



Longitudinal Fractures Dataset

Visit 01 through Visit 17

CODEBOOK

ARCHIVED DATASET 2026

Dataset file nialfx2026

PAGE INTENTIONALLY BLANK

DOCUMENTATION FOR THE SWAN LONGITUDINAL FRACTURES DATASET

This codebook documents all the bone fractures reported from Visit 01 through Visit 17 for women from the seven clinical sites participating in the SWAN longitudinal study. The sites include 11, 12, 13, 14, 15, 16 and 17. Note: Fractures that occurred prior to SWAN are not included in this longitudinal dataset.

Differences from the prior release of the Longitudinal Fractures dataset (nialfx2026):

- Visits 17 was added to the dataset

Who is included in the public use dataset:

There are 1336 fractures (833 women) in the dataset. Most women have only one fracture from Visit 01 to Visit 17, while some women have multiple fractures. Multiple fractures may have occurred at different times and reported at different visits, or may have occurred at the same time and reported a single visit, or may have occurred at different times and reported at a single visit. The number of women and the number of fractures are as shown in the table below.

# Fractures	# Women	Cumulative #
1	528	528
2	186	714
3	72	786
4	27	813
5	12	825
6	5	830
7	2	832
8	1	833

How this codebook is constructed:

This documentation section contains in depth explanation of the Longitudinal Fractures dataset. A list describing the variables used to create this dataset is also provided, along with the questionnaires on which many of the variables are based. Note that none of those variables are available in this dataset (they can be retrieved from each visit's dataset).

The assigned participant ID has been replaced with a randomly generated ARCHID in order to protect participant privacy. The baseline interview date is denoted as day 0 and is used as the basis for all other dates. A variable describing the race/ethnicity of participants (RACE) was added from the Screener dataset.

Missing data coding:

Original missing codes (-1: not applicable, -7: refused, -8: don't know, -9: missing) have been recoded to SAS missing codes (.B: not applicable, .D: refused, .C: don't know, and .A: missing).

NOTE: Please be aware that there was for site 16 women a gap of 2-3 visits between Visits 06 and 09. This might affect the accuracy of the created variables.

Variables included in the dataset:

Variable	Label	Codes
ARCHID	Participant ID	
RACE	Race/Ethnicity	1 = Black 2 = Chinese/Chinese American 3 = Japanese/Japanese American 4 = White Non-Hispanic 5 = Hispanic
REPORT_VISIT	Visit Fracture Reported	2 digit character
FXDAY	Fracture Day	Numeric
BREVENT	Break Event	Numeric
TRAUMATIC	Traumatic Break	1 = no 2 = yes
FX_SITE	Bone Break Site	1 = wrist 2 = hip 3 = spine 4 = sacrum/pelvis 5 = ribs 6 = arm-above wrist 7 = leg not patella 8 = shoulder 9 = ankle 10 = patella 11 = hand 12 = foot 13 = other (coccyx ["tail bone"] or sternum) 14 = digits [fingers or toes] or facial
NBONE_SAME	Number of Broken Bones at Same Anatomical Region	Numeric
MF_X_MR_FLG	More Fractures on Medical Record Flag	1 = yes
IMP_FXD_FLG	Imputed Day of Fractures Flag	1 = yes
MEDREC	Medical Record Available	0 = no 1 = yes

- **REPORT_VISIT:** The SWAN visit at which the fracture was reported; thus, the fracture has already occurred (since the prior visit).
- **TRAUMATIC:** A Yes/No variable that describes the mechanism of the fracture (traumatic or not). If a participant answered "Yes" to any of the trauma categories listed in Appendix 2, TRAUMATIC was set to "Yes". (Trauma was defined as: a fall from a height where your feet were greater than six inches above the ground [for example, falling down stairs]; in a motor vehicle accident; while moving fast [for example, running, bicycling, skating, or while playing sports], or because something heavy fell on you or struck you).
- **FX_SITE:** The fracture sites are coded into 14 categories (See Appendix 1 for detailed explanation). The numeric code corresponding to each break sites is shown in the variable list above. The highest level of available information was used for coding. Specifically, the fracture site was based on medical records if available, otherwise self-report was used.
- **NBONE_SAME:** To indicate number of broken bones in the same anatomical region.
- **MF_X_MR_FLG:** To flag the extra fractures found on medical record. Example: Participant reported leg fracture, MR reported leg and foot. Therefore, flag recorded for foot (or second) fracture.
- **FXDAY:** Is the day of the fracture date since the initial baseline interview, which is day 0. From Visit 01 through Visit 06, questionnaires whether respondent had fracture since last visit; they did not ask for date for fracture. At and after visit 07, questionnaires inquired about date of fracture. For Visit 01 through Visit 06, the midpoint of visit date between LAST and CURRENT study visit is used. For visit 07 and beyond, if we obtained a medical record, we ascertained the break month and break year from that record. If we did not obtain a medical record, we used the self-reported date from the Break Event Form (BEVT) as the fracture date. We set the day of the break to the 15th the month in each case.
- **IMP_FXD_FLG:** Flags if the day of fracture is imputed.
- **MEDREC:** Indicates if the medical record is available for the fracture.

Additional Information:

The self-reported fractures were text fields from Visit 01 to Visit 06. These were manually coded to the categories listed above (and detailed in Appendix 1). For visit 07 and later, some of the items from the “other” category were manually coded into shoulder, ankle, patella, hand, foot, and the fingers/toes/facial categories. Also recoded were some of the BRARM category into shoulder, hand and fingers/toes/facial, and some of the BRLEG into ankle, patella, foot and fingers/toes/facial according to the break arm (BRARMSP) and break leg (BRLEGSP) text fields.

APPENDIX I: CODING FOR FRACTURES

Coding Categories by Bone Committee:

A. COCCYX

- i. Separate from remainder of pelvic fractures – the functional impact of a pelvic ring fracture is much greater than a coccyx fracture. Often referred to as TAIL BONE in self-report
- ii. Code as **#OTHER (COCCYX ['TAILBONE'] OR STERNUM)**

B. SHOULDER – Shoulder bones include clavicle and scapula.

- i. Shoulder category will include self-report of shoulder, clavicle, and scapula and confirmed fractures of clavicle and scapula.
- ii. Code as **#SHOULDER**

C. PATELLA

- i. Include all self-reported KNEE and confirmed patella.
- ii. code as **#PATELLA**

D. FOOT – bones of the foot exclusive of toes (digits)

- i. Include all self-reported foot and confirmed foot
- ii. Code as **#FOOT**

E. HAND – bones of the hand exclusive of fingers (digits)

- i. Include all self-reported hand and confirmed hand
- ii. Code as **#HAND**

F. ANKLE

- i. Include self-report and confirmed ankle fractures.
- ii. Code as **#ANKLE**

G. STERNUM

- i. Coded as **#OTHER (COCCYX ['TAIL BONE'] OR STERNUM)**

H. TOES, FINGERS, FACE

- i. Code as **#DIGITS [FINGERS OR TOES] OR FACIAL**

I. SACRUM/PELVIS

- i. Includes sacrum and all pelvic bones except coccyx

J. WRIST

K. HIP

L. SPINE

M. RIBS

N. ARM - ABOVE WRIST

O. LEG NOT PATELLA

APPENDIX II: QUESTIONNAIRES FOR FRACTURE ASCERTAINMENT

= Variable excluded from public use datafile

Visit 01 - Visit 06: Self-report obtained in follow-up Interview Questionnaire

B29. Since your last study visit, how many times did you break or fracture a bone?

[IF MORE THAN ONE BONE WAS BROKEN DURING THE SAME EVENT COUNT AS ONE TIME.]

_____ # of times broken bones (IF NONE, GO TO B30)

#BROKEBON

- a. Which bones did you break or fracture?
LIST BELOW. [IF BONE WAS BROKEN
MORE THAN ONCE, RECORD EACH BREAK
AND SPECIFY WHEN "REBROKEN".
BE SPECIFIC IN IDENTIFYING WHICH BONE
WAS BROKEN (I.E. RIGHT TIBIA).]

- b. How did it happen? Was it for any of the
following reasons? [HAND RESPONDENT
CARD "B" AND READ RESPONSE
CATEGORIES.]

- after a fall from a height above the ground greater than six inches,
- in a motor vehicle accident,
- while moving fast, like running, bicycling or skating,
- while playing sports,
- **or** because something heavy fell on you or struck you.

- | | NO | YES |
|----------------|-----------------|-----|
| 1. _____ | 1 | 2 |
| <u>#BONES1</u> | <u>#HAPPEN1</u> | |
| 2. _____ | 1 | 2 |
| <u>#BONES2</u> | <u>#HAPPEN2</u> | |
| 3. _____ | 1 | 2 |
| <u>#BONES3</u> | <u>#HAPPEN3</u> | |

V07 and later interviewer-administered survey

BREAK EVENT FORM (BVET)

B2. When did this event occur? #BRKMON ____ / ____ ____ #BRKYEAR
M M Y Y Y Y

a. How did the breaks or fractures happen in this particular event? Was it for any of the following reasons?
[HAND RESPONDENT CARD “X” AND READ RESPONSE CATEGORIES.]

- after a fall from a height where your feet were greater than six inches above the ground (for example, falling down stairs),
- in a motor vehicle accident,
- while moving fast, like running, bicycling or skating,
- while playing sports,
- **or** because something heavy fell on you or struck you?

#HOWBRK

NO..... 1

YES..... 2

b. Which bone(s) did you break?

c. IF YES, On which side of your body?

d. IF YES, Have you ever broken this bone before?

	NO	YES	RIGHT	LEFT	BOTH	NO	YES
1. WRIST <u>#BRWRIST</u>	1	2	1	2	3	1	2
				<u>#SIDEWRT</u>		<u>#B4WRIST</u>	
2. HIP <u>#BRHIP</u>	1	2	1	2	3	1	2
				<u>#SIDEHIP</u>		<u>#B4HIP</u>	
3. SPINE <u>#BRSPINE</u>	1	2	--	--	--	1	2
						<u>#B4SPINE</u>	
4. PELVIS <u>#BRPELVIS</u>	1	2	1	2	3	1	2
				<u>#SIDEPEL</u>		<u>#B4PELVIS</u>	
5. RIBS <u>#BRRIBS</u>	1	2	1	2	3	1	2
				<u>#SIDERIB</u>		<u>#B4RIBS</u>	
6. REMAINDER OF ARM (OTHER THAN WRIST), <u>#BRARM</u>	1	2	1	2	3	1	2
SPECIFY <u>#BRARMSP</u>				<u>#SIDEARM</u>		<u>#B4ARM</u>	
7. REMAINDER OF LEG (OTHER THAN HIP), <u>#BRLEG</u>	1	2	1	2	3	1	2
SPECIFY <u>#BRLEGSP</u>				<u>#SIDELEG</u>		<u>#B4LEG</u>	
8. OTHER, SPECIFY <u>#BRKOTH</u> , <u>#BRKOTHS</u>	1	2	1	2	3	1	2
				<u>#SIDEOTR</u>		<u>#B4OTHR</u>	

IF MORE THAN ONE EVENT, COMPLETE ANOTHER BREAK/FRACTURE EVENT FORM.

V07 and later: MEDICAL RECORD ADJUDICATION FORM
BREAK FRACTURE ABSTRACTION FORM

BREAK FRACTURE ABSTRACTION FORM – Section C

Study of Women's Health Across the Nation

SECTION A. GENERAL INFORMATION

AFFIX ID LABEL HERE

- A1. RESPONDENT ID: [ARCHID~](#)
- A2. SWAN STUDY VISIT # [#VISIT](#)
- A3. FORM VERSION: 11/01/2004 [#FORM V](#)
- A7. WHICH EVENT? [#BREVENT](#)

SECTION C: REPORTED FRACTURE

- C1. WHICH FRACTURE IS THIS? OF [#FRACA1](#) [#FRACB1](#)
- C2. CIRCLE **ONE** NUMBER, THAT CORRESPONDS TO **ONE** FRACTURE REPORTED ON THIS PAGE [#FRACREP1](#)

COMPLETE A SEPARATE SECTION C (BFABC) FOR EACH FRACTURE REPORTED

- WRIST1
- HIP2
- SPINE3 (C3)
- PELVIS4
- RIBS5
- REMAINDER OF ARM, OTHER THAN WRIST6
- SPECIFY LOCATION:
- REMAINDER OF LEG, OTHER THAN HIP7
- SPECIFY LOCATION:
- OTHER BONE8
- SPECIFY LOCATION: [#FRACOTH1](#)

~ A randomly generated ID will be provided that is different from the original ID

C2a. RIGHT OR LEFT SIDE:

#RGHLEFT1

RIGHT1
LEFT2

C3. DOES A RADIOLOGY REPORT CONFIRM A FRACTURE OF THE BONE CIRCLED ABOVE? #RADREPT1

NO.....1

YES (If Yes, attach a copy of the confirming x-ray report)2 (END)

C4. DO OTHER FINDINGS CONFIRM A FRACTURE OF THE BONE CIRCLED ABOVE? #CONFRAC1

NO.....1

YES (If Yes, attach a copy of this confirming data)2 (END)

C5. IF C3 AND C4 ARE BOTH ANSWERED 'NO,' DO YOU THINK THIS BONE WAS FRACTURED? #BNFRAC1

NO.....1 (END)

YES.....2

DON'T KNOW – 8

C5a. IF YES OR DON'T KNOW, EXPLAIN WHY:

#BNFRSP1
