

Online Data Supplement

A Case Control Etiologic Study of Sarcoidosis: Environmental and Occupational Risk Factors

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Methods

Study Design

Ten U.S. academic medical centers and one coordinating center participated in the design, prospective enrollment, data collection and analysis of a case control, etiologic study of sarcoidosis (ACCESS) (E1). Oversight and funding were provided by the National Heart, Lung, and Blood Institute (NHLBI) (see Appendix A), whose representatives participated in the design, conduct, monitoring, analysis and reporting of the study. Between November 1996 and June 1999, we enrolled 736 cases and 706 controls (resulting in 706 matched case and control pairs). All cases and controls provided informed consent in accordance with a protocol approved by the Institutional Review Board of each participating center. Individuals received modest financial compensation for their participation. Details of the study design are as previously published (E1) and reviewed in brief below.

Cases

We recruited prospectively 736 sarcoidosis cases within predetermined geographic regions surrounding each of the participating academic clinical centers (E1). Referrals to the study resulted from direct advertising, recruitment from the ten medical centers' clinics and hospitals, and outreach to community physicians. Patients met the following inclusion criteria prior to enrollment: 1) tissue confirmation of non-caseating granulomas on biopsy of one or more organs within six months of enrollment, 2) clinical signs or symptoms consistent with sarcoidosis (E2), and 3) age 18 or greater. We excluded individuals with active tuberculosis or who were taking

anti-tuberculosis therapy. Sarcoidosis patients with histories of beryllium exposure were excluded unless they had negative blood beryllium lymphocyte proliferation tests (E3).

Recruited patients provided permission for retrieval of pathology slides for review by the study pathologist in each clinical center, permission for retrieval of medical records and chest radiographs, and completed clinical evaluations and interviewer-administered questionnaires. The clinical characteristics of the study population are reported elsewhere (E4).

Controls

Controls were recruited by random digit dialing methods (E1, E5, E6). After a patient was enrolled in one of the ten clinical centers, a list of telephone numbers in the patient's telephone exchange was prepared by an independent organization with computer programs to generate lists of randomly selected telephone numbers, deleting known business and government office numbers. Using predetermined telephone scripts, telephone interviewers at the study's random digit dialing center called these numbers until they located an individual who matched the case with respect to self-reported race, case's gender, and age (within five years), met inclusion criteria, and indicated that he or she was willing to participate (E1). This individual was then recontacted by telephone and sent a letter by clinical center staff. Study coordinators at each site arranged for the control to complete informed consent and undergo questionnaire administration and venipuncture. On average, 216 random phone calls

were placed to recruit one control per case completing the protocol. This ratio of potential control calls to match a case was comparable to previous research (E6).

Controls were specifically asked and excluded if they had a history of sarcoidosis or medical conditions that made the determination of sarcoidosis uncertain (e.g., granulomatous hepatitis, idiopathic uveitis). We recruited 706 controls within our recruitment time window. Results are reported from the matched pairs analysis for these 706 case and control pairs unless otherwise noted.

Data Collection

Data for cases and controls were collected during in person interviews. Interviewers were trained in how to administer the ACCESS questionnaire by center investigators and by study investigators specializing in occupational and environmental history taking. Cases and controls completed the same exposure questionnaires. Interviewers were not blind to case/control status. After completion of the exposure questionnaires, data were entered on dedicated desktop computers by staff at each clinical center. The coordinating center retrieved data weekly. Checks of confirmatory hard copy data fields and selected dual entry of data were used to monitor accuracy of data collection and entry. Randomly selected audio tape recordings made of each interview were reviewed by an ACCESS site visit team to monitor accuracy of data recording, to assess interviewer technique and ensure consistency of questionnaire administration across centers.

Questionnaire Instrument

Questionnaires were designed to test the *a priori* hypotheses summarized in Appendix B. Based on medical literature review, activities and occupational agents that could plausibly cause sarcoidosis or other granulomatous diseases were included. Interviews followed prepared scripts. The occupational and environmental questions were embedded in larger questionnaires that also included questions regarding demographics, family history, access to health care, and scales measuring psychological variables and socioeconomic status (E1), helping to blind subjects to our hypotheses. In brief, the questionnaire pertaining to occupational and environmental hypotheses consisted of 1) dichotomous questions concerning specific jobs, hobbies, and exposures both at home and at work; 2) a structured interview to obtain a detailed chronology of jobs held for at least six months; and 3) tobacco use based on the American Thoracic Society (ATS) standardized questionnaire (E7). The environmental and occupational survey instrument was not validated, with the exception of the ATS questionnaire segment (E1).

If study participants affirmed exposure, the interviewer inquired systematically about the occurrence of exposure within the time frame three years prior to the date of diagnosis, defined as the date of biopsy-proven granulomatous disease for cases. Controls were asked to report exposure and occupational data relative to the date of histologic diagnosis for their matching cases.

Independent variables

In addition to the analysis of each individual independent variable (e.g., a job title or exposure), we constructed a set of combined variables that grouped similar occupations and industries into categories. The individual variables that entered into each such aggregate variable were constructed prior to the investigators' seeing detailed results of the univariable analysis. Aggregate variables were constructed by consensus of five physician investigators (LN, MR, EB, CR, MT) experienced in occupational health, with categorizations subsequently reviewed and reconciled with the consensus opinion of two experienced industrial hygienists (John Martyny and Charles McCammon).

Statistical Methods

A recruitment goal of 720 cases and 720 controls for ACCESS was specified in order to have sufficient power (90%) to identify statistically significant associations between exposures and case status with an odds ratio (OR) of 2.0 or greater even if the prevalence of the exposure was small (i.e., proportion of controls exposed = 0.05). This large number of cases and controls also permitted stratification of the ACCESS population into smaller groups, while maintaining power of at least 80% to detect moderate effects. There was sufficient power to test hypotheses in which ORs were on the order of 3.0 or greater and when the prevalence of the exposure among controls was at least 0.10.

The primary hypotheses were specified without investigator review of the preliminary data. These hypotheses were tested at an 0.05 alpha level. Certain associations became apparent after the data were reviewed by the investigators. These

results are distinguished in Tables E1-E3 from those that were developed before the data were reviewed. In recognition of the number of hypotheses being considered in this study, the investigators specified that associations identified after the data were reviewed would not be considered statistically significant unless the p-value for the odds ratio was less than 0.01.

Data analysis for matched cases and controls followed the methods outlined by Breslow and Day (E8), using the number of informative pairs and ORs with 95% binomial approximation confidence intervals and p values for each exposure. We used matched pair contingency table methods for estimating the OR and McNemar's test for significance. For continuous variables, differences in the means of controls versus the means of cases were compared using paired t-tests. Point estimates of the differences in case and control means were calculated as well as 95% confidence limits. The *a priori* hypotheses shown in Appendix B were tested at an alpha level of 0.05, two-tailed. The protocol and *a priori* analysis plan were approved by an independent Data and Safety Monitoring Board (DSMB) comprised of pulmonary medicine specialists, statisticians, epidemiologists and a bioethicist (see Appendix A). Associations identified after examination of the data were not considered to provide evidence of a significant association unless the p value was less than 0.01 in testing the null hypothesis that the OR is 1.0.

Exposures that were associated with case control status at the $p = 0.10$ level on univariable analyses were included in a conditional multiple logistic regression model for matched pairs (E8). A backward selection procedure was performed at a 0.05

alpha level. Analyses were performed using SAS software. Data required for inclusion in the multivariable model were available for 704 case control pairs.

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Table E1.**Environmental and Occupational Factors Positively Associated with Sarcoidosis****Occupation/Industry**

<u>Variable</u>	<u>Proportion of Cases</u>	<u>Proportion of Controls</u>	<u>Informative Pairs*</u>	<u>Odds Ratio</u>	<u>Confidence Interval</u>	<u>p value</u>	<u>Tests an <i>a priori</i> Hypothesis‡</u>
Agricultural employment†	0.30	0.23	253	1.46	1.13-1.89	0.004	Yes
Job as physician	0.02	<0.01	12	11.00	1.60-473.47	0.006	Yes
Job in raising birds	0.02	0.01	18	3.50	1.10-14.60	0.031	Yes
Job in automotive manufacturing	0.01	<0.01	9	8.00	1.07-354.98	0.039	Yes
Job as teacher (middle/secondary education)	0.09	0.06	97	1.55	1.02-2.40	0.042	Yes
Job with radiation exposure	0.05	0.03	51	1.83	1.00-3.46	0.049	No

(Table E1 continued)

Environmental and Occupational Factors Positively Associated with Sarcoidosis

Environmental and Occupational Exposures

<u>Variable</u>	<u>Proportion of Cases</u>	<u>Proportion of Controls</u>	<u>Informative Pairs*</u>	<u>Odds Ratio</u>	<u>Confidence Interval</u>	<u>p value</u>	<u>Tests an <i>a priori</i> Hypothesis‡</u>
Insecticide exposures at work	0.22	0.15	207	1.52	1.14-2.04	0.003	Yes
Pesticide-using industry†	0.29	0.23	253	1.41	1.09-1.83	0.008	Yes
Exposure to mold/mildew at work	0.14	0.10	141	1.61	1.13-2.31	0.007	Yes
Exposure to musty odors at work	0.25	0.19	249	1.42	1.09-1.84	0.008	Yes
Ever used central air conditioning at home	0.66	0.61	232	1.39	1.06-1.83	0.015	Yes
Child (age 0 - 10) – lived in town (population < 50,000)	0.43	0.39	268	1.29	1.01-1.66	0.044	No

* “Informative pairs” refers to those pairs of cases and controls that did not have the same reported exposure.

† Aggregate variables

‡ Significant associations that supported *a priori* hypotheses are indicated as “Yes;” those associations that were not testing an *a priori* hypothesis are indicated as “No.”

Table E2.

Environmental and Occupational Factors Negatively Associated with Sarcoidosis

Occupation/Industry

<u>Variable</u>	<u>Proportion of Cases</u>	<u>Proportion of Controls</u>	<u>Informative Pairs</u> *	<u>Odds Ratio</u>	<u>Confidence Interval</u>	<u>p value</u>	<u>Tests an <i>a priori</i> Hypothesis</u> †
Job as waiter/waitress	0.17	0.22	215	0.68	0.51-0.90	0.006	No
Isolated employment†	0.53	0.59	324	0.77	0.61-0.97	0.023	Yes
Job as data processor, typist, computer programmer	0.33	0.38	286	0.77	0.60-0.97	0.029	Yes

Environmental and Occupational Exposures

Ever smoked cigarettes	0.45	0.57	363	0.62	0.50-0.77	<0.001	Yes
Tobacco smoke exposure at time of enrollment† (personal use, all types)	0.10	0.31	232	0.20	0.14-0.29	<0.001	Yes
Tobacco smoke exposure at time of enrollment† (personal use plus passive, all types)	0.58	0.66	321	0.70	0.55-0.88	0.002	Yes

(Table E2. Continued)

Environmental and Occupational Factors Negatively Associated with Sarcoidosis

<u>Variable</u>	<u>Proportion of Cases</u>	<u>Proportion of Controls</u>	<u>Informative Pairs*</u>	<u>Odds Ratio</u>	<u>Confidence Interval</u>	<u>p value</u>	<u>Tests an <i>a priori</i> Hypothesis‡</u>
Childcare or own children (at home; non-paid)	0.48	0.59	316	0.62	0.49-0.78	<0.001	Opposite
Exposure to children (at work and home)†	0.81	0.85	184	0.70	0.52-0.95	0.022	Opposite
Cat (inside the household)	0.25	0.33	272	0.65	0.50-0.83	0.001	Opposite
Animal dust exposure (vocational plus avocational)	0.39	0.44	303	0.77	0.61-0.97	0.029	Opposite
Animal dust exposure (avocational)	0.37	0.42	298	0.77	0.61-0.98	0.032	Opposite
Feathers/down pillow stuffings	0.71	0.77	269	0.71	0.55-0.91	0.007	Opposite
Fish (tank > 10 gallons avocational)	0.29	0.37	339	0.71	0.57-0.89	0.002	Opposite
Exposure to indoor pools (leisure)	0.25	0.31	261	0.73	0.56-0.94	0.013	Opposite

(Table E2. continued)

Environmental and Occupational Factors Negatively Associated with Sarcoidosis

<u>Variable</u>	<u>Proportion of Cases</u>	<u>Proportion of Controls</u>	<u>Informative Pairs</u> *	<u>Odds Ratio</u>	<u>Confidence Interval</u>	<u>p value</u>	<u>Tests an <i>a priori</i> Hypothesis</u> ‡
Exposure to hot tubs (leisure)	0.29	0.35	301	0.76	0.60-0.96	0.021	Opposite
Lived in suburbia within 3 years prior to reference date	0.33	0.38	228	0.75	0.57-0.99	0.040	No
Exposure to auto/truck repair (hobby)	0.14	0.17	158	0.72	0.51-0.99	0.046	No
Exposure to printing (hobby)	0.01	0.02	17	0.31	0.07-1.00	0.049	No

* “Informative pairs” refers to those pairs of cases and controls that did not have the same reported exposure.

† Aggregate Variables

‡ Significant association that supported *a priori* hypotheses are indicated as “Yes;” those associations that were not testing an *a priori* hypothesis are indicated as “No;” those associations that were in the opposite direction anticipated in directional *a priori* hypothesis are indicated as “Opposite.”

Table E3.

Multiple Logistic Regression-Adjusted Odds Ratio Estimates*

<u>Variable</u>	<u>Odds Ratio</u>	<u>Confidence Interval</u>	<u>p value</u>	<u>Tests on a priori Hypothesis ‡</u>
Positive Associations with Sarcoidosis				
Exposure to musty odors, occupational	1.62	(1.24-2.11)	<0.001	Yes
Insecticide exposures, occupational	1.61	(1.13-2.28)	0.008	Yes
Use of air conditioning in home	1.48	(1.10-1.99)	0.010	Yes
Job as middle or high school teacher	1.80	(1.14-2.83)	0.011	Yes
Job with radiation exposure †	2.28	(1.17-4.47)	0.016	No
Job in automobile manufacturing	13.38	(1.48-120.98)	0.021	Yes
Job in cotton ginning	4.98	(1.19-20.89)	0.028	Yes
Job raising birds	3.73	(1.10-12.59)	0.034	Yes
Bird exposure, avocational †	1.49	(1.00-2.21)	0.049	Yes
Negative Associations with Sarcoidosis				
Ever smoked cigarettes	0.65	(0.51-0.82)	<0.001	Yes
Childcare, unpaid	0.64	(0.50-0.81)	<0.001	Opposite
Use of feather/down pillows	0.69	(0.54-0.87)	0.002	Opposite
Cats	0.66	(0.50-0.87)	0.003	Opposite
Hot tub use	0.70	(0.54-0.91)	0.008	Opposite
Job as data processor/typist, programmer	0.70	(0.54-0.91)	0.009	Yes
Fish (tank >10 gallon)	0.74	(0.58-0.94)	0.016	Opposite
Foam pillow use †	0.73	(0.55-0.95)	0.021	No
Hospital volunteer †	0.60	(0.39-0.93)	0.022	No
Gold exposure, occupational †	0.26	(0.08-0.85)	0.026	Opposite
Exposure to welding †	0.40	(0.16-0.96)	0.040	Opposite

* Using backward selection procedure for all variables significant at $p < 0.10$ in univariable analyses.

† Variables that were not statistically significant in univariable analysis.

‡ Significant associations that supported *a priori* hypotheses are indicated as “Yes;” those associations not testing an *a priori* hypothesis are indicated as “No;” those associations that were in the opposite direction anticipated in directional *a priori* hypothesis are indicated as “Opposite.”

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Appendix A

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Appendix B

Environmental and Occupational *a priori* Hypotheses Investigated in A Case Control Etiologic Study of Sarcoidosis (ACCESS)

Hypothesized Exposures, Occupations, Other Environments

Predicted Positive Associations with Sarcoidosis:

Occupations and Industries

Metal dust- and/or metal fume

Healthcare

Education

Childcare (vocational and avocational)

Firefighting

Military

Agriculture

Crops and agricultural products, including lumber/wood

Insecticides/Pesticides

Dusty Occupations/Exposures

Construction

Fiber/fabric exposures

Paper or wood exposures

Crustal dust exposures

(Appendix B, continued)

Agents known to cause hypersensitivity/granulomatous pneumonitis

Microbial bioaerosols

Wet environments with potential aerosol dissemination

Mold

Metal working fluids

Industrial organic dusts

Insecticides/Pesticides

Isocyanates and isocyanate-using industries

Organic dust related to livestock

Birds

Metals known to cause granulomatous inflammation

Aluminum, beryllium, titanium, zirconium

Allergenic metals

(e.g., chromium, cobalt, gold, nickel)

Silicates

Place of Residence (rural)

Predicted Negative Associations with Sarcoidosis:

Employment status (isolated employment)

Animal allergens (Th2 cytokine-inducing antigens)

Tobacco smoke

Personal

Environmental

OCCUPATIONAL HISTORY WORKSHEET

ID No.				-				
Form Type	O	W						

#IF THIS IS A BASELINE INTERVIEW, USE FORM TYPE OW01.

#IF THIS IS A FOLLOW-UP INTERVIEW, USE FORM TYPE OW02.

1. PARTICIPANT'S INITIALS: _____

2. DATE OF INTERVIEW: _____ - _____ - _____
Month Day Year

A. REFERENCE DATE: _____ - _____ - _____
Month Day Year

[COMPLETE BEFORE BEGINNING INTERVIEW]

3. INDICATE THE TIME OF INTERVIEW:

Baseline (01)
Follow-up (02)

If this is a baseline interview, ask Question 4, and then go to Question 6.
If this is a follow-up interview, ask Question 3A.

3A. Has case been selected to give complete job history?

Yes (01)
No (02)

If Yes, ask Questions 4 and 5.
If No, skip Question 4 and ask Question 5.

4. What was your job status as of the reference date?

INTERVIEWER READ LIST

- | | |
|--|-------|
| Employed full-time | (01) |
| Employed part-time | (02) |
| Homemaker, never held a full-time or part-time job for as long as six months | (03) |
| Homemaker, previously held a job for at least six months | (04) |
| Homemaker who works part-time | (05) |
| Retired | (06) |
| Unemployed, with previous work experience | (07) |
| Unemployed with no work experience (never worked) | (08) |
| Student | (09) |
| Disabled, with previous work experience | (10) |
| Disabled, without previous work experience | (11) |

IF THIS IS THE BASELINE INTERVIEW AND THE RESPONSE TO THIS QUESTION IS 03, 08 OR 11, COMPLETE ONLY ITEMS 12 TO 14.

5. What is your current job status?

INTERVIEWER READ LIST

- | | |
|--|-------|
| Employed full-time | (01) |
| Employed part-time | (02) |
| Homemaker, never held a full-time or part-time job for as long as six months | (03) |
| Homemaker, previously held a job for at least six months | (04) |
| Homemaker who works part-time | (05) |
| Retired | (06) |
| Unemployed, with previous work experience | (07) |
| Unemployed with no work experience (never worked) | (08) |
| Student | (09) |
| Disabled, with previous work experience | (10) |
| Disabled, without previous work experience | (11) |

Occupational History Worksheet

THE OCCUPATIONAL HISTORY WORKSHEET IS COMPLETED IN REVERSE CHRONOLOGICAL ORDER STARTING WITH THE MOST RECENT JOB AS OF THE REFERENCE DATE.*

I would like some information about each of the jobs, either part-time or full-time, that you have held for 6 months or more beginning with the job you held just prior to [REFERENCE DATE].* If you changed jobs (e.g., promotion) in the same company, consider this as a new job.

6A What was your job or occupation as of the [REFERENCE DATE]*

IF A PERSON WORKED FOR A COMPANY/GOVERNMENT AGENCY THAT REQUIRED CHANGES IN LOCATION WITHOUT A CHANGE IN JOB DUTIES, THEN THE JOB SHOULD BE LISTED ONCE AND THE DURATION OF THE JOB SHOULD BE THE APPROXIMATE SUM OF THE AMOUNT OF TIME SPENT AT ALL THE WORK SITES.

7. What were your job duties when you worked in this job?

8. What was the name of the employer you worked for in this job?

9. What kind of place was (NAME OF COMPANY); that is, what did they make or do?

10. In what year did you start as a (JOB TITLE)?

11. How long (in years) did you work at this job?

6B What job or occupation did you have before the one we just discussed?

REPEAT ITEMS 6-11 FOR THIS JOB

Q6 JOB OR OCCUPATION	Q7 JOB DUTIES	Q8 NAME OF COMPANY	Q9 TYPE OF BUSINESS	Q10 YEAR STARTED	Q11 DURATION OF JOB
A.					
				19 ____ ____	____ / ____ years / months
B.					
				19 ____ ____	____ / ____ years / months

*For follow-up cases, use current date rather than reference date. If case has been selected to give complete job history, ask for jobs back to beginning of employment. If case has not been selected to give complete job history, ask for jobs back to date of baseline interview.

Occupational History Worksheet

THE OCCUPATIONAL HISTORY WORKSHEET IS COMPLETED IN REVERSE CHRONOLOGICAL ORDER STARTING WITH THE MOST RECENT JOB AS OF THE REFERENCE DATE.*

6C What job or occupation did you have before the one we just discussed? C.

IF A PERSON WORKED FOR A COMPANY/GOVERNMENT AGENCY THAT REQUIRED CHANGES IN LOCATION WITHOUT A CHANGE IN JOB DUTIES, THEN THE JOB SHOULD BE LISTED ONCE AND THE DURATION OF THE JOB SHOULD BE THE APPROXIMATE SUM OF THE AMOUNT OF TIME SPENT AT ALL THE WORK SITES.

7. What were your job duties when you worked in this job?

8. What was the name of the employer you worked for in this job?

9. What kind of place was (NAME OF COMPANY); that is, what did they make or do?

10. In what year did you start as a (JOB TITLE)?

11. How long (in years) did you work at this job?

6D What job or occupation did you have before the one we just discussed?

D.

REPEAT ITEMS 6-11 FOR THIS JOB.

Q6 JOB OR OCCUPATION	Q7 JOB DUTIES	Q8 NAME OF COMPANY	Q9 TYPE OF BUSINESS	Q10 YEAR STARTED	Q11 DURATION OF JOB
				19 ____ ____	____ / ____ years / months
				19 ____ ____	____ / ____ years / months

*For follow-up cases, use current date rather than reference date. If case has been selected to give complete job history, ask for jobs back to beginning of employment. If case has not been selected to give complete job history, ask for jobs back to date of baseline interview.

Occupational History Worksheet

THE OCCUPATIONAL HISTORY WORKSHEET IS COMPLETED IN REVERSE CHRONOLOGICAL ORDER STARTING WITH THE MOST RECENT JOB AS OF THE REFERENCE DATE.*

6E What job or occupation did you have before the one we just discussed? E.

IF A PERSON WORKED FOR A COMPANY/GOVERNMENT AGENCY THAT REQUIRED CHANGES IN LOCATION WITHOUT A CHANGE IN JOB DUTIES, THEN THE JOB SHOULD BE LISTED ONCE AND THE DURATION OF THE JOB SHOULD BE THE APPROXIMATE SUM OF THE AMOUNT OF TIME SPENT AT ALL THE WORK SITES.

7. What were your job duties when you worked in this job?

8. What was the name of the employer you worked for in this job?

9. What kind of place was (NAME OF COMPANY); that is, what did they make or do?

10. In what year did you start as a (JOB TITLE)?

11. How long (in years) did you work at this job? F.

6F What job or occupation did you have before the one we just discussed?

REPEAT ITEMS 6-11 FOR THIS JOB.

Q6 JOB OR OCCUPATION	Q7 JOB DUTIES	Q8 NAME OF COMPANY	Q9 TYPE OF BUSINESS	Q10 YEAR STARTED	Q11 DURATION OF JOB
<p>6E What job or occupation did you have before the one we just discussed? E.</p> <p>IF A PERSON WORKED FOR A COMPANY/GOVERNMENT AGENCY THAT REQUIRED CHANGES IN LOCATION WITHOUT A CHANGE IN JOB DUTIES, THEN THE JOB SHOULD BE LISTED ONCE AND THE DURATION OF THE JOB SHOULD BE THE APPROXIMATE SUM OF THE AMOUNT OF TIME SPENT AT ALL THE WORK SITES.</p> <p>7. What were your job duties when you worked in this job?</p> <p>8. What was the name of the employer you worked for in this job?</p> <p>9. What kind of place was (NAME OF COMPANY); that is, what did they make or do?</p> <p>10. In what year did you start as a (JOB TITLE)?</p>				19 ____ ____	____ / ____ years / months
<p>11. How long (in years) did you work at this job? F.</p> <p>6F What job or occupation did you have before the one we just discussed?</p>				19 ____ ____	____ / ____ years / months

*For follow-up cases, use current date rather than reference date. If case has been selected to give complete job history, ask for jobs back to beginning of employment. If case has not been selected to give complete job history, ask for jobs back to date of baseline interview.

Occupational History Worksheet

THE OCCUPATIONAL HISTORY WORKSHEET IS COMPLETED IN REVERSE CHRONOLOGICAL ORDER STARTING WITH THE MOST RECENT JOB AS OF THE REFERENCE DATE.*

6G What job or occupation did you have before the one we just discussed?

G.

IF A PERSON WORKED FOR A COMPANY/GOVERNMENT AGENCY THAT REQUIRED CHANGES IN LOCATION WITHOUT A CHANGE IN JOB DUTIES, THEN THE JOB SHOULD BE LISTED ONCE AND THE DURATION OF THE JOB SHOULD BE THE APPROXIMATE SUM OF THE AMOUNT OF TIME SPENT AT ALL THE WORK SITES.

7. What were your job duties when you worked in this job?

8. What was the name of the employer you worked for in this job?

9. What kind of place was (NAME OF COMPANY); that is, what did they make or do?

10. In what year did you start as a (JOB TITLE)?

H.

11. How long (in years) did you work at this job?

6H What job or occupation did you have before the one we just discussed?

REPEAT ITEMS 6-11 FOR THIS JOB.

Q6 JOB OR OCCUPATION	Q7 JOB DUTIES	Q8 NAME OF COMPANY	Q9 TYPE OF BUSINESS	Q10 YEAR STARTED	Q11 DURATION OF JOB
				19 ____ ____	____ / ____ years / months
				19 ____ ____	____ / ____ years / months

*For follow-up cases, use current date rather than reference date. If case has been selected to give complete job history, ask for jobs back to beginning of employment. If case has not been selected to give complete job history, ask for jobs back to date of baseline interview.

Occupational History Worksheet

THE OCCUPATIONAL HISTORY WORKSHEET IS COMPLETED IN REVERSE CHRONOLOGICAL ORDER STARTING WITH THE MOST RECENT JOB AS OF THE REFERENCE DATE.*

6I What job or occupation did you have before the one we just discussed? I.

IF A PERSON WORKED FOR A COMPANY/GOVERNMENT AGENCY THAT REQUIRED CHANGES IN LOCATION WITHOUT A CHANGE IN JOB DUTIES, THEN THE JOB SHOULD BE LISTED ONCE AND THE DURATION OF THE JOB SHOULD BE THE APPROXIMATE SUM OF THE AMOUNT OF TIME SPENT AT ALL THE WORK SITES.

7. What were your job duties when you worked in this job?

8. What was the name of the employer you worked for in this job?

9. What kind of place was (NAME OF COMPANY); that is, what did they make or do?

10. In what year did you start as a (JOB TITLE)?

11. How long (in years) did you work at this job? J.

6J What job or occupation did you have before the one we just discussed?

REPEAT ITEMS 6-11 FOR THIS JOB.

Q6 JOB OR OCCUPATION	Q7 JOB DUTIES	Q8 NAME OF COMPANY	Q9 TYPE OF BUSINESS	Q10 YEAR STARTED	Q11 DURATION OF JOB
<p>6I What job or occupation did you have before the one we just discussed? I.</p> <p>IF A PERSON WORKED FOR A COMPANY/GOVERNMENT AGENCY THAT REQUIRED CHANGES IN LOCATION WITHOUT A CHANGE IN JOB DUTIES, THEN THE JOB SHOULD BE LISTED ONCE AND THE DURATION OF THE JOB SHOULD BE THE APPROXIMATE SUM OF THE AMOUNT OF TIME SPENT AT ALL THE WORK SITES.</p> <p>7. What were your job duties when you worked in this job?</p> <p>8. What was the name of the employer you worked for in this job?</p> <p>9. What kind of place was (NAME OF COMPANY); that is, what did they make or do?</p> <p>10. In what year did you start as a (JOB TITLE)?</p>				19 ____ ____	____ / ____ years / months
<p>11. How long (in years) did you work at this job? J.</p> <p>6J What job or occupation did you have before the one we just discussed?</p>				19 ____ ____	____ / ____ years / months

*For follow-up cases, use current date rather than reference date. If case has been selected to give complete job history, ask for jobs back to beginning of employment. If case has not been selected to give complete job history, ask for jobs back to date of baseline interview.

Occupational History Worksheet

THE OCCUPATIONAL HISTORY WORKSHEET IS COMPLETED IN REVERSE CHRONOLOGICAL ORDER STARTING WITH THE MOST RECENT JOB AS OF THE REFERENCE DATE.*

6K What job or occupation did you have before the one we just discussed? K.

IF A PERSON WORKED FOR A COMPANY/GOVERNMENT AGENCY THAT REQUIRED CHANGES IN LOCATION WITHOUT A CHANGE IN JOB DUTIES, THEN THE JOB SHOULD BE LISTED ONCE AND THE DURATION OF THE JOB SHOULD BE THE APPROXIMATE SUM OF THE AMOUNT OF TIME SPENT AT ALL THE WORK SITES.

7. What were your job duties when you worked in this job?

8. What was the name of the employer you worked for in this job?

9. What kind of place was (NAME OF COMPANY); that is, what did they make or do?

10. In what year did you start as a (JOB TITLE)?

11. How long (in years) did you work at this job? L.

6L What job or occupation did you have before the one we just discussed?

REPEAT ITEMS 6-11 FOR THIS JOB.

Q6 JOB OR OCCUPATION	Q7 JOB DUTIES	Q8 NAME OF COMPANY	Q9 TYPE OF BUSINESS	Q10 YEAR STARTED	Q11 DURATION OF JOB
<p>19 ____ ____</p>					<p>____ / ____ years / months</p>
<p>19 ____ ____</p>					<p>____ / ____ years / months</p>

*For follow-up cases, use current date rather than reference date. If case has been selected to give complete job history, ask for jobs back to beginning of employment. If case has not been selected to give complete job history, ask for jobs back to date of baseline interview.

Occupational History Worksheet

THE OCCUPATIONAL HISTORY WORKSHEET IS COMPLETED IN REVERSE CHRONOLOGICAL ORDER STARTING WITH THE MOST RECENT JOB AS OF THE REFERENCE DATE.*

6M What job or occupation did you have before the one we just discussed? M.

IF A PERSON WORKED FOR A COMPANY/GOVERNMENT AGENCY THAT REQUIRED CHANGES IN LOCATION WITHOUT A CHANGE IN JOB DUTIES, THEN THE JOB SHOULD BE LISTED ONCE AND THE DURATION OF THE JOB SHOULD BE THE APPROXIMATE SUM OF THE AMOUNT OF TIME SPENT AT ALL THE WORK SITES.

7. What were your job duties when you worked in this job?

8. What was the name of the employer you worked for in this job?

9. What kind of place was (NAME OF COMPANY); that is, what did they make or do?

10. In what year did you start as a (JOB TITLE)?

11. How long (in years) did you work at this job? N.

6N What job or occupation did you have before the one we just discussed?

REPEAT ITEMS 6-11 FOR THIS JOB.

Q6 JOB OR OCCUPATION	Q7 JOB DUTIES	Q8 NAME OF COMPANY	Q9 TYPE OF BUSINESS	Q10 YEAR STARTED	Q11 DURATION OF JOB
<p>19 ____ ____</p>				19 ____ ____	____ / ____ years / months
<p>19 ____ ____</p>				19 ____ ____	____ / ____ years / months

*For follow-up cases, use current date rather than reference date. If case has been selected to give complete job history, ask for jobs back to beginning of employment. If case has not been selected to give complete job history, ask for jobs back to date of baseline interview.

12. **Interviewer:**

A. **Signature:** _____

B. **ACCESS Staff No.:** _____ - _____

13. **Research Coordinator:**

A. **Signature:** _____

B. **ACCESS Staff No.:** _____ - _____

14. **Date form completed:**

_____ - _____ - _____
Month Day Year

OCCUPATIONAL AND RECREATIONAL QUESTIONNAIRE

ID No.				-				
Form Type	O	R	0	1				

1. **SUBJECT'S INITIALS:** _____

2. **DATE OF INTERVIEW:** _____ - _____ - _____
Month Day Year

A. **REFERENCE DATE:** _____ - _____ - _____
(COMPLETE PRIOR TO INTERVIEW) Month Day Year

B. **REFERENCE PERIOD:** (1) _____ - _____ - _____
(COMPLETE PRIOR TO INTERVIEW) to Month Day Year

(2) _____ - _____ - _____
Month Day Year

3. **WAS PARTICIPANT UNEMPLOYED WITH NO WORK EXPERIENCE OR DISABLED WITHOUT PREVIOUS WORK EXPERIENCE? (SEE FORM 11, QUESTION 3.)** Yes No
(1) (2)

**IF YES, GO TO QUESTION 80.
IF NO, CONTINUE WITH SCRIPT.**

ACTIVITIES ON THE JOB

Now I would like to ask you some questions about specific job related activities. I will read slowly from a long list and ask you whether you have **ever** had a job — even if the job lasted less than six months and was before [reference period] — that involved any of the following activities. Please tell me if you have worked in any of them and if you worked on the job for more or less than one year. I will also be asking if the activity occurred during the reference period. As you think about this, please feel free to use the anchor dates we discussed to help you determine if the activity was near one of the special dates.

USE THE ANCHOR DATES TO ESTABLISH IF THE EVENT HAPPENED IN THE REFERENCE PERIOD. IF PARTICIPANT ANSWERS “NEVER”, GO TO THE NEXT ACTIVITY.

ASK EACH ACTIVITY IN TURN AND PAUSE BRIEFLY. FOR EACH ACTIVITY, IF PATIENT DOESN'T ANSWER, CHECK NEVER AND GO TO THE NEXT ACTIVITY.

		A			B	
		<u>Employment</u>			<u>More Than One Year</u>	
		Never	Ended Job Before Reference Period	Current Employment or Ended in the Reference Period	Yes	No
4.	Aircraft manufacturing	(1)	(2)	(3)	(1)	(2)
5.	U.S. Army	(1)	(2)	(3)	(1)	(2)
6.	U.S. Navy	(1)	(2)	(3)	(1)	(2)
7.	U.S. Air Force	(1)	(2)	(3)	(1)	(2)
8.	U.S. Marines	(1)	(2)	(3)	(1)	(2)
9.	Other branch of armed forces	(1)	(2)	(3)	(1)	(2)
10.	Nuclear worker	(1)	(2)	(3)	(1)	(2)
11.	Animal laboratory worker	(1)	(2)	(3)	(1)	(2)
12.	Assembling or fabricating	(1)	(2)	(3)	(1)	(2)
13.	Auto or truck repair	(1)	(2)	(3)	(1)	(2)
14.	Automotive manufacturing	(1)	(2)	(3)	(1)	(2)
15.	Bank teller	(1)	(2)	(3)	(1)	(2)
16.	Raising birds	(1)	(2)	(3)	(1)	(2)
17.	Carpentry or woodworking	(1)	(2)	(3)	(1)	(2)
18.	Cashier	(1)	(2)	(3)	(1)	(2)
19.	Child care worker (i.e., children under the age of 18)	(1)	(2)	(3)	(1)	(2)
20.	Cleaning private household, domestic worker (Do not include cleaning your own house.)	(1)	(2)	(3)	(1)	(2)
21.	Clerical or office work	(1)	(2)	(3)	(1)	(2)
22.	Construction	(1)	(2)	(3)	(1)	(2)

		A			B	
		<u>Employment</u>			<u>More Than One Year</u>	
		Never	Ended Job Before Reference Period	Current Employment or Ended in the Reference Period	Yes	No
23.	In a cork factory	(1)	(2)	(3)	(1)	(2)
24.	Demolition of buildings	(1)	(2)	(3)	(1)	(2)
25.	Cotton ginning	(1)	(2)	(3)	(1)	(2)
26.	Textile making or garment industry	(1)	(2)	(3)	(1)	(2)
27.	Data processor, typist; computer programmer	(1)	(2)	(3)	(1)	(2)
28.	Electrical or electronic worker	(1)	(2)	(3)	(1)	(2)
29.	Farming, ranching, farm laborer (wage laborer)	(1)	(2)	(3)	(1)	(2)
30.	Fire fighter	(1)	(2)	(3)	(1)	(2)
31.	Flight attendant	(1)	(2)	(3)	(1)	(2)
32.	Forestry work	(1)	(2)	(3)	(1)	(2)
33.	In a sawmill	(1)	(2)	(3)	(1)	(2)
34.	In a pulpmill	(1)	(2)	(3)	(1)	(2)
35.	Glass making	(1)	(2)	(3)	(1)	(2)
36.	Hairdressing or cosmetology	(1)	(2)	(3)	(1)	(2)
37.	House painting	(1)	(2)	(3)	(1)	(2)
38.	Commercial printing	(1)	(2)	(3)	(1)	(2)
39.	Jewelry making	(1)	(2)	(3)	(1)	(2)
40.	Laundry and dry cleaning	(1)	(2)	(3)	(1)	(2)
41.	Machine operator, assembler or inspector	(1)	(2)	(3)	(1)	(2)
42.	Meat packing	(1)	(2)	(3)	(1)	(2)

		A			B	
		<u>Employment</u>			<u>More Than One Year</u>	
		Never	Ended Job Before Reference Period	Current Employment or Ended in the Reference Period	Yes	No
43.	Meat wrapping	(1)	(2)	(3)	(1)	(2)
44.	Any type of mining	(1)	(2)	(3)	(1)	(2)
45.	In a nursing home or long-term care facility	(1)	(2)	(3)	(1)	(2)
46.	Nurses' aide	(1)	(2)	(3)	(1)	(2)
47.	Registered nurse or licensed practical nurse	(1)	(2)	(3)	(1)	(2)
48.	Hospital worker	(1)	(2)	(3)	(1)	(2)
49.	Medical technologist or medical technician	(1)	(2)	(3)	(1)	(2)
50.	Social worker/mental health worker	(1)	(2)	(3)	(1)	(2)
51.	Physician	(1)	(2)	(3)	(1)	(2)
52.	Dentist, dental product maker, or dental technician	(1)	(2)	(3)	(1)	(2)
53.	Respiratory therapies	(1)	(2)	(3)	(1)	(2)
54.	A motor vehicle operator (truck, bus, car driver)	(1)	(2)	(3)	(1)	(2)
55.	In plant nursery or as a florist	(1)	(2)	(3)	(1)	(2)
56.	Plastics manufacturing	(1)	(2)	(3)	(1)	(2)
57.	Working with resins	(1)	(2)	(3)	(1)	(2)
58.	Polyurethane foam manufacturing	(1)	(2)	(3)	(1)	(2)
59.	Postal worker	(1)	(2)	(3)	(1)	(2)
60.	Pottery making or ceramics	(1)	(2)	(3)	(1)	(2)

		A			B	
		<u>Employment</u>			<u>More Than One Year</u>	
		Never	Ended Job Before Reference Period	Current Employment or Ended in the Reference Period	Yes	No
61.	Working in a quarry	(1)	(2)	(3)	(1)	(2)
62.	In a sales occupation	(1)	(2)	(3)	(1)	(2)
63.	Sandblasting	(1)	(2)	(3)	(1)	(2)
64.	Smelting in a foundry	(1)	(2)	(3)	(1)	(2)
65.	Stone cutting or polishing	(1)	(2)	(3)	(1)	(2)
66.	Teacher (preschool and kindergarten)	(1)	(2)	(3)	(1)	(2)
67.	Teacher (elementary 1 through 6)	(1)	(2)	(3)	(1)	(2)
68.	Teacher (middle and secondary)	(1)	(2)	(3)	(1)	(2)
69.	Teacher (post-high school educator)	(1)	(2)	(3)	(1)	(2)
70.	Tunnel construction	(1)	(2)	(3)	(1)	(2)
71.	Veterinarian/veterinary work	(1)	(2)	(3)	(1)	(2)
72.	Waitress or waiter	(1)	(2)	(3)	(1)	(2)
73.	Food preparation	(1)	(2)	(3)	(1)	(2)
74.	Welding	(1)	(2)	(3)	(1)	(2)
75.	Rubber factory worker	(1)	(2)	(3)	(1)	(2)
76.	In a pet store	(1)	(2)	(3)	(1)	(2)
77.	In an occupation with radiation exposure	(1)	(2)	(3)	(1)	(2)

TELL RESPONDENT "THIS IS THE END OF THE LIST."

78. In your office or indoor working environment, other than in the workplace bathrooms have you ever noticed any of the following conditions? **IF YES, DETERMINE IF IN REFERENCE PERIOD AND IF DURATION IS MORE THAN ONE YEAR.**

		A			B	
		<u>Exposure</u>			<u>More Than One Year</u>	
		Never	Ended Before Reference Period	Current or Ended in the Reference Period	Yes	No
(1)	High humidity	(1)	(2)	(3)	(1)	(2)
(2)	Water damage to furnishings, ceiling, tiles, or carpets	(1)	(2)	(3)	(1)	(2)
(3)	Obvious mold or mildew not in a bathroom	(1)	(2)	(3)	(1)	(2)
(4)	Musty or moldy odors	(1)	(2)	(3)	(1)	(2)

79. Were you ever around any animals in your work? (1) (2) (3) (1) (2)

**IF YES, DETERMINE IF IN REFERENCE PERIOD AND IF DURATION IS MORE THAN ONE YEAR, AND ANSWER ITEM C.
IF NO, GO TO QUESTION 80.**

C. What types of animals? (1) _____
(2) _____
(3) _____
(4) _____

ACTIVITIES NOT RELATED TO WORK

Now I want to ask about some activities that you may have been involved in which were not related to your work, either at home or elsewhere. Once again, I am going to read slowly from a long list of activities. For each activity, please tell me whether you ever did the activity, whether you did it between [reference period start date] and [reference period end date] and whether you continued the activity for more or less than one year.

These are not questions about cumulative time spent in the activity; rather they are questions about the time intervals over which the case/control participated in the activity. If an activity is seasonal, count one season as a year (e.g., swimming for the summer is one year).

		A			B	
		<u>Exposure</u>			<u>More Than One Year</u>	
		Never	Ended Before Reference Period	Current or Ended in the Reference Period	Yes	No
80.	Auto or truck repair	(1)	(2)	(3)	(1)	(2)
81.	Raising or tending birds	(1)	(2)	(3)	(1)	(2)
82.	Carpentry or woodworking	(1)	(2)	(3)	(1)	(2)
83.	Child care or baby sitting your own children	(1)	(2)	(3)	(1)	(2)
84.	Regular home cleaning	(1)	(2)	(3)	(1)	(2)
85.	Exercising in a health club	(1)	(2)	(3)	(1)	(2)
86.	Farming	(1)	(2)	(3)	(1)	(2)
87.	Ranching	(1)	(2)	(3)	(1)	(2)
88.	Firefighting	(1)	(2)	(3)	(1)	(2)
89.	Gardening	(1)	(2)	(3)	(1)	(2)
90.	Hairdressing or cosmetology	(1)	(2)	(3)	(1)	(2)
91.	Hospital or health care volunteer	(1)	(2)	(3)	(1)	(2)
92.	Jewelry making	(1)	(2)	(3)	(1)	(2)
93.	Leather working	(1)	(2)	(3)	(1)	(2)
94.	U.S. Army Reserves / National Guard	(1)	(2)	(3)	(1)	(2)
95.	U.S. Navy Reserves	(1)	(2)	(3)	(1)	(2)

		A			B	
		<u>Exposure</u>			<u>More Than One Year</u>	
		Never	Ended Before Reference Period	Current or Ended in the Reference Period	Yes	No
96.	U.S. Air Force Reserves / National Guard	(1)	(2)	(3)	(1)	(2)
97.	U.S. Marines Reserves	(1)	(2)	(3)	(1)	(2)
98.	Other branch of armed forces reserves	(1)	(2)	(3)	(1)	(2)
99.	Pottery making (ceramics)	(1)	(2)	(3)	(1)	(2)
100.	Painting pictures	(1)	(2)	(3)	(1)	(2)
101.	Printing	(1)	(2)	(3)	(1)	(2)
102.	Spray painting automobiles or other vehicles	(1)	(2)	(3)	(1)	(2)
103.	Spinning or weaving	(1)	(2)	(3)	(1)	(2)
104.	Stone cutting or polishing	(1)	(2)	(3)	(1)	(2)
105.	Swimming in an indoor pool	(1)	(2)	(3)	(1)	(2)
106.	Using a hot tub or whirlpool	(1)	(2)	(3)	(1)	(2)
107.	Using a sauna	(1)	(2)	(3)	(1)	(2)
108.	Welding	(1)	(2)	(3)	(1)	(2)
109.	Other exposure	(1)	(2)	(3)	(1)	(2)
	Specify: _____					
110.	Other exposure	(1)	(2)	(3)	(1)	(2)
	Specify: _____					

111. **INTERVIEWER:**

A. **SIGNATURE:**

B. **ACCESS STAFF NO.:**

____ - ____ - ____ - ____

112. **RESEARCH COORDINATOR:**

A. **SIGNATURE:**

B. **ACCESS STAFF NO.:**

____ - ____ - ____ - ____

113. **DATE FORM COMPLETED:**

____ - ____ - ____
Month Day Year

ENVIRONMENTAL QUESTIONNAIRE

ID No.				-				
Form Type	E	Q	0	1				

1. **SUBJECT'S INITIALS:** _____

2. **DATE OF INTERVIEW:**
_____ - _____ - _____
Month Day Year

A. **REFERENCE DATE:**
(COMPLETE PRIOR TO INTERVIEW)
Year _____ - _____ - _____
Month Day

B. **REFERENCE PERIOD:** (1) _____ - _____ - _____
(COMPLETE PRIOR TO INTERVIEW)
Year Month Day

to
(2) _____ - _____ - _____
Month Day Year

HOUSEHOLD CHARACTERISTICS

Now I want to ask some questions about the house(s) you have lived in. As we talk about these conditions or exposures, please tell me if you have been exposed to these conditions and if you were exposed for more or less than one year. I will also be asking if any exposure occurred during the reference period. As you think about this, please feel free to use the anchor dates we discussed to help you determine if the exposure was near one of the special dates. We are looking for total exposure, so if you had an exposure for six months in one period and an exposure of eight months in another period, your total exposure would be for more than one year. Respond to seasonal exposures as if they were for a full year even if the exposure was for a few months (e.g., swimming).

USE THE ANCHOR DATES TO ESTABLISH IF THE EXPOSURE HAPPENED IN THE REFERENCE PERIOD. IF PARTICIPANT ANSWERS "NEVER" to EXPOSURE, GO TO THE NEXT ACTIVITY.

	A			B	
	<u>Exposure</u>			<u>More Than One Year</u>	
	Never	Ended Before Reference Period	Current or Ended in the Reference Period	Yes	No
3. Have you ever used a wood or coal stove to heat your home?	(1)	(2)	(3)	(1)	(2)

IF YES, DETERMINE IF IN REFERENCE PERIOD AND IF MORE THAN ONE YEAR DURATION AND ANSWER ITEM C. IF NO, GO TO QUESTION 4.

C. During the heating season, did you use the wood or coal stove:

INTERVIEWER READ LIST

- Daily (1)
- Several times/week (2)
- Weekly (3)
- Less than weekly (4)
- Unknown (5)

4. Have you ever used a wood or coal burning fireplace with an open flame in your home?	(1)	(2)	(3)	(1)	(2)
---	-------	-------	-------	-------	-------

IF YES, DETERMINE IF IN REFERENCE PERIOD AND IF MORE THAN ONE YEAR DURATION AND ANSWER ITEM C IF NO, GO TO QUESTION 5.

4. (Continued)

C. During the heating season, did you use the fireplace:

INTERVIEWER READ LIST

- Daily (1)
- Several times/week (2)
- Weekly (3)
- Less than weekly (4)
- Unknown (5)

I'm going to read you a list of devices. For each device, tell me if you ever used it in your home, whether you used it during the reference period and whether the period of use was more than one year.

	A			B	
	<u>Exposure</u>			<u>More Than One Year</u>	
	Never	Ended Before Reference Period	Current or Ended in the Reference Period	Yes	No
5. Humidifier	(1)	(2)	(3)	(1)	(2)
6. Air cleaner or purifier	(1)	(2)	(3)	(1)	(2)
7. Cool mist vaporizer	(1)	(2)	(3)	(1)	(2)
8. Sauna	(1)	(2)	(3)	(1)	(2)
9. Hot tub	(1)	(2)	(3)	(1)	(2)

Next, I'm going to read you a list of types of cooling equipment. We'll be using the same type of responses we just used for other devices.

10. Central air conditioning	(1)	(2)	(3)	(1)	(2)
11. Window air conditioners	(1)	(2)	(3)	(1)	(2)
12. Fans	(1)	(2)	(3)	(1)	(2)
13. Evaporative (swamp cooler)	(1)	(2)	(3)	(1)	(2)
14. Other types of cooling equipment	(1)	(2)	(3)	(1)	(2)

Now I am going to ask you about other conditions in your home.

	A			B	
	<u>Exposure</u>			<u>More Than One Year</u>	
	Never	Ended Before Reference Period	Current or Ended in the Reference Period	Yes	No
15. Did your bathroom(s) ever have visible mold or mildew on indoor surfaces?	(1)	(2)	(3)	(1)	(2)
16. Did any other room, including the basement, ever have visible mold or mildew?	(1)	(2)	(3)	(1)	(2)
17. Did your home or basement ever have a problem with leaks or water damage?	(1)	(2)	(3)	(1)	(2)
IF NEVER, GO TO QUESTION 19 OTHERWISE ANSWER QUESTION 18.					
18. Were the carpets wet in the area where there were leaks or water damage?	(1)	(2)	(3)	(1)	(2)
19. Did you ever vent your clothes dryer exhaust into the house or basement?	(1)	(2)	(3)	(1)	(2)
20. Did you ever see rats or mice or rat or mouse droppings where you lived?	(1)	(2)	(3)	(1)	(2)
21. Have you ever had a problem with large numbers of insects in your home?	(1)	(2)	(3)	(1)	(2)

I'm going to read a list of animals. Please tell me if you, or anyone living in your house, ever had any of these animals that stayed inside your home. I will also ask if you had these animals during the reference period and if you had them for more than one year.

		A			B	
		<u>Exposure</u>			<u>More Than One Year</u>	
		Never	Ended Before Reference Period	Current or Ended in the Reference Period	Yes	No
22.	Dogs	(1)	(2)	(3)	(1)	(2)
23.	Cats	(1)	(2)	(3)	(1)	(2)
24.	Rabbits	(1)	(2)	(3)	(1)	(2)
25.	Gerbils, hamsters, or guinea pigs	(1)	(2)	(3)	(1)	(2)
26.	Other mammals	(1)	(2)	(3)	(1)	(2)
	Specify: _____					
27.	Pigeons	(1)	(2)	(3)	(1)	(2)
28.	Parakeets	(1)	(2)	(3)	(1)	(2)
29.	Other birds	(1)	(2)	(3)	(1)	(2)
	Specify: _____					
30.	Fish in a large fish tank (more than 10 gallons)	(1)	(2)	(3)	(1)	(2)
31.	Fish in a small fish tank (less than 10 gallons)	(1)	(2)	(3)	(1)	(2)
32.	Turtles	(1)	(2)	(3)	(1)	(2)
33.	Lizards or snakes	(1)	(2)	(3)	(1)	(2)
34.	Frogs or salamanders	(1)	(2)	(3)	(1)	(2)

I'm going to read a list of birds. Please tell me if you, or anyone living in your house, ever raised or bred the following birds, whether you or they raised these birds during the reference period and if you or they raised them for more than one year.

	A Exposure			B More Than One Year	
	Never	Ended Before Reference Period	Current or Ended in the Reference Period	Yes	No
		(1)	(2)	(3)	(1)
35. Chickens	(1)	(2)	(3)	(1)	(2)
36. Turkeys	(1)	(2)	(3)	(1)	(2)
37. Pigeons	(1)	(2)	(3)	(1)	(2)
38. Have you ever raised any <u>other</u> animals?				Yes (1)	No (2)

IF YES, ASK THE PARTICIPANT WHAT TYPE OF ANIMAL, WHETHER THEY RAISED THE ANIMAL DURING THE REFERENCE PERIOD AND IF THEY RAISED THEM FOR MORE THAN ONE YEAR. IF NO, GO TO QUESTION 39.

(A) <u>Animal</u>	(B) More Than <u>One Year</u>		(C) During Reference <u>Period</u>	
	Yes	No	Yes	No
(1) _____	(1)	(2)	(1)	(2)
(2) _____	(1)	(2)	(1)	(2)
(3) _____	(1)	(2)	(1)	(2)
(4) _____	(1)	(2)	(1)	(2)

I am going to read you a list of pillow stuffings. For each one, please tell me if you ever used pillows with that stuffing and if you did, whether you used it during the reference period, whether you used it for more than one year, and if this stuffing seemed to cause wheezing, coughing or breathing problems.

IF NEVER OR DON'T KNOW, GO TO NEXT QUESTION.

	A				B		C	
	<u>Exposure</u>				<u>More Than One Year</u>		<u>Breathing Problems</u>	
	Never	Ended Before Reference Period	Current or Ended in the Reference Period	Don't Know	Yes	No	Yes	No
39. Feathers or down	(1)	(2)	(3)	(4)	(1)	(2)	(1)	(2)
40. Straw	(1)	(2)	(3)	(4)	(1)	(2)	(1)	(2)
41. Corn husks	(1)	(2)	(3)	(4)	(1)	(2)	(1)	(2)
42. Foam	(1)	(2)	(3)	(4)	(1)	(2)	(1)	(2)

43. As part of your normal routine, do you usually take a bath or a shower?

ANSWER BOTH IF PARTICIPANT SAYS SOMETIMES HE/SHE DOES ONE AND SOMETIMES THE OTHER OR IF HE/SHE SAYS "SHOWER IN MORNING AND BATH AT NIGHT" ETC.

- Bath (1)
- Shower (2)
- Both (3)
- Neither (4)

A. How often do you take a bath or shower?

- Daily (1)
- Several times per week (2)
- Weekly (3)
- Less than weekly (4)

SPECIFIC EXPOSURES CHART

Now I would like to ask some questions that deal with specific materials or substances that have been in the air (as dust, fumes or vapor) in your JOBS or in your HOBBIES, at work or at home. Wearing these metals in jewelry does not count as an exposure.

ASK ITEM A FOR EACH MATERIAL LISTED IN THE SPECIFIC EXPOSURES CHART.

A. Have you ever been exposed to [material/substance] as dust or fumes? **IF NEVER OR DON'T KNOW, ASK EXPOSURE (ITEM A) ABOUT NEXT MATERIAL.**

B. Were you exposed to [material/substance] for more than one year?

C. Was your exposure on the job or away from the job? **OBTAIN SUFFICIENT INFORMATION TO ESTABLISH IF EXPOSURE OCCURRED ON THE JOB (OCCUPATIONAL) OR IN SOME OTHER NON-OCCUPATIONAL SETTING (NON-OCC). EXPOSURE OCCURRING BECAUSE OF LIVING NEAR A FACTORY OR OTHER SOURCE IS NON-OCCUPATIONAL. IF AFTER TALKING TO THE RESPONDENT, YOU CANNOT MAKE A DECISION ABOUT THE TYPE OF EXPOSURE, CHECK "UNSURE."**

MATERIAL	A EXPOSURE?	B MORE THAN ONE YEAR?	C MANNER OF EXPOSURE? (describe) (code)
44. Aluminum	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
45. Beryllium	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
46. Chromium	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
47. Cobalt	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
48. Gold	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
49. Nickel	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)

SPECIFIC EXPOSURES CHART

ASK ITEM A FOR EACH MATERIAL LISTED IN THE SPECIFIC EXPOSURES CHART.

A. Have you ever been exposed to [material/substance] as dust or fumes? **IF NEVER OR DON'T KNOW, ASK EXPOSURE (ITEM A) ABOUT NEXT MATERIAL.**

B. Were you exposed to [material/substance] for more than one year?

C. Was your exposure on the job or away from the job? **OBTAIN SUFFICIENT INFORMATION TO ESTABLISH IF EXPOSURE OCCURRED ON THE JOB (OCCUPATIONAL) OR IN SOME OTHER NON-OCCUPATIONAL SETTING (NON-OCC). EXPOSURE OCCURRING BECAUSE OF LIVING NEAR A FACTORY OR OTHER SOURCE IS NON-OCCUPATIONAL. IF AFTER TALKING TO THE RESPONDENT, YOU CANNOT MAKE A DECISION ABOUT THE TYPE OF EXPOSURE, CHECK "UNSURE."**

MATERIAL	A EXPOSURE?	B MORE THAN ONE YEAR?	C MANNER OF EXPOSURE? (describe) (code)
50. Platinum	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
51. Titanium	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
52. Zirconium	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
53. Other metals, specify: (1) _____ (2) _____	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
54. Talc	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
55. Silica	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)

SPECIFIC EXPOSURES CHART

MATERIAL	A EXPOSURE?	B MORE THAN ONE YEAR?	C MANNER OF EXPOSURE? (describe) (code)
56. Insecticides or Pesticides	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
57. Vegetable dust, e.g., cotton, jute, other specify: (1) _____ _____ (2) _____ _____	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
58. Animal dust, e.g., dander, bird droppings, wool, other specify: (1) _____ _____ (2) _____ _____	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)
59. Hairspray	Never (1) Ended before reference period (2) Current or ended in the reference period (3) Don't know (4)	Yes No (1) (2)	Occup (1) Non-occup (2) Both (3) Unsure (4)

ASK ITEM A FOR EACH MATERIAL LISTED IN THE SPECIFIC EXPOSURES CHART.

A. Have you ever been exposed to [material/substance] as dust or fumes? **IF NEVER OR DON'T KNOW, ASK EXPOSURE (ITEM A) ABOUT NEXT MATERIAL.**

B. Were you exposed to [material/substance] for more than one year?

C. Was your exposure on the job or away from the job? **OBTAIN SUFFICIENT INFORMATION TO ESTABLISH IF EXPOSURE OCCURRED ON THE JOB (OCCUPATIONAL) OR IN SOME OTHER NON-OCCUPATIONAL SETTING (NON-OCC). EXPOSURE OCCURRING BECAUSE OF LIVING NEAR A FACTORY OR OTHER SOURCE IS NON-OCCUPATIONAL. IF AFTER TALKING TO THE RESPONDENT, YOU CANNOT MAKE A DECISION ABOUT THE TYPE OF EXPOSURE, CHECK "UNSURE."**

SMOKING AND NICOTINE USE

60. Have you ever smoked cigarettes? (1) (2)
Yes No
IF RESPONDENT SAYS HE/SHE EXPERIMENTED WITH THEM BRIEFLY OR SMOKED LESS THAN ONE PER WEEK, ANSWER "NO."

**IF YES, ANSWER ITEMS A THROUGH D.
IF NO, SKIP TO QUESTION 61.**

A. How many cigarettes did(do) you smoke per day during the time you smoked? _____ • _____

B. Did you inhale:
INTERVIEWER READ LIST Not at all (1)
Slightly (2)
Moderately (3)
Deeply (4)

C. How old were you when you started smoking cigarettes? _____
age in years

D. Do you now smoke cigarettes? (1) (2)
Yes No
**IF YES, GO TO QUESTION 61.
IF NO, ANSWER ITEM (1).**

(1) How old were you when you stopped? _____
age in years

61. Have you ever smoked cigarillos? (1) (2)
Yes No
IF RESPONDENT SAYS HE/SHE EXPERIMENTED WITH THEM BRIEFLY OR SMOKED LESS THAN ONE PER WEEK, ANSWER "NO."

**IF YES, ANSWER ITEMS A THROUGH D.
IF NO, GO TO QUESTION 62.**

A. How many cigarillos did(do) you smoke per day during the time you smoked? _____ • _____

B. Did you inhale:
INTERVIEWER READ LIST Not at all (1)
Slightly (2)
Moderately (3)
Deeply (4)

C. How old were you when you started smoking cigarillos? _____
age in years

61. (Continued)

D. Do you now smoke cigarillos?

(1) (2)
Yes No

**IF YES, GO TO QUESTION 62.
IF NO, ANSWER ITEM (1).**

(1) How old were you when you stopped?

age in years

62. Have you ever smoked cigars?

(1) (2)
Yes No

**IF RESPONDENT SAYS HE/SHE EXPERIMENTED
WITH THEM BRIEFLY OR SMOKED LESS THAN
ONE PER WEEK, ANSWER "NO."**

**IF YES, ANSWER ITEMS A THROUGH D.
IF NO, SKIP TO QUESTION 63.**

A. How many cigars did(do) you smoke
per day during the time you smoked?

_____ • _____

B. Did you inhale:

INTERVIEWER READ LIST

Not at all (1)
Slightly (2)
Moderately (3)
Deeply (4)

C. How old were you when you started smoking cigars?

age in years

D. Do you now smoke cigars?

(1) (2)
Yes No

**IF YES, GO TO QUESTION 63.
IF NO, ANSWER ITEM (1).**

(1) How old were you when you stopped?

63. Have you ever smoked a pipe?

(1) (2)
Yes No

**IF RESPONDENT SAYS HE/SHE EXPERIMENTED
WITH THEM BRIEFLY OR SMOKED LESS THAN
ONE PER WEEK, ANSWER "NO."**

**IF YES, ANSWER ITEMS A THROUGH D.
IF NO, SKIP TO QUESTION 64.**

A. How many times per day did(do) you smoke
a pipe during the time you smoked?

_____ • _____

63. (Continued)

- B. Did you inhale:
INTERVIEWER READ LIST
- | | |
|------------|-------|
| Not at all | (1) |
| Slightly | (2) |
| Moderately | (3) |
| Deeply | (4) |

C. How old were you when you started smoking a pipe?
_____ age in years

D. Do you now smoke a pipe? (1) (2)
Yes No

IF YES, GO TO QUESTION 64.
IF NO, ANSWER ITEM (1).

(1) How old were you when you stopped?
_____ age in years

64. Are there now smokers [not including yourself] in your household? (1) (2)
Yes No

IF YES, ANSWER ITEMS A AND B.
IF NO, GO TO QUESTION 65.

- A. Do they include: Yes No
- (1) Your spouse? (1) (2)
- (2) One or more of your children? (1) (2)
- (3) Others? (1) (2)

B. Total number of smokers who live with you now, NOT INCLUDING YOURSELF: _____ smokers

65. Are there now smokers near you where you work? Yes No Not Applicable
(1) (2) (3)

IF YES, ANSWER ITEM A.
IF NO, GO TO QUESTION 66.

A. Do they smoke in an area where you might inhale their smoke? Yes No
(1) (2)

66. Do you spend more than 3 hours a week in rooms with smoke from other smokers? (1) (2)

67. INTERVIEWER:

A. SIGNATURE: _____

B. ACCESS STAFF NO.: _____ - _____

68. RESEARCH COORDINATOR:

A. SIGNATURE: _____

B. ACCESS STAFF NO.: _____ - _____

69. DATE FORM COMPLETED:

_____ - _____ - _____
Month Day Year

APPENDIX D:

A Case Control Etiologic Study of Sarcoidosis (ACCESS)

ENVIRONMENTAL/OCCUPATIONAL *A PRIORI* HYPOTHESES AND SPECIFIC QUESTIONNAIRE VARIABLES UTILIZED TO TEST HYPOTHESES*

1.1 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT IN METAL DUST AND/OR METAL FUME ASSOCIATED OCCUPATIONS OR INDUSTRIES

FORM 12 - ACTIVITIES ON THE JOB

- 10. Nuclear workert†
- 12. Assembling or fabricating
- 13. Auto or truck repair
- 28. Electrical or electronic worker
- 39. Jewelry making†
- 41. Machine operator, assembler or inspector
- 52. Dentist, dental product maker, or dental technician†
- 64. Smelting in a foundry†
- 74. Welding

FORM 13 - SPECIFIC EXPOSURES

- 44. Aluminum
- 45. Beryllium†
- 47. Cobalt†
- 48. Gold†
- 51. Titanium†
- 52. Zirconium†

1.1.1 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT IN OCCUPATIONS OR INDUSTRIES WITH EXPOSURE TO CONTACT DERMATITIS CAUSING METALS

FORM 13 - SPECIFIC EXPOSURES

- 46. Chromium†
- 47. Cobalt†
- 48. Gold†
- 49. Nickel†

1.2 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT AS HEALTHCARE WORKERS

FORM 12 - ACTIVITIES ON THE JOB

- 45. In a nursing home or long-term care facility
- 46. Nurses' aide
- 47. Registered nurse or licensed practical nurse†
- 48. Hospital worker
- 49. Medical technologist or medical technician†
- 51. Physician†
- 52. Dentist, dental product maker, or dental technician†
- 53. Respiratory therapist†

1.3 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT AS CHILDCARE PROVIDERS AND EDUCATORS

1.3.1 CHILDCARE PROVIDERS

FORM 12 - ACTIVITIES ON THE JOB

- 19. Child care worker (i.e., children under the age of 18)

1.3.2 EDUCATORS

FORM 12 - ACTIVITIES ON THE JOB

- 66. Teacher (preschool and kindergarten)
- 67. Teacher (elementary 1 through 6)
- 68. Teacher (middle and secondary)
- 69. Teacher (post-high school educator)

1.4 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT AS FIRE FIGHTERS

FORM 12 - JOB ACTIVITIES

- 30. Fire fighter†

1.5 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT IN THE MILITARY

FORM 12 - ACTIVITIES ON THE JOB

- 5. U.S. Army
- 6. U.S. Navy†
- 7. U.S. Air Force†

- 8. U.S. Marines†
- 9. Other branch of armed forces†

1.6 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT IN AGRICULTURE - CROP RELATED

FORM 12 - ACTIVITIES ON THE JOB

- 29. Farming, ranching, farm laborer (wage laborer)

FORM 13 - SPECIFIC EXPOSURES

- 56. Insecticides or pesticides
- 57. Vegetable dust, e.g., cotton, jute, other - specify

1.7 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT IN INDUSTRIES OR OCCUPATIONS WITH ORGANIC DUST EXPOSURE

1.7.1 AGRICULTURAL ORGANIC DUSTS

FORM 12 - ACTIVITIES ON THE JOB

- 16. Raising birds†
- 29. Farming, ranching, farm laborer (wage laborer)
- 71. Veterinarian/veterinary work†
- 79. Animals

FORM 13 - SPECIFIC EXPOSURES

- 57. Vegetable dust, e.g., cotton, jute, other - specify
- 58. Animal dust, e.g., dander, bird droppings, wool, other - specify

1.7.2 INDUSTRIAL ORGANIC DUSTS

FORM 12 - ACTIVITIES ON THE JOB

- 17. Carpentry or woodworking
- 23. In a cork factory†
- 25. Cotton ginning†
- 33. In a saw mill†
- 34. In a pulp mill†

1.7.3 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT WITH RUBBER DUST EXPOSURES (POST HOC PROPOSAL)

FORM 12 - ACTIVITIES ON THE JOB

75. Rubber factory workert

1.8 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT IN INDUSTRIES OR OCCUPATIONS WITH MICROBIALS/BIOAEROSOL EXPOSURES

FORM 12 - ACTIVITIES ON THE JOB

11. Animal laboratory workert
16. Raising birds†
23. In a cork factory†
29. Farming, ranching, farm laborer (wage laborer)
33. In a sawmill†
78. High humidity, water damage, mold, mildew, musty odors

FORM 13 - SPECIFIC EXPOSURES

57. Vegetable dust, e.g., cotton, jute, other - specify
58. Animal dust, e.g., dander, bird droppings, wool, other - specify

1.8.1 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT IN INDUSTRIES OR OCCUPATIONS WITH METAL WORKING FLUID EXPOSURES

FORM 12 - ACTIVITIES ON THE JOB

14. Automotive manufacturing†
41. Machine operator, assembler or inspector

1.9 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT IN INDUSTRIES OR OCCUPATIONS WITH EXPOSURES TO AGENTS THAT PRODUCE HYPERSENSITIVITY PNEUMONITIS

1.9.1 EXPOSURES TO CHEMICAL AGENTS THAT PRODUCE HYPERSENSITIVITY PNEUMONITIS

FORM 12 - ACTIVITIES ON THE JOB

36. Hairdressing or cosmetology†

FORM 13 - SPECIFIC EXPOSURES CHART

59. Hair spray

1.9.1.1 PESTICIDE EXPOSURES THAT PRODUCE HYPERSENSITIVITY PNEUMONITIS

FORM 12 - ACTIVITIES ON THE JOB

29. Farming, ranching, farm worker (wage laborer)

55. In a plant nursery or as a florist†

FORM 13 - SPECIFIC EXPOSURES CHART

56. Insecticides or pesticides

1.9.1.2 ISOCYANATE EXPOSURES THAT PRODUCE HYPERSENSITIVITY PNEUMONITIS

FORM 12 - ACTIVITIES ON THE JOB

14. Automotive manufacturing†

58. Polyurethane foam manufacturing†

1.9.2 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT IN INDUSTRIES OR OCCUPATIONS WITH EXPOSURES TO ORGANIC AGENTS THAT PRODUCE HYPERSENSITIVITY PNEUMONITIS

FORM 12 - ACTIVITIES ON THE JOB

16. Raising birds†

23. In a cork factory†

29. Farming, ranching, farm laborer (wage laborer)

33. In a sawmill

1.11 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT IN THE DUSTY TRADES INDUSTRIES OR OCCUPATIONS

1.11.1 CONSTRUCTION TRADES FORM 12 - ACTIVITIES ON THE JOB

- 17. Carpentry or Woodwork
- 22. Construction
- 24. Demolition of buildings†
- 63. Sandblasting†
- 74. Welding

1.11.2 DUSTY TRADES WITH FIBER/FABRIC EXPOSURES

FORM 12 - ACTIVITIES ON THE JOB

- 25. Cotton ginning†
- 26. Textile making or garment industry

1.11.3 DUSTY TRADES WITH WOOD EXPOSURES

FORM 12 - ACTIVITIES ON THE JOB

- 17. Carpentry or woodworking
- 23. In a cork factory†
- 33. In a saw mill†
- 34. In a pulp mill†

1.11.4 DUSTY TRADES WITH CRUSTAL DUST EXPOSURES

FORM 12 - ACTIVITIES ON THE JOB

- 35. Glass making†
- 44. Any type of mining†
- 60. Pottery making or ceramics†
- 61. Working in a quarry†
- 63. Sandblasting†
- 64. Smelting in a factory†
- 65. Stone cutting or polishing†
- 70. Tunnel construction†

FORM 13 - SPECIFIC EXPOSURES

- 54. Talc
- 55. Silica

1.12 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT WITH PERSONAL CONTACT WITH COWORKERS AND OTHERS AT WORK

1.12.1 ISOLATED EMPLOYMENT (PROTECTIVE)

FORM 12 - ACTIVITIES ON THE JOB

- 20. Cleaning private household, domestic worker
- 27. Data processor, typist, computer programmer
- 54. Motor vehicle operator (truck, bus, cab driver)

1.13 SILICA DUST

FORM 12 - ACTIVITIES ON THE JOB

- 35. Glass making†
- 44. Any type of mining†
- 60. Pottery making or ceramics†
- 61. Working in a quarry†
- 63. Sandblasting†
- 64. Smelting in a foundry†
- 65. Stone cutting or polishing†
- 70. Tunnel construction†

FORM 13 - SPECIFIC EXPOSURES

- 55. Silica

1.14 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO HAVE AN EMPLOYMENT HISTORY

FORM 11 – JOB STATUS

- 4. What was your job status as of the reference date?
Employed full-time

Employed part-time
Homemaker, never held a full-time or part-time job for as long as six months
Homemaker, previously held a job for at least six months
Homemaker who works part-time
Retired
Unemployed, with previous work experience
Unemployed with no work experience (never worked)
Student
Disabled, with previous work experience
Disabled, without previous work experience

A. Defined Groups:

Never employed
Employed currently or in the past

1.15 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EMPLOYMENT IN INDUSTRIES AND OCCUPATIONS WITH WOOD DUST EXPOSURE

FORM 12 - ACTIVITIES ON THE JOB

17. Carpentry or woodworking
23. In a cork factory†
32. Forestry Work†
33. In a sawmill†
34. In a pulpmill†

FORM 12 - ACTIVITIES NOT RELATED TO WORK

82. Carpentry or woodworking

2.1 SARCOIDOSIS PATIENTS ARE MORE LIKELY THAN CONTROLS TO REPORT AVOCATIONAL EXPOSURE TO METAL DUST AND FUMES (E.G., WELDING, JEWELRY MAKING)

FORM 12 - ACTIVITIES NOT RELATED TO WORK

92. Jewelry making†
99. Pottery making (ceramics)
108. Welding

FORM 13 - SPECIFIC EXPOSURES

44. Aluminum†

- 45. Beryllium†
- 47. Cobalt†
- 48. Gold†
- 51. Titanium†
- 52. Zirconium†

2.1.1 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT NON-OCCUPATIONAL EXPOSURE TO CONTACT DERMATITIS CAUSING METALS

FORM 13 - SPECIFIC EXPOSURES

- 46. Chromium†
- 47. Cobalt†
- 48. Gold†
- 49. Nickel†

2.2 SARCOIDOSIS PATIENTS ARE MORE LIKELY THAN CONTROLS TO REPORT AVOCATIONAL EXPOSURE TO CHILDREN, AS A POTENTIAL VECTOR FOR EXPOSURE TO INFECTIOUS AGENTS

FORM 12 - ACTIVITIES NOT RELATED TO WORK

- 83. Child care or baby sitting your own children

2.3 SARCOIDOSIS PATIENTS ARE MORE LIKELY THAN CONTROLS TO REPORT HAVING BEEN EXPOSED TO MICROBIAL BIOAEROSOL CONTAMINATION IN THE NON-OCCUPATIONAL ENVIRONMENT

FORM 12 - ACTIVITIES NOT RELATED TO WORK

- 81. Raising or tending birds
- 86. Farming
- 87. Ranching†
- 89. Gardening
- 105. Swimming in an indoor pool
- 106. Using a hot tub or whirlpool
- 107. Using a sauna

FORM 13 - SPECIFIC EXPOSURES

- 5. Humidifier
- 7. Cool mist vaporizer
- 8. Saun†

9. Hot tub
10. Central air conditioning
11. Window conditioners
13. Evaporative (swamp cooler)
15. Did your bathroom(s) ever have visible mold or mildew on indoor surfaces?
16. Did any other room, including the basement, ever have visible mold or mildew?
17. Did your home or basement ever have a problem with leaks or water damage?
18. Were the carpets wet in the area where there were leaks or water damage?
19. Did you ever vent your clothes dryer exhaust into the house or basement?
30. Fish in a large fish tank (> 10 gallons)
31. Fish in a small fish tank (< 10 gallons)

2.4 SARCOIDOSIS PATIENTS ARE MORE LIKELY THAN CONTROLS TO REPORT NON-OCCUPATIONAL EXPOSURE TO ORGANIC DUSTS

FORM 12 - ACTIVITIES NOT RELATED TO WORK

81. Raising or tending birds
82. Carpentry or woodworking
86. Farming
87. Ranching†
89. Gardening

FORM 13 - HOUSEHOLD CHARACTERISTICS

3. Have you ever used a wood or coal stove to heat your home?
4. Have you ever used a wood or coal burning fireplace with an open flame in your home?
20. Did you ever see rats or mice or rat or mouse droppings where you lived?
21. Have you ever had a problem with large numbers of insects in your home?
22. Dogs
23. Cats
24. Rabbits
25. Gerbils, hamsters, or guinea pigs
26. Other mammals - specify†
27. Pigeons†
28. Parakeets
29. Other birds - specify
35. Raised chickens†
36. Raised turkey†

- 37. Raised pigeons†
- 38. Raised any other animals
- 39. Feathers or down
- 40. Straw†
- 41. Corn husks†
- 57. Vegetable dust, e.g., cotton, jute, other - specify
- 58. Animal dust, e.g., dander, bird droppings, wool, other -specify

2.5 CONTROLS ARE MORE LIKELY THAN SARCOIDOSIS CASES TO REPORT TOBACCO EXPOSURE

FORM 13 - SMOKING AND NICOTINE USE

- 60. Have you ever smoked cigarettes?
- 60D. Do you now smoke cigarettes?
- 61. Have you ever smoked cigarillos?
- 61D. Do you now smoke cigarillos?
- 62. Have you ever smoked cigars?
- 62D. Do you now smoke cigars?
- 63. Have you ever smoked a pipe?
- 63D. Do you now smoke a pipe?
- 64. Are there now smokers [not including yourself] in your household?
- 65. Are there now smokers near you where you work?
- 66. More than 3 hours a week in rooms with smoke?
- A. Defined Groups
 - A.1 Active Smoking (Personal tobacco use)
 - “Yes” to any one of Items 60, 60D, 61, 61D, 62, 62D, 63, 63D
 - “No” to all of Items 60, 60D, 61, 61D, 62, 62D, 63 and 63D.
 - A.2 Passive Smoking (Environmental tobacco smoke)
 - “Yes” to any one of Items 64, 65, 66.
 - “No” to all of Items 64, 65, 66.
 - A.3 Combined A.1 and A.2

2.6 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT A RURAL PLACE OF RESIDENCE

FORM 19 - COMMUNITY OF RESIDENCE

- 3. Which of the following best describes the places you lived in as a child (age newborn to ten)? Rural (A) versus non-rural (B, C, D).
- 4. Which of the following best describes the kind of communities you lived in as a child (age newborn to ten)? Rural (C) versus non-rural (A, B, D).
- 5. Which of the following best describes the places where you have lived during the past three years? Rural (A) versus non-rural (B, C, D).
- 6. Which of the following best describes the kind of communities you have lived during the past three years? Rural (C) versus non-rural (A, B, D).

3.5 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EXPOSURE TO ANIMALS (VOCATIONAL AND AVOCATIONAL)

FORM 12 - ACTIVITIES ON THE JOB

- 76. In a pet store†
- 79. Were you ever around any animals in your work?

FORM 13 - HOUSEHOLD CHARACTERISTICS

- 20. Did you ever see rats or mice or rat or mouse droppings where you lived?
- 39. Feathers/Down

FORM 13 - EXPOSURE TO ANIMALS

- 30. Fish in a large fish tank (more than ten gallons)
- 31. Fish in a small fish tank (less than ten gallons)
- 32. Turtles
- 33. Lizards or snakes
- 34. Frogs or salamanders
- 38. Have you every raised any other animals?
- 58. Animal dust, e.g., dander, bird droppings, wool, other - specify

3.5.1 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EXPOSURE TO MAMMALS (VOCATIONAL AND AVOCATIONAL)

FORM 12 - ACTIVITIES ON THE JOB

- 11. Animal laboratory worker†
- 29. Farming, ranching, farm laborer (wage laborer)
- 71. Veterinarian/veterinary work†

FORM 12 - ACTIVITIES NOT RELATED TO WORK

- 87. Ranching†

FORM 13 - EXPOSURE TO ANIMALS

- 22. Dogs
- 23. Cats
- 24. Rabbits
- 25. Gerbils, hamsters, or guinea pigs

26. Other mammals - specify†

3.5.2 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EXPOSURE TO BIRDS (VOCATIONAL AND AVOCATIONAL)

FORM 12 - ACTIVITIES ON THE JOB

16. Raising birds†

FORM 12 - ACTIVITIES NOT RELATED TO WORK

81. Raising or tending birds

FORM 13 - EXPOSURE TO ANIMALS

- 27. Pigeons†
- 28. Parakeets
- 29. Other birds (specify)
- 35. Raised chickens
- 36. Raised turkeys†
- 37. Raised pigeons†

3.5.3 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EXPOSURE TO INSECTS

FORM 13 - HOUSEHOLD CHARACTERISTICS

21. Problem with insects

3.6 SARCOIDOSIS CASES ARE MORE LIKELY THAN CONTROLS TO REPORT EXPOSURE TO NON-CIGARETTE SMOKE

FORM 12 - ACTIVITIES ON THE JOB

- 30. Firefighter†
- 88. Firefighting†

FORM 13 - SPECIFIC EXPOSURES

- 3. Wood or coal stove
- 4. Wood or coal fireplace

*Items in Appendix D are keyed to specific questionnaire forms and to specific numbered questions on those forms (e.g. activities or exposures). See Appendix C for questionnaire forms.

†Items for which there was <90% power to detect statistically significant associations due to low prevalence of reported exposure variable (i.e. proportion of controls exposed < 0.05)