

IN-PERSON QUESTIONNAIRE - EXPANDED VERSION

HANFORD THYROID DISEASE STUDY

<u>PHASE</u>	<u>INITIALS</u>	<u>DATE</u>
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+ = use continuation page		

SUBJECT ID #:	_____
TIME BEGUN:	__ __ : __ __ A.M. / P.M.
QUESTIONNAIRE VERSION #:	12/11/95 06
INTERVIEWER ID:	_____
BIRTHDATE (MM/DD/YY) :	__ __ / __ __ / __ __
CLINIC LOCATION:	_____
CLINIC CODE	__ __
DATE OF INTERVIEW:	__ __ / __ __ / __ __
INTERVIEW OUTCOME:	__
1 = COMPLETE	
2 = PARTIAL COMPLETE	

FORM APPROVED: OMB NUMBER: 0920-0296  
 EXP. DATE: May 31, 1998

Public reporting burden of this collection of information varies from 30 to 60 minutes, with an average of 45 minutes per response, including the time for reviewing instructions, searching for 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 Bg., Room 737-F, 200 Independence Ave., S.W., Washington, D.C. 20201.

My name is (INTERVIEWER'S NAME). I'm one of the interviewers for the Hanford Thyroid Disease Study. I'll be asking you some questions about your residential, medical, and occupational history, along with some other questions. Before we begin this interview, there are a few things I need to mention:

- \*All of the information you provide will be kept strictly confidential as required by public law PHS Act Section 308(d)(42 USC 242m(d)).
- \*Try to be as accurate as possible when answering the questions. Don't feel rushed, and do not hesitate to ask me to repeat a question.
- \*If you choose not to answer a question, simply tell me and we will move on to the next question.
- \*You may end the interview at any time.

Do you have any questions before we begin? (*Answer questions*) My job as the interviewer is to read the questions exactly as they are written. For this reason, please wait until after I've read the complete question before giving me your answer.

## SECTION I: RESIDENCE HISTORY

### Part 1: Mother's Residence History (QXS 1-5)

YES (birthdate is 12/01/44 or later)  
NO (birthdate is before 12/01/44)

I'd like to begin by asking you questions about the places where your mother lived while she was pregnant with you. This would be her residences between \_\_\_\_ / \_\_\_\_ and \_\_\_\_ / \_\_\_\_ . If you have the interview preparation worksheet, please refer to it for this section.

1. Starting in (\_\_\_\_ / \_\_\_\_) , what town did your mother live in?  
*Or (WHAT TOWN/WHERE) did your mother move to in (QX 5)?*
2. What (STATE/COUNTRY) is that in?
3. What county is that in?  
*If outside study area, skip to QX 5.*
4. What was her street address or location?
5. What month and year did your mother move (FROM RESIDENCE/OUT OF COUNTY)?  
*If date moved is after subject's birthdate, enter subject's birthdate and skip to Subject's Residence section (Question 6). If date moved is before subject's birthdate, enter the date moved and continue with the mother's residence history (repeat from Question 1).*

### Part 2: Subject's Residence History: Birth-1957 (QXS 6-14)

The (first/next) questions I'll be asking you are about the places where you have lived from birth through 1957. [If you have the interview preparation worksheet, please refer to it for this section.] In some instances I will also ask about the types of milk you drank and dairy products you ate. Let's start with where your family lived when you were born.

6. What town did you live in when you were born?  
*Or (WHAT TOWN/WHERE) did you move to in (QX 10)?*
7. What (STATE/COUNTRY) is that in?
8. What county is that in?  
*If outside study area, skip to QX 10*
9. What was your street address or location?
10. What month and year did you move (FROM RESIDENCE/OUT OF COUNTY)?\*  
*\* If date is after 12/31/57, ask QXS 11-14 if in study area, then skip to Part 3 (Question 100)*
11. From (RESIDENCE START DATE) to (RESIDENCE LAST DATE/DECEMBER 1957), did you ever eat or drink fresh milk or dairy products made from raw cow's milk?
12. During this time, did you ever eat or drink fresh milk or dairy products made from processed cow's milk?
13. During this time, did you ever eat or drink fresh milk or dairy products made from raw goat's milk?
14. During this time, did you ever eat or drink fresh milk or dairy products made from processed goat's milk?  
*Repeat from Question 6 until December 1957*

### Part 3: Subject's Residence History: 1958-Present

(QXS 100-115)

The next questions I'll be asking are about some places you may have lived between January 1, 1958 and the present.

*For each YES answer, ask Questions 111-115*

*If NO or DON'T KNOW, ask next question or skip to Question 200*

100. Since 1958, have you lived in Nevada?
101. Since 1958, have you lived in Utah?
102. Since 1958, have you lived in Arizona?
103. Since 1958, have you lived in New Mexico?
104. Since 1958, have you lived in Colorado?
105. Since 1958, have you lived in Idaho?
106. Since 1958, have you lived in Ohio?
107. Since 1958, have you lived in South Carolina?
108. Since 1958, have you lived in Tennessee?
109. Did you live in the Marshall Islands at anytime in 1958, or 1959?
110. Did you live in Pennsylvania at anytime in 1979?

111. *Enter 2-digit state abbreviation*

112. What county did you live in?

*If county not known, ask: What town did you live in?*

113. In what month and year did you (first/next) move to (County/City) in (State)?

114. In what month and year did you (first/next) move out of (County/City) in (State)?

115. Did you ever live in (State) at any other time?

*Repeat Questions 112-115 for each residence in each state of interest; then continue with Question 200.*

## SECTION II: OCCUPATIONAL HISTORY

(QXS 200-212)

Now I'm going to ask you some questions about your employment history.

200. Have you ever worked in any of the following industries or occupations?

*(For each YES, ask questions 201-210)*

- a. Geology?
- b. Metallurgy?
- c. Metal Processing?
- d. Ore Refining?
- e. Mining?
- f. In the nuclear industry, as a civilian?
- g. On the premises of a nuclear facility?
- h. In health care, with exposure to radioactive materials or x-rays?
- i. As a scientist, Researcher, or Student with exposure to radioactive materials or x-rays?
- j. In the military, working around nuclear testing, nuclear submarines, or other radiation exposure?
- k. Have you worked in any other industry or occupation where you may have been exposed to radioactive materials or x-rays?

201. What was the name of the company or organization you worked for?

*Interviewer: Skip to QX 203 if same field*

- 202. Have you already told me about this particular job?
- 203. In which city and state was your job?
- 204. What did this company or organization make or do?
- 205. What was your job title there?
- 206. What were your activities and duties as (JOB TITLE)?
- 207. When did you start there as a (JOB TITLE)?
- 208. When did you last work there as a (JOB TITLE)?
- 209. Was that full-time or part-time employment?
- 210. Have you ever worked in any other jobs in (SAME FIELD)?  
*If YES, repeat from Question 202*  
*If NO or DON'T KNOW, skip to Question 211*
- 211. What have been your primary occupations?
- 212. Other than through medical tests or procedures, have you EVER been exposed to any radiation that you know of?

### SECTION III - SMOKING HISTORY (QXS 300-321)

I'm going to ask you about smoking and tobacco use. The first series of questions is about cigarette use, and is divided into two parts. The first will ask about NON-FILTER cigarettes only, and the second will ask about FILTER cigarettes.

- 300. Have you ever smoked a total of 100 or more NON-FILTER cigarettes in your lifetime?
- 301. At what age did you (FIRST/NEXT) start smoking non-filter cigarettes?
- 302. Did you ever stop smoking non-filter cigarettes for six consecutive months or longer?
- 303a. How old were you when you (FIRST/NEXT) stopped smoking non-filter cigarettes?
- 304a. On the average, how many non-filter cigarettes did you smoke per day between age (QX 301) and age (QX 303a)?
- 305a. Did you ever start smoking non-filter cigarettes again?
- 303b. What is your current age?
- 304b. On the average, how many non-filter cigarettes have you smoked per day since age (QX 301)?
- 306. Have you ever smoked a total of 100 or more FILTER cigarettes in your lifetime?
- 307. At what age did you (FIRST/NEXT) start smoking filter cigarettes?
- 308. Did you ever stop smoking filter cigarettes for six consecutive months or longer?
- 309a. How old were you when you (FIRST/NEXT) stopped smoking filter cigarettes?
- 310a. On the average, how many filter cigarettes did you smoke per day between age (QX 307) and age (QX 309a)?
- 311a. Did you ever start smoking filter cigarettes again?
- 309b. What is your current age?
- 310b. On the average, how many filter cigarettes have you smoked per day since age (QX 307)?

The next questions are about smoking cigars and tobacco pipes.

- 312. Have you ever smoked CIGARS on a regular basis for six months or longer?
- 313. How old were you when you first started smoking cigars?
- 314. How old were you when you last smoked cigars?
- 315. From age (QX 313) to age (QX 314), how many total years did you smoke cigars?
- 316. How many would you usually smoke in a week?
- 317. Have you ever smoked tobacco in a PIPE on a regular basis for six months or longer?

- 318. How old were you when you first started smoking a pipe?
- 319. How old were you when you last smoked a pipe?
- 320. From age (QX 318) to age (QX 319), how many total years did you smoke a pipe?
- 321. How many bowls would you usually smoke in a week?

SECTION IV - DIAGNOSTIC MEDICAL PROCEDURES  
(QXS 400-459)

The next set of questions is about DIAGNOSTIC medical procedures you may have had. I'll be asking you specific questions about different types of medical tests. If you don't understand a question, please let me know and I'll explain the procedure I'm asking about.

DIAGNOSTIC X-RAYS  
(QXS 400-443)

First I'll be asking about radiologic procedures taken to diagnose a problem or condition of the upper body. I'm now referring to X-rays and CAT scans taken to diagnose broken bones or other conditions, not including routine dental X-rays. I'm only interested in diagnostic procedures you've had to the shaded portion of the body shown in the picture. *Show Card 1.*

- 400. Have you ever had a CAT scan of your upper body?  
*If YES, ask Questions 401-405*  
*If NO or DON'T KNOW, skip to Question 406*
- 401. Why was a CAT scan performed?
- 402. What area was scanned?
- 403. How many CAT scans were performed?
- 404. How old were you when you (first) had a CAT scan for (REASON)?
- 405. Did you ever have a CAT scan of your upper body for any other reason?  
*If YES, repeat from Question 401*  
*If NO or DON'T KNOW, skip to Question 406*
- 406. Have you ever had any diagnostic x-rays taken of your HEAD? Now this would include head x-rays taken for orthodontic work and oral surgery, but would NOT include routine dental x-rays.  
*If YES, ask Questions 407-411*  
*If NO or DON'T KNOW, skip to Question 412*
- 407. Why was an x-ray taken?
- 408. On how many occasions were x-rays taken of your HEAD for (REASON)?
- 409. How old were you when you (first) had an x-ray taken of your HEAD for (REASON)?
- 410. Was a lead shield (such as a collar or apron) usually placed over your NECK when you had (this x-ray/these x-rays)?
- 411. Was an x-ray of your HEAD ever taken for any other reason?  
*If YES, repeat from Question 407*  
*If NO or DON'T KNOW, go to Question 412*
- 412. Have you ever had any diagnostic x-rays taken of your NECK?  
*If YES, ask Questions 413-416*  
*If NO or DON'T KNOW, skip to Question 417*
- 413. Why was an x-ray taken?
- 414. On how many occasions were x-rays taken of your NECK for (REASON)?
- 415. How old were you when you (first) had a NECK x-ray taken for (REASON)?
- 416. Was an x-ray of your NECK ever taken for any other reason?

*If YES, repeat from Question 413*  
*If NO or DON'T KNOW, skip to Question 417*

417. Have you ever had any diagnostic x-rays taken of your CHEST or UPPER BACK (including mammograms)?  
*If YES, ask Questions 418-422*  
*If NO or DON'T KNOW, skip to Question 423*
418. Why was an x-ray taken?
419. On how many occasions were x-rays taken of your CHEST or UPPER BACK for (REASON)?
420. How old were you when you (first) had an x-ray taken for (REASON)?
421. Was a lead shield (such as a collar or apron) usually placed over your NECK when you had (this x-ray/these x-rays)?
422. Was an x-ray of your CHEST OR UPPER BACK (including mammograms) ever taken for any other reason?  
*If YES, repeat from Question 418*  
*If NO or DON'T KNOW, skip to Question 423*
423. Have you ever had any diagnostic x-rays taken of your STOMACH OR MID-BACK?  
*If YES, ask Questions 424-428*  
*If NO or DON'T KNOW, skip to Question 429*
424. Why was an x-ray taken?
425. On how many occasions were x-rays taken of your STOMACH OR MID-BACK for (REASON)?
426. How old were you when you (first) had an x-ray taken for (REASON)?
427. Was a lead shield (such as a collar or apron) usually placed over your NECK when you had (this x-ray/these x-rays)?
428. Was an x-ray of your STOMACH OR MID-BACK ever taken for any other reason?  
*If YES, repeat from Question 424*  
*If NO or DON'T KNOW, skip to Question 429*

## FLUOROSCOPIES (QXS 429-449)

Fluoroscopy is a type of x-ray in which certain parts of the body are observed on a fluorescent screen, like a TV set. The doctor can view various parts of the body by watching the screen. A dye is sometimes used, and may be swallowed or injected into a vein. Fluoroscopy is used in a number of diagnostic procedures. I will ask you if you have had some procedures performed on the UPPER part of the body as shown in the picture. I will also ask about barium enemas.

429. Have you ever had a BARIUM ENEMA?  
*If YES, ask Questions 430-433*  
*If NO or DON'T KNOW, skip to Question 434*
430. Why did you have a Barium Enema?
431. How many Barium Enemas did you have for (REASON)?
432. How old were you when you (first) had a Barium Enema for (REASON)?
433. Was a Barium Enema ever done for any other reason?  
*If YES, repeat from Question 430*  
*If NO or DON'T KNOW, skip to Question 434*
434. Have you ever had an UPPER GI?  
*If YES, ask Questions 435-438*  
*If NO or DON'T KNOW, skip to Question 439*
435. Why did you have an Upper GI?

436. How many Upper GIs did you have for (REASON)?
437. How old were you when you (first) had an Upper GI for (REASON)?

438. Was an Upper GI ever done for any other reason?  
*If YES, repeat from Question 435*  
*If NO or DON'T KNOW, skip to Question 439*
439. Have you ever had an INTRAVENOUS PYELOGRAM or IVP?  
*If YES, ask Questions 440-443*  
*If NO or DON'T KNOW, skip to Question 444*
440. Why did you have an IVP?
441. How many IVPs did you have for (REASON)?
442. How old were you when you (first) had an IVP for (REASON)?
443. Was an IVP ever done for any other reason?  
*If YES, repeat from Question 440*  
*If NO or DON'T KNOW, skip to Question 444*
444. Did you ever have any other fluoroscopies of your upper body?  
*If YES, ask Questions 445-449*  
*If NO or DON'T KNOW, skip to Question 450*
445. What part of the upper body?
446. Why did you have a fluoroscopy?
447. How many fluoroscopies did you have for (REASON)?
448. How old were you when you (first) had a fluoroscopy for (REASON)?
449. Was a fluoroscopy ever taken for any other reason?  
*If YES, repeat from Question 445*  
*If NO or DON'T KNOW, skip to Question 450*

#### THYROID SCANS AND OTHER NUCLEAR MEDICINE PROCEDURES (QXS 450-458)

The next few questions are about diagnostic nuclear medicine procedures. These are sometimes called "scans". During these procedures, a radioactive substance is given by mouth or injected into a vein to make an area of the body show up on an x-ray in order to diagnose a medical problem.

450. Have you ever had a thyroid nuclear scan?  
*If YES, ask Questions 451-454*  
*If NO or DON'T KNOW, skip to Question 455*
451. In what month and year did you have this thyroid nuclear scan?
452. What is the name of the physician who requested this thyroid nuclear scan?
453. May we have your consent to obtain pertinent medical records from your physician?
454. Did you have any other thyroid nuclear scans?  
*If YES, repeat from Question 451*  
*If NO or DON'T KNOW, skip to Question 455*
455. Have you ever had any other NUCLEAR SCANS? (that is, a procedure in which a radioactive substance is given by mouth or injected into a vein to diagnose a medical problem?)  
*If YES, ask Questions 456-459*  
*If NO or DON'T KNOW, skip to Question 500*
456. What type of procedure was done?
457. Why was this procedure done?
458. In what month and year did you have this procedure?
459. Have you had any other nuclear scans?



*If YES, repeat from Question 456*

*If NO or DON'T KNOW, skip to Question 500*

SECTION V: THYROID PROBLEMS  
(QXS 500-557)

The next set of questions is about thyroid disease. If you don't understand a question, please let me know and I'll describe the condition I'm asking about.

500. Has a DOCTOR ever told you that you had GRAVES' DISEASE or hyperthyroidism, that is, an OVER-active thyroid?

*If YES, ask Questions 501-507*

*If NO or DON'T KNOW, skip to Question 508*

501. At what age were you diagnosed with Graves' disease or over-active thyroid?

502. What is the full name of the physician who diagnosed this condition?

503. May we have your consent to obtain pertinent medical records from your doctor?

Now I'd like to ask about the different types of treatment you may have had for Graves' Disease or over-active thyroid.

504. Have you taken THYROID MEDICATION for Graves' Disease or an over-active thyroid?

*If YES, ask Questions 504A-504F*

*If NO or DON'T KNOW, skip to Question 505*

504.A. What kind of medication did you take for this condition?

504.B. How old were you when you FIRST took (MEDICATION) for over-active thyroid?

504.C. How old were you when you LAST took (MEDICATION) for this condition?

504.D. What are the names of all of the doctors who have prescribed (MEDICATION) for this condition?

504.E. May we have your consent to obtain pertinent medical records from your doctor?

504.F. Have you taken ANY OTHER thyroid medication for Graves' disease or an over-active thyroid?

*If YES, repeat from Question 504A*

*If NO or DON'T KNOW, skip to Question 505*

505. Have you had THYROID SURGERY for Graves' Disease or over-active thyroid?

*If YES, ask Questions 505A-505C*

*If NO or DON'T KNOW, skip to Question 506*

505.A. How old were you when you had thyroid surgery for this condition?

505.B. What is the name of the hospital where you had this thyroid surgery?

505.C. May we have your consent to obtain pertinent medical records from the hospital?

506. Have you had THYROID RADIATION TREATMENT for Graves' Disease or over-active thyroid?

*If YES, ask Questions 506A-506D*

*If NO or DON'T KNOW, skip to Question 507*

506.A. How old were you when you FIRST had thyroid radiation treatment for this condition?

506.B. How old were you when you LAST had thyroid radiation treatment for this condition?

506.C. What are the names of the clinics or hospitals where you had this radiation treatment?

506.D. May we have your consent to obtain pertinent medical records from the clinic or hospital?

507. Have you had ANY OTHER TYPE of thyroid treatment for Graves' Disease or over-active thyroid?

*If YES, ask Questions 507A-507E*

*If NO or DON'T KNOW, skip to Question 508*

507.A. What type of treatment did you have for this condition?

507.B. How old were you when you FIRST had (TREATMENT) for this condition?

507.C. How old were you when you LAST had (TREATMENT) for this condition?

- 507.D. What is the name of the doctor who ordered (TREATMENT)?
- 507.E. May we have your consent to obtain pertinent medical records from your doctor?
508. Has a DOCTOR ever told you that you were hypothyroid, that is, had an UNDER-active thyroid?  
*If YES, ask Questions 509-515*  
*If NO or DON'T KNOW, skip to Question 516*
509. At what age were you diagnosed with an under-active thyroid?
510. What is the full name of the physician who diagnosed this condition?
511. May we have your consent to obtain pertinent medical records from your doctor?

Now I'd like to ask about the different types of treatment you may have had for an under-active thyroid.

512. Have you taken THYROID MEDICATION for an under active thyroid?  
*If YES, ask Questions 512A-512F*  
*If NO or DON'T KNOW, skip to Question 513*
- 512.A. What kind of medication did you take for under-active thyroid?
- 512.B. How old were you when you FIRST took (MEDICATION) for under-active thyroid?
- 512.C. How old were you when you LAST took (MEDICATION) for under-active thyroid?
- 512.D. What are the names of all of the doctors who have prescribed (MEDICATION) for under-active thyroid?
- 512.E. May we have your consent to obtain pertinent medical records from your doctor?
- 512.F. Have you taken ANY OTHER thyroid medication for an under-active thyroid?  
*If YES, repeat from Question 512A*  
*If NO or DON'T KNOW, skip to Question 513*
513. Have you had THYROID SURGERY for under-active thyroid?  
*If YES, ask Questions 513A-513C*  
*If NO or DON'T KNOW, skip to Question 514*
- 513.A. How old were you when you had thyroid surgery for under-active thyroid?
- 513.B. What is the name of the hospital where you had thyroid surgery for under-active thyroid?
- 513.C. May we have your consent to obtain pertinent medical records from this hospital?
514. Have you had THYROID RADIATION TREATMENT for under-active thyroid?  
*If YES, ask Questions 514A-514E*  
*If NO or DON'T KNOW, skip to Question 515*
- 514.A. How old were you when you FIRST had thyroid radiation treatment for under-active thyroid?
- 514.B. How old were you when you LAST had thyroid radiation treatment for under-active thyroid?
- 514.C. What are the names of the clinics or hospital where you had radiation treatment for under active thyroid?
- 514.E. May we have your consent to obtain pertinent medical records from the clinic or hospital?
515. Have you had ANY OTHER TYPE of thyroid treatment for under-active thyroid?  
*If YES, ask Questions 515A-515E*  
*If NO or DON'T KNOW, skip to Question 516*
- 515.A. What type of treatment did you have for under-active thyroid?
- 515.B. How old were you when you FIRST had (TREATMENT) for under-active thyroid?
- 515.C. How old were you when you LAST had (TREATMENT) for under-active thyroid?
- 515.D. What is the name of the doctor who ordered (TREATMENT) for under-active thyroid?
- 515.E. May we have your consent to obtain pertinent medical records from your doctor?
516. Has a DOCTOR ever told you that you had a THYROID NODULE or TUMOR?

*If YES, ask Questions 517-524*  
*If NO or DON'T KNOW, skip to Question 525*

- 517. Was this thyroid nodule or tumor benign or malignant?
- 518. At what age were you diagnosed with a thyroid (CONDITION)?
- 519. What are the full names of the physicians who diagnosed this condition?
- 520. May we have your consent to obtain pertinent medical records from your doctor?

Now I'd like to ask about the different types of treatment you may have had for a thyroid (CONDITION).

- 521. Have you taken thyroid MEDICATION for a thyroid (CONDITION)?  
*If YES, ask Questions 521A-521F*  
*If NO or DON'T KNOW, skip to Question 522*
  - 521.A. What kind of medication did you take for a thyroid (CONDITION)?
  - 521.B. How old were you when you FIRST took (MEDICATION) for a thyroid (CONDITION)?
  - 521.C. How old were you when you LAST took (MEDICATION) for a thyroid (CONDITION)?
  - 521.D. What are the names of all of the doctors who have prescribed (MEDICATION) for a thyroid (CONDITION)?
  - 521.E. May we have your consent to obtain pertinent medical records from your doctor?
  - 521.F. Have you taken any other thyroid medication for a thyroid (CONDITION)?  
*If YES, repeat from Question 521A*  
*If NO or DON'T KNOW, skip to Question 522*
- 522. Have you had thyroid SURGERY for a thyroid (CONDITION)?  
*If YES, ask Questions 522A-522C*  
*If NO or DON'T KNOW, skip to Question 523*
  - 522.A. How old were you when you had surgery for thyroid (CONDITION)?
  - 522.B. What is the name of the hospital where you had thyroid surgery for thyroid (CONDITION)?
  - 522.C. May we have your consent to obtain pertinent medical records from the hospital?
- 523. Have you had thyroid RADIATION TREATMENT for thyroid (CONDITION)?  
*If YES, ask Questions 523A-523D*  
*If NO or DON'T KNOW, skip to Question 524*
  - 523.A. How old were you when you FIRST had thyroid radiation treatment for thyroid (CONDITION)?
  - 523.B. How old were you when you LAST had thyroid radiation treatment for thyroid (CONDITION)?
  - 523.C. What are the names of the clinics or hospital where you had radiation treatment for thyroid (CONDITION)?
  - 523.D. May we have your consent to obtain pertinent medical records from the clinic or hospital?
- 524. Have you had ANY OTHER TYPE of thyroid treatment for thyroid (CONDITION)?  
*If YES, ask Questions 524A-524E*  
*If NO or DON'T KNOW, skip to Question 525*
  - 524.A. What type of treatment did you have for thyroid (CONDITION)?
  - 524.B. How old were you when you FIRST had (TREATMENT) for thyroid (CONDITION)?
  - 524.C. How old were you when you LAST had (TREATMENT) for thyroid (CONDITION)?
  - 524.D. What is the name of the doctor who ordered (TREATMENT) for thyroid (CONDITION)?
  - 524.E. May we have your consent to obtain pertinent medical records from your doctor?
- 525. Has a DOCTOR ever told you that you had a GOITER?  
*If YES, ask Questions 526-532*  
*If NO or DON'T KNOW, skip to Question 534*
- 526. At what age were you diagnosed with a goiter?
- 527. What is the full name of the physician who made the diagnosis?

528. May we have your consent to obtain pertinent medical records from your doctor?

Now I'd like to ask about the different types of treatment you may have had for a goiter.

529. Have you taken thyroid MEDICATION for a goiter?  
*If YES, ask Questions 529A-529F*  
*If NO or DON'T KNOW, skip to Question 530*
- 529.A. What kind of medication did you take for a goiter?  
529.B. How old were you when you FIRST took (MEDICATION) for a goiter?  
529.C. How old were you when you LAST took (MEDICATION) for a goiter?  
529.D. What are the names of all of the doctors who have prescribed (MEDICATION) for a goiter?  
529.E. May we have your consent to obtain pertinent medical records from your doctor?  
529.F. Have you taken ANY OTHER thyroid medication for a goiter?  
*If YES, repeat from Question 529A*  
*If NO or DON'T KNOW, skip to Question 530*
530. Have you had thyroid SURGERY for a goiter?  
*If YES, ask Questions 530A-530C*  
*If NO or DON'T KNOW, skip to Question 531*
- 530.A. How old were you when you had surgery for a goiter?  
530.B. What is the name of the hospital where you had thyroid surgery for a goiter?  
530.C. May we have your consent to obtain pertinent medical records from the hospital?
531. Have you had thyroid RADIATION TREATMENT for a goiter?  
*If YES, ask Questions 531A-531D*  
*If NO or DON'T KNOW, skip to Question 532*
- 531.A. How old were you when you FIRST had thyroid radiation treatment for a goiter?  
531.B. How old were you when you LAST had thyroid radiation treatment for a goiter?  
531.C. What are the names of the clinics or hospital where you had radiation treatment for a goiter?  
531.D. May we have your consent to obtain pertinent medical records from your doctor?
532. Have you had ANY OTHER TYPE of thyroid treatment for a goiter?  
*If YES, ask Questions 532A-532E*  
*If NO or DON'T KNOW, skip to Question 533*
- 532.A. What type of treatment did you have for a goiter?  
532.B. How old were you when you FIRST had (TREATMENT) for a goiter?  
532.C. How old were you when you LAST had (TREATMENT) for a goiter?  
532.D. What is the name of the doctor who ordered (TREATMENT) for a goiter?  
532.E. May we have your consent to obtain pertinent medical records from your doctor?
533. Has a DOCTOR ever told you that you had any OTHER thyroid problem, other than those we've already talked about?  
*If YES, ask Questions 534-541*  
*If NO or DON'T KNOW, skip to Question 542*
534. What type of thyroid problem was it?  
535. At what age were you diagnosed with (CONDITION)?  
536. What is the full name of the physician who made the diagnosis?  
537. May we have your consent to obtain pertinent medical records from your doctor?

Now I'd like to ask about the different types of treatment you may have had for (CONDITION).

538. Have you taken thyroid MEDICATION for (CONDITION)?  
*If YES, ask Questions 538A-538F*  
*If NO or DON'T KNOW, skip to Question 539*
- 538.A. What kind of medication did you take for (CONDITION)?

- 538.B. How old were you when you FIRST took (MEDICATION) for (CONDITION)?
- 538.C. How old were you when you LAST took (MEDICATION) for (CONDITION)?
- 538.D. What are the names of all of the doctors who have prescribed (MEDICATION) for (CONDITION)?
- 538.E. May we have your consent to obtain pertinent medical records from your doctor?
- 538.F. Have you taken any other thyroid medication for (CONDITION)?
539. Have you had thyroid SURGERY for (CONDITION)?  
*If YES, ask Questions 539A-539C*  
*If NO or DON'T KNOW, skip to Question 540*
- 539.A. How old were you when you had surgery for (CONDITION)?
- 539.B. What is the name of the hospital where you had thyroid surgery for (CONDITION)?
- 539.C. May we have your consent to obtain pertinent medical records from the hospital?
540. Have you had thyroid RADIATION TREATMENT for (CONDITION)?
- 540.A. How old were you when you FIRST had thyroid radiation treatment for (CONDITION)?
- 540.B. How old were you when you LAST had thyroid radiation treatment for (CONDITION)?
- 540.C. What are the names of the clinics or hospital where you had radiation treatment for (CONDITION)?
- 540.D. May we have your consent to obtain pertinent medical records from the clinic or hospital?
541. Have you had ANY OTHER TYPE of thyroid treatment for (CONDITION)?  
*If YES, ask Questions 541A-541E*  
*If NO or DON'T KNOW, skip to Question 542*
- 541.A. What type of treatment did you have for (CONDITION)?
- 541.B. How old were you when you FIRST had (TREATMENT) for (CONDITION)?
- 541.C. How old were you when you LAST had (TREATMENT) for (CONDITION)?
- 541.D. What is the name of the doctor who ordered (TREATMENT) for (CONDITION)?
- 541.E. May we have your consent to obtain pertinent medical records from your doctor?
542. Has a DOCTOR ever given you any thyroid treatment, such as thyroid surgery, radioiodine treatment, thyroid pills or medication, for something OTHER than a thyroid problem?  
*If YES, ask Questions 543-550*  
*If NO or DON'T KNOW, skip to Question 551*
543. Why did you receive this treatment?
544. At what age did you receive this treatment?
545. What is the full name of the physician who prescribed this treatment?
546. May we have your consent to obtain pertinent medical records from your doctor?
547. Have you taken thyroid MEDICATION?  
*If YES, ask Questions 547A-547F*  
*If NO or DON'T KNOW, skip to Question 548*
- 547.A. What kind of medication did you take?
- 547.B. How old were you when you FIRST took (MEDICATION)?
- 547.C. How old were you when you LAST took (MEDICATION)?
- 547.D. What are the names of all of the doctors who have prescribed (MEDICATION)?
- 547.E. May we have your consent to obtain pertinent medical records from your doctor?
- 547.F. Have you taken any other thyroid medication?

*If YES, repeat from Question 547A*  
*If NO or DON'T KNOW, skip to Question 548*

548. Have you had thyroid SURGERY?  
*If YES, ask Questions 548A-548C*  
*If NO or DON'T KNOW, skip to Question 549*
- 548.A. How old were you when you had thyroid surgery?  
548.B. What is the name of the hospital where you had thyroid surgery?  
548.C. May we have your consent to obtain pertinent medical records from the hospital?
549. Have you had thyroid RADIATION TREATMENT?  
*If YES, ask Questions 549A-549D*  
*If NO or DON'T KNOW, skip to Question 550*
- 549.A. How old were you when you FIRST had thyroid radiation treatment?  
549.B. How old were you when you LAST had thyroid radiation treatment?  
549.C. What are the names of the clinics or hospital where you had radiation treatment?  
549.D. May we have your consent to obtain pertinent medical records from the clinic or hospital?
550. Have you had ANY OTHER TYPE of thyroid treatment?  
*If YES, ask Questions 550A-550E*
- 550.A. What type of treatment did you have?  
550.B. How old were you when you FIRST had (TREATMENT)?  
550.C. How old were you when you LAST had (TREATMENT)?  
550.D. What is the name of the doctor who ordered (TREATMENT)?  
550.E. May we have your consent to obtain pertinent medical records from your doctor?
551. Has a doctor ever told you that you had HYPERPARATHYROIDISM?  
*If YES, ask Question 552-557*  
*If NO or DON'T KNOW, skip to Question 600*
552. At what age were you diagnosed with hyperparathyroidism?  
553. What is the full name of the physician who made the diagnosis?  
554. May we have your consent to obtain pertinent medical records from your doctor?
555. Have you ever had surgery for hyperparathyroidism?  
*If YES, ask Questions 556-557*  
*If NO or DON'T KNOW, skip to Question 600*
556. What is the name of the hospital where you had parathyroid surgery for hyperparathyroidism?  
557. May we have your consent to obtain pertinent medical records from the hospital?

SECTION VI: RADIATION TREATMENT  
(QXS 600-616)

The next questions are about medical conditions for which you may have had x-ray or radiation treatment.

600. Has a doctor ever told you that you had cancer (OTHER than any thyroid cancer you may have already told me about)?  
*If YES, ask Questions 601-609*  
*If NO or DON'T KNOW, skip to Question 610*

601. What type of cancer was diagnosed?  
*If YES, ask Questions 602-609*  
*If NO or DON'T KNOW, skip to Question 610*
602. How old were you when this diagnosis was made?
603. Did you receive radiation treatment for this type of cancer?
604. How old were you when you FIRST had radiation treatment?
605. How old were you when you LAST had radiation treatment?
606. How many radiation treatments did you have for this cancer?
607. What is the name of the physician who ordered this treatment?
608. May we have your consent to obtain pertinent medical records from your physician?
609. Has a doctor ever told you that you had any other type of cancer?  
*If YES, repeat from Question 601*  
*If NO or DON'T KNOW, skip to Question 610*

Next I'll be asking you questions about any radiation or x-ray TREATMENTS you may have received to the upper body. *SHOW CARD 1 - Picture of Upper Body.* By "upper body" we mean any part of the body that is shaded on this picture. I'm referring only to radiation or x-rays used to TREAT a condition, Not x-rays used to DIAGNOSE problems like broken bones or dental cavities.

610. Have you ever had any radiation treatments to the upper body for acne?  
*If YES, ask Questions 610A-610E*  
*If NO or DON'T KNOW, skip to Question 611*
- 610.a. On how many different occasions did you have radiation treatments for acne?
- 610.b. How old were you when you had radiation treatment for acne?
- 610.c. Was a lead shield, such as a collar or apron, usually placed over your neck area?
- 610.d. What is the full name of the doctor who ordered these treatments?
- 610.e. May we have your consent to obtain pertinent medical records from your doctor?
611. (Have you ever had any radiation treatments to the upper body) for ring worm?  
*If YES, ask Questions 611A-611E*  
*If NO or DON'T KNOW, skip to Question 612*
- 611.a. On how many different occasions did you have radiation treatments for ring worm?
- 611.b. How old were you when you had radiation treatment for ring worm?
- 611.c. Was a lead shield, such as a collar or apron, usually placed over your neck area?
- 611.d. What is the full name of the doctor who ordered these treatments?
- 611.e. May we have your consent to obtain pertinent medical records from your doctor?
612. (Have you ever had any radiation treatments) for enlarged tonsils?  
*If YES, ask Questions 612A-612E*  
*If NO or DON'T KNOW, skip to Question 613*
- 612.a. On how many different occasions did you have radiation treatments for enlarged tonsils?
- 612.b. How old were you when you had radiation treatment for enlarged tonsils?
- 612.c. Was a lead shield, such as a collar or apron, usually placed over your neck area?
- 612.d. What is the full name of the doctor who ordered these treatments?
- 612.e. May we have your consent to obtain pertinent medical records from your doctor?
613. (Have you ever had any radiation treatments to the upper body) for tuberculosis?  
*If YES, ask Question 613A-613E*  
*If NO or DON'T KNOW, skip to Question 614*
- 613.a. On how many different occasions did you have radiation treatments for tuberculosis?
- 613.b. How old were you when you had radiation treatment for tuberculosis?
- 613.c. Was a lead shield, such as a collar or apron, usually placed over your neck area?
- 613.d. What is the full name of the doctor who ordered these treatments?



613.e. May we have your consent to obtain pertinent medical records from your doctor?

614. (Have you ever had any radiation treatments) for scalp infection?  
*If YES, ask Questions 614A-614E*  
*If NO or DON'T KNOW, skip to Question 615*
- 614.a. On how many different occasions did you have radiation treatments for scalp infection?  
 614.b. How old were you when you had radiation treatment for scalp infection?  
 614.c. Was a lead shield, such as a collar or apron, usually placed over your neck area?  
 614.d. What is the full name of the doctor who ordered these treatments?  
 614.e. May we have your consent to obtain pertinent medical records from your doctor?
615. (Have you ever had any radiation treatments) for enlarged thymus?  
*If YES, ask Questions 615A-616E*  
*If NO or DON'T KNOW, skip to Question 616*
- 615.a. On how many different occasions did you have radiation treatments for this condition?  
 615.b. How old were you when you had radiation treatment for this condition?  
 615.c. Was a lead shield, such as a collar or apron, usually placed over your neck area?  
 615.d. What is the full name of the doctor who ordered these treatments?  
 615.e. May we have your consent to obtain pertinent medical records from your doctor?
616. (Have you ever had any radiation treatments to the upper body) for any other reason?  
*If YES, ask Questions 616A-616E*  
*If NO or DON'T KNOW, skip to Question 700*
- 616.a. What was the reason?  
 616.b. On how many different occasions did you have radiation treatments for (CONDITION)?  
 616.c. How old were you when you had radiation treatment for (CONDITION)?  
 616.d. Was a lead shield, such as a collar or apron, usually placed over your neck area?  
 616.e. What is the full name of the doctor who ordered these treatments?  
 616.f. May we have your consent to obtain pertinent medical records from your doctor?

**SECTION VII: PRESCRIPTION DRUGS**  
 (QXS 700-715)

The next questions are about prescription drugs.

700. Have you ever taken Amiodarone or Cordarone?  
*If YES, ask Questions 701-703*  
*If NO or DON'T KNOW, skip to Question 704*
701. Starting with when you first took (MEDICATION), please tell me during what time periods you have taken this medication.
702. Have you taken (MEDICATION) in the last 6 months?  
 703. How much (MEDICATION) do you take now?
704. Have you ever taken Lithium?  
*If YES, ask Questions 705-707*  
*If NO or DON'T KNOW, skip to Question 708*
705. Starting with when you first took (MEDICATION), please tell me during what time periods you have taken this medication.
706. Have you taken (MEDICATION) in the last 60 days?  
 707. How much (MEDICATION) do you take now?
708. Have you ever taken Dilantin or Tegretol (anti-seizure medication)?  
*If YES, ask Questions 709-711*  
*If NO or DON'T KNOW, skip to Question 612*

709. Starting with when you first took (MEDICATION), please tell me during what time periods you have taken this medication.
710. Have you taken (MEDICATION) in the last 30 days?
711. How much (MEDICATION) do you take now?
712. Have you ever taken Glucocorticoids, such as Prednisone or Hydrocortisone?  
*If YES, ask Questions 713-715*  
*If NO or DON'T KNOW, skip to Question 800*
713. Starting with when you first took (MEDICATION), please tell me during what time periods you have taken this medication.
714. Have you taken (MEDICATION) in the last 30 days?
715. How much (MEDICATION) do you take now?

**SECTION VIII: DENTAL X-RAYS**  
(QXS 800-806)

These last few medical history questions are about routine dental x-rays.

800. Have you ever been to a dentist?  
*If YES, ask Question 801*  
*If NO or DON'T KNOW, skip to Question 900*
801. Have you ever had a dental X-ray?  
*If YES, ask Questions 801-806*  
*If NO or DON'T KNOW, skip to Question 900*
802. How old were you when the first x-ray of your teeth was taken?

We're interested in how often you've had routine dental x-rays and specifically, how these patterns have changed throughout your lifetime.

803. Starting at (AGE IN QX 802/806) how often did you have x-rays taken of your teeth at that time?
804. Was a lead shield (such as an apron or collar) usually placed over the neck area?
805. Did the frequency of having dental x-rays (qx 803) ever change, or did the use of a lead shield ever change?  
*If YES, ask Question 806 then repeat from Question 803*  
*If NO or DON'T KNOW, skip to Question 900*
806. How old were you when this pattern changed?

**SECTION IX: DEMOGRAPHICS**  
(QXS 900-914)

Now I would like to ask some questions about you and your background. If you choose not to answer any one of the questions simply tell me and we will move on to the next question. You may end the interview at any time.

900. Overall how accurate do you think you were able to be in answering the questions in this interview? **SHOW CARD #3**
901. Question Deleted
902. Question Deleted
903. Question Deleted

904. What is your current marital status? **SHOW CARD #4**
905. What is the highest grade or level you attended in school? **SHOW CARD #5**
906. What race or ethnic origin do you consider yourself to be? **SHOW CARD #6**  
*(If NATIVE AMERICAN, ask questions 907 through 909)*  
*(If HISPANIC, skip to question 911)*  
*(Otherwise, skip to question 910)*
907. What is your Native American ancestry?
908. Are you an enrolled member of a Federally recognized Tribe or Nation?
909. Which Tribe or Nation?
910. Are you of Spanish or Hispanic Origin?  
*(If NO, skip to question 912)*
911. What is your Hispanic origin? **SHOW CARD #7**
912. What is your religious preference? **SHOW CARD #8**
913. Last year at this time, how many people, including yourself, were living in your household?
914. In (YEAR BEFORE INTERVIEW DATE), what was your combined household yearly income before taxes? **SHOW CARD #9**

**SECTION X. FAMILIARITY**  
(QX 1000-1007)

Finally, I would like to ask you a few miscellaneous questions.

1000. What, if anything, do you feel contributes to a person developing thyroid disease?
1001. Please tell me all the types of health problems, if any, you feel may be caused by radiation released from Hanford?
1002. How knowledgeable do you think you are about radiation released from Hanford?
1003. **Question deleted**
1004. Do you believe the health of anyone in your family has been affected by radiation from Hanford?
1005. Do you have any comments you would like to add?
1006. We will send you copies of the results from your complete diagnostic evaluation for thyroid disease and if any results are not normal, we will call you. **(Check consent form for permission to contact personal physician)**

***If no permission:***

You indicated on your consent form that you do not want us to contact your personal physician, therefore we will not call or send results to your doctor.

***If permission given:***

You indicated on your consent form that we can send all results to your personal doctor. Do you have your doctor's complete mailing address? [If you call our office by next Friday with your doctor's complete mailing address and phone number, we can send a copy of your results to him or her.]

1007. Would you like to be put on the study's mailing list to receive regular updates of the study's progress?

**CLOSING COMMENTS FOR THE RESPONDENT WHO HAS YET TO HAVE A PHYSICAL EXAM:**

I want to thank you very much for your cooperation. You're now scheduled to have a blood sample collected. I'll go check to see if \_\_\_\_\_ is ready for you at the next station. I'll come back in a moment to get you. **(Check to see if next station is ready)** Thank you again for participating in our study.

TIME INTERVIEW ENDED: \_\_\_\_ \_\_\_\_ : \_\_\_\_ \_\_\_\_ A.M./P.M.

**SECTION XI - INTERVIEWER COMMENTS**

(QXS 1100-1103)

- 1100. Respondent's cooperation was:
- 1101. The quality of the respondent's response was:  
(If HIGH QUALITY or GENERALLY RELIABLE, skip to question 1103)
- 1102. What is the main reason for the unreliable or questionable quality of the interview?
- 1103. Did the respondent sign consent form giving us permission to request records from (HIS/HER) physician(s)?