

THE STRONG HEART STUDY – VI

CONTACT AND MEDICAL HISTORY

SHS I.D.: |\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|

SHS Family I.D.: |\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|

1. Your name: \_\_\_\_\_  
Last First Middle

2. Date of Birth: |\_|\_|\_|\_|/|\_|\_|\_|\_|/|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|  
Month Day Year

3. What is your nickname/other name: \_\_\_\_\_

4. If ever married, what was your maiden name? \_\_\_\_\_

5. If married, what is your spouse's name?

\_\_\_\_\_ Last First Middle

6. What is your current mailing address?

a. \_\_\_\_\_  
Street/P.O. Box

b. \_\_\_\_\_  
City/town

c. \_\_\_\_\_  
State and zip code

7. Is your residential (physical) address the same as above?

Yes |\_|\_| No |\_|\_| ***If no, what is your current residential (physical) address?***

a. \_\_\_\_\_  
Street/P.O. Box

b. \_\_\_\_\_  
City/town

c. \_\_\_\_\_  
State and zip code

8. What is your home telephone number |\_|\_|\_|\_|\_|-|\_|\_|\_|\_|-|\_|\_|\_|\_|\_|\_|\_|\_|

9. What is your cell telephone number |\_|\_|\_|\_|\_|-|\_|\_|\_|\_|-|\_|\_|\_|\_|\_|\_|\_|\_|

10. Does your phone allow text messages Check one box Yes |\_|\_| No |\_|\_|

11. What is your work or other telephone # |\_|\_|\_|\_|\_|-|\_|\_|\_|\_|-|\_|\_|\_|\_|\_|\_|\_|\_|

12. What is your email address \_\_\_\_\_

13. Please list two of your relatives or friends not living with you who would be able to help us find you in the future:

Contact #1: \_\_\_\_\_  
Name

PO Address Residential (Physical) Address

City/Town State, ZIP code

Phone with area code Cell e-mail address

Contact #2: \_\_\_\_\_  
Name

PO Address Residential (Physical) Address

City/Town State, ZIP code

Phone with area code Cell e-mail address

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### MEDICAL CONDITIONS:

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14. Gender: Female  Male  (*information to be filled in by field staff*)

15. To which IHS and non-IHS Hospital/Clinic do you usually go? *List the one you go to most often first.*

Hospital/Clinic IHS, check if YES

a. \_\_\_\_\_ City: \_\_\_\_\_

b. \_\_\_\_\_ City: \_\_\_\_\_

16. What is your current weight:     
Pounds Current height  /    
Feet Inches

17. Do you have arthritis? **Y=Yes, N=No, U=Unknown** Y  N  U   
If yes, have you been told if it is rheumatoid arthritis? Y  N  U

18. Has a doctor or other health care provider ever told you that you have/had any of the following conditions  
**Please check the appropriate boxes below.**

a. Asthma Y  N  U  f. Liver disease Y  N  U

b. Lung disease Y  N  U  g. Gout Y  N  U

c. Retinopathy/diabetes eye problem Y  N  U  h. Kidney stones Y  N  U

d. Are you currently on dialysis Y  N  U  i. Lupus/scleroderma Y  N  U

e. Have you had a kidney transplant Y  N  U  j. Diabetes/prediabetes Y  N  U

If YES to Diabetes/prediabetes, what type of treatment are you taking?

j1. Insulin Y|\_|N|\_|U|\_| j3. Oral hypoglycemic pills Y|\_|N|\_|U|\_|

j2. Dietary and/or exercise Y|\_|N|\_|U|\_| j4. No Treatment Y|\_|N|\_|U|\_|

19. Have you ever been told you have high blood pressure? Y|\_|N|\_|U|\_|

20. Have you ever been prescribed medications for high blood pressure? Y|\_|N|\_|U|\_|

21. E-cigs are battery powered devices that provide inhaled doses of nicotine. Have you ever used  
e-cigs (electronic cigarettes)? Y|\_|N|\_|U|\_|

22. Since your last SHS exam, have you had a heart attack, heart failure or any problems with your heart?  
If so, which hospital or clinic took care of you? Y|\_|N|\_|U|\_|

Hospital/Clinic: \_\_\_\_\_ City: \_\_\_\_\_

23. Since your last SHS exam did you have a stroke, a mini-stroke or TIA? Y|\_|N|\_|U|\_|

If so, which hospital or clinic took care of you?

Hospital/Clinic: \_\_\_\_\_ City: \_\_\_\_\_

Did you receive rehab at a clinic, inpatient or other facility? Y|\_|N|\_|U|\_|

Hospital/Clinic/other facility: \_\_\_\_\_ City: \_\_\_\_\_

24. Has a health care provider ever told you that you have/had cancer? Y|\_|N|\_|U|\_| (If No or Unknown:  
Female skip to question 25; Male skip to question 31)

If "YES," what type is/was it? Check all that apply from the following list:

- |    |                          |                                |    |                          |                             |
|----|--------------------------|--------------------------------|----|--------------------------|-----------------------------|
| a. | <input type="checkbox"/> | Breast                         | f. | <input type="checkbox"/> | Kidney/Bladder              |
| b. | <input type="checkbox"/> | Ovary/uterus                   | g. | <input type="checkbox"/> | Liver                       |
| c. | <input type="checkbox"/> | Prostate                       | h. | <input type="checkbox"/> | Mouth / Throat              |
| d. | <input type="checkbox"/> | Lung                           | i. | <input type="checkbox"/> | Melanoma and/or Skin cancer |
| e. | <input type="checkbox"/> | Colon/Rectum                   | j. | <input type="checkbox"/> | Blood or immune system      |
| k. | <input type="checkbox"/> | Other, not on this list: _____ |    |                          |                             |

If yes, please provide name of health care provider or hospital where you receive/received cancer care:

\_\_\_\_\_ City: \_\_\_\_\_

If yes, did you have an operation or biopsy for the cancer? Y|\_|N|\_|U|\_|

If yes, where?

Hospital/Clinic: \_\_\_\_\_ City: \_\_\_\_\_

If yes, did you receive any chemotherapy and/or radiation therapy? Y|\_|N|\_|U|\_|

If yes, where?

Hospital/Clinic: \_\_\_\_\_ City: \_\_\_\_\_

**Female Participant only:**

25. How many pregnancies have you had? |\_\_|\_\_|

26. How many live births have you had? |\_\_|\_\_|

27. Did you have a still birth (last 3 months of pregnancy)?

Y|\_\_|N|\_\_|U|\_\_|

If yes, when?

|\_\_|\_\_| / |\_\_|\_\_|\_\_|\_\_|  
Month Year28. During your **first pregnancy**, were you told that you had any of the following conditions and check all the complications that occurred:

a. pre-eclampsia (toxemia) Y|\_\_|N|\_\_|U|\_\_| d. diabetes (gestational diabetes) Y|\_\_|N|\_\_|U|\_\_|

b. high blood pressure Y|\_\_|N|\_\_|U|\_\_|

c. high blood pressure along with protein in your urine Y|\_\_|N|\_\_|U|\_\_|

Please provide date of delivery for first pregnancy: |\_\_|\_\_| / |\_\_|\_\_| / |\_\_|\_\_|\_\_|\_\_|  
Month Day Year

Hospital of delivery: \_\_\_\_\_ City: \_\_\_\_\_

29. Was there **any other pregnancy** complicated by pre-eclampsia (toxemia) or high blood pressure?

Y|\_\_|N|\_\_|U|\_\_|

**If yes**, please list one pregnancy that was complicated by these conditionsDate of delivery: |\_\_|\_\_| / |\_\_|\_\_| / |\_\_|\_\_|\_\_|\_\_|  
Month Day Year

Hospital of delivery: \_\_\_\_\_ City: \_\_\_\_\_

Check all complications that occurred:

a. pre-eclampsia (toxemia) Y|\_\_|N|\_\_|U|\_\_| d. diabetes (gestational diabetes) Y|\_\_|N|\_\_|U|\_\_|

b. high blood pressure Y|\_\_|N|\_\_|U|\_\_|

c. high blood pressure along with protein in your urine Y|\_\_|N|\_\_|U|\_\_|

30. Interviewer code (administrative use only): |\_\_|\_\_|\_\_|

31. Interview date: |\_\_|\_\_| / |\_\_|\_\_| / |\_\_|\_\_|\_\_|\_\_|  
Month day year

**THE STRONG HEART STUDY VI  
CARDIOVASCULAR DISEASE IN AMERICAN INDIANS**

**Master List of Hospitalization and Outpatient Visits**

ID number:

--	--	--	--	--	--	--	--

**List all facilities where patient was hospitalized or was an outpatient since date of last SHS contact.**

Reason:    1=Heart attack    2=Stroke    3=CHF  
              4=Other CVD, please specify (includes PVD and valvular heart disease).  
              5=Other non-CVD, please specify.  
              6=End Stage Renal Disease (includes kidney dialysis or kidney transplant).

**If it is a FATAL event, mark X in the inpatient or outpatient space.**

In patient	Out- patient	Hospital/Clinic	Town/State	Date (mm/dd/yy)	Reason	Abstracted (Y/N)
_____	_____	_____	_____	____/____/____	_____	_____
Diagnosis: _____						
_____	_____	_____	_____	____/____/____	_____	_____
Diagnosis: _____						
_____	_____	_____	_____	____/____/____	_____	_____
Diagnosis: _____						
_____	_____	_____	_____	____/____/____	_____	_____
Diagnosis: _____						
_____	_____	_____	_____	____/____/____	_____	_____
Diagnosis: _____						
_____	_____	_____	_____	____/____/____	_____	_____
Diagnosis: _____						

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**THE STRONG HEART STUDY VI  
CARDIOVASCULAR DISEASE IN AMERICAN INDIANS**

**MORBIDITY SURVEY  
PERIPHERAL VASCULAR PROCEDURES/REVASCLARIZATION ABSTRACT**

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ID number: \_\_\_\_\_

\_\_\_\_\_

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**1. Was peripheral angiogram (ICD-9 procedure code 88.48) done?**

Yes |\_\_|1      No |\_\_|2 **(Go to Q2)**      Yes, but no report |\_\_|9

a. If yes: Contrast angiogram |\_\_|      MR angiogram |\_\_|      CT angiogram |\_\_|

b. If yes, when? \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
    month      day      year

c. Where: \_\_\_\_\_

**d. Was any vessel ≥ 50% stenotic?**

i. Aorta:                      Yes |\_\_|1    No |\_\_|2    Uncertain |\_\_|8    Unknown |\_\_|9

    If yes, which side?    Right |\_\_|    Left |\_\_|    Both |\_\_|

ii. Iliac:                      Yes |\_\_|1    No |\_\_|2    Uncertain |\_\_|8    Unknown |\_\_|9

    If yes, which side?    Right |\_\_|    Left |\_\_|    Both |\_\_|

iii. Femoral:                      Yes |\_\_|1    No |\_\_|2    Uncertain |\_\_|8    Unknown |\_\_|9

    If yes, which side?    Right |\_\_|    Left |\_\_|    Both |\_\_|

iv. Popliteal or lower:      Yes |\_\_|1    No |\_\_|2    Uncertain |\_\_|8    Unknown |\_\_|9

    If yes, which side?    Right |\_\_|    Left |\_\_|    Both |\_\_|

v. Carotid stenosis              Yes |\_\_|1    No |\_\_|2    Uncertain |\_\_|8    Unknown |\_\_|9

    If yes, which side?    Right |\_\_|    Left |\_\_|    Both |\_\_|

e. Was there evidence of previous revascularization?    Yes |\_\_|1                      No |\_\_|2

**2. Was peripheral angioplasty or surgical revascularization done?**

Yes, angioplasty |\_\_|1                              Yes, revascularization |\_\_|3  
**(ICD-9 procedure code 39.50)**                      **ICD-9 procedure code 39.25 and 39.29)**

No                      |\_\_|2 **(Go to Q3)**                      Yes, but no report |\_\_|9

a. If yes, when? |||/||||/|||||  
month day year

b. Where: \_\_\_\_\_

3. **Was amputation (ICD-9 procedure codes 84.10 – 84.19) performed?**

Yes ||1                      No ||2 (**Go to Q4.**)                      Yes, but no report ||9

a. If yes, which side?    Right ||    Left ||    Both ||

b. Which part?

Upper body,    Arm=1,                      Hand=2,                      Finger=3,                      ||

Lower body,    Above knee=1,                      Below knee=2                      ||  
Foot=3,                      Toe(s)=4

b. When: |||/||||/|||||  
month day year

c. Where: \_\_\_\_\_

4. **Was carotid angioplasty/stenting done?**

Yes ||1                      No ||2 (**Go to Q5.**)                      Yes, but no report ||9

a. If yes, which side?    Right ||    Left ||    Both ||

b. If yes, when? |||/||||/|||||  
month day year

c. Where: \_\_\_\_\_

5. **Was carotid endarterectomy done?**

Yes ||1                      No ||2 (**Go to end.**)                      Yes, but no report ||9

a. If yes, which side?    Right ||    Left ||    Both ||

b. When: |||/||||/|||||  
month day year

c. Where: \_\_\_\_\_

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**ADMINISTRATIVE INFORMATION:**

5. Reviewer code: ||||

6. Review date: |||/||||/|||||  
month day year

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**Instructions:** The same procedures used for the ongoing surveillance in each center should be used, including evaluation of clinic charts and/or use of the IHS computerized records as well as direct contact with participants when necessary.

The purpose of this study is to derive an estimate of the proportion of participants who have undergone diagnostic or therapeutic procedures documenting definite lower extremity peripheral arterial disease since the Phase III SHS examination, and the proportion thereof for whom the necessary records are still available. Therefore, medical records for hospitalizations or outpatient encounters dealing with the diagnostic or procedural codes listed below and occurring since 1 January 1998 should be requested and reports of the procedures of interest should be obtained. Earlier events that correspond to the same procedures should be noted but charts need not be abstracted.

The following diagnostic codes should be identified:

For Peripheral Angiograms: ICD-9 procedure code **88.48**

For Peripheral Angioplasty: ICD-9 procedure code **39.50**

For Peripheral Surgical Revascularization: ICD-9 procedure codes **39.25 and 39.29**

For Amputation: ICD-9 procedure codes **84.10-84.19**

For Carotid Endarterectomy: ICD-9 procedure code **38.12**

For Angioplasty: ICD-9 procedure code **00.61**

For Stenting: ICD-9 procedure code **00.45**







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**ADMINISTRATIVE INFORMATION:**

34. Reviewer code |\_|\_|\_|\_|
35. Review date: |\_|\_|\_|/|\_|\_|\_|/|\_|\_|\_|\_|\_|  
month day year
-

**THE STRONG HEART STUDY VI  
CARDIOVASCULAR DISEASE IN AMERICAN INDIANS**

**HEART FAILURE PROCEDURES**

SHS ID: |\_\_|\_\_|\_\_|\_\_|\_\_|\_\_|

Date of Event: |\_\_|\_\_|\_\_|/|\_\_|\_\_|\_\_|/|\_\_|\_\_|\_\_|\_\_|\_\_|\_\_|  
month day year

**A. ATRIAL FIBRILLATION AT TIME OF HF?** Yes |\_\_| 1 No |\_\_| 2 Unknown |\_\_| 9

**B. WHICH IMAGING STUDY WAS PERFORMED DURING THIS ADMISSION? Please check ALL that were done. If more than one imaging study was done in the same admission, please use one of these forms for EACH IMAGING STUDY to record the results of that study.**

|\_\_|1 Echocardiogram

|\_\_|2 Nuclear Imaging

|\_\_|3 Invasive Angiogram

|\_\_|4 CT Angiogram

|\_\_|5 MRI Angiogram

|\_\_|6 Other, Specify: \_\_\_\_\_

|\_\_|7 Not sure, no results found in chart

|\_\_|8 None

**If not sure or none, skip to Q8.**

1. Name of test: \_\_\_\_\_

2. Date of test: |\_\_|\_\_|\_\_|/|\_\_|\_\_|\_\_|/|\_\_|\_\_|\_\_|\_\_|\_\_|\_\_|  
month day year

3. Facility name: \_\_\_\_\_

City/State: \_\_\_\_\_

4. Ejection fraction: Measured: |\_\_|\_\_|\_\_| % Estimated: |\_\_|\_\_|\_\_| %

If % not stated, 777 = normal, or range  $\geq 50\%$  888 = abnormal, or range  $< 50\%$  999 = unknown/no response

5. Ejection fraction interpretation: Normal |\_\_| 1 Depressed |\_\_| 2 NR |\_\_| 9

6. Segmental wall motion abnormalities? Yes |\_\_| 1 No |\_\_| 2 NR |\_\_| 9

If yes, degree of abnormality: Mild |\_\_| 1 Moderate |\_\_| 2 Severe |\_\_| 3 Unknown |\_\_| 9

7. Transmitral time: E Velocity: \_\_\_\_ cm/sec A Velocity: \_\_\_\_ cm/sec Peak E/A Ratio: \_\_\_\_

Decel. Time: \_\_\_\_ msec IVRT: \_\_\_\_ Septal E': \_\_\_\_ Peak S': \_\_\_\_ Septal A': \_\_\_\_

SHS ID: |\_\_|\_\_|\_\_|\_\_|\_\_|\_\_|

8. **Valvular disease?** Yes |\_\_| 1 No |\_\_| 2 Unknown |\_\_| 9

**If No or Unknown, go to Q9.**

**If Yes,**

a. Mitral regurgitation/insufficiency:

1+ |\_\_| 1 2+ |\_\_| 2 3+ |\_\_| 3 4+ |\_\_| 4 Unknown |\_\_| 9

b. Mitral stenosis:

Mild |\_\_| 1 Moderate |\_\_| 2 Severe |\_\_| 3 Unknown |\_\_| 9

c. Aortic regurgitation/insufficiency:

1+ |\_\_| 1 2+ |\_\_| 2 3+ |\_\_| 3 4+ |\_\_| 4 Unknown |\_\_| 9

d. Aortic stenosis:

Mild |\_\_| 1 Moderate |\_\_| 2 Severe |\_\_| 3 Unknown |\_\_| 9

e. Tricuspid regurgitation:

1+ |\_\_| 1 2+ |\_\_| 2 3+ |\_\_| 3 4+ |\_\_| 4 Unknown |\_\_| 9

9. **Right ventricular systolic pressure/PA systolic pressure (mmHg):** |\_\_|\_\_|\_\_|

If not stated, 777 = normal 888 = abnormal 999 = unknown/no response

**C. B-TYPE NATRIURETIC PEPTIDE (BT-BNP):** \_\_\_\_\_ pg/ml. Upper Limit of Normal: \_\_\_\_\_ pg/ml

**N-TYPE NATRIURETIC PEPTIDE (NT-BNP):** \_\_\_\_\_ pg/ml. Upper Limit of Normal: \_\_\_\_\_ pg/ml

**D. CARDIOMYOPATHY DIAGNOSIS:** Ischemic: \_\_\_\_ Non-Ischemic: \_\_\_\_ Hypertrophic: \_\_\_\_

Valvular disease: \_\_\_\_ Acute MI: \_\_\_\_\_ NR |\_\_| 9

No cardiomyopathy \_\_\_\_

Reviewer Code: |\_\_|\_\_|\_\_|

Review Date: |\_\_|\_\_| / |\_\_|\_\_| / |\_\_|\_\_|\_\_|\_\_|  
 month day year

# THE STRONG HEART STUDY – VI

## Diabetes Ascertainment

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SHS I.D.: | | | | | | | | | |

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1. | | | Diagnosis of diabetes established by prior SHS or SHSS exam, 1=Yes (skip to Q9), 2=No
2. | | | No medical records available, 1=Yes (skip to Q9), 2=No
3. Diagnosis made by the abstractor (check all that apply)

- | | | Diabetes
- | | | Gestational diabetes only (skip to Q9)
- | | | Diabetes not mentioned in medical records (skip to Q9)
- | | | Diabetes mentioned but no supporting evidence in medical records

4. Date of first mention of diabetes (not gestational diabetes) | | | | / | | | | / | | | | | | | |  
Month Day Year

5. FASTING PLASMA GLUCOSE  $\geq$  126 mg/dL  
First FPG  $\geq$  126 mg/dL \_\_\_\_\_ mg/dL \_\_\_\_\_ Date (mm/yyyy) \_\_\_\_\_ N/A

6. HEMOGLOBIN A1c  $\geq$  6.5%  
First A1c  $\geq$  6.5% \_\_\_\_\_ % \_\_\_\_\_ Date (mm/yyyy) \_\_\_\_\_ N/A

7. 2-HOUR PLASMA GLUCOSE DURING OGTT  $\geq$  200 mg/dL  
First 2-H PG  $\geq$  200 mg/dL \_\_\_\_\_ mg/dL \_\_\_\_\_ Date (mm/yyyy) \_\_\_\_\_ N/A

8. Treatment for diabetes. Check all that apply  
 Insulin     Oral agents     Dietary and/or exercise     None     Unknown

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9. SHS staff code: | | | | |

10. Abstraction date: | | | | / | | | | / | | | | | | | |  
Month day year

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Procedures to ascertain diabetes status since last SHS exam:

- a. SH Family Study: Ascertain diabetes status in the SH Family Study up until the last exam.
- b. SH cohort that were in the SH Stroke Study: Go back to the last SH Stroke exam and use the available fasting glucose measurements to aid in the ascertainment of diabetes status.
- c. SH cohort NOT in the SH Stroke Study: Perform chart review until the last exam.



7. If no, how long before he/she died did you last see him/her?

1 hour or less  
24 hours or less

\_\_\_\_|1  
\_\_\_\_|2

More than 24 hours  
Unknown

\_\_\_\_|3  
\_\_\_\_|9

8. Do you know of anyone else who may have been present at about the time of his/her death?

Yes \_\_\_\_|1

No \_\_\_\_|2

Unknown \_\_\_\_|9

If yes can you give me that person's name and contact information:

Contact information \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9. Please describe the events that occurred at the time of death, specifically, did he/she manifest any of the following conditions: chest pain, shortness of breath, agitation, sudden collapse or loss of consciousness, sudden weakness, slurred speech, etc. Please tell me what you know of his/her general health, health on the day he/she died, and of the death itself. This information will be reviewed by a physician and will help to better understand the cause of your loved one's death. **(Record summary verbatim and ask pertinent questions when appropriate attach additional sheet if needed)** Probing Questions: Are you aware of any illnesses the individual had prior to death? If yes – how long did the person have the illness? Was the individual involved in any accidents or trauma prior to death? If yes – what type and how long prior to death.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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The next set of questions deal specifically with the last episode of pain or discomfort that occurred before his/her death. This is defined as starting at the time you noticed discomfort that caused him/her to stop or change what he/she was doing. **NOTE TO INTERVIEWERS: If the informant has already answered these questions in the description of circumstances, just fill out the correct answer(s) as noted below. Respect the informant's wishes about continuing the interview and record answers to as many of the following questions as possible.**

10. Did his/her last episode of pain or discomfort specifically involve the chest?  
 Yes |1 No |2 Unknown |9
11. Did he/she experience pain or discomfort in his/her chest, left arm or shoulder or jaw either just before death or within 3 days (72 hours) of death?  
 Yes |1 No |2 Unknown |9  
 (If NO or Unknown go to Q15)
12. Did he/she take nitroglycerine because of this last episode of pain or discomfort?  
 Yes |1 No |2 Unknown |9
13. Did he/she take any other medicine for chest discomfort prior to death? Yes \_\_\_\_\_ No \_\_\_\_\_  
 If yes what? \_\_\_\_\_
14. How long was it from the beginning of his/her last episode of pain or discomfort to the time he/she stopped breathing on his/her own? **(use the shortest interval known to be true)**  
 5 minutes or less |1 24 hours or less |4  
 10 minutes or less |2 More than 24 hours |5  
 1 hour or less |3 Unknown |9
15. Did he/she ever have dialysis for kidney failure? Yes No Unknown  
|1 |2 |9
- a. If yes, what year did he/she start dialysis? ||||
- b. How many times per week did he/she receive dialysis? ||
- c. Did he/she stop dialysis before death? Yes No Unknown  
|1 |2 |9
- If yes, how long before death? |||/ |||/ |||  
 days months years
16. Within 3 days of death, or just before he/she died, did any of the following symptoms begin for the first time or did the patient complain of any of these symptoms:
- |   | Yes                         | No                          | Unknown                     |
|---|-----------------------------|-----------------------------|-----------------------------|
| a. Shortness of breath?                                 | <input type="checkbox"/>  1 | <input type="checkbox"/>  2 | <input type="checkbox"/>  9 |
| b. Dizziness?   | <input type="checkbox"/>  1 | <input type="checkbox"/>  2 | <input type="checkbox"/>  9 |
| c. Palpitations (pounding in the chest)?                | <input type="checkbox"/>  1 | <input type="checkbox"/>  2 | <input type="checkbox"/>  9 |
| d. Marked or increased fatigue, tiredness, or weakness? | <input type="checkbox"/>  1 | <input type="checkbox"/>  2 | <input type="checkbox"/>  9 |
| e. Headache?  | <input type="checkbox"/>  1 | <input type="checkbox"/>  2 | <input type="checkbox"/>  9 |
| f. Sweating?  | <input type="checkbox"/>  1 | <input type="checkbox"/>  2 | <input type="checkbox"/>  9 |
| g. Paralysis?   | <input type="checkbox"/>  1 | <input type="checkbox"/>  2 | <input type="checkbox"/>  9 |



25. Can you tell me the name and location of the hospital? *(If unknown, check the box.)*

a. Name: \_\_\_\_\_

b. Address: \_\_\_\_\_

City/town: \_\_\_\_\_

State-Zip: \_\_\_\_\_

26. Was he/she seen by a physician anytime in the year prior to death?  
 Yes |1 No |2 Unknown |9

27. Can you tell me the name and address of this physician or healthcare facility?  IHS only

a. Name: \_\_\_\_\_

b. Address: \_\_\_\_\_

City/town: \_\_\_\_\_

State-Zip: \_\_\_\_\_

28. Can you tell me the name and address of his/her usual physician?  
*If same as Q27, check here.*

a. Name: \_\_\_\_\_

b. Address: \_\_\_\_\_

City/town: \_\_\_\_\_

State-Zip: \_\_\_\_\_

29. **Now, think back to about one month before he/she died. At that time, was he/she sick or ill; were his/her activities limited, or was he/she normally active for the most part?**

**Sick/ill/limited activities** |1 **Normally active** |2 **Unknown** |9

30. Was he/she being cared for at a nursing home or at another place at the time of death?

Yes, nursing home, specify |1 \_\_\_\_\_

Yes, at home |2 \_\_\_\_\_

Yes, other, specify |3 \_\_\_\_\_

No |4 \_\_\_\_\_

Unknown |9 \_\_\_\_\_

**The next few questions are concerned specifically with emergency medical care he/she may have received just prior to or at the time of death.**

31. Was he/she taken to a hospital/clinic in the week before his/her death? Yes |1 No |2

32. If Yes, could you tell me the name and location of this facility:

a. Name: \_\_\_\_\_

b. Address: \_\_\_\_\_

City/town: \_\_\_\_\_

State-Zip: \_\_\_\_\_

33. Is there someone else whom we could contact, who might know more about the circumstances surrounding his/her death or his/her usual state of health?

Yes |\_\_|1      No |\_\_|2      Unknown |\_\_|9

**(If Yes, complete the front of the second Informant Interview)**

34. Did informant provide consent to gather further information?

Yes |\_\_|1      No |\_\_|2      Not applicable |\_\_|3

**(If Yes, ask the informant to sign the consent form for us to review the decedent's medical records)**

35. How reliable was the participant in completing the questionnaire?

Very reliable |\_\_|1      Reliable |\_\_|2      Unreliable |\_\_|3      Very unreliable |\_\_|4      Uncertain |\_\_|5

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**ADMINISTRATIVE INFORMATION:**

36. Interviewer code: \_\_\_\_\_

37. Interview date: \_\_\_\_\_

month      day      year

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**THE STRONG HEART STUDY VI  
CARDIOVASCULAR DISEASE IN AMERICAN INDIANS**

**MORTALITY SURVEY PACKET CHECKLIST**

---

ID number:

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1. Death Certificate Yes |1 No |2
2. Autopsy performed Yes |1 No |2
3. Autopsy report Yes |1 No |2
4. Medical Records Checklist Yes |1 No |2
5. Copy reports as specified Yes |1 No |2
6. Check if the decedent is eligible for the morbidity survey and proceed as required by the morbidity survey protocol. Yes |1 No |2
7. Check if tracking form was sent Yes |1 No |2
8. Informant Interview Form Yes |1 No |2
9. Was he/she in a nursing home at the time of death?  
Yes |1 No |2 Unknown |9
10. Was he/she receiving care from a home hospice care program at the time of death?  
Yes |1 No |2 Unknown |9

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**ADMINISTRATIVE INFORMATION:**

SHS staff code:

Completion date:    /    /      
month day year

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6. **FOR MORTALITY REVIEW:** Obtain the following medical records (when available) for this final admission. In addition, obtain these medical records for each hospitalization **WITHIN** the YEAR prior to death (and **assemble them for each admission.**)  
**FOR MORBIDITY REVIEW:** Obtain the following medical records (when available) for each hospitalization or outpatient visit since this participant's last morbidity chart review (and **assemble them for each admission.**) Be sure that photocopies are legible.

	YES	NO	DONE, No Report
Admission Sheets (Face Sheets)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Admitting History and Physical Exam	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Discharge Summary	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
ECGs	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Cardiac Enzyme (including Troponin)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Reports of results of:			
Chest X-ray	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Echocardiogram	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Angiogram	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Exercise tolerance test (Treadmill)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Cardiac catheterization	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
CT (CAT) scan	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
MRI	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Carotid ultrasound	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Lumbar puncture	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Creatinine	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Liver Function test	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Pathology	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9
Cultures	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 9

**Other Laboratory results, SPECIFY:**

_____	__ 1	__ 2	__ 9
_____	__ 1	__ 2	__ 9
_____	__ 1	__ 2	__ 9

Operative reports:

Coronary bypass	__ 1	__ 2	__ 9
Angioplasty	__ 1	__ 2	__ 9
Swan-Ganz catheterization	__ 1	__ 2	__ 9
Non-CVD operation	__ 1	__ 2	__ 9

For terminal Event Only:

Ambulance report	__ 1	__ 2	__ 9
ER Admission and Discharge Summary	__ 1	__ 2	__ 9
Any clinical notes regarding DOA	__ 1	__ 2	__ 9
Autopsy Report/ Coroner's Report	__ 1	__ 2	__ 9
From IHS clinic chart (if available), photocopy notes and test results from the most recent visit prior to death	__ 1	__ 2	__ 9

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Abstractor Number |\_|\_|\_|\_|

Date abstract completed: |\_|\_|\_|/|\_|\_|\_|/|\_|\_|\_|\_|\_|  
month            day            year

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**RENAL DIALYSIS AND KIDNEY TRANSPLANT**

6. Has the participant received a kidney transplant? Yes |\_\_| 1 No |\_\_| 2

If yes, was the transplant done this admission? Yes |\_\_| 1 No |\_\_| 2

If no, date of first transplant: |\_\_| |\_\_| / |\_\_| |\_\_| / |\_\_| |\_\_| |\_\_| |\_\_|  
month day year

7. Was the participant receiving kidney dialysis during this hospital or outpatient visit?

Yes |\_\_| 1 No |\_\_| 2

If yes, was dialysis started during this admission? Yes |\_\_| 1 No |\_\_| 2

**Obtain the following medical records (when available) for each hospitalization or outpatient visit since this participant’s last morbidity chart review (and assemble them for each admission). Be sure that photocopies are legible.**

	YES	NO	DONE, No Report
Admission Sheets (Face Sheets), including Diagnoses	_____	_____	_____
Admitting History and Physical Exam	_____	_____	_____
Discharge Summary	_____	_____	_____
ECGs (see instruction)	_____	_____	_____
Cardiac enzyme report (days 1 to 4)	_____	_____	_____
Neurology Consult Report	_____	_____	_____

**Reports of Procedures:**

1. Echocardiogram	_____	_____	_____
2. Coronary angiogram	_____	_____	_____
3. Exercise tolerance test (Treadmill)	_____	_____	_____
4. Cardiac catheterization	_____	_____	_____
5. Coronary bypass	_____	_____	_____
6. Coronary angioplasty	_____	_____	_____
7. Swan-Ganz catheterization	_____	_____	_____
8. Intracoronary or I.V. streptokinase, or TPA reperfusion	_____	_____	_____
9. Aortic balloon pump	_____	_____	_____
10. Radionuclide scan	_____	_____	_____
11. CAT or CT of the head	_____	_____	_____
12. Magnetic Resonance Image (MRI) of the head	_____	_____	_____
13. Carotid ultrasound/Doppler	_____	_____	_____
14. Lumbar puncture	_____	_____	_____

- 15. Angiography (including vessels in the lower extremities) \_\_\_\_\_
- 16. Peripheral Angioplasty (lower extremity vessel(s)) \_\_\_\_\_
- 17. Surgical revascularization of peripheral vessel(s) \_\_\_\_\_
- 18. Amputation \_\_\_\_\_
- 19. Chest X-ray \_\_\_\_\_
- 20. Carotid endarterectomy \_\_\_\_\_
- 21. CAT or CT of abdomen or other part of the body \_\_\_\_\_
- 22. MRI of abdomen or other part of the body \_\_\_\_\_
- 23. Other, specify: \_\_\_\_\_

***Be sure to include Tracking Sheet in the packet***

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**ADMINISTRATIVE INFORMATION:**

SHS staff code: \_\_\_\_\_

Completion date: \_\_\_\_\_  
month      day      year

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B. Criteria used for the cause of death: (Please check the appropriate boxes.)

01. Definite fatal myocardial infarction

- |                          |      |  |                  |                  |
|--------------------------|------|--|------------------|------------------|
| <input type="checkbox"/> | 1(a) | Definite MI within 4 weeks of death by criteria: | Yes              | No               |
|                          | 1.   | Evolving diagnostic ECG*, or                     | __  <sub>1</sub> | __  <sub>2</sub> |
|                          | 2.   | Diagnostic biomarkers (2 x ULN)*                 | __  <sub>1</sub> | __  <sub>2</sub> |

**OR**

- 1(b) Acute MI diagnosed by autopsy

**AND**

2. No known non-atherosclerotic or noncardiac-atherosclerotic condition that was probably lethal according to death certificate, autopsy report, hospital records, or physician records.

1a. Probable fatal MI

- |                          |     |  |                  |                  |
|--------------------------|-----|--|------------------|------------------|
| <input type="checkbox"/> | 1.  | Death within 28 days of hospital admission, cases defined as:                  | Yes              | No               |
|                          | 1a. | Positive ECG findings plus cardiac symptoms or signs<br>Without biomarkers, or | __  <sub>1</sub> | __  <sub>2</sub> |
|                          | 1b. | Positive ECG findings plus equivocal biomarkers                                | __  <sub>1</sub> | __  <sub>2</sub> |

**OR**

2. Death within 6 hours of hospital admission with cardiac symptoms and/or signs. Other confirmatory data (biomarkers, ECG) are absent or non-diagnostic.

**\* For ECG and cardiac biomarker definitions, please refer to: SHS VI Manual, Section 2.3.**

02. Definite sudden death due to CHD

1. Death witnessed as occurring within 1 hour after the onset of cardiac symptoms (prolonged cardiac pain, shortness of breath, fainting) or within 1 hour after the subject was last seen without symptoms.

**AND**

2. No documentation of acute MI within 4 weeks prior to death.

**AND**

3. No known non-atherosclerotic or noncardiac-atherosclerotic process that was probably lethal according to death certificate, autopsy report, hospital records or physician report.

03. Definite fatal CHD

- [ ] 1. Death certificate with consistent underlying or immediate causes, **AND**
- [ ] 2. No documentation of definite acute MI within 4 weeks prior to death, **AND**
- [ ] 3. Criteria for sudden death not met (above), **AND**
- [ ] 4. No known non-atherosclerotic or noncardiac-atherosclerotic process or event that was probably lethal according to death certificate, autopsy report, hospital records, or physician records,

**AND**

- [ ] 5(a) Previous history of MI according to relative, physician, or hospital records, **OR**
- [ ] 5(b) Autopsy reporting severe atherosclerotic-coronary artery disease or old MI without acute MI (50% proximal narrowing of two major vessels or 75% proximal narrowing of one more vessel, if anatomic details given.), **OR**
- [ ] 5(c) Death occurring greater than 1 and less than or equal to 24 hours after the onset of severe cardiac symptoms or after subject was last seen without symptoms (without meeting criteria for Probable MI), **OR**
- [ ] 5(d) Angiogram reporting severe ( $\geq 50\%$  narrowing) atherosclerotic coronary artery disease, **OR**
- [ ] 5(e) Other positive physical signs or lab findings.

04. Possible fatal CHD

- [ ] 1. No documentation by criteria of definite acute MI within 4 weeks prior to death, **AND**
- [ ] 2. No documentation by criteria of definite sudden death, **AND**
- [ ] 3. No documentation by criteria of definite fatal CHD, **AND**
- [ ] 4. Death certificate with consistent underlying or immediate cause, **AND**
- [ ] 5. No known non-atherosclerotic or noncardiac-atherosclerotic process that was probably lethal according to death certificate, autopsy report, hospital records, or physician records.

05. Definite fatal stroke (**also complete 6.1, 6.2 and Supplemental Form**)

- [ ] 1a. Cerebral infarction or hemorrhage diagnosed at autopsy, **AND**
- [ ] 1b. No other known disease process or event such as brain tumor, subdural hematoma, metabolic disorder or peripheral lesion that could cause focal neurologic deficit, with or without coma, according to death certificate, autopsy, hospital records, or physician records, **OR**

- [ ] 2a. History of rapid onset (approximately 48 hours from onset to time to admission or maximum acute neurologic deficit ) of focal neurologic deficit with or without change in state of consciousness,  
**AND**
- [ ] 2b. Focal neurologic deficit within 6 weeks of death documented by unequivocal physician or laboratory findings with 24 hours duration of objective physician findings,  
**AND**
- [ ] 2c. No other known disease process or event such as brain tumor, subdural hematoma, metabolic disorder, or peripheral lesion that could cause focal neurologic deficit, with or without coma, according to death certificate, autopsy, hospital records, or physician records,

06. Possible (Undocumented) fatal stroke

- [ ] 1. Death certificate consistent with underlying or immediate cause (ICD-9, code 431 – 437), but neither autopsy evidence nor adequate pre-terminal documentation of the event,  
**AND**
- [ ] 2. No evidence at autopsy examination of the brain, if performed, of any disease process that could cause focal neurologic signs that would not be connected with cerebral infarction or hemorrhage.  
**OR**
- [ ] 3. Focal neurological deficit and death within 24 hours, without MRI or other diagnostic image.

Stroke subtype classification (complete for cases of definite fatal stroke).

- [ ] 1. Stroke of unknown type etiology: Definite stroke of unknown etiology when CT or MRI not done. Information is inadequate to diagnose ischemic (infarction), intracerebral hemorrhage, or subarachnoid hemorrhage.
- [ ] 2. Definite ischemic stroke: CT or MRI scan within 14 days of onset of a focal neurological deficit lasting more than 24 hours with evidence of brain infarction (mottled cerebral pattern or decreased density in a defined vascular territory), no intraparenchymal or subarachnoid hemorrhage by CT/MRI. A nonvascular etiology must be absent.
- [ ] 3. Definite primary intracerebral hemorrhage: Focal neurological deficit lasting more than 24 hours. Confirmation of intraparenchymal hemorrhage in a compatible location, not caused by trauma, with CT/MRI scan within 14 days of stroke.
- [ ] 4. Subarachnoid hemorrhage: Sudden onset of a headache, neck stiffness, loss of consciousness. There may be a focal neurological deficit, but neck stiffness is more prominent. Blood in the subarachnoid or intraventricular space by CT/MRI, not caused by trauma.
- [ ] 5. Non-fatal stroke after cardiovascular invasive interventions: Stroke associated with the intervention within 30 days of cardiovascular surgery, or within 7 days of cardiac catheterization, arrhythmia ablation, angioplasty, atherectomy, stent deployment or other invasive coronary or peripheral vascular interventions.
- [ ] 6. Non-fatal stroke post non-cardiovascular surgery: Stroke occurring within 30 days of non-cardiovascular surgery.

Ischemic stroke subtype classification (complete for cases of definite ischemic stroke).

- [ ] 1. Large-artery atherosclerosis: Clinical and brain imaging findings of either significant (>50%) stenosis or occlusion of a major brain artery or branch cortical artery, presumably due to atherosclerosis, and clinical findings of cerebral cortical impairment (aphasia, neglect, restricted motor involvement, etc.) or brain stem or cerebellar dysfunction. A history of intermittent claudication, transient ischemic attacks (TIAs) in the same vascular territory, a carotid bruit, or diminished pulses helps support the clinical diagnosis. Cortical or cerebellar lesions and brain stem or subcortical hemispheric infarcts greater than 1.5 cm in diameter on CT or MRI are considered to be of potential large-artery atherosclerotic origin. Supportive evidence by duplex imaging or arteriography of a stenosis of greater than 50% of an appropriate intracranial or extracranial artery is needed. Diagnostic studies should exclude potential sources of cardiogenic embolism. The diagnosis of stroke secondary to large-artery atherosclerosis cannot be made if duplex or arteriographic studies are normal or show only minimal changes.

\*Probable

\*Possible

- [ ] 2. Cardioembolism: Patients with arterial occlusions presumably due to an embolus arising in the heart. Cardiac sources are divided into high-risk and medium-risk groups based on the evidence of their relative propensities for embolism. At least one cardiac source for an embolus must be identified for a possible or probable diagnosis of cardioembolic stroke. Clinical and brain imaging findings are similar to those described for large-artery atherosclerosis. Evidence of a previous TIA or stroke in more than one vascular territory or systemic embolism supports a clinical diagnosis of cardiogenic stroke. Potential large-artery atherosclerotic sources of thrombosis or embolism should be eliminated. A stroke in a patient with a medium-risk cardiac source of embolism and no other cause of stroke is classified as a possible cardioembolic stroke.

\*Probable

\*Possible

- [ ] 3. Small-artery occlusion (lacune): Patients whose strokes are often labeled as lacunar infarcts in other classifications. The patient should have one of the traditional clinical lacunar syndromes and should not have evidence of cerebral cortical dysfunction (aphasia, neglect, restricted motor involvement, etc.). A history of diabetes mellitus or hypertension supports the clinical diagnosis. The patient should also have a normal CT/MRI examination or a relevant brain stem or subcortical hemispheric lesion with a diameter of less than 1.5 cm demonstrated. Potential cardiac sources for embolism should be absent, and evaluation of the large extracranial arteries should not demonstrate a stenosis of greater than 50% in an ipsilateral artery.

\*Probable

\*Possible

\* A **probable** diagnosis is made if the clinical findings, neuroimaging data, and results of diagnostic studies are consistent with one subtype and other etiologies have been excluded. A **possible** diagnosis is made when the clinical findings and neuroimaging data suggest a specific subtype but other studies are not done.



- 4. Acute stroke of other determined etiology: Patients with rare causes of stroke, such as non atherosclerotic vasculopathies, hypercoagulable states, or hematologic disorders. Patients in this group should have clinical and CT or MRI findings of an acute ischemic stroke, regardless of the size or location. Diagnostic studies such as blood tests or arteriography should reveal one of these unusual causes of stroke. Cardiac sources of embolism and large-artery atherosclerosis should be excluded by other studies.
- 5. Stroke of undetermined etiology: In several instances, the cause of a stroke cannot be determined with any degree of confidence. Some patients will have no likely etiology determined despite an extensive evaluation. In others, no cause is found but the evaluation was cursory. This category also includes patients with two or more potential causes of stroke so that the physician is unable to make a final diagnosis. For example, a patient with a medium-risk cardiac source of embolism who also has another possible cause of stroke identified would be classified as having a stroke of undetermined etiology. Other examples would be a patient who has atrial fibrillation and an ipsilateral stenosis of 50%, or the patient with a traditional lacunar syndrome and an ipsilateral carotid stenosis of 50%.

07. Definite fatal congestive heart failure (**Please fill out the HF PROCEDURE FORM**)

Two major criteria or one major and two minor criteria:

a. Major criteria

- i. Paroxysmal nocturnal dyspnea or Orthopnea
- ii. Neck vein distention
- iii. Rales
- iv. Cardiomegaly
- v. Acute pulmonary edema
- vi. S3 gallop
- vii. Increased venous pressure >16cm water
- viii. Circulation time  $\geq$  25 seconds
- ix. Hepatojugular reflux

b. Minor criteria

- i. Ankle edema
- ii. Night cough
- iii. Dyspnea on exertion
- iv. Hepatomegaly
- v. Pleural effusion
- vi. Vital capacity reduced by one-third from maximum
- vii. Tachycardia (rate of  $\geq$  120/min.)

c. Major or minor criteria

- i. Weight loss > 4.5kg in 5 days in response to treatment

**AND**

- d.  No known non-cardiac process leading to fluid overload such as renal failure

08. Possible fatal congestive heart failure

Death certificate or medical records with consistent underlying or immediate cause, but neither autopsy evidence nor adequate pre-terminal documentation of the event.

09. Other fatal cardiovascular diseases

i. Death certificate or medical records with consistent underlying or immediate Cause. Check that applies.

ii When death certificates are the only source of information: ICD9: 390 to 398, 402, 404 to 429; ICD 10: I00 to I09, I11, I13, I20 to I25, I27, I30 to I52. Check that applies.

ICD – 9	ICD – 10	Disease	
390-392	I00-I02	Acute rheumatic fever	<input type="checkbox"/>
393-398	I05-I09	Chronic rheumatic heart disease	<input type="checkbox"/>
402	I11	Hypertensive heart disease	<input type="checkbox"/>
404-405		Hypertensive disease	<input type="checkbox"/>
410-414	I20-I25	Ischemic heart disease	<input type="checkbox"/>
415-417		Diseases of pulmonary circulation	<input type="checkbox"/>
420-429		Other forms of heart disease	<input type="checkbox"/>
429.2		Cardiovascular disease, unspecified	<input type="checkbox"/>
431-437		Cerebrovascular disease	<input type="checkbox"/>
799		Ill-defined or unknown	<input type="checkbox"/>
	I13	Hypertensive heart and renal disease	<input type="checkbox"/>
	I27	Other pulmonary heart disease	<input type="checkbox"/>
	I30-I52	Other forms of heart disease	<input type="checkbox"/>
443.9	I73.9	Peripheral vascular disease	<input type="checkbox"/>

Comment: \_\_\_\_\_

**ADMINISTRATIVE INFORMATION:**

Reviewer code: \_\_\_\_\_

Review date: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ month day year

Coordinating Center Use Only

Reviewer:  
 First review |\_\_|1      Second review |\_\_|2      Stroke review |\_\_|3      Adjudication |\_\_|9

**THE STRONG HEART STUDY VI  
CARDIOVASCULAR DISEASE IN AMERICAN INDIANS**

**MORBIDITY SURVEY – DECISION**

ID number:

Date of this event:   /   /      
month day year

**A. DIAGNOSIS (enter appropriate code number):**

- |   |                      |
|---|----------------------|
| 01. Definite non-fatal myocardial infarction  | <input type="text"/> |
| 1b. Probable non-fatal myocardial infarction  | <input type="text"/> |
| 02. Possible non-fatal myocardial infarction  | <input type="text"/> |
| 03. Definite non-fatal stroke   | <input type="text"/> |
| 04. Possible non-fatal stroke   | <input type="text"/> |
| 06. Definite CHD  | <input type="text"/> |
| 07. Possible CHD (those with some, but not all, criteria or with equivocal criteria for definite CHD) | <input type="text"/> |
| 08. TIA   | <input type="text"/> |
| 09. Other CVD, specify: _____   | <input type="text"/> |
| 10. Non-CVD, specify: _____   | <input type="text"/> |
| 11. ESRD (dialysis or transplant): _____  | <input type="text"/> |
| 12. Heart Failure <b>(Please fill out the HF PROCEDURE FORM)</b>                                      | <input type="text"/> |

**B. Criteria used:**

**1. MYOCARDIAL INFARCTION (Please check all applicable criteria)**

- |  |                      |
|--|----------------------|
| A. Definite MI   | <input type="text"/> |
| 1. Evolving diagnostic ECG*, or  | <input type="text"/> |
| 2. Diagnostic biomarkers (2 x ULN)*  | <input type="text"/> |
| B. Probable MI   | <input type="text"/> |
| 1. Positive ECG findings plus cardiac symptoms or signs without available biomarkers, or | <input type="text"/> |
| 2. Positive ECG findings plus equivocal biomarkers                                       | <input type="text"/> |

- C. Possible MI |\_\_|
- 1. Equivocal biomarkers plus nonspecific ECG findings, or |\_\_|
- 2. Equivocal biomarkers plus cardiac symptoms or signs, or |\_\_|
- 3. Missing biomarkers plus positive ECG |\_\_|

*\* For ECG and cardiac biomarker definition, please refer to: SHS VI Manual, Section 2.3.*

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**2. STROKE**

- A. Definite non-fatal stroke |\_\_|
  - 1. Stroke of unknown type etiology: Definite stroke of unknown etiology when CT or MRI not done. Information is inadequate to diagnose ischemic (infarction), intracerebral hemorrhage, or subarachnoid hemorrhage. |\_\_|
  - 2. Definite ischemic stroke: CT or MRI scan within 14 days of onset of a focal neurological deficit lasting more than 24 hours with evidence of brain infarction (mottled cerebral pattern or decreased density in a defined vascular territory), no intraparenchymal or subarachnoid hemorrhage by CT/MRI, (or lumbar puncture if done). A nonvascular etiology must be absent. |\_\_|
  - 3. Definite primary intracerebral hemorrhage: Focal neurological deficit lasting more than 24 hours. Confirmation of intraparenchymal hemorrhage in a compatible location, not caused by trauma, with CT/MRI scan within 14 days of stroke. |\_\_|
  - 4. Subarachnoid hemorrhage: Sudden onset of a headache, neck stiffness, loss of consciousness. There may be a focal neurological deficit, but neck stiffness is more prominent. Blood in the subarachnoid or intraventricular space by CT/MRI - not caused by trauma. |\_\_|
  - 5. Non-fatal stroke after cardiovascular invasive interventions: Stroke associated with the intervention within 30 days of cardiovascular surgery, or within 7 days of cardiac catheterization, arrhythmia ablation, angioplasty, atherectomy, stent deployment or other invasive coronary or peripheral vascular interventions. |\_\_|
  - 6. Non-fatal stroke post non-cardiovascular surgery: Stroke occurring within 30 days of non-cardiovascular surgery. |\_\_|
- B. Possible non-fatal stroke |\_\_|
  - a. History or rapid onset (approximately 48 hours from onset to time of admission or maximum acute neurologic deficit) of localizing neurologic deficit and/or change in state of consciousness, and |\_\_|
    - 1b. Documentation of localizing neurologic deficit by unequivocal physician or laboratory finding within 6 weeks of onset with 24 hours duration of objective physician findings, or |\_\_|
    - 2a. Discharge diagnosis with consistent primary or secondary codes (ICD-9-CM codes 431, 432, 434, 436, 437), and |\_\_|

2b. No evidence by unequivocal physician or laboratory findings of any other disease process or event causing focal brain deficit or coma other than cerebral infarction or hemorrhage according to hospital records.

C. Ischemic stroke subtype classification (complete for cases of definite ischemic stroke).

1. Large-artery atherosclerosis: Clinical and brain imaging findings of either significant (>50%) stenosis or occlusion of a major brain artery or branch cortical artery, presumably due to atherosclerosis, and clinical findings of cerebral cortical impairment (aphasia, neglect, restricted motor involvement, etc.) or brain stem or cerebellar dysfunction. A history of intermittent claudication, transient ischemic attacks (TIAs) in the same vascular territory, a carotid bruit, or diminished pulses helps support the clinical diagnosis. Cortical or cerebellar lesions and brain stem or subcortical hemispheric infarcts greater than 1.5 cm in diameter on CT or MRI are considered to be of potential large-artery atherosclerotic origin. Supportive evidence by duplex imaging or arteriography of a stenosis of greater than 50% of an appropriate intracranial or extracranial artery is needed. Diagnostic studies should exclude potential sources of cardiogenic embolism. The diagnosis of stroke secondary to large-artery atherosclerosis cannot be made if duplex or arteriographic studies are normal or show only minimal changes.

\*Probable  \*Possible

2. Cardioembolism: Patients with arterial occlusions presumably due to an embolus arising in the heart. Cardiac sources are divided into high-risk and medium-risk groups based on the evidence of their relative propensities for embolism. At least one cardiac source for an embolus must be identified for a possible or probable diagnosis of cardioembolic stroke. Clinical and brain imaging findings are similar to those described for large-artery atherosclerosis. Evidence of a previous TIA or stroke in more than one vascular territory or systemic embolism supports a clinical diagnosis of cardiogenic stroke. Potential large-artery atherosclerotic sources of thrombosis or embolism should be eliminated. A stroke in a patient with a medium-risk cardiac source of embolism and no other cause of stroke is classified as a possible cardioembolic stroke.

\*Probable  \*Possible

3. Small-artery occlusion (lacune): Patients whose strokes are often labeled as lacunar infarcts in other classifications. The patient should have one of the traditional clinical lacunar syndromes and should not have evidence of cerebral cortical dysfunction (aphasia, neglect, restricted motor involvement, etc.). A history of diabetes mellitus or hypertension supports the clinical diagnosis. The patient should also have a normal CT/MRI examination or a relevant brain stem or subcortical hemispheric lesion with a diameter of less than 1.5 cm demonstrated. Potential cardiac sources for embolism should be absent, and evaluation of the large extracranial arteries should not demonstrate a stenosis of greater than 50% in an ipsilateral artery.

\*Probable  \*Possible

\* A **probable** diagnosis is made if the clinical findings, neuroimaging data, and results of diagnostic studies are consistent with one subtype and other etiologies have been excluded. A **possible** diagnosis is made when the

clinical findings and neuroimaging data suggest a specific subtype but other studies are not done.

- [ ] 4. Acute stroke of other determined etiology: Patients with rare causes of stroke, such as non atherosclerotic vasculopathies, hypercoagulable states, or hematologic disorders. Patients in this group should have clinical and CT or MRI findings of an acute ischemic stroke, regardless of the size or location. Diagnostic studies such as blood tests or arteriography should reveal one of these unusual causes of stroke. Cardiac sources of embolism and large-artery atherosclerosis should be excluded by other studies.
  
- [ ] 5. Stroke of undetermined etiology: In several instances, the cause of a stroke cannot be determined with any degree of confidence. Some patients will have no likely etiology determined despite an extensive evaluation. In others, no cause is found but the evaluation was cursory. This category also includes patients with two or more potential causes of stroke so that the physician is unable to make a final diagnosis. For example, a patient with a medium-risk cardiac source of embolism who also has another possible cause of stroke identified would be classified as having a stroke of undetermined etiology. Other examples would be a patient who has atrial fibrillation and an ipsilateral stenosis of 50%, or the patient with a traditional lacunar syndrome and an ipsilateral carotid stenosis of 50%.

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**3. DEFINITE CORONARY HEART DISEASE (CHD)**

- a. Cardiac cath proven coronary artery disease (1 or more vessels  $\geq$  50% stenosis), **or**
- b. PTCA, **or**
- c. Coronary artery bypass grafting, **or**
- d1. Abnormal stress ECG, **and**
- d.2. Abnormal imaging, **or**
- e. Positive functional test of ischemia (such as treadmill)

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. HEART FAILURE (if yes, fill out Heart Failure form)

Two major criteria or one major and two minor criteria:

- a. Major criteria
  - i. Paroxysmal nocturnal dyspnea or Orthopnea
  - ii. Neck vein distention
  - iii. Rales
  - iv. Cardiomegaly
  - v. Acute pulmonary edema
  - vi. S3 gallop
  - vii. Increased venous pressure >16cm water
  - viii. Circulation time ≥ 25 seconds
  - ix. Hepatojugular reflux
  
- b. Minor criteria
  - i. Ankle edema
  - ii. Night cough
  - iii. Dyspnea on exertion
  - iv. Hepatomegaly
  - v. Pleural effusion
  - vi. Vital capacity reduced by one-third from maximum
  - vii. Tachycardia (rate of ≥ 120/min.)
  
- c. Major or minor criteria
  - i. Weight loss > 4.5kg in 5 days in response to treatment

**AND**

- d.  No known non-cardiac process leading to fluid overload such as renal failure

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. OTHER NON-FATAL CARDIOVASCULAR DISEASE

- a. **Purposely left blank – CHF moved to #4 above**
- b. CHF secondary to ESRD (diagnosis = 10)
- c. Cardiomyopathy
- d. Valvular Heart Disease
- e. Left Ventricular Hypertrophy
- f. Atrial Fibrillation
- g. Non-coronary heart surgery or carotid or other vascular surgery (does not include procedures for PVD)
- h. Pacemaker implantation
- i. Positive non-coronary angiography (does not include procedures for PVD)
- j. Arrhythmia
- k. Angina pectoris (Class 2 chest pain, or relieved by nitroglycerides; diagnosis = 07)
- l. PVD (either peripheral arterial surgical procedures, angiogram or amputation)
- m. Aortic aneurysm

If there was coronary or peripheral vascular procedure done, fill out CVD Test Procedures form or Peripheral Vascular Procedure form.

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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**ADMINISTRATIVE INFORMATION:**

Reviewer code: \_\_\_\_\_

Review date: \_\_\_\_\_  
  month        day  year

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- |     |   |                    |                             |
|-----|---|--------------------|-----------------------------|
| 9.  | <i>TRANSCRANIAL DOPPLER (TCD)</i>           | Yes                | <input type="checkbox"/>  1 |
|     |   | No, (go to Q 10)   | <input type="checkbox"/>  2 |
|     |   | Yes, but no report | <input type="checkbox"/>  3 |
| 10. | <i>MAGNETIC RESONANCE ANGIOGRAPHY (MRA)</i> | Yes                | <input type="checkbox"/>  1 |
|     |   | No (go to Q 11)    | <input type="checkbox"/>  1 |
|     |   | Yes, but no report | <input type="checkbox"/>  1 |
| 11. | <i>CT ANGIOGRAPHY</i>                       | Yes                | <input type="checkbox"/>  1 |
|     |   | No (go to Q 12)    | <input type="checkbox"/>  1 |
|     |   | Yes, but no report | <input type="checkbox"/>  1 |
| 12. | <i>ANGIOGRAPHY</i>                          | Yes                | <input type="checkbox"/>  1 |
|     |   | No, (go to Q 13)   | <input type="checkbox"/>  1 |
|     |   | Yes, but no report | <input type="checkbox"/>  1 |

**D. STROKE DEFICIT**

- |     |   |       |                          |
|-----|---|-------|--------------------------|
| 13. | MODIFIED RANKIN SCALE                           | (0-5) | <input type="checkbox"/> |
|     | (Code Maximal Severity Within 7 Days of Stroke) |       |                          |

- 0 = no symptoms at all  
 1 = no significant disability despite symptoms: able to carry out all usual duties and activities  
 2 = slight disability: unable to carry out all previous activities but able to look after own affairs without assistance  
 3 = moderate disability: requiring some help, but able to walk without assistance  
 4 = moderately severe disability: unable to walk without assistance, and unable to attend to own bodily needs without assistance  
 5 = severe disability: bedridden, incontinent, and requiring constant nursing care and attention  
 9 = information insufficient for coding
- 
- 
- 

**E. STROKE TREATMENT**

- |     |  |     |                             |
|-----|--|-----|-----------------------------|
| 14. | Intravenous thrombolysis                       | Yes | <input type="checkbox"/>  1 |
|     |  | No  | <input type="checkbox"/>  1 |
| 15. | Presentation within 3 hours from symptom onset | Yes | <input type="checkbox"/>  1 |
|     |  | No  | <input type="checkbox"/>  1 |

**F. BRAIN EXAMINATION AT AUTOPSY**

- |  |  |                    |                             |
|--|--|--------------------|-----------------------------|
|  |  | Yes                | <input type="checkbox"/>  1 |
|  |  | No                 | <input type="checkbox"/>  1 |
|  |  | Yes, but no report | <input type="checkbox"/>  1 |

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**ADMINISTRATIVE INFORMATION:**

Reviewer code:

|\_|\_|\_|\_|

Review date:

|\_|\_|\_|\_|/|\_|\_|\_|\_|/|\_|\_|\_|\_|\_|\_|\_|\_|\_|  
Month            day            year

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