <p><input type="checkbox"/> I don't know</p> <p><input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Prefer not to say</p>

“Now I’d like to ask you some questions about diseases that can be spread by **body lice**.”

<p><b>LBDA1</b></p>	<p>Which of the following diseases can be transmitted by body lice? Choose all that apply. It’s also OK to say that you don’t know.</p> <p><b>Please read participant all answer options. Check all that apply.</b></p>	<p><input type="checkbox"/> Typhoid fever  <input type="checkbox"/> HIV  <input type="checkbox"/> <i>Bartonella quintana</i>, also known as Trench Fever  <input type="checkbox"/> <i>Rickettsia typhi</i>; also known as murine typhus  <input type="checkbox"/> Malaria  <input type="checkbox"/> Lyme disease  <input type="checkbox"/> Epidemic typhus  <input type="checkbox"/> Plague  <input type="checkbox"/> Tularemia  <input type="checkbox"/> Cat-scratch disease  <input type="checkbox"/> Hepatitis A  <input type="checkbox"/> Hepatitis B  <input type="checkbox"/> Hepatitis C  <input type="checkbox"/> Other _____  <input type="checkbox"/> No diseases are transmitted by body lice  <input type="checkbox"/> I don’t know  <input type="checkbox"/> Prefer not to say</p>
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“Now I’d like to ask you some questions about diseases that can be spread by **fleas**.”

<p><b>FBDA1</b></p>	<p>Which of the following diseases can be transmitted by fleas? Choose all that apply. It’s also OK to say that you don’t know.</p> <p><b>Please read participant all answer options. Check all that apply.</b></p>	<p><input type="checkbox"/> Typhoid fever  <input type="checkbox"/> HIV  <input type="checkbox"/> <i>Bartonella quintana</i>, also known as Trench Fever  <input type="checkbox"/> <i>Rickettsia typhi</i>; also known as murine typhus  <input type="checkbox"/> Malaria  <input type="checkbox"/> Lyme disease  <input type="checkbox"/> Epidemic typhus  <input type="checkbox"/> Plague  <input type="checkbox"/> Tularemia  <input type="checkbox"/> Cat-scratch disease  <input type="checkbox"/> Hepatitis A  <input type="checkbox"/> Hepatitis B  <input type="checkbox"/> Hepatitis C  <input type="checkbox"/> Other _____  <input type="checkbox"/> No diseases are transmitted by fleas  <input type="checkbox"/> I don’t know  <input type="checkbox"/> Prefer not to say</p>
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“I’m going to read a few sentences. Let me know how much you agree with each statement using a scale of 1 to 5, 1 being least and 5 being most.”

<b>LBD1</b>	Body lice are a problem for people experiencing homelessness.	<input type="checkbox"/> 5 (Strongly Agree) <input type="checkbox"/> 4 (Agree) <input type="checkbox"/> 3 (Neither Agree nor Disagree or Don't Know) <input type="checkbox"/> 2 (Disagree) <input type="checkbox"/> 1 (Strongly Disagree) <input type="checkbox"/> Prefer not to say
<b>LBD2</b>	I know about <i>Bartonella quintana</i> infection, sometimes called “trench fever”	<input type="checkbox"/> 5 (Strongly Agree) <input type="checkbox"/> 4 (Agree) <input type="checkbox"/> 3 (Neither Agree nor Disagree) <input type="checkbox"/> 2 (Disagree) <input type="checkbox"/> 1 (Strongly Disagree) <input type="checkbox"/> Prefer not to say
<b>LBD3</b>	<i>Bartonella quintana</i> infection is a risk for people experiencing homelessness.	<input type="checkbox"/> 5 (Strongly Agree) <input type="checkbox"/> 4 (Agree) <input type="checkbox"/> 3 (Neither Agree nor Disagree or don't know) <input type="checkbox"/> 2 (Disagree) <input type="checkbox"/> 1 (Strongly Disagree) <input type="checkbox"/> Prefer not to say
<b>LBD4</b>	I know about epidemic typhus ( <i>Rickettsia prowazekii</i> infection) infection.	<input type="checkbox"/> 5 (Strongly Agree) <input type="checkbox"/> 4 (Agree) <input type="checkbox"/> 3 (Neither Agree nor Disagree) <input type="checkbox"/> 2 (Disagree) <input type="checkbox"/> 1 (Strongly Disagree) <input type="checkbox"/> Prefer not to say
<b>LBD5</b>	Epidemic typhus ( <i>Rickettsia prowazekii</i> infection) is a risk for people experiencing homelessness.	<input type="checkbox"/> 5 (Strongly Agree) <input type="checkbox"/> 4 (Agree) <input type="checkbox"/> 3 (Neither Agree nor Disagree or don't know) <input type="checkbox"/> 2 (Disagree) <input type="checkbox"/> 1 (Strongly Disagree) <input type="checkbox"/> Prefer not to say



<b>FBD1</b>	Fleas are a problem for people experiencing homelessness.	<input type="checkbox"/> 5 (Strongly Agree) <input type="checkbox"/> 4 (Agree) <input type="checkbox"/> 3 (Neither Agree nor Disagree or don't know) <input type="checkbox"/> 2 (Disagree) <input type="checkbox"/> 1 (Strongly Disagree) <input type="checkbox"/> Prefer not to say
<b>FBD2</b>	I know about flea-borne typhus ( <i>Rickettsia typhi</i> infection), sometimes called “murine typhus”	<input type="checkbox"/> 5 (Strongly Agree) <input type="checkbox"/> 4 (Agree) <input type="checkbox"/> 3 (Neither Agree nor Disagree) <input type="checkbox"/> 2 (Disagree) <input type="checkbox"/> 1 (Strongly Disagree) <input type="checkbox"/> Prefer not to say
<b>FBD3</b>	Flea-borne typhus is a risk for people experiencing homelessness.	<input type="checkbox"/> 5 (Strongly Agree) <input type="checkbox"/> 4 (Agree) <input type="checkbox"/> 3 (Neither Agree nor Disagree or Don't Know) <input type="checkbox"/> 2 (Disagree) <input type="checkbox"/> 1 (Strongly Disagree) <input type="checkbox"/> Prefer not to say

*“Now I’d like to ask you some questions about how you would like to learn more about diseases that can affect people experiencing homelessness.”*

<b>PLM1</b>	How do <b>you</b> prefer to learn new information? Choose all that apply.  <b>Read answer options.</b>	<input type="checkbox"/> In-person trainings <input type="checkbox"/> Online modules (self-guided; available at any time) <input type="checkbox"/> Online seminars or workshops (at specific times/dates with live content) <input type="checkbox"/> Printed material (e.g. posters, handouts, books, journal articles) <input type="checkbox"/> Online material (e.g. websites, journal articles) <input type="checkbox"/> Other: _____ <input type="checkbox"/> Prefer not to say
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<b>PLM2</b>	Of these options, which is your <b>favorite</b> way to learn new information?  <b>Read answer options.</b>	<input type="checkbox"/> In-person trainings <input type="checkbox"/> Online modules (self-guided; available at any time) <input type="checkbox"/> Online seminars or workshops (at specific times/dates with live content) <input type="checkbox"/> Printed material (e.g. posters, handouts, books, journal articles) <input type="checkbox"/> Online material (e.g. websites, journal articles) <input type="checkbox"/> Other: _____ <input type="checkbox"/> Prefer not to say
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“Now, I’d like to ask you some questions about yourself. Remember that you can skip any question that you would prefer not to answer.”

<b>D1</b>	How old are you?	<input type="checkbox"/> _____ years <input type="checkbox"/> Prefer not to say
<b>D2</b>	Do you identify as male, female, transgender, non-binary, or something else?	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Transgender <input type="checkbox"/> Non-binary <input type="checkbox"/> Something else <input type="checkbox"/> Prefer not to say
<b>D3</b>	How long have you worked or volunteered at this shelter?	<input type="checkbox"/> _____ years <input type="checkbox"/> Prefer not to say
<b>D4</b>	On average, about how many hours did you work or volunteer each week at this shelter in the last month?	<input type="checkbox"/> _____ hours <input type="checkbox"/> Prefer not to say
<b>D5</b>	Please describe your current job position and role. _____	<input type="checkbox"/> Write-in (question box) <input type="checkbox"/> Prefer not to say
<b>D6</b>	How long have you worked with people experiencing homelessness?	<input type="checkbox"/> _____ years <input type="checkbox"/> Prefer not to say
<b>D7</b>	During your career, at how many programs serving persons experiencing homelessness have you worked?	<input type="checkbox"/> _____ <input type="checkbox"/> Prefer not to say
<b>D8</b>	In the past 12 months, have <u>you</u> been homeless at any time? By homeless, I mean you were living on the street, in a shelter, in a single occupancy hotel room, or in a car.  <b>IF Yes, GO TO D9</b> <b>IF No, OR Prefer not to say, GO TO D10</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to say
<b>D9</b>	Are you currently experiencing homelessness?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Prefer not to say
<b>D10</b>	Have you ever been diagnosed with a <i>Bartonella</i> infection, sometimes called “cat-scratch disease” or “trench fever”?  <b>IF Yes, GO TO D11</b> <b>IF No, I don’t know, OR Prefer not to say, GO TO D12</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I don’t know <input type="checkbox"/> Prefer not to say
<b>D11</b>	Where do you believe that you got this infection? _____	<input type="checkbox"/> Write-in (question box) <input type="checkbox"/> Prefer not to say
<b>D12</b>	Have you ever been diagnosed with a rickettsial infection, sometimes called “murine typhus” or “typhus”?  <b>IF Yes, GO TO D13</b> <b>IF No, I don’t know, OR Prefer not to say, GO TO LB1</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I don’t know <input type="checkbox"/> Prefer not to say
<b>D13</b>	Where do you believe that you got this infection? _____	<input type="checkbox"/> Write-in (question box) <input type="checkbox"/> Prefer not to say

*“Finally, I’d like to ask you about any barriers or challenges that your shelter faces regarding body lice and fleas.”*

LB1. What are the barriers or challenges that your shelter faces? (Free response)

**PROBE: How do you currently learn information about diseases that affect people experiencing homelessness (e.g., curriculum for new staff; training sessions)? How do clients currently learn information about diseases that might affect them (e.g., day programs, lectures, posters, etc.)?**

*“This is the end of the survey. Thank you for your time and participation. Results from this survey and new educational materials will be shared after completion of this project, within 12 months.”*