Agricultural Health Study

Spouse Questionnaire

[CODED MANUAL]

Please return this questionnaire in the next two weeks in the envelope provided.

Problems or questions? Call 1-800-4AG-STUDY.
Dear Applicator's Spouse:

We are asking for your help in carrying out an important scientific study that the University of Iowa Medical Center and Survey Research Associates (Durham, NC) are conducting in cooperation with the National Institutes of Health (NIH) and the Office of Research and Development of the US Environmental Protection Agency (USEPA). The study is being conducted in Iowa and North Carolina and investigates environmental factors, occupation and diet and their effects on an individual's health.

The study results will give you and your spouse information you may find helpful in making decisions for your health and the health of your family. This information will be provided through the cooperative extension service, state and county health departments, articles in trade magazines, and in public service announcements on radio and TV. You can request study reports by calling the Agricultural Health Study’s toll-free number 1-800-4AG-STUDY.

This questionnaire asks about your lifestyle, pesticide use, work practices in your home, family medical history, cooking practices and health. You are free to skip any question at any point in the form.

Your participation is very important to the success of the study. Information you give us will be treated with care and will be not be released to anyone but researchers conducting the study or as required by law. Confidential information like your name and address will be stored in locked files accessible only to study staff. Your name will not be used in any reports. The study results will be reported in statistical summary form only.

You may be contacted in the future to take part in related research studies. Your decision to be a part of future studies will also be voluntary.

You can return this questionnaire along with your spouse's in the pre-addressed, postage-paid envelope provided. Please take the time to fill out this questionnaire. The booklet may look long but there may be many pages you can skip. Most people find it takes about an hour to complete. I think you'll find it interesting. If you have any questions about the survey, please call Pat Miller at the Agricultural Health Study at 1-800-4AG-STUDY.

We appreciate your cooperation in this important research project.

Sincerely,

Michael C.R. Alavanja, Dr. P.H.
Project Officer
National Institutes of Health

Privacy Act Notification: 42 U.S.C. 205a of the Public Health Service Act authorizes collection of this information. It will be used to evaluate the role of agricultural exposures and other factors in the development of cancer, neurological disease, birth defects and other chronic diseases. All information is voluntary and a decision not to provide all or any part of the requested information will not affect your certification or licensing. The Government may disclose this information to a Congressional Office upon your request, to the Department of Justice in the event of litigation; or to the Government contractors and collaborating researchers who are analyzing the study data.
DIRECTIONS

Please use a pencil to complete this form.

Many of the questions will ask you to estimate amounts or to specify a year. We know that you cannot be exact with many of these. We ask that you estimate as best you can when you are not sure.

Be certain to write your answer in the area provided and also completely fill the matching ovals. Erase completely if you make any changes.

The following kinds of marks will NOT work: ☐ ☐ ☐

The following kind of marks will work: ☐ ☐ ☐

Mark only one answer to each question except where you are directed to “Mark all that apply.” Do not make any other marks on this form. If you wish to make comments, please write them under the heading “Additional Comments” at the end of the form.

EXAMPLE: To record the response “July 4, 1993:"

<table>
<thead>
<tr>
<th>Month</th>
<th>Day</th>
<th>Write the numbers in boxes.</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td></td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>Feb</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Mar</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Apr</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>May</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Jun</td>
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<td>7</td>
</tr>
<tr>
<td>Jul</td>
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<td>8</td>
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<tr>
<td>Aug</td>
<td></td>
<td></td>
<td>4</td>
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<tr>
<td>Sep</td>
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<td></td>
<td>5</td>
</tr>
<tr>
<td>Oct</td>
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<td>6</td>
</tr>
<tr>
<td>Nov</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Dec</td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

BEGIN HERE

I. General Information

1. What is today's date?

<table>
<thead>
<tr>
<th>[stmonth]</th>
<th>[stday]</th>
<th>[styear]</th>
<th>[s_quexdate]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
<td>Day</td>
<td>Year</td>
<td>SAS date</td>
</tr>
<tr>
<td>Jan</td>
<td>1</td>
<td>1993</td>
<td>☐</td>
</tr>
<tr>
<td>Feb</td>
<td>2</td>
<td>1994</td>
<td>☐</td>
</tr>
<tr>
<td>Mar</td>
<td>3</td>
<td>1995</td>
<td>☐</td>
</tr>
<tr>
<td>Apr</td>
<td>4</td>
<td>1996</td>
<td>☐</td>
</tr>
<tr>
<td>May</td>
<td>5</td>
<td>1993</td>
<td>☐</td>
</tr>
<tr>
<td>Jun</td>
<td>6</td>
<td>1994</td>
<td>☐</td>
</tr>
<tr>
<td>Jul</td>
<td>7</td>
<td>1995</td>
<td>☐</td>
</tr>
<tr>
<td>Aug</td>
<td>8</td>
<td>1996</td>
<td>☐</td>
</tr>
<tr>
<td>Sep</td>
<td>9</td>
<td></td>
<td>☐</td>
</tr>
<tr>
<td>Oct</td>
<td>10</td>
<td></td>
<td>☐</td>
</tr>
<tr>
<td>Nov</td>
<td>11</td>
<td></td>
<td>☐</td>
</tr>
<tr>
<td>Dec</td>
<td>12</td>
<td></td>
<td>☐</td>
</tr>
</tbody>
</table>
2. What is your birth date? *Print your birthday here:*
   Now fill in the ovals and boxes below:

   **Month**    **Day**    **Year**
   [sbmonth]    [sbdays]    [s_year]

   Write the numbers in the boxes. Ú 19

   Then fill in the matching ovals below each box.

3. Which of the following groups best describes your race?
   [srace]
   ○ White
   ○ Black
   ○ American Indian or Alaskan Native
   ○ Asian or Pacific Islander
   ○ Other (Please describe below)

   **DO NOT WRITE OUTSIDE BOX**

4. Are you of Hispanic origin?
   [shispan]
   ○ No
   ○ Yes

5. What is the highest level of schooling you have completed? *Mark only one.*
   [sschool]
   ○ 1–8 years
   ○ Some high school
   ○ High school graduate
   ○ GED (high school equivalency)
   ○ 1–3 years vocational education beyond high school
   ○ Some college
   ○ College graduate
   ○ One or more years of graduate school or professional school
   ○ Something else (Please describe below)

   **DO NOT WRITE OUTSIDE BOX**
6. Altogether, how many years have you lived or worked on a farm? [slivefrm]

Write the numbers in the boxes.

Then fill in the matching ovals below each box.

7. In the last 12 months, how often did you have direct contact with live animals listed below?

a. Dairy Cattle [sconcat1]  
- Never  
- Less than once/year  
- 1–6 times/year  
- 7–12 times/year  
- 2–3 times/month  
- Weekly  
- Daily

b. Beef Cattle [sconcat2]  
- Never  
- Less than once/year  
- 1–6 times/year  
- 7–12 times/year  
- 2–3 times/month  
- Weekly  
- Daily

c. Swine/Hogs [sconcat3]  
- Never  
- Less than once/year  
- 1–6 times/year  
- 7–12 times/year  
- 2–3 times/month  
- Weekly  
- Daily

d. Poultry [sconcat4]  
- Never  
- Less than once/year  
- 1–6 times/year  
- 7–12 times/year  
- 2–3 times/month  
- Weekly  
- Daily

e. Sheep [sconcat5]  
- Never  
- Less than once/year  
- 1–6 times/year  
- 7–12 times/year  
- 2–3 times/month  
- Weekly  
- Daily
II. Pesticide Use

8. During your lifetime, have you ever personally mixed or applied any pesticides?
   (Include crop, livestock, and structural insecticides, herbicides, fungicides, and fumigants. Include pesticides used for farm use, commercial application and personal use in your home or garden.)

   O  No  [GO TO QUESTION 9]
   O  Yes

   a. How many years did you personally mix or apply pesticides?
      O  1 year or less
      O  2–5 years
      O  6–10 years
      O  11–20 years
      O  21–30 years
      O  More than 30 years

   b. During those years, how many days per year did you personally mix or apply pesticides?
      O  Less than 5 days
      O  5–9 days
      O  10–19 days
      O  20–39 days
      O  40–59 days
      O  60–150 days
      O  More than 150 days

   c. When pesticides require mixing, what percent of the time do you personally do the mixing?
      O  Never
      O  Less than 50% of the time
      O  50% or more of the time

   d. What percent of the application do you personally do?
      O  Never
      O  Less than 50% of the time
      O  50% or more of the time

Please complete the following questions about your personal use of the specific pesticides listed below. We realize this is not a complete list of pesticides. We are interested in learning about those you are currently using as well as those you’ve personally used in the past.

9. In your lifetime, have you mixed or applied the following herbicides (pesticides used to kill weeds)?

<table>
<thead>
<tr>
<th>Herbicides</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Never used herbicides</td>
<td>[snusehrb]</td>
<td>[GO TO QUESTION 10]</td>
</tr>
<tr>
<td>b. Aatrex, Atranex or other atrazine products</td>
<td>[s_herbicide_cd1]</td>
<td>o</td>
</tr>
<tr>
<td>c. Banvel, Metambane or other dicamba products</td>
<td>[s_herbicide_cd2]</td>
<td>o</td>
</tr>
<tr>
<td>d. Bladex, Match or other cyanazine products</td>
<td>[s_herbicide_cd3]</td>
<td>o</td>
</tr>
<tr>
<td>e. Classic or other chlorimuron ethyl products</td>
<td>[s_herbicide_cd4]</td>
<td>o</td>
</tr>
<tr>
<td>f. Dual, Cycle or other metolachlor products</td>
<td>[s_herbicide_cd5]</td>
<td>o</td>
</tr>
<tr>
<td>g. Eradicane, Eptam or other EPTC products</td>
<td>[s_herbicide_cd6]</td>
<td>o</td>
</tr>
<tr>
<td>h. Lasso, Chimiclor or other alachlor products</td>
<td>[s_herbicide_cd7]</td>
<td>o</td>
</tr>
<tr>
<td>i. Lexone, Sencor or other metribuzin products</td>
<td>[s_herbicide_cd8]</td>
<td>o</td>
</tr>
<tr>
<td>j. Paraquat</td>
<td>[s_herbicide_cd9]</td>
<td>o</td>
</tr>
<tr>
<td>l. Prowl or other pendimethalin products</td>
<td>[s_herbicide_cd11]</td>
<td>o</td>
</tr>
<tr>
<td>m. Pursuit or other imazethapyr products</td>
<td>[s_herbicide_cd12]</td>
<td>o</td>
</tr>
<tr>
<td>n. Roundup, Jury or other glyphosate products</td>
<td>[s_herbicide_cd13]</td>
<td>o</td>
</tr>
<tr>
<td>o. Silvex or other 2,4,5 T P products (no longer on market)</td>
<td>[s_herbicide_cd14]</td>
<td>o</td>
</tr>
<tr>
<td>p. Sutan, Genate or other butylate products</td>
<td>[s_herbicide_cd15]</td>
<td>o</td>
</tr>
<tr>
<td>q. Treflan, Trilin, Commence or other trifluralin products</td>
<td>[s_herbicide_cd16]</td>
<td>o</td>
</tr>
<tr>
<td>r. 2,4-D</td>
<td>[s_herbicide_cd17]</td>
<td>o</td>
</tr>
<tr>
<td>s. 2, 4, 5 T (no longer on market)</td>
<td>[s_herbicide_cd18]</td>
<td>o</td>
</tr>
<tr>
<td>t. Other (Please specify.)</td>
<td>[s_herbicide_oth1]</td>
<td>o</td>
</tr>
</tbody>
</table>
10. **In your lifetime, have you mixed or applied the following crop, nursery, lawn and garden, livestock, or animal confinement area insecticides?**

<table>
<thead>
<tr>
<th>A. Crop/Nursery/Lawn and Garden/Livestock/Animal Confinement Area Insecticides</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Never used crop or livestock insecticides</td>
<td>[GO TO QUESTION 11]</td>
<td>[snusecin]</td>
</tr>
<tr>
<td>b. Ambush, Pounce, Asana or other <em>permethrin or pyrethroid</em> products</td>
<td>[s_insecticide_cd1]</td>
<td>○</td>
</tr>
<tr>
<td>c. Counter or other <em>terbufos</em> products</td>
<td>[s_insecticide_cd3]</td>
<td>○</td>
</tr>
<tr>
<td>d. Dyfonate or other <em>fonofos</em> products</td>
<td>[s_insecticide_cd4]</td>
<td>○</td>
</tr>
<tr>
<td>e. Dylox or other <em>trichlorfon</em> products</td>
<td>[s_insecticide_cd5]</td>
<td>○</td>
</tr>
<tr>
<td>f. Forlin, Gamaphex or other <em>lindane</em> products</td>
<td>[s_insecticide_cd6]</td>
<td>○</td>
</tr>
<tr>
<td>g. Furadan, Curaterr or other <em>carbofuran</em> products</td>
<td>[s_insecticide_cd7]</td>
<td>○</td>
</tr>
<tr>
<td>h. Lorsban, Dursban or other <em>chlorpyrifos</em> products</td>
<td>[s_insecticide_cd8]</td>
<td>○</td>
</tr>
<tr>
<td>i. Malathion</td>
<td>[s_insecticide_cd9]</td>
<td>○</td>
</tr>
<tr>
<td>j. Parathion (<em>ethyl or methyl</em>)</td>
<td>[s_insecticide_cd10]</td>
<td>○</td>
</tr>
<tr>
<td>k. Sevin, Carbamine or other <em>carbaryl</em> products</td>
<td>[s_insecticide_cd11]</td>
<td>○</td>
</tr>
<tr>
<td>l. Spectracide, Dianon or other <em>diazinon</em> products</td>
<td>[s_insecticide_cd12]</td>
<td>○</td>
</tr>
<tr>
<td>m. Temik or other <em>aldicarb</em> products</td>
<td>[s_insecticide_cd13]</td>
<td>○</td>
</tr>
<tr>
<td>n. Thimet, Rampart or other <em>phorate</em> products</td>
<td>[s_insecticide_cd14]</td>
<td>○</td>
</tr>
<tr>
<td>o. Other (Please specify.)</td>
<td>[s_insecticide_oth1]</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Crop/Livestock/Animal Confinement Area Insecticides (no longer on the market)</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Aldrin</td>
<td>[s_insecticide_cd15]</td>
<td>○</td>
</tr>
<tr>
<td>b. Chlordane</td>
<td>[s_insecticide_cd16]</td>
<td>○</td>
</tr>
<tr>
<td>c. Dieldrin</td>
<td>[s_insecticide_cd17]</td>
<td>○</td>
</tr>
<tr>
<td>d. DDT</td>
<td>[s_insecticide_cd18]</td>
<td>○</td>
</tr>
<tr>
<td>e. Heptachlor</td>
<td>[s_insecticide_cd19]</td>
<td>○</td>
</tr>
<tr>
<td>f. Toxaphene</td>
<td>[s_insecticide_cd20]</td>
<td>○</td>
</tr>
<tr>
<td>g. Other (Please specify.)</td>
<td>[s_insecticide_oth2]</td>
<td>○</td>
</tr>
</tbody>
</table>

11. **In your lifetime, have you mixed or applied the following livestock/poultry/animal confinement area insecticides?**

<table>
<thead>
<tr>
<th>Livestock/Poultry Insecticides</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Never used livestock/poultry insecticides</td>
<td>[GO TO QUESTION 12]</td>
<td>[snuselin]</td>
</tr>
<tr>
<td>b. Co-Ral or other <em>coumaphos</em> products</td>
<td>[s_insecticide_cd21]</td>
<td>○</td>
</tr>
<tr>
<td>c. Ectiban, Atroban, Permetrina or other <em>permethrin</em> products</td>
<td>[s_insecticide_cd22]</td>
<td>○</td>
</tr>
<tr>
<td>d. Vapona, Duravos or other <em>dichlorvos or DDVP</em> products</td>
<td>[s_insecticide_cd22]</td>
<td>○</td>
</tr>
<tr>
<td>e. Other (Please specify.)</td>
<td>[s_insecticide_oth3]</td>
<td>○</td>
</tr>
</tbody>
</table>
12. *In your lifetime*, have you injected or applied the following *fumigants* (gases or liquids that turn to gas when released; they are used in enclosed spaces or to treat soil?

<table>
<thead>
<tr>
<th>A. Fumigants</th>
<th>No</th>
<th>Yes</th>
<th>B. Fumigants (no longer on the market)</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Never used fumigants</td>
<td>[GO TO QUESTION 13]</td>
<td>[snusefum]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Brom-O-Gas, Brom-O-Sol or other <em>methyl bromide</em> products</td>
<td>[s_fumigant_cd1]</td>
<td>0</td>
<td>0</td>
<td>a. Carbon tetrachloride/carbon disulfide (80/20 mix)</td>
<td>[s_fumigant_cd3]</td>
</tr>
<tr>
<td>c. Phostoxin, Gastoxin or other <em>aluminum phoshide</em> products</td>
<td>[s_fumigant_cd2]</td>
<td>0</td>
<td>0</td>
<td>b. EDB, E-D-Bee, Bromofume or other <em>ethylene dibromide</em> products</td>
<td>[s_fumigant_cd4]</td>
</tr>
<tr>
<td>d. Other <em>(Please specify.)</em></td>
<td>[s_fumigant_oth1]</td>
<td>0</td>
<td>0</td>
<td>c. Other <em>(Please specify.)</em></td>
<td>[s_fumigant_oth2]</td>
</tr>
</tbody>
</table>

13. *In your lifetime*, have you mixed or applied the following *fungicides* (chemicals for controlling disease on crops?

<table>
<thead>
<tr>
<th>Fungicides</th>
<th>No</th>
<th>Yes</th>
<th>Fungicides</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Never used fungicides</td>
<td>[GO TO QUESTION 14]</td>
<td>[snusefun]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Benlate, Tersan or other <em>benomyl</em> products</td>
<td>[s_fungicide_cd1]</td>
<td>0</td>
<td>0</td>
<td>f. Ridomil, Subdue or other <em>metalaxyl</em> products</td>
<td>[s_fungicide_cd5]</td>
</tr>
<tr>
<td>c. Bravo, Evade, Daconil 2787 or other <em>chlorothalonil</em> products</td>
<td>[s_fungicide_cd2]</td>
<td>0</td>
<td>0</td>
<td>g. Zirex, Corozate or other <em>ziram</em> products</td>
<td>[s_fungicide_cd6]</td>
</tr>
<tr>
<td>d. Orthocide, Clomitane or other <em>captan</em> products</td>
<td>[s_fungicide_cd3]</td>
<td>0</td>
<td>0</td>
<td>h. Other <em>(Please specify.)</em></td>
<td>[s_fungicide_oth1]</td>
</tr>
<tr>
<td>e. Manex, Manzate, Dithane Z-78 or other <em>maneb or mancozeb</em> products</td>
<td>[s_fungicide_cd4]</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### III. Home and Work Practices

Please answer “No” or “Yes” for Columns A and B (“In the Summer” and “In the Winter”)

<table>
<thead>
<tr>
<th>14. Do you do the following activities at least once a month?</th>
<th>A. In the Summer</th>
<th>B. In the Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>a. Milk cows</td>
<td>[ssact1 / swact1]</td>
<td>0</td>
</tr>
<tr>
<td>b. Drive trucks</td>
<td>[ssact2 / swact2]</td>
<td>0</td>
</tr>
<tr>
<td>c. Drive diesel tractors</td>
<td>[ssact3 / swact3]</td>
<td>0</td>
</tr>
<tr>
<td>d. Drive gasoline tractors</td>
<td>[ssact4 / swact4]</td>
<td>0</td>
</tr>
<tr>
<td>e. Weld</td>
<td>[ssact5 / swact5]</td>
<td>0</td>
</tr>
<tr>
<td>f. Repair engines</td>
<td>[ssact6 / swact6]</td>
<td>0</td>
</tr>
</tbody>
</table>
14. Do you do the following activities at least once a month? *(continued)*

<table>
<thead>
<tr>
<th></th>
<th>A. In the Summer</th>
<th>B. In the Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>g. Grind metal</td>
<td>[ssact7 / swact7]</td>
<td>○</td>
</tr>
<tr>
<td>h. Grind animal feed</td>
<td>[ssact8 / swact8]</td>
<td>○</td>
</tr>
<tr>
<td>i. Use gasoline for cleaning hands or equipment</td>
<td>[ssact9 / swact9]</td>
<td>○</td>
</tr>
<tr>
<td>j. Use other solvents (paint stripper, turpentine, benzene) for cleaning</td>
<td>[ssact10 / swact10]</td>
<td>○</td>
</tr>
<tr>
<td>k. Paint</td>
<td>[ssact11 / swact11]</td>
<td>○</td>
</tr>
<tr>
<td>l. Perform procedures where you may come in contact with animal blood (castration, dehorning, birthing, etc)</td>
<td>[ssact12 / swact12]</td>
<td>○</td>
</tr>
</tbody>
</table>

15. *During the last growing season, did you do the following activities?*

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Till the soil (plow, disk, cultivate)</td>
<td>[slgsact1]</td>
<td>○</td>
</tr>
<tr>
<td>b. Plant</td>
<td>[slgsact2]</td>
<td>○</td>
</tr>
<tr>
<td>c. Apply fertilizer, manure</td>
<td>[slgsact3]</td>
<td>○</td>
</tr>
<tr>
<td>d. Apply chemical fertilizer</td>
<td>[slgsact4]</td>
<td>○</td>
</tr>
<tr>
<td>e. Drive combines or other crop harvesters</td>
<td>[slgsact5]</td>
<td>○</td>
</tr>
<tr>
<td>f. Hand pick crops</td>
<td>[slgsact6]</td>
<td>○</td>
</tr>
</tbody>
</table>

16. *During the last growing season, how many days per year did you work in the fields?*

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>Less than 10 days</th>
<th>10–30 days</th>
<th>More than 100 days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

17. Were you living on a farm 10 years ago?

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
</table>
|   | [Complete Column A Only] | [Be sure to answer for both current work practices (Column A), and for 10 years ago Column B.]

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>A. NOW (Past 12 Months)</th>
<th>B. 10 YEARS AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Do family members who have been working in the fields usually take their work boots off before entering the house?</td>
<td>[snboots]</td>
<td>○</td>
</tr>
<tr>
<td>19. In your household, how are clothes usually washed that have been worn when mixing or applying pesticides?</td>
<td>[snwshclo]</td>
<td>○</td>
</tr>
<tr>
<td>20. How many days per year do you personally wash clothes that have been worn during pesticide mixing or application?</td>
<td>[sandywshc]</td>
<td>○</td>
</tr>
<tr>
<td>QUESTION</td>
<td>A. NOW (Past 12 Months)</td>
<td>B. 10 YEARS AGO</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>21. About how often is your living room or family room vacuumed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Every day</td>
<td>○ Every day</td>
</tr>
<tr>
<td></td>
<td>○ Several times a week</td>
<td>○ Several times a week</td>
</tr>
<tr>
<td></td>
<td>○ Once a week</td>
<td>○ Once a week</td>
</tr>
<tr>
<td></td>
<td>○ Less than once a week</td>
<td>○ Less than once a week</td>
</tr>
<tr>
<td>22. Is there a wipe mat by the door that is used by family members working in the fields?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ No</td>
<td>○ No</td>
</tr>
<tr>
<td></td>
<td>○ Yes</td>
<td>○ Yes</td>
</tr>
<tr>
<td>23. How far is your home from the nearest field or orchard where pesticides are applied?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Less than 100 yards</td>
<td>○ Less than 100 yards</td>
</tr>
<tr>
<td></td>
<td>○ 100–199 yards</td>
<td>○ 100–199 yards</td>
</tr>
<tr>
<td></td>
<td>○ 200–299 yards</td>
<td>○ 200–299 yards</td>
</tr>
<tr>
<td></td>
<td>○ 300 yards or more</td>
<td>○ 300 yards or more</td>
</tr>
<tr>
<td></td>
<td>○ Don't know</td>
<td>○ Don't know</td>
</tr>
<tr>
<td>24. During a typical day in the growing season, about how many hours per day do you spend lifting or carrying heavy objects?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ None</td>
<td>○ None</td>
</tr>
<tr>
<td></td>
<td>○ Less than 1 hour</td>
<td>○ Less than 1 hour</td>
</tr>
<tr>
<td></td>
<td>○ 1–2 hours</td>
<td>○ 1–2 hours</td>
</tr>
<tr>
<td></td>
<td>○ 3–5 hours</td>
<td>○ 3–5 hours</td>
</tr>
<tr>
<td></td>
<td>○ 6–10 hours</td>
<td>○ 6–10 hours</td>
</tr>
<tr>
<td></td>
<td>○ More than 10 hours</td>
<td>○ More than 10 hours</td>
</tr>
</tbody>
</table>

Now go back and make sure you have completed both columns A and B if you were living on a farm 10 years ago.
IV. Occupational Information

25. Did you ever have a job off a farm?
   ○ No [GO TO QUESTION 32] ○ Yes

26. For the non-farm job you held the longest, what was your job?

DO NOT WRITE OUTSIDE BOX

27. What industry was this job in? (For example: Nursing, teaching, beauty salons, trucking, grain milling, restaurant)

DO NOT WRITE OUTSIDE BOX

28. For the non-farm job you held the longest, which of the following were you exposed to? (Mark all that apply)

- Pesticides
- Grain dust
- Engine exhaust
- Mercury
- Solvents (other than gasoline)
- Wood dust
- Lead solder
- Cadmium
- Gasoline
- Cotton dust
- Welding fumes
- Other metals
- Asbestos
- Mineral or mining dust
- Electroplating fumes
- Pneumatic drills (vibrations)
- X-ray radiation
- Silica/sand dust
- Lead
- None of these

29. How many years did you have this job?
   ○ 1 year or less
   ○ 2–5 years
   ○ 6–10 years
   ○ 11–20 years
   ○ More than 20 years

30. When did you usually work at this job?
   ○ Year round
   ○ Off season only

31. How much time did you work at this job?
   ○ Half-time or less
   ○ More than half-time

32. Did you mix or apply herbicides during military operations? (For example: Agent Orange, Agent White)
   ○ No ○ Yes ○ Never in the military

33. Are there other exposures not previously mentioned which you feel we should know about?
   ○ No ○ Yes (Please describe these in the space below.)

DO NOT WRITE OUTSIDE BOX
V. Alcohol and Smoking History

The next two questions ask you about your general habits concerning alcoholic beverages. For these questions a drink is defined as one beer, a glass of wine, or a shot of hard liquor.

34. During the past 12 months, how often did you usually drink any kind of alcoholic beverage? [salcfreq]
   - Never
   - Less than one time a month
   - 1–3 times a month
   - 1 time a week
   - 2–4 times a week
   - Almost every day
   - Every day

35. During the past 12 months, about how many drinks would you have on a day when you drank? [salcnum]
   - Didn't drink last year
   - 1 or 2 drinks
   - 3 or 4 drinks
   - 5–8 drinks
   - 9 or more drinks

36. During your lifetime, have you smoked at least 100 cigarettes? [ssmok100]
   - No [GO TO QUESTION 40]
   - Yes

37. Do you smoke cigarettes now? [ssmoknow]
   - No
   - Yes

38. On the average, how much do you or did you smoke each day? (1 pack = 20 cigarettes) [ssmokpdy]
   - 10 cigarettes or less
   - 11–20 cigarettes
   - 21–40 cigarettes
   - More than 40 cigarettes

39. What is the total number of years you smoked cigarettes? (Remember to subtract years you did not smoke.) [ssmokyrs]
   - Write the numbers in the boxes.
   - Then fill in the matching ovals below each box.

40. Which of the following tobacco products have you used on a regular basis for six months or longer? (Mark all the tobacco products that you used.) [stobaco]
   - Pipe [stobaco1]
   - Cigars [stobaco2]
   - Cigarillos [stobaco3]
   - Chewing tobacco [stobaco4]
   - Snuff [stobaco5]
   - Never used any of these tobacco products for six months or longer [stobaco6]
VI. Physical and Activity Information

41. On average, how many hours per week do you spend doing strenuous exercise (heart beats rapidly) during your leisure time?

<table>
<thead>
<tr>
<th>Hours per week</th>
<th>[ssumexer]</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Up to 1 hour</td>
<td></td>
</tr>
<tr>
<td>1–2 hours</td>
<td></td>
</tr>
<tr>
<td>3–5 hours</td>
<td></td>
</tr>
<tr>
<td>6–10 hours</td>
<td></td>
</tr>
<tr>
<td>More than 10 hours</td>
<td></td>
</tr>
</tbody>
</table>

b. In the Winter

<table>
<thead>
<tr>
<th>Hours per week</th>
<th>[swinexer]</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Up to 1 hour</td>
<td></td>
</tr>
<tr>
<td>1–2 hours</td>
<td></td>
</tr>
<tr>
<td>3–5 hours</td>
<td></td>
</tr>
<tr>
<td>6–10 hours</td>
<td></td>
</tr>
<tr>
<td>More than 10 hours</td>
<td></td>
</tr>
</tbody>
</table>

42. What color eyes do you have? [seyecolr]

- Blue
- Brown
- Green
- Hazel
- Gray
- Other (Please specify.)

43. What is/was the natural color of your hair? [shaircol]

- Brown
- Black
- Red
- Blonde

44. How tall are you? [shgtft] [shgtin]

Feet | Inches
---|---
|    | Write the numbers in the boxes
| 0  | Then fill in the matching ovals below each box
| 1  | 0
| 2  | 0
| 3  | 0
| 4  | 5
| 5  | 6
| 6  | 7
| 7  | 8
| 8  | 9

45. How much do you weigh now? [sweight]

Pounds

|             | Write the numbers in the boxes
| 0  | Then fill in the matching ovals below each box
| 1  | 0
| 2  | 0
| 3  | 0
| 4  | 0
| 5  | 1
| 6  | 2
| 7  | 3
| 8  | 4
| 9  | 5
| 10 | 6

46. How would your skin react the first time each year if you were exposed to strong sunlight for more than an hour? [ssknreac]

- Get a severe sunburn with blisters
- Get a painful sunburn, but not blisters
- Get a mild sunburn followed by some tanning
- Become tanned without any sunburn
- No visible reaction

47. In the growing season when you work in the sun, what type(s) of sun protection do you usually use? (Mark all that apply.)

- Sunscreen or sunblock [ssunpro1]
- Wear baseball-type cap [ssunpro2]
- Wear other kind of hat with brim [ssunpro3]
- Almost always wear long-sleeved shirt [ssunpro4]
- Don’t use any of the above protections [ssunpro5]
48. In the growing season, how many hours a day do you generally spend in the sun?

<table>
<thead>
<tr>
<th>a. Now</th>
<th>b. 10 years ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>[snhrsun]</td>
<td>[sahrsun]</td>
</tr>
<tr>
<td>○ Up to 1 hour</td>
<td>○ Up to 1 hour</td>
</tr>
<tr>
<td>○ 1–2 hours</td>
<td>○ 1–2 hours</td>
</tr>
<tr>
<td>○ 3–5 hours</td>
<td>○ 3–5 hours</td>
</tr>
<tr>
<td>○ 6–10 hours</td>
<td>○ 6–10 hours</td>
</tr>
<tr>
<td>○ More than 10 hours</td>
<td>○ More than 10 hours</td>
</tr>
</tbody>
</table>

49. Have you ever used any hair coloring product? [susehcol]

○ No [GO TO QUESTION 53] ○ Yes

First answer “Yes” or “No” for each hair color product listed. If you answered “Yes” in Column A then answer the questions in Columns B, C and D for that product. If you answered “No” then go on to the next hair coloring product.

<table>
<thead>
<tr>
<th>A. Have you ever used this product?</th>
<th>B. At What Age Did You Start Using This?</th>
<th>C. How Many Years Have You Used This?</th>
<th>D. What Color Did You Usually Use?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>50. Temporary rinses</strong> (color removed by first shampoo) [shprod1]</td>
<td>○ Less than 20 years old</td>
<td>○ Less than 5 years</td>
<td>○ Brown</td>
</tr>
<tr>
<td>○ Yes ☑</td>
<td>○ 20–29 years old</td>
<td>○ 5–10 years</td>
<td>○ Black</td>
</tr>
<tr>
<td>○ No [GO TO QUESTION 51] ☑</td>
<td>○ 30–39 years old</td>
<td>○ 11–20 years</td>
<td>○ Red</td>
</tr>
<tr>
<td></td>
<td>○ 40–50 years old</td>
<td>○ 21–30 years</td>
<td>○ Blonde</td>
</tr>
<tr>
<td></td>
<td>○ More than 50 years</td>
<td>○ More than 30 years</td>
<td>○ Silver toners</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>○ Other</td>
</tr>
<tr>
<td><strong>51. Semi-permanent products</strong> (color gradually washed out by repeated shampooing) [shprod2]</td>
<td>○ Less than 20 years old</td>
<td>○ Less than 5 years</td>
<td>○ Brown</td>
</tr>
<tr>
<td>○ Yes ☑</td>
<td>○ 20–29 years old</td>
<td>○ 5–10 years</td>
<td>○ Black</td>
</tr>
<tr>
<td>○ No [GO TO QUESTION 52] ☑</td>
<td>○ 30–39 years old</td>
<td>○ 11–20 years</td>
<td>○ Red</td>
</tr>
<tr>
<td></td>
<td>○ 40–50 years old</td>
<td>○ 21–30 years</td>
<td>○ Blonde</td>
</tr>
<tr>
<td></td>
<td>○ More than 50 years</td>
<td>○ More than 30 years</td>
<td>○ Silver toners</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>○ Other</td>
</tr>
<tr>
<td><strong>52. Permanent products</strong> (color lasts until hair grows out) [shprod3]</td>
<td>○ Less than 20 years old</td>
<td>○ Less than 5 years</td>
<td>○ Brown</td>
</tr>
<tr>
<td>○ Yes ☑</td>
<td>○ 20–29 years old</td>
<td>○ 5–10 years</td>
<td>○ Black</td>
</tr>
<tr>
<td>○ No [GO TO QUESTION 53] ☑</td>
<td>○ 30–39 years old</td>
<td>○ 11–20 years</td>
<td>○ Red</td>
</tr>
<tr>
<td></td>
<td>○ 40–50 years old</td>
<td>○ 21–30 years</td>
<td>○ Blonde</td>
</tr>
<tr>
<td></td>
<td>○ More than 50 years</td>
<td>○ More than 30 years</td>
<td>○ Silver toners</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>○ Other</td>
</tr>
</tbody>
</table>
## VII. Information About Your Home

### 53. What are the names of the towns or cities, and states where you live now and also your previous residence?

<table>
<thead>
<tr>
<th>Current Residence</th>
<th>Previous Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Street (Route/Box)</strong></td>
<td><strong>Street (Route/Box)</strong></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Town</strong></td>
<td><strong>Town</strong></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>State</strong></td>
<td><strong>State</strong></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Zip Code</strong></td>
<td><strong>Zip Code</strong></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 54. In what year did you move into this house?

- [ ] 19
- [ ] 20
- [ ] 21
- [ ] 22
- [ ] 23
- [ ] 24
- [ ] 25
- [ ] 26
- [ ] 27
- [ ] 28
- [ ] 29
- [ ] 30
- [ ] 31
- [ ] 32
- [ ] 33
- [ ] 34
- [ ] 35
- [ ] 36
- [ ] 37
- [ ] 38
- [ ] 39
- [ ] 40
- [ ] 41
- [ ] 42
- [ ] 43
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- [ ] 51
- [ ] 52
- [ ] 53
- [ ] 54
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- [ ] 59
- [ ] 60
- [ ] 61
- [ ] 62
- [ ] 63
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- [ ] 84
- [ ] 85
- [ ] 86
- [ ] 87
- [ ] 88
- [ ] 89
- [ ] 90
- [ ] 91
- [ ] 92
- [ ] 93
- [ ] 94
- [ ] 95
- [ ] 96
- [ ] 97
- [ ] 98
- [ ] 99
- [ ] 100

### 55. What was the primary source of drinking water?

- [ ] Private well
- [ ] Community supply
- [ ] Bottled water
- [ ] Other (Specify)

### 56. What was the depth of the private well? *(Mark one)*

- [ ] Don't have private well
- [ ] Less than 50 feet
- [ ] 50–150 feet
- [ ] 151–250 feet
- [ ] 251–500 feet
- [ ] 501 feet or more
- [ ] Don't know

### 57. Was the private well cased? *(i.e., well shaft lined with water-tight material, such as iron pipe, cement or brick) (Mark one)*

- [ ] Don't have private well
- [ ] Cased
- [ ] Not cased
- [ ] Don't know

### 58. What type of foundation does your home have? * [sfound]

- [ ] Slab
- [ ] Crawl space
- [ ] Combination crawl space/basement
- [ ] Full basement
- [ ] Other
- [ ] Don't know

### 59. How old is the house you live in now? * [shousage]

- [ ] Less than 10 years
- [ ] 10–20 years
- [ ] 21–40 years
- [ ] 41–99 years
- [ ] 100 years or more
60. Were you living in this same house 10 years ago?  
   ○ No  
   ○ Yes [GO TO QUESTION 62]  

61. How old was the house you were living in 10 years ago?  
   ○ Less than 10 years  
   ○ 10–20 years  
   ○ 21–40 years  
   ○ More than 40 years  

62. In your current house, how old is the carpet or rug in your living room, family room/den, (that is, the room your family uses the most)?  
   ○ No carpet or rug  
   ○ Less than 2 years old  
   ○ 2–5 years old  
   ○ 6–9 years old  
   ○ 10–15 years old  
   ○ 16+ years old  
   ○ Don't know  

63. Thinking back 10 years ago, how old was the carpet or rug in the living room (or family room/den) at that time?  
   ○ No carpet or rug  
   ○ Less than 2 years old  
   ○ 2–5 years old  
   ○ 6–9 years old  
   ○ 10–15 years old  
   ○ 16+ years old  
   ○ Don't know  

64. When was the last time pesticides or chemicals were used to prevent or control termites in this house?  
   ○ Never use pesticides or chemicals to prevent/control termite problem  
   ○ Less than 1 year ago  
   ○ 1 year or more ago  
   ○ Don't know  

65. How many times has this house been treated for termites? (Do not include inspections for termites.)  
   ○ Never  
   ○ Once  
   ○ Twice  
   ○ Three times  
   ○ Four times  
   ○ Five times  
   ○ More than five times  
   ○ Don’t know  

66. How often is this house usually treated for flies, fleas, cockroaches, ants, or insects other than termites?  
   ○ House not usually treated  
   ○ Every month or more often  
   ○ Every 2–4 months  
   ○ Every 5–11 months  
   ○ Every year  
   ○ Less than once a year  
   ○ Don't know
67. **Who usually treats your home for these pests?** *(Mark all that apply)*
   - Never treat home for these pests  
   - Myself  
   - Someone in the household, other than myself  
   - A professional service  
   - Other  
   - Don’t know

68. **In what rooms do/did you usually hang pest strips?** *(Mark all that apply)*
   - Never hang pest strips  
   - Dining room  
   - Kitchen  
   - Living room/family room  
   - Bedrooms  
   - Other

69. **Who usually treats your lawn for pests (e.g., weeds, insects, or fungus)?** *(Mark all that apply)*
   - Lawn never regularly treated  
   - Someone in the household, other than myself  
   - Other  
   - Myself  
   - A professional service  
   - Don’t know

70. **Does your home have air conditioning?**
   - No  
   - Yes, central air conditioning  
   - Yes, window unit(s)

71. **Do you have any cats?**
   - No [GO TO QUESTION 75]  
   - Yes

72. **How many hours per day do your cats spend inside your home?**
   - 0 hours  
   - 1 hour  
   - 2 hours  
   - 3 hours  
   - 4 hours  
   - 5 hours  
   - 6 hours  
   - 7 hours  
   - 8 hours  
   - 9 hours  
   - 10 hours  
   - 11 hours  
   - 12 hours  
   - 13 hours  
   - 14 hours  
   - 15 hours  
   - 16 hours  
   - 17 hours  
   - 18 hours  
   - 19 hours  
   - 20 hours  
   - 21 hours  
   - 22 hours  
   - 23 hours  
   - 24 hours

73. **Are any of the following ever used on your cats to control fleas or ticks?** *(Mark all that apply)*
   - Flea powders  
   - Flea collars  
   - Flea/tick shampoo or dips  
   - Home fumigants/flea bombs  
   - None [GO TO QUESTION 75]  
   - Don’t know [GO TO QUESTION 75]

74. **Where are these treatments mainly applied?** *(Mark the primary one.)*
   - Inside the house  
   - Outside the house  
   - Vet/groomer  
   - Don’t know

75. **Do you have any dogs?**
   - No [GO TO QUESTION 79]  
   - Yes

76. **How many hours per day do your dogs spend inside your home?**
   - 0 hours  
   - 1 hour  
   - 2 hours  
   - 3 hours  
   - 4 hours  
   - 5 hours  
   - 6 hours  
   - 7 hours  
   - 8 hours  
   - 9 hours  
   - 10 hours  
   - 11 hours  
   - 12 hours  
   - 13 hours  
   - 14 hours  
   - 15 hours  
   - 16 hours  
   - 17 hours  
   - 18 hours  
   - 19 hours  
   - 20 hours  
   - 21 hours  
   - 22 hours  
   - 23 hours  
   - 24 hours
77. Are any of the following ever used on your dogs to control fleas or ticks? (Mark all that apply.)
- Flea powders
- Flea/tick shampoo or dips
- Flea collars
- Home fumigants/flea bombs
- Don’t know

78. Where are these treatments mainly applied? (Mark the primary one.)
- Inside the house
- Vet/groomer
- Outside the house
- Don’t know

VIII. Dietary and Cooking Practices Information

The next two questions ask how often, on average, you age vegetables and fruits during the past 12 months. Be sure to include foods that were eaten away from home, such as in restaurants, cafeterias, at a friend’s house, or at work. If you rarely or never ate these foods, mark “Less than one per week.”

79. About how many servings of vegetables did you usually eat, not counting salad or potatoes?
- Less than one per week
- 1 1/2 per day
- 1–2 per week
- 2 per day
- 3–4 per week
- 3 per day
- 5–6 per week
- 4 or more per day
- 1 per day

80. About how many servings of fruits did you usually eat, not counting juices?
- Less than one per week
- 1 1/2 per day
- 1–2 per week
- 2 per day
- 3–4 per week
- 3 per day
- 5–6 per week
- 4 or more per day
- 1 per day

81. During the past year have you taken any vitamins or mineral supplements?
- No
- Yes, but not regularly
- Yes, fairly regularly (at least once a week)

82. If you’ve taken vitamins regularly, what vitamins? (Please mark each item)

<table>
<thead>
<tr>
<th>Vitamin Type</th>
<th>A. Number of Tablets Û</th>
<th>B. For How Many Years?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>1–3 Per Wk</td>
</tr>
<tr>
<td>Multiple Vitamins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Stress-tabs type</td>
<td>[snnumvit1 / syrsvit1]</td>
<td>○</td>
</tr>
<tr>
<td>b. Therapeutic or</td>
<td>[snnumvit2 / syrsvit2]</td>
<td>○</td>
</tr>
<tr>
<td>Theragran type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. One-a-day type</td>
<td>[snnumvit3 / syrsvit3]</td>
<td>○</td>
</tr>
<tr>
<td>Supplements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Vitamin A</td>
<td>[snnumsup1 / syrsupp1]</td>
<td>○</td>
</tr>
<tr>
<td>e. Vitamin E</td>
<td>[snnumsup2 / syrsupp2]</td>
<td>○</td>
</tr>
<tr>
<td>f. B-carotene</td>
<td>[snnumsup3 / syrsupp3]</td>
<td>○</td>
</tr>
<tr>
<td>g. Vitamin C</td>
<td>[snnumsup4 / syrsupp4]</td>
<td>○</td>
</tr>
<tr>
<td>h. Calcium or Tums</td>
<td>[snnumsup5 / syrsupp5]</td>
<td>○</td>
</tr>
<tr>
<td>i. Iron</td>
<td>[snnumsup6 / syrsupp6]</td>
<td>○</td>
</tr>
<tr>
<td>j. Cod liver oil</td>
<td>[snnumsup7 / syrsupp7]</td>
<td>○</td>
</tr>
</tbody>
</table>
82a. If you took Vitamin C: How many milligrams per tablet did you take?  
[svitcgm]
- 100
- 250
- 500
- 1000 or more
- Don't know

82b. If you took Vitamin E: How many units per tablet did you take?  
[svitemgm]
- 100
- 200
- 400
- 500
- 1000 or more
- Don't know

The next set of questions refer to your cooking and eating practices over the past year.

83. How often have you eaten the following meats during the past 12 months? Mark the column to show how often, on average, you ate the following foods during the past year. Be sure to include foods that were eaten way from home such as in restaurants, cafeterias, at friends’ homes, or at work. If you rarely or never eat a food, mark “Never, or less than once a month.”

<table>
<thead>
<tr>
<th>Type of Food</th>
<th>Never, or Less Than Once a Month</th>
<th>Once a Month</th>
<th>2–3 Times a Month</th>
<th>Once a Week</th>
<th>Twice a Week</th>
<th>3–4 Times a Week</th>
<th>5–6 Times a Week</th>
<th>Once a Day</th>
<th>Twice a Day or More</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Hamburger, cheeseburger</td>
<td>[sfoodty1]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Beef-steaks</td>
<td>[sfoodty2]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Chicken</td>
<td>[sfoodty3]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Pork-chops or ham steak</td>
<td>[sfoodty4]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Bacon or breakfast sausage</td>
<td>[sfoodty5]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

84. When you eat steak, how is it usually cooked? (Mark only one or two.)
- Don’t eat steak [sstcook1]
- Oven broiled [sstcook4]
- Pan fried [sstcook2]
- Other [sstcook5] (Please specify)
- Grilled [sstcook3]
- Don’t know [sstcook6]

85. When you eat steak, how do you usually eat it? (Mark only one.)
- Don’t eat steak
- Medium well
- Rare
- Well done
- Medium rare
- Very well done
- Medium
- Don’t know

86. When you eat hamburgers (or cheeseburgers), how are they usually cooked? (Mark only one or two.)
- Don’t eat hamburgers (or cheeseburgers) [sbergck1]
- Oven broiled [sbergck4]
- Pan fried [sbergck2]
- Other [sbergck5] (Please specify)
- Grilled [sbergck3]
- Don’t know [sbergck6]

87. When you eat hamburgers (or cheeseburgers), how do you usually eat them? (Mark only one.)
- Don’t eat hamburgers (or cheeseburgers)
- Medium well
- Rare
- Well done
- Medium rare
- Very well done
- Medium
- Don’t know
88. When you eat chicken, how do you usually eat it? (Mark only one.)
- Don't eat chicken
- Grilled
- Pan fried
- Broiled
- Deep fried
- Stewed or boiled
- Roasted or baked
- Don't know

89. When you eat pork chops or ham steaks, how do you usually eat them? (Mark only one.)
- Don't eat pork chops
- Fried
- Baked
- Broiled
- Grilled
- Don't know

90. When you eat bacon or sausage, how do you usually eat it? (Mark only one.)
- Don't eat bacon or sausage
- Charred/blackened
- Just until done
- Well-done, crisp
- Don't know

91. When do you eat foods that have been grilled (cooked over coals, open fire or ceramic briquets)?
- All year round
- Mostly in the summer
- Never

92. How often do you eat grilled or barbecued meat (including beef, pork, chicken, or fish)?
- Less than once a month
- 1–3 times a week
- 1–3 times a month
- 4–5 times a week
- Once a week
- Almost every day

93. How often do you eat meat which has been charred/blackened by grilling or barbecuing?
- Never
- Rarely
- Sometimes
- Often

94. How often do you eat meat which has been well-browned on the outside by pan-frying or oven broiling?
- Never
- Rarely
- Sometimes
- Often

95. What percent of the vegetables you eat comes from your garden?
- None
- Less than 10%
- 10–24%
- 25–49%
- 50–75%
- More than 75%

96. Are pesticides ever used in your vegetable garden?
- No
- Yes
- Don't have vegetable garden

97. What percent of the fruit you eat comes from your orchard or garden?
- None
- Less than 10%
- 10–24%
- 25–49%
- 50–75%
- More than 75%

98. Are pesticides ever used on fruit in your orchard or garden?
- No
- Yes
- Don't have orchard

99. What percent of your dairy products comes from your farm/dairy?
- None
- Less than 10%
- 10–24%
- 25–49%
- 50–75%
- More than 75%
100. Have you consumed any of the following livestock that were raised on your farm?

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>b.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>c.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>d.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>e.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>f.</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

[IF ALL NO, GO TO QUESTION 102]

101. What percentage of your meat/poultry consumption comes from livestock raised on your farm?  

- None
- Less than 10%
- 10–24%
- 25–49%
- 50–75%
- More than 75%

IX. General Health Information

102. Before age 18, did you live at least half your life on a farm?  

- Yes
- No

103. About how much did you weigh when you were age 20? (Do not consider a time when you may have been pregnant.)  

- Write the numbers in the boxes
- Then fill in the matching ovals below each box

104. During the past 12 months about how many times did you visit a medical doctor or medical assistant about a health concern?  

- None
- Once
- More than once
X. Medical History

Be sure to answer “No” or “Yes” for each item. If you answer “Yes”, be sure to complete Column B.

<table>
<thead>
<tr>
<th>Condition</th>
<th>A.</th>
<th>B. IF YES, How old were you when the doctor first told you?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>a. Tuberculosis</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>b. Melanoma of the skin</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>c. Other skin cancer</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>d. Leukemia (blood cancer)</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>e. Hodgkin’s disease</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>f. Non-Hodgkin’s lymphoma</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>g. Other cancer</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>h. Rheumatoid arthritis</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>i. Stroke</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>j. Myocardial infarction (heart attack)</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>k. Arrhythmia (irregular heart beat)</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>l. Angina (chest pain)</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>m. High blood pressure requiring medication</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>n. Diabetes (sugar) (other than while pregnant)</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>o. Asthma or reactive lung disease</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>p. Farmer’s lung disease</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>q. Chronic bronchitis</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>r. Emphysema</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>s. Hay fever</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>t. Pneumonia (viral or bacterial)</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>u. Cataracts</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>v. Glaucoma</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>w. Retinal or macular degeneration</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>x. Detached retina</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
105. Has a DOCTOR ever told you that you had (been diagnosed with)... (continued)

<table>
<thead>
<tr>
<th>Condition</th>
<th>A.</th>
<th>B. IF YES, How old were you when the doctor first told you?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>y. Goiter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>z. Thyrotoxicosis/Grave’s disease (excess thyroid hormone)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aa. Other thyroid disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bb. Kidney failure requiring dialysis or transplant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cc. Chronic kidney infections or pyelonephritis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dd. Kidney stones</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ee. Bright’s disease, nephritis, or nephrosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ff. Other kidney disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>gg. Shingles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hh. Eczema</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Mononucleosis or “mono”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>jj. Scleroderma or sarcoidosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kk. Lupus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ll. Ulcerative colitis or Crohn’s disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mm Alzheimer’s disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>nn. Parkinson’s disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>oo. Amyotrophic lateral sclerosis (ALS), motor neuron disease, or Lou Gehrig’s disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pp. Epilepsy or seizures (not related to high fever)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>qq. Multiple sclerosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>rr. Depression requiring medication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ss. Pesticide poisoning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tt. Solvent poisoning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>uu. Lead poisoning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vv. Head injury requiring medical attention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ww. Injury from farm machinery requiring medical treatment (excluding head injury)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please be sure to answer Column A for each item. For any you answered “Yes” be sure to complete Columns B and C and D.
106. During the past 12 months, have you had ...?

<table>
<thead>
<tr>
<th></th>
<th>A. How many episodes have you had in the last 12 months?</th>
<th>B. Were the symptoms worse after smelling chemical odors?</th>
<th>C. Were the symptoms worse after working with grains and hay?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>One</td>
</tr>
<tr>
<td>a. Stuffy, itchy, or runny nose</td>
<td>[sallerg1]</td>
<td>[numalg1]</td>
<td>[swafch1]</td>
</tr>
<tr>
<td>b. Watery, itchy eyes</td>
<td>[sallerg2]</td>
<td>[numalg2]</td>
<td>[swafch2]</td>
</tr>
<tr>
<td>c. A cold</td>
<td>[sallerg3]</td>
<td>[numalg3]</td>
<td>[swafch3]</td>
</tr>
<tr>
<td>d. Sinusitis or sinus problems</td>
<td>[sallerg4]</td>
<td>[numalg4]</td>
<td>[swafch4]</td>
</tr>
<tr>
<td>e. Flu</td>
<td>[sallerg5]</td>
<td>[numalg5]</td>
<td></td>
</tr>
<tr>
<td>f. Pneumonia</td>
<td>[sallerg6]</td>
<td>[numalg6]</td>
<td></td>
</tr>
</tbody>
</table>

107. Have you ever taken the following types of aspirin or other pain medication (over-the-counter or prescription) for any reason nearly every day for as long as a month?

<table>
<thead>
<tr>
<th></th>
<th>A. IF YES: For how many years altogether have you taken this pain medicine nearly every day (not counting months or years when you stopped taking the medicine)?</th>
<th>B. Do you currently take this medication daily (or nearly every day)?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>a. Aspirin or Buffered Aspirin (generic or any brand name, e.g. Anacin, Bayer, Bufferin, Midol)</td>
<td>[medcyr1]</td>
<td>[smednow1]</td>
</tr>
<tr>
<td>b. Advil, Nuprin, Motrin 1B (ibuprofen)</td>
<td>[medcyr2]</td>
<td>[smednow2]</td>
</tr>
<tr>
<td>c. Prescription anti-inflammatory drugs like Motrin, Feldene, Voltarin, Clinoril, or Indocin</td>
<td>[medcyr3]</td>
<td>[smednow3]</td>
</tr>
<tr>
<td>d. Tylenol or acetaminophen or other aspirin-free pain relievers (cold or sinus medicine, Anacin-3, Dristan AF, Comtrex, etc.)</td>
<td>[medcyr4]</td>
<td>[smednow4]</td>
</tr>
<tr>
<td>e. BC, Goody, Empirin, or ADC powders or tablets - BEFORE 1980</td>
<td>[medcyr5]</td>
<td>[smednow5]</td>
</tr>
<tr>
<td>f. BC, Goody, Empirin, or ADC powders or tablets - AFTER 1980</td>
<td>[medcyr6]</td>
<td>[smednow6]</td>
</tr>
<tr>
<td>g. Excedrin or Vanquish</td>
<td>[medcyr7]</td>
<td>[smednow7]</td>
</tr>
</tbody>
</table>
108. Have your parents, brothers, sisters or children related to you by blood ever had any of the following? *Mark “No” or “Yes” for each item.*

<table>
<thead>
<tr>
<th>Disease</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Lung cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Colon or colorectal cancer (bowel or rectal cancer)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Breast cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Melanoma of the skin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Other skin cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Stomach cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Leukemia (blood cancer)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Brain cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Prostate cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Lymphoma (Hodgkin's disease or non-Hodgkin's lymphoma)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. Other cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l. Kidney failure (uremia, Bright's disease or dialysis)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m. Diabetes, (sugar)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n. Heart attack before age 50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

109. What is your sex?  

- Female  
- Male  

[PLEASE COMPLETE PAGE 27, THEN GO TO FEMALE AND FAMILY HEALTH SECTION]
For confidentiality, this page will be stored separately from your responses to this survey.

110. Please write your name, birth date, and telephone number below:

Last Name

First Name

MI

Jr Sr

Maiden Name (if applicable)

Month

Day

Year

Area Code

Phone Number

Telephone

111. Please write your Social Security Number in the space below. The primary use of this information is for researchers to locate you in the future if they are unable to locate you at your home address, and to search health and vital records in follow-up studies in the future. Furnishing your Social Security Number is voluntary and you will not be denied any Federal right, benefit or privilege by your refusal to disclose it.

Social Security Number

I don’t have a Social Security Number

112. To keep our records in order, it would help us if you would write your spouse’s name, birth date, gender, and Social Security Number (if you know it or can get it) in the space below.

Last Name

First Name

MI

Jr Sr

Month

Day

Year

Area Code

Phone Number

Telephone

Spouse’s Gender

Male

Female

Spouse’s Social Security Number (if you know it)

113. Do you have any additional comments?

No

Yes (Please use space below and on the back to explain.)

Additional Comments:

Thank You For Taking The Time To Complete This Questionnaire.

PLEASE RETURN YOUR COMPLETED FORM IN THE POSTAGE-PAID ENVELOPE PROVIDED WITH THIS BOOKLET.