

HANFORD THYROID DISEASE STUDY

DOSIMETRY QUESTIONNAIRE

April 11, 1995

INTRODUCTION

ESTABLISHING CONTACT WITH RESPONDENT:

Hello, may I speak to (RESPONDENT'S NAME)?

WHEN YOU CONFIRM THAT YOU HAVE THE RESPONDENT ON THE LINE, PROCEED TO PREPARE FOR THE INTERVIEW. IF THE RESPONDENT IS UNAVAILABLE, TRY TO ESTABLISH A TIME WHEN YOU CAN CALL BACK.

i. This is (INTERVIEWER NAME) calling from the Fred Hutchinson Cancer Research Center. On (DATE) we made an appointment for an interview with you as part of the Hanford Thyroid Disease Study. I am calling at this time to conduct the interview.

ii. ***STATE:***

There are several things you will need to have on hand during the interview. They include your copy of the residence history, the *yellow* Calendar of Events, the *blue* Interview Booklet, a pen or pencil, and an 8 ounce measuring cup. Do you have all of them there with you now? ***If no, say:*** I'll be happy to wait while you get them. Are you ready to start now? ***Proceed.***

IF, FOR SOME REASON, THE PARTICIPANT DOES NOT HAVE THE PACKET, SAY:

I'm sorry you do not have the packet. You will need it during the interview, therefore we will need to reschedule. Let me confirm your mailing address so we can send you another packet. I will call you again in the next few days to reschedule your interview. Thank you for your patience.

END THE CALL.

As I am sure you remember, this interview is part of a study about the effects of radiation exposures from the Hanford Nuclear Reservation in the 1940's and 1950's. We are particularly interested in people who were young children during the early and mid-1940's. We hope that you can help by supplying some very important information about the childhood years of (SUBJECT), who was selected to participate in the study. The information you provide will help answer some very important questions about how the radiation from Hanford may have affected peoples' thyroid glands. Because the public was not aware of the radiation releases from Hanford, you could not have known about the possible exposure from Hanford at that time, or the possibility of side effects. Your answers to the questions will not mean that you did anything wrong, or could have prevented any exposure by doing things differently. Of course, it is important to remember that we are asking about events that occurred long ago. Local milk and produce today are not contaminated with radiation.

I hope you have had a chance to look over the materials and think about the things we will be discussing today. Before we begin the questions, there are a few things I need to mention:

- I want to assure you that all the information you give will be strictly confidential as required by public law PHS Act Section 308(d) (42 USC 242m(d)).
- You may refuse to answer any question, or terminate the interview at any time.
- Try to be as accurate and complete as possible when giving answers. Don't feel rushed, and do not hesitate to ask me to repeat a question. Our goal is to obtain the most accurate information you can give. You may not know the answers to some of the questions. Just do the best you can.
- When answering a question, please feel free to tell me everything that comes to mind, even if you aren't sure it applies to that particular question. Anything you think of may be helpful later.
- You may hear a clicking sound in the background as we talk. I'll be entering answers directly into a computer as we go through the questions. The sound is the computer keyboard.

I would now like to ask for your permission to tape record this interview. We want to have a recording of each interview for two reasons. First, the recording serves as a copy of the interview in case something happens to the computer either during or after the interview. Second, my supervisor may use the recording to evaluate my work. Remember, we are legally responsible for maintaining the confidentiality of all the information. May I have your permission to tape record the interview?

YES 1 *

NO 2

* I'm starting the tape recorder.

IF SUBJECT'S BIRTHDATE IS PRIOR TO OR EQUAL TO SEPTEMBER 1945, SAY:

Let's talk for a moment about December 1944. Is there any particular event you remember from that time? It could be something related to the Holidays, a birthday or anniversary, or some other event that stands out in your mind. Think for a moment, and then tell me what you come up with.

Good.

IF SUBJECT'S BIRTHDATE IS AFTER SEPTEMBER 1945, SAY:

Let's talk for a moment about (DATE NINE MONTHS PRIOR TO SUBJECT'S BIRTH), around the time (YOU/SUBJECT'S MOTHER) became pregnant with (SUBJECT). We are interested in (YOU/SUBJECT'S MOTHER) from the time (YOU/SHE) became pregnant with (SUBJECT) until (YOU/SHE) stopped breast-feeding. Then our focus will change to (SUBJECT). Is there any other particular event you remember from that time? It could be something related to the pregnancy, a birthday or anniversary, or some other event that stands out in your mind. Think for a moment, and then tell me what you come up with. Please write these events on the calendars.

Good.

FORM APPROVED:

OMB NUMBER: 0920-0296

EXP. DATE: (to be stamped with correct date)

Public reporting burden for this collection of information is estimated to vary from 1 to 2 hours, with an average of 1-1/2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to PHS Reports Clearance Officer; ATTN: PRA (0920-0296); Hubert H. Humphrey Bldg., Rm. 737-F; 200 Independence Ave. S.W., Washington, D.C. 20201.

NOTE TO REVIEWERS:

A response of "unknown" from the respondent, expressed by 9, 99, or 999, depending on each question's format, is accommodated throughout the dosimetry questionnaire with some exceptions. These exceptions involve responses which name a date or provide information about changes in amounts; questions about changes require a "yes" or "no" response.

SECTION I. BACKGROUND INFORMATION INTERVIEW START TIME: ___ ___ : ___ ___ A.M. / P.M.
(QXS 100-108)

Now, let's begin the questions.

100. What is (SUBJECT'S) birthdate?

_____ _____ _____
 MONTH DAY YEAR

101. Our records show that you are (SUBJECT)'s (RELATIONSHIP). Is that correct? *If not probe for exact relationship.*

CODES:

<p><i>01 birth mother</i></p> <p><i>02 adopted mother</i></p> <p><i>03 father</i></p> <p><i>04 brother</i></p> <p><i>05 sister</i></p> <p><i>06 uncle</i></p> <p><i>07 aunt</i></p>	<p><i>08 grandfather</i></p> <p><i>09 grandmother</i></p> <p><i>10 other relative</i></p> <p><i>11 family friend</i></p> <p><i>12 other</i></p>
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Let's turn to page 6 in the *blue* **Interview Booklet**, and talk about what (SUBJECT) ate when (HE/SHE) was an infant.

Review pages 6-7.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions?

Should we continue with the interview now?

102. Was (SUBJECT) ever nursed or breast-fed?

YES 1
 NO 2
 DK 9

103. How many months old was (SUBJECT) when (HE/SHE) first drank fresh milk other than breast milk?

___ MONTHS OF AGE

104. *Computer calculates month and year. Say: Would that be in (MONTH/YEAR)?*

___ / ___
 MONTH YEAR

Check age/date agreement with respondent
 Now, please be sure that date is on your calendar, too.

YES

NO

105. How many months old was (SUBJECT) when (HE/SHE) stopped nursing or breast-feeding?

___ MONTHS OF AGE

106. *Computer calculates month and year. Say: Would that be in (MONTH/YEAR)?*

___ / ___
 MONTH YEAR

Check age/date agreement with respondent
 Now, please write that date on your calendar, too.

SKIP TO QX. 107

107. How many months old was (SUBJECT) when (HE/SHE) first ate foods other than milk?

___ MONTHS OF AGE

108. *Computer calculates month and year. Say: Would that be in (MONTH/YEAR)?*

___ / ___
 MONTH YEAR

Check age/date agreement with respondent
 Now, please write that date on your calendar, too.

SECTION II. RESIDENCE HISTORY
(QXS 200-209)

INTERVIEWER INSTRUCTIONS:

RESIDENCE START DATE

If subject was born before December 1, 1944 *and* never breast-fed
or if subject stopped breast-feeding before December 1, 1944:

RESIDENCE START DATE: December 1, 1944

If subject was born between December 1, 1944 and September 1, 1945 or born before
December 1, 1944 and still breast-feeding after December 1, 1944:

RESIDENCE START DATE: December 1, 1944

If subject was born after September 1, 1945:

RESIDENCE START DATE: Date 9 months prior to birth

END DATE

If subject died before December 31, 1957:

END DATE: Date of Death

Otherwise:

END DATE: December 31, 1957

I'd now like to review the residence history information you sent to us. Please look at your copy of the Residence History Questionnaire.

For residences in our study area I will be reviewing the dates (YOU/SUBJECT'S MOTHER) and (SUBJECT) lived at each street address. For residences outside our study area, I will be reviewing the dates (YOU/SUBJECT'S MOTHER) and (SUBJECT) lived in each county and state only. Are you ready to begin?

If in study area, ask:

200. From (RESIDENCE START DATE) to (RESIDENCE END DATE) (YOU/SUBJECT'S MOTHER/SUBJECT) lived at (STREET ADDRESS) in (CITY) (STATE) which is in (COUNTY) county. Is this correct?

YES

NO

Go to next residence

Get correct information, then continue

If outside study area, ask:

201. From (COUNTY START DATE) to (COUNTY END DATE) (YOU/SUBJECT'S MOTHER/SUBJECT) lived in (COUNTY) county in (STATE). Is this correct?

YES

NO

Go to next residence

Get correct information, then continue

SECTION II.A.

The next few questions are about fresh milk and dairy products. When I say fresh milk, I mean any milk that was **not** powdered or canned. It could be processed by homogenization or pasteurization, or it could be raw.

Processed milk is usually purchased at a store. It is most often cow's milk, but can also be goat's milk.

Raw, or unprocessed milk is usually obtained from a cow or goat owned by the family, a neighbor, or friend. In some cases, raw milk could be obtained from a local dairy farm.

I will also need to know about any fresh dairy products. By fresh dairy products, I mean foods like cream, butter, buttermilk, cottage cheese, yogurt, and ice cream. These could be made from processed or raw cow's or goat's milk. I do not want you to include aged dairy products, such as cheddar cheese, or other hard cheeses.

It will be important for you to think about any other foods eaten that contained some fresh milk or dairy products when you answer these questions.

INTERVIEWER INSTRUCTIONS:

If subject stopped breast-feeding after December 1, 1944 *or* if subject was born after December 1, 1944:

Answer SECTION II.A.:

RESIDENCE START DATE remains the same as in earlier questions.

MOTHER'S END DATE: date stopped breast-feeding *or* date of birth if not breast-fed.

Otherwise, skip to Section II.B.

INTERVIEWER CHECK: TOTAL # HTDS RESIDENCES (MOTHER) _____
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SECTION II.A.: ASK THESE QUESTIONS

If dates at first/next residence include any part of pregnancy with subject or breast-feeding of subject, prior to December 31, 1957.

Repeat for each HTDS residence which meets these criteria.

Otherwise, skip to SECTION II.B.

Now I have a few questions about fresh milk and fresh dairy products that (YOU/SUBJECT'S MOTHER) ate or drank while (YOU WERE/SHE WAS) (PREGNANT WITH) (AND) (BREAST-FEEDING) (SUBJECT).
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- | | |
|------|---|
| 202. | Between (RESIDENCE START DATE) and (RESIDENCE LAST DATE/MOTHER'S END DATE), while living at (FIRST/NEXT RESIDENCE), did (YOU/SUBJECT'S MOTHER) ever eat or drink fresh milk or dairy products made from raw cow's milk? |
| | YES 1 |
| | NO 2 |
| | DK 9 |
| 203. | During that time, did (YOU/SUBJECT'S MOTHER) ever eat or drink fresh milk or dairy products made from processed cow's milk? |
| | YES 1 |
| | NO 2 |
| | DK 9 |
| 204. | During that time, did (YOU/SUBJECT'S MOTHER) ever eat or drink fresh milk or dairy products made from raw goat's milk? |
| | YES 1 |
| | NO 2 |
| | DK 9 |
| 205. | During that time, did (YOU/SUBJECT'S MOTHER) ever eat or drink fresh milk or dairy products made from processed goat's milk? |
| | YES 1 |
| | NO 2 |
| | DK 9 |

Repeat SECTION II.A. for each applicable HTDS residence; then skip to SECTION II.B.
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INTERVIEWER CHECK: TOTAL # HTDS RESIDENCES (SUBJECT) _____

INTERVIEWER INSTRUCTIONS:

MILK START DATE:
 If subject started drinking milk other than breast milk before December 1, 1944: **MILK START DATE: December 1, 1944**
 If subject never breast-fed: **MILK START DATE: Date of Birth**
 Otherwise: **MILK START DATE: Date subject started drinking other milk**

END DATE:
 If subject died before December 31, 1957: **END DATE: Date of Death**
 If last date at HTDS residence is before December 31, 1957: **END DATE: Last date at last HTDS residence**
 Otherwise: **END DATE: December 31, 1957**

SECTION II.B.: ASK THESE QUESTIONS

**If dates at first/next residence include any time during which subject drank milk other than breast milk prior to December 31, 1957;
 Repeat this section for each HTDS residence which meets these criteria until END DATE.**

I'd like to focus now on questions about (SUBJECT).

If questions 202-205 not asked of mother, read introduction for Section II.A.

206. Between (MILK START DATE/RESIDENCE START DATE) and (RESIDENCE LAST DATE/END DATE) did (SUBJECT) ever eat or drink fresh milk or dairy products made from raw cow's milk?
 YES 1
 NO 2
 DK 9

207. During that time, including milk provided at school, did (SUBJECT) ever eat or drink fresh milk or dairy products made from processed cow's milk?
 YES 1
 NO 2
 DK 9

208. During that time, did (SUBJECT) ever eat or drink fresh milk or dairy products made from raw goat's milk?
 YES 1
 NO 2
 DK 9

209. During that time did (SUBJECT) ever eat or drink fresh milk or dairy products made from processed goat's milk?
 YES 1
 NO 2
 DK 9

Repeat Section II.B. for each applicable HTDS residence until END DATE.

SECTION III. MILK SOURCE
(QXS 300-316)

NOTE: ASKED IF MOTHER OR SUBJECT DRANK MILK OR ATE DAIRY PRODUCTS AT HTDS STUDY COUNTY RESIDENCES AS DETERMINED IN SECTION II, RESIDENCE HISTORY

We've determined that (YOU/SUBJECT'S MOTHER) (AND/OR) (SUBJECT) ate or drank milk at residences located in the areas under study. Now I'm going to ask some specific questions about places where (YOUR/SUBJECT'S) family got different types of milk they may have drunk or eaten. I'm going to refer back to (SOME OF THE/THE) residence(s) you've told me about. As you think about a particular residence, try to recall the different stores or farms where the family got milk.

SECTION III.A.

Asked for each HTDS residence where mother and/or subject ate or drank processed, pasteurized or homogenized cow or goat's milk; it does not matter if only one or the other (subject or subject's mother) drank it for these questions.

Otherwise, skip to SECTION III.B., if appropriate.

Let's turn to page 4 of the *blue Interview Booklet*, and think about the brands of milk (YOUR/SUBJECT'S) family drank.

Review pages 4-5.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

These next questions will focus on the different brands of milk (YOUR/SUBJECT'S) family ate or drank. Please include milk (SUBJECT) may have gotten at school, even if you don't know the brand.

For each HTDS study residence which meets the above criteria. *Enter residence code (rc).*

300. What are the brands of milk that (YOUR/SUBJECT'S) family ate and drank while living at (FIRST/NEXT RESIDENCE).
999=DK Probe for COW or GOAT. Code: Cow=1, Goat=2.

RECORD COW
OR GOAT
FOR EACH BRAND

BRAND #1	_____	COW	GOAT
BRAND #2	_____	COW	GOAT
BRAND #3	_____	COW	GOAT
BRAND #4	_____	COW	GOAT
BRAND #5	_____	COW	GOAT

301. Was (BRAND) purchased at a store, a dairy or creamery, or delivered to your home? **Record source for each brand.**

BRAND #1	DELIVERED/DAIRY/CREAMERY _____	STORE _____
BRAND #2	DELIVERED/DAIRY/CREAMERY _____	STORE _____
BRAND #3	DELIVERED/DAIRY/CREAMERY _____	STORE _____
BRAND #4	DELIVERED/DAIRY/CREAMERY _____	STORE _____
BRAND #5	DELIVERED/DAIRY/CREAMERY _____	STORE _____

302. In (RESIDENCE START DATE/CHANGE DATE) what percent of the milk was (LIST EACH BRAND NAME GIVEN)? **If not equal to 100%, probe for brand name of other milk and record in QX 300.**

_____ %	_____ %
BRAND #1	BRAND #4
_____ %	_____ %
BRAND #2	BRAND #5
_____ %	
BRAND #3	

303. Before (RESIDENCE LAST DATE/END DATE), did (THIS PERCENTAGE/THESE PERCENTAGES) ever change significantly?

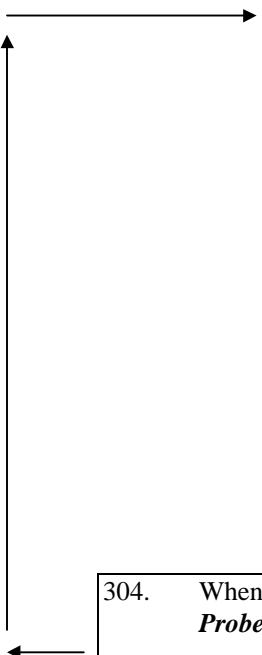
YES

NO or DK

304. When did this change occur?
Probe for month/year.

MONTH YEAR

REPEAT FROM QX 300 FOR EACH HTDS RESIDENCE WHERE PROCESSED COW'S OR GOAT'S MILK WAS CONSUMED. THEN SKIP TO NEXT APPLICABLE SECTION



SECTION III.B. RAW COW'S MILK

Asked for each HTDS residence where mother and/or subject ate or drank raw cow's milk or dairy products; it does not matter if only one or the other (subject or subject's mother) drank this type of milk for these questions.

Otherwise, skip to SECTION III.C., if applicable.

Let's turn to page 2 of the *blue* **Interview Booklet**, and talk about where (YOUR/SUBJECT'S) family got milk.

Review pages 2-3.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

FOR EACH HTDS STUDY AREA RESIDENCE:

These questions are about the source of the raw cow's milk or dairy products that (YOU/SUBJECT'S MOTHER) (AND/OR) (SUBJECT) ate or drank.

You might not know the answers to some of the following questions. Just do your best. If you think there is someone else who could better answer any of these questions, please tell me and we will try to contact them also. (***NOTE TO INTERVIEWER: RECORD NAME, ADDRESS AND TELEPHONE NUMBER IN MEMO FIELD***)

305. In (RESIDENCE START DATE/CHANGE DATE), while living at (FIRST/NEXT RESIDENCE), who owned the cows that provided most of the family's raw milk?

Family/Self..... 1
 Neighbor..... 2
 Relative..... 3
 Local Dairy *Specify* 4
 Other *Specify* 5
 DK..... 9

306. Where were the cows kept? *Read List:*

At (YOUR/SUBJECT'S) residence..... 1
 Within 5 miles of (YOUR/SUBJECT'S) residence..... 2
 More than 5 miles from (YOUR/SUBJECT'S) residence 3
 (*describe*)
 DK..... 9

307. What was the main water source for the cows kept there?

Public water supply 1 (QX 310)
 Well, spring, or other underground source..... 2 (QX 310)
 Rainwater cistern..... 3 (QX 308)
 Pond or lake 4 (QX 309)
 Stream, river, creek or irrigation canal 5 (QX 309)
 Other, specify 6 (QX 310)
 don't know..... 9 (QX 310)

CISTERN

POND/STREAM

**PUBLIC WATER/
WELL/OTHER/DK**

308. How many days worth of rainwater did the cistern hold? *01-98, 99=DK*

DAYS

309. Could the cistern generally be relied on as the cow's main water source?

YES..... 1
 NO..... 2
 DK..... 9

309. Could the pond or stream generally be relied on as the cow's main water source?

YES..... 1
 NO..... 2
 DK..... 9

Skip to QX 310

310. Were (OWNER'S) cows at (LOCATION) ever on pasture or fed green chop, that is, freshly cut hay or grass?

YES

NO

311. What percentage of the feed was pasture, green chop, or other fresh greens?
 _____ %
If 100%, Skip to QX 313

Skip to QX 313

312. What percentage of the cow's feed was some type of stored hay, silage, or grain?
 _____ %

Now I am going to ask you about any changes that might have affected the raw cow's milk your family drank. When I ask about changes in the location the cows were kept, we are concerned with changes in location of more than five miles only. When I ask about changes in water source and feed, keep in mind that we are asking for averages over a year's time. Please do not include seasonal variations.

313. While living at (RESIDENCE) and drinking milk from these cows, did the cow's location, water source, or feed ever change significantly, OR did the main source of (YOUR/SUBJECT'S) raw cow's milk ever change?

YES

NO

314. When did this change occur?

 MONTH DAY YEAR
Repeat from QX 305

Repeat QX 305 for next HTDS residence

INTERVIEWER CHECK	
315.	The quality of R's response was:
High Quality	1 Skip to next section
Generally Reliable	2 Skip to next section
Questionable	3
Unreliable	4
316.	What is the main reason for the unreliable or questionable quality of this section of the interview?
Unclear memory of events	1
Uncertain understanding of questions.....	2
Hurried responses.....	3
Other, specify.....	4
Don't Know	9

SECTION V. MILK CONSUMPTION AND DIETARY HABITS: SUBJECT
(QXS 500-569)

In this next section I will refer to some of the answers you gave in earlier sections. With these questions I will ask you to tell me how much (SUBJECT) started eating and drinking when (HE/SHE) was a young child, and then we will discuss whether there were any significant changes in (HIS/HER) diet before (END DATE). Although amounts change gradually as a child grows, there may be times when the amounts suddenly increase or decrease.

SECTION V.A.

Asked if subject was breast-fed for 3 weeks or more during the period December 1, 1944 to December 31, 1957, while living in HTDS study area.

Let's turn to page 6 of the *blue Interview Booklet*, and think about when (SUBJECT) was an infant.

Review pages 6-7.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

You told me that (SUBJECT) breast-fed from (BIRTHDATE) until (DATE STOPPED BREAST-FEEDING), and that (SUBJECT) started eating or drinking milk or dairy products other than breast milk in (DATE FIRST DRANK FRESH MILK).

If time between subject birthdate and QX 103 is greater than 3 weeks, ask QX 500.

If time is 1 month or less, skip to QX 501.

500. Before the time (SUBJECT) started drinking fresh milk did (HE/SHE) ever drink powdered or canned milk?

YES..... 1
 NO..... 2
 DK..... 9

1

501. When (SUBJECT) started drinking fresh milk in (MILK START DATE), what percentage of the milk that (SUBJECT) was drinking was breast milk what percentage was fresh cow or goat's milk (AND WHAT PERCENTAGE WAS CANNED OR POWDERED MILK)?

____ % BREAST
 ____ % FRESH
 ____ % POWDERED/CANNED

NOTES TO INTERVIEWER:

For SECTIONS V.B. through V.E.,

MILK START DATE: Date subject began drinking fresh milk in the HTDS study area.

END DATE: The ending date at the last HTDS residence.

The questions in SECTION V.B. through V.E. are *not* asked for each specific residence. Answers are for continuous time periods until a change occurred. If subject stopped consuming a type of milk and started again later (or did not consume that type of milk at MILK START DATE), enter the date of change and the amount as '0'. The subsequent date of change should then be the date that milk type was again consumed.

Let's turn to page 8 in the *blue Interview Booklet*, and think about the milk and dairy products (SUBJECT) drank or ate.

Review Pages 8-14.

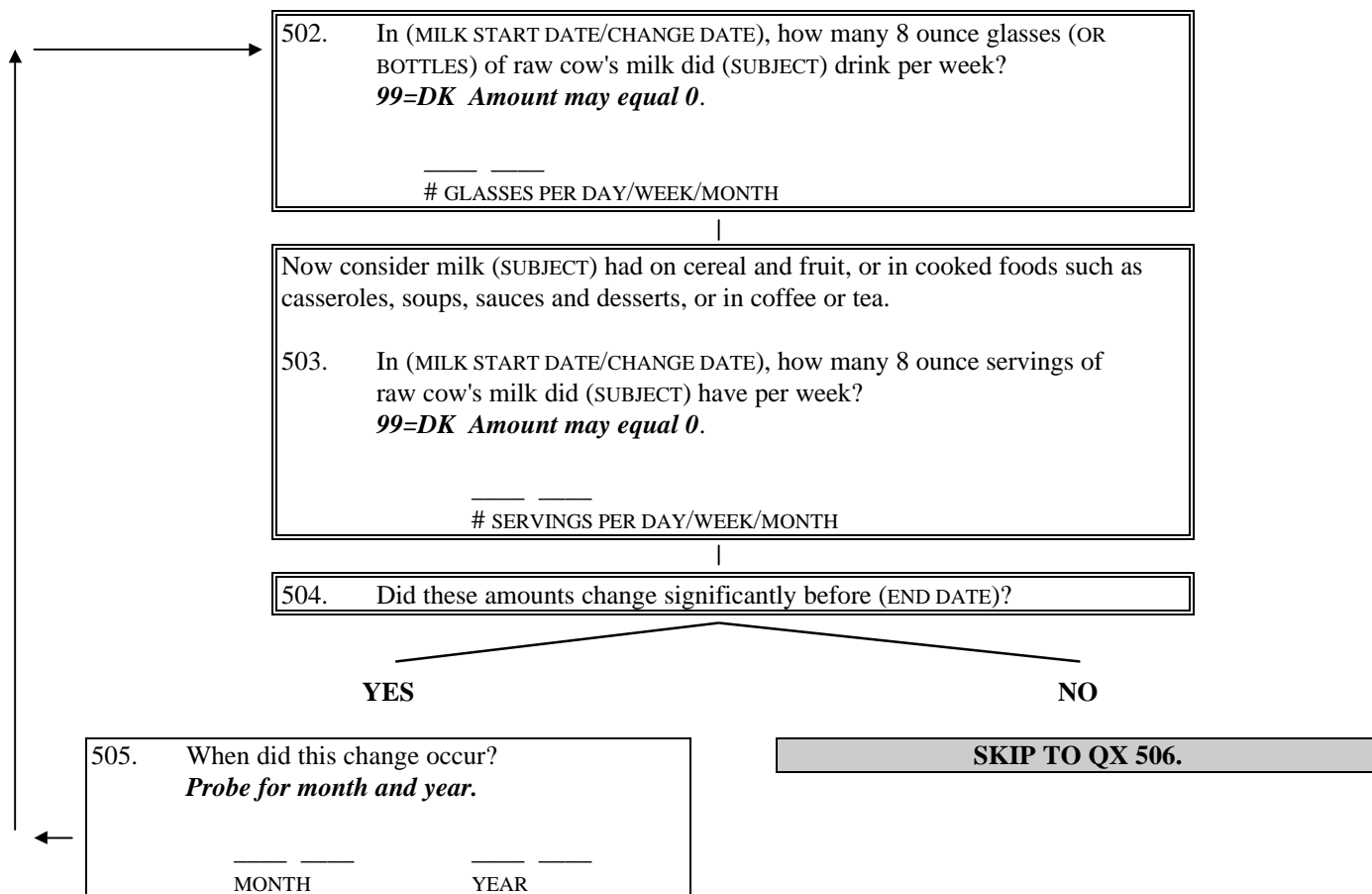
Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? *(pause)* Should we continue with the interview now?

We will be asking about each type of milk separately.

SECTION V.B.

Asked if subject ever ate or drank milk or dairy products made from raw or unprocessed cow's milk at HTDS residences between (MILK START DATE) and (END DATE).

You said that (SUBJECT) ate or drank products made from raw cow's milk. Remember, I am not interested in any milk that was canned, powdered, or processed.



Say: I also need to know about any fresh dairy products made from raw cow's milk (SUBJECT) may have eaten or drunk, such as cream, butter, buttermilk, cottage cheese, yogurt, and ice cream. Many cooked foods, such as casseroles and desserts also contain fresh dairy products.

Please do not include aged dairy products, such as cheddar cheese or other hard cheeses.

506. Which fresh dairy products made from raw cow's milk did (SUBJECT) eat or drink between (MILK START DATE) and (END DATE)?

IF ANY

NONE

Say: A serving of butter is equal to 1-1/2 teaspoons, and a serving of any other dairy product is equal to an 8 ounce measuring cup.

507. In (MILK START DATE/CHANGE DATE), how many servings of fresh dairy products made from raw cow's milk did (SUBJECT) have per week? *Amount may equal 0.*

___ ___
SERVINGS PER DAY/WEEK/MONTH

SKIP TO SECTION V.C.

508. Did this amount change significantly before (END DATE)?

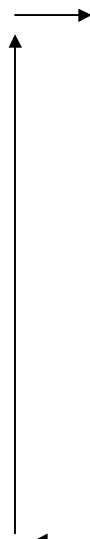
YES

NO

509. When did this change occur?

___ ___ ___ ___
MONTH YEAR

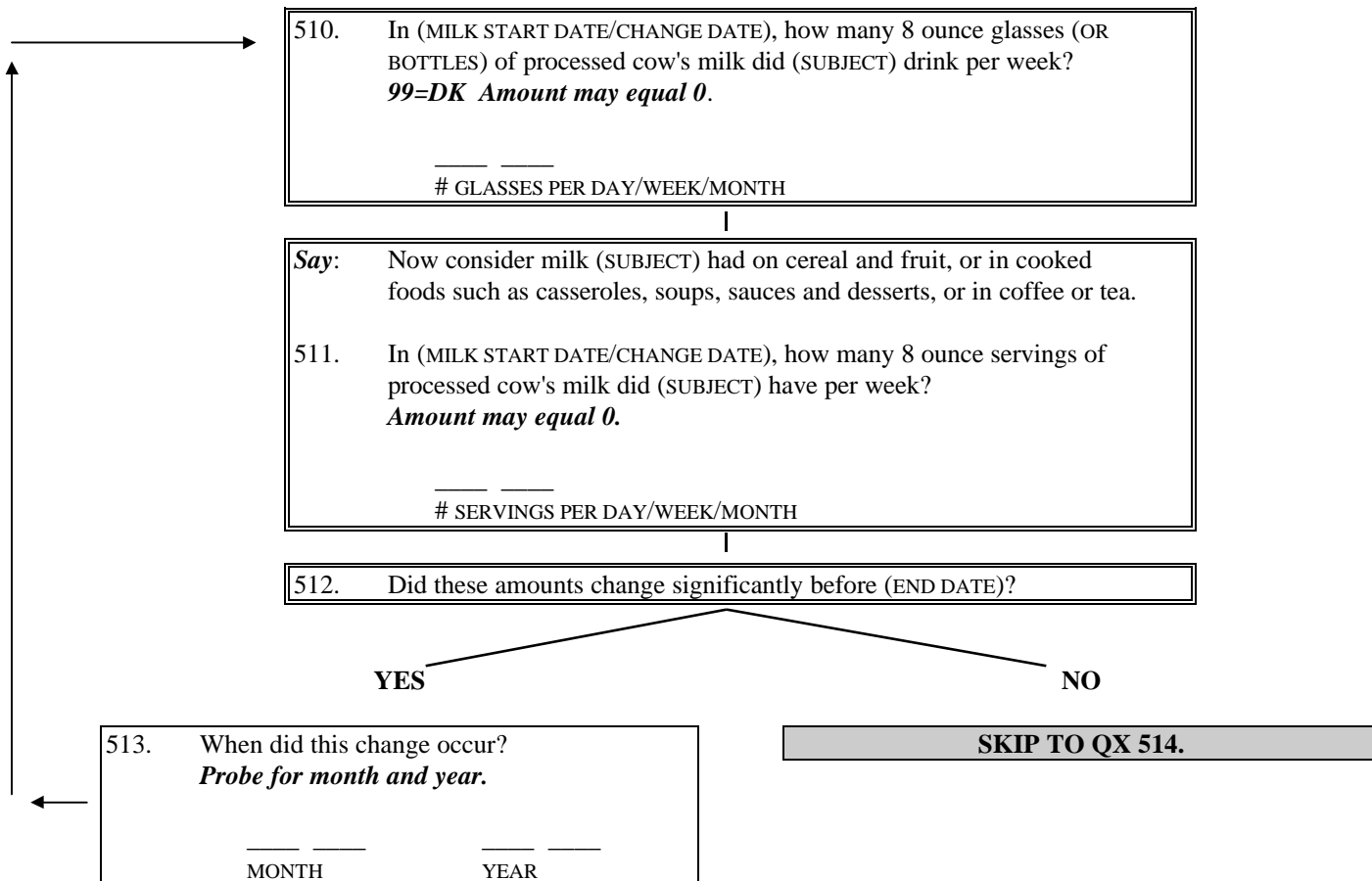
Skip to Section V.C.



SECTION V.C.

Asked if subject ever ate or drank milk or dairy products made from processed cow's milk at HTDS residences between (MILK START DATE) and (END DATE).

You said that (SUBJECT) ate or drank products made from fresh processed cow's milk. Please include any milk (SUBJECT) drank while at school. I am not interested in canned or powdered milk.



Say: I also need to know about any fresh dairy products made from processed cow's milk (SUBJECT) may have eaten or drank, such as cream, butter, buttermilk, cottage cheese, yogurt, and ice cream. Many cooked foods, such as casseroles and desserts, also contain fresh dairy products.

Please do not include aged dairy products, such as cheddar cheese or other hard cheeses.

514. Which fresh dairy products made from processed cows milk did (SUBJECT) eat or drink between (MILK START DATE) and (END DATE)?

IF ANY

NONE

Say: A serving of butter is equal to 1-1/2 teaspoons, and a serving of any other dairy product is equal to an 8 ounce measuring cup.

515. In (MILK START DATE/CHANGE DATE), how many servings of fresh dairy products made from processed cow's milk did (SUBJECT) have per week?
Amount may equal 0.

___ ___
SERVINGS PER DAY/WEEK/MONTH

SKIP TO SECTION V.D.

516. Did this amount ever change significantly before (END DATE)?

YES

NO

517. When did this change occur?

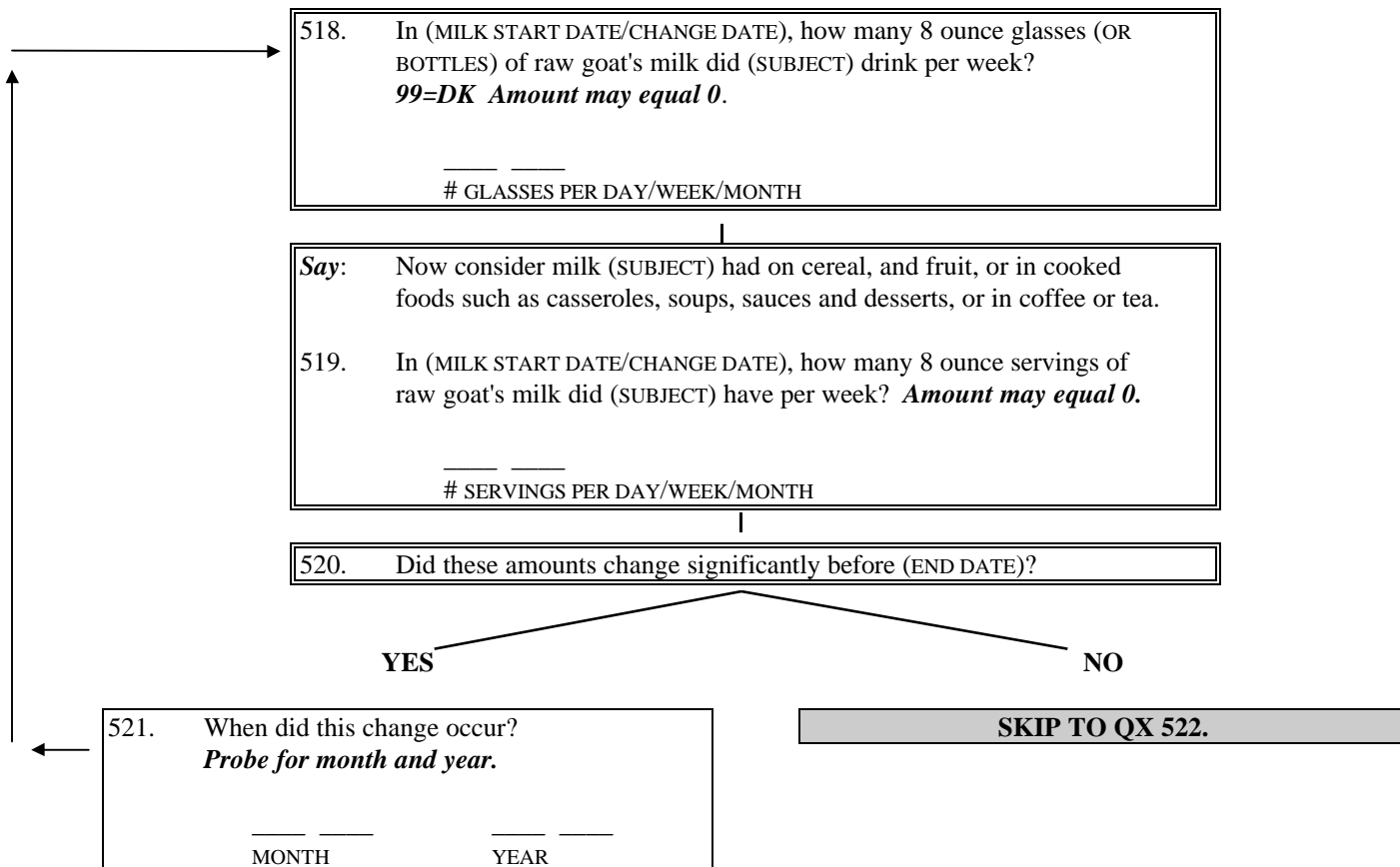
___ ___ ___ ___
MONTH YEAR

Skip to Section V.D.

SECTION V.D.

Asked if subject ever ate or drank milk or dairy products made from raw or unprocessed goat's milk at HTDS residences between (MILK START DATE) and (END DATE).

You said that (SUBJECT) ate or drank products made from raw goat's milk.



Say: I also need to know about any fresh dairy products made from raw goat's milk (SUBJECT) may have eaten or drunk, such as cream, butter, buttermilk, cottage cheese, yogurt, and ice cream. Many cooked foods, such as casseroles and desserts, also contain fresh dairy products.

Please do not include aged dairy products, such as cheddar cheese or other hard cheeses.

522. Which fresh dairy products made from raw goats milk did (SUBJECT) eat or drink between (MILK START DATE) and (END DATE)?

IF ANY

NONE

Say: A serving of butter is equal to 1-1/2 teaspoons, and a serving of any other dairy product is equal to an 8 ounce measuring cup.

523. In (MILK START DATE/CHANGE DATE), how many servings of fresh dairy products made from raw goat's milk did (SUBJECT) have per week? *Amount may equal 0.*

___ ___
SERVINGS PER DAY/WEEK/MONTH

SKIP TO SECTION V.E.

524. Did this amount change significantly before (END DATE)?

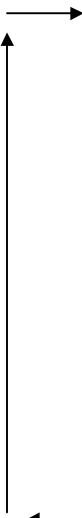
YES

NO

525. When did this change occur?

___ ___
MONTH YEAR

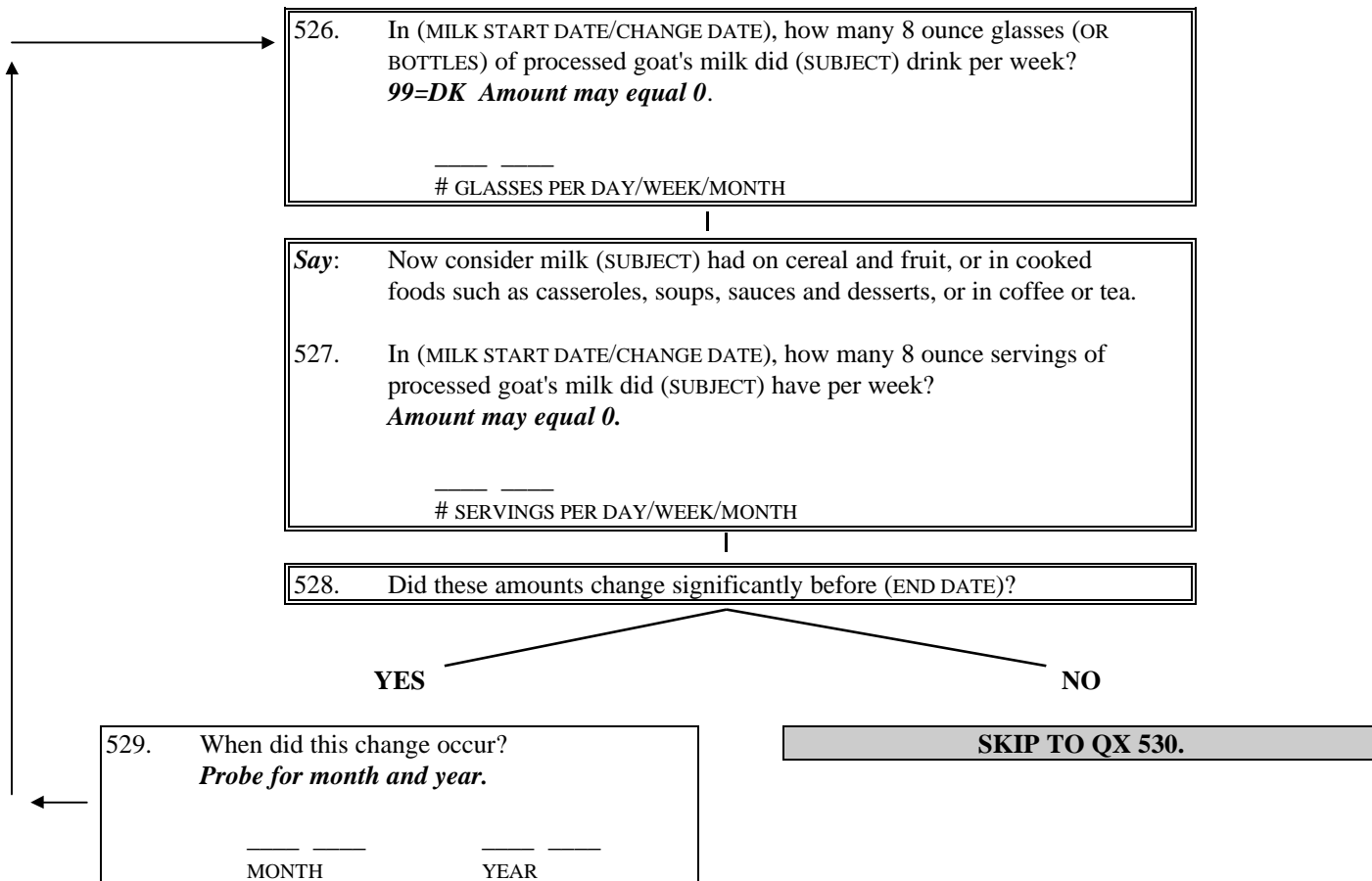
Skip to Section V.E.



SECTION V.E.

Asked if subject ever ate or drank milk or dairy products made from processed goat's milk at HTDS residences between (MILK START DATE) and (END DATE).

You said that (SUBJECT) ate or drank products made from processed goat's milk. I am not interested in any milk that was powdered or canned.



Say: I also need to know about any fresh dairy products made from processed goat's milk (SUBJECT) may have eaten or drank, such as cream, butter, buttermilk, cottage cheese, yogurt, and ice cream. Many cooked foods, such as casseroles and desserts, also contain fresh dairy products.

Please do not include aged dairy products, such as cheddar cheese or other hard cheeses.

530. Which fresh dairy products made from processed goats milk did (SUBJECT) eat or drink between (MILK START DATE) and (END DATE)?

IF ANY

NONE

Say: A serving of butter is equal to 1-1/2 teaspoons, and a serving of any other dairy product is equal to an 8 ounce measuring cup.

531. In (MILK START DATE/CHANGE DATE), how many servings of fresh dairy products made from processed goat's milk did (SUBJECT) have per week?
Amount may equal 0.

___ ___
SERVINGS PER DAY/WEEK/MONTH

SKIP TO SECTION V.F.

532. Did this amount change significantly before (END DATE)?

YES

NO

533. When did this change occur?

___ ___ ___ ___
MONTH YEAR

Skip to Section V.F.

**SECTION V.F.: GREEN AND LEAFY VEGETABLES
(QXS 534-542)**

Next I will be asking you about green and leafy vegetables (SUBJECT) may have eaten. I am interested *only* in fresh, locally grown green and leafy vegetables. I am not interested in any canned or frozen vegetables. By fresh vegetables, I am referring to those that were fresh and in-season locally.

Fresh vegetables could come from (YOUR/SUBJECT'S FAMILY'S) garden, from a friend, neighbor, or relative's garden, a grocery store or could be purchased directly from a farmer or at a local farmer's market or at a roadside stand. Because vegetables from a grocery store or farmer's market may have been locally grown or may have been from another area, we will ask you to estimate the percentage of vegetables that were purchased and the percentage that (YOU/SUBJECT'S FAMILY) or a neighbor grew.

Let's turn to page 15 of the *blue Interview Booklet*, and think about the vegetables (SUBJECT) ate.

Review pages 15-18.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

NOTES TO INTERVIEWER:

FOOD START DATE

If subject started eating foods other than milk before December 1, 1944:

FOOD START DATE: December 1, 1944

Otherwise:

FOOD START DATE: Date first ate foods other than milk (QX 112)

END DATE

If subject died before December 31, 1957:

END DATE: Date of Death

If subject moved out of HTDS area and did not return before December 31, 1957:

END DATE: Last date at last residence in HTDS area

Otherwise:

END DATE: December 31, 1957.

534. Which of these fresh green and leafy vegetables did (SUBJECT) eat from (FOOD START DATE) to (END DATE)?

IF ANY

NONE

Say: I will ask questions about uncooked and cooked vegetables separately.

A serving of uncooked green and leafy vegetables is equal to a small salad bowl full.

535. In (FOOD START DATE/CHANGE DATE), how many servings of uncooked fresh green and leafy vegetables did (SUBJECT) eat per week?
99=DK. Amount may equal 0.

SERVINGS PER DAY/WEEK/MONTH

If 0, skip to QX 537.

536. What percentage of these uncooked vegetables were purchased and how much did (YOU/SUBJECT'S FAMILY) or a neighbor grow?

____ % PURCHASED

____ % KNOWN LOCAL

NOTE: If total is less than 75%, probe for balance.

Skip to FRUITS: QX 543

537. Did this amount change significantly before (END DATE)?

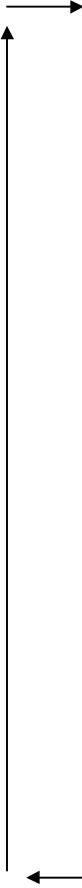
YES

NO

538. When did this change occur?

MONTH YEAR

Skip to QX 539



Say: A serving of cooked green and leafy vegetables is equal to an 8 ounce measuring cup.

539. In (FOOD START DATE/CHANGE DATE) how many servings of cooked fresh green and leafy vegetables did (SUBJECT) eat per week?
99=DK. Amount may equal 0.

____ ____
SERVINGS PER DAY/WEEK/MONTH

If 0, skip to QX 541.

540. What percentage of these cooked vegetables were purchased and how much did (YOU/SUBJECT'S FAMILY) or a neighbor grow?

____ ____ ____ % PURCHASED
____ ____ ____ % KNOWN LOCAL

NOTE: If total is less than 75%, probe for balance.

541. Did this amount change significantly before (END DATE)?

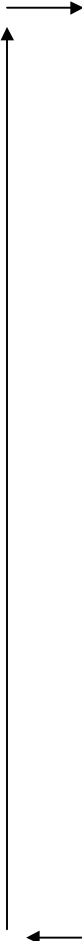
YES

NO

542. When did this change occur?

__ __ __ __
MONTH YEAR

Skip to FRUITS, QX 543



**SECTION IV.G.: FRESH FRUITS
(QXS 543-562)**

Next I will be asking about fresh fruits (SUBJECT) may have eaten. By fresh fruits, I am referring to fruits that were fresh and in-season locally. We are interested in fruits eaten raw or cooked, but not fruits that were canned, dried, or preserved.

The fruits we are interested in fall into two general categories: those grown on trees, such as apples, peaches, and cherries, and those grown on bushes and vines, such as berries and grapes.

Let's turn to page 19 of the *blue* **Interview Booklet**, and think about the fruit (SUBJECT) ate.

Review pages 19-22.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

Let's first talk about fruit grown on trees.

543. Which of these fresh tree fruits did (SUBJECT) eat between (FOOD START DATE) and (END DATE)?

IF ANY

NONE

Say: I will ask about raw and cooked fruits separately.

A serving of raw tree fruit is equal to a piece of fruit, except cherries for which a serving is equal to an 8 ounce measuring cup.

544. In (FOOD START DATE/CHANGE DATE), how many servings of raw tree fruit did (SUBJECT) eat per week?
Amount may equal 0.

SERVINGS PER DAY/WEEK/MONTH

If 0, skip to QX 546.

545. Was the fruit peeled or washed before (SUBJECT) ate it *READ LIST*

NEVER..... 1
SOMETIMES 2
ALWAYS..... 3
DK 9

Skip to QX 551

546. Did this amount change significantly before (END DATE)?

YES

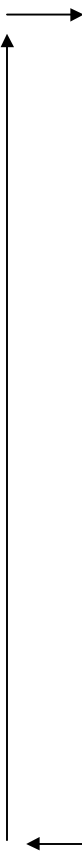
NO

547. When did this change occur?

__ __

MONTH YEAR

Skip to QX 548



Say: A serving of cooked tree fruit is equal to an 8 ounce measuring cup, or 1 slice of apple pie.

548. In (FOOD START DATE/CHANGE DATE), what was the average number of servings of cooked fresh tree fruit (SUBJECT) ate per week? *Amount may equal 0.*

___ ___
SERVINGS PER DAY/WEEK/MONTH

549. Did this amount change significantly before (END DATE)?

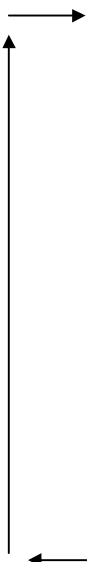
YES

NO

550. When did this change occur?

___ ___
MONTH YEAR

Skip to QX 551



The next questions are about fruits grown on vines or bushes, such as berries and grapes.

551. Which of these fresh bush or vine fruits did (SUBJECT) eat between (FOOD START DATE) and (END DATE)?

IF ANY

NONE

Say: I will ask about raw and cooked fruits separately.

A serving of raw vine or bush fruit is equal to an 8 ounce measuring cup.

552. In (FOOD START DATE/CHANGE DATE), what was the average number of servings of raw vine or bush fruit (SUBJECT) ate per week? *Amount may equal 0.*

SERVINGS PER DAY/WEEK/MONTH

If 0, skip to QX 554.

553. Was the fruit peeled or washed before (SUBJECT) ate it **READ LIST**

NEVER..... 1
 SOMETIMES 2
 ALWAYS..... 3
 DON'T KNOW 9

Skip to QX 559

554. Did this amount change significantly before (END DATE)?

YES

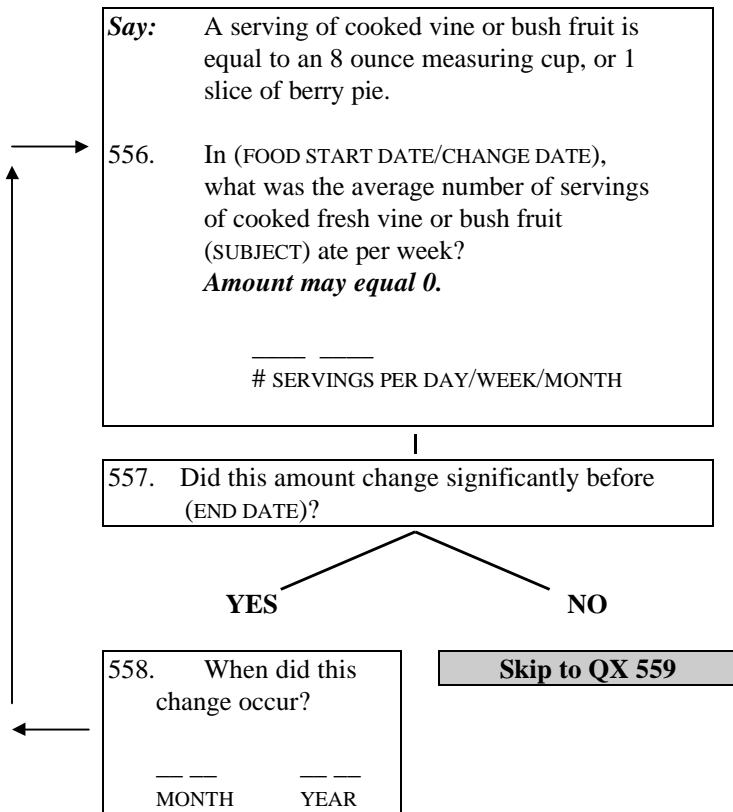
NO

555. When did this change occur?

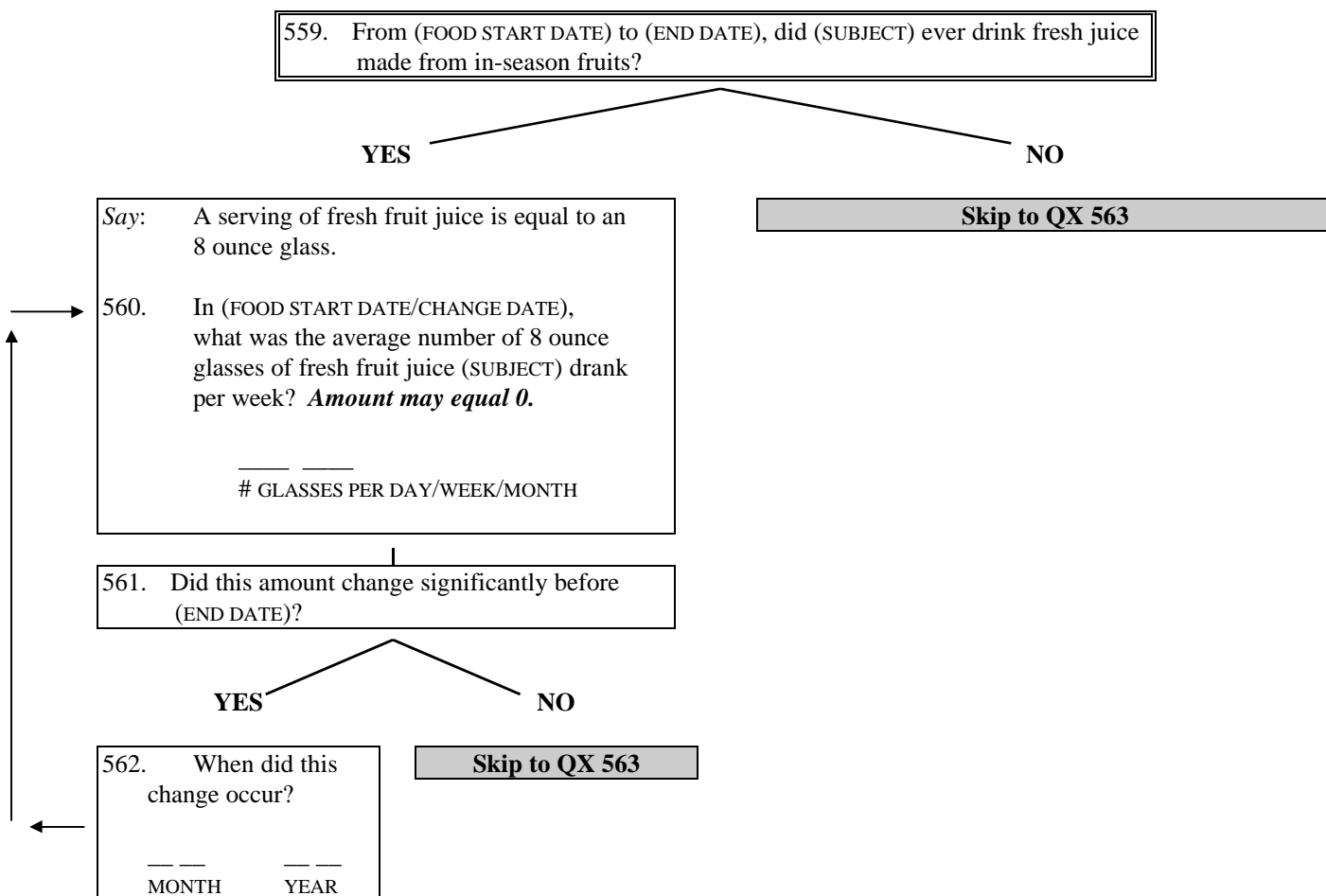
__ __

MONTH YEAR

Skip to QX 556



The next questions are about fresh fruit juices. These juices could have been freshly pressed or squeezed from in-season tree, vine or bush fruits such as apples or grapes. I am interested in fresh juice only; not canned or preserved juices.



**SECTION IV.H.: EGG CONSUMPTION
(QXS 563-566)**

I will now ask about eggs (SUBJECT) ate.

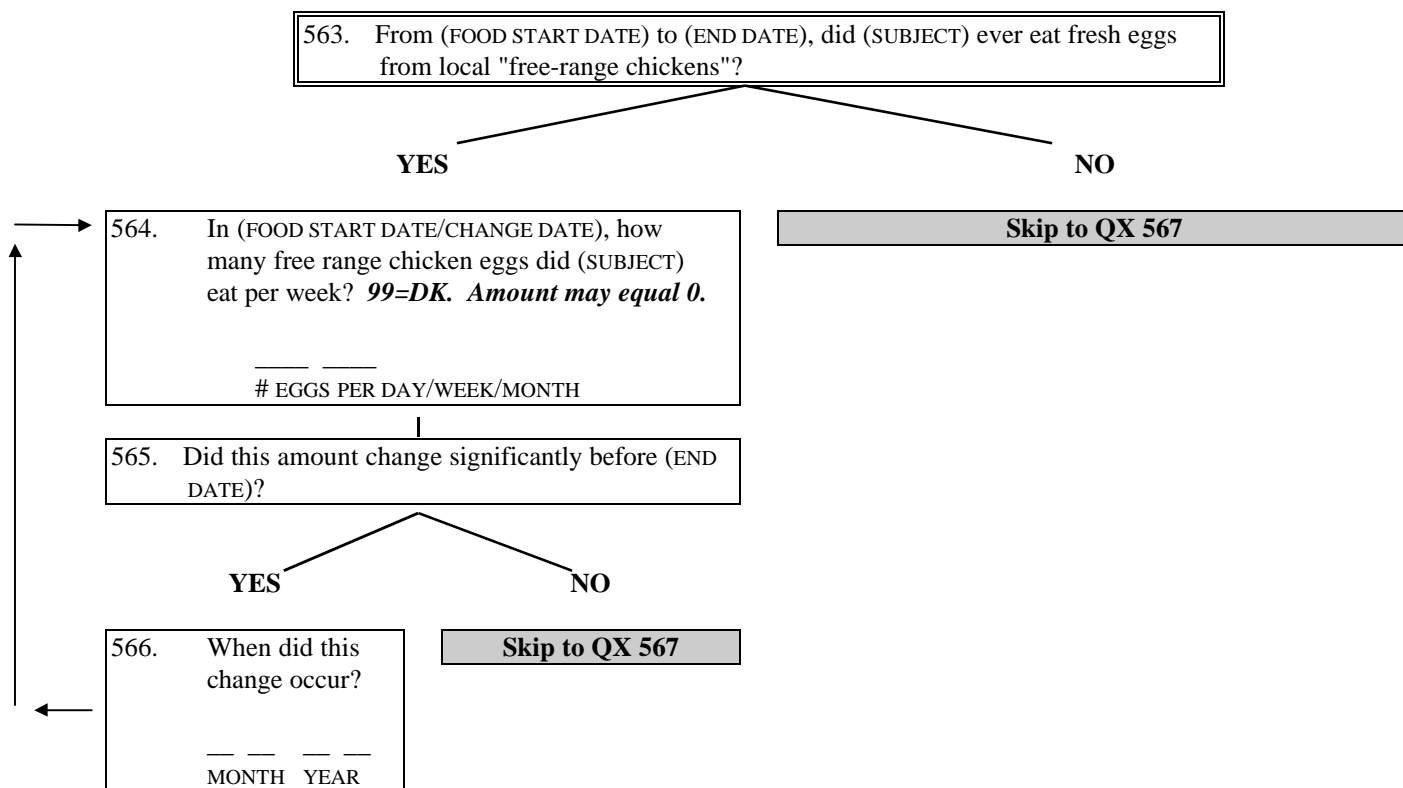
I am only interested in fresh eggs from local "free-range" chickens, that is, chickens who were allowed to be outside. I am not interested in any eggs from chickens that were always in a covered chicken coop, or any eggs purchased at the market or store.

Let's turn to page 23 of the *blue Interview Booklet*, and think about free-range chicken eggs.

Review pages 23-24.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

I will need you to consider the eggs from local free-range chickens eaten, even as ingredients in other foods.



INTERVIEWER CHECK

567. The quality of R's response was:

- High Quality 1 **Skip to next section**
- Generally Reliable 2 **Skip to next section**
- Questionable 3
- Unreliable 4

568. What is the main reason for the unreliable or questionable quality of this section of the interview?

- Unclear memory of events 1
- Uncertain understanding of questions..... 2
- Hurried responses..... 3
- Other, specify..... 4
- Don't Know 9

569. How often was explanation text repeated?

- Very often 1
- Often 2
- Not often..... 3
- Not applicable 4

SECTION V. MILK CONSUMPTION AND DIETARY HABITS: SUBJECT
(QXS 500-569)

In this next section I will refer to some of the answers you gave in earlier sections. With these questions I will ask you to tell me how much (SUBJECT) started eating and drinking when (HE/SHE) was a young child, and then we will discuss whether there were any significant changes in (HIS/HER) diet before (END DATE). Although amounts change gradually as a child grows, there may be times when the amounts suddenly increase or decrease.

SECTION V.A.

Asked if subject was breast-fed for 3 weeks or more during the period December 1, 1944 to December 31, 1957, while living in HTDS study area.

Let's turn to page 6 of the *blue Interview Booklet*, and think about when (SUBJECT) was an infant.

Review pages 6-7.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

You told me that (SUBJECT) breast-fed from (BIRTHDATE) until (DATE STOPPED BREAST-FEEDING), and that (SUBJECT) started eating or drinking milk or dairy products other than breast milk in (DATE FIRST DRANK FRESH MILK).

If time between subject birthdate and QX 103 is greater than 3 weeks, ask QX 500.

If time is 1 month or less, skip to QX 501.

500. Before the time (SUBJECT) started drinking fresh milk did (HE/SHE) ever drink powdered or canned milk?

YES..... 1
NO..... 2
DK..... 9

1

501. When (SUBJECT) started drinking fresh milk in (MILK START DATE), what percentage of the milk that (SUBJECT) was drinking was breast milk what percentage was fresh cow or goat's milk (AND WHAT PERCENTAGE WAS CANNED OR POWDERED MILK)?

___ ___ ___ % BREAST
___ ___ ___ % FRESH
___ ___ ___ % POWDERED/CANNED

NOTES TO INTERVIEWER:

For SECTIONS V.B. through V.E.,

MILK START DATE: Date subject began drinking fresh milk in the HTDS study area.

END DATE: The ending date at the last HTDS residence.

The questions in SECTION V.B. through V.E. are *not* asked for each specific residence. Answers are for continuous time periods until a change occurred. If subject stopped consuming a type of milk and started again later (or did not consume that type of milk at MILK START DATE), enter the date of change and the amount as '0'. The subsequent date of change should then be the date that milk type was again consumed.

Let's turn to page 8 in the *blue Interview Booklet*, and think about the milk and dairy products (SUBJECT) drank or ate.

Review Pages 8-14.

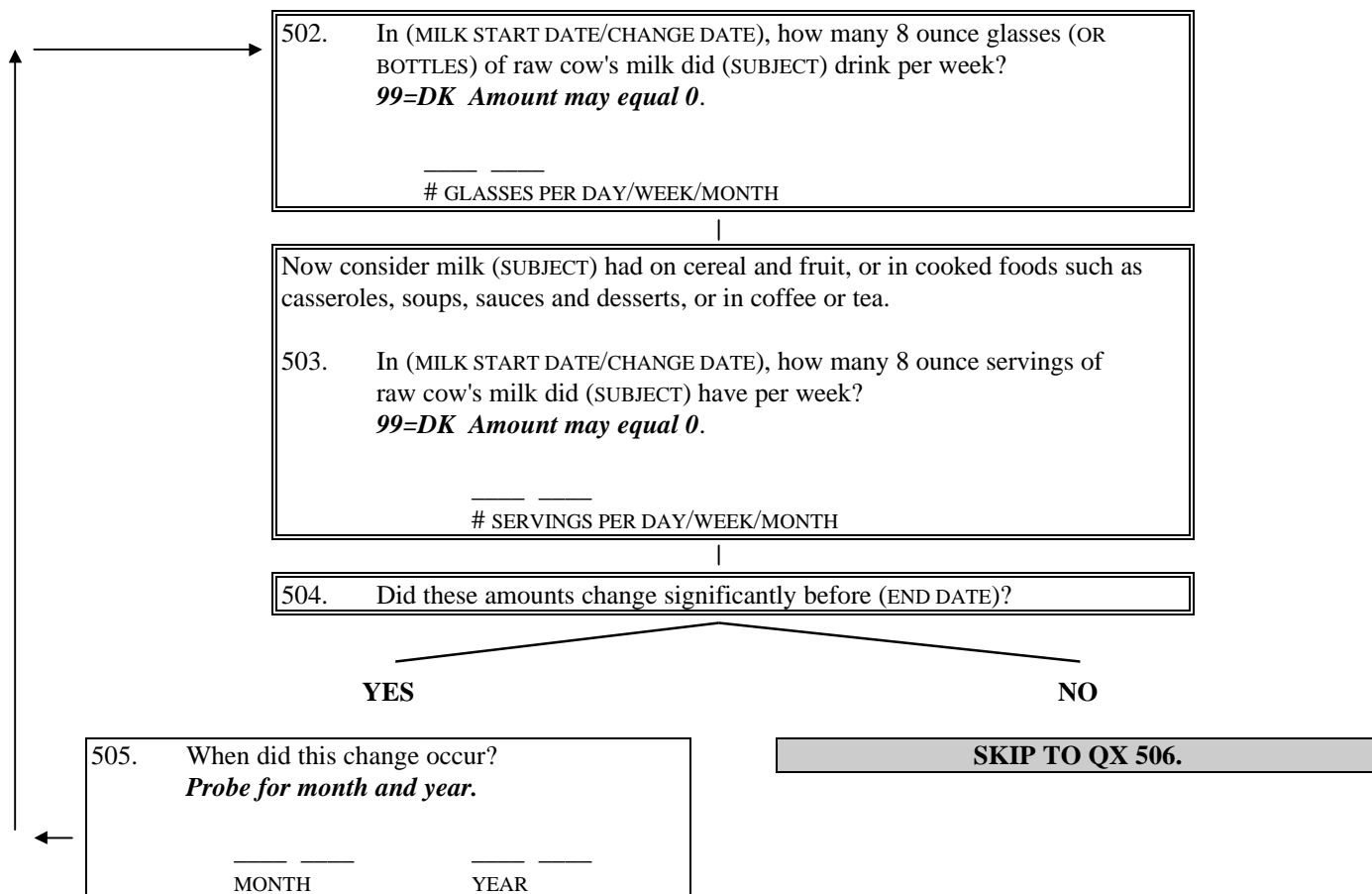
Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? *(pause)* Should we continue with the interview now?

We will be asking about each type of milk separately.

SECTION V.B.

Asked if subject ever ate or drank milk or dairy products made from raw or unprocessed cow's milk at HTDS residences between (MILK START DATE) and (END DATE).

You said that (SUBJECT) ate or drank products made from raw cow's milk. Remember, I am not interested in any milk that was canned, powdered, or processed.



Say: I also need to know about any fresh dairy products made from raw cow's milk (SUBJECT) may have eaten or drunk, such as cream, butter, buttermilk, cottage cheese, yogurt, and ice cream. Many cooked foods, such as casseroles and desserts also contain fresh dairy products.

Please do not include aged dairy products, such as cheddar cheese or other hard cheeses.

506. Which fresh dairy products made from raw cow's milk did (SUBJECT) eat or drink between (MILK START DATE) and (END DATE)?

IF ANY

NONE

Say: A serving of butter is equal to 1-1/2 teaspoons, and a serving of any other dairy product is equal to an 8 ounce measuring cup.

507. In (MILK START DATE/CHANGE DATE), how many servings of fresh dairy products made from raw cow's milk did (SUBJECT) have per week? *Amount may equal 0.*

___ ___
SERVINGS PER DAY/WEEK/MONTH

SKIP TO SECTION V.C.

508. Did this amount change significantly before (END DATE)?

YES

NO

509. When did this change occur?

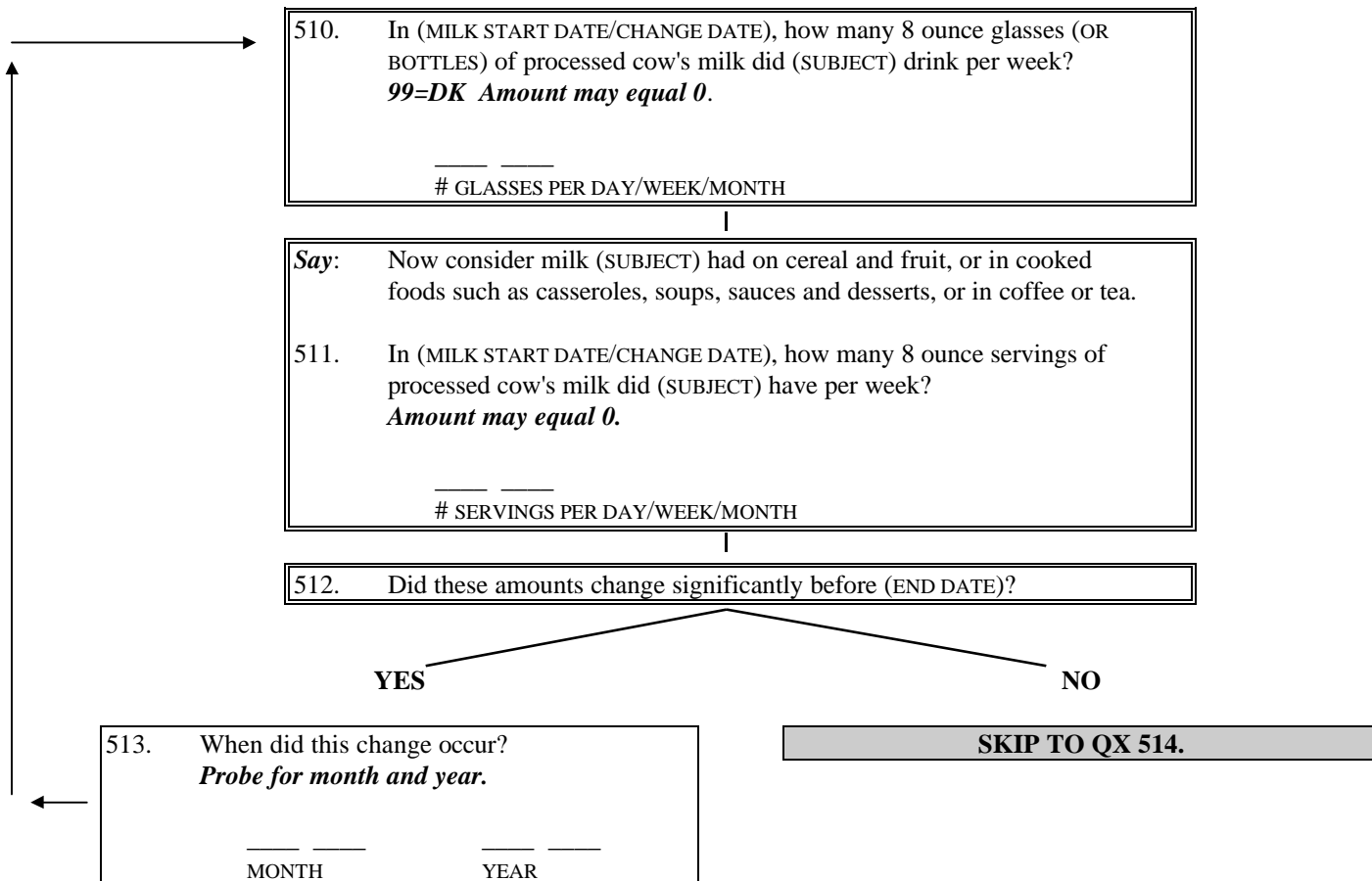
___ ___ ___ ___
MONTH YEAR

Skip to Section V.C.

SECTION V.C.

Asked if subject ever ate or drank milk or dairy products made from processed cow's milk at HTDS residences between (MILK START DATE) and (END DATE).

You said that (SUBJECT) ate or drank products made from fresh processed cow's milk. Please include any milk (SUBJECT) drank while at school. I am not interested in canned or powdered milk.



Say: I also need to know about any fresh dairy products made from processed cow's milk (SUBJECT) may have eaten or drank, such as cream, butter, buttermilk, cottage cheese, yogurt, and ice cream. Many cooked foods, such as casseroles and desserts, also contain fresh dairy products.

Please do not include aged dairy products, such as cheddar cheese or other hard cheeses.

514. Which fresh dairy products made from processed cows milk did (SUBJECT) eat or drink between (MILK START DATE) and (END DATE)?

IF ANY

NONE

Say: A serving of butter is equal to 1-1/2 teaspoons, and a serving of any other dairy product is equal to an 8 ounce measuring cup.

515. In (MILK START DATE/CHANGE DATE), how many servings of fresh dairy products made from processed cow's milk did (SUBJECT) have per week?
Amount may equal 0.

___ ___
SERVINGS PER DAY/WEEK/MONTH

SKIP TO SECTION V.D.

516. Did this amount ever change significantly before (END DATE)?

YES

NO

517. When did this change occur?

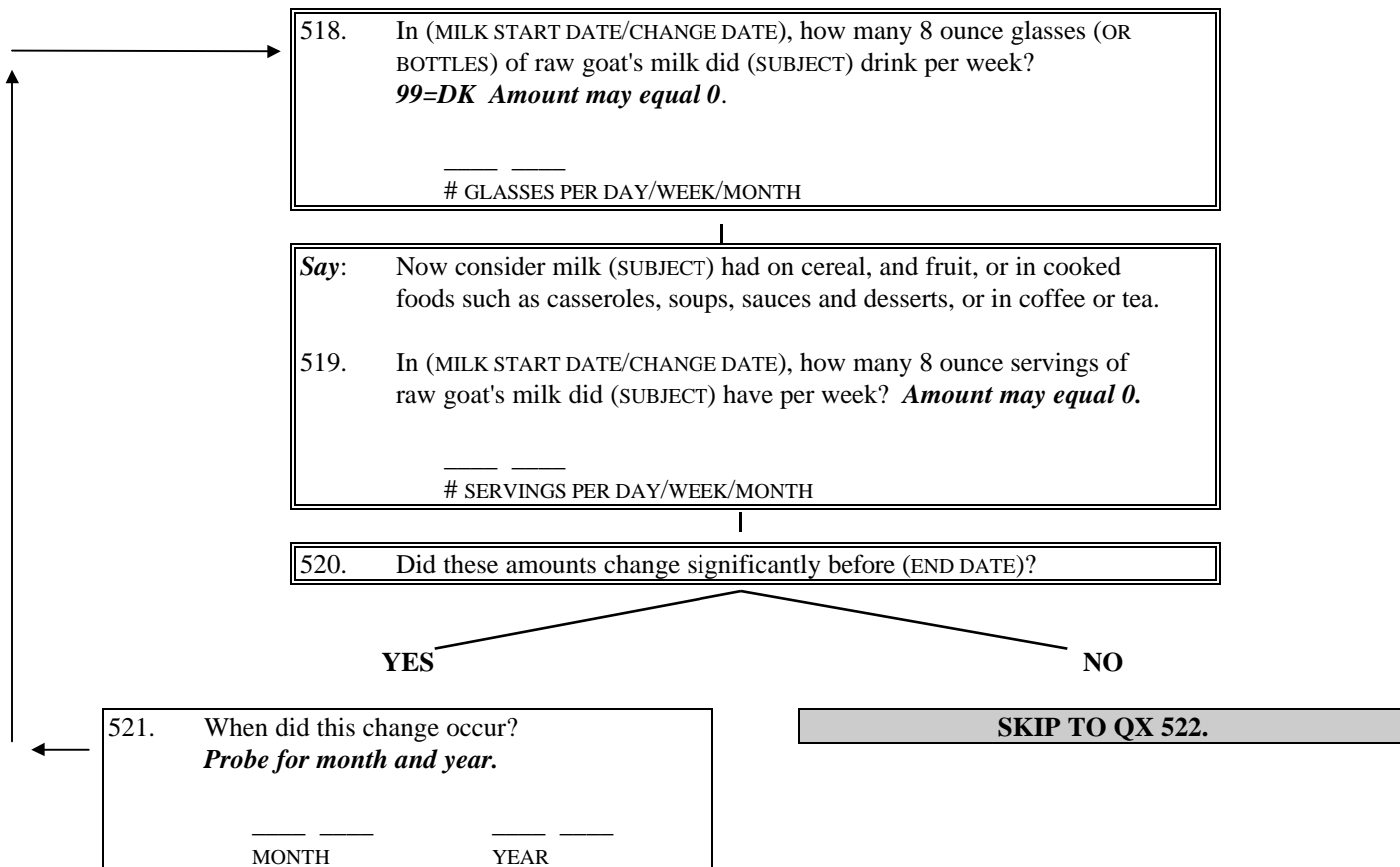
___ ___ ___ ___
MONTH YEAR

Skip to Section V.D.

SECTION V.D.

Asked if subject ever ate or drank milk or dairy products made from raw or unprocessed goat's milk at HTDS residences between (MILK START DATE) and (END DATE).

You said that (SUBJECT) ate or drank products made from raw goat's milk.



Say: I also need to know about any fresh dairy products made from raw goat's milk (SUBJECT) may have eaten or drunk, such as cream, butter, buttermilk, cottage cheese, yogurt, and ice cream. Many cooked foods, such as casseroles and desserts, also contain fresh dairy products.

Please do not include aged dairy products, such as cheddar cheese or other hard cheeses.

522. Which fresh dairy products made from raw goats milk did (SUBJECT) eat or drink between (MILK START DATE) and (END DATE)?

IF ANY

NONE

Say: A serving of butter is equal to 1-1/2 teaspoons, and a serving of any other dairy product is equal to an 8 ounce measuring cup.

523. In (MILK START DATE/CHANGE DATE), how many servings of fresh dairy products made from raw goat's milk did (SUBJECT) have per week? *Amount may equal 0.*

___ ___
SERVINGS PER DAY/WEEK/MONTH

SKIP TO SECTION V.E.

524. Did this amount change significantly before (END DATE)?

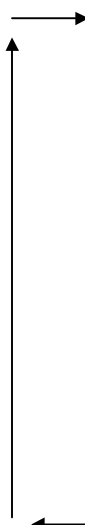
YES

NO

525. When did this change occur?

___ ___ ___ ___
MONTH YEAR

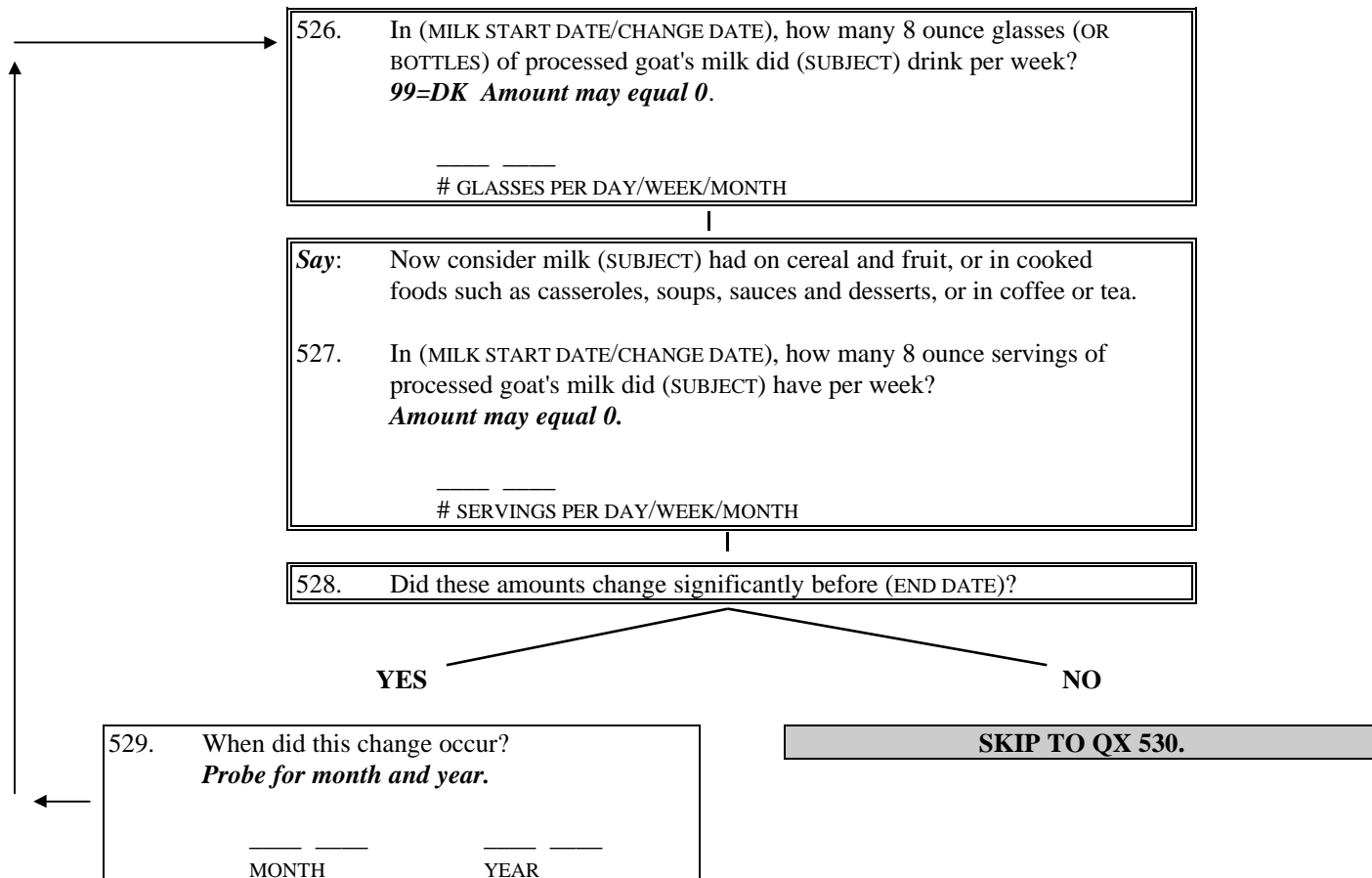
Skip to Section V.E.



SECTION V.E.

Asked if subject ever ate or drank milk or dairy products made from processed goat's milk at HTDS residences between (MILK START DATE) and (END DATE).

You said that (SUBJECT) ate or drank products made from processed goat's milk. I am not interested in any milk that was powdered or canned.



Say: I also need to know about any fresh dairy products made from processed goat's milk (SUBJECT) may have eaten or drank, such as cream, butter, buttermilk, cottage cheese, yogurt, and ice cream. Many cooked foods, such as casseroles and desserts, also contain fresh dairy products.

Please do not include aged dairy products, such as cheddar cheese or other hard cheeses.

530. Which fresh dairy products made from processed goats milk did (SUBJECT) eat or drink between (MILK START DATE) and (END DATE)?

IF ANY

NONE

Say: A serving of butter is equal to 1-1/2 teaspoons, and a serving of any other dairy product is equal to an 8 ounce measuring cup.

531. In (MILK START DATE/CHANGE DATE), how many servings of fresh dairy products made from processed goat's milk did (SUBJECT) have per week?
Amount may equal 0.

___ ___
SERVINGS PER DAY/WEEK/MONTH

SKIP TO SECTION V.F.

532. Did this amount change significantly before (END DATE)?

YES

NO

533. When did this change occur?

___ ___ ___ ___
MONTH YEAR

Skip to Section V.F.

**SECTION V.F.: GREEN AND LEAFY VEGETABLES
(QXS 534-542)**

Next I will be asking you about green and leafy vegetables (SUBJECT) may have eaten. I am interested *only* in fresh, locally grown green and leafy vegetables. I am not interested in any canned or frozen vegetables. By fresh vegetables, I am referring to those that were fresh and in-season locally.

Fresh vegetables could come from (YOUR/SUBJECT'S FAMILY'S) garden, from a friend, neighbor, or relative's garden, a grocery store or could be purchased directly from a farmer or at a local farmer's market or at a roadside stand. Because vegetables from a grocery store or farmer's market may have been locally grown or may have been from another area, we will ask you to estimate the percentage of vegetables that were purchased and the percentage that (YOU/SUBJECT'S FAMILY) or a neighbor grew.

Let's turn to page 15 of the *blue Interview Booklet*, and think about the vegetables (SUBJECT) ate.

Review pages 15-18.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

NOTES TO INTERVIEWER:

FOOD START DATE

If subject started eating foods other than milk before December 1, 1944:

FOOD START DATE: December 1, 1944

Otherwise:

FOOD START DATE: Date first ate foods other than milk (QX 112)

END DATE

If subject died before December 31, 1957:

END DATE: Date of Death

If subject moved out of HTDS area and did not return before December 31, 1957:

END DATE: Last date at last residence in HTDS area

Otherwise:

END DATE: December 31, 1957.

534. Which of these fresh green and leafy vegetables did (SUBJECT) eat from (FOOD START DATE) to (END DATE)?

IF ANY

NONE

Skip to FRUITS: QX 543

Say: I will ask questions about uncooked and cooked vegetables separately.

A serving of uncooked green and leafy vegetables is equal to a small salad bowl full.

535. In (FOOD START DATE/CHANGE DATE), how many servings of uncooked fresh green and leafy vegetables did (SUBJECT) eat per week?
99=DK. Amount may equal 0.

SERVINGS PER DAY/WEEK/MONTH

If 0, skip to QX 537.

536. What percentage of these uncooked vegetables were purchased and how much did (YOU/SUBJECT'S FAMILY) or a neighbor grow?

____ % PURCHASED

____ % KNOWN LOCAL

NOTE: If total is less than 75%, probe for balance.

537. Did this amount change significantly before (END DATE)?

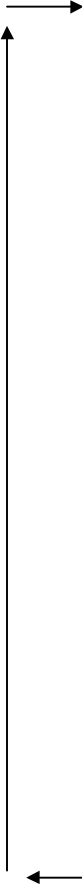
YES

NO

Skip to QX 539

538. When did this change occur?

MONTH YEAR



Say: A serving of cooked green and leafy vegetables is equal to an 8 ounce measuring cup.

539. In (FOOD START DATE/CHANGE DATE) how many servings of cooked fresh green and leafy vegetables did (SUBJECT) eat per week?
99=DK. Amount may equal 0.

____ ____
SERVINGS PER DAY/WEEK/MONTH

If 0, skip to QX 541.

540. What percentage of these cooked vegetables were purchased and how much did (YOU/SUBJECT'S FAMILY) or a neighbor grow?

____ ____ ____ % PURCHASED
____ ____ ____ % KNOWN LOCAL

NOTE: If total is less than 75%, probe for balance.

541. Did this amount change significantly before (END DATE)?

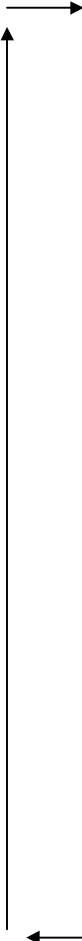
YES

NO

542. When did this change occur?

__ __ __ __
MONTH YEAR

Skip to FRUITS, QX 543



**SECTION IV.G.: FRESH FRUITS
(QXS 543-562)**

Next I will be asking about fresh fruits (SUBJECT) may have eaten. By fresh fruits, I am referring to fruits that were fresh and in-season locally. We are interested in fruits eaten raw or cooked, but not fruits that were canned, dried, or preserved.

The fruits we are interested in fall into two general categories: those grown on trees, such as apples, peaches, and cherries, and those grown on bushes and vines, such as berries and grapes.

Let's turn to page 19 of the *blue* **Interview Booklet**, and think about the fruit (SUBJECT) ate.

Review pages 19-22.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

Let's first talk about fruit grown on trees.

543. Which of these fresh tree fruits did (SUBJECT) eat between (FOOD START DATE) and (END DATE)?

IF ANY

NONE

Say: I will ask about raw and cooked fruits separately.

A serving of raw tree fruit is equal to a piece of fruit, except cherries for which a serving is equal to an 8 ounce measuring cup.

544. In (FOOD START DATE/CHANGE DATE), how many servings of raw tree fruit did (SUBJECT) eat per week?
Amount may equal 0.

___ ___
SERVINGS PER DAY/WEEK/MONTH

If 0, skip to QX 546.

545. Was the fruit peeled or washed before (SUBJECT) ate it *READ LIST*

NEVER..... 1
SOMETIMES 2
ALWAYS..... 3
DK 9

Skip to QX 551

546. Did this amount change significantly before (END DATE)?

YES

NO

547. When did this change occur?

___ ___
MONTH YEAR

Skip to QX 548

Say: A serving of cooked tree fruit is equal to an 8 ounce measuring cup, or 1 slice of apple pie.

548. In (FOOD START DATE/CHANGE DATE), what was the average number of servings of cooked fresh tree fruit (SUBJECT) ate per week? *Amount may equal 0.*

___ ___
SERVINGS PER DAY/WEEK/MONTH

549. Did this amount change significantly before (END DATE)?

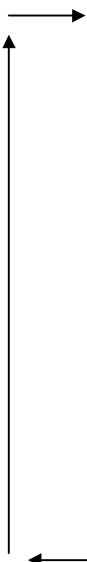
YES

NO

550. When did this change occur?

___ ___
MONTH YEAR

Skip to QX 551



The next questions are about fruits grown on vines or bushes, such as berries and grapes.

551. Which of these fresh bush or vine fruits did (SUBJECT) eat between (FOOD START DATE) and (END DATE)?

IF ANY

NONE

Say: I will ask about raw and cooked fruits separately.

A serving of raw vine or bush fruit is equal to an 8 ounce measuring cup.

552. In (FOOD START DATE/CHANGE DATE), what was the average number of servings of raw vine or bush fruit (SUBJECT) ate per week? *Amount may equal 0.*

SERVINGS PER DAY/WEEK/MONTH

If 0, skip to QX 554.

553. Was the fruit peeled or washed before (SUBJECT) ate it **READ LIST**

NEVER..... 1
 SOMETIMES 2
 ALWAYS..... 3
 DON'T KNOW 9

Skip to QX 559

554. Did this amount change significantly before (END DATE)?

YES

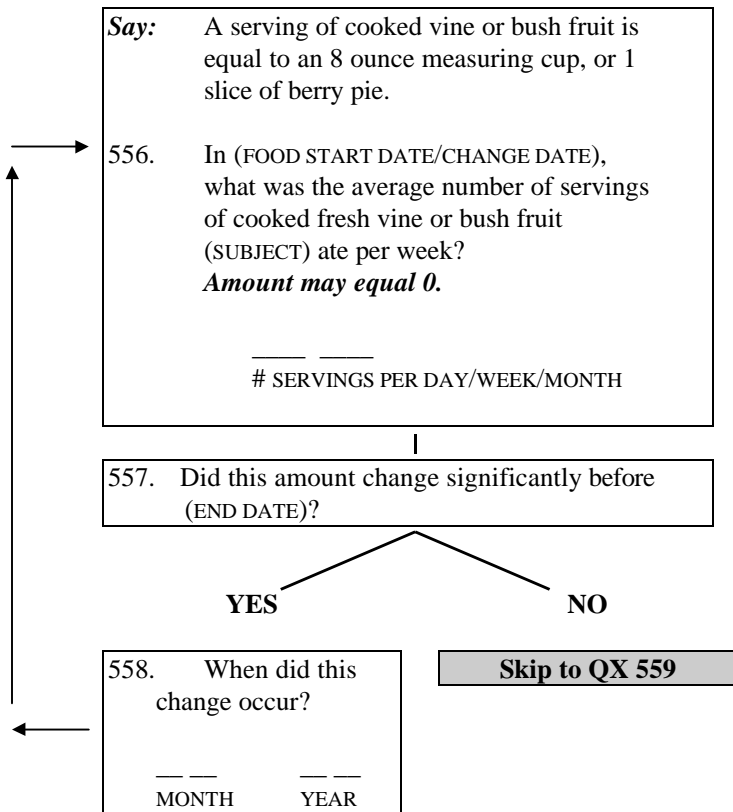
NO

555. When did this change occur?

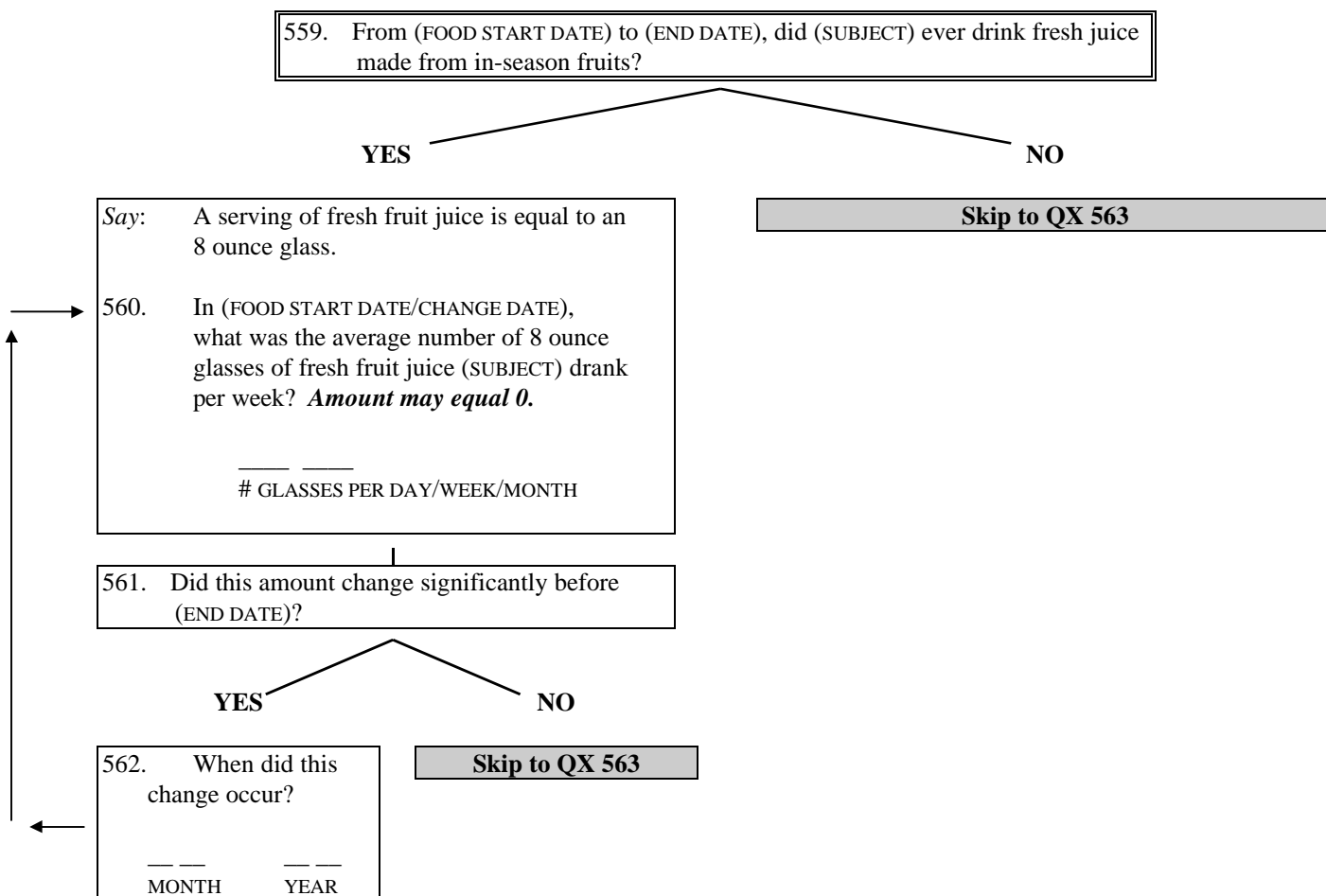
__ __

MONTH YEAR

Skip to QX 556



The next questions are about fresh fruit juices. These juices could have been freshly pressed or squeezed from in-season tree, vine or bush fruits such as apples or grapes. I am interested in fresh juice only; not canned or preserved juices.



**SECTION IV.H.: EGG CONSUMPTION
(QXS 563-566)**

I will now ask about eggs (SUBJECT) ate.

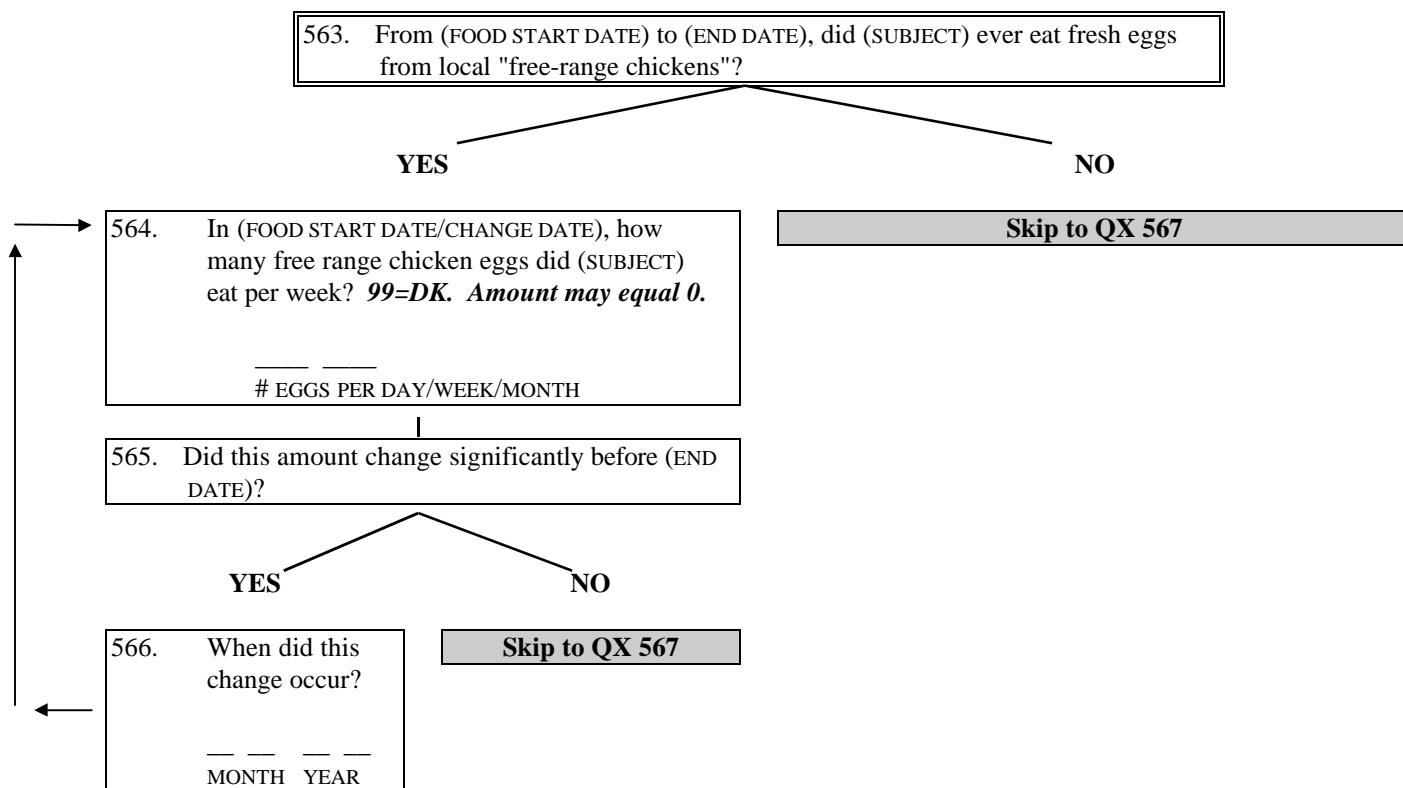
I am only interested in fresh eggs from local "free-range" chickens, that is, chickens who were allowed to be outside. I am not interested in any eggs from chickens that were always in a covered chicken coop, or any eggs purchased at the market or store.

Let's turn to page 23 of the *blue Interview Booklet*, and think about free-range chicken eggs.

Review pages 23-24.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

I will need you to consider the eggs from local free-range chickens eaten, even as ingredients in other foods.



INTERVIEWER CHECK

567. The quality of R's response was:

- High Quality 1 **Skip to next section**
- Generally Reliable 2 **Skip to next section**
- Questionable 3
- Unreliable 4

568. What is the main reason for the unreliable or questionable quality of this section of the interview?

- Unclear memory of events 1
- Uncertain understanding of questions..... 2
- Hurried responses..... 3
- Other, specify..... 4
- Don't Know 9

569. How often was explanation text repeated?

- Very often 1
- Often 2
- Not often..... 3
- Not applicable 4

SECTION VI. MEDICAL HISTORY: MOTHER
(QXS 600-661)

Now I would like to ask you some questions about (YOUR/SUBJECT'S MOTHER'S) health beginning in (DATE 9 MONTHS PRIOR TO SUBJECT'S BIRTH) when (YOU WERE/SUBJECT'S MOTHER WAS) pregnant with (SUBJECT). It is important for us to know about several different types of medical procedures that may have been performed. The first group of questions are about radiologic procedures such as a chest x-ray.

Let's turn to page 25 of the *blue Interview Booklet*, and think about some medical tests and procedures (YOU/SUBJECT'S MOTHER) may have had while pregnant.

Review pages 25-26.

Please take your time to think about this topic. Do you have any thoughts you would like share, or any questions? (*pause*) Should we continue with the interview now?

RADIOLOGIC PROCEDURES

600. While (YOU WERE/SUBJECT'S MOTHER WAS) pregnant with (SUBJECT), were any x-rays taken of (YOUR/HER) **pelvis (also called a fetal x-ray)**?

YES

NO

601. On how many different occasions were x-rays taken of the pelvis (or fetal x-rays)?

 # OF OCCASIONS

602. While (YOU WERE/SUBJECT'S MOTHER WAS) pregnant with (SUBJECT), were any x-rays taken of (YOUR/HER) **Chest or Upper Back**?

YES

NO

603. On how many different occasions were x-rays taken of the chest or upper back?

 # OF OCCASIONS

604. While (YOU WERE/SUBJECT'S MOTHER WAS) pregnant with (SUBJECT), were any x-rays taken of (YOUR/HER) **mid- or lower-back**?

YES

NO

605. On how many different occasions were x-rays taken of the mid- or lower-back?

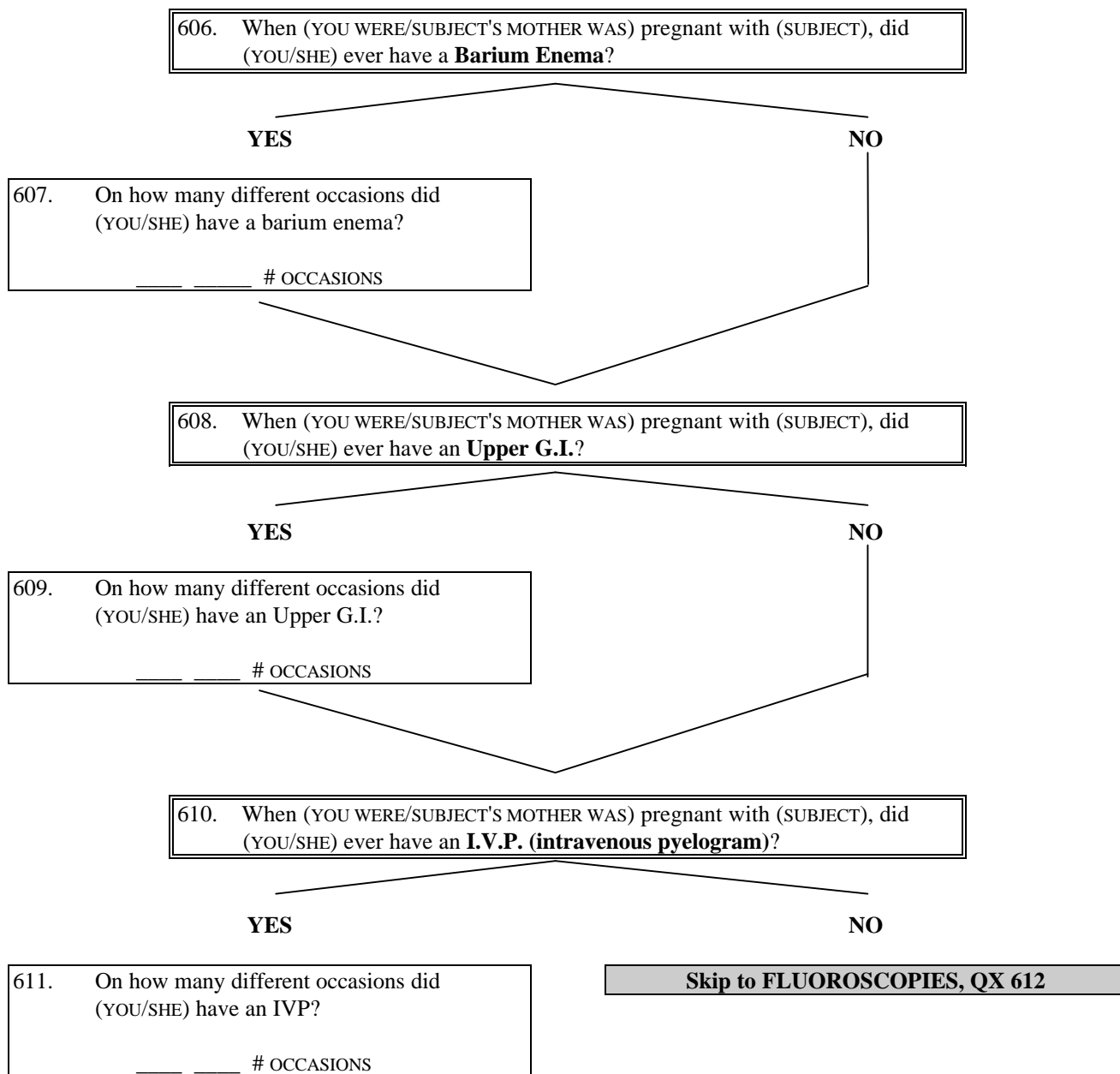
 # OF OCCASIONS

Skip to QX 606

FLUOROSCOPIES

Now I will be asking you questions about any fluoroscopies that may have been taken while (YOU WERE/SUBJECT'S MOTHER WAS) pregnant with (SUBJECT). A fluoroscopy is a type of x-ray in which the doctor may be standing next to the patient observing certain parts of the body on a fluorescent screen like a TV set. The doctor can see how the various parts of the body work by watching the screen. No pictures are taken. A fluoroscopy may be performed for a variety of reasons. In many cases such as Barium Enemas, Upper G.I.'s and I.V.P.'s (intravenous pyelogram) a dye may be swallowed or injected into a vein, then a certain part of the body is viewed on a fluoroscope.

For the next group of questions, I will be referring to the upper body anatomy chart on the last page of the *blue Interview Booklet*. When I say "upper body", I am referring to the shaded portion of this diagram.



612. While (YOU WERE/SUBJECT'S MOTHER WAS) pregnant with (SUBJECT), were any other fluoroscopies performed on (YOUR/HER) upper body?
(Specify part of upper body)

YES

NO

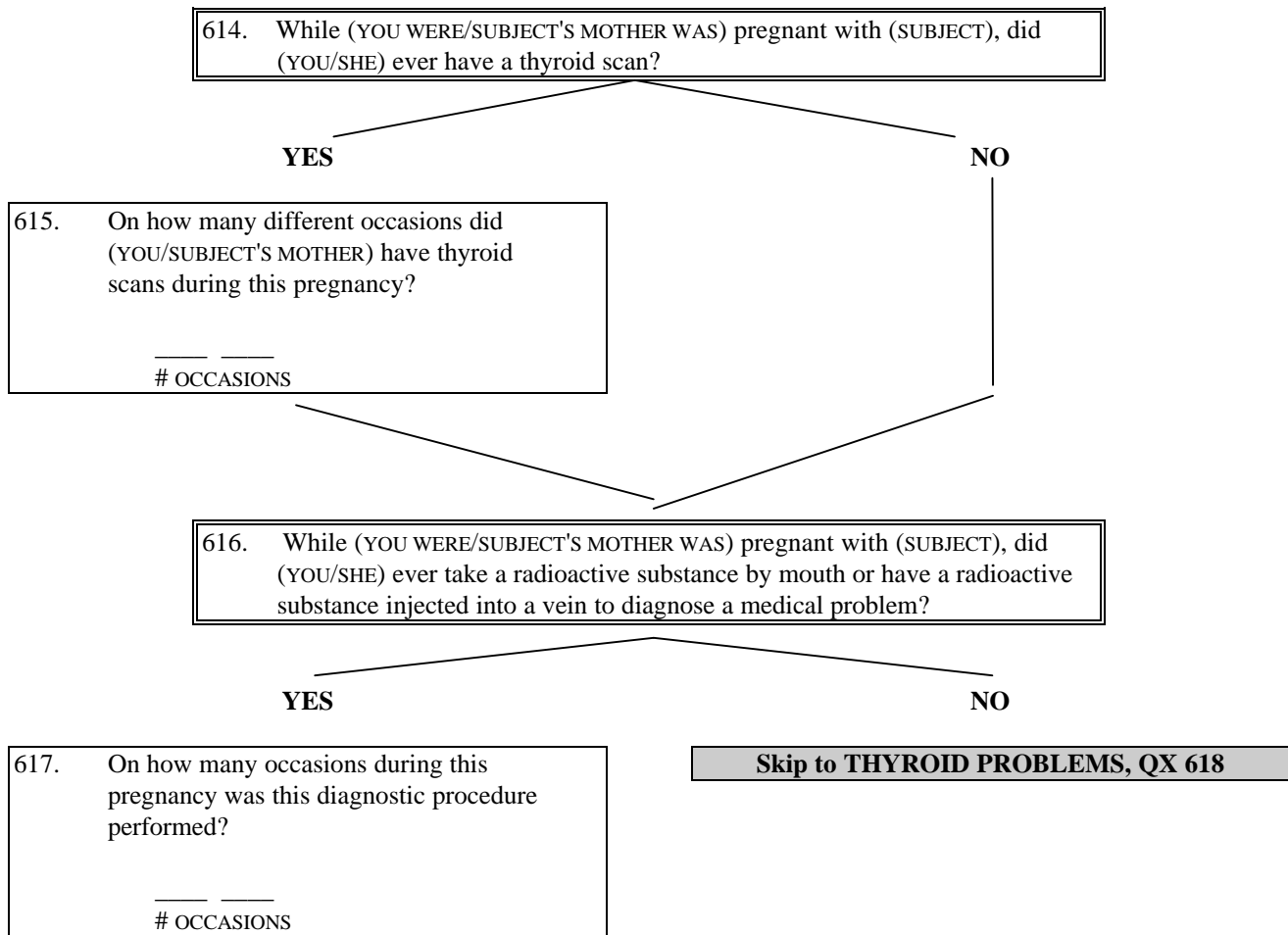
613. On how many different occasions did (YOU/SHE) have a fluoroscopy of another part of the upper body?

_____ # OCCASIONS

Skip to THYROID SCANS, QX. 614

THYROID SCANS AND OTHER DIAGNOSTIC NUCLEAR MEDICINE

Now I would like to ask you questions about any thyroid scans or other diagnostic nuclear medicine procedures (YOU/SUBJECT'S MOTHER) may have had during (YOUR/HER) pregnancy.



THYROID PROBLEMS: MOTHER

The next group of questions I am going to ask are about thyroid problems (YOU/SUBJECT'S MOTHER) may have had during (YOUR/HER) pregnancy with (SUBJECT). These could be thyroid diseases diagnosed during the pregnancy or thyroid diseases diagnosed before the pregnancy that were being treated during the pregnancy. I will be asking what type of problem it was, and the type of treatment given.

Let's turn to page 27 of the *blue Interview Booklet*, and think about any thyroid problems (YOU/SUBJECT'S MOTHER) may have had during this time.

Review pages 27-28.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

618. Either before or during (YOUR/SUBJECT'S MOTHER'S) pregnancy with (SUBJECT), did a doctor ever tell (YOU/HER) that (YOU/SHE) had **Graves' Disease or hyperthyroidism, that is, an over-active thyroid?**

YES

NO

Please tell me if (YOU/SUBJECT'S MOTHER) had any of the following treatments for Graves' Disease or Hyperthyroidism during (YOUR/HER) pregnancy.

Skip to QX 625, Hypothyroidism

619. Did (YOU/SUBJECT'S MOTHER) ever take **medication** for this condition during (YOUR/HER) pregnancy with (SUBJECT)?

YES

NO

620. What kind of medication did (YOU/SHE) take for this condition?
Record Verbatim

621. Did (YOU/SUBJECT'S MOTHER) ever have **radiation treatment** for (CONDITION) during (YOUR/HER) pregnancy with (SUBJECT)?

YES

NO

622. What kind of radiation treatment did (YOU/SHE) have for this condition?
Record Verbatim

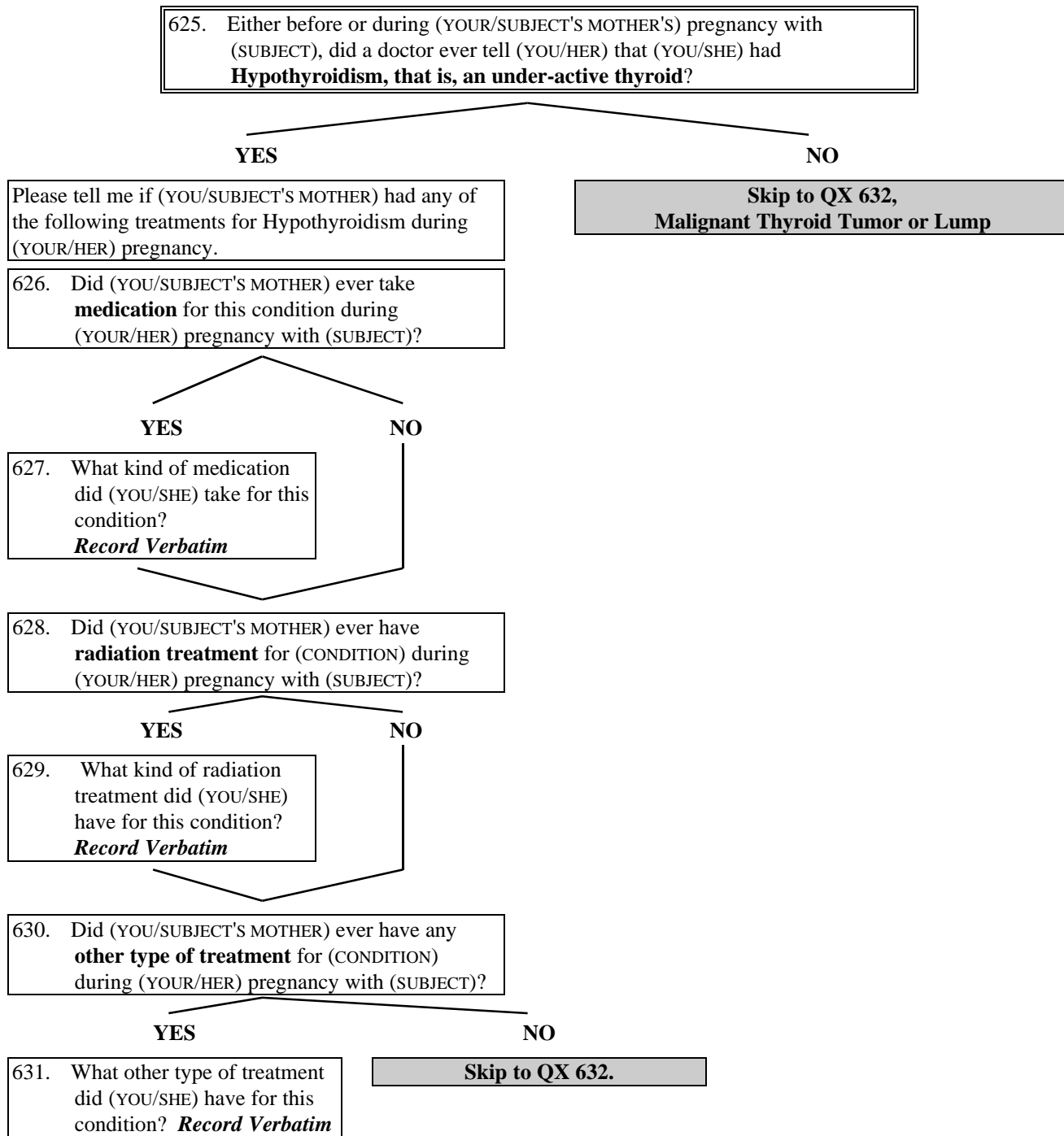
623. Did (YOU/SUBJECT'S MOTHER) ever have any **other type of treatment** for (CONDITION) during (YOUR/HER) pregnancy with (SUBJECT)?

YES

NO

624. What other type of treatment did (YOU/SHE) have for this condition? *Record Verbatim*

Skip to QX 625.



632. Either before or during (YOUR/SUBJECT'S MOTHER'S) pregnancy with (SUBJECT), did a doctor ever tell (YOU/HER) that (YOU/SHE) had a **Malignant Thyroid Tumor or Lump**?

YES

NO

Please tell me if (YOU/SUBJECT'S MOTHER) had any of the following treatments for a Malignant Thyroid Tumor or Lump during (YOUR/HER) pregnancy.

Skip to QX 639, Benign Thyroid Tumor or Lump

633. Did (YOU/SUBJECT'S MOTHER) ever take **medication** for this condition during (YOUR/HER) pregnancy with (SUBJECT)?

YES

NO

634. What kind of medication did (YOU/SHE) take for this condition?
Record Verbatim

635. Did (YOU/SUBJECT'S MOTHER) ever have **radiation treatment** for (CONDITION) during (YOUR/HER) pregnancy with (SUBJECT)?

YES

NO

636. What kind of radiation treatment did (YOU/SHE) have for this condition?
Record Verbatim

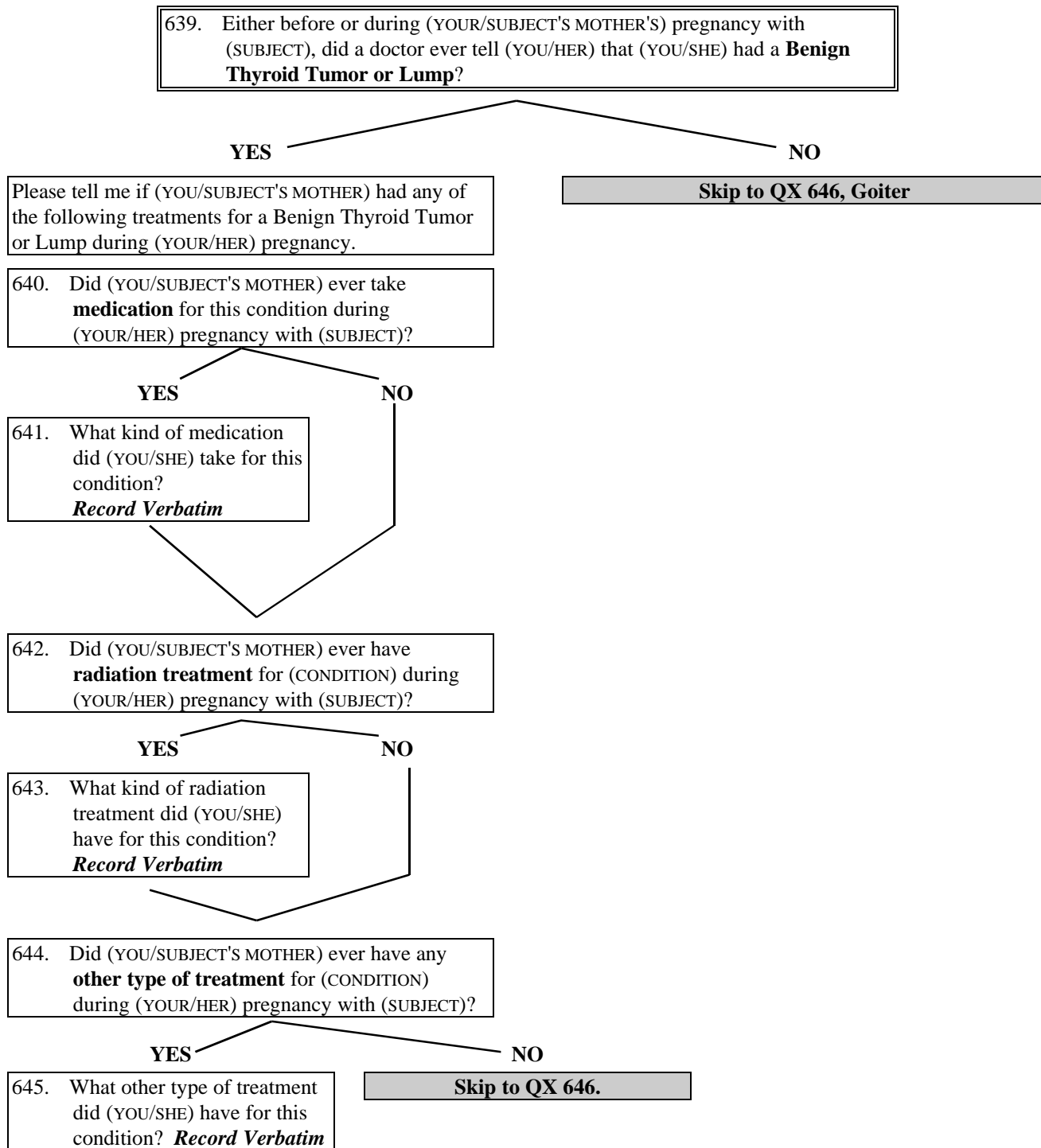
637. Did (YOU/SUBJECT'S MOTHER) ever have any **other type of treatment** for (CONDITION) during (YOUR/HER) pregnancy with (SUBJECT)?

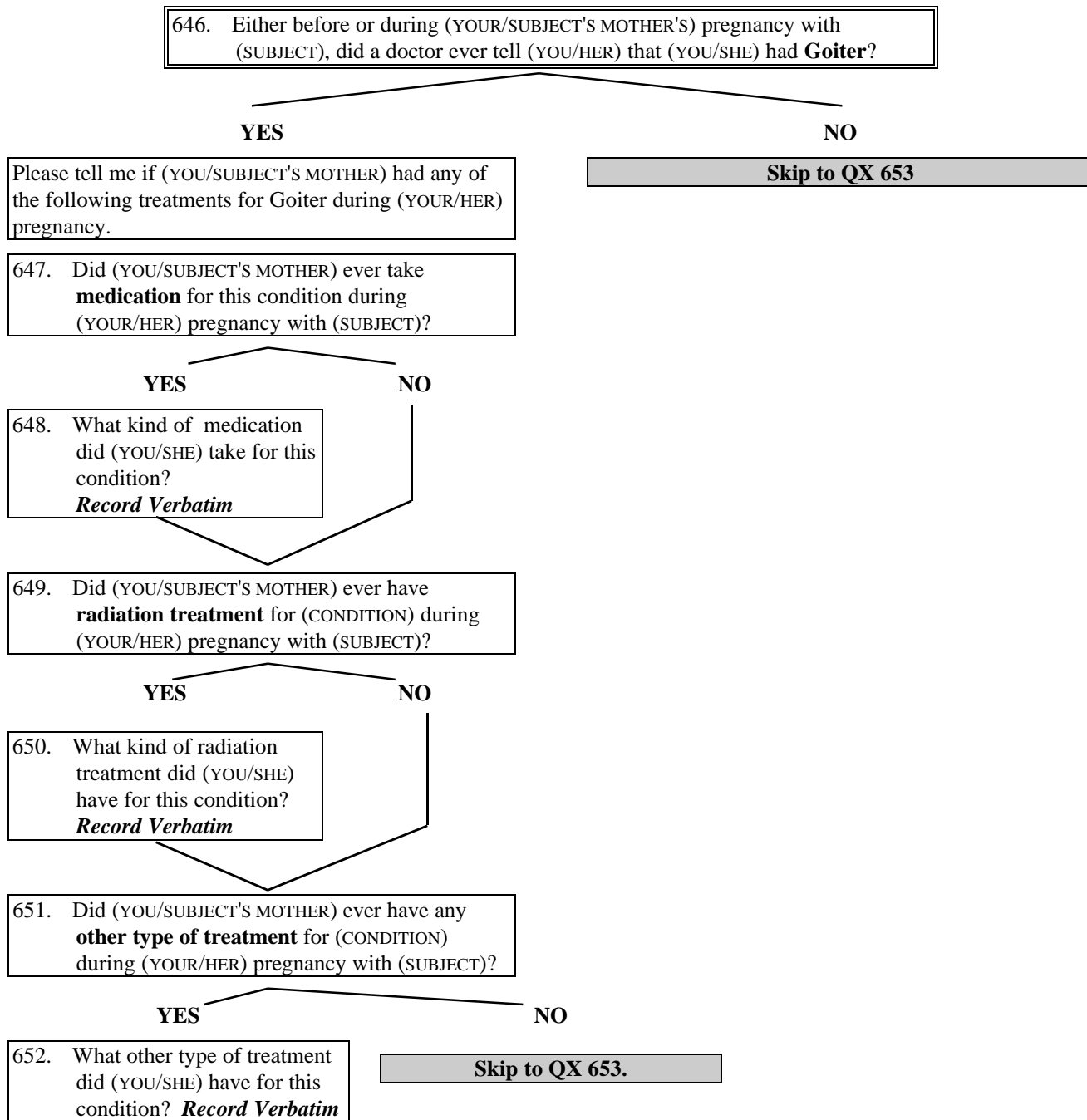
YES

NO

638. What other type of treatment did (YOU/SHE) have for this condition? *Record Verbatim*

Skip to QX 639.





653. Other than for the reasons we've just talked about, did (YOU/SUBJECT'S MOTHER) take any thyroid medication during (YOUR/HER) pregnancy with (SUBJECT)?

YES

Skip to QX 656

654. What kind of medication did (YOU/SHE) take? *Record Verbatim*

655. Why did (YOU/SHE) take this medication? *Record Verbatim*

NO

656. Other than for the reasons we've just talked about, did (YOU/SUBJECT'S MOTHER) have any thyroid radiation treatment during (your/her) pregnancy with (SUBJECT)?

YES

NO

Skip to Interviewer Check, QX 659

657. Why did (YOU/SHE) have thyroid radiation treatment? *Record Verbatim*

658. On how many different occasions during (YOUR/HER) pregnancy did (YOU/SHE) have thyroid radiation treatment? *99=DK*

___ ___
OCCASIONS

INTERVIEWER CHECK

659. The quality of R's response was:

- High Quality 1 Skip to next section
- Generally Reliable 2 Skip to next section
- Questionable 3
- Unreliable 4

660. What is the main reason for the unreliable or questionable quality of this section of the interview?

- Unclear memory of events 1
- Uncertain understanding of questions..... 2
- Hurried responses..... 3
- Other, specify..... 4
- Don't Know 9

SECTION VII. MEDICAL HISTORY: SUBJECT
(QXS 700-881)

Now I would like to find out about (SUBJECT'S) medical history from birth to age 15.

DIAGNOSTIC X-RAYS

The first group of questions I am going to ask are about x-ray procedures done to diagnose a problem or condition of the upper body. I am now referring to x-rays taken to diagnose broken bones or other conditions, *not including* dental

x-rays. Please look at the last page of the *blue* Interview Booklet. You will see a picture with a shaded portion I will refer to as the upper body. When answering these questions, please remember that I am only interested in procedures done in this area of the body. These procedures could include any x-rays taken for screening purposes, such as chest x-rays to detect tuberculosis.

Now let's turn to page 29 of the *blue* Interview Booklet, and think about any diagnostic x-rays (SUBJECT) may have had before age 15.

Review pages 29-30.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

700. Before age 15, did (SUBJECT) ever have any diagnostic x-rays taken of (HIS/HER) **Head**, including x-rays for oral surgery or orthodontic work, but not routine dental visits?

YES

NO

701. How old was (SUBJECT) when (HE/SHE) had the first x-ray of (HIS/HER) head?
Record months or years for age

___ MONTHS/YEARS

702. On how many occasions were x-rays taken of (HIS/HER) head?

___ # OCCASIONS

703. Was a lead apron usually placed over the neck area?

YES 1
 NO 2
 DK 9

704. Before age 15, did (SUBJECT) ever have any diagnostic x-rays taken of (HIS/HER) **Neck**?

YES

NO

705. How old was (SUBJECT) when (HE/SHE) had the first x-ray of (HIS/HER) neck?
Record months or years for age

___ MONTHS/YEARS

706. On how many occasions were x-rays taken of (HIS/HER) neck?

___ # OCCASIONS

707. Was a lead apron usually placed over the neck area?

YES 1
 NO 2
 DK 9

Skip to QX 708, Chest or Upper Back

708. Before age 15, did (SUBJECT) ever have any diagnostic x-rays taken of (HIS/HER) **Chest or Upper Back**?

YES

NO

709. How old was (SUBJECT) when (HE/SHE) had the first x-ray of (HIS/HER) chest or upper back? *Record months or years for age*

___ MONTHS/YEARS

710. On how many occasions were x-rays taken of (HIS/HER) chest or upper back?

___ # OCCASIONS

711. Was a lead apron usually placed over the neck area?

YES 1

NO 2

DK 9

712. Before age 15, did (SUBJECT) ever have any diagnostic x-rays taken of **any other part of (HIS/HER) upper body**?

YES

NO

Skip to QX 717, Upper G.I.

713. On what part of the upper body was the x-ray taken? *Record Verbatim*

714. How old was (SUBJECT) when (HE/SHE) had the first x-ray of (HIS/HER) (UPPER BODY PART)? *Record months or years for age*

___ MONTHS/YEARS

715. On how many occasions were x-rays taken of (HIS/HER) (UPPER BODY PART)?

___ # OCCASIONS

716. Was a lead apron usually placed over the neck area?

YES 1

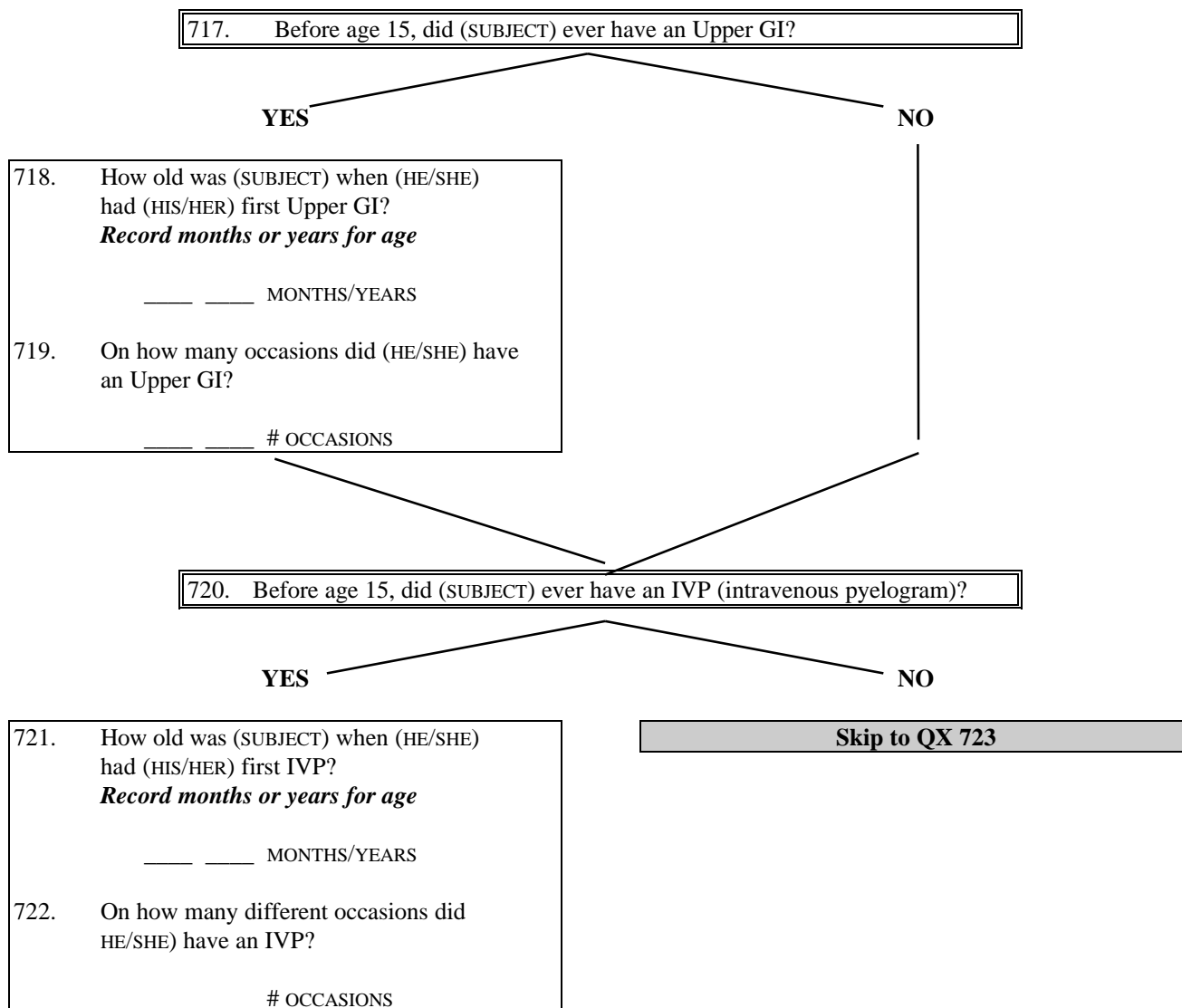
NO 2

DK 9

FLUOROSCOPES

Now I will be asking you questions about any fluoroscopies that (subject) may have had before age 15. A fluoroscopy is a type of x-ray in which the doctor may be standing next to the patient observing certain parts of the body on a fluorescent screen like a TV set. The doctor can see how the various parts of the body work by watching the screen. No pictures are taken. In many cases such as Upper G.I.'s and I.V.P.'s (intravenous pyelogram) a dye may be swallowed or injected into a vein, then a certain part of the body is viewed on a fluoroscope.

For the next group of questions, I will be referring to the upper body anatomy chart on the last page of the *blue Interview Booklet*. When I say "upper body", I am referring to the shaded portion of this diagram.



723. Before age 15, did (SUBJECT) ever have any other fluoroscopies performed on (HIS/HER) upper body? *Specify body part*

YES

NO

724. How old was (SUBJECT) when (HE/SHE) had (HIS/HER) this fluoroscopy?
Record months or years for age

 ___ ___ MONTHS/YEARS

725. On how many occasions were other fluoroscopies taken of (HIS/HER) (UPPER BODY PART)?

 ___ ___ # OCCASIONS

Skip to QX 726

X-RAY TREATMENTS

These next questions are about x-ray treatments (SUBJECT) may have received. I am referring only to x-rays used to *treat* a condition, not to x-rays used to *diagnose* problems like broken bones or dental cavities. Please look at the last page of the *blue Interview Booklet*. Again, you will see a picture with a shaded portion I will refer to as the upper body.

Now let's turn to page 31 of the *blue Interview Booklet*, and think about any x-ray treatments (SUBJECT) may have had before age 15.

Review pages 31-32.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

When answering these questions, please remember that I am only interested in procedures done in this area of the body.

726. Before age 15, did (SUBJECT) ever have any radiation therapy or x-ray treatments to any part of (HIS/HER) upper body or head for **Acne**?

YES

NO

727. How old was (SUBJECT) when (HE/SHE) had the first x-ray treatment for acne?
Record months or years for age

___ MONTHS/YEARS

728. On how many different occasions did (SUBJECT) have x-ray treatments for acne?

___ # OCCASIONS

729. Was a lead apron usually placed over the neck area?

YES 1
 NO 2
 DK 9

Skip to Ringworm, QX 730.

730. Before age 15, did (SUBJECT) ever have any radiation therapy or x-ray treatments to any part of (HIS/HER) upper body or head for **Ringworm**?

YES

NO

731. How old was (SUBJECT) when (HE/SHE) had the first x-ray treatment for ringworm? *Record months or years for age*

___ MONTHS/YEARS

732. On how many different occasions did (SUBJECT) have x-ray treatments for ringworm?

___ # OCCASIONS

733. Was a lead apron usually placed over the neck area?

YES 1
 NO 2
 DK 9

734. Before age 15, did (SUBJECT) ever have any radiation therapy or x-ray treatments to any part of (HIS/HER) upper body or head for **Enlarged Tonsils**?

YES

NO

Skip to Tuberculosis, QX 738

735. How old was (SUBJECT) when (HE/SHE) had the first x-ray treatment for enlarged tonsils? *Record months or years for age*

___ MONTHS/YEARS

736. On how many different occasions did (SUBJECT) have x-ray treatments for enlarged tonsils?

___ # OCCASIONS

737. Was a lead apron usually placed over the neck area?

YES 1
 NO 2
 DK 9

738. Before age 15, did (SUBJECT) ever have any radiation therapy or x-ray treatments to any part of (HIS/HER) upper body or head for **Tuberculosis**?

YES

NO

739. How old was (SUBJECT) when (HE/SHE) had the first x-ray treatment for tuberculosis?
Record months or years for age
 ____ MONTHS/YEARS

740. On how many different occasions did (SUBJECT) have x-ray treatments for tuberculosis?
 ____ # OCCASIONS

741. Was a lead apron usually placed over the neck area?
 YES 1
 NO 2
 DK 9

742. Before age 15, did (SUBJECT) ever have any radiation therapy or x-ray treatments to any part of (HIS/HER) upper body or head for **Scalp Infection**?

YES

NO

Skip to Enlarged Thymus, QX 746

743. How old was (SUBJECT) when (HE/SHE) had the first x-ray treatment for scalp infection?
Record months or years for age
 ____ MONTHS/YEARS

744. On how many different occasions did (SUBJECT) have x-ray treatments for scalp infection?
 ____ # OCCASIONS

745. Was a lead apron usually placed over the neck area?
 YES 1
 NO 2
 DK 9

746. Before age 15, did (SUBJECT) ever have any radiation therapy or x-ray treatments to any part of (HIS/HER) upper body or head for **Enlarged Thymus?**

YES

NO

747. How old was (SUBJECT) when (HE/SHE) had the first x-ray treatment for enlarged thymus? **Record months or years for age**

___ MONTHS/YEARS

748. On how many different occasions did (SUBJECT) have x-ray treatments for enlarged thymus?

___ # OCCASIONS

749. Was a lead apron usually placed over the neck area?

YES 1
 NO 2
 DK 9

750. Before age 15, did (SUBJECT) ever have any radiation therapy or x-ray treatments to any part of (HIS/HER) upper body or head for **any other condition?**

YES

NO

751. For what other condition?
Record Verbatim

752. How old was (SUBJECT) when (HE/SHE) had the first x-ray treatment for (OTHER CONDITION)? **Record months or years for age**

___ MONTHS/YEARS

753. On how many different occasions did (SUBJECT) have x-ray treatments for (OTHER CONDITION)?

___ # OCCASIONS

754. Was a lead apron usually placed over the neck area?

YES 1
 NO 2
 DK 9

Skip to Thyroid Scans, QX 755

THYROID SCANS

This next set of questions is about any thyroid scans (SUBJECT) may have had.

Let's turn to page 33 in the *blue Interview Booklet*, and think about any other diagnostic procedures (SUBJECT) may have had before age 15.

Review pages 33-34.

Please take your time to think about this topic. Do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

755. Before age 15, did (SUBJECT) ever have a thyroid scan?

YES

NO

756.	What is the name and address of the physician who requested this thyroid scan? <i>Record Physician Name and Address</i>
------	---

757.	How old was (SUBJECT) when (HE/SHE) had (HIS/HER) first thyroid scan? <i>Record months or years for age</i>
------	---

____ MONTHS/YEARS

758.	On how many occasions did (SUBJECT) have thyroid scans before age 15?
------	---

____ # OCCASIONS

Skip to Diagnostic Nuclear Medicine, QX 759
--

DIAGNOSTIC NUCLEAR MEDICINE

Now I will ask you about other nuclear medicine studies (SUBJECT) may have had as a child.

759. Before age 15, did (SUBJECT) ever take a radioactive substance by mouth or have one injected into a vein to diagnose a medical problem other than a thyroid problem?

YES

NO

760. How old was (SUBJECT) when (HE/SHE) had (HIS/HER) first procedure?

Record months or years for age

___ MONTHS/YEARS

761. On how many occasions were these procedures performed?

___ # OCCASIONS

Skip to Thyroid Problems, QX 762

THYROID PROBLEMS

Let's turn to page 35 in the *blue Interview Booklet*, and think about any thyroid problems (SUBJECT) may have had before age 15.

Review pages 35-36.

Please take your time to think about this topic. do you have any thoughts you would like to share, or any questions? (*pause*) Should we continue with the interview now?

I am now going to ask you some questions about any thyroid problems that (SUBJECT) may have had as a child.

762. Before age 15, did a doctor ever tell (SUBJECT) that (HE/SHE) had **Graves' Disease or hyperthyroidism, that is, an over-active thyroid?**

YES

NO

763. What is the name and address of this doctor?
Probe for status of practice, new M.D., etc.
Record verbatim.

764. How old was (SUBJECT) when (HE/SHE) was (FIRST DIAGNOSED/FIRST SEEN) by this doctor for (CONDITION)?
Record months or years for age

___ MONTHS/YEARS

Skip to QX 781, Hypothyroidism

765. Before age 15, was (SUBJECT) ever given any medication by this doctor for the treatment of this condition?

YES

NO

766. What was the (FIRST/NEXT) kind of medication this doctor prescribed for this condition?
Record verbatim

Skip to QX. 769, Radiation Treatment for Graves' Disease or Hyperthyroidism

767. How old was (SUBJECT) when (THIS DOCTOR) first prescribed this medication?
Record months or years

___ MONTHS/YEARS

768. Before age 15, did this doctor prescribe another kind of medication for this condition?

YES

NO

Repeat QX. 766

Skip to QX. 769

769. Before age 15, did (SUBJECT) ever receive any radiation treatment while under the care of this doctor for (CONDITION)?

YES

NO

770. What type of radiation treatment did this doctor prescribe for this condition? *Probe for external, internal, combined. Record Verbatim*

771. How old was (SUBJECT) when (HE/SHE) first had radiation treatment while under the care of this doctor? *Record months or years*

____ MONTHS/YEARS

772. How many courses of radiation treatment were given?

____ # COURSES

773. What is the name and address of the hospital or facility where the radiation treatment was given? *Record name and address.*

**Skip to QX. 774,
Surgery for
Graves' Disease or
Hyperthyroidism**

774. Before age 15, did (SUBJECT) ever have surgery while under the care of this doctor for (CONDITION)?

YES

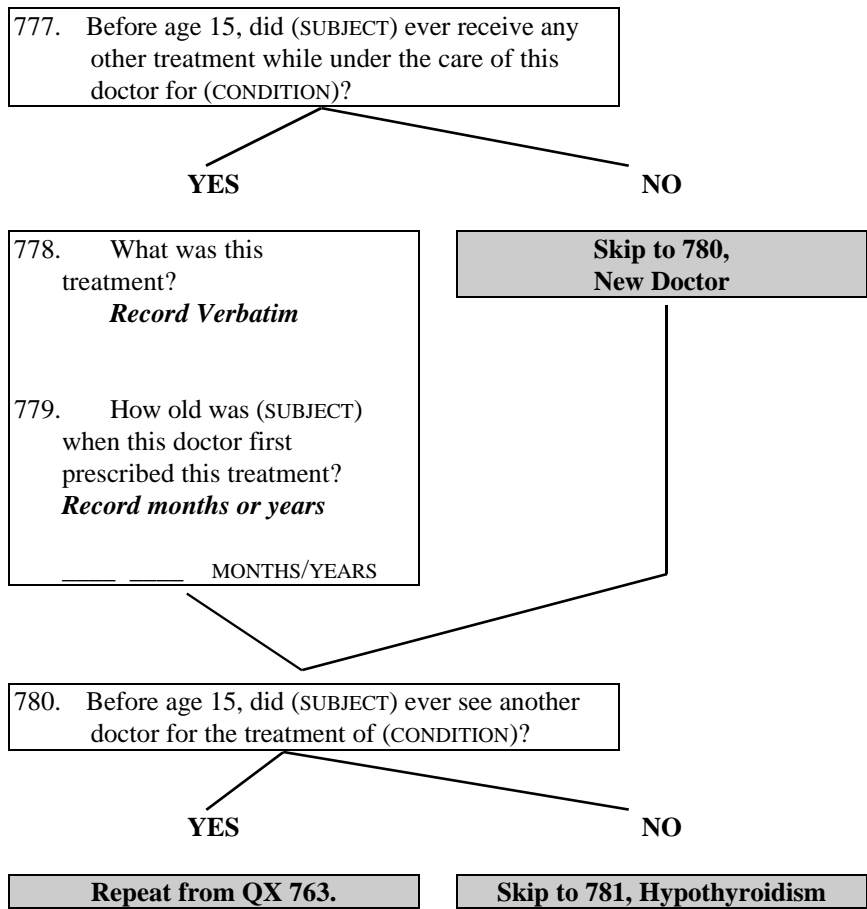
NO

775. When was the surgery performed for this condition?

____ MONTH ____ YEAR

776. What is the name and address of the hospital or facility where the surgery was performed? *Record Hospital Name and Address*

**Skip to QX 777,
Other Treatment for
Graves' Disease or
Hyperthyroidism**



781. Before age 15, did a doctor ever tell (SUBJECT) that (HE/SHE) had **Hypothyroidism, that is, an under-active thyroid?**

YES

NO

782. What is the name and address of this doctor?
Probe for status of practice, new M.D., etc.
Record verbatim.

783. How old was (SUBJECT) when (HE/SHE) was (FIRST DIAGNOSED/FIRST SEEN) by this doctor for (CONDITION)?
Record months or years for age

___ MONTHS/YEARS

**Skip to QX 800,
Malignant Thyroid Tumor or Lump**

784. Before age 15, was (SUBJECT) ever given any medication by this doctor for the treatment of this condition?

YES

NO

785. What was the (FIRST/NEXT) kind of medication this doctor prescribed for this condition?
Record verbatim

**Skip to QX 788,
Radiation Treatment for Hypothyroidism**

786. How old was (SUBJECT) when (THIS DOCTOR) first prescribed this medication?
Record months or years

___ MONTHS/YEARS

787. Before age 15, did this doctor prescribe another kind of medication for this condition?

YES

NO

Repeat QX 785

Skip to QX 788

788. Before age 15, did (SUBJECT) ever receive any radiation treatment while under the care of this doctor for (CONDITION)?

YES

NO

789. What type of radiation treatment did this doctor prescribe for this condition?
Probe for external, internal, combined. Record Verbatim

790. How old was (SUBJECT) when (HE/SHE) first had radiation treatment while under the care of this doctor?
Record months or years

____ MONTHS/YEARS

791. How many courses of radiation treatment were given?
____ # COURSES

792. What is the name and address of the hospital or facility where the radiation treatment was given?
Record name and address.

**Skip to QX 793,
Surgery for
Hypothyroidism**

793. Before age 15, did (SUBJECT) ever have surgery while under the care of this doctor for (CONDITION)?

YES

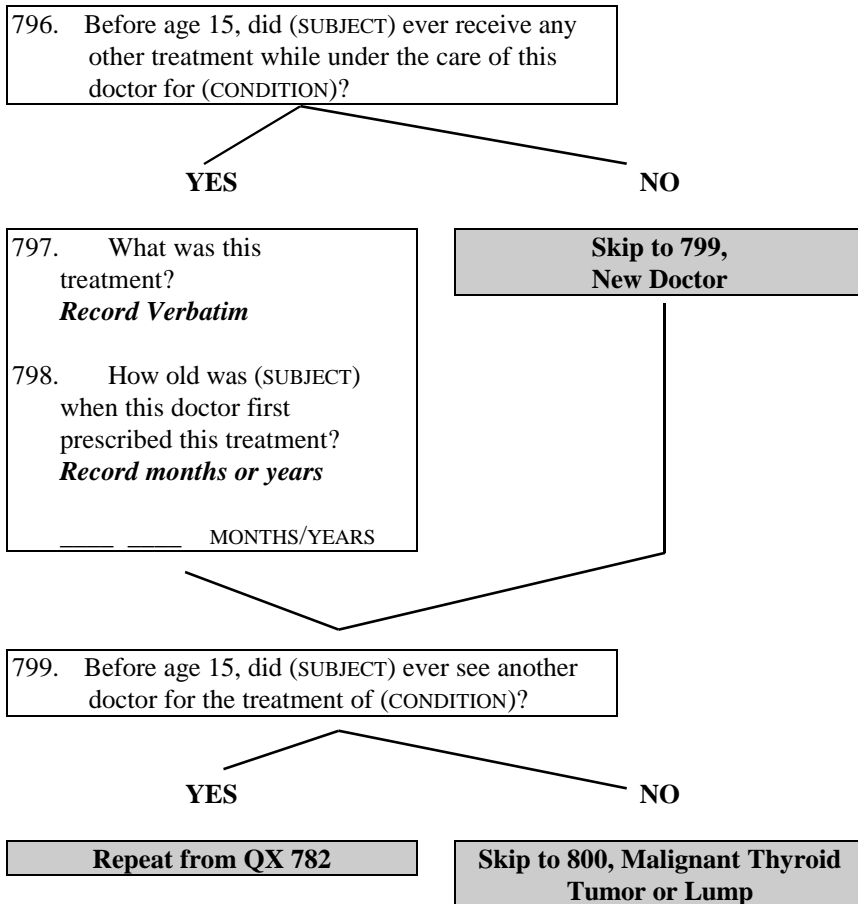
NO

794. When was the surgery performed for this condition?

____ MONTH ____ YEAR

795. What is the name and address of the hospital or facility where the surgery was performed? *Record Hospital Name and Address*

**Skip to QX 796,
Other Treatment for
Hypothyroidism**



800. Before age 15, did a doctor ever tell (SUBJECT) that (HE/SHE) had a **Malignant Thyroid Tumor or Lump**?

YES

NO

801. What is the name and address of this doctor?
Probe for status of practice, new M.D., etc.
Record verbatim.

802. How old was (SUBJECT) when (HE/SHE) was (FIRST DIAGNOSED/FIRST SEEN) by this doctor for (CONDITION)?
Record months or years for age

___ MONTHS/YEARS

Skip to QX 819, Benign Thyroid Tumor or Lump

803. Before age 15, was (SUBJECT) ever given any medication by this doctor for the treatment of this condition?

YES

NO

804. What was the (FIRST/NEXT) kind of medication this doctor prescribed for this condition?
Record verbatim

Skip to QX 807, Radiation Treatment for Malignant Thyroid Tumor or Lump

805. How old was (SUBJECT) when (THIS DOCTOR) first prescribed this medication?
Record months or years

___ MONTHS/YEARS

806. Before age 15, did this doctor prescribe another kind of medication for this condition?

YES

NO

Repeat QX 804

Skip to QX 807

807. Before age 15, did (SUBJECT) ever receive any radiation treatment while under the care of this doctor for (CONDITION)?

YES

NO

808. What type of radiation treatment did this doctor prescribe for this condition? *Probe for external, internal, combined. Record Verbatim*

809. How old was (SUBJECT) when (HE/SHE) first had radiation treatment while under the care of this doctor? *Record months or years*

____ MONTHS/YEARS

810. How many courses of radiation treatment were given?

____ # COURSES

811. What is the name and address of the hospital or facility where the radiation treatment was given? *Record name and address.*

**Skip to QX 812,
Surgery for
Malignant Thyroid Tumor or
Lump**

812. Before age 15, did (SUBJECT) ever have surgery while under the care of this doctor for (CONDITION)?

YES

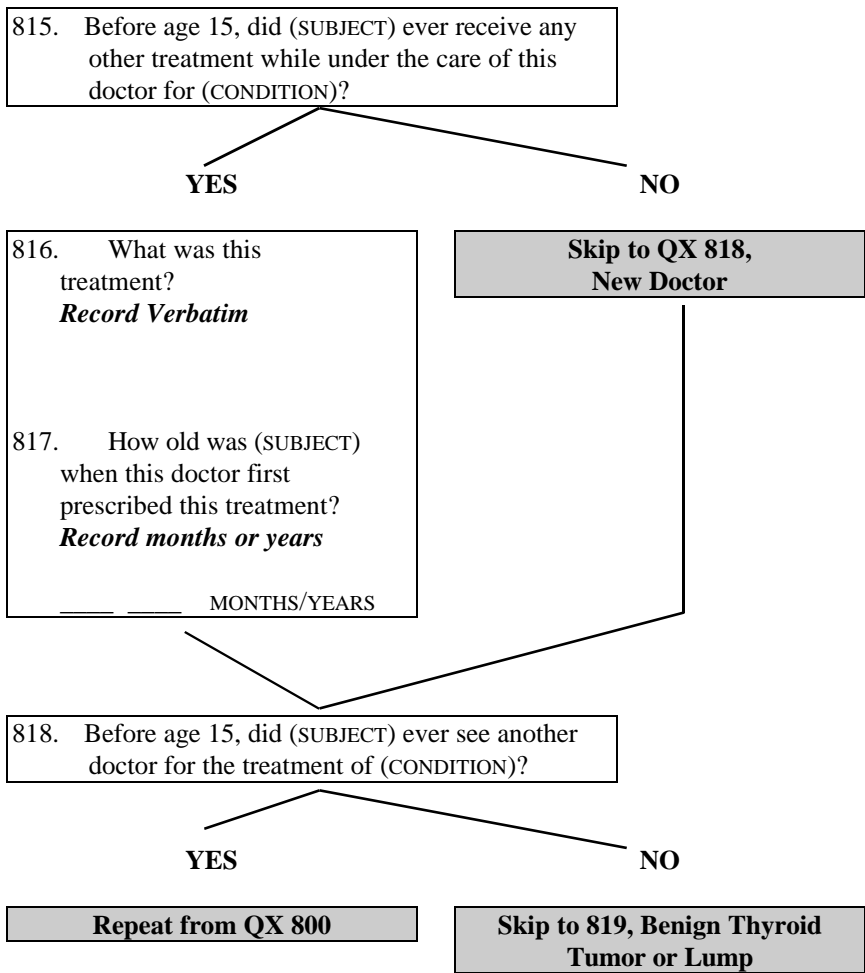
NO

813. When was the surgery performed for this condition?

____ MONTH YEAR

814. What is the name and address of the hospital or facility where the surgery was performed? *Record Hospital Name and Address*

**Skip to QX 815,
Other Treatment for
Malignant Thyroid Tumor or
Lump**



819. Before age 15, did a doctor ever tell (SUBJECT) that (HE/SHE) had a **Benign Thyroid Tumor or Lump**?

YES

NO

820. What is the name and address of this doctor?
Probe for status of practice, new M.D., etc.
Record verbatim.

821. How old was (SUBJECT) when (HE/SHE) was (FIRST DIAGNOSED/FIRST SEEN) by this doctor for (CONDITION)?
Record months or years for age

___ MONTHS/YEARS

Skip to QX 838, Goiter

822. Before age 15, was (SUBJECT) ever given any medication by this doctor for the treatment of this condition?

YES

NO

823. What was the (FIRST/NEXT) kind of medication this doctor prescribed for this condition?
Record verbatim

Skip to QX 826, Radiation Treatment for Benign Thyroid Tumor or Lump

824. How old was (SUBJECT) when (THIS DOCTOR) first prescribed this medication?
Record months or years

___ MONTHS/YEARS

825. Before age 15, did this doctor prescribe another kind of medication for this condition?

YES

NO

Repeat QX 823

Skip to QX 826

826. Before age 15, did (SUBJECT) ever receive any radiation treatment while under the care of this doctor for (CONDITION)?

YES

NO

827. What type of radiation treatment did this doctor prescribe for this condition? *Probe for external, internal, combined. Record Verbatim*

**Skip to QX 831,
Surgery for
Benign Thyroid Tumor or Lump**

828. How old was (SUBJECT) when (HE/SHE) first had radiation treatment while under the care of this doctor? *Record months or years*

___ MONTHS/YEARS

829. How many courses of radiation treatment were given?
___ # COURSES

830. What is the name and address of the hospital or facility where the radiation treatment was given? *Record name and address.*

831. Before age 15, did (SUBJECT) ever have surgery while under the care of this doctor for (CONDITION)?

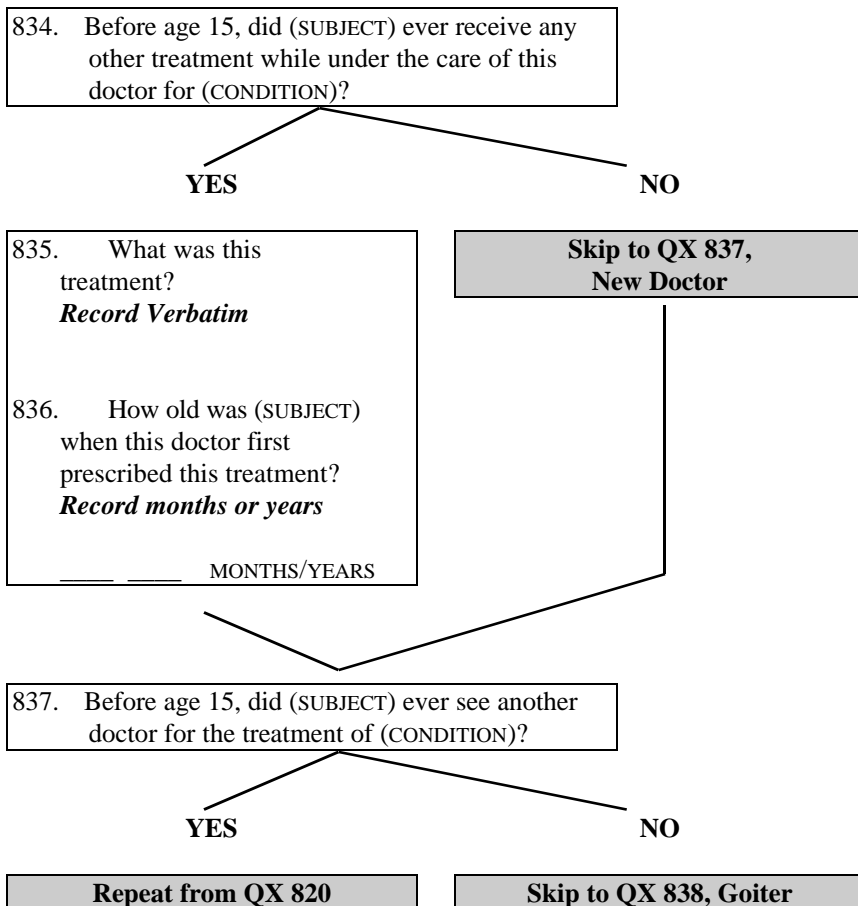
YES

NO

832. When was the surgery performed for this condition?
___ MONTH ___ YEAR

**Skip to QX 834,
Other Treatment for
Benign Thyroid Tumor or Lump**

833. What is the name and address of the hospital or facility where the surgery was performed? *Record Hospital Name and Address*



838. Before age 15, did a doctor ever tell (SUBJECT) that (HE/SHE) had **Goiter**?

YES

NO

839. What is the name and address of this doctor?
Probe for status of practice, new M.D., etc.
Record verbatim.

840. How old was (SUBJECT) when (HE/SHE) was (FIRST DIAGNOSED/FIRST SEEN) by this doctor for (CONDITION)?
Record months or years for age

___ MONTHS/YEARS

Skip to QX 857, Other Thyroid Problem

841. Before age 15, was (SUBJECT) ever given any medication by this doctor for the treatment of this condition?

YES

NO

842. What was the (FIRST/NEXT) kind of medication this doctor prescribed for this condition?
Record verbatim

Skip to QX 845, Radiation Treatment for Goiter

843. How old was (SUBJECT) when (THIS DOCTOR) first prescribed this medication?
Record months or years

___ MONTHS/YEARS

844. Before age 15, did this doctor prescribe another kind of medication for this condition?

YES

NO

Repeat QX 842

Skip to QX 845

845. Before age 15, did (SUBJECT) ever receive any radiation treatment while under the care of this doctor for (CONDITION)?

YES

NO

846. What type of radiation treatment did this doctor prescribe for this condition?
Probe for external, internal, combined. Record Verbatim

**Skip to QX 850,
Surgery for
Goiter**

847. How old was (SUBJECT) when (HE/SHE) first had radiation treatment while under the care of this doctor?
Record months or years

____ MONTHS/YEARS

848. How many courses of radiation treatment were given?

____ # COURSES

849. What is the name and address of the hospital or facility where the radiation treatment was given?
Record name and address.

850. Before age 15, did (SUBJECT) ever have surgery while under the care of this doctor for (CONDITION)?

YES

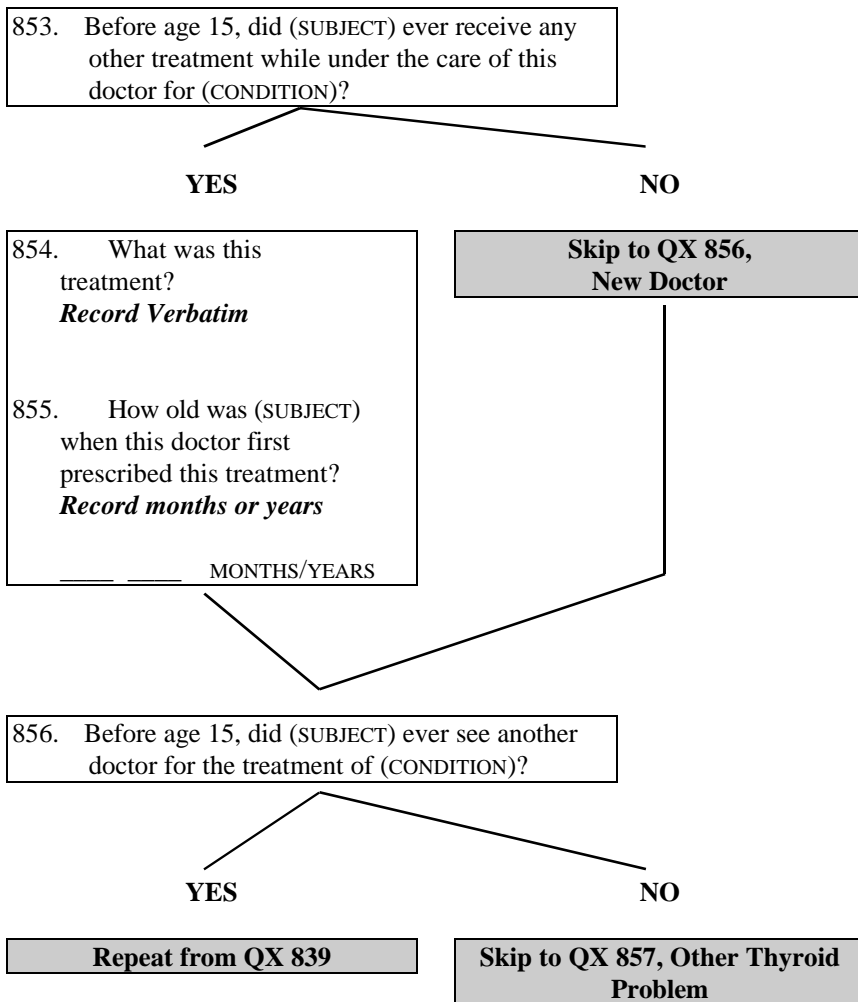
NO

851. When was the surgery performed for this condition?

____ MONTH ____ YEAR

**Skip to QX 853,
Other Treatment for
Goiter**

852. What is the name and address of the hospital or facility where the surgery was performed? *Record Hospital Name and Address*



857. Before age 15, did a doctor ever tell (SUBJECT) that (HE/SHE) had **any other thyroid problem?**

YES

NO

858. What was the problem or condition?
Record Verbatim

859. What is the name and address of this doctor?
Probe for status of practice, new M.D., etc.
Record verbatim.

860. How old was (SUBJECT) when (HE/SHE) was (FIRST DIAGNOSED/FIRST SEEN) by this doctor for (CONDITION)?
Record months or years for age
____ MONTHS/YEARS

Skip to QX 877, Dental X-rays

861. Before age 15, was (SUBJECT) ever given any medication by this doctor for the treatment of this condition?

YES

NO

862. What was the (FIRST/NEXT) kind of medication this doctor prescribed for this condition?
Record verbatim

Skip to QX 865, Radiation Treatment for Other Condition

863. How old was (SUBJECT) when (THIS DOCTOR) first prescribed this medication?
Record months or years
____ MONTHS/YEARS

864. Before age 15, did this doctor prescribe another kind of medication for this condition?

YES

NO

Repeat QX 862

Skip to QX 865

865. Before age 15, did (SUBJECT) ever receive any radiation treatment while under the care of this doctor for (CONDITION)?

YES

NO

866. What type of radiation treatment did this doctor prescribe for this condition?
Probe for external, internal, combined. Record Verbatim

**Skip to QX 870,
Surgery for Other Condition**

867. How old was (SUBJECT) when (HE/SHE) first had radiation treatment while under the care of this doctor?
Record months or years

___ MONTHS/YEARS

861. How many courses of radiation treatment were given?
___ # COURSES

869. What is the name and address of the hospital or facility where the radiation treatment was given?
Record name and address.

870. Before age 15, did (SUBJECT) ever have surgery while under the care of this doctor for (CONDITION)?

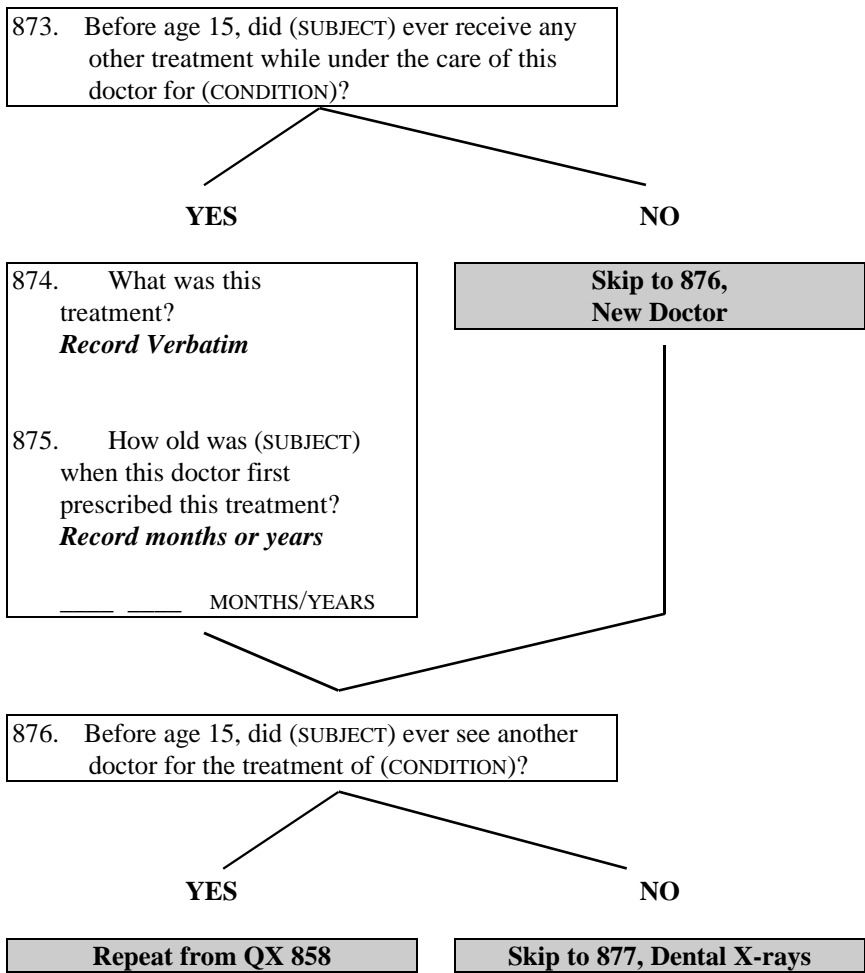
YES

NO

871. When was the surgery performed for this condition?
___ MONTH ___ YEAR

**Skip to QX 873,
Other Treatment for Condition**

872. What is the name and address of the hospital or facility where the surgery was performed? *Record Hospital Name and Address*



INTERVIEWER CHECK

882. The quality of R's response was:

- High Quality 1 Skip to next section
- Generally Reliable 2 Skip to next section
- Questionable 3
- Unreliable 4

883. What is the main reason for the unreliable or questionable quality of this section of the interview?

- Unclear memory of events 1
- Uncertain understanding of questions..... 2
- Hurried responses..... 3
- Other, specify..... 4
- Don't Know 9

884. How often was explanation text repeated?

- Very often 1
- Often 2
- Not often..... 3
- Not applicable 4

SECTION IX. FAMILIARITY/BIAS
(QX 900-906)

We have now completed the formal interview, and I have just a few more questions to ask.

900.	How helpful were the materials in preparing for the interview?	
	Very helpful	01
	Generally helpful.....	02
	Somewhat helpful.....	03
	Not very helpful	04
	Not at all helpful	05
	Don't Know	09
901.	Overall, how accurate do you think you were able to be in answering the questions in this interview? Read List	
	Very Accurate	01
	Generally Accurate.....	02
	Somewhat Accurate.....	03
	Not Very Accurate.....	04
	Not at all Accurate	05
	Don't Know	09
902.	What, if anything, do you feel contributes to a person developing thyroid disease? Do NOT read list. Record and code all that apply.	
	Radiation Exposure	01
	Medical X-Rays or Radiation Treatment.....	02
	Family History/Genetics	03
	Lack of Iodine in the Diet.....	04
	Too Much Iodine in the Diet	05
	Being Overweight	06
	Pregnancy	07
	Puberty/Menopause	08
	Other Illnesses	09
	Medications.....	10
	Other (Record Verbatim)	11
	Don't Know	99

903. Please tell me all the types of health problems, if any, you feel may be caused by radiation released from Hanford.
Do NOT read list. Record and code all that apply.

Thyroid Diseases

Underactive Thyroid..... 01
Overactive Thyroid..... 02
Graves' Disease 03
Thyroid Cancer 04
Goiter..... 05
Thyroid Nodules (not cancer) 06

Other Cancers

Leukemia/Lymphoma..... 07
Breast Cancer..... 08
Lung Cancer 09
Colon Cancer 10
Other Cancer (*Specify: _____*). 11
All Cancer..... 12

Fertility/Genetic Disorders

Miscarriage 13
Infertility..... 14
Birth Defects (*Specify: _____*). 15
Genetic Defects Passed on to Offspring 16

Other

Multiple Sclerosis (MS)..... 17
Immune System Disease..... 18
Allergies 19
Skin Diseases (other than cancer)..... 20
Mental Retardation..... 21
None 22
Other (***Record Verbatim***) 23
Don't Know 99

904. How knowledgeable do you think you are about radiation released from Hanford?
Read list

Very Knowledgeable 1
 Generally Knowledgeable..... 2
 Somewhat Knowledgeable..... 3
 Not Very Knowledgeable..... 4
 Not at all Knowledgeable 5
 Don't Know 9

905. **Question Deleted**

906. Do you believe the health of anyone in your family has been affected by radiation from Hanford?

Yes..... 1
 No..... 2
 Don't Know 9

SECTION X. CONCLUDING REMARKS
 (QXS 1000-1003)

1000. Do you have any questions or comments you would like to add before we end the interview?

YES

NO

1001. *Record Verbatim*

SKIP TO QX 1002

1002. Would you like to be placed on our mailing list so that you can receive regular updates of the study's progress?

YES.....1
NO.....2
ALREADY ON MAILING LIST3

1003. Would you like a copy of the study results?

YES.....1
NO.....2

CLOSING COMMENTS:

Once the study is completed and the data analyzed, we will be publishing the composite results from all of the study participants. No data on individuals will be released. No participant names will be released. As required by law, all of the information you have given me will be kept strictly confidential.

Someone from my office may call you in the future to ask a few questions directly from this interview as a quality control check of my work. This is the end of the interview. I want to thank you very much for your cooperation.

TIME INTERVIEW ENDED: _____ : _____ A.M. / P.M.

SECTION XI: INTERVIEWER COMMENTS

(QXS 1100-1102)

1100. R's cooperation was:

- VERY GOOD 1
- GOOD 2
- FAIR 3
- POOR..... 4

1101. Overall quality of R's response was::

- HIGH QUALITY 1 End
- GENERALLY RELIABLE..... 2 End
- QUESTIONABLE 3
- UNRELIABLE 4

1102. What is the main reason for the unreliable or questionable quality the interview?

- Unclear memory of events 1
- Uncertain understanding of questions..... 2
- Hurried responses..... 3
- Other, specify..... 4
- Don't Know 9