

Epidemiologist's Name \_\_\_\_\_

E-mail \_\_\_\_\_

Age \_\_\_\_\_ Sex  M  F Onset Date \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ (m/d/y) Interview Date \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

<p>[1] Y ? N <b>LEAD-IN QUESTIONS</b></p> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> In the week before you got sick with your <i>Salmonella</i> infection, do you remember eating any kinds of loose nuts, at home or anywhere else? <i>If necessary, explain what you mean by "loose."</i> Now let me ask you about some specific kinds of nuts. Did you eat any... (see list at right)</p>	<p>Y ? N <b>TYPES OF NUTS</b></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Walnuts D <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Almonds E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Pistachios F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Mixed nuts G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other/Unspecified/Some but can't remember which</p>
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*If they report eating walnuts, almonds, pistachios, or mixed nuts, ask the following questions. For each type of nut, there are questions about whether they were shelled or not, raw or not, and whole or not. Check all that apply.*

Were the [walnuts, etc.] you ate.... [pre-shelled, etc.]?

<p>[2] Y ? N <b>WALNUTS</b></p> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> pre-shelled B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> still in the shell when you got them <i>If any were pre-shelled, were those...</i> C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> raw (when you got them) D <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not raw (any heat process) <i>If any were raw and pre-shelled, were those ....</i> E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> whole (when you got them) F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> chopped/sliced/not whole <b>ALMONDS</b> G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> pre-shelled H <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> still in the shell when you got them <i>If any were pre-shelled, were those...</i> I <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> raw (when you got them) J <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not raw (any heat process) <i>If any were raw and pre-shelled, were those ....</i> K <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> whole (when you got them) L <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> chopped/sliced/not whole M <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Were any of those raw almonds "skinned"?</p>	<p>[3] Y ? N <b>PISTACHIOS</b></p> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> pre-shelled B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> still in the shell when you got them <i>If any were pre-shelled, were those...</i> C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> raw (when you got them) D <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not raw (any heat process) <i>If any were raw and pre-shelled, were those ....</i> E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> whole (when you got them) F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> chopped/sliced/not whole <b>MIXED NUTS</b> G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> pre-shelled H <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> still in the shell when you got them <i>If any were pre-shelled, were those...</i> I <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> raw (when you got them) J <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not raw (any heat process) <i>If any were raw and pre-shelled, were those ....</i> K <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> whole (when you got them) L <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> chopped/sliced/not whole</p>
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Provide details about source(s) for any *raw* almonds or raw mixed nuts that might include almonds.

Nut (almond, etc.)	Brand	Date and Point of Sale	Any Leftovers or Packaging?	Other Description

<p><b>Y ? N FINAL QUESTIONS</b> (<i>Skip the Costco nut questions if they already volunteered that source above.</i>)</p> <p>N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> In the week before you got sick, do you remember taking any <b>fish-oil</b> or <b>alpha-omega-3 fatty acid</b> capsules? <i>If yes, itemize brand(s) and source(s).</i></p> <p>O <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is anyone in your household a Costco member?</p> <p>P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Did you eat any nuts that came from Costco?</p> <p>Q <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Specifically, do you remember eating any raw almonds that came from Costco (in a 3-pound bag)?</p> <p>R <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>If Costco members...</i> With your permission, we could give your name to Costco to check for almond purchases in the months before you became ill. Would it be OK with you if we did that? <i>If yes, get Costco Member name or number:</i> _____</p>
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## SAMPLE CALLER SPIEL

You don't have to read this word-for-word. This is only a suggestion for those who like to have a written text. Feel free to modify it so that it sounds natural for you.

Hello, this is \_\_\_\_\_ from the \_\_\_\_\_. As you know, you were diagnosed as having a *Salmonella* infection back in \_\_\_\_\_. More recent testing of your isolate at the state public health lab indicates that it matches isolates reported in several other states, and it is possible that eating a common item explains these infections. I'd like to ask you a few questions about some foods you might have eaten in just the week before you became ill. I realize that may be quite a while ago, but please do the best you can to remember if you might have eaten these items in the week before you got sick, OK?

## REFERENCE CALENDARS

December 2003							January 2004							February 2004							March 2004							April 2004								
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S		
1	2	3	4	5	6			1	2	3	4	5	6	7		1	2	3	4	5	6	7	8	9	10	11	12	13	4	5	6	7	8	9	10	
7	8	9	10	11	12	13	4	5	6	7	8	9	10		8	9	10	11	12	13	14	15	16	17	18	19	20	11	12	13	14	15	16	17		
14	15	16	17	18	19	20	11	12	13	14	15	16	17		15	16	17	18	19	20	21	22	23	24	25	26	27	21	22	23	24	25	26	27		
21	22	23	24	25	26	27	18	19	20	21	22	23	24		22	23	24	25	26	27	28	29	30	31			28	29	30	31	25	26	27	28	29	30
28	29	30	31				25	26	27	28	29	30	31		29																					

## GENERAL INSTRUCTIONS FOR STATE EPIDEMIOLOGISTS

Please ask these questions of cases whose *Salmonella* Enteriditis isolates match that of the putative almond outbreak pattern (by XbaI [pattern JEGX01.0049] and, if done, BlnI too [JEGA26.0008]). The main thrust of these questions is to find out any exposures to raw almonds during their likely exposure period. In Oregon, cases have been linked to "Kirkland Signature" brand raw almonds sold in 3-pound bags at Costco warehouse stores. These almonds came from Paramount in California, and almonds from the same supplier are shipped to many outlets under many other brand names, so other sources are plausible too. If almonds or mixed nuts that might have contained almonds were consumed, get as many details as possible to allow product traceback.

Costco's brand of fish-oil capsules were reportedly consumed by several of the cases, so they are included just to complete the rule out of that alternative hypothesis.

This questionnaire focuses on "loose" nuts, which is to say nuts that are eaten as nuts, and not cooked in bread, sprinkled on pastries, or otherwise processed in candy or whatever. Admittedly, this is a bit of an artificial distinction. If you can think of a more descriptive term than "loose", let us know.

Obviously this is something of a food preference at this point. If cases give their permission, though, we can readily obtain their food purchase history from Costco and identify any almond purchases during the preceding few months. If they agree, make sure you get the member's name and address and/or Costco number.

For keypunching and tabulation, fax completed questionnaires to Oregon's Acute & Communicable Disease Prevention office: **503/731-4798**. No cover page is necessary.

If you have questions about the investigation, please contact any one of us:

Bill Keene ([william.e.keene@state.or.us](mailto:william.e.keene@state.or.us))  
Melissa Plantenga ([melissa.plantenga@state.or.us](mailto:melissa.plantenga@state.or.us))  
Emilio DeBess ([emilio.e.debess@state.or.us](mailto:emilio.e.debess@state.or.us))

Telephone for all of us: 503/731-4024