

DOCUMENTATION

for

CODED TEXT RESPONSES

in

MIDUS 3

BIOMARKER PROJECT

(P4)

University of Wisconsin ♦ Institute on Aging

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INTRODUCTION

All of the paper and pencil instruments administered at MIDUS 3 include places to record responses to open-ended questions (i.e. have you ever had surgery, do you engage in regular exercise) or requests to 'Please Specify' or 'Please Describe' when the respondent gives a response in the category "Other". This information was data-entered and most of the text responses have been coded. In most instances, the coded data was added to the public data as new variables or they were incorporated into extant codes for a related item (see examples below). The first few pages of this document provide background information, including an overview of the coding process.

For questions, or to request access to raw text data to develop alternative coding schemes, contact the MIDUS Administrative Core by submitting email through the MIDUS Help Desk (<http://midus.wisc.edu/helpdesk.php>).

Identifying Coded Variables. In general, in the data file, if coding is in progress for a text variable associated with a stem question, then the stem question is present, but there are no variables representing the text data. Details about the coding status of text variables are included in metadata notes in the interactive codebook available via the Colectica Portal (<https://midus.colectica.org>) or the PDF of the DDI Codebook included with documentation available at ICPSR.

Background/Coding Overview

There is a lot of variability in the type and complexity of the text data obtained. No one approach could be applied to all variables, thus multiple approaches to organizing and reviewing the data were adopted. An inductive/grounded approach was used to develop coding frames for most items, but there are a few instances in which a deductive approach utilizing extant coding frames (i.e. Compendium of Physical Activities) was used. For example:

1. Inductive Coding -
 - a. Medical History – Current Health Screenings; in this section participant are asked if they have ever had cholesterol checks etc. and, if yes, asked to report the results. The results were coded and the new categorical variables corresponding to the source variables have a 'C' at the end. For example, see C4H25ARC for coded cholesterol results.
 - b. Medical History – the Simple Falls section includes text variables describing 'Which' bone was broken (C4H3A1) and the 'Circumstances' of the fall in which the bone was broken (C4H3A2). The new categorical variables corresponding to these variables were named C4H3A1W and C4H3A2C, respectively.
2. Deductive Coding – coding of text data that relies on *a priori* categories created by others.
 - a. Medical History – Current Exercise. "...do you engage in regular exercise, or activity, of any type for 20 minutes or more at least 3 times/week?" Q73a-h. If the respondent says "Yes", open-ended text describing each type of exercise or activity was entered. This text data has been coded, with some minor modifications, according to major categories defined in the 2011 Compendium of Physical Activities (CPA) (<https://sites.google.com/site/compendiumofphysicalactivities/>).

Regardless of the approach used, the overall process is iterative meaning one individual completed the initial coding pass and at least one other person completed a subsequent review. In general, text responses were reviewed multiple times before codes were finalized. The methods used include the following:

- Manual review of text data and assignment of categories
- Use of the SPSS Text Analytics for Surveys (TAS, ver.4) package in combination with subsequent manual review.

Prior to MIDUS 3, during the process of coding text data for MIDUS 2 and MIDUS Refresher 1, we applied the 2% rule: Any categories that did include more than 2% of total responses, and do not fit within another existing category, were coded into the 'Other' category.

When finalizing a set of coding categories for MIDUS 3, we used the same categories that were identified in MIDUS 2 and MIDUS Refresher 1 coding process in order to make these longitudinal study data more comparable.

After coding was completed, the code data were integrated into the larger aggregate data file in one of two ways.

1. A new code variable was created – this was the most common occurrence and was used when open-ended reports of specific events/descriptions of situations were coded. A new categorical variable was created so that the data can be used in analyses. To distinguish the new variable from the source variable a single character was added to the end of the source variable name. This coding was typically inductive but may be deductive.
2. Extant Codes for a related variable were expanded: this was done when specify "Other" options were included in a predefined set of categories. The text responses specified were reviewed and new categorical codes created if appropriate.
 - a. For example, in the Medical History participants were asked how often they go to the dentist with several options, including an "Other Specify" provided. Review of the specify text however revealed other categories of frequency (i.e. 3 times a year, 4 times a year etc.) that were incorporated into the existing categories. See for example C4H23A (How often do you receive dental care?).

Data Sources & Formats

In general text data is obtained in response to two types of items and formats.

1. *"Other Specify" or "Please Describe" items.*
 - a. These text responses were obtained when respondents have the opportunity to report "Other" symptoms/conditions, sleep problems, etc. or were asked about frequency of "events" of a certain type and given the opportunity to describe an "Other" occurrence.
 - b. In general, these data were in a *single response format*. That is there is only one text field into which data was entered.
 - i. Items in this format were imported into the coding process unchanged.
2. *Health/Life Events or Health Behaviors.*
 - a. These text responses were obtained when respondents were asked if they ever experienced a particular type of event or engaged in a type of health behavior. If 'Yes' then the respondent was given the opportunity to describe the event.

- b. Since individuals can experience such events or engage in such behaviors multiple times they were generally in the data in a *multiple response format*. That is data collection instruments and data entry files allowed for multiple occurrences of an event type or behavior to be recorded/entered.
 - i. Prior to coding data in this format, all responses were converted from a flat (one row per person) to a stacked (multiple rows per person) format to improve efficiency and consistency in categorizing responses.
 - ii. Note, for a few items some individuals report more conditions/events than the space allows for. At the end of these sections of the data entry file, additional variables were created to allow staff to record all the relevant information about the ‘Additional Others’ in single open-ended text variable for subsequent coding. Prior to coding information in such variables was split out into additional items paralleling the original set of items so that full set of responses were included in the coding process.

The remainder of this document provides the following details, as appropriate, for each of the open-ended text items or sets of items:

- General information about the source items – variable names, instrument, and question number(s)
- Description of how the data were prepared for text coding
- Decision rules applied during the coding process – these rules include decisions made about the items to include in a given category, as well as guidance for when text data should be dropped because the response was invalid, or should be re-coded into a different item.
- A list of the new code variables
- Table summarizing category codes, labels, and keywords
- Source materials used during the coding process, if any. Note, Google searches were often performed to verify medical terminology and other technical terms across all text data. Sources are only listed in this section if they are specific to the text data being coded. For example, the Compendium of Physical Activities used as a resource when coding exercise data.

Open-ended text items are found in the following instruments as indicated:

- Medical History Interview – contains multiple open-ended text items.
- Physical Exam – contains two types of text fields
 - One set is used to document why a participant was unable to complete the functional assessments (grip, vision, peak flow, timed walk, chair stands), however this happens so rarely that these are not coded.
- Daily Sleep Diary – each of the 7 diary pages includes two open-ended text items related to medication use on a given day.
- Self-Administered Questionnaire (SAQ) – there is a single open-ended text item “Sleep trouble: other reason described” is coded (see documentation below). The final question of SAQ “What do you do to make your life go well?” **is not coded**.

See the table of contents for a list of all the open-ended text items, organized by the instrument in which they are found and the question/item number within that instrument.

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MEDICAL HISTORY

SYMPTOMS AND CONDITIONS

Items: Medical History, Question 1a-1y

- Q1. Have you ever had any of the following conditions/illness? If Yes, was it diagnosed by a physician (Yes/No/Unsure)?
- 1a-w identify specific symptom and conditions: Heart disease, High blood pressure, Circulation problems, Blood clots, Heart murmur, TIA or stroke, Anemia or other blood disease, Cholesterol problems, Diabetes, Asthma, Emphysema/COPD, Tuberculosis, Positive TB skin test, Thyroid disease, Peptic ulcer disease, Cancer, Colon polyp, Arthritis, Glaucoma, Cirrhosis/Liver disease, Alcoholism, Depression, Blood transfusion before 1993, Parathyroid disease or elevated blood calcium, and Cushing Syndrome or elevated cortisol.
 - 1z-aa:
 - z. Other? Please specify:
 - aa. Other? Please specify:
 - ab. (NEW). Other? Please specify:
 - ac. (NEW). Other? Please specify:
 - ad. (NEW). Other? Please specify:

Data Preparation:

The interview includes two places to record other symptoms/conditions, but participants sometimes reported more than two additional symptoms/conditions. Interviewers recorded this information in the booklet and it was then data entered. Ultimately, data were recorded for up to 19 other symptoms/conditions and all the 'Other' symptoms/condition were compiled into a stacked (vertical) format to facilitate review and coding.

Once coding was finalized, the stacked coded file was converted back to flat format for integration with the larger aggregated data file. At that step it was determined that some individuals reported up to three 'additional' other conditions, thus three new 'Specify Other' code variables were created (see above) for inclusion in the public data along with the corresponding variable indicating whether the conditions was diagnosed by a physician or not (C4H1ABD, C4H1ACD, C4H1ADD).

Coded Variables: Text responses to other symptoms/conditions were coded into 5 numeric variables, two corresponding to the original specify items and the remainder to the three 'NEW' items indicated above:

- C4H1ZSC: Specify other condition 1 - Coded
- C4H1AASC: Specify other condition 2 - Coded
- C4H1ABSC: Specify other condition 3 - Coded
- C4H1ACSC: Specify other condition 4 - Coded
- C4H1ADSC: Specify other condition 5 - Coded

Coding Rules: The coding process was guided by the following:

1. The following responses were designated as inappropriate/ invalid for the reasons indicated and were dropped, or coded back into another question in the interview:
 - a. Eye related conditions: We have a separate section (C4H24EC-Specify eye disease or disorder) in Medical History questionnaire for eye related issues. If an eye related condition was reported, the corresponding item in the eye section was checked and updated as needed. These items were then dropped from Q1.

- b. Congenital conditions: Congenital birth defect will not be counted as other condition
 - c. Acute illness: The items in this set generally refer to chronic, rather than acute, symptoms/conditions, thus acute illnesses such as pneumonia, polio, chicken pox, or any conditions that the R said happened as child or happened in a discrete period of time were dropped.
2. Symptoms/Conditions recoded back into existing items in the larger symptom/condition checklist as indicated:
- a. Heart related diseases such as Arrhythmia, Mitral valve prolapse were recoded back to Q1a – Heart disease.
 - b. Circulation problems such as aneurysm, Raynaud's syndrome were recoded back to Q1c – circulation problem.
 - i. Heart attacks may be reported as circulation problems if it was not due to heart disease
 - ii. Varicose veins were not considered as circulation problems
 - c. Melanoma, dysplasia, Hodgkin's lymphoma, and basil cell carcinoma were recoded back to Q1P – cancer.
 - d. Gout, rheumatoid arthritis, and osteoarthritis were recoded back to Q1R – arthritis.
 - e. Hepatitis and fatty liver disease were recoded back to Q1T – liver disease.

Coded Categories: The table below lists the numeric codes and labels for the coded variables as well as key words or common phrases for each code category.

For specify other conditions [C4H1ZSC] [C4H1AASC] [C4H1ABSC] [C4H1ACSC] [C4H1ADSC]

CODE	LABEL	KEYWORDS
1	ANXIETY	Anxiety, panic disorder
2	AUTOIMMUNE DISORDER	Lupus, inflammatory bowel disease (IBD), ulcerative colitis, crohn's disease, multiple sclerosis (MS), guillain-barre syndrome, psoriasis, graves' disease, hashimoto's thyroiditis, myasthenia gravis, vasculitis, sjogren's syndrome, alopecia areata
3	CYSTS/FIBROIDS/TUMORS/POLYPS	Cysts, fibrocystic, polyps, lump, lipoma, tumor, fibroids
4	DIGESTIVE DISORDER	Colitis, constipation, diverticulitis, duodenal ulcer, irritable bowel syndrome, gastritis
5	ENLARGED PROSTATE	Enlarged prostate, prostatitis
6	EXTREMITIES ACHES/PAIN	Carpal tunnel
7	FIBROMYALGIA	Fibromyalgia
8	FOOT DISEASES	Toe, foot, feet, bunion
9	GALLBLADDER DISEASES	Gallbladder, gallstones
10	GERD/REFLUX	Acid reflux, heart burn, GERD, Barrett's esophagus
11	HEADACHES/MIGRAINES	Headache, migraine
12	HEARING PROBLEMS	Hearing loss, hearing problem, deaf, tinnitus
13	HERNIA	Hernia

CODE	LABEL	KEYWORDS
14	INFLAMMATION	Inflammation, swell, polymyalgia rheumatica, edema, Osgood Schlatter's, pancreatitis
15	JOINT/BONE DISEASES	Bone spur, heel spur, knee pain, hip pain, bone, joint, bursitis, osteopenia, osteoporosis, osteoarthritis, paget's disease, tendinitis, TMJ
16	KIDNEY PROBLEMS	Kidney, albuminuria, renal, nephritis, kidney stone
17	LUNG PROBLEMS	Bronchitis, pleurisy, pulmonary, lung
18	MENTAL HEALTH DISORDER	ADHD, bipolar, anorexia, PTSD, OCD, Schizophrenia
19	NEUROLOGICAL DISORDER	Cerebral palsy, epilepsy, memory loss, dementia, dystonia, nerve, nervous system, palsy, Tourette's, neuralgia, neuropathy, Parkinson's, restless leg, seizure, stutter, tremor, vertigo, Meniere's
20	SCIATICA/LUMBAGO/BACKACHE	Back pain, back problem, degenerative disk, disc, spine, vertebral, sciatica, scoliosis, stenosis
21	SINUS DISORDER	Deviated septum, respiratory infection, sinus, sinusitis
22	SKIN DISEASES	Eczema, dermatitis, rosacea, skin, hives, rash, vitiligo, acne, blister
23	SLEEP PROBLEMS	Sleep, insomnia, narcolepsy, apnea
24	URINARY/BLADDER PROBLEMS	Bladder, urinary, cystocele, UTI
25	OTHER	Chronic pain, endometriosis, hemorrhoids, HIV, hypoglycemia, hypotension, varicose vein, substance use,

Source(s):

None.

BROKEN BONES

Items: Medical History, Question 2a-n

Q2. Have you ever broken a bone? (Yes/No)

If yes to Q2 Have you broken your ...

- 2a-m (Hip, Let, Ankle, Foot, Toe, Collar Bone, Arm, Wrist, Hand, Finger, Vertebra, Pelvis, Rib, respectively)
 - How Often? – numeric data
 - Year (Most Recent) – numeric data.
- 1n: Other?
 - If frequency greater than 0,
 - Specify: - text data

Data Preparation:

Single Text Variable, no special preparation needed.

Coded Variables: Text responses to other broken bones were coded into a single numeric variable:

- C4H2NSC: Other broken bone: Coded categories

Coding Rules: The coding process was guided by the following:

1. If the bone listed should have been reported in one of the prior broken bone items (Q2a to Q2m), the response was recoded back into the appropriate item. For example: heel was recoded back to foot, elbow was recoded back to arm. The existing categories are listed below:
2. If R specified multiple bones, code as OTHER.

Coded Categories: The table below lists the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For other broken bones [C4H2NSC]

CODE	LABEL	KEYWORDS
1	JAW	Jaw, Mandible, Maxilla
2	KNEE	Knee, Kneecap, Patella
3	NOSE	Nose, Nasal Septum
4	SHOULDER	Shoulder, Shoulder blade, Scapula
5	SKULL	Skull, Head
6	TAILBONE	Tailbone, Coccyx
7	FACIAL BONE	Cheek, Face, Ocular Bone, Zymoid Bone, Eye Socket
8	OTHER	Sternum, multiple bones

Source(s):

None.

BROKEN BONE FROM SIMPLE FALL

Items: Medical History, Question 3, a-c

Q3. As an adult, have you ever broken a bone from a simple fall (i.e., a fall from standing height or less that did not involve trauma or loss of consciousness)? Yes/No

If Yes to Q3,

- Bone broken – text data
- Please describe the circumstances – text data
- Age when this occurred – numeric data

Data Preparation:

The interview included space to record up to three broken bone incidents. All records of descriptions were compiled into a stacked (vertical) format to facilitate review and coding. None of the participants reported more than 3 incidents.

Coded Variables: Text responses listing broken bone and describing the circumstance were coded into two numeric variables to indicate **Type** of bone broken and **Circumstances** of broken bone occurred.

- C4H3A1W: **Type** of bone broken from a simple fall A - Coded
- C4H3A2C: **Circumstances** of broken bone from a simple fall A - Coded
- C4H3B1W: **Type** of bone broken from a simple fall B - Coded
- C4H3B2C: **Circumstances** of broken bone from a simple fall B - Coded
- C4H3C1W: **Type** of bone broken from a simple fall C - Coded
- C4H3C2C: **Circumstances** of broken bone from a simple fall C - Coded

Coding Rules: The coding process was guided by the following:

1. For **Type** of broken bone:
 - a. No special rules for coding Type of broken bone.
2. For **Circumstance** of broken bone:
 - a. Simple fall is defined as is a fall from standing height or less that was NOT the result of being pushed down or being hit by a moving object (such as a kid on a bike or a moving car). For example, the respondent may have tripped on a crack in the sidewalk and fell, or fell off a chair or bed.
 - b. Any falls reported that do not meet the definition of a simple fall were designated as invalid records and were removed. Examples of NOT a simple fall: fell ice skating, skiing, running on escalators, fell down stairs, fell off ladder, slipped in fish pond, fell in hole.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For **type** of bone broken [C4H3A1W] [C4H3B1W] [C4H3C1W]

CODE	LABEL	KEYWORDS
1	HIP	hip
2	LEG	leg, fibula, tibia, femur, patella
3	ANKLE	ankle
4	FOOT	foot, metatarsal bones

CODE	LABEL	KEYWORDS
5	TOE	toe, toes,
6	COLLARBONE	collarbone, clavicle
7	SHOULDER	shoulder
8	WRIST	wrist, scaphoid
9	HAND	hand
10	FINGER	finger, pinky, thumb
11	BACK	back, lumbar vertebra, vertebra
12	RIB	rib
13	ELBOW	elbow
14	NOSE	nose
15	TAILBONE	tailbone, coccyx
16	MULTIPLE BONES	(if multiple types of bones were broken) e.g., ribs and sternum; hand and wrist

For **Circumstance** of broken bone [C4H3A2C] [C4H3B2C] [C4H3C2C]

CODE	LABEL	KEYWORDS
1	TRIPPED	tripped, tripped over, tripped on something, stepped on something, fell on uneven surface
2	SLIPPED ON ICE-WET	slipped on ice, slipped on wet floor, slipped on snow
3	STEP DOWN/UP	fell off curb, missed a step, fell off edge of sidewalk
4	OTHER	blacked out and fell, fell due to high BP, balance impaired because of MS

Source(s):

None.

OSTEOPOROSIS MEDICATION

Items: Medical History, Question 6, 6a

Q6. Have you ever received any medication(s) for osteoporosis treatment, such as alendronate (Fosamax), risedronate (Actonel), zoledronic acid (Zometa), calcitonin (Miacalcin), raloxifene (Evista), teriparatide (Forteo)? If yes, go to 6a.

Q6a. If YES, what medication(s) and for how long (Ex. Ages 47-now)?

- Medication Name – text data
- Begin Age – numeric data
- End Age - numeric data
- Ongoing – numeric data

Data Preparation:

The interview included space to record up to three osteoporosis medications. All records of descriptions were compiled into a stacked (vertical) format to facilitate review and coding. None of the participants reported more than 3 osteoporosis medications.

Coded Variables: Text responses to specify medication name were coded into numeric variables.

- C4H6A1AM: Osteoporosis Medication 1 - Coded
- C4H6A2AM: Osteoporosis Medication 2 - Coded
- C4H6A3AM: Osteoporosis Medication 3 - Coded

Coding Rules: No special rules for coding osteoporosis medication.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For osteoporosis medications [C4H6A1AM] [C4H6A2AM] [C4H6A3AM]:

CODE	LABEL	KEYWORD
1	FOSAMAX	Fosamax, Alendronate, Generic Fosamax
2	ACTONEL	Actonel, Risedronate
3	ZOMETA	Zometa
4	MIACALCIN	Miacalcin, calcitonin salmon
5	EVISTA	Evista, Raloxifene
6	FORTEO	Forteo, Teriparatide
7	BONIVA	Boniva, Ibandronate
8	CELEBREX	Celebrex, Celecoxib
9	OTHER	Prolia, Reclast, Osteo Bi-Flex, Vitamin D, Calcium, Glucosamine, Sulfalate

Source(s):

None.

MEDICATIONS AFFECT BONE HEALTH

Items: Medical History, Question 7, a-f

- Q7. Have you ever taken/had any of the following medications/treatments?
- Medication to treat seizures or epilepsy
 - Chemotherapy for cancer
 - Immunosuppressive therapy (to treat autoimmune diseases or to prevent transplant rejection)
 - Prednisone (cortisone)
 - Birth control pills (oral)
 - Post-menopausal hormone therapy (estrogen, progesterone) or in men: testosterone therapy
- For each type of medication/treatment reported in a to f:
 - Yes/No/Unsure – numeric data
 - Name of medication – text data
 - When – text data

Data Preparation:

Single Text Variable for both medication name and when taken, no special preparation needed.

Due to the uniqueness of each type of medication/treatment, coded variables, coding rules and coded categories for each type of medication/treatment are listed separately below.

MEDICATION TO TREAT SEIZURES OR EPILEPSY (Q7a)

Coded Variables: Less than 4% of cases reported ever taking medication to treat seizures or epilepsy. The text responses were reviewed for validity but due to the limited number of cases they were not coded into numeric categories.

Validation Rules: Text response were reviewed and invalid responses were removed. The following responses were designated as invalid:

- If the medication was not taken to treat seizures or epilepsy, we considered it as invalid. For example, R took the medication for muscle cramps. For the cases text response were identified as invalid, variable [C4H7A1] were recoded from YES to NO.

CHEMOTHERAPY FOR CANCER (Q7b)

Coded Variables: Less than 6% of cases reported ever had chemotherapy for cancer. The text responses were reviewed for validity but due to the limited number of cases they were not coded into numeric categories.

Validation Rules: Text response were reviewed and invalid responses were removed. The following responses were designated as invalid for Chemotherapy:

- Hormone therapy
- Radiation therapy
- Bacillus Calmette-Guerin (BCG) intravesical therapy

For the cases text response were identified as invalid, variable [C4H7B1] were recoded from YES to NO.

IMMUNOSUPPRESSIVE THERAPY (Q7c)

Coded Variables: Less than 2% of cases reported ever had immunosuppressive therapy. The text responses were reviewed for validity but due to the limited number of cases they were not coded into numeric categories.

Validation Rules: No special rules for validation check. All records reported were reviewed as valid response.

PREDNISONE (Q7d)

Coded Variables: Text responses to specify **name** of the prednisone medication were coded into a numeric variable. Text responses to specify when the prednisone medication was taken were coded into three numeric variables: age **first time** used, age **last time** used, and **frequency** of use.

- C4H7D2C: What is the **name** of the prednisone medication? - Coded
- C4H7D3CF: When did you take prednisone medication? – Coded for age **first time** used
- C4H7D3CL: When did you take prednisone medication? – Coded for age **last time** used
- C4H7D3CU: When did you take prednisone medication? – Coded for **frequency** of use

Coding Rules: The coding process was guided by the following:

1. For **name** of the prednisone medication:
 - a. All cases without specifying the medication name were coded as CORTICOSTEROIDS, UNSPECIFIED. For example, 'Don't know', 'Doesn't remember', 'Shot', 'For allergic reaction', etc.
2. For Age (**first time** and **last time**) use prednisone medication:
 - a. If R specified an age range, code the first number as 'age first time use' and last number as 'age last time use'. For example, '28-38', age first time used would be 28 and last time use would be 38;
 - b. If R specified two or more ages, code the first number as 'age first time use' and last number as 'age last time use'. For example, 'age 32, 40, 50', age first time use would be 32 and last time use would be 50;
 - c. If R specified one age only, code the age to both 'age first time use' and 'age last time use'. For example, '10 days at age 63', both age first time use and last time use would be 63';
 - d. If R indicated 'ongoing' or 'present' without specifying current age, we used R's age at the clinic visit for 'age last time use'. For example, '65-present', '55-now'.
3. For **frequency** of use prednisone medication:

- a. If R take the medication when needed (PRN) over years, code as THREE OR MORE TIMES. For example, 'PRN age 45-51'.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For **Name** of prednisone medication [C4H7D2C]

CODE	LABEL	KEYWORDS
1	PREDNISONE	Prednisone
2	CORTISONE	cortisone
3	CORTICOSTEROIDS, MULTIPLE TYPES	Cortisone/Prednisone
4	CORTICOSTEROIDS, OTHER	betamethasone, albuterol, salumedrol, medrol, zobinex, kenalog
5	CORTICOSTEROIDS, UNSPECIFIED	DK, missing, doesn't remember, or without any med name specify

For **frequency** of use prednisone medication [C4H7D3CU]

CODE	LABEL	KEYWORDS
1	ONCE	(if a single age number was reported) e.g., age 25; 10 days at age 63; 51 for a few months
2	TWICE	(if two age number was reported, or two treatment was specified) e.g., age 35 and 58; age 37-2 shots in ankle; 20 & 23
3	THREE OR MORE TIMES	(If R specified 3 or times, or R gave a period of time over years, or R said PRN), e.g., every couple /few years 18-57; 42-47 intermittent; PRN age 45-51
4	ONGOING	(If R mentioned 'present', 'current', 'ongoing') e.g., 58-present; 45-current, 65-69 ongoing

BIRTH CONTROL PILLS (Q7e)

Coded Variables: Text responses to specify **name** of the birth control pills were coded into a numeric variable. Text responses to specify when the birth control pills were taken were coded into four numeric variables: age **first time** used, age **last time** used, number of **years** used, and usage **history**.

- C4H7E2C: What is the **name** of the birth control pills? - Coded
- C4H7E3CF: When did you take birth control pills? – Coded for age **first time** used
- C4H7E3CL: When did you take birth control pills? – Coded for age **last time** used
- C4H7E3CY: When did you take birth control pills? – Coded for number of **years** used
- C4H7E3CU: When did you take birth control pills? – Coded for usage **history**

Coding Rules:

The coding process was guided by the following:

1. For **name** of the birth control pills:
 - a. Large number of participants could not recall the specific name of the pills they taken. All cases without any medication name given were coded into 'R CANNOT RECALL THE MED NAME'.

2. For Age (**first time** and **last time**) use birth control pills:
 - a. If R specified an age range, code the first number to 'age first time use' and last number to 'age last time use'. For example, '16-35', age first time use would be 16 and last time use would be 35;
 - b. If R specified two or more ages, code the first number to 'age first time use' and last number to 'age last time use'. For example, '18-21, 28-29', age first time use would be 18 and last time use would be 29;
 - c. If R specified one age only, code the age to both 'age first time use' and 'age last time use'. For example, '25', both age first time use and last time use would be 25;
 - d. If R indicated 'ongoing' or 'present' without specifying current age, we used R's age at the clinic visit for 'age last time use'. For example, '35-present'.
3. For number of **years** used oral birth control pills:
 - a. If R took birth control pills intermittently, number of years was computed by adding the years R specified. For example, '23-25, 29-44', number of years was 2+15=17 years;
 - b. One digit of decimal was used when calculating the number of years.
 - Less than 1 year was coded as 0.9 year; when R only reported one age number, e.g., 20, 35, number of years was counted as 0.9 year;
 - 9 months of duration was deducted for each pregnancy exclusion. For example, '18-35 with 5 stops for pregnancies', number of years was calculated as 13.2 years.
4. For usage **history**:
 - a. No special rules for coding usage history.
5. Only ORAL birth control pills are considered as valid. Birth control medications administrated in any other routes were designated as invalid and were removed. For example, IUD, patch, injection.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For **Name** of the birth control pills [C4H7E2C]

CODE	LABEL	KEYWORDS
1	ETHINYL ESTRADIOL - LEVONORGESTREL	triplasil, tri-levlen, portia, orsythia, amethia
2	ETHINYL ESTRADIOL - NORETHINDRONE	ortho-novum, gildess, loestrin, nortrel, junel
3	ETHINYL ESTRADIOL - NORGESTIMATE	ortho tri-cyclen
4	ETHINYL ESTRADIOL - NORGESTREL	lo-ovral, ovral,
5	ETHINYL ESTRADIOL - PROGESTIN UNKNOWN	ortho, ortho something
6	MULTIPLE HORMONE TYPES	(If R reported multiple meds in different types) e.g., orth tri-cyclen and ortho-novum
7	OTHER BIRTH CONTROL PILLS	yasmin, demulen, zarah, ocella, mircette, c-quens, levora
8	R CANNOT RECALL THE MED NAME	dk, missing, don't remember, cannot recall

For birth control pills usage **history** [C4H7E3CU]

CODE	LABEL	KEYWORDS
1	PREVIOUSLY USED	(If R reported one age or age period) e.g., 25-29; early 20s; age 30
2	ONGOING	(If R mentioned 'Present', 'current', or 'Ongoing') e.g., 28-present; 25-55 (present); 32-45 Ongoing
3	INTERMITTENT	(If R reported separate age periods, or R mentioned 'on and off') e.g., 20-28 on and off; 24-31, 33-35; 22-24, 29-32, 44-45
4	INTERMITTENT/ONGOING	(If R taken the med intermittently and also ongoing) e.g. 23-25, 29-44 present; 24-present minus 18mons for 2 pregnancies

POST-MENOPAUSAL HORMONE/TESTOSTERONE THERAPY (Q7f)

Coded Variables: Text responses to specify **name** of the post-menopausal hormone/testosterone therapy were coded into a numeric variable. Text responses to specify when the hormone/testosterone therapy was taken were coded into four numeric variables: age **first time** used, age **last time** used, number of **years** used, and usage **history**.

- C4H7F2C: What is the **name** of the post-menopausal hormone/testosterone therapy? - Coded
- C4H7F3CF: When did you have post-menopausal hormone/testosterone therapy? – Coded for age **first time** used
- C4H7F3CL: When did you have post-menopausal hormone/testosterone therapy? – Coded for age **last time** used
- C4H7F3CY: When did you have post-menopausal hormone/testosterone therapy? – Coded for number of **years** used
- C4H7F3CU: When did you have post-menopausal hormone/testosterone therapy? – Coded for usage **history**

Coding Rules: The coding process was guided by the following:

1. For **name** of the post-menopausal hormone/testosterone therapy:
 - a. If R taken multiple medications but all belong to the same category, it was coded into that category. For example, 'Premarin and Estrogen patch' was coded as ESTROGEN ONLY;
 - b. If R taken an estrogen and Progestin combination med, or taken estrogen only med and progestin only med at the same time, both situation were coded as 'COMBINATION ESTROGEN AND PROGESTIN'
 - c. For TESTOSTERONE, meds in gel, cream, shot, or patch are all valid.
2. For Age (**first time** and **last time**) use post-menopausal hormone/testosterone therapy:
 - a. If R specified an age range, code the first number as 'age first time use' and last number as 'age last time use'. For example, '42-47', age first time use would be 42 and last time use would be 47;
 - b. If R specified two or more ages, code the first number as 'age first time use' and last number as 'age last time use'. For example, '46-48, 52-58', age first time use would be 46 and last time use would be 58;
 - c. If R specified one age only, code the age to both 'age first time use' and 'age last time use'. For example, '50', both age first time use and last time use would be 50;

- d. If R indicated 'ongoing' or 'present' without specifying current age, we used R's age at the clinic visit for 'age last time use'. For example, '65-present', '55-now'.
3. For number of **years** R used oral post-menopausal hormone/testosterone therapy:
 - a. If R had post-menopausal hormone/testosterone therapy intermittently, number of years was computed by adding the years of all period R specified. For example, '46-48, 52-58', number of years was 2+6=8 years;
 - b. One digit of decimal was used when calculating the number of years.
 - Less than 1 year was coded as 0.9 year; A single age number was counted as 0.9 year. For example, 'age 47' would be counted as 0.9 year; '68-76, 78' would be counted as 8.9 years.
4. For usage **history**:
 - a. No special rules for coding usage history.
5. The following responses were designated as invalid records and were removed:
 - a. Estrogen free menopause relief supplements, such as Amberen, Estroven;
 - b. Take hormone for pregnancy or fertility procedures, not for menopausal symptoms.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For **Name** of post-menopausal hormone/testosterone therapy [C4H7F2C]

CODE	LABEL	KEYWORDS
1	ESTROGEN ONLY	premarin, estrogen, estradiol, estrace
2	PROGESTIN ONLY	progesterone
3	COMBINATION ESTROGEN AND PROGESTIN	prempo, estrogen progestine, hrt, premarin, mimvey
4	TESTOSTERONE	testosterone, androgel, axiron, fortesta, testopel, testim
5	MULTIPLE HORMONE TYPES	(If R reported multiple meds in multiple categories) e.g., premarin and prempo; estrotest premarin
6	OTHER HORMONE MEDICATIONS	androderm, susta, anavar, winstiol, livial
7	R CANNOT RECALL THE MED NAME	dk, missing, don't remember, cannot recall

For post-menopausal hormone/testosterone therapy usage **history** [C4H7F3CU]

CODE	LABEL	KEYWORDS
1	PREVIOUSLY USED	(If R reported one age or age period) e.g., 45-49; early 50s; 7 months in age 47
2	ONGOING	(If R mentioned 'Present', 'current', or 'Ongoing') e.g., 47-present; 52 - now; 50-58 Ongoing
3	INTERMITTENT	(If R reported separate age periods, or R mentioned 'on and off') e.g., 20-28 on and off; 24-31, 33-35; 22-24, 29-32, 44-45
4	INTERMITTENT/ONGOING	(If R taken the med intermittently and also ongoing) e.g. 35-40, 45-present

Source(s):

<https://www.fda.gov/consumers/free-publications-women/menopause-medicines-help-you>

<https://www.studocu.com/en-us/document/st-johns-university/clinical-pharmacology/oral-contraceptive-reference-chart/17346891>).

METAL IN BODY

Items: Medical History, Question 12

Q12. Do you have any other metal in your body that cannot be removed (includes rings, body piercings, etc.)?

If YES, what is the metal and where is it located

- Specify other metal type – text data
- Where is it located – text data

Data Preparation:

The interview included space to record up to three other metals in body. Five participants reported two metals in their body and no one reported three, thus only the first record A was coded. No special preparation was needed.

Coded Variables: Text responses to describe the metal **Type** and metal **Location** were coded into numeric variables.

- C4H12A1C: Specify other metal **type** A - Coded
- C4H12A2C: Specify other metal **location** A – Coded

Coding Rules: The coding process was guided by the following:

1. For **type** of metal in body
 - a. No special rules for coding type of metal in body
2. For **location** of the metal in body
 - a. For rods, plates, screws, or pins located in bones or joints, they were recoded back into the appropriate items base on the location in Q11a to Q11f (rods, plates, and screws in lower extremity, upper extremity, spine and elsewhere; or pin in hands/feet, or elsewhere).

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For **type** of metal in body [C4H12A1C]

CODE	LABEL	KEYWORD
1	DENTAL DEVICE	metal retainer, dental implants, dental crowns, braces, bridge, plate
2	DENTAL FILLING	fillings, teeth fillings
3	PINS, CLIPS, ETC	pins, clips, staples, clamp, rod, screw, anchor
4	STENT	stent
5	RING	ring, band
6	OTHER	wire, marker, bullet fragment, sewing needle, mesh, unspecified metal

For **location** of the metal in body [C4H12A2C]

CODE	LABEL	KEYWORD
1	HEAD	head, mouth, jaw, face, teeth
2	THORAX	chest, breast, heart, back, sternum

CODE	LABEL	KEYWORD
3	ABDOMEN	abdomen, stomach, underneath rib, bladder, spine
4	UPPER EXTREMITY	shoulder, finger, ear, hand, eyes, eyebrow,
5	LOWER EXTREMITY	femur, leg, feet, hip
6	OTHER	prostate

Source(s):

None.

SURGERIES

Items: Medical History, Question 13 (a to j)

Q13. Have you ever had surgery? (Yes/No)

If yes to Q13,

- Describe each surgery – text data
- Where was it performed, office visit, outpatient clinic, or inpatient (overnight)? – numeric data
- Year each surgery performed – numeric data

Note: In the original instrument, we recorded up to 10 surgeries (a to j). Some participants reported more than 10 surgeries. This information, including information about where it was performed and the year, was entered as Marginal Comments.

Data Preparation:

The interview included space to record up to ten surgeries. All records of descriptions were compiled into a stacked (vertical) format to facilitate review and coding. Information about surgeries that had been reported in marginal comments were pulled out and added to the stacked file for inclusion in the coding process. In the coding process, we found some surgical procedures were reported in the Other injury/illness section (Q18). These records were recoded back to Surgery (Q13). After reviewing all responses, the number of surgery records was expanded from 10 to 11 and item Q13k was added to the public data file.

Coded Variables: Text responses to describe each surgery were coded into numeric variables to indicate type of surgeries:

- C4H13AC: Type of surgery A - Coded
- C4H13BC: Type of surgery B – Coded
- C4H13CC: Type of surgery C - Coded
- C4H13DC: Type of surgery D - Coded
- C4H13EC: Type of surgery E - Coded
- C4H13FC: Type of surgery F - Coded
- C4H13GC: Type of surgery G - Coded
- C4H13HC: Type of surgery H - Coded
- C4H13IC: Type of surgery I - Coded
- C4H13JC: Type of surgery J - Coded
- C4H13KC: Type of surgery K - Coded

Coding Rules: The coding process was guided by the following:

1. Biopsies at a specific site were coded for that location, for example -
 - a. Breast biopsy was coded as BREAST
 - b. Prostate biopsy was coded as REPRODUCTIVE SYSTEM;
2. Lumpectomy is coded as follows -
 - a. If cancer or malignancy was indicated, code as CANCER;
 - b. Lumpectomy without mentioning cancer or a specific body part, that were regard as benign, non-cancerous were coded as BREAST;
3. The following responses were designated as inappropriate/ invalid as surgery and were dropped:
 - a. Colonoscopy (without mention of polyp removal)
 - b. Radiofrequency, electrocardiogram, endoscopy, myelogram, ultrasound, EDG, scaling

Coded Categories: The table below lists the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For type of surgery [C4H13AC] [C4H13BC] [C4H13CC] [C4H13DC] [C4H13EC] [C4H13FC] [C4H13GC] [C4H13HC] [C4H13IC] [C4H13JC] [C4H13KC]

CODE	LABEL	KEYWORDS
1	APPENDECTOMY	appendicitis, appendectomy
2	GALLBLADDER	gallbladder, cholecystectomy
3	DIGESTIVE SYSTEM	colon, polyp, polypectomy, esophagus, gastric bypass, hemorrhoidectomy, stomach, gastrectomy, bariatric
4	BREAST	breast, lumpectomy, mastectomy,
5	CESAREAN SECTION	cesarean, c-section
6	PREGNANCY TERMINATION	D&C, abortion, miscarriage, ectopic pregnancy
7	HYSTERECTOMY	hysterectomy
8	TUBAL LIGATION	tubal ligation, tubes tied
9	REPRODUCTIVE SYSTEM	vasectomy, circumcision, episiotomy, prostate, uterine, fibroid, oophorectomy, endometriosis
10	CARDIOVASCULAR SYSTEM	heart, TIA, heart stent, artery, vein, catheter, ablation, angioplasty, bypass, clot, aneurysm, pacemaker, valve, coronary
11	URINARY SYSTEM	bladder, nephrectomy, urethra, kidney, renal, ureter
12	HERNIA	hernia
13	ORAL	tooth/teeth, gum, dental, root canal, molar, crown
14	EYE - CATARACT	cataract
15	EYE	eye, lasik, lens implant, corneal, astigmatism, blepharoplasty, vision, retina, glaucoma
16	TONSILLECTOMY/ADENOIDECTOMY	tonsillectomy, adenoidectomy
17	EAR/NOSE/THROAT	septum, ear, nose, throat, sinus, hearing loss, eardrum, sleep apnea
18	BACK/NECK	back, neck, vertebrae, disc, laminectomy, discectomy, spinal fusion, cervical fusion, tracheotomy, spine
19	ARM/SHOULDER	arm, elbow, shoulder, rotator cuff, tennis elbow
20	HAND/WRIST	hand, wrist, thumb, finger, carpal tunnel, knuckle
21	KNEE	knee, ACL, MCL, meniscus
22	FOOT/ANKLE	foot, ankle, toe, heel, Achilles, bunion, toenail, orthopedic
23	FRACTURE	fracture, broken bone
24	SKIN	skin, mole removal, graft, stitches
25	CANCER	cancer, malignant, carcinoma, melanoma, basal cell, squamous cell, leep, Moh's, precancerous
26	CYST/TUMOR	cyst, tumor (non-cancerous), neuroma, Schwannoma, lipoma
27	COSMETIC	tummy tuck, augmentation, reduction, implant, reconstruction, silicone, nose job, cosmetic, rhinoplasty, plastic, face lift

CODE	LABEL	KEYWORDS
28	OTHER	penetration, thyroid, hip, laparoscopy, gunshot, lymph node, liver, spleen, lung

Source(s):

None.

HEAD INJURY

Items: Medical History, Question 14 (a to c)

Q14. Have you ever had a Head injury? (Yes/No)

If yes to Q14,

- Describe each Head injury – text data
- Overnight hospital stay required? – numeric data
- Year each Head injury occurred – numeric data

Data Preparation:

The interview included space to record up to three head injuries. All records of descriptions were compiled into a stacked (vertical) format to facilitate review and coding. None of the participants reported more than 3 head injuries.

Coded Variables: Text responses describing each head injury were coded into two numeric variables to indicate **TYPE** of head injury and **HOW** the injury occurred.

- C4H14ATC: **Type** of head injury A - Coded
- C4H14AHC: **How** head injury A occurred - Coded
- C4H14BTC: **Type** of head injury B - Coded
- C4H14BHC: **How** head injury B occurred - Coded
- C4H14CTC: **Type** of head injury C - Coded
- C4H14CHC: **How** head injury C occurred – Coded

Coding Rules: The coding process was guided by the following:

1. For **TYPE** of injuries:
 - a. Responses with any other type of head injury in addition to concussion were coded as CONCUSSION PLUS;
 - b. Cuts and lacerations were coded into one of two categories as follows:
 - i. If the response referred to stitches, sutures, etc. it was coded as CUT-STITCHES
 - ii. If the respond did not refer to stitches, etc. it was coded as CUT-OTHER;
 - c. Any bone fracture in in the head (i.e. facial bone, nose, as well as skull) was coded as SKULL FRACTURE.
2. For **HOW** the injury happened:
 - a. Any fall not from height nor walking or going up or down in the stairs were coded as FALL-OTHER.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For **type** of head injury [C4H14ATC] [C4H14BTC] [C4H14CTC]

CODE	LABEL	KEYWORDS
1	CONCUSSION	Concussion, blacked out, knocked out, lost consciousness, unconscious
2	CONCUSSION PLUS	Concussion and stitches, concussion and laceration, concussion and black eye
3	CUT – STITCHES	Sutured, stitched
4	CUT-OTHER	Forehead laceration, cut above R eye, bled a lot

CODE	LABEL	KEYWORDS
5	EYE INJURY	Eye, sight
6	HEMATOMA	Bump, hematoma
7	SKULL FRACTURE	Skull Fracture, broken facial bone, nose
8	OTHER	Amnesia, aneurysm, burn, coma, degloving, embedded object, hearing loss
9	NOT SPECIFIED	Response indicated cause of injury (assaulted, fall down steps, hit forehead against door), but did not specify the <i>type of injury</i>

For how the head injury occurred [C4H14AHC] [C4H14BHC] [C4H14CHC]

CODE	LABEL	KEYWORDS
1	ASSAULT	Assault, beaten, hit, physically abused
2	BICYCLE ACCIDENT	Bike, bicycle
3	FALL FROM HEIGHT	Fall from ladder, fall from scaffolding, fall off wall, fall off roof, fall from window, fall from tree
4	FALL OR SLIP – WALKING OR STAIRS	Tripped, slipped, stairs
5	FALL - OTHER	Fall, fell, fell out
6	FIGHT	Fight
7	HIT AGAINST FIXED OBJECT	Hit head on a step, hit door, hit on counter, bumped into something
8	HIT BY MOVING OBJECT	Hit car door in accident, hit head by something
9	MOTER VEHICLE ACCIDENT	car accident, motor vehicle accident, hit by car
10	PASSED OUT	Passed out, fainted, dizzy
11	PLAYING	Playing, playground
12	SPORTS	Baseball, football, basketball, horseback riding, skating, skiing, snowboarding, tennis, lacrosse, rugby, hiking, sledding, wrestling, gymnastic, cheerleading, boxing
13	OTHER	Collision with another person, explosion, kicked by animal, stab
14	NOT SPECIFIED	Response indicated type of injury (skull fracture, laceration to forehead) but did not specify <i>how the injury occurred</i> .

Source(s):

None.

JOINT INJURY

Items: Medical History, Question 15 (a to c)

Q15. Have you ever had a Joint injury? (Yes/No)

If yes to Q15,

- Describe Joints (knee, shoulder, etc.) and injury – text data
- Overnight hospital stay required? – numeric data
- Year each Joint injury occurred - numeric data

Data Preparation:

The interview included space to record up to three joint injuries. All records of descriptions were compiled into a stacked (vertical) format to facilitate review and coding. None of the participants reported more than 3 joint injuries.

Coded Variables: Text responses to describe each joint injury were coded into three numeric variables to indicate **LOCATION** of the joint injury, **TYPE** of the joint injury, and **HOW** the joint injury occurred.

- C4H15ALC: **Location** of joint injury A - Coded
- C4H15ATC: **Type** of joint injury A - Coded
- C4H15AHC: **How** joint injury A occurred - Coded
- C4H15BLC: **Location** of joint injury B - Coded
- C4H15BTC: **Type** of joint injury B - Coded
- C4H15BHC: **How** joint injury B occurred - Coded
- C4H15CLC: **Location** of joint injury C - Coded
- C4H15CTC: **Type** of joint injury C - Coded
- C4H15CHC: **How** joint injury C occurred – Coded

Coding Rules: The coding process was guided by the following:

1. Responses reporting the following are not joint injuries and were dropped: Achilles tendon injuries, fractures, bursitis, muscle injury, carpal tunnel syndrome, and arthritis

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For **location** of joint injury [C4H15ALC] [C4H15BLC] [C4H15CLC]

CODE	LABEL	KEYWORDS
1	ANKLE	Ankle
2	ELBOW	Elbow
3	FINGER	Finger, thumb, pinky
4	HIP	Hip
5	KNEE	Knee, ACL, MCL, PCL meniscus
6	SHOULDER	Shoulder, rotator cuff
7	WRIST	Wrist
8	OTHER	Groin, spine, toe

For **type** of joint injury [C4H15ATC] [C4H15BTC] [C4H15CTC]

CODE	LABEL	KEYWORDS
1	DISLOCATION	Dislocated
2	INFLAMMATION	Welling, inflamed
3	SPRAIN	Sprain, twist, strain, rolled
4	TEAR	Tear, ACL, MCL, PCL
5	TENDONITIS	Tendonitis, tennis elbow
6	OTHER	Bruise, chondromalacia, cut, frozen shoulder, hyperextension, jamming, replacement, separation
7	NOT SPECIFIED	(response did not specify <i>type of joint injury</i>) e.g., rotator cuff; knee injured at work

For **how** the joint injury occurred [C4H15AHC] [C4H15BHC] [C4H15CHC]

CODE	LABEL	KEYWORDS
1	CARRING HEAVY LOAD	Carrying, heavy, lifting heavy
2	NON-SPORT ACTIVITY	Bike, bicycle, dancing, gymnastic class, running, exercise, jogging, training, lifting, weights, sledding, gym, hunting
3	FALL	Fall, fall from ladder, fall from scaffolding, fall off wall, fall off roof, fall from window, fall from tree
4	FALL OR SLIP - WALKING OR STAIRS	Tripped, slipped, stairs
5	MOTOR VEHICLE ACCIDENT	Car accident, motor vehicle accident, hit by car
6	MOVE OR STEP WRONG	Lost balance, stepped, missed a step
7	OVERUSE	Overuse, over time, wear and tear
8	REPETITIVE MOTION	Repetitive, repeated
9	SPORTS	Baseball, basketball, boxing, marathon, martial arts, skiing, snowboarding, soccer, volleyball, wrestling
10	OTHER	Collision with another person, kicked by animal, fight, work
11	NOT SPECIFIED	(response did not specify <i>how injury occurred</i>) e.g., left knee; ankle, frozen shoulder

Source(s):

None.

MOTOR VEHICLE ACCIDENT

Items: Medical History, Question 16 (a to d)

Q16. Have you ever been injured in a Motor Vehicle accident? (Yes/No)

If yes to Q16,

- Describe each injury – text data
- Overnight hospital stay required? – numeric data
- Year each injury occurred - numeric data

Data Preparation:

The interview includes space to record up to four motor vehicle accident injuries. All records of descriptions were compiled into a stacked (vertical) format to facilitate review and coding. None of the participants reported more than 4 motor vehicle accidents.

Coded Variables: Text responses to describe each injury were coded into numeric variables to indicate the **types of injury** and **types of vehicle** involved. Frequently, motor vehicle accidents cause multiple injuries, therefore, up to two types of injuries are coded for each accident reported.

- C4H16ATC1: Motor vehicle accident A **injury 1** - Coded
- C4H16ATC2: Motor vehicle accident A **injury 2** - Coded
- C4H16AVC: Motor vehicle accident A **vehicle type** - Coded
- C4H16BTC1: Motor vehicle accident B **injury 1** - Coded
- C4H16BTC2: Motor vehicle accident B **injury 2** - Coded
- C4H16BVC: Motor vehicle accident B **vehicle type** - Coded
- C4H16CTC1: Motor vehicle accident C **injury 1** - Coded
- C4H16CTC2: Motor vehicle accident C **injury 2** - Coded
- C4H16CVC: Motor vehicle accident C **vehicle type** - Coded
- C4H16DTC1: Motor vehicle accident D **injury 1** - Coded
- C4H16DTC2: Motor vehicle accident D **injury 2** - Coded
- C4H16DVC: Motor vehicle accident D **vehicle type** - Coded

Coding Rules: The coding process was guided by the following:

2. For **type of injuries**:

- a. A broken back or vertebrae was coded as BACK INJURY instead of FRACTURE;
- b. Responses reporting both a 'back injury' AND a 'neck injury' were coded as BACK/NECK INJURY;
- c. Responses with 'Concussion' along with other injuries to the head were coded as CONCUSSION PLUS;
- d. Any injuries to leg except for the 'Knee' were coded as LEG INJURY.

3. For **vehicle type** for motor vehicle accident injury:

- a. No special rules for coding vehicle types.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For **type of injury** [C4H16ATC1] [C4H16ATC2] [C4H16BTC1] [C4H16BTC2] [C4H16CTC1] [C4H16CTC2] [C4H16DTC1] [C4H16DTC2]

CODE	LABEL	KEYWORDS
1	ABRASION	Abrasion, scrapes, skinned, tore skin, scratches
2	BACK INJURY	Vertebrae, back injury, broke back, disc, back lash, back pain
3	BACK/NECK INJURY	Back and neck injury
4	CONCUSSION	Concussion, knocked out, unconscious, lost consciousness
5	CONCUSSION PLUS	Responses with any other type of head injury in addition to concussion(e.g., cut above eye-stitches, unconscious; multiple lacerations to scalp, amnesia; concussion, face lacerations)
6	CONTUSION	Contusion, bruise
7	DENTAL INJURY	Broke teeth, lost teeth, dentures
8	FRACTURE	Broken bone, fracture, cracked bone
9	HEAD INJURY	Head injury, hit head, any injuries to head
10	KNEE INJURY	Knee
11	LACERATION	Cut, laceration, stitches
12	LEG INJURY	Leg, ankle, foot
13	NECK INJURY	Neck injury, neck pain
14	SHOULDER INJURY	Shoulder injury, rotator cuff
15	SPRAIN	Sprain, strain
16	WHIPLASH	Whiplash
17	MORE THAN 2 INJURIES	Responses including three or more injuries(e.g., ruptured cartilage of knee, cracked ribs, and neck trauma; shattered leg, pelvis, hip, spine)
18	OTHER	Wrist injury, internal organ injury, burn, amnesia, arm injury, dislocation, eye injury, hip injury, nerve damage, soreness
19	NOT SPECIFIED	Responses that mentioned MVA without specifying <i>injuries</i> (e.g., car accident; hit telephone pole while driving)

For **vehicle types** [C4H16AVC] [C4H16BVC] [C4H16CVC] [C4H16DVC]

CODE	LABEL	KEYWORDS
1	CAR	Car, automobile
2	MOTORCYCLE	Motorcycle
3	TRUCK	Truck, semi
4	OTHER	Bus, pedestrian, tractor, van
5	NOT SPECIFIED	Responses that mentioned MVA without specifying <i>vehicle</i> type (e.g., broken nose; hit head; whiplash)

Source(s):

None.

AMPUTATION

Items: Medical History, Question 17 (a to c)

Q17. Have you *permanently* lost all or part of a limb (including tip of a finger or toe)?
(Yes/No)

If yes to Q17,

- Describe each amputation – text data
- Overnight hospital stay required? – numeric data
- Year each amputation occurred - numeric data

Data Preparation:

The interview included space to record up to three amputations. One person reported two amputations and no one reported three, thus only the first record, describe Amputation A, was coded. No special preparation was needed.

Coded Variables: Text responses to describe amputation A were coded into a numeric variable.

- C4H17AC: Describe amputation A – Coded

Coding Rules: The coding process was guided by the following:

1. The following responses were designated as invalid records for amputation and were removed:
 - a. Corrective surgery was not considered amputation. For example, 'born with 6 toes, extra one was removed';
 - b. Successful Reattachment was NOT a permanent loss. For example, 'severed top of ring finger, it was sewn back on';
 - c. Disfigurement/abnormal recovery post-injury where the limb was not lost. For example, 'Toenail grew through bottom of toe' or 'large bump at reattachment site'

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For describe amputation [C4H17AC]

CODE	LABEL	KEYWORDS
1	ONE FINGER	Thumb, pinky, index finger, middle finger, ring finger
2	ONE TOE	Toe, big toe, small toe, middle toe
3	MULTIPLE FINGERS	Fingers
4	MULTIPLE TOES	Toes
5	LEG	Leg

Source(s):

None.

OTHER INJURIES OR ILLNESSES

Items: Medical History, Question 18 (a to d)

Q18. Have you ever had any other major injuries, illnesses, or other health events that may or may not have required hospitalization?

If yes to Q18,

- Describe each Other injury/illness – text data
- Overnight hospital stay required? – numeric data
- Year each Other injury/illness occurred - numeric data

Data Preparation:

The interview included space to record up to four other injuries or illnesses. All records of descriptions were compiled into a stacked (vertical) format to facilitate review and coding. After reviewing all responses, the number of other injury or illness records was expanded from 4 to 6 and item Q18e and Q18f were added to the public data file.

Coded Variables: Text responses to describe each injury/illness were coded into numeric variables to indicate type of other injury/illness.

- C4H18AC: Type of other injury/illness A - Coded
- C4H18BC: Type of other injury/illness B - Coded
- C4H18CC: Type of other injury/illness C - Coded
- C4H18DC: Type of other injury/illness D – Coded
- C4H18EC: Type of other injury/illness E – Coded
- C4H18FC: Type of other injury/illness F – Coded

Coding Rules: The coding process was guided by the following:

1. In addition to the specific injury/illness categories, three OTHER categories were created:
 - a. Any other illness such as rheumatic fever, arthritis, etc. are coded as OTHER – ILLNESS;
 - b. Any other injuries including dental, foot, leg, etc., as well as fracture, are coded as OTHER – INJURY;
 - c. Any responses that did not fit into a category including OTHER – INJURY and OTHER – ILLNESS, are coded as OTHER – GENERAL.
2. Any surgeries reported here were removed from this item (Q18) and moved to Q13 (surgery).

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For describe other injury/illness [C4H18AC] [C4H18BC] [C4H18CC] [C4H18DC] [C4H18EC] [C4H18FC]:

CODE	LABEL	KEYWORDS
1	ALLERGIC REACTION	allergic, allergies, anaphylaxis, anaphylactic, sting, bite, poison ivy/oak
2	BACK PROBLEM	back injury, back pain, back problems, disc, sciatica, spinal stenosis, spondylopathy
3	CANCER/CANCER TREATMENT	cancer, melanoma, chemo, radiation
4	CARDIOVASCULAR PROBLEM	heart, TIA, tachycardia, heart stent, cardiac, pulmonary embolism, chest pain, circulatory, hypertension, blood

CODE	LABEL	KEYWORDS
		pressure, cerebral infarction, cerebrovascular, aneurysm, stroke, dvt
5	CHILDBIRTH	childbirth, birth, cesarean, delivery, baby, pregnancy
6	DIAGNOSTIC PROCEDURE	biopsy, CT, cystoscopy, endoscopy, MRI, ultrasound, stress test
7	DIGESTIVE SYSTEM PROBLEM	pancreatitis, pancreas, liver, food poison, gallbladder, tonsillitis, hemorrhoid, diverticulitis, reflux, GERD, heartburn, ibs, bowel syndrome, meckel, diverticulum, ulcer, crohn's, colitis
8	GENITOURINARY PROBLEM	uti, pyelonephritis, urinary, cystocele, bladder, testicular, testicle, prostate, uterus
9	INFECTION	mrna, cellulitis, staph, sepsis, blood poisoning, strep, sinusitis, peritonitis, hookworm, endocarditis, cdiff, conjunctivitis, infection, abscess
10	INFECTIOUS DISEASE	mono, typhoid, tb, meningitis, polio, pertussis, whooping, malaria, lyme, influenza, flu, hiv, herpes, pylori, measles, gastroenteritis, dysentery, dengue, diphtheria, campylobacter, shingles, chicken pox, encephalitis, scarlet fever, COVID
11	KIDNEY PROBLEM	kidney, renal, albuminuria
12	LACERATION/CONTUSION/ SWELLING	stab, swelling, bruise, contusion, laceration, cut, stitch
13	MENTAL HEALTH PROBLEM	anxiety, bipolar, ptsd, panic, schizophrenia, depression, suicide
14	MUSCLE/TENDON/LIGAMENT INJURY	tennis elbow, tear, hamstring, jammed, sprain, ligament, tendon, muscle, knee pain, plantar fasciitis
15	NEUROLOGICAL PROBLEM	palsy, epilepsy, dystonia, nerve damage, bell's, tourette, neuropathy, trigeminal, parkinson's, restless, stutter, tremor, vertigo, meniere's, guillain barre
16	NON-CANCEROUS TUMORS	cystitis, cyst, polyp, lump, fibroid, tumor
17	OCULAR PROBLEM/INJURY	eye, cataract, lasik
18	PREGNANCY PROBLEM	uterus, endometriosis, miscarriage, abortion, stillbirth, d and c
19	RESPIRATORY PROBLEM	lung, pneumonia, asthma, copd, emphysema, bronchitis, collapsed lung, respiratory
20	OTHER - ILLNESS	Any other illnesses such as rheumatic fever, arthritis
21	OTHER - INJURY	Any other injuries including dental, foot, leg injuries, as well as fracture, poisoning, burn, hernia
22	OTHER - GENERAL	Any responses that did not fit into the above categories including 'OTHER - INJURY' and 'OTHER - ILLNESS'(e.g., removal of mole on skin; sinus irrigation; bone spur on foot)

Source(s):

None.

RADIATION THERAPY

Items: Medical History, Question 19

Q19. Have you ever had radiation therapy to your head or neck? (Yes/No)

a. [IF YES] Please specify:

Data Preparation:

Single Text Variable, no special preparation needed.

Coded Variables: Less than 3% of cases reported having radiation therapy to the head and neck. The text responses were reviewed but due to the limited number of cases they were not coded into numeric categories.

Coding Rules: Text response were reviewed and invalid responses were removed. The following responses were designated as invalid for radiation therapy to head or neck:

1. UV treatment
2. Radioactive iodine therapy for thyroid treatment
3. Radiation therapy not for head or neck.

INFLUENZA VACCINATION

Items: Medical History, Question 22

Q22. How often do you get an influenza vaccination (flu shot)? Every year, almost every year, every couple of years, rarely, only once (had reaction, possibly allergic), never (allergic), never, or Other (go to 22a)

Q22a. Specify

Data Preparation:

Single Text Variable, no special preparation needed.

Coded Variables: Text responses to specify other frequencies were reviewed. No new variable was created but the extant codes for variable [C4H22] were expanded.

1. A new response category 'ONLY ONCE, NO REACTION' was added; cases that reported only once without mentioning any reaction were coded into this category. For example, 'only once', 'one – 10 years ago', 'once'.
2. Recoded back into existing categories as indicated:
 - a. Coded back to 'ALMOST EVERY YEAR': For example, 'every year since 2001 but didn't get in 2004 because it was not available';
 - b. Coded back to 'ONLY ONCE, HAD REACTION': For example, 'only once – became sick', 'only once – arm swollen for weeks';
 - c. Coded back to 'RARELY':
 - i. Only 2-3 times. For example, 'had two flu shot life time due to job requirement', 'twice', 'on and off, maybe 2-3 times';
 - ii. Less or equal to every five years. For example, 'about every five years', 'once every five years';
 - iii. A few times but many years ago. For example, 'had a couple in college', 'only receive shot when in military, last shot in 2006'.

Expanded Codes:

For influenza vaccination [C4H22]

CODE	LABEL	KEYWORDS
1	EVERY YEAR	(Extant category)
2	ALMOST EVERY YEAR	(Extant category)
3	EVERY COUPLE YEARS	(Extant category)
4	RARELY	(Extant category)
5	ONLY ONCE (REACTION)	(Extant category)
6	NEVER (ALLERGIC)	(Extant category)
7	NEVER	(Extant category)
8	OTHER	Not for last few years, stopped getting one, whenever, more than once but reaction on last shot etc.
9	ONLY ONCE, NO REACTION	Only once, just once

Source(s):

None.

DENTAL CARE

Items: Medical History, Question 23a

Q23a. How often do you receive dental care?

- Never
- Every 6 months
- Once a year
- Other – go to 23b

Q23b. Specify

Data Preparation:

Single Text Variable, no special preparation needed.

Coded Variables: The responses to Other 'Specify' (Q23b) were reviewed. No new variables were created but the extant codes for variable [C4H23A] were expanded.

Expanded Codes:

For frequency of dental care [B4H43A]

CODE	LABEL	KEYWORDS
1	NEVER	(Extant category)
2	EVERY 3 MONTHS	Every 3 months, Q 3 months, 4 times a year,
3	EVERY 4 MONTHS	Every 4 months, 3 times a year
4	EVERY 6 MONTHS	(Extant category)
5	ONCE A YEAR	(Extant category)
6	EVERY 2 YEARS	Every 2 years, every other year, every 1 to 2 years
7	EVERY 3 YEARS	Every 3 years, every 2-3 years
8	AS NEEDED	As needed, when in pain, when I have a problem, PRN
9	IRREGULAR	Not regular, no regular schedule
10	RARELY	(Any frequency less than once every 5 year are coded as rarely) e.g., every 5-10 years, rarely, hardly ever
11	DENTURES	Dentures, false teeth
12	OTHER	(Any responses cannot fit into category 1 to 11) e.g., every few years, when I can afford it, when have insurance, not often enough

Source(s):

None.

VISION CARE

EYE EXAM

Items: Medical History, Question 24a to 24b

Q24a. How often do you get eye exam?

- Never
- Every 6 months
- Once a year
- Other – go to 24b

Q24b. Specify

Data Preparation:

Single Text Variable, no special preparation needed.

Coded Variables: The responses to Other ‘Specify’ (Q24b) were reviewed. No new variables were created but the extant codes for variable [C4H24A] were expanded.

Expanded Codes:

For frequency of eye exam [C4H24A]

CODE	LABEL	KEYWORDS
1	NEVER	(Extant category)
2	EVERY 6 MONTHS	(Extant category)
3	ONCE A YEAR	(Extant category)
4	EVERY 2 YEARS	Every 2 years, every other year, every 1-2 years, every 24 months
5	EVERY 3 YEARS	Every 3 years, every 2-3 years
6	EVERY 4 YEARS	Every 4 years, every 3-4 years
7	EVERY 5 YEARS	Every 5 years, every 4-5 years
8	AS NEEDED	As needed, PRN, as necessary
9	IRREGULAR	Not regular, no regular schedule
10	RARELY	(Any frequency less than once every 5 year are coded as rarely) e.g., only once, 10 years ago, years and years ago
11	OTHER	(Any responses cannot fit into category 1 to 10) e.g., more frequent than every 6 months, every few years, whenever wife makes me, when has money, no health insurance

EYE DISEASE OR DISORDER

Items: Medical History, Question 24d to 24e

Q24d. Have you been diagnosed with an eye disease or disorder?

- Yes – go to 24e
- No

Q24e. If yes, please specify:

Data Preparation:

Single Text Variable, no special preparation needed.

Coded Variables: Text responses to specify eye disease or disorder were coded into numeric variable to indicate type of disease/disorder.

- C4H24EC: Specify eye disease or disorder - Coded

Coding Rules: The coding process was guided by the following:

1. The following responses were designated as inappropriate/ invalid as eye disease or disorder and were dropped:
 - a. If the problem is the result of injury or infection, such as sty, pink eye;
 - b. If the problem is naturally occurring (not disease based), such as astigmatism.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For eye disease or disorder [C4H24EC]

CODE	LABEL	KEYWORDS
1	CATARACTS	Cataract
2	GLAUCOMA	Glaucoma
3	MACULAR DEGENERATION	Macular degeneration
4	DRY EYES	Dry eyes
5	UVEITIS	Chorioretinitis, iritis, uveitis
6	RETINOPATHY	Retinopathy
7	AMBLYOPIA	Amblyopia
8	MULTIPLE DISEASES/DISORDERS	(If more than one disease/disorders specified)
9	OTHER	Ocular hypertension, strabismus, keratoconus, retinal detachment

Source(s):

None.

SCREENING PROCEDURES

Items: Medical History, Question 25, a to g, and Question 34

Q25. Now, I want to ask you about other screening procedures you may have had. For each procedure that you've had, please tell me when it was performed and the results.

Have you ever.....

- a. Had your cholesterol level check?
- b. Been asked to complete a stool card to test for blood in your stool?
- c. Had a flexible sigmoidoscopy?
- d. Have you ever had a colonoscopy?
- e. [For WOMEN] Do you do a monthly breast exam?
- f. [For WOMEN] Have you ever had a mammogram?
- g. [For WOMEN] Have you ever had a Pap test and pelvic exam?

Q34. [For MEN] Have you ever had a prostate/rectal exam?

- For each procedure:
 - Yes/No – numeric data
 - When was that (month/yr)? – numeric data
 - What was the result? – text data

Data Preparation:

Each procedure has a Single Text Variable, no special preparation needed.

The coding categories are the same for almost all of these items (e.g. normal, unknown, not completed, no results yet) however the decision rules for the ABNORMAL category varied by procedures. Therefore, coded variables, coding rules and coded categories for each screening procedure are listed separately.

CHOLESTEROL LEVEL

Coded Variables: Text responses to “What was the result?” were coded into numeric variables to indicate type of test results.

- C4H25ARC: Cholesterol level test results - Coded

Coding Rules: The coding process was guided by the following:

1. If participant reported the results in words, such as good, normal, borderline, high. The text was coded into corresponding categories:
 - a. A little high, slightly elevated were coded as BORDERLINE;
 - b. Moderately elevated were coded as HIGH;
 - c. If a person is too high on just one cholesterol measure (i.e., HDL and LDL are good but triglycerides are high), it was coded as HIGH.
2. If participant reported the type of lipid and a number use the guidelines below to categorize:
 - a. Total Cholesterol -
 - i. Lower than 200 – Normal
 - ii. Between 200 to 239 – Borderline
 - iii. 240 or higher - High
 - b. HDL Cholesterol
 - i. Lower than 40 - Low

- ii. Between 40 to 60 - Normal
- iii. 60 or higher - High
- c. LDL Cholesterol
 - i. Lower than 130 – Normal
 - ii. Between 130 to 159 – Borderline
 - iii. 160 or higher - High
- d. Triglycerides
 - i. Lower than 150 - Normal

Coded Categories: The table below lists the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For Cholesterol level test results: [C4H25ARC]

CODE	LABEL	KEYWORDS
1	NORMAL	Normal, good, fine, not high, okay, low, great
2	NORMAL WITH MEDS	Normal with medication, fine but I'm on medication, a little high with medication, taking medication so it's under control
3	BORDERLINE	Borderline, borderline high, slightly elevated, slightly high, Total cholesterol between 200-239
4	HIGH	High, elevated, above normal
5	NO RESULTS YET	Waiting for result, unknown as it was done yesterday

BLOOD IN STOOL

Coded Variables: Text responses to “What was the result?” were coded into numeric variables to indicate type of test results.

- C4H25BRC: Blood in stool test results - Coded

Coding Rules: The coding process was guided by the following:

1. Blood in stool test results were coded as ABNORMAL when text similar to the following was provided –
 - a. The test was positive;
 - b. There was blood in the stool or urine (even if R says it was an ‘acceptable’ amount);
 - c. Any disease was diagnosed as a result (i.e. c-difficile, salmonella, colitis);
 - d. Referred to a colonoscopy as a result of this test.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For blood in stool test results: [C4H25BRC]

CODE	LABEL	KEYWORDS
1	NORMAL	Normal, negative, no issue, okay
2	ABNORMAL	Positive, showed blood, blood in stool, referred for colonoscopy, had hemorrhoids, had salmonella
3	UNKNOWN	Don't remember, long time ago, not sure, inconclusive
4	NO RESULTS YET	Waiting for results, I haven't gotten the results

FLEXIBLE SIGMOIDOSCOPY:

Coded Variables: Text responses to “What was the result?” were coded into numeric variables to indicate type of test results.

- C4H25CRC: Result of flexible sigmoidoscopy - Coded

Coding Rules: The coding process was guided by the following:

1. Flexible sigmoidoscopy results were coded as ABNORMAL when text similar to the following was provided –
 - a. Polyps were found (even if benign);
 - b. Colon inflammation, ulcerative colitis, hernias, irritable bowel, or any disease was diagnosed;
 - c. Referred to a colonoscopy as a result of this test.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For flexible sigmoidoscopy results: [C4H25CRC]

CODE	LABEL	KEYWORDS
1	NORMAL	Normal, negative, fine, clear, no issues
2	ABNORMAL	Polyp discovered, benign polyps, inflamed colon, ulcerative colitis, irritable bowel
3	UNKNOWN	Don't remember, don't know, not sure, inconclusive
4	NO RESULTS YET	Waiting for results

COLONOSCOPY

Coded Variables: Text responses to “What was the result?” were coded into numeric variables to indicate type of test results.

- C4H25DRC: Colonoscopy test results - Coded

Coding Rules: The coding process was guided by the following:

1. Colonoscopy results were coded as ABNORMAL when text similar to the following was provided –
 - a. Polyps found, even if benign, even if most recent test was fine but had polyps in past test;
 - b. Diverticulitis/radiculitis/colitis, intestinal infarctions, hemorrhoids, hernia, “pockets,” fissures, irritable bowel syndrome, or any disease was diagnosed;
 - c. R was given antibiotics as a result.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For colonoscopy results: [C4H25DRC]

CODE	LABEL	KEYWORDS
1	NORMAL	Normal, clean, no problem, fine, good, negative, healthy

CODE	LABEL	KEYWORDS
2	ABNORMAL	Polyp found, polyp removed, benign polyp, colon polyp, colitis, diverticulitis, fissures
3	UNKNOWN	Don't remember, don't know, not sure
4	NO RESULTS YET	Waiting for results

MAMMOGRAMS

Coded Variables: Text responses to “What was the result?” were coded into numeric variables to indicate type of test results.

- C4H25FRC: Mammogram test results - Coded

Coding Rules: The coding process was guided by the following:

1. Mammogram test results were coded as ABNORMAL when text similar to the following was provided –
 - a. Cancer, sclerosing adenosis, hematoma, inflammation/infection in breast, dense breast tissue, fatty tissue, or any diseases diagnosed;
 - b. Any lumps or cysts were found;
 - c. Had mastectomy or lumpectomy;
 - d. Asked to return for another checkup, calcification, and biopsy.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For mammogram results: [C4H25FRC]

CODE	LABEL	KEYWORDS
1	NORMAL	Normal, fine, good, negative, okay
2	ABNORMAL	Cancer, cysts, fibrotic tissue, dense tissue, biopsy, mastectomy, lumpectomy, inflammation/infection
3	UNKNOWN	Don't remember, don't know, not sure, inconclusive
4	NO RESULTS YET	No result yet, unknown yet, waiting for result

PAP TEST AND PELVIC EXAM

Coded Variables: Text responses to “What was the result?” were coded into numeric variables to indicate type of test results.

- C4H25GRC: Pap test and pelvic exam results – Coded

Coding Rules: The coding process was guided by the following:

1. Pap test and pelvic exam results were coded as ABNORMAL when text similar to the following was provided –
 - a. Had a hysterectomy at some point;
 - b. Any fibroids, cysts, tumors, or endometrial cells found;
 - c. Cancer, hyperplasia, bacterial/bladder/yeast infection, abnormal bleeding, or any diseases diagnosed;
 - d. Asked to do a follow up test.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For pap test and pelvic exam results: [C4H25GRC]

CODE	LABEL	KEYWORDS
1	NORMAL	Normal, negative, good, fine, okay, clear
2	ABNORMAL	Abnormal, hysterectomy, fibroids, cancer, tumors, bladder infection, asked for follow up
3	UNKNOWN	Don't remember, don't know, not sure, no idea
4	NO RESULTS YET	No result yet, unknown yet, waiting for result

PROSTATE/RECTAL EXAM

Coded Variables: Text responses to “What was the result?” were coded into numeric variables to indicate type of test results.

- C4H34RC: Prostate/rectal exam results - Coded

Coding Rules: The coding process was guided by the following:

1. Prostate/rectal exam results were coded as ABNORMAL when text similar to the following was provided –
 - a. Prostate was removed at some point;
 - e. Enlarged prostate, hemorrhoids, cancer, fissures, swelling, diverticulitis, elevated PSA, or any diseases diagnosed;
 - b. Medication was prescribed.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For prostate/rectal exam results: [C4H34RC]

CODE	LABEL	KEYWORDS
1	NORMAL	Normal, negative, good, fine, okay
2	ABNORMAL	Enlarged prostate, benign prostatic hypertrophy, prostate cancer, biopsy, diverticulitis, fissure, hemorrhoids, inflamed prostate, PSA was high
3	UNKNOWN	Don't remember, don't know, not sure, no idea
4	NO RESULTS YET	No result yet, unknown yet, waiting for result

Source(s):

None.

ALLERGY

Items: Medical History, Question 35 (a to f)

Q35. Do you have any allergies that have been diagnosed by a doctor or allergist? - Yes/No
(If yes to Q35) Are you allergic to any -

- a. Foods?
- b. Air borne substances? (e.g. ragweed, pollen, dust, mold)
- c. Animal Dander?
- d. Insect bites?
- e. Environmental substances? (e.g. chemicals, perfumes)
- f. Other?
 - For each allergy reported in a to f:
 - Yes/No/Unsure – numeric data
 - Type – text data
 - Reactions – text data

Data Preparation:

For each Allergen item (a to f) the allergy type and reactions were recorded in a single text field. These responses were split into separate responses such that each allergen and the corresponding reaction were in individual text fields. All the records for a given item were compiled into a stacked format for review and coding. For example, a respondent reported 'strawberries, peanuts, walnuts – hives' for the food allergy item, these were split into three food allergy records: strawberries, peanuts, and walnuts, and three food allergy reaction records of "hives".

Codes for type of allergens are different for each group of allergies, but the codes for type of allergic reaction are the same for all type of allergies. Code variables, rules and coded categories for all the **allergens** are listed first, followed by the code variables, rules and coded categories for **reactions**.

FOOD ALLERGIES

Coded Variables: Text responses to describe each food allergy were coded into numeric variables to indicate type of allergen. Up to 5 food allergens are coded.

- C4H35AAAC: Specify food allergen 1 - Coded
- C4H35ABAC: Specify food allergen 2 - Coded
- C4H35ACAC: Specify food allergen 3 - Coded
- C4H35ADAC: Specify food allergen 4 - Coded
- C4H35AEAC: Specify food allergen 5 - Coded

Coding Rules: The coding process was guided by the following:

1. The following responses were dropped because they are not food allergies:
 - a. Aspartame, MSG, sulfites, artificial sweetener, food color dyes, are food additives
 - b. Lactose intolerance doesn't involve the immune system, symptoms are due to the absence of lactase, an enzyme needed to digest milk and dairy products.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For type of food allergen: [C4H35AAAC] [C4H35ABAC] [C4H35ACAC] [C4H35ADAC] [C4H35AEAC]

CODE	LABEL	KEYWORDS
1	ALCOHOL	alcohol, beer, brandy, wine
2	CHOCOLATE	chocolate
3	DAIRY	cheese, dairy, milk, yogurt
4	EGGS	egg
5	FRUITS	fruit, apple, avocado, banana, berries, blueberry, cherry, citrus, coconut, dried fruit, kiwi, melon, orange, peach, pineapple, raisin, strawberry, tomato, watermelon
6	GRAINS	rice, malt, wheat, oats, barley, flour, grain, rice
7	NUTS	almond, cashew, hazelnut, nut, macadamia, peanut, pecan, pistachio, walnut
8	SEAFOOD	calamari, clams, crab, crustacean, fish, lobster, mussels, oyster, scallop, seafood, shellfish, shrimp
9	VEGETABLES	artichoke, broccoli, carrot, celery, corn, lettuce, mushroom, onion, peas
10	OTHER	beans, bread, chicken, coffee, duck, escargot, garlic, ginger, Indian spice, lamb, mint, potato, processed meat, red food, soy, sugar, turkey, vinegar, yeast

AIRBORNE ALLERGIES

Coded Variables: Text responses to describe each airborne allergy were coded into numeric variables to indicate type of allergen. Up to 5 air borne substances allergens are coded.

- C4H35BAAC: Specify airborne allergen 1 - Coded
- C4H35BBAC: Specify airborne allergen 2 - Coded
- C4H35BCAC: Specify airborne allergen 3 - Coded
- C4H35BDAC: Specify airborne allergen 4 - Coded
- C4H35BEAC: Specify airborne allergen 5 – Coded

Coding Rules: The coding process was guided by the following:

1. Dirt and chalk are dropped, they are not allergens;
2. Poison ivy , oak, plants, hot weather, and smoke are environmental allergens, they were re-coded as environmental allergens if reported as airborne substances;
3. Feathers are animal dander allergens; they were re-coded as animal dander allergens if reported as airborne substances;
4. Dust mites are considered as airborne allergen, NOT insect bites allergen.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For type of air borne substances allergen: [C4H35BAAC] [C4H35BBAC] [C4H35BCAC] [C4H35BDAC] [C4H35BEAC]

CODE	LABEL	KEYWORDS
1	BUSH/SHRUB	bush, lilac, marigold, sage, thistle
2	DUST	dust, mite

CODE	LABEL	KEYWORDS
3	FLOWERS	fruit blossom, flower, goldenrod, rose,
4	GRASSES	Bermuda, corn field, cut grass, grass, grass seed, hay
5	HAY FEVER	hay fever
6	MOLDS	mildew, mold, mud, rotting leaves
7	POLLEN	grass pollen, pollen
8	SEASONAL	season, seasonal
9	TREE POLLENS	ash, cedar, cottonwood, dogwood, elm, evergreen, eucalyptus, maple, mulberry, oak, pine, tree
10	WEEDS	cotton weed, ragweed, tumbleweed, weeds
11	OTHER	all, everything outside, most airborne substance

ANIMAL DANDER ALLERGIES

Coded Variables: Text responses to describe each animal dander allergy were coded into numeric variables to indicate type of allergen. Up to 3 animal dander allergens coded.

- C4H35CAAC: Specify animal dander allergen 1 - Coded
- C4H35CBAC: Specify animal dander allergen 2 - Coded
- C4H35CCAC: Specify animal dander allergen 3 - Coded

Coding Rules: The coding process was guided by the following:

1. Feathers are animal dander allergen.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For type of animal dander allergen: [C4H35CAAC] [C4H35CBAC] [C4H35CCAC]

CODE	LABEL	KEYWORDS
1	BIRDS	bird, feathers
2	CATS	cat
3	DOGS	dog
4	HORSES	horse
5	RODENTS	guinea pig, mouse, rats, rodent, squirrel
6	ANIMAL DANDER - GENERAL	all animal with fur, all animal dander, pet dander
7	OTHER	alpaca, cow, deer, hog, mule, rabbit, reptiles

FOR INSECT BITES ALLERGIES

Coded Variables: Text responses to describe each insect bites allergy were coded into numeric variables to indicate type of allergen. Up to 2 insect bites allergens are coded.

- C4H35DAAC: Specify insect bites allergen 1 - Coded
- C4H35DBAC: Specify insect bites allergen 2 – Coded

Coding Rules: The coding process was guided by the following:

1. Dust mites are considered as airborne allergen, NOT insect bites allergen; re-coded as airborne if reported as insect bites.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For type of insect bites allergen: [C4H35DAAC] [C4H35DBAC]

CODE	LABEL	KEYWORDS
1	ANTS	ant
2	BEES	bee
3	FLIES	black fly, deer fly, gnat, green fly, horse fly, sand fly, yellow fly
4	MOSQUITOES	mosquito
5	SPIDERS	spider
6	WASPS	hornet, wasp, yellow jacket
7	OTHER	bed bug, cockroach, flea, stinging insect, tick

ENVIRONMENTAL ALLERGIES

Coded Variables: Text responses to describe each environmental allergy were coded into numeric variables to indicate type of allergen. Up to 3 environmental substances allergens are coded.

- C4H35EAAC: Specify environmental allergen 1 - Coded
- C4H35EBAC: Specify environmental allergen 2 - Coded
- C4H35ECAC: Specify environmental allergen 3 - Coded

Coding Rules: The coding process was guided by the following:

1. Change in temperature was dropped, it is not an environmental allergen;
2. Poison ivy, oak, plants, hot weather, and smoke are environmental allergens.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For type of environmental substances allergen: [C4H35EAAC] [C4H35EBAC] [C4H35ECAC]

CODE	LABEL	KEYWORDS
1	ADHESIVES	adhesive, Band-Aid, tape
2	CHEMICALS	chemical, sulfur, formaldehyde
3	CLEANING PRODUCTS	bleach, chlorine, cleaning, baby wipes, pinesol, baric softener
4	COSMETICS	cosmetic, makeup, lotion, spray, nail polish, shampoo, deodorant, antiperspirant, parabens
5	DYES	dye, iodine
6	FRAGRANCES	cologne, fragrance, perfume, scent, smell, odor
7	GASES OR FUMES	exhaust, fume, gas, smoke

CODE	LABEL	KEYWORDS
8	LATEX	latex
9	METAL	copper, mercury, metal, nickel
10	PESTICIDES	Pesticide, insect repellent, bug spray
11	POLLUTION	pollution
12	SOAPS/DETERGENTS	detergent, laundry, soap
13	OTHER	ink, oil, petroleum, plastic, silicone, marker, paint, hand sanitizer, poison ivy, poison oak, weather

ALLERGIC REACTIONS

Coded Variables: Text responses to describe each allergy were coded into numeric variables to indicate type of reaction. Up to 5 food allergies, 5 air borne substances allergies, 3 animal dander allergies, 2 insect bites allergies, 3 environmental substances allergies, and 1 other allergy are coded.

- C4H35AARC: Specify reaction to **food** allergen 1 - Coded
- C4H35ABRC: Specify reaction to **food** allergen 2 - Coded
- C4H35ACRC: Specify reaction to **food** allergen 3 - Coded
- C4H35ADRC: Specify reaction to **food** allergen 4 - Coded
- C4H35AERC: Specify reaction to **food** allergen 5 – Coded
- C4H35BARC: Specify reaction to **airborne** allergen 1 - Coded
- C4H35BBRC: Specify reaction to **airborne** allergen 2 - Coded
- C4H35BCRC: Specify reaction to **airborne** allergen 3 - Coded
- C4H35BDRC: Specify reaction to **airborne** allergen 4 - Coded
- C4H35BERC: Specify reaction to **airborne** allergen 5 - Coded
- C4H35CARC: Specify reaction to **animal dander** allergen 1 - Coded
- C4H35CBRC: Specify reaction to **animal dander** allergen 2 - Coded
- C4H35CCRC: Specify reaction to **animal dander** allergen 3 - Coded
- C4H35DARC: Specify reaction to **insect bites** allergen 1 - Coded
- C4H35DBRC: Specify reaction to **insect bites** allergen 2 - Coded
- C4H35EARC: Specify reaction to **environmental** allergen 1 - Coded
- C4H35EBRC: Specify reaction to **environmental** allergen 2 - Coded
- C4H35ECRC: Specify reaction to **environmental** allergen 3 - Coded
- C4H35FARC: Specify reaction to **other** allergen 1 – Coded

Coding Rules: The coding process was guided by the following:

1. When the Allergen is food, drug, or insect bites/stings, difficulty breathing was coded as ANAPHYLAXIS;
2. When the Allergen is inhaled (airborne, animal dander, chemicals etc.) and difficulty breathing was reported it was coded as ALLERGIC ASTHMA;
3. For allergic rhinitis symptoms including sneezing, runny nose, sinus congestion, and red, watery itchy eyes, hay fever, etc.
 - a. If two or more of these symptoms are reported, code as ALLERGIC RHINITIS;
 - b. If the symptoms are sinus problems only, code as SINUS PROBLEMS;
 - c. If the symptoms are eye related only, code as EYE IRRITATION/SWELLING;

- d. If just sneezing is reported, code as SNEEZING
4. If Hives are reported in combination with itching, rash, or swelling, the response was coded as Hives;
5. Note that a report of 'Itching and swelling' is coded as OTHER
6. When either the Allergen or the Reaction was identified as INVALID, the record was removed.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For type of allergy reactions to all allergens: [C4H35AARC] [C4H35ABRC] [C4H35ACRC] [C4H35ADRC] [C4H35AERC] [C4H35BARC] [C4H35BBRC] [C4H35BCRC] [C4H35BDR] [C4H35BERC] [C4H35CARC] [C4H35CBRC] [C4H35CCRC] [C4H35DARC] [C4H35DBRC] [C4H35EARC] [C4H35EBRC] [C4H35ECRC] [C4H35FARC]

CODE	LABEL	KEYWORDS
1	ANAPHYLAXIS	Anaphylaxis, difficulty breathing, dizzy, faint, wheezing, swelling & hives, sweating/shaking, throat swelling (should always be coded as anaphylaxis), acute respiratory distress, heart racing, hypotensive. Only if reported for Drug allergies, food allergies, or Insect Bites/Stings.
2	ALLERGIC RHINITIS	Sneezing, runny nose, sinus congestion, and red, watery itchy eyes, 'hay fever'
3	ALLERGIC ASTHMA	Asthma, coughing, wheezing, shortness of breath, fast breathing, tightening of the chest
4	ALLERGIC RHINITIS and ASTHMA	Both allergic asthma and rhinitis symptoms
5	ALLERGIC RHINITIS AND HIVES/RASH	Both allergic rhinitis and hives or rash
6	SINUS PROBLEMS	Runny nose, stuffy nose, sinus headache, nasal congestion, sinus congestion
7	SNEEZING	Sneezing
8	EYE IRRITATION/SWELLING	Itchy eyes, watery eyes, irritated eyes, eyes swell
9	HIVES	Hives, eruptions, urticaria, blisters, welts
10	RASH	Rash, eczema
11	ITCHING	Itching, including scratchy throat
12	SWELLING	Swelling, swollen –hands, face, feet etc.
13	GASTROINTESTINAL PROBLEMS	Upset stomach, feeling sick, nausea, vomiting, throwing up, diarrhea, gastric distress, gas, bloating
14	OTHER	Joints ache, no energy, sweats, headache, migraine, hallucinations, agitation, etc.

Source(s):

Hay Fever: <https://medlineplus.gov/hayfever.html>

Allergic Rhinitis: <https://medlineplus.gov/ency/article/000813.htm>

Dust mites allergy: <https://www.lung.org/clean-air/at-home/indoor-air-pollutants/dust-mites>

SPECIAL DIET

Items: Medical History, Question 36a

Q36. Do you follow a special diet? (Yes/No)

a. [IF YES] please specify:

Data Preparation:

Single Text Variable, no special preparation needed.

Coded Variables: Text responses to describe the special diet were coded into numeric variables to indicate type of special diet.

- C4H36AC: Specify special diet - Coded

Coding Rules: The coding process was guided by the following:

1. Diets with specific diet names which had very few responses are coded as 'OTHER DIET PLAN';
2. Diets without specific diet names which had very few responses, or participants self-designed special diets are coded as 'OTHER';
3. For general healthy eating habit, such as reducing excess meat, balanced diet, eat healthy, reducing sugar, reducing salt, etc., we do not regard them as 'a special diet' and they are dropped from Q16a.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For special diet [C4H36AC]

CODE	LABEL	KEYWORDS
1	CLEAN OR WHOLE FOODS	organic, no additives, whole, not processed
2	DAIRY AND GLUTEN FREE	no/avoid dairy, dairy free, no/avoid gluten, gluten free
3	DIABETIC DIET	diabetic, diabetes
4	GAPS OR LOW FODMAP	gaps, fodmap
5	HEART HEALTHY	heart health, heart healthy
6	HIGH PROTEIN	protein
7	LOW CALORIE	watch calorie, low calorie
8	LOW FAT	little fat, low fat
9	LOW SODIUM	low/little/no salt, low/little/no sodium
10	NO OR LOW CARB	no/low carbohydrate
11	LOW CARB HIGH FAT	No/low carb, high fat
12	LOW CARB LOW SUGAR	No/low carb, no/low sugar
13	VEGETARIAN OR VEGAN	vegetarian, vegan, no meat
14	WEIGHT WATCHERS	weight watchers
15	OTHER DIET PLAN	Atkins, Coumadin, fit for life, LA weight loss, Lifeforce, Mediterranean, Paleo, Pescatarian, structured weight loss, the Maker's diet, Trophology, Volumetrics
16	OTHER	fat free, high fiber, low oxalates, low sugar, no or low red meat

Source(s):**Packaged Meals:**

- Jenny Craig <https://www.jennycraig.com/how-it-works>
- Medifast <https://medifastinc.com/about-us/>
- Nutrisystem https://www.nutrisystem.com/jsps_hmr/how_it_works/index.jsp
- Seattle Sutton <https://www.seattlesutton.com/>

Clean/Whole Food

- Clean <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/expert-answers/clean-eating/faq-20336262>
- Whole <https://wholebodysolutions.org/blog/a-beginners-guide-to-a-whole-food-diet/#:~:text=A%20whole%20food%20diet%20is%20one%20that%20consists%20of%20eating,to%20no%20preservatives%20or%20additives>

GAPS/Low FODMAP

- GAPS <https://www.gapsdiet.com/about/>
- Low FODMAP <https://www.hopkinsmedicine.org/health/wellness-and-prevention/fodmap-diet-what-you-need-to-know>

EXERCISE

Items: Medical History, Question 73, 73a to 73h

Q73. Do you engage in regular exercise, or activity, of any type for 20 minutes or more at least 3 times a week? (Yes/No)

(If Yes to Q73),

- What type of exercise – text data
- # of times per week – numeric data
- Average # of minutes/session – numeric data
- Intensity? Vigorous/Moderate/Light – numeric data

Data Preparation:

The interview includes 8 places to record types of exercise or activities. However, there are only up to 7 exercise or activities recorded.

Coding Rules:

The text data were coded according to major categories defined in the 2011 Compendium of Physical Activities (CPA).

1. Coding was completed using a combination of the SPSS Text Analytics for Surveys (TAS, ver. 4) and iterative manual reviews.
 - a. TAS Coding - The CPA defines major categories and then lists individual categories within those categories. These were used to create a “Library” of terms in TAS that were used to code text descriptions of activities reported by participants. The CPA categories are mutually exclusive but sometimes text responses were auto-coded into multiple categories. In addition, some text couldn't be categorized due to typo's or formatting (i.e. use of hyphens).
 - b. Text responses that could not be assigned to a single category, or could not be categorized in TAS were reviewed manually and assigned to a single category via the iterative process described in the introduction.
2. The following criteria were used to guide final decisions about assigning the following codes:
 - a. TREADMILL – this code was created by MIDUS and assigned if the participant reported spending time on a treadmill but did not specify if they were walking or running. Running and walking are separate codes in the CAP, if one or the other was specified along with treadmill then that code was assigned (i.e. running on a treadmill was coded as Running).
 - b. OTHER: If the activity described could not be clearly assigned to a single category, then it was coded as OTHER. For example:
 - i. Participant reported Biking and Running 3 times per week as a single response. These are separate major categories in the CPA, but there was insufficient information in the data to determine how often each was done in an average week, thus they could not be coded separately.
 - ii. Participant reported doing Housework and Yardwork but there is no information about the amount of time doing each. The former is in the category Home Activities while the latter is in the category Lawn and Garden.
3. There are some instances where more than one activity reported by a respondent is assigned the same CPA code. This occurs in two instances:
 - a. The respondent reported distinctly different activities engaged in with different frequencies and/or intensities. Examples:

- i. A participant appropriately reported taking an aerobics class and weight training as separate activities. The CPA categorizes both of these as 'Conditioning Exercise'.
- ii. A participant appropriately reported lap swimming and taking water aerobics classes as separate activities. The CPA categorizes both of these as 'Water Activities'.
- b. The participant reports the same activity at different durations and/or intensities. For example, a participant reports swimming for 45 minutes once a week and 25 minutes twice per week.

Coded Variables: Text responses to describe each exercise were coded into a numeric variable to indicate type of exercise/activity.

- C4H73AC: Exercise/Activity A - Coded
- C4H73BC: Exercise/Activity B - Coded
- C4H73CC: Exercise/Activity C - Coded
- C4H73DC: Exercise/Activity D - Coded
- C4H73EC: Exercise/Activity E - Coded
- C4H73FC: Exercise/Activity F - Coded
- C4H73GC: Exercise/Activity G – Coded

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category from the CPA.

Types of Regular Exercise or Activity reported [C4H73AC] [C4H73BC] [C4H73CC] [C4H73DC] [C4H73EC] [C4H73FC] [C4H73GC]

CODE	LABEL	KEYWORDS
1	BICYCLING	Bicycle, bicycling, bike, biking, cycling
2	CONDITIONING EXERCISE	Aerobics, AB press, AB roller, balance, cardio, Chi gong, circuit, core, curves, elliptical, exercise bike, exercise at home, gym, lifting, physical therapy, Pilates, pushups, sit ups, rowing, stretching, spinning, stationary bike, strength training, yoga
3	DANCING	Dance, Dancing, swing, ballroom, Zumba
4	FISHING AND HUNTING	Fishing, hunting
5	HOME ACTIVITIES	Babysitting, cleaning, grocery shopping, house cleaning, house chores, housekeeping, housework, laundry, play with kids, shopping, vacuuming
6	HOME REPAIR	handyman work, painting, remodeling house, working on car, carpentry, fencing, drywall repair,
7	LAWN AND GARDEN	Chop wood, cutting firewood, farming and lawn care, cutting lawn, cutting grass, mowing lawn, gardening, garden work, yardwork
8	MISCELLANEOUS	Woodworking, upholstery, miscellaneous physical activities, painting, restore vintage stuff
9	MUSIC PLAYING	Music performance
10	OCCUPATION	work, at work, work related, at job
11	RELIGIOUS ACTIVITIES	church work, church activities
12	RUNNING	Run, Running, jog, jogging, running on treadmill
13	SPORTS	Basketball, bowling, golf, hockey, houseback ride, martial arts, soccer, softball, roll skating, tennis, volleyball

CODE	LABEL	KEYWORDS
14	UNKNOWN	Examples: 'everyday events' from doing yardwork at home to working as a firefigh; lifting and unloading; treadmill or job / brisk walk; active in several organizations that require walking, standing
15	VOLUNTEER ACTIVITIES	Volunteer
16	WALKING	Walk, walking, power walking, speed walking, walking dog, walking on treadmill, hike, hiking
17	WATER ACTIVITIES	Water aerobics, water exercises, swimming, kayaking, boating, canoeing sailing, surfing, aquatic class, aqua-fitness
18	WINTER ACTIVITIES	Shovel snow, skiing, cross country skiing, downhill skiing, speed skating, snowshoeing
19	OTHER	walk and bike, treadmill or walking, run/walk, gardening/housekeeping
20	TREADMILL	Treadmill

Source(s):

<https://sites.google.com/site/compendiumofphysicalactivities/>

FAMILY MEDICAL HISTORY

Items: Medical History, Question 75 (r, s)

Q75. Has anyone in your immediate family (blood relatives only) had...

- 75a-q: heart disease, high blood pressure, Cholesterol problems, Circulation problems, Stroke, Diabetes, Alcoholism, Depression, Suicide, Other psychiatric illness, colon cancer, Breast cancer, Prostate cancer, Ovarian/uterine cancer, Melanoma, Osteoporosis, Tuberculosis.
- 75r. Other? Specify:
- 75s. Other? Specify:

Data Preparation:

The interview includes space to report up to two other family illnesses or diseases (items r and s) but participants sometimes reported additional illnesses or diseases. Interviewers recorded this information, including details about family members with the illness/disease, in the booklet and it was then data entered. Ultimately, data was recorded for up to 11 “Other? Specify”. All the Other Specify records were compiled into a stacked (vertical) format to facilitate review and coding.

After coding was complete seven categories were found to occur with very high frequency compared to the remaining categories. These were coded into 7 new sets of items (C4H75R to C4H75X):

- C4H75R: Lung Cancer
- C4H75S: Other Cancer
- C4H75T: Alzheimer’s Disease
- C4H75U: Arthritis
- C4H75V: Lung Problems
- C4H75W: Eye Diseases
- C4H75X: Thyroid Diseases

The original two “Other? Specify” items were recoded into new items C4H75Y and C4H75Z. In addition, a new third “Other? Specify” item, C4H75AA, was created.

Coded Variables: Text responses for the three “Other? Specify” items were coded into numeric variables indicated the other family illnesses or diseases:

- C4H75YC: Blood relative other illness/disease 1 type - Coded
- C4H75ZC: Blood relative other illness/disease 2 type - Coded
- C4H75AAC: Blood relative other illness/disease 3 type - Coded

Coding Rules: The coding process was guided by the following:

1. The following responses were identified as “Not FamMed Risk Issues”, and were designated as inappropriate /invalid responses and were dropped:
 - a. Smoking related lung problems, such as lung cancer from smoking, emphysema from smoking;
 - b. Age related degeneration, such as age related hearing loss, hair loss, memory loss, etc.;
 - c. We consider all the conditions not generally inherited as ‘Not FamMed Risk Issue’.
2. The following responses were identified as “Acute Events”, and were designated as inappropriate /invalid responses and were dropped:

- a. All surgeries are considered as acute events, such as Amputation, Hip Replacement, Knee Replacement, Hysterectomy, Gall bladder removed, heart transplant, kidney transplant, Appendectomy, colectomy, colostomy, adrenal glands removed, etc.;
- b. Seizures caused by other health conditions - Seizures/Epilepsy are valid family conditions, we considered it as an acute event only when it is caused by other non-family risk conditions such as from high fever or brain tumor;
- c. Other common acute conditions including all infection and inflammation.
3. Some of the illnesses reported in OS were identified that could be recoded back to existing categories in C4H75A to C4H75Q. After recoding, these records were removed from Other Illnesses/diseases:
 - a. Heart related diseases such heart murmur, Mitral valve prolapse, arrhythmia are recoded back to Q75a – Heart disease;
 - b. Heart attack, angina, ischemic bowel disease, arteriosclerosis, Reynaud's syndrome, HHT are recoded back to Q75d – Circulation problems;
 - c. Mini-stroke, TIA, cerebral hemorrhage, transient ischemic attack, pulmonary hypertension are coded back Q75e – Stroke
 - d. Bipolar is coded back to Q75J – Other psychiatric illness

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For blood relatives other illness/disease type [C4H75YC] [C4H75ZC] [C4H75AAC]

CODE	LABEL	KEYWORDS
1	ALLERGY	allergy
2	APPENDICITIS	appendicitis, appendix
3	ASTHMA	asthma
4	AUTOIMMUNE DISORDER	lupus, inflammatory bowel disease (ibd), ulcerative colitis, crohn's disease, guillain-barre syndrome, psoriasis, graves' disease, hashimoto's hyroiditis, myasthenia gravis, vasculitis, alopecia areata
5	BLOOD DISEASE	blood, bleeding, anemia, thrombosis, sickle cell
6	DIGESTIVE DISORDER	digest, ulcer, bowel, reflux, diverticulitis
7	GALLBLADDER PROBLEMS	gallbladder, gallstone
8	NEUROLOGICAL DISORDER	neurologic, vertigo, hearing loss, deafness, carpal tunnel, migraine, epilepsy, seizure, Parkinson's, Huntington's, restless leg, tremor, fibromyalgia
9	OBESITY	obesity
10	SKIN DISEASE/CONDITION	skin, psoriasis, scleroderma
11	SLEEP DISORDER	sleep, apnea
12	TUMOR - BRAIN	brain tumor
13	TUMOR - OTHER	fibroid, lung tumor, breast tumor, spinal tumor, liver tumor, ovarian tumor, jaw tumor,
14	URINARY TRACT DISORDER	kidney, prostate, renal, bladder, urinary, dialysis,
15	OTHER	amyloidosis, back problem, sinusitis, immune function, drug, endometriosis, hemochromatosis, lymphedema, muscular dystrophy, pancreatitis, scoliosis

Source(s):

None.

NOISE EXPOSURE

Items: Medical History, Question 76a, 76b

Q76. Are you exposed to excessive noise on a regular basis? (Yes/No)

[IF YES to Q76]

- a. What type of noise are you typically exposed to?
- b. Where are you exposed to this noise?

Data Preparation:

Single Text Variable for both Q76a and Q76b, no special preparation needed.

Coded Variables: Text responses to describe the **TYPE** of noise and **LOCATION** of the noise were coded into numeric variables.

- C4H76AC: Specify **type** of noise typically exposed to – Coded
- C4H76BC: Specify **where** exposed to noise - Coded

Coding Rules: The coding process was guided by the following:

1. For **type** of noise exposure:
 - a. If power tools are used for construction, response is coded as CONSTRUCTION;
 - b. If power tools are used for landscaping, response is coded as LANDSCAPING;
 - c. If power tools or machinery are used for factory work, response is coded as FACTORY;
 - d. If there are multiple responses that are from a household, it is coded as HOUSEHOLD even if each response may be a separate category;
 - e. If there are multiple responses that are coming from outside of home, these are coded as NEIGHBORHOOD even if each response may be a separate category;
2. For **location** of noise exposure:
 - a. No special rules for coding location of noise exposure.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For **type** of noise [C4H76AC]

CODE	LABEL	KEYWORDS
1	AGRICULTURAL	tractors, farm
2	AIRCRAFT	aircraft, airplane
3	CONSTURCTION	drill, jack hammer, construction, generators, compressors, heavy equipment, saws
4	FACTORY	factory, industrial, machines, conveyor belt
5	FIRE/RESCUE	fire station, firefighter, fire truck, ambulance, sirens
6	HOUSEHOLD	kids, children, baby, slamming door, vacuum, dogs
7	TALKING/YELLING	yelling, talking, arguing, fighting
8	KIDS	kids, children, child, grandchild, grandchildren
9	LANDSCAPING	leaf blower, mowing, lawn mower
10	MACHINERY	machinery, machine, printer, printing presses
11	MUSIC	music

CODE	LABEL	KEYWORDS
12	NEIGHBORHOOD	cars, horns, sirens, construction noise, airplanes, yelling, neighbors
13	POWER TOOLS	power tools, drills, sanders, saws, washers
14	RETAIL/OFFICE	office equipment, talking, telephones, noise at retail
15	STREET NOISE	city noise, train, cars, motors, busy street, subway station, busses, people
16	TV	TV
17	VEHICLE	automobile, truck, engine, traffic, car
18	OTHER	dog, talking, laughing, audio, fan, vent, ventilation

For **location** of noise exposure [C4H76BC]

CODE	LABEL	KEYWORDS
1	HOME	Home
2	OUTSIDE	Outside, neighborhood
3	WORK	Work
4	OTHER	(if more than one category is mentioned) home, work, outside, gym, church, everywhere

Source(s):

None.

LOSS SOMEONE CLOSE

Items: Medical History, Question 86

Q86. Now, I'd like to ask about (other/any) losses you may have experienced. Has anyone (else) close to you, a close friend or relative, passed away since we last interviewed you? (Yes/No)

[IF YES to Q86],

- Who? (include relationship to R) – text data
- Gender – numeric data
- Date of death (month and year) – numeric data

Data Preparation:

The interview included space to record up to five losses. All records of descriptions were compiled into a stacked (vertical) format to facilitate review and coding. None of the respondents reported more than 5 losses.

Coded Variables: Text responses to describe who passed away and what was the relationship to respondent were coded into numeric variables.

- C4H86AC: Who passed away and what was the relationship to you? Person A - Coded
- C4H86BC: Who passed away and what was the relationship to you? Person B - Coded
- C4H86CC: Who passed away and what was the relationship to you? Person C - Coded
- C4H86DC: Who passed away and what was the relationship to you? Person D - Coded
- C4H86EC: Who passed away and what was the relationship to you? Person E - Coded

Coding Rules: The coding process was guided by the following:

1. If relationship is spouse/partner, we considered it as INAPP because loss of spouse is a separate question in medical history;
2. Stillbirth is not considered as an valid event;
3. All distant relatives with blood connection are coded as OTHER BLOOD RELATIVES;
4. All distant relative connected by marriage are coded as OTHER INLAW/STEP RELATIVES;
5. Besides FRIEND, NEIGHBOR, and COWORKER, all other non-relatives are coded as OTHER NON-RELATIVES

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For who passed away and what was the relationship to respondent [C4H86AC] [C4H86BC] [C4H86CC] [C4H86DC] [C4H86EC]

CODE	LABEL	KEYWORDS
11	PARENT	Father, mother, dad, mom
12	SIBLING	Brother, sister
13	CHILD	Son, daughter, my baby
21	GRANDPARENT	grandfather, grandpa, grandmother, grandma

CODE	LABEL	KEYWORDS
22	AUNT/UNCLE	Aunt, Auntie, uncle, cousin's father, mom's brother
23	NIECE/NEPHEW	Niece, nephew
24	COUSIN	Cousin, 1st cousin
25	OTHER BLOOD RELATIVES	Great-grandfather, great-grandmother, great-grandchild; great uncle, great aunt, great niece, great nephew; granddaughter, grandson, grandchild; half-brother, half-sister; 2nd cousin, distant cousin, cousin's daughter, mom's cousin
31	PARENT INLAW/STEP	Father-in-law, mother-in-law, stepfather, stepmother, stepdad, stepmom
32	EXSPOUSE	Ex-wife, Ex-husband, Ex-spouse
33	CHILD INLAW/STEP	Son-in-law, daughter-in-law, step-son, step-daughter
34	SIBLING INLAW/STEP	brother-in-law, brother's wife, husband's brother, sister-in-law, wife's sister, sister's husband, step-sister, step-brother
35	AUNT/UNCLE INLAW/STEP	husband's aunt/uncle, wife's aunt/uncle, aunt/uncle-in-law, aunt/uncle by marriage
36	OTHER INLAW/STEP RELATIVES	Husband's/wife's/spouse's - grandmother/grandfather/cousin/nephew; Cousin's/niece's/nephew's - husband/wife/in-law Step - grandchild/great-grandchild; In-law's - son/daughter/child
41	FRIEND	Friend, good friend, close friend, high school classmate, girlfriend, boyfriend
42	NEIGHBOR	Neighbor
43	COWORKER	Co-worker, colleague, business partner
44	OTHER NON-RELATIVES	Friend's - mother/father/wife/husband/daughter/son/brother/sister; Mother's/father's/husband's/wife's - friend/boss; Brother's/sister's - friend/in-laws(father/mother/brother/sister-in-law); Coworker's - father/mother/son/daughter/brother/sister; Bf's - brother/sister/cousin/niece; Ex-husband's/ex-wife's family members; Boss, mentor, former boss, boss's - father/mother/fiancé/son/daughter; Godfather, godmother, brother in church, church member, pastor

Source(s):

Song, J., & Mailick, M. R. (November 2020). Bereavement and Physiological Dysregulations in African American Adults. Poster presented at the 73rd annual conference of the Gerontological Society of America.

Song, J., Mailick, M. R., Greenberg, J. S., & Hong, J. (November 2018). Bereavement, biological health risks, and physical health: The moderating effect of coping. Poster presented at the 71st annual conference of the Gerontological Society of America, Boston, MA.

OTHER EVENTS

Other events:

Item: Medical History, Question 87, 87a

Q87. Are there any other things, either positive or negative, that have happened to you, or your family, or close friends since you completed the MIDUS phone interview that stand out in your memory? (YES/NO)

Q87a. (If Q87=Yes) What has happened and when?

[CHECK THAT EVENT OCCURRED SINCE PROJECT 1 PHONE INTERVIEW]

[IF MORE THAN 5 RECORD THE MOST SIGNIFICANT EVENTS]

[IF OTHERS ARE INVOLVED SPECIFY NAME, GENDER & RELATIONSHIP TO RESPONDENT AS APPROPRIATE].

- What – text data
- Month – numeric data
- Year – numeric data

Responses to these questions are diverse and could be coded in multiple ways depending on analytic needs. For this reason, they have not been coded. Researchers interested in using this text data, please contact the MIDUS Administrative Core by submitting email through the MIDUS Help Desk (<http://midus.wisc.edu/helpdesk.php>).

PHYSICAL EXAM

VISUAL ACUITY

Items: Physical Exam, Question 3b1

Q3b1. Visual acuity (uncorrected) R 20/___ L 20/___

If unable, state reason: _____

Data Preparation:

Single Text Variable, no special preparation needed.

Coded Variables: The text responses were reviewed but due to the limited number of cases they were not coded into numeric categories.

Coding Rules: The coding process was guided by the following:

1. No special rules for coding the reason unable to exam uncorrected visual acuity.

Source(s):

None.

CORRECTIVE EYE SURGERY

Items: Physical Exam, Question 3b2

Q3b2. Visual acuity: Specify eye surgery and affected eyes

Data Preparation:

Single Text Variable, no special preparation needed.

Coded Variables: Text responses listing eye surgery were reviewed and coded into numeric variable.

- C4P3B2SC: Type of corrective eye surgeries - Coded

Coding Rules: The coding process was guided by the following:

1. No special rules for coding the reason unable to exam uncorrected visual acuity.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For eye surgery [C4P3B2SC]

CODE	LABEL	KEYWORDS
1	CATARACT	Cataract
2	LASIK	Lasik
3	LASIK AND CATARACT	Lasik and Cataract
4	OTHER	PRK, monovision, pterygium, strabismus, cornea, glaucoma

Source(s):

None.

TIMED WALK

Items: Physical Exam, Question 3h

Q3h. 50 foot walk time:

If unable, state reason: _____

Data Preparation:

Single Text Variable, no special preparation needed.

Coded Variables: The text responses were reviewed but due to the limited number of cases they were not coded into numeric categories.

Coding Rules: The coding process was guided by the following:

1. No special rules for coding the reason unable to exam timed walk.

Source(s):

None.

CHAIR STAND

Items: Physical Exam, Question 3i

Q3i. Chair stands: _____ (seconds)

If unable, state reason: _____

Data Preparation:

Single Text Variable, no special preparation needed.

Coded Variables: The text responses were reviewed but due to the limited number of cases they were not coded into numeric categories.

Coding Rules: The coding process was guided by the following:

1. If physical problems involve more than one area, code as GENERAL PAIN. For example, 'hip and back', 'bad hip and knee'.

Source(s):

None.

SELF- ADMINISTERED QUESTIONNAIRE

SLEEP TROUBLE

Items: Pittsburgh Sleep Questionnaire, Question 9

Q9. During the past month, how often have you had trouble sleeping because you ...

- 9a-i. Could not get to sleep within 30 minutes; Woke up in the middle of the night or early in the morning; Had to get up to use the bathroom; Could not breathe comfortably; Coughed and snored; Felt too cold; Felt too hot; Had bad dreams; Had pain
- 9j. Other reason(s), Please Describe

Data Preparation:

Single Text Variable, no special preparation needed.

Coded Variables: Text responses specifying other reasons having sleep trouble were coded into a single numeric variable.

- C4S9JS1C: Sleep trouble: Other reasons coded

Coding Rules: The coding process was guided by the following:

1. If the reason listed in other specify should have been reported in one of the prior reasons (Q9a to Q9i), the response was recoded back into the appropriate item. For example: "Wake because of full bladder" would be recoded back to 9c – Had to get up to use bathroom; "Arthritis pain" would be recoded back to 9i – Had Pain;
2. If R specified multiple reasons, code as OTHER.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For other reasons having sleep trouble [C4S9JS1C]

CODE	LABEL	KEYWORDS
1	STRESS	stress, PTSD, worrying, anxiety
2	ILLNESS	sick, reflux, headache, ill, sleep apnea, congestion, cold
3	HOT FLASHES	hot flash
4	OTHER PHYSICAL DISCOMFORT	shoulder pain, cramp, dry mouth, muscle spasm, thirst, numbness, soreness
5	BED PARTNER	snoring, husband, wife
6	CHILDREN	children, child, baby, babysitting, crying
7	PETS	barking, dog, cat
8	DISTURBANCE	TV, phone, neighbor, thunderstorm, noise, gunshot, radio
9	UNABLE TO SLEEP	toss, uncomfortable
10	OTHER	coffee, alcohol, lacking exercise, not sleepy, jet lag, hungry

Source(s):

None.

DAILY SLEEP DIARY

MEDICATIONS NOT USUALLY TAKEN

Items: Daily Sleep Diary, Question 6

Q6. Did you take any medications today that you don't regularly take every day? Yes/No
If Yes, record the medication name(s) and dose(s)

Data Preparation:

The daily sleep diary record 7 days of sleep patterns for each participant. All records of non-regular daily medications R taken during the 7-day period were compiled into a stacked (vertical) format to facilitate review and coding.

Coded Variables: Text responses specifying the medication R taken were coded into a numeric variable to indicate type of medications for each of the 7 sleep diary days.

- C4AD16M: Tue PM Take Med Not Usually Taken - med type
- C4AD26M: Wed PM Take Med Not Usually Taken - med type
- C4AD36M: Thu PM Take Med Not Usually Taken - med type
- C4AD46M: Fri PM Take Med Not Usually Taken - med type
- C4AD56M: Sat PM Take Med Not Usually Taken - med type
- C4AD66M: Sun PM Take Med Not Usually Taken - med type
- C4AD76M: Mon PM Take Med Not Usually Taken - med type

Coding Rules: The coding process was guided by the following:

1. The following situations are coded as 'OTHER':
 - a. If the medication does not fit into any of the group listed in category 1 to 10;
 - b. If more than one different types of medication are specified.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For type of medications not usually taken [C4AD16M] [C4AD26M] [C4AD36M] [C4AD46M]
[C4AD56M] [C4AD66M] [C4AD76M]

CODE	LABEL	KEYWORDS
1	PAIN RELIEVER	Ibuprofen, Tylenol, Acetaminophen, Exedrine, Vicodin, Codeine, Oxycodone, aspirin, Bayer, Advil, Aleve, Pain Reliever
2	ANTI-INFECTIVE	Amoxicillin, Azithromycin, Cephalexin, Doxycycline
3	DECONGESTANT	Decongestant, Sudafed
4	COUGH/COLD MED	Dayquil, Nyquil, Cough drop, Mucinex, Alka Seltzer, Nasonex, Cough, Cold, Flu
5	ANTI-HISTAMINE	Antihistamine, Claritin, Diphenhydramine, Zyrtec
6	ANTACID	Antacid, Pepto-bismol, Zantac, Tums
7	CATHARTIC/LAXATIVE	Metamucil
8	ANTIDEPRESSANT	Antidepressant
9	SLEEPING AID	Melatonin, Ambien, Wal-Sleep
10	SUPPLEMENTAL/ALT MED	Magnesium, Vitamin, Calcium
11	OTHER	(other med or multiple meds) e.g. Provigil, Diovan, Prednisone, Chantix, Courmadin and Ultram, Aspirin and antacid; Furosemide, Cromolyn, Lavquin and Prednisone

Source(s):

None.

SLEEP AID MEDICATIONS

Items: Daily Sleep Diary, Question 7

Q7. Did you take any medications or supplement specifically to help you sleep? Yes/No
If Yes, please record the medication name and dose

Data Preparation:

The daily sleep diary record 7 days of sleep patterns for each participant. All records of sleep aid medications or supplements R taken during the 7-day period were compiled into a stacked (vertical) format to facilitate review and coding.

Coded Variables: Text responses specifying the medications or supplements R taken specifically to help sleep were coded into a numeric variable to indicate type of sleep aid medications for each of the 7 sleep diary days.

- C4AD17M: Wed AM Take Sleep Med – med type
- C4AD27M: Thu AM Take Sleep Med – med type
- C4AD37M: Fri AM Take Sleep Med – med type
- C4AD47M: Sat AM Take Sleep Med – med type
- C4AD57M: Sun AM Take Sleep Med – med type
- C4AD67M: Mon AM Take Sleep Med – med type
- C4AD77M: Tue AM Take Sleep Med – med type

Coding Rules: The coding process was guided by the following:

1. The following situations are coded as 'OTHER':
 - a. If the medication does not fit into any of the group listed in category 1 to 5;
 - b. If more than one different types of medication are specified.

Coded Categories: The table below listed the numeric codes and labels for the coded variable as well as key words or common phrases for each code category.

For type of sleep aid medications or supplements [C4AD17M] [C4AD27M] [C4AD37M] [C4AD47M] [C4AD57M] [C4AD67M] [C4AD77M]

CODE	LABEL	KEYWORDS
1	RX SLEEP AID	Ambien, Zolpidem, Triazolam. Lunesta
2	OTC SLEEP AID	Advil PM, Excedrin PM, Tylenol PM, Tylenol Simple sleep, Zquil, WalSleep, Sleep aid
3	ALT SLEEP AID	Melatonin
4	RX PAIN MED	Oxycodone, Hydrocodone, Codeine, Meperidine, Tramadol
5	OTC PAIN MED	Advil, Benadryl, Ibuprofen, Motrin, Nyquil, Tylenol
6	RX ANTIDEPRESSANT	Amitriptyline, Citalopram, Imipramine, Mirtazapine, Sertraline, Trazadone
7	OTC ANTIHISTAMINE	Allegra, Benadryl Allergy, Claritin, Dimetane, Tavist, Zyrtec, Cetirizine, Chlorpheniramine, Clemastine, Diphenhydramine, Fexofenadine, Loratadine
8	OTHER	(other med or multiple med) e.g. Alprazolam, Clonazepam, Clonazepate, Lorazepam, Actifed and Carisoprodol; Melatonin and Tylenol; Elavil and Amytriptylene

Source(s):

None.