Appendix 2.1

General Instructions For Completing Paper Forms

A. BACKGROUND

The Atherosclerosis Risk In Communities (ARIC) Study utilizes computer-assisted direct data entry as its primary mode of data collection. Nevertheless, the existence of paper forms is necessary for situations in which direct data entry is not possible. In such instances, data is collected on paper forms and then entered on the computer at some later time. The purpose of this document is to provide instructions for completing these paper forms. It should be read carefully prior to working with any forms. Specific sets of instructions associated with each form should then be read for those forms which are of interest.

B. FORM STRUCTURE

The paper forms in ARIC are designed to correspond exactly to the computer screens used for data entry. For this reason, forms are organized by "screen" instead of by "page". Thus, any item on a paper form may be located in the same position on the corresponding computer screen, and vice versa. In general, the first page of the paper form contains one screen, and subsequent pages contain two screens each. Forms are structured as follows:

First page:

a. Form Title
b. "Header" Information
1. Participant's ID Number
2. Contact Year
3. Form Code (preassigned 3-letter code)
4. Version (1-letter code and date)
5. Participant's Last Name and Initials
c. Summarized Instructions
d. First Screen of the Form

Example:
C. GENERAL INSTRUCTIONS FOR COMPLETING AND CORRECTING ITEMS ON THE FORMS

All items fall into two main categories: (1) fill in the boxes, and (2) multiple choice. Techniques for completing each of these types of items, as well as making corrections, are described below. A general rule is to record information only in the spaces provided (except for some error corrections).

1. Fill In The Boxes: Recording Information

When alphabetic information is required, print the response beginning in the leftmost box using capital letters. Punctuation may be included.

Example: If the participant’s last name were O’Reilly, it should be entered as follows:

**LAST NAME:** O’REILLY

If the response contains more characters than there are boxes, beginning with the first character enter as many characters as there are boxes.

Example: If the subject’s last name were Hobgoodnotting, it should be entered as follows:

**LAST NAME:** HOBGOODNOTTING
Whenever numerical responses are required, enter the number so that the last digit appears in the rightmost box. Enter leading zeroes where necessary to fill all boxes. (This does not apply to the address section or to any item which combines alphabetic and numeric information. Such items should be treated as alphabetic.)

Example: If the participant's diastolic blood pressure were 95, it should be coded as:

Diastolic: 0 9 5

2. Fill In The Boxes: Correcting Mistakes

If a number or letter is entered incorrectly, mark through the incorrect entry with an "X". Code the correct entry clearly above the original incorrect entry.

Example: If the participant's systolic blood pressure was actually 130, but was incorrectly entered:

Systolic: 1 3 1

The correction would look like:

Systolic: 1 3 X

If a mistake is made, corrected, and then it is discovered that the correction is incorrect, make a second correction as shown below:

Systolic: 1 3 X 2

3. Fill In The Boxes: Unknown Or Inapplicable Information

If an item of this type (either alphabetic or numeric) does not apply to the subject being interviewed, leave it blank. For example, if the participant does not have a "work" phone number, that item is left blank. Similarly, if the form provides spaces for three measurements, but only two are taken, the third space is left blank.

If the item does apply, but the response is unknown, mark through the box(es) with two horizontal lines.

Example: The question "How old were you when you had your first heart attack?" is asked, but the participant does not recall how old he/she was. The question does apply because it has been established that the participant has had a heart attack, but the answer to this question is not known. In this case, the response would look like:

How old were you when you had your first heart attack? [ ]

4. Multiple Choice: Recording Information

In this type of question several alternatives are given for the answer, each having a corresponding letter. When it is decided which alternative is most appropriate, circle the corresponding letter in the space provided. Always circle only one letter.

Example: If the participant indicates that they have never had chest pain or discomfort, the response would look like:

Have you ever had any pain or discomfort in your chest? [ ] Yes Y

No N
5. Multiple Choice: Correcting Mistakes

If a response is coded incorrectly, mark through the incorrectly coded response with an "X" and circle the correct response.

Example 1: The actual response is No, but Y was circled incorrectly. The correction looks like:

Yes X
No Y

Example 2: If a mistake is made, corrected, and then it is discovered that the correction is incorrect, make a second correction as shown below:

Yes X Y
No X

D. COMPLETING "HEADER" INFORMATION

The following guidelines should be observed in filling out the "header" information located at the top of the first page on all forms:

ID NUMBER: Write in the participant's 7-digit ID. The first box contains the letter identifying the field center, followed by the 6-digit numeric portion of the ID number.

Example: ID NUMBER: J 79999999

CONTACT YEAR: Fill in the appropriate contact year for the form. Use leading zeroes. Note: This item may be pre-coded on some forms.

LAST NAME: Code the response beginning in the leftmost box using capital letters. If the name contains more letters than there are boxes, beginning with the first letter enter as many letters as there are boxes. Punctuation (e.g., apostrophes and hyphens) and blanks may be entered as part of the last name. Follow the guidelines and examples given above for alphabetic "fill in the boxes" items.

INITIALS: Record the participant's first initial in the first box and middle initial in the second box. If a female participant is married and uses a "maiden" name (father's surname) as a middle name, use that initial as the second initial. Otherwise, if the participant has more than one middle name, record only the first initial and the second initial. If there is no middle name, record the first initial in the first box and leave the second box blank.

Example 1: A participant's first initial is K, but he has no middle name. The entry would be as follows:

INITIALS: K

Example 2: If the participant's full name is John Oscar Van Camp, Jr., and the participant specifies that his last name is "Van Camp", it should be entered as:

LAST NAME: VAN CAMP
INITIALS: JO
5. SKIP PATTERNS ("Go to" Boxes)

Skip patterns occur in many multiple choice type items. Here, if a certain response is selected, it is necessary to skip over one or more items to the next applicable item. This is indicated by an arrow from the response which necessitates a skip to a box containing a "go to" statement. If that response is selected, the next item to be asked is the one indicated in the box. If the other response is selected, always proceed to the next item unless otherwise directed.

Example: 1. Have you ever had any pain or discomfort in your chest? ....... Yes Y

<table>
<thead>
<tr>
<th>Go to Item 26, Screen 5</th>
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<tbody>
<tr>
<td>No  N</td>
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In this case, if the response is "No", skip to item 26 on screen 5. If the response is "Yes", proceed to the next question, item 2.

Occasionally, a skip pattern will occur in a fill-in type item. In those instances, specific instructions are provided on the form. Again, if the skip criteria are not satisfied, continue with the next item.
ARIC COHORT ANNUAL FOLLOW-UP

ID: _______ CONTACT YEAR: _ FORM CODE: TRC VERSION: C 05/08/90

NAME: ____________________________

CONTACT YEAR ( ) DATE RANGE
Earliest: _______ Target: _______ Latest: _______

CY 04 APPOINTMENT:

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<th>Day of Week/Date (mm/dd/yy)</th>
<th>Time</th>
<th>Notes and Clinic Visit Information</th>
<th>Result Code*</th>
<th>App't Code**</th>
<th>Int ID</th>
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*RESULT CODES (CIRCLE THE FINAL SCREENING RESULT CODE)
1-No Action Taken
2-Tracing (Not yet contacted any source)
3-Contacted, Interview Complete
4-Contacted, Interview Partially Complete or Rescheduled
5-Contacted, Interview Refused
6-Reported Alive, Will Continue to Attempt Contact This Year
7-Reported Alive, Contact Not Possible This Year
8-Reported Deceased
9-Unknown

** APPOINTMENT CODES (AFUC item 34)
00 Appointment made (record date, time, and special needs in notes)
01 Has moved and cannot return for exam
02 Physically unable to attend clinic
05 Refused (record reasons)
06 Other, including appointment not yet set (explain and record prospects for recontacting)
# ANNUAL FOLLOW-UP QUESTIONNAIRE FORM

**INSTRUCTIONS:** This form should be completed during the interview portion of the participant's annual follow-up. ID Number, Contact Year, and Name must be entered above. Whenever numerical responses are required, enter the number so that the last digit appears in the rightmost box. Enter leading zeros where necessary to fill all boxes. If a number is entered incorrectly, mark through the incorrect entry with an 'X'. Code the correct entry clearly above the incorrect entry. For 'multiple choice' and 'yes/no' type questions, circle the letter corresponding to the most appropriate response. If a letter is circled incorrectly, mark it with an 'X' and circle the correct response.

## A. VITAL STATUS

1. Date of status determination: .........
   - Month  [ ]  [ ]  [ ]
   - Day  [ ]  [ ]
   - Year  [ ]  [ ]  [ ]

2. Final Status: ..... 3. Information obtained from: .....  (Circle one below)  (Circle one corresponding choice below)
   - Contacted and alive  C  A  Go to Item 6, Screen 2
     - Phone  A  Go to Item 6, Screen 2
     - Personal Interview  B  Go to Item 6, Screen 2
     - Letter  C  Go to Item 30, Screen 8
   - Contacted & Refused  F  Go to Item 32, Screen 8
   - Reported alive  R  D  Go to Item 30, Screen 8
     - Relative, spouse, acquaintance  D  Go to Item 30, Screen 8
     - Employer information  E  Go to Item 30, Screen 8
     - Other  F  Go to Item 30, Screen 8
   - Reported Deceased  D  Go to Item 32, Screen 8
     - Surveillance  H  Go to Item 32, Screen 8
     - Other (National Death Index)  I  Go to Item 32, Screen 8
   - Unknown  U  Go to Item 32, Screen 8
ANNUAL FOLLOW-UP QUESTIONNAIRE (AFUC screen 2 of 8)

DEATH INFORMATION

Date of death: ... [Month] / [Day] / [Year]

Location of death:

a. City/County

b. State:

After Item 5, skip to Item 30, Screen 8

G. GENERAL HEALTH

6. Now I will ask you some questions about your health since we last spoke with you; that is, since we last contacted you on [mm/dd/yy] until today. During that time, compared to other people your age, would you say that your health has been excellent, good, fair or poor?..... Excellent

   Good

   Fair

   Poor

ANNUAL FOLLOW-UP QUESTIONNAIRE (AFUC screen 3 of 8)

CHEST PAIN ON EFFORT

Since we last contacted you, have you had any pain or discomfort in your chest?......... Yes Y

No N

Go to Item 20, Screen 5

Do you get it when you walk uphill or hurry? ........ Yes Y

No N

Go to Item 17, Screen 5

Never hurries or walks uphill H

9. Do you get it when you walk at an ordinary pace on the level?......... Yes

No

10. What do you do if you get it while you are walking?.......Stop or slow down

{Record "Stop or slow down" if subject carries on after taking nitroglycerin}

Go to Item 17, Screen 5

11. If you stand still, what happens to it?......... Relieved

Go to Item 17, Screen 5

Not relieved
ANNUAL FOLLOW-UP QUESTIONNAIRE (AFUC screen 4 of 8)

1. How soon? .................. 10 minutes or less L
   More than 10 minutes M
   Go to Item 17, Screen 5

2. Will you tell me where it was?
   (Record answer verbatim in space below.
   Then, circle Y or N for all areas.)

   a. Sternum (upper or middle) ............ Y N
   b. Sternum (lower) ...................... Y N
   c. Left anterior chest .................. Y N
   d. Left arm ................................ Y N
   e. Other ................................ Y N

   f. Specify: _______________________

14. Do you feel it anywhere else? .......... Yes
   {If "Yes", record above} No

15. Did you see a doctor because of this pain or discomfort? .......... Yes
   No
   Go to Item 17, Screen 5

16. What did he say it was? ... Angina
   Heart Attack
   Other Heart Disease
   Other

ANNUAL FOLLOW-UP QUESTIONNAIRE (AFUC screen 5 of 8)

POSSIBLE INFARCTION

1. Since our last contact have you had a severe pain across the front of your chest lasting for half an hour or more? .......... Yes Y
   No N
   Go to Item 20

2. Did you see a doctor because of this pain? .......... Yes Y
   No N
   Go to Item 20

3. What did he say it was? ......... Heart Attack H
   Other Disorder O

F. INTERMITTENT CLAUDICATION

20. Since we last contacted you, have you had pain in either leg on walking? .......... Yes
    No
    Go to Item 29, Screen 7

21. Does this pain ever begin when you are standing still or sitting? ....... Yes
    No
    Go to Item 29, Screen 7
### ANNUAL FOLLOW-UP QUESTIONNAIRE (AFUC screen 6 of 8)

25. Does the pain ever disappear while you are walking?  
- Yes  
- Stop or slow down  
- No  

26. What do you do if you get it when you are walking?  
- Stop or slow down  
- Carry on

### ANNUAL FOLLOW-UP QUESTIONNAIRE (AFUC screen 7 of 8)

29. Since our last contact have you been told by a physician that you had a stroke, slight stroke, transient ischemic attack, or TIA?  
- Yes  
- No

- If "Yes", ensure that this event is included in the "HOSPITALIZATIONS" section.

30. Were you hospitalized for a heart attack since our last contact on (mm/dd/yy)?  
- Yes  
- No  
- Unknown

- If "Yes", complete "HOSPITALIZATIONS" section.
Have you stayed (Did [name] stay) overnight as a patient in a hospital for any other reason since our last contact? ..................Yes Y
No N

If "Yes", add to "HOSPITALIZATIONS" section.

INTERVIEWER CODE NUMBER

Code number of person completing this form: ....
HOSPITALIZATIONS (Obtain following questionnaire)

3. For each time you were (he/she was) a patient over night in a hospital, I would like to obtain the reason you were (he/she was) admitted, the name of the hospital, and the date. When was the first time you were (he/she was) hospitalized since our last contact with you (him/her) on (mm/dd/yy of last contact)?

[Fill in, probing as necessary. If reason and/or hospital are repeated, record "same as (a/b/c/d/e, etc.)". Probe for additional hospitalizations.]

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<thead>
<tr>
<th>Hospitalization Reason</th>
<th>Name, City and St of Hospital</th>
<th>Mnth/Yr</th>
<th>Transmit to Surveillance</th>
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"As explained in your original clinic visit, records of these hospitalizations will be checked for medical information that may apply to the ARIC Study."

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<thead>
<tr>
<th>Hospitalization Reason</th>
<th>Name, City and St of Hospital</th>
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INSTRUCTIONS FOR THE ANNUAL FOLLOW-UP TRACING FORM AND QUESTIONNAIRE
AFU, VERSION C, 05/08/90
PREPARED 07/06/90

I. GENERAL INSTRUCTIONS

Annual follow-up of the ARIC Study cohort is used to (1) maintain contact and correct address information of cohort participants and (2) ascertain interim medical events between the three-year comprehensive examinations. Annual follow-up contacts are scheduled approximately every 12 months after the participant's clinic examination. Each follow-up is completed by telephone (preferred) or in person (if necessary). The follow-up call in CY02 and CY04 is preceded by a letter sent by mail about two weeks in advance of the call.

Two data collection forms are used in completing the annual follow-up. The ARIC Annual Follow-Up Tracing Form is a computer-generated paper form which contains a "Participant Tracing Information Sheet" to use to update selected tracing information. The ARIC Annual Follow-Up Form contains a "Record of Calls" cover page for use in contacting a participant, the Annual Follow-up Questionnaire used to record vital status information and to gather information on the participant's cardiovascular health since their clinic visit, and a "Hospitalizations" section to record information on any hospitalizations. The questionnaire should always be completed on paper and then batch-entered into the local database. AFU Contact Years 02 and 03 should be entered into the Visit 1 ARDES, and contact years 04, 05, and 06 should be entered in the Visit 2 system.

Contact Year 04 AFU will also include the scheduling of the second clinic visit. If the participant refuses or does not show for a visit in Contact Year 04, scheduling should also be attempted in Contact Years 05 or 06.

II. ANNUAL FOLLOW-UP PROCEDURES

A. Contacting Procedures and Rules

The Coordinating Center periodically generates the ARIC Annual Follow-Up Tracing Forms for a group of participants. This form contains the tracing information needed to contact the participant.

The "Contact Year Date Range" appearing on the "Record of Calls" is determined as follows:

The Target date is the one-year anniversary of the participant's first clinic visit.

The Earliest date falls six months prior to the Target date.

The Latest date falls six months after the Target date.

For example, if a participant's clinic visit occurred on 11/14/86, then the target date for contact year 2 is 11/14/87. The earliest date of contact is 5/14/87, and the latest date is 5/13/88. In future years, these dates include the same month and day:

07-06-90
The initial call for annual contact should be no more than three weeks or so before the target date except in CY04, in which the contact can be made up to 4 months earlier to aid clinic scheduling. Ideally, the contact should take place as closely as possible to the "Target" date. If for some reason contact is not made until after the "Latest" date, this contact must be assigned to the following Contact Year. This is described in more detail in the section on vital status below.

The "Participant Tracing Information Sheet" contains detailed information to be used in contacting the participant. It is generated as part of the tracing form. Refer to the separate protocol section on tracing for special procedures to use in difficult cases.

As mentioned previously, the first step in the contacting procedures in CY02 and CY04 is a letter sent to the participant about two weeks prior to the first attempted phone call. Before placing the phone call, the interviewer assembles the participant's computer-generated tracing form (provided by the Coordinating Center), the Annual Follow-up (AFU) form, the accompanying QXQ instructions, and an appointment calendar for scheduling Visit 2.

NOTE: Cohort participants who have moved outside of the study area are still traced and interviewed, and hospitalization or death information is obtained if necessary.

B. Performing the Interview

Form sections are completed in the following order:

1) Record of Calls
2) Questionnaire
3) Hospitalizations
4) Appointment scheduling (if due)
5) Tracing Form: Verification of Tracing Information

If an appointment is to be scheduled with more than one respondent, it may be easier to conduct all interviews first and then schedule appointments together.

Each of these sections is described below.

1. Record of Calls

The Record of Calls is used to keep track of attempts to contact a participant and appointment scheduling. One line should be used for each attempted contact. For each attempted contact, a result code is assigned. This is very important, as it may be necessary for determining the final vital status in the event that the participant is not successfully contacted. Result codes for contacts (with possible final codes indicated by *) are:

1: "No Action Taken" - No attempt has yet been made to contact the participant.
2: "Tracing" - Attempts are being made to locate the participant, but so far neither the participant nor another reliable source have been contacted.

* 3: "Contacted, Interview Complete" - The participant was successfully contacted by phone or in person, and the entire interview, including the questionnaire and hospitalization information was completed.

* 4: "Contacted, Interview Partially Complete or Rescheduled" - The participant was successfully contacted by phone, letter, or in person, but the interview is incomplete or was not done at all. This may be a temporary code if it is possible that the interview may be completed at a later date within the same contact year.

* 5: "Contacted, Interview Refused" - The participant was successfully contacted by phone, letter, or in person, but the interview was not done and will not be completed at a later date within the same contact year.

6: "Reported Alive, Will Continue to Attempt Contact This Year" - Reliable information (e.g. from a relative, employer, etc.) indicates that the participant is living, but direct contact has not yet been made. It is possible that contact will be made during this same contact year through further efforts. For example, "temporarily away" would fit in this category.

* 7: "Reported Alive, Contact Not Possible This Year" - Reliable information indicates that the participant is living, but direct contact has not yet been made. This code should be used only if repeated contact attempts have been made, or when it has been determined that it is not possible that contact will be made during this same contact year.

* 8: "Reported Deceased" - Reliable information indicates that the participant has died.

* 9: "Unknown" - Neither the participant nor another source of information has been contacted in a manner sufficient to provide reliable vital status data during the specified date range.

Appointment codes (with possible final codes indicated by *) are:

* 00: "Appointment Made"

* 01: "Has Moved and Cannot Return for Exam"

* 02: "Physically Unable to Attend Clinic:

* 05: "Refusal"

  06: "Other"-- Includes appointment not yet set.
Supervisor Review: The follow-up supervisor is responsible for reviewing cases of ambiguity or difficulty. Among these are:

   a. Refusals (attempt conversion).
   b. Difficult contacts or other non-completes. In particular, the supervisor decides when it is no longer practical to continue to investigate a person. All possible alternatives must be exhausted for this decision to be made.
   c. Undocumented deaths. If a death is reported for which no death certificate can be located, the supervisor reviews the case and attempts to resolve it. If no death certificate is ultimately located, including an NDI search, the vital status may be changed to "Unknown."

2. Questionnaire

Once direct contact has been made with the participant, the interviewer should begin by reading the following script:

INTRODUCTION: Hello, this is (YOUR NAME) from (NAME OF INSTITUTION) and I'm calling for the National Institutes of Health ARIC study. (NAMES(S) OF PARTICIPANT(S)) has/have been taking part in the study since (DATE OF FIRST VISIT). May I please talk with (NAME(s) OF PARTICIPANT(s))? 

DETERMINE PARTICIPANT'S AVAILABILITY AND VITAL STATUS.

IF DECEASED, OFFER CONDOLENCES, THEN GET DATE AND LOCATION OF DEATH (STARTING WITH ITEM 4). AT END OF INTERVIEW, INFORM RESPONDENT OF POSSIBLE NEED TO CONTACT A FAMILY MEMBER LATER, AND ASK BEST TIME TO CALL IN THAT CASE.

WHEN PARTICIPANT IS ON THE LINE (CY02, CY03, CY05, CY06), READ: Hello, this is (YOUR NAME) from (NAME OF INSTITUTION) and I'm making an annual contact call for the National Institutes of Health ARIC study. I would like a few minutes of your time to find out about your health in the past year (lead in to item 6.)

WHEN PARTICIPANT IS ON THE LINE (CY04), READ: Hello, this is (YOUR NAME) from (NAME OF INSTITUTION) and I'm making an annual contact call for the National Institutes of Health ARIC study. I would like a few minutes of your time to find out about your health in the past year and, as explained in our letter, to schedule your next visit for an examination at the ARIC Field Center (lead in to item 6.)

Instructions for the Annual Follow-up questionnaire are given below:

A. VITAL STATUS

1. Date of status determination:

   Month / Day / Year

   07-06-90
The date of status determination is the date on which the participant's final vital status became known to the interviewer (see item 2 below). THIS DATE MUST FALL WITHIN THE PARTICIPANT'S CONTACT YEAR UNLESS THE STATUS IS "UNKNOWN," i.e. no earlier than the "Earliest" date given on the Tracing Form and no later than the Latest Date on that form. It is generally the last date on the "Record of Calls."

2 & 3. Final Status / Information obtained from:

Record the final vital status of the participant for the present contact year, and indicate the source of that information. THE RESPONSE TO ITEM 3 MUST CORRESPOND TO ITEM 2 AS SHOWN ON THE FORM. Thus, if item 2 is "C" then item 3 must be "A," "B," or "C." Similarly, if item 2 is "R," then item 3 must be "D," "E," or "F." If item 2 is "D," then item 3 must be "G," "H," or "I." After completing item 3, follow the corresponding skip rule indicated for that response.

Example: If the participant was contacted over the phone, record as:

2. Final Status: ..... 3. Information obtained from: .....  
(Circle one below) (Circle one corresponding choice below)

- Contacted and alive C
  - Phone
  - Personal Interview B
  - Letter C

- Contacted and refused F

- Reported alive R
  - Relative, spouse, acquaintance D
  - Employer information E
  - Other F

- Reported Deceased D
  - Relative, spouse, acquaintance G
  - Surveillance H
  - Other (National Death Index) I

- Unknown U

Go to Item 32, Screen 8

Continue to Item 4

In this situation, continue the interview by going to item 6 on screen 2.
The following are the criteria for each final status:

**Contacted and alive (C):** The participant has been directly contacted in some way by the ARIC Field Center during the present contact year. This contact preferably takes the form of a phone call or personal interview (so that the entire questionnaire can be administered), but a letter written by the participant is also acceptable for assigning this status. In this last case, it is obviously not possible to ask the remaining questions on the form. Note that this status corresponds to a final result code of 3, 4, or 5 on the "Record of Calls."

**Contacted and refused (F):** The participant has been directly contacted in some way by the ARIC Field Center during the present contact year, but he/she refused to answer the annual follow up questions.

Note: In Year 04, do not confuse this AFU status with refusing an appointment (code 05 of appointment codes). "Contacted and refused" as a final status refers to the AFU questionnaire only.

**Reported alive (R):** Reliable information indicates that the participant is living, but direct contact has not yet been made. If this is the final status, it is therefore implied that it is not possible that contact will be made during this same contact year. Since one would generally continue to make attempts at a direct contact up until the "Latest" date, it is reasonable that the "date of status determination" would fall on or just before that "Latest" date, when this is the final status. Note that this status corresponds to a final result code of 7 on the "Record of Calls." Reliability of the information is evaluated by supervisor review. It is therefore important to document the source in as much detail as possible.

**Reported Deceased (D):** Reliable information indicates that the participant has died. In this case, the "date of status determination" is the date on which the death became known to the ARIC Field Center, NOT the date of death. Note that this status corresponds to a final result code of 8 on the "Record of Calls." Reliability of the information is evaluated by supervisor review. It is therefore important to document the source in as much detail as possible.

**Unknown (U):** Neither the participant nor another source of information has been contacted in a manner sufficient to provide reliable vital status data. In this case, the "date of status determination" is the date on which the unknown status is being assigned or the participant's "Latest" contact date for the specified Contact Year, whichever is earlier. Note that this status corresponds to a final result code of 9 on the "Record of Calls."

**NOTE:** ONCE A FINAL STATUS HAS BEEN ASSIGNED AND ENTERED INTO THE DATABASE, IT CANNOT BE CHANGED AT THE FIELD CENTER DURING THE SAME CONTACT YEAR WITHOUT WRITTEN AUTHORIZATION FROM THE COORDINATING CENTER. THEREFORE, A FINAL STATUS CODE SHOULD NOT BE ASSIGNED TO A PARTICIPANT UNTIL THE END OF THE CONTACT YEAR OR UNTIL IT BECOMES OBVIOUS THAT THE STATUS CANNOT CHANGE. AS DESCRIBED ELSEWHERE, A DEATH OCCURRING AFTER A CONTACT, BUT BEFORE THE END OF THE CONTACT YEAR, IS ASSIGNED TO THE NEXT CONTACT YEAR.
Examples:

1. It is Contact Year 2. The participant cannot be contacted, nor can any reliable information be found regarding his vital status. His baseline visit was on 03/05/87 and his "Latest" CY02 date is 09/04/88. Record as:

<table>
<thead>
<tr>
<th>Contact Year</th>
<th>Date of Status Determination</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>09/04/88</td>
<td>U</td>
</tr>
</tbody>
</table>

2. It is Contact Year 3. The participant cannot be contacted, nor can any reliable information be found regarding his vital status. His status in CY 2 was "Unknown" as determined on 06/28/88. His baseline visit was on 1/23/87. Record as:

<table>
<thead>
<tr>
<th>Contact Year</th>
<th>Date of Status Determination</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>06/28/88</td>
<td>U</td>
</tr>
</tbody>
</table>

3. It is Contact Year 2. The participant's baseline visit was on 02/24/87. His "Latest" date is 08/23/88. Neither the participant nor a reliable source can be located. Finally, on 08/25/88 (one day after the "Latest" date), the participant is located and interviewed. The interview must be recorded under Contact Year 3, and the status for CY 2 is "Unknown." Record as:

<table>
<thead>
<tr>
<th>Contact Year</th>
<th>Date of Status Determination</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>08/23/88</td>
<td>U</td>
</tr>
<tr>
<td>3</td>
<td>08/25/88</td>
<td>C</td>
</tr>
</tbody>
</table>

4. It is Contact Year 2. The participant's "Earliest" date is 2/12/87 and his "Latest" date is 2/11/88. The participant was contacted on his "Target" date, 8/12/87, and the questionnaire was administered routinely. One month later, his obituary is seen in the newspaper. The death may not be reported until the next Contact Year. Record as:

<table>
<thead>
<tr>
<th>Contact Year</th>
<th>Date of Status Determination</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>8/12/87</td>
<td>C</td>
</tr>
<tr>
<td>3</td>
<td>2/12/88</td>
<td>D</td>
</tr>
</tbody>
</table>

A death investigation may, however, be started at any time.

B. Death Information

4-5. If the participant has died, attempt to secure the date and location (city/county, state) of death from the source of information, whether it be a relative or an obituary. Take steps to begin a death investigation by initiating a Cohort Event Eligibility Form.
C. General Health

6. Read the question verbatim, substituting the date on which the participant was most recently contacted (directly) where indicated. The time frame for the next set of questions is since the last call or visit, generally about one year. It is important that the participant understand the time frame.

D. Chest Pain on Effort

7. If the participant previously had chest pain, but none since last contact, mark item 7 "No." The remaining questions 8-16 refer to pain in this time interval. Confirm that the pain was during the correct time interval. Note all skip patterns.

8-13. These questions refer to the usual characteristics of the pain or discomfort. Unequivocal answers need not be probed; but answers such as "occasionally" or "sometimes" should be probed by a question of the type: "Does this happen on most occasions?" Skip rules must be adhered to.

8. The answer must be interpreted strictly. If pain is experienced only during some other form of exertion (e.g., cycling, stairclimbing, lawn mowing), it must be recorded "No."

13. **Sternum**: the breast bone. To locate upper, middle and lower, divide the breast bone into thirds, starting at the neck and working down.

   *Left anterior chest*: the front rib cage to the left of the sternum (breast bone) and below the clavicle (collar bone).

   *Left arm*: includes the area below the clavicle (collar bone) and above the left hand.

   *Other*: include here all other locations, such as the left shoulder (clavicle and above), neck and jaw, or other locations beyond the above defined regions.

14. Record any additional areas in item 13.

E. Possible Infarction

17-19. Refer to pain since the last contact only. Ask questions exactly as printed. Skip rules must be observed for the questions to make sense.

F. Intermittent Claudication

20-28. Refer to leg pain since last contact only. Ask questions exactly as they are printed; interpret answers strictly.
22-24, 26-28. These questions refer to the usual characteristics of the pain or discomfort. Unequivocal answers need not be probed; but answers such as "occasionally" or "sometimes" should be probed by question of the type: "Does this happen on most occasions?" Skip rules must be adhered to.

G. Stroke/TIA

29. Here we are specifically looking for a physician diagnosis of stroke or TIA. Light stroke, minor stroke or small stroke would all be considered appropriate synonyms resulting in a "Yes" response if participant was told by a physician. If the participant is unsure, record as "No."

H. Hospitalizations

30. The purpose of the question is to determine whether it is necessary to complete the "Hospitalizations" section after the questionnaire has been completed. Generally, this question is asked directly of the participant. However, if direct contact is not made, but a reliable source of information has provided a status of "Reported alive" or "Reported deceased" in item 2, then question 30 may be asked of this source. In this case, replace the words "Were you" with "Was (participant)". "Hospitalized" includes staying in any acute or chronic facility and would include a nursing home. This question is intended to specifically enhance the participant's or other source's recall about cardiovascular-related hospitalizations. Only inpatient care should be included, e.g., ER or outpatient visits not involving overnight stay are excluded.

31. This question asks for recall of any other hospitals. It should be asked prior to completing the Hospitalizations section.

I. Interviewer Code Number

32. The person at the clinic who has performed the interview and completed the form must enter his/her code number in the boxes provided.

3. Hospitalizations

A. Collection of data

Following the questionnaire, record information on all hospitalizations reported since the time of last contact. Use the Hospitalizations section of the Annual Follow-Up Form. This is a long question that will have to be obtained in parts. Use neutral probes to elicit all hospitalizations. For each overnight stay, record the reason for the hospitalization, the hospital name, city, and state, and the date (month and year) of the hospitalization. After completing this, if there were any hospitalizations, read the statement about obtaining records, which is
found at the end of the Hospitalizations list. If the participant objects to ARIC obtaining records, gently remind the participant that he/she signed a consent to do this and that medical information will be treated confidentially. If he/she still objects, state that we will not access records without his/her permission and that you'd like to have your supervisor call to discuss it. Take steps to begin investigating each reported hospitalization by initiating a Cohort Event Eligibility Form.

If direct contact is not made, but a reliable source of information has provided a status of "Reported alive" or "Reported deceased" in item 2, then hospitalization information may be obtained from this source. It is important that the source's identity be recorded in the call record.

B. Linkage between Annual Follow-up and Event Investigation

Certain procedures are necessary to ensure that any deaths or hospitalizations that are encountered during AFU contact attempts are brought to the attention of the Surveillance Event Investigation staff, and vice-versa.

The surveillance staff is to be notified of every cohort hospitalization and an investigation undertaken. The hospitalizations sheet provides a check box to indicate that the information has been transmitted to the surveillance staff.

4. Appointment Scheduling

A. Clinic visit not being scheduled

Choose the appropriate ending:

END (talking to participant): "Thank you very much for answering these questions. We will [call you/see you at the clinic] in about a year."
Proceed to Verification of Tracing Information.

END (if participant deceased): "We may need to contact a family member later. When would be a good time to call in that case?" DO NOT proceed to the Verification of Tracing Information.

END (otherwise): "Thank you very much for answering these questions. We will call ______ in about a year." DO NOT proceed to the Verification of Tracing Information.

B. Scheduling Visit 2 Appointment

You may want to schedule all appointments in a household together. Prototype script: "Now let's decide on your clinic appointment date(s). This ARIC clinic visit will be much like the one you had three years ago. You may remember that it takes 3 to 4 hours, and you will be asked to fast for 12 hours before you come in unless you have a medical reason not to. We also can provide a taxi, if you need transportation. We have some openings in (MONTH).

Our appointment times are at (TIMES). Is there a day or time that would be best for you?"
1. IF RESPONDENT(s) IS UNABLE TO SCHEDULE APPOINTMENT AT THIS TIME, INDICATE ON RECORD OF CALLS, SPECIFY REASON AND PROSPECTS FOR RECONTACTING, AND GO TO CLOSING (TOP OF PAGE 13).

2. IF RESPONDENT IS UNWILLING TO SCHEDULE A CLINIC VISIT, INDICATE ON RECORD OF CALLS, VERIFY TRACING INFORMATION.

I'm sorry you are unwilling to come back for a second exam. We would, however, like to continue calling you once a year. As we've done in the past, we would like to verify the information we have on how to contact you. Let me make sure that I have your full name. (ADMINISTER PART A OF THE VERIFICATION OF TRACING FORM. THEN GO TO CLOSING, TOP OF PAGE 13.)

3. IF APPOINTMENT IS MADE, RECORD DATE AND TIME ON RECORD OF CALLS. CIRCLE THE APPROPRIATE APPOINTMENT CODE ON THE RECORD OF CALLS. THIS CODE WILL BE ENTERED AS ITEM 34 OF THE ANNUAL FOLLOW-UP FORM ON THE DES.

Appointment Codes for Final Status of "Deceased" or "Unknown" should be "=".

The "Other" appointment code should be used primarily as a temporary code by interviewers waiting for the participant to set an appointment. It should be used as a final code only if the AFU window has expired and no other AFU Appointment Code (e.g., refusal) can be rightly assigned. Examples might be when a) the participant is temporarily away, b) the participant had surgery but wishes to participate in another year, c) etc.

Appointment Codes should be updated on the DES as appropriate given changes in the participant's status.

a. CONTINUE WITH FASTING INSTRUCTIONS.

We ask that you fast for the visit unless you have a medical reason not to. Do you take insulin for sugar diabetes or have any other reason that you cannot fast for 12 hours?

IF NO Since your appointment is at ______, you should begin fasting at ______ the night before. This means nothing by mouth but water and essential medications. We do encourage you to drink plenty of water. As with your previous exam, you will be given a snack at the clinic.

IF YES There is no need for you to fast.

b. ASK ABOUT SPECIAL NEEDS.

Will you need any assistance getting around the clinic or do you have other special needs we should know about?

IF YES, INDICATE ON RECORD OF CALLS AND INFORM CLINIC.
c. REVIEW MEDICATION SURVEY PREPARATIONS.

We will want you to bring the bottles of any medications, vitamins, or supplements you have taken in the TWO WEEKS before your appointment. This includes ALL medicines including prescription drugs from your physician or dentist; prescription drugs you may have received from other people, such as friends or relatives; and over the counter medicines bought at a drug store or supermarket, such as medicines for colds, vitamins, minerals, and the like. We ask that you bring the containers so that we can copy information from the labels. If you don't have the container, please bring the prescription or the loose pills or capsules. A bag to carry them will be in the packet mailed to you.

d. GIVE RESTRICTIONS ON DONATING BLOOD PRIOR TO THE CLINIC VISIT.

Please do not donate blood during the week before your clinic appointment. If it becomes necessary to give a pint of blood or plasma within 7 days of your appointment, please call the field center and reschedule your appointment.

e. RESOLVE ANY QUESTIONS OR CONCERNS.

Do you have any questions?

f. UPDATE MAILING ADDRESS (VERIFY TRACING INFORMATION.)

Finally, this is a good time to verify your mailing address to make sure that all the material you need for the clinic appointment reaches you. This will take only a few more minutes. Let me make sure that I have your full name (Mr. ___'s full name). (ADMINISTER THE VERIFICATION OF TRACING INFORMATION FORM.)

You should receive your packet in a few days and we will see you on __________. If it is necessary to change your appointment or you think of any (other) questions, please call the clinic.

CLOSING

NO ADDITIONAL INTERVIEWS

Thank you for your time. Good bye.

ADDITIONAL INTERVIEWS

Now I would like to interview (NAME). Thank you for your time.

IF THE PARTICIPANT IS AVAILABLE, RETURN TO THE BEGINNING OF THE ANNUAL FOLLOW-UP INTERVIEW.

IF THE NEXT PARTICIPANT IS UNAVAILABLE, DETERMINE WHEN HE/SHE MIGHT BE CONTACTED.

Is there a date and a time that would be best for me to speak with (NAME)?

RECORD DATE AND TIME ON RECORD OF CALLS

07-06-90
Tracing Form: Verification of Tracing Information

Verify the items on the Verification of Tracing Information sheet for contact next year by saying: "You have previously provided us with information on how to contact you. To help us contact you next year, please tell me if the information I have is still correct." These include the participant's name, address, phone number(s), and driver's license number and state (if moved out-of-state), as well as (except in Y04) the information on the two contact people provided during the clinic visit. The current data on file appear on the left hand side of the page, with blank spaces for corrections or changes provided on the right side. Information only needs to be entered in these blanks in the case of changes to the data. For example, a change of mailing address could be recorded as:

MAILING ADDRESS:  
Highland View Apts. 
Apt. 73A 
3465 Highland Lane 
Chapel Hill, NC 27514

MAILING ADDRESS:  

Any changes to tracing information resulting from CY02 or CY03 AFU must be recorded by changing the identification and/or fast/sing/tracking forms from the participant's baseline visit using the ARIC data entry system. Changes resulting from CY04-CY06 AFU must be made on the UPD form in the Visit 2 system.

Data should be updated as necessary immediately after the follow-up contact only by someone certified in use of the ARIC Data Entry System. The interviewer who updated the computer file enters his/her ARIC Staff Code Number on the Verification of Tracing Information Sheet provided by the Coordinating Center.

07-06-90
ANTHROPOMETRY FORM

INSTRUCTIONS: This form should be completed during the participant's visit. ID Number and Name must be entered above. Whenever numerical responses are required, enter the number so that the last digit appears in the rightmost box. Enter leading zeroes where necessary to fill all boxes. If a number is entered incorrectly, mark through the incorrect entry with an 'X'. Code the correct entry clearly above the incorrect entry.

WEIGHT

Weight (to the nearest lb):......................

SKINFOLDS (to the nearest mm)

. Triceps Measurements (mm):...

   1  2
   a.  b.  
m m

. Subscapular Measurements (mm):...

   1  2
   a.  b.  
m m

C. BODY SIZE

4. Girths (to the nearest cm)

   a. Waist:............................
   b. Hip:............................

5. Elbow breadth (to the nearest mm):............................

ADMINISTRATIVE INFORMATION

. Date of data collection:.........../ / / year

   month  day  year

. Method of data collection:.........Computer  C

   Paper form  P

. Code number of person completing this form:................
INSTRUCTIONS FOR THE ANTHROPOMETRY FORM
ANT, VERSION B, 1/22/90
PREPARED 1/22/90

I. GENERAL INSTRUCTIONS

The Anthropometry form should be completed during the participant's clinic visit to record the results of that procedure. The technician must be certified and should have a working knowledge of the ARIC Anthropometry Manual of Operations. The technician also should be familiar with and understand the document titled "General instructions for Completing Paper Forms" prior to completing this form. ID Number, Contact Year, and Name should be completed as described in that document.

II. DETAILED INSTRUCTIONS FOR EACH ITEM

1. Weight is taken with minimal clothing. Record results to the nearest pound, rounding down.

2. Following the procedure in the Manual of Operations, the skinfold should be lifted two or three times to determine the fold to be measured before placing the calipers. Upon completing the first measurement, remove the calipers, record the results and repeat the procedure one more time. The results should be recorded to the nearest millimeter, rounding down.

4. Girth measurements are to be taken against the skin or over lightweight non-constricting underwear.

4a. (Waist) Place the tape horizontally at the level of the umbilicus (navel). Record the results to the nearest centimeter, rounding down.

4b. (Hip) The objective here is to measure the maximal circumference. The measuring tape must be kept horizontal throughout this procedure. Record the results to the nearest centimeter, rounding down.

5. Follow the procedures in the Manual of Operations. Record the results to the nearest millimeter, rounding down.

6. Enter the date on which the participant was seen in the clinic. Code in numbers using leading zeroes where necessary to fill all boxes. For example, May 3, 1986, would be entered as:

   0 5 1 0 3 1 8 6
   month day year

7. If the form was completed partially on paper and partially on the computer, code as "Paper Form."

8. The person at the clinic who has completed this form must enter his/her code number in the boxes provided.
PART A: DELAYED WORD RECALL

PLACE A CHECK IN THE COLUMN TO THE RIGHT OF EACH WORD AFTER THE PARTICIPANT HAS READ IT ALOUD AND USED IT IN A SENTENCE.

PLACE A CHECK IN THE 2ND COLUMN TO THE RIGHT OF EACH WORD AFTER THE PARTICIPANT HAS READ IT ALOUD AND USED IT IN A SENTENCE THE SECOND TIME.

AFTER THE COMPLETION OF THE DIGIT SYMBOL TEST, ASK THE PARTICIPANT TO RECALL THE 10 WORDS ORIGINALLY GIVEN:

CHECK OFF ALL THE WORDS RECALLED WITHIN 60 SECONDS.

<table>
<thead>
<tr>
<th>FIRST TIME</th>
<th>SECOND TIME</th>
<th>DELAYED WORD RECALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>chimney</td>
<td></td>
<td>book</td>
</tr>
<tr>
<td>salt</td>
<td></td>
<td>button</td>
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<tr>
<td>harp</td>
<td></td>
<td>chimney</td>
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<tr>
<td>button</td>
<td></td>
<td>finger</td>
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<td>meadow</td>
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<td>flower</td>
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<td>train</td>
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<td>book</td>
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<td>train</td>
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</table>
START STOP WATCH. RECORD VERBATIM. DO NOT CORRECT ERRORS. IF PARTICIPANT STOPS, ENCOURAGE FURTHER RESPONSES. ALLOW 60 SECONDS FOR EACH LETTER. THE NEXT LETTER IS NOT GIVEN UNTIL THE ENTIRE 60-SECOND PERIOD HAS PASSED.

<table>
<thead>
<tr>
<th></th>
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</table>
PART B: DIGIT SYMBOL SUBSTITUTION (DSS) TASK

<table>
<thead>
<tr>
<th>10. DIGIT SYMBOL</th>
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<th>SCORE</th>
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</table>

| SAMPLES          | 2| 1| 3| 7| 2| 4| 8| 2| 1| 3| 2| 1| 4| 2| 3| 5| 2| 3| 1| 4 | 5| 6| 3| 1| 4 |
|                  | 1| 5| 4| 2| 7| 6| 3| 5| 7| 2| 8| 5| 4| 6| 3| 7| 2| 8| 1| 9| 5| 8| 4| 7| 3 |
|                  | 6| 2| 5| 1| 9| 2| 8| 3| 7| 4| 6| 5| 9| 4| 8| 3| 7| 2| 6| 1| 5| 4| 6| 3| 7 |
|                  | 9| 2| 8| 1| 7| 9| 4| 6| 8| 5| 9| 7| 1| 8| 5| 2| 9| 4| 8| 6| 3| 7| 9| 8| 6 |
CNF SCORING SUMMARY

PART A: DELAYED WORD RECALL
ADD UP THE CHECK MARKS IN COLUMN 3, PAGE 1 AND ENTER THE TOTAL NUMBER OF RECALLED WORDS BELOW:

1. TOTAL WORDS RECALLED (CNFA, Q.1):

PART B: DIGIT SYMBOL SUBSTITUTION
APPLY THE DSS SCORING TEMPLATE TO THE RESPONSES ON PAGE 2 AND ENTER THE NUMBER OF CORRECT SYMBOLS BELOW:

2. TOTAL CORRECT SYMBOLS (CNFA, Q.2):

APPLY THE DSS SCORING TEMPLATE TO THE RESPONSES ON PAGE 2 AND ENTER THE NUMBER OF INCORRECT SYMBOLS BELOW:

3. TOTAL INCORRECT SYMBOLS (CNFA, Q.3):

PART C: WORD FLUENCY
ADD UP THE TOTAL NUMBER OF WORDS LISTED IN COLUMNS F, A, AND S ON PAGE 3, AND ENTER THAT TOTAL BELOW:

4. TOTAL WORDS LISTED (CNFA, Q.4):

PART D: ADMINISTRATIVE INFORMATION
5. DATE OF DATA COLLECTION (CNFA, Q.5):

month / day / year

6. INTERVIEWER CODE NUMBER (CNFA, Q.6):

GENERAL INSTRUCTIONS

1. The Digit Symbol Substitution Task (DSS) sheet remains unattached from the CNF form until completed by the participant. Complete the header information on both the CNF form and the DSS prior to the clinic visit.

2. Minimize extraneous noise in the testing environment as this may be distracting and affect test results.

3. The interviewer must sit quietly and minimize any movements to avoid distracting the participant.

4. Stopwatches/clocks are necessary to time all of the components of the cognitive function exam. The preferred option is a clock in clear view on the table or wall, allowing the interviewer to subtly glance at it to keep track of time. Hand-held chronometers can also be used. All efforts should be made to minimize the participant's awareness of the timing device to avoid producing anxiety and affecting test results.

5. Tape recorders cannot be used during the administration of the cognitive function forms.

6. Most participants will feel challenged; however, some will feel insecure and others possibly hostile. It is important for the interviewer's attitude to be friendly, non-threatening, reassuring and supportive throughout the tests. Interviewers should be sensitive to provide positive reinforcement at the end of each segment if appropriate.

7. Participants are often curious as to how well they did. Although scoring does not take place during the tests, the interviewer should reassure each participant who asks that he/she did as well as everybody else.

PART A: DELAYED WORD RECALL

8. READ TO PARTICIPANT:

"This portion of the ARIC exam is to record your ability to remember words and symbols. It is like a word game or puzzle, but it is an important part of the exam."

"I'm going to show you some words that I'd like you to remember. Please read along with me each word on the card, repeat the word out loud and then use it in a sentence which conveys the meaning of the word. Do not use words from a previous card in your sentence."
9. SAY EACH WORD AS YOU SHOW THE PARTICIPANT THE DELAYED WORD RECALL FLASH CARDS. This is to avoid problems with visually impaired or illiterate participants being treated differently.

Encourage the participants to form sentences that convey the meaning of the word.

For example, do not allow sentences like "The chimney is nice", but encourage statements like, "The smoke went up the chimney".

10. NO WORD LINKAGE IS ALLOWED. EACH SENTENCE MUST CONTAIN ONLY THE WORD ON THE CARD AND NOT INCLUDE PREVIOUS WORDS TO BE RECALLED.

SHOW THE CARDS, ONE AT A TIME.

If after repeating the first word the participant has difficulty constructing a sentence, PROVIDE THE FOLLOWING EXAMPLE:

"The smoke went up the chimney."

11. PLACE A CHECK IN THE COLUMN TO THE RIGHT OF EACH WORD AFTER THE PARTICIPANT HAS READ IT ALOUD AND USED IT IN A SENTENCE. When all 10 words have been read and made into a sentence, ask the participant to REPEAT THE PROCESS. When repeating the list, the participant may use the same sentence or form a different sentence.

READ TO THE PARTICIPANT:

"To help you remember these words, I would like to have you say each word again and use it in a sentence. You may use the same sentence or make up another one."

12. PLACE A CHECK IN THE 2ND COLUMN TO THE RIGHT OF EACH WORD AFTER THE PARTICIPANT HAS READ IT ALOUD AND USED IT IN A SENTENCE THE SECOND TIME.

13. When this process is completed, GO TO PART B: THE DIGIT SYMBOL TEST.

PART B: DIGIT SYMBOL SUBSTITUTION (DSS) TASK INSTRUCTIONS

14. DISCREETLY PICK UP THE STOPWATCH.

15. HAND THE PARTICIPANT A PENCIL WITHOUT AN ERASER. PLACE THE DIGIT SYMBOL FORM IN FRONT OF THE PARTICIPANT, POINT TO THE KEY ABOVE THE TEST ITEMS AND READ:

"Look at these boxes. Notice that each has a number in the upper part and a special mark in the lower part. Each number has its own mark."

16. POINT TO 1 AND ITS MARK, THEN TO 2 AND ITS MARK.

"Now look down here where the boxes have numbers in the top part, but the squares at the bottom are empty."
17. POINT TO THE SAMPLE ITEMS.

"You are to put in each of the empty squares the mark that should go there, like this:"

POINT TO THE FIRST SEVERAL SAMPLE SPACES.

"Here is a 2; the 2 has this mark."

POINT TO THE FIRST SAMPLE ITEM, THEN TO THE MARK BELOW THE 2 IN THE KEY.

"So I put it in this square, like this."

WRITE IN THE SYMBOL IN THE FIRST SAMPLE SQUARE. THEN SAY

"Here is a 1; the 1 has this mark."

POINT TO THE SECOND SAMPLE ITEM, THEN TO THE MARK BELOW THE 1 IN THE KEY.

"So I put it in this square."

WRITE IN THE SYMBOL IN THE SECOND SQUARE. THEN SAY

"This number is 3; the 3 has this mark."

POINT TO THE THIRD SAMPLE ITEM, THEN TO THE MARK BELOW THE 3 IN THE KEY.

So I put it in this square.

WRITE IN THE SYMBOL.

18. AFTER MARKING THE FIRST THREE SAMPLES ITEMS, SAY:

"Now you fill in the squares up to this heavy line."

19. NOTE: If the participant makes an error on a Sample item, correct the error immediately and review the use of the Key. Continue to help (if necessary) until the seven Sample items have been filled in correctly. Do not proceed with the test until the participant clearly understands the task. When the participant fills in a Sample item correctly, offer encouragement by saying

"Yes or Right,"

and finally,

"Yes, now you know how to do them."

20. During the Sample exercise, look to see if a left-handed participant blocks or partially blocks the Key when filling in the marks. If this occurs, place a separate Digit Symbol form next to the participant's worksheet on the participant's right-hand side so that the extra Key is aligned with the one blocked by the participant's hand. Have the participant use the separate Key to complete the Sample items and to take the actual test.
21. WHEN THE SAMPLE EXERCISE HAS BEEN COMPLETED SUCCESSFULLY SAY,

"When I tell you to start, you do the rest of them."

22. POINT TO THE FIRST TEST ITEM AND SAY,

"Begin here and fill in as many squares as you can, one after the other, without skipping any. Keep working until I tell you to stop. Go as fast as you can without making mistakes. If you make a mistake, do not erase. Put your new answer over the error."

23. SWEEP ACROSS THE FIRST ROW WITH YOUR FINGER AND SAY,

"When you finish this line, go on to this one."

AND POINT TO THE FIRST ITEM IN ROW 2.

24. SAY "Go ahead,"

AND BEGIN TIMING. NO SKIPS ARE ALLOWED. IF THE PARTICIPANT OMMITS AN ITEM OR STARTS TO DO ONLY ONE TYPE (e.g., only the 1s) SAY,

"Do them in order. Don't skip any."

25. POINT TO THE FIRST ITEM OMITTED AND SAY,

"Do this one next."

26. IF THE PARTICIPANT GETS TO THE END OF A LINE AND STOPS, SAY

"Please go on to the next line."

27. GIVE NO FURTHER ASSISTANCE EXCEPT (IF NECESSARY) TO REMIND THE PARTICIPANT TO CONTINUE UNTIL INSTRUCTED TO STOP.

28. Timing must be precise on this test. AT THE END OF 90 SECONDS, SAY

"That is all we have time for. Thank you. Nobody is able to do all of them."

29. AFTER THE COMPLETION OF THE DIGIT SYMBOL TEST, ASK THE PARTICIPANT TO RECALL THE 10 WORDS ORIGINALLY GIVEN AS FOLLOWS:

"Please tell me the words that you recall from the first task when you were asked to read several words and use them in a sentence."

30. ONCE THESE INSTRUCTIONS HAVE BEEN GIVEN, START THE STOPWATCH. Use the stopwatch discreetly to avoid creating anxiety or a sense of time pressure.

31. USING PAGE 1, COLUMN 3 OF THE WORKSHEET, CHECK OFF ALL THE WORDS RECALLED WITHIN 60 SECONDS.
32. IF THE PARTICIPANT STOPS, ENCOURAGE FURTHER RESPONSES. When the respondent indicates that he/she cannot remember any more words, or after 60 seconds, READ:

"That will be fine. Thank you. Nobody is able to remember all these words."

PART C: WORD FLUENCY

33. EXPLAIN THE RULES TO THE PARTICIPANT AS FOLLOWS:

"I will say a letter and you are to tell me all the different words you can think of beginning with that letter. Leave out proper names (like Ellen). They must be different words, not the same word with different endings (for example, give, gives, and giving would be considered the same word, but give and gave are okay.) Are you ready? Tell me words that start with ___. Go ahead, I will tell you when to stop."

34. START STOP WATCH. RECORD VERBATIM. DO NOT CORRECT ERRORS.

35. If the participant cannot think of any more words, sit quietly by and wait 15 seconds. AFTER 15 SECONDS OF SILENCE ASK,

"Can you think of anything else that begins with the letter __?"

Do not stop the test until the entire 60 seconds is over.

36. If the participant repeats a word or makes an error (as an example, gives a name), simply say:

"That's okay; just go on."

Under no circumstances should you ever interrupt the exam to make a clarification.

37. While recording the words, if you cannot keep up with the words being listed and you miss a word, but are certain that the participant produced an acceptable answer, place an X on the line to indicate the participant should receive credit for the word.

38. Allow 60 seconds for each letter. The next letter is not given until the entire 60 second period has passed. At the end of the third letter, SAY:

"That is all we have to do. Thank you. You did well."

39. After the participant has left the room, proof all the responses for readability. Draw a single straight line through any duplicate responses. Clarify any words that may have been unclear during the time the test was being given. If you are unable to spell the word, write it out phonetically.
40. Check any ambiguous words in the dictionary only after the participant has left the room.

**CNF SCORING SUMMARY (WORKSHEET PAGE 4)**

1. The score for **DELAYED WORD RECALL** is the total number of words recalled following the DSS and is equal to the number of words checked on page 1, column 3. Enter that number on page 4 of the CNF worksheet, item 1 (CNFA, Q.1)

2. Scoring of the **DIGIT SYMBOL SUBSTITUTION (DSS) TEST** is done after the participant has completed all three parts of the cognitive function interview. The DSS score is based on the number of symbols correctly coded in 90 seconds.

   For participants who are unable to understand or take the test, enter "=" in both score boxes on page 4 of the CNF worksheet, items 2 and 3 (CNFA, Q.2 and Q.3).

   When part of the sample is attempted, but the participant refuses to complete the actual test, enter "=" for both scores, as above.

3. Place the template over the DSS test and count the number of correct and incorrect symbols. A figure is scored as correct if it is clearly identifiable as the keyed figure, even if it is drawn imperfectly or if it is a spontaneous correction of an incorrect figure.

   Give 1 point for each item filled in correctly. The seven Sample items are not included in the participant's score.

   Credit is not given for items completed out of sequence.

   Single blank spaces between two completed items are not considered incorrectly coded symbols. Two or more blanks which occur consecutively signal the end of the task. Symbols coded after the two or more blanks are not included in totals.

   If the "U" symbol is recorded as "V", give full credit.

4. Enter the number of **correct** symbols on page 4 of the CNF worksheet, item 2 (CNFA, Q.2).

5. Enter the number of **incorrect** symbols on page 4 of the CNF worksheet, item 3 (CNFA, Q.3).

6. In scoring the Word Fluency test, no proper names are allowed.

   Plurals or normal suffixes are not allowed and only "count" once (e.g., give, gives, giving). However a different form of the word as "gave" can be counted in addition to give.

   Words like someone, something, somebody can all be "counted" separately.
INSTRUCTIONS: This form should be completed during the participant's visit. ID Number, Contact Year and Name must be entered above. Whenever numerical responses are required, enter the number so that the last digit appears in the rightmost box. Enter leading zeroes where necessary to fill all boxes. If a number is entered incorrectly, mark through the incorrect entry with an "X". Code the correct entry clearly above the incorrect entry. For "multiple choice" and "yes/no" type questions, circle the letter corresponding to the most appropriate response. If a letter is circled incorrectly, mark through it with an "X" and circle the correct response.

This series of questions is about you and your family's medical history.

1. Please tell me which of the following describes your current marital status: [READ ALL CHOICES]
   - Married M
   - Widowed W
   - Divorced D
   - Separated S
   - Never Married N

2. [INTERVIEWER: CHECK VISIT 1 SHEET]
   Was this participant's natural mother living at Visit 1?
   - Yes Y
   - No N
   - Unknown U

Go to Item 4
FAMILY HISTORY FORM (FHXA screen 2 of 11)

(a) Is your natural mother living?

Yes Y
No N
Unknown U

(b) Approximately how old was she when she died? ENTER "99" FOR AGES 99 OR OLDER.

(c) What was the cause of your natural mother's death?

Cancer C
Heart Attack A
Stroke S
Other O
( Specify )
Unknown U

FAMILY HISTORY FORM (FHXA screen 3 of 11)

5. (a) Is your natural father living?

Yes Y
No N
Unknown U

(b) Approximately how old was he when he died? ENTER "99" FOR AGES 99 OR OLDER.

(c) What was the cause of your natural father's death?

Cancer C
Heart Attack A
Stroke S
Other O
( Specify )
Unknown U

I would next like to ask a few questions about the health of your brothers and sisters. We are interested in your full brothers and sisters, who have the same mother and father that you do, including those who have died or with whom you have lost touch.

6. a. How many full brothers and sisters do you have?

b. How many brothers?

c. How many sisters?
### FAMILY HISTORY FORM (FHXA screen 4 of 11)

1. What is the first name of your first full brother or sister?

2. Is (name) a brother or a sister? Brother B  
Sister S

3. What was (name's) year of birth?

10. Is (name) living?  
   Yes Y  
   Go to Item 12  
   No N  
   Unknown U

11. How old was (name) when he/she died?

12. Did (name) ever have a heart attack?  
   Yes Y  
   Go to Item 14  
   No N  
   Unknown U

### FAMILY HISTORY FORM (FHXA screen 5 of 11)

13. How old was (name) when he/she had his/her FIRST heart attack?

   [VERIFY IT WAS THE FIRST HEART ATTACK]

14. Did (name) ever have a stroke?  
   Yes Y  
   Go to Item 16  
   No N  
   Unknown U

15. How old was (name) when he/she had his/her FIRST stroke?

   [VERIFY IT WAS THE FIRST STROKE]

16. What is the first name of your second full brother or sister?

17. Is (name) a brother or a sister? Brother  
Sister

18. What was (name's) year of birth?

   [IF NO MORE SIBLINGS, GO TO ITEM 52]
19. Is (name) living?
   - Yes Y
   - No N
   - Unknown U
   Go to Item 21

20. How old was (name) when he/she died?

21. Did (name) ever have a heart attack?
   - Yes Y
   - No N
   - Unknown U
   Go to Item 23

22. How old was (name) when he/she had his/her FIRST heart attack?
[VERIFY IT WAS THE FIRST HEART ATTACK]

23. Did (name) ever have a stroke?
   - Yes Y
   - No N
   - Unknown U
   Go to Item 25

24. How old was (name) when he/she had his/her FIRST stroke?
[VERIFY IT WAS THE FIRST STROKE]

IF NO MORE SIBLINGS, GO TO ITEM 52

25. What is the first name of your third full brother or sister?

26. Is (name) a brother or a sister?
   - Brother B
   - Sister S

27. What was (name's) year of birth?

28. Is (name) living?
   - Yes Y
   Go to Item 30
   - No N
   - Unknown U

29. How old was (name) when he/she died?

30. Did (name) ever have a heart attack?
   - Yes Y
   Go to Item 32
   - No N
   - Unknown U

31. Have you ever had a heart attack?
   - Yes Y
   - No N
   - Unknown U

32. Have you ever had a stroke?
   - Yes Y
   - No N
   - Unknown U

FAMILY HISTORY FORM (FHxA screen 6 of 11)
31. How old was (name) when he/she had his/her FIRST heart attack? 
   [VERIFY IT WAS THE FIRST HEART ATTACK]

32. Did (name) ever have a stroke? 
   Yes Y  
   No N  
   Unknown U  
   Go to Item 34

33. How old was (name) when he/she had his/her FIRST stroke? 
   [VERIFY IT WAS THE FIRST STROKE] 
   [IF NO MORE SIBLINGS, GO TO ITEM 52]

34. What is the first name of your fourth full brother or sister? 
   [ ] [ ] [ ] [ ]  
   [ ] [ ] [ ] [ ]

35. Is (name) a brother or a sister? 
   Brother  
   Sister

36. What was (name's) year of birth? 

37. Is (name) living? 
   Yes Y  
   No N  
   Unknown U  
   Go to Item 39

38. How old was (name) when he/she died? 

39. Did (name) ever have a heart attack? 
   Yes Y  
   No N  
   Unknown U  
   Go to Item 41

40. How old was (name) when he/she has his/her FIRST heart attack? 
   [VERIFY IT WAS THE FIRST HEART ATTACK]

41. Did (name) ever have a stroke? 
   Yes Y  
   No N  
   Unknown U  
   Go to Item 43

42. How old was (name) when he/she had his/her FIRST stroke? 
   [VERIFY IT WAS THE FIRST STROKE] 
   [IF NO MORE SIBLINGS, GO TO ITEM 52]
43. What is the first name of your fifth full brother or sister?

44. Is (name) a brother or a sister? Brother B
Sister S

45. What was (name's) year of birth?

46. Is (name) living?

    Yes Y
    No N
    Unknown U

47. How old was (name) when he/she died?

48. Did (name) ever have a heart attack?

    Yes Y
    No N
    Unknown U

49. How old was (name) when he/she had his/her FIRST heart attack?

50. Did (name) ever have a stroke?

    Yes Y
    No N
    Unknown U

51. How old was (name) when he/she had his/her FIRST stroke?

52. Date of data collection:

    [month] / [day] / [year]

53. Method of data collection:

    Computer C
    Paper P

54. Code number of person completing this form:

    [ ] [ ] [ ]
INSTRUCTIONS FOR THE FAMILY HISTORY FORM  
FIX, VERSION A, 1/16/90  
PREPARED 04/03/90

The Family History (FHX) Form is administered to all cohort participants in Visit 2 during the clinic visit. The interview is completed during the interview portion of the clinic visit. The interviewer must be certified in general clinic interviewing and familiar with the ARIC date entry system (DES) and the "General Instructions for Completing Paper Forms" (in case the computer is down) prior to administering this form. Fields to remain blank should be blank on the paper form and "field forward" should be used to bypass them in the DES. Items in BRACKETS and/or CAPITAL LETTERS are instructions to the interviewer and are not read to the participant.

COMPLETE THE HEADER (paper form) by applying a long participant ID label and entering the participant's Name. READ THE QUESTIONS CLEARLY USING THE EXACT WORDING ON THE FORM.

At the outset, inform the participant that the following questions ask for information on both personal and his/her family's medical history. To complete the family history questions on the participant's full brothers and sisters, you may need scratch paper and a pen(cil) to record the name(s) and date of birth of each sibling if the participant did not bring in a list of names and birthdates for reference.

1. Read the question to the participant, emphasizing the word "current." Then read the responses. The responses are mutually exclusive, so record only one.

Items 2-5 refer to the health of the participant's natural mother and father. They do not apply to adoptive or step-parents. Items 6-51 refer to one or more full brothers or sisters.

The respondent may not know much about one or the other of his/her natural parents or full siblings. When this is the case, follow the skip patterns or accept estimated ages for death or onset of heart attack or stroke. It may be helpful to use lead-ins such as "I know you told me you don't know much about your father/mother/brother/sister, but could you tell me ...?"

2. DO NOT ASK THE PARTICIPANT THIS QUESTION. Review the ARIC PARTICIPANT INFORMATION SHEET (PIN) to determine the participant's mother's vital status at Visit 1. If mother was not living at Visit 1, enter the appropriate response (N) and go to item 4. If the mother was alive or status was unknown at Visit 1, enter Y or U and go to item 3.

3.(a)If the mother is living or her vital status is unknown, enter the appropriate response (Y or U) and go to item 4. Do not probe an "unknown" response as this may be a sensitive issue.

(b) If the mother is deceased, enter N in (a) and ask the mother's approximate age at death. Enter "99" for ages 99 or older. Enter "--" if the age is unknown.

(c) Read the question and code the response. If the respondent mentions a cause other than "Cancer", "Heart Attack", "Stroke" or "Unknown" or provides multiple causes of death, enter "0" for Other. Specify the
other cause(s) of death in the automatic note log. Examples: diabetes and heart attack; stroke and congestive heart failure; cancer, pneumonia, and depression; automobile accident. Note that heart attack can include coronary thrombosis. Cancer can include leukemia and Hodgkins Disease. Cerebral hemorrhage and "blood clot in the brain" may be accepted as stroke. DO NOT PRINT OUT THE NOTE LOG.

Items 4 and 5 refer to the respondent's natural father and are the same as those for the natural mother. Follow the instructions for items 2 and 3.

Items 6-51 record demographic and health information on the participant's full brothers and sisters. Define "full" as those siblings who have the same mother and father as the respondent. Information is collected on up to five full siblings, starting with the eldest and working back toward the youngest (the participant need not be among the five oldest siblings), including those who have died or with whom the participant has lost contact.

6. Read the introductory statement. Ask item 6 and enter the response. If there are any full siblings, determine how many are brothers and how many are sisters. If there are no siblings (00), go to the administrative section (items 52-54) at the end of the form. If the participant does not know a siblings' exact date of birth, an approximate date will suffice. If the participant gives a range of dates, take the midpoint and record the appropriate date. Do not record date ranges in a notelog.

If more than one full sibling is reported, ask the participant if you can review with him/her the list of siblings he/she brought to the field center, or ask the participant to tell you their names and the year of their birth and record them on the piece of scratch paper. Inform the participant that no member of his/her family will be contacted by the ARIC study without the participant's prior knowledge. Then ask for the names of the five full brothers and sisters who would be the oldest if they were all living today and put a check beside their names.

Before asking item 7, and introductory statement such as "We will start with the oldest brother or sister" should be used.

7. (7, 16, 25, 34, 43). Only the first name is collected, but it may be a double or composite name, e.g., "Mary Jo". "First full brother or sister" refers to the first of up to five names that you are collecting. Once you have established which siblings meet these criteria, it is not necessary to record them on the form in any particular order. If the participant changes a sibling's date of birth, it will be necessary to either (1) correct the date you have recorded for that person or (2) delete that person's name and birth year and replace it with the name and birth year of a sibling who now meets the criteria.

8. (8, 17, 26, 35, 44) Ask the question of the participant in a confirmatory mode; for example,

"And (name of sibling) is your brother (sister)?"
9. Record both the century and the decade. If unknown, probe to determine if the respondent can provide an estimate of the year of birth and record the approximate year. If no estimate can be provided, enter "==--".

10. If the sibling is living or vital status is unknown, enter Y or U and skip the following item.

11. If the sibling is deceased, record the age at death. If the age at death is unknown, probe to determine if the respondent can provide an estimate of the age at death and record the approximate age. If the sibling was less than one year old, record 0. If no estimate can be provided, enter "==".

12. (a definite "no" or "don't know"), skip the following item.

13. Emphasize that it is the age at the first heart attack that interests you. If the age is unknown, probe to determine if the respondent can provide an estimate of the age of the first heart attack and record the approximate age. If no estimate can be provided, enter "==".

14. (a definite "no" or "don't know"), skip the following item.

15. Emphasize that it is the age at the first stroke that interests you. If the age is unknown, probe to determine if the respondent can provide an estimate of the age of the first stroke and record the approximate age. If no estimate can be provided, enter "==".

Collect the same demographic and health data on each of the participant's eligible siblings or until you have recorded data on the five eldest checked off on your list, whichever comes first. The second set of questions asks for information on the "second" full brother or sister checked off on the list (items 16-24), the third set on the "third" full brother or sister (items 25-33), and so on. Since the birth year of each sibling is recorded, it is not necessary to list the siblings in order from eldest to youngest.

When the participant has no other full (eligible) siblings, tear up the scratch paper with the list of names and birth dates in front of the participant and then complete the administrative questions at the end of the form.

52. Record the date of the interview using the standard date format.

53. Record "C" if the form was completed on the computerized data entry screen, or "P" if the paper form was used.

54. The person at the clinic who has performed the interview and completed the form must enter his/her code number in the boxes provided.

04-03-90
FASTING/TRACKING FORM

INSTRUCTIONS: This form is completed during the participant's visit. ID Number, Contact Year and Name must be entered above. Whenever numerical responses are required, enter the number so that the last digit appears in the rightmost box. Enter leading zeroes where necessary to fill all boxes. On the paper form, if a number is entered incorrectly, mark through the incorrect entry with an "X". Code the correct entry clearly above the incorrect entry. For "multiple choice" questions, circle the letter corresponding to the most appropriate response. If a letter is circled incorrectly, mark through it with an "X" and circle the correct response.

1. Date of clinic visit 2: [ ] / [ ] / [ ]
   month day year

2. Date of fasting determination: [ ] / [ ] / [ ]
   month day year

3. a. Time: [ ] [ ] [ ]
   h h : m m

   b. AM [ ]
   PM [ ]

4. When was the last time you ate or drank anything except water?
   a. Day last consumed: [ ] [ ] [ ]
      Today [ T]
      Yesterday [ Y]
      Go to Item 6 ——— Before Yesterday [ B]

   b. Time last consumed: [ ] [ ] : [ ] [ ]
   h : m m

   c. AM [ ]
   PM [ ]

5. Computed fasting time: [ ] [ ]

6. Have you given blood within the last 7 days? [ ]
   Yes [ Y]
   No [ N]

7. Method of data collection........Computer [ C]
   Paper [ P]

8. Code number of person completing this form: [ ] [ ] [ ]
INSTRUCTIONS FOR THE FASTING/TRACKING FORM
FTR, VERSION B, 01/19/90
PREPARED 01/19/90

The Fasting/Tracking Form is completely filled out at the beginning of the participant's visit. This form may be updated (in the CHANGE mode of the data entry system) if the participant has broken the fast before Visit 2 and agrees to return for blood drawing in the fasting state.

The interviewer needs to be familiar with and understand the document entitled "General Instructions for Completing Paper Forms" prior to administering this form. ID Number, Contact Year, and Name are completed as described in that document.

1. Date of Clinic Visit 2. This is the official date of Visit 2. Enter the date on which the participant signs the Visit 2 Informed Consent Form. If the participant returns at a later date for venipuncture, this date is not changed. The information below on his/her fasting status, however, will be updated. To record the Visit 2 date, code in the numbers using leading zeroes where necessary to fill all spaces. For example, May 3, 1990 would be entered as:

```
05 / 03 / 90
```

Month Day Year

2. Date of Fasting Determination. This is the date on which the participant's fasting is documented. This date may be updated if it were necessary for the participant to return to have fasting blood drawn. Enter the date using the standard date format, as described for Item 1.

3. Time. Enter the time of the reception, i.e., time now. For example, 8:10 a.m. would be coded as:

```
a. Time: 08 : 10

b. AM ......................... A

P.M ......................... P
```

4. When was the last time you ate or drank anything except water? Ask the question verbatim. Record the appropriate day in item (a), time in item (b), and AM or PM in item (c). Use midnight (12:00 am) as the strict cutoff between days. Note: if "Before Yesterday" is chosen in (a), skip to Item 6.
Example 1. The participant states that he/she last consumed something yesterday at 7:00 PM. Record as follows:

4. When was the last time you ate or drank anything except water?
   a. Day last consumed: ...Today T
      Yesterday Y
      \[\text{Go to Item 6}\] Before Yesterday B
   b. Time last consumed: \[07:00\]
      h h : m m
   c. AM ......................... A
      PM ......................... P

Example 2. The participant states that he/she last consumed something last night at 1:30 AM. Record as follows:

4. When was the last time you ate or drank anything except water?
   a. Day last consumed: ...Today T
      Yesterday Y
      \[\text{Go to Item 6}\] Before Yesterday B
   b. Time last consumed: \[01:30\]
      h h : m m
   c. AM ......................... A
      PM ......................... P
5. **Computed Fasting Time.** This item is calculated automatically when the Fasting/Tracking Form is entered directly on the computer. (As a way of denoting this on the paper form, lines are provided rather than boxes for recording the result.) To calculate the fasting time when using the paper version of the form, use the "Fasting Time Computation Table," which can be found on the last page of these instructions, to determine the time. To use the table, look up the Time Last Consumed on the left hand column, and the current time (Time of Visit) along the top. The value in the body of the table corresponding to those two times is the number of hours fasted. Note that the "Time Last Consumed" is separated into "Yesterday" and "Today," and that all times are separated by "AM" and "PM." In addition, times are given in one-hour intervals. The top line in the table may be used whenever the Time Last Consumed is earlier than 7:00 PM. This is acceptable because, although the fasting time may not be accurate, it will not be less than the critical time of 12 hours.

Note: Computing fasting time using the table does not always provide the same result as the computer (due to a reduction in accuracy). However, any effect arising from this fact is believed to be negligible because (1) only a small number of cases would cross over the 12-hour critical time, and (2) even in such cases, ARIC procedures call for the completion of the visit regardless of fasting time.

For example, if the Time Last Consumed is 7:30 PM yesterday (in 7-7:59 PM interval) and the Time of Visit is 8:15 AM (in 8-8:59 AM interval), the fasting time is 13 hours.

6. **Have you given blood within the last 7 days.** Read the question. If the response is YES, determine whether the participant gave a pint of blood/plasma or had blood samples drawn. Record YES only if "given blood" refers to a pint (or more) or whole blood or plasma, not a blood sample for diagnostic evaluation. Otherwise, record NO.

7. **Method of data collection.** Record "C" if the form was completed on the computerized data entry screen, or "P" if the paper form was used.

8. The person at the clinic who has performed the interview and completed the form must enter his/her code number in the boxes provided.
<table>
<thead>
<tr>
<th>Time Last Consumed</th>
<th>Yesterday...</th>
<th>AM</th>
<th>PM</th>
<th>Today...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Earlier</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7-7:59</td>
<td>13</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>8-8:59</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>9-9:59</td>
<td>10</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>10-10:59</td>
<td>9</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>11-11:59</td>
<td>8</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time of Visit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7-7:59</td>
<td>14</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>8-8:59</td>
<td>15</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>9-9:59</td>
<td>16</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>10-10:59</td>
<td>17</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>11-11:59</td>
<td>18</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>AM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7-7:59</td>
<td>17</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>8-8:59</td>
<td>16</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>9-9:59</td>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>10-10:59</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>11-11:59</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7-7:59</td>
<td>20</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>8-8:59</td>
<td>21</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>9-9:59</td>
<td>22</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>10-10:59</td>
<td>23</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>11-11:59</td>
<td>24</td>
<td>25</td>
<td>26</td>
</tr>
</tbody>
</table>
This questionnaire asks you to describe how you feel about your life and health. Please take your time to answer carefully. There are no "right" or "wrong" answers. We are interested in your feelings and opinions. Do not leave a question blank unless you are instructed to skip to another question. Circle only one response for each question or statement. If you make mistake, cross it out and circle the letter or number you want.
HEALTH AND LIFE PROFILE: PART A

INSTRUCTIONS: This questionnaire asks you to describe how you feel about your life and health. Please take your time to answer carefully. There are no "right" or "wrong" answers. We are interested in your feelings and opinions. Do not leave a question blank unless you are instructed to skip to another question.

1. How do you feel about life as a whole?
   (CIRCLE ONE LETTER.)

   Delighted  Pleased  Mostly Satisfied  Mostly Dissatisfied  Unhappy  Terrible
   A          B        C               D               E        F

2. On a scale of zero (0) to ten (10), how satisfied are you with the meaning and purpose of your life?
   (CIRCLE THE NUMBER.)

   0  1  2  3  4  5  6  7  8  9  10

   Extremely satisfied

   Extremely dissatisfied

GO TO NEXT PAGE
3. Most of my friends are more interesting than I am.  
   A  B  C  D

4. When I feel lonely, there are several people I can talk to.  
   A  B  C  D

5. I often meet or talk with family or friends.  
   A  B  C  D

6. I feel like I'm not always included by my circle of friends.  
   A  B  C  D

7. There really is no one who can give me an objective view of how I'm handling my problems.  
   A  B  C  D

8. If I were sick and needed someone (friend, family member, or acquaintance) to take me to the doctor, I would have trouble finding someone.  
   A  B  C  D

9. If I were sick, I could easily find someone to help me with my daily chores.  
   A  B  C  D

10. When I need suggestions on how to deal with a personal problem, I know someone I can turn to.  
    A  B  C  D

(CIRCLE ONLY ONE LETTER)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Definitely True</th>
<th>Probably True</th>
<th>Probably False</th>
<th>Definitely False</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>I don't often get invited to do things with others.</td>
<td>A</td>
<td>E</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>12.</td>
<td>Most of my friends are more successful at making changes in their lives than I am.</td>
<td>A</td>
<td>E</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>13.</td>
<td>If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.).</td>
<td>A</td>
<td>E</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>14.</td>
<td>There is really no one I can trust to give me good financial advice.</td>
<td>A</td>
<td>E</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>15.</td>
<td>I am more satisfied with my life than most people are with theirs.</td>
<td>A</td>
<td>E</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>16.</td>
<td>It would be difficult to find someone who would lend me their car for a few hours.</td>
<td>A</td>
<td>E</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>17.</td>
<td>There is at least one person I know whose advice I really trust.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>18.</td>
<td>I have a hard time keeping pace with my friends.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>
19. **How many relatives do you see or hear from at least once a month?**
   (NOTE: Relatives include husband/wife, children and grandchildren, brothers, sisters, parents, in-laws, aunts, uncles, and cousins.)

<table>
<thead>
<tr>
<th>ZERO</th>
<th>ONE</th>
<th>TWO</th>
<th>THREE OR FOUR</th>
<th>FIVE TO EIGHT</th>
<th>NINE OR MORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
</tbody>
</table>

If ZERO, go to question 22

20. **Tell me about the relative with whom you have the most contact. How often do you see or hear from that person?**

<table>
<thead>
<tr>
<th>Less than Monthly</th>
<th>Monthly</th>
<th>A Few Times a Month</th>
<th>Weekly</th>
<th>A Few Times a Week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
</tbody>
</table>

21. **How many relatives do you feel close to? That is, how many of them do you feel at ease with, can talk to about private matters, or can call on for help?**

<table>
<thead>
<tr>
<th>ZERO</th>
<th>ONE</th>
<th>TWO</th>
<th>THREE OR FOUR</th>
<th>FIVE TO EIGHT</th>
<th>NINE OR MORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
</tbody>
</table>
22. Do you have any close friends? That is, do you have any friends with whom you feel at ease, can talk to about private matters, or can call on for help? If so, how many?

<table>
<thead>
<tr>
<th>ZERO</th>
<th>ONE</th>
<th>TWO</th>
<th>THREE OR FOUR</th>
<th>FIVE TO EIGHT</th>
<th>NINE OR MORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
</tbody>
</table>

If ZERO, go to question 25

23. How many of these friends do you see or hear from at least once a month?

<table>
<thead>
<tr>
<th>ZERO</th>
<th>ONE</th>
<th>TWO</th>
<th>THREE OR FOUR</th>
<th>FIVE TO EIGHT</th>
<th>NINE OR MORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
</tbody>
</table>

24. Tell me about the friend with whom you have the most contact. How often do you see or hear from that person?

<table>
<thead>
<tr>
<th>Less than Monthly</th>
<th>Monthly</th>
<th>A Few Times a Month</th>
<th>Weekly</th>
<th>A Few Times a Week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
</tbody>
</table>

25. When you have an important decision to make, how frequently do you have someone you can talk to about it?

<table>
<thead>
<tr>
<th>Always</th>
<th>Very Often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Seldom</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
</tbody>
</table>
26. When other people you know have an important decision to make, how frequently do they talk to you about it?

<table>
<thead>
<tr>
<th>Always</th>
<th>Very Often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Seldom</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
</tbody>
</table>

27. Does anybody rely on you to do something for them each day? For example: shopping, cooking dinner, doing repairs, cleaning house, providing child care, etc.?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>If YES, go to question 29</td>
</tr>
</tbody>
</table>

28. How frequently do you help anybody with things like shopping, filling out forms, doing repairs, providing child care, etc.?

<table>
<thead>
<tr>
<th>Very Often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Seldom</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
</tbody>
</table>

29. Do you live alone or with other people? (NOTE: CIRCLE THE FIRST RESPONSE THAT APPLIES.)

<table>
<thead>
<tr>
<th>Live with Spouse</th>
<th>Live with Other Relatives, In-laws, or Friends</th>
<th>Live with Other Unrelated Individuals, (e.g., Paid Help)</th>
<th>Live Alone</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

GO TO NEXT PAGE
HEALTH AND LIFE PROFILE: PART B

INSTRUCTIONS: For the next series of questions, please answer Yes or No, whichever best describes you. If you cannot decide or don't know, please indicate "Don't Know".

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you often feel tired?</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>2. Do you often have trouble falling asleep?</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>3. Do you wake up repeatedly during the night?</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>4. Do you feel weak all over?</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>5. Do you have the feeling that you haven't been accomplishing much lately?</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>6. Do you have the feeling that you can't cope with everyday problems as well as you used to?</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>CIRCLE ONLY ONE LETTER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>(CIRCLE ONLY ONE LETTER)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Yes</strong></td>
<td><strong>No</strong></td>
<td><strong>Don't Know</strong></td>
</tr>
<tr>
<td>7.</td>
<td>Do you believe that you have come to a &quot;dead end&quot;?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>8.</td>
<td>Do you lately feel more listless than before?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>9.</td>
<td>Do you enjoy sex as much as ever?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>10.</td>
<td>Have you experienced a feeling of hopelessness recently?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>11.</td>
<td>Does it take more time to grasp a difficult problem than it did a year ago?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>12.</td>
<td>Do little things irritate you more lately than they used to?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>13.</td>
<td>Do you feel you want to give up trying?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>14.</td>
<td>Do you feel fine?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>15.</td>
<td>Do you sometimes feel that your body is like a battery that is losing its power?</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>16.</td>
<td>Would you want to be dead at times?</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>
17. Do you have the feeling these days that you just don't have what it takes any more?
   Yes   No   Don't Know
   Y     N     D

18. Do you feel dejected?
   Y     N     D

19. Do you feel like crying sometimes?
   Y     N     D

20. Do you ever wake up with a feeling of exhaustion and fatigue?
   Y     N     D

21. Do you have increasing difficulty in concentrating on a single subject for long?
   Y     N     D

For Administrative Use Only.

GO TO NEXT PAGE
HEALTH AND LIFE PROFILE: PART C

INSTRUCTIONS: For each of the following statements, please choose the one response that best describes you.

<table>
<thead>
<tr>
<th>(CIRCLE ONLY ONE LETTER)</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am quick tempered.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>2. I have a fiery temper.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>3. I am a hotheaded person.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>4. I get angry when I am slowed down by others' mistakes.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>5. I feel annoyed when I am not given recognition for doing good work.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>6. I fly off the handle.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>
7. When I get angry, I say nasty things.

8. It makes me furious when I am criticized in front of others.

9. When I get frustrated, I feel like hitting someone.

10. I feel infuriated when I do a good job and get a poor evaluation.

(CIRCLE ONLY ONE LETTER)

Almost Never

Sometimes

Often

Almost Always

A    B    C    D

A    B    C    D

A    B    C    D

A    B    C    D

THE END
The HEALTH AND LIFE PROFILE forms (HPA, HPB, and HPC) are designed to measure quality of life, social relationships, symptoms of fatigue and anger. They are intended to be self administered, but if necessary, can be interviewer-administered (all interviewer-administered in Jackson). They are also among the few forms for which the data entry screens are different from the paper versions. The primary difference between the paper and screen versions, in addition to the obvious format differences, is the inclusion of a "don't know" response in the screen versions of HPA and HPC, to document that the participant did not complete either the question or the questionnaire.

The Health and Life Profile forms will be stapled together with a single cover sheet and administered in a private, quiet area.

The following scripts serve as prototypes and should be adapted to meet the needs of the participant and field center.

We next have some questionnaires asking how you feel about your life and health. They are intended for you to complete by yourself.

There are instructions and similar type questions on each part of the form. (SHOW THE PARTICIPANT THE FIRST PAGE OF EACH FORM.) Will you be able to do these or would you like me to complete them with you?

If the participant needs assistance, skip to Section II.

I. SELF-ADMINISTRATION

VERIFY THAT THE FORM COVER SHEET HAS THE CORRECT ID LABEL. Provide overall instructions for completing the forms and indicate where you can be found if the participant has questions.

READ THE INTRODUCTORY SCRIPT.

The Health and Life Profile has 3 parts, with a total of 60 items that will go very quickly. There are 3 questions at the end of each part that you should ignore. These are filled out by ARIC staff. Most questions ask you to circle a letter or number under or beside the answer that best describes you. (GO OVER HPA ITEM 1 AS AN EXAMPLE.) You may be required to skip a question or two depending on your answers. (GO OVER HPA ITEM 19 AS AN EXAMPLE.) There are no right or wrong answers. We are interested in your feelings and opinions.

Please take your time to answer carefully. If you have any questions, I will be (INSERT YOUR WHEREABOUTS). I will check back with you in a few minutes to see how you are doing. If at any time you feel you need my assistance, please let me know.

If the person has specific questions about the profile, provide neutral information only. Terms like "often" and "recently" are used frequently. Their definitions are left to the participant's own preference or perception.

08-15-90
If the participant begins and then asks for assistance in completing part or all of the forms, offer to complete the form(s) with him/her. (See the instructions in Section II).

After allowing 20 minutes for the participant to complete the forms, clinic staff should check with the participant and decide if he/she needs assistance in completing the forms.

Field centers determine at what point in the exam the 3 forms are reviewed for completeness and what procedures should be implemented to assist the participant in completing them before the Exit Interview.

COLLECT THE FORMS from the participant. VERIFY that you have all three parts.

Scan the forms for completeness. When the forms are completed but there are one or more questions left blank, offer the participant the opportunity to complete them.

I've noticed that there are one or more questions left blank. Would you like to do them or have you left them blank on purpose?

Depending on the answer, return the form to the participant and collect it after he/she has finished. Once the participant has answered all the questions he/she intends to, document the completion status of each form. This is done in two ways. (1) To document deliberately unanswered questions, write "no response" in the margin to the right of each unanswered question in forms HPA or HPC. Do not document the completion status of individual questions in form HPB. (2) To document that the participant answered NO questions on a form, write "not done" in the margin to the right of the question "Type of Administration," located in the administrative section of that form (HPA, Item 31; HPB, Item 23; HPC, Item 12). Notes on the completion status of single questions or entire forms are later keyed into the data entry system.

The "For Administrative Use Only" section of each form must be completed by the interviewer after the form has been reviewed for completeness. If the participant completed the form without assistance, then the type of "Administration" should be recorded as "A" for self-administered. If the participant started a form and interviewer assistance was provided before all the questions on that particular form were completed, then record "C" for both participant and interviewer administration.

II. INTERVIEWER ADMINISTERED

If the participant requests help with one or more of the forms, offer to administer the paper version. As some items may be perceived as sensitive or embarrassing, statements and questions need to be read in a nonjudgemental tone.

The participant's literacy status and visual acuity should have been established during Visit 1 or at the Reception Station at the beginning of Visit 2 and documented on his/her itinerary form. Staff need to be sensitive to the participant's possible reluctance to admit (functional) illiteracy or deterioration of visual acuity since the last visit.

VERIFY THAT THE FORM COVER SHEET HAS THE CORRECT ID LABEL. If FORM HPA was begun and could not be completed without assistance, the remainder can be completed together. Follow the procedures for FORM HPA (below) and COMPLETE 08-15-90
The administrative section of Form HPA by circling response C, Form HPA was both self and interviewer-administered.

The large print response cards are used to assist all participants and are used even if he/she appears not to be able to read.

(i) Procedures for the interviewer administration of Form HPA.

Read the introductory script.

As I mentioned, these questions ask about how you feel about your life and health. There are no "right" or "wrong" answers. We are interested in your feelings and opinions. For example, let me show you the first response card and go through the first question.

Give the participant response card 1, which lists the valid responses for Question 1. Read the responses "a" to "f" to the participant.

Question 1. Read the question. Ask if the participant would like to listen to the responses again. Read the responses again if appropriate. Record the response. If the participant refuses to answer the question, write "no response" in the right hand margin.

Question 2. Ask the participant to turn HPA Card 1 over to look at the scale. Read the responses. Explain that "0" means "Extremely satisfied" and "10" means extremely dissatisfied. "5" is average satisfaction. Read the question. If appropriate, ask if the participant would like to listen to the responses again. Record the response on the form. If the participant refuses to answer the question, write "no response" in the right hand margin. Retrieve HPA CARD 1 from the participant after completing question 2.

Questions 3-18. Read the directions to the participant.

The following statements may or may not be true about you. For each statement, give me the response that reflects your feelings.

Terms like "often" and "recently" are used frequently. Their definitions are left to the participant's own preference or perception. If the participant asks what "often" or "recently" mean, respond: "Use it the way you would normally use it in conversation."

Give the participant HPA Card 2 which lists the valid responses to questions 3-18.

Read the responses "a" to "d" on the card to the participant. When the participant catches on, omit reading the repetitive responses for each question. Record the responses on the form. If the participant refuses to answer a question, write "no response" in the right hand margin. Retrieve HPA CARD 2 from the participant after completing question 18.

Questions 19 to 29. Read the directions to the participant.

Now I would like to ask you some questions about your social contacts. There is no response card for the next set of questions, so I will read the question and then the responses. If you need either repeated, please tell me and I will repeat it.

Read each question from the form. Read the valid responses for each question. Record the responses on the form. Note that several questions (items 19, 22 and 27) have skip patterns. If the participant refuses to answer, record "no response" in the right hand margin.

08-15-90
Valid responses for the questions on the number of relatives/friends (items 19, 21, 22, and 23) are:

a. Zero  
b. One  
c. Two  
d. Three or four  
c. Five to eight  
f. Nine or more.

Valid responses for questions on the frequency of contacts with relatives/friends (items 20 and 24) are:

a. Less than monthly  
b. Monthly  
c. A few times a month  
d. Weekly  
e. A few times a week  
f. Daily

Valid responses for questions on the frequency of consulting with or being consulted by relatives/friends (items 25 and 26) are:

a. Always  
b. Very often  
c. Often  
d. Sometimes  
e. Seldom  
f. Never

Valid responses for the question on the reliance of others for daily assistance (item 27) are YES and NO. Emphasize that this reliance must occur EACH DAY. If the response is NO, record and go to item 28. If YES, record and skip to item 29.

Valid responses for question 28 are: (Note the response "always" is not valid.)

b. Very often  
c. Often  
d. Sometimes  
e. Seldom  
f. Never

Valid responses for question 29 are:

a. Live with spouse  
b. Live with other relatives, in-laws or friends  
c. Live with other unrelated individuals (e.g., paid help, Board and Care homes, or skilled nursing facilities)  
d. Live alone

If the participant does not live alone and responds "lives with other people", ask "WHICH OF THESE STATEMENTS DESCRIBES THE RELATIONSHIP TO YOU?" and record the first response that applies. If the participant refuses to answer, record "no response" in the right hand margin.

08-15-90
Questions 30 to 32. COMPLETE THE ADMINISTRATIVE SECTION. (Do not read to the participant.) For Item 31, if you administered the entire form, record B for interviewer administered. If the participant started the form, but you provided assistance at some point before all the questions were answered, record C to indicate that administration was both self and interviewer-assisted. If the participant refused to answer any questions, record "no response" in the right hand margin. The "no response" code is recorded during data entry into the DES.

(ii) PROCEDURES FOR THE INTERVIEWER ADMINISTRATION OF FORM HPB.

READ THE INTRODUCTORY SCRIPT.

This questionnaire asks you to describe how you feel about your life and health. You may take your time to answer carefully. There are no "right" or "wrong" answers. We are interested in your feelings and opinions. For the following questions, please answer Yes or No, whichever describes you best. If you cannot decide or don't know, tell me "Don't Know".

GIVE HPB CARD 1 TO THE PARTICIPANT. READ THE RESPONSE CATEGORIES (Yes, No and Don't Know) before you read the first question and continue to read the responses after each question until the participant remembers the categories. They do not need to be read once he/she memorizes them.

Questions 1 to 21. READ EACH QUESTION in a nonjudgmental tone. CIRCLE THE LETTER CORRESPONDING TO THE PARTICIPANT'S RESPONSE. If the participant refuses to answer a question, record "no response" in the right hand margin and go on to the next question. RETRIEVE HPB CARD 1 after completing question 21.

Questions 22 to 24. COMPLETE THE ADMINISTRATIVE SECTION at the end of Part B. For Item 23, if you administered the entire form, record B for interviewer administered. If the participant started the form, but you provided assistance at some point before all the questions were answered, record C to indicate that administration was both self and interviewer-assisted. If the participant refused to answer any questions, record "no response" in the right hand margin. The "no response" code is recorded during data entry into the DES.

(iii) PROCEDURES FOR THE INTERVIEWER ADMINISTRATION OF FORM HPC.

READ THE INTRODUCTORY SCRIPT

This questionnaire is like the other ones you have done in that it asks you to describe how you feel about your life. There are no "right" or "wrong" responses. We are interested in your feelings and opinions. For the following statements, please choose the one response that best describes you.

GIVE HPC CARD 1 TO THE PARTICIPANT. Following the procedures for reading and repeating response categories in HPA and HPB, READ THE RESPONSE CATEGORIES (a) Almost never, (b) Sometimes (c) Often, and (d) Almost always. Then READ EACH STATEMENT and CIRCLE the letter corresponding to the response or WRITE in the margin "No response" for later keying.
if the participant declines to select a response. RETRIEVE HPC CARD 1 and COMPLETE the administrative questions (items 11-13).

THANK THE PARTICIPANT AND TAKE HIM/HER TO THE NEXT WORKSTATION.

III. KEYING DATA FROM FORMS HPA, HPB, AND HPC.

The HEALTH AND LIFE PROFILE form should be keyed as soon as possible, preferably by the interviewer responsible for its completion. If the participant answered none of the questions on the form, the interviewer enters the header information and selects the response "Did Not Respond" to the question "Type of administration" in the ADMINISTRATIVE SECTION (HPA: item 31; HPB: item 23; and HPC: item 12). This is done in lieu of completing the "Did Not Respond" response for every field.

IV. SCORING OF THE HEALTH AND LIFE PROFILE QUESTIONNAIRE

The scores for each component of the Health and Life Profile will be calculated after the data have been sent to the Coordinating Center.

V. PARTICIPANT SAFETY

The interviewer observes the participant during and immediately after the completion of the Health and Life Profile Questionnaire for signs of emotional distress. If these are noted while the participant is completing the forms, (1) the interviewer encourages the participant to discontinue working on the HLP form and (2) and escorts her/him to the next workstation after allowing ample time for the participant to regain composure. (3) After the participant has gone to the next workstation, the interviewer notifies the person conducting the Medical Data Review.

It is anticipated that participants will occasionally express manifestations compatible with depressive symptoms, extreme exhaustion, or emotional distress in their responses to selected items. Certain responses to the following questions in the HLP questionnaire should lead to the notification of the person doing the Medical Data Review. After the participant leaves the HLP workstation, or during data inventory, the following questions and responses on the HLP form are reviewed. The items of special concern are underlined and should be called to the reviewer's attention if the responses are as shown in the second column.

<table>
<thead>
<tr>
<th>Items of Concern from HLP</th>
<th>Responses Indicative of Emotional Distress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A:</td>
<td></td>
</tr>
<tr>
<td>Item 2</td>
<td>8, 9, and/or 10</td>
</tr>
<tr>
<td>Item 22</td>
<td>A</td>
</tr>
<tr>
<td>Part B:</td>
<td></td>
</tr>
<tr>
<td>Item 7</td>
<td>Y</td>
</tr>
<tr>
<td>Item 10</td>
<td>Y</td>
</tr>
<tr>
<td>Item 13</td>
<td>Y</td>
</tr>
<tr>
<td>Item 16</td>
<td>Y</td>
</tr>
</tbody>
</table>

08-15-90
HEALTH HISTORY FORM

INSTRUCTIONS: This form should be completed during the participant's visit. ID Number, Contact Year and Name must be entered above. Whenever numerical responses are required, enter the number so that the last digit appears in the rightmost box. Enter leading zeroes where necessary to fill all boxes. If a number is entered incorrectly, mark through the incorrect entry with an "X". Code the correct entry clearly above the incorrect entry. For "multiple choice" and "yes/no" type questions, circle the letter corresponding to the most appropriate response. If a letter is circled incorrectly, mark through it with an "X" and circle the correct response.

MEDICAL CARE

The first questions ask about your routine medical care and health."

How long has it been since you last saw a doctor for any reason?

a. [ ] years  b. [ ] months

2. How often do you have a routine physical examination, that is, not for a particular illness, but for a general check up?

[Read choices slowly]

At least once a year Y
At least once every five years F
Less than once every five years L
Do not have routine physical examinations N
Unknown U
**HEALTH HISTORY FORM (HHXB screen 2 of 19)**

3. Do you have health insurance, such as Medicare, or a medical plan, such as an HMO, which pays part of a hospital, doctor's, or surgeon's bill?................. Yes Y  
   No N  
   Unknown U

4. When you want help with a health problem, where do you usually go? By a "health problem" I mean an illness, a question or concern, or a need for a test or treatment.  
   [Do NOT read choices]
   
   Private physician P  
   Walk-in clinic W  
   HMO H  
   Regular clinic C  
   Hospital emergency room E  
   Other O

   a. If "Other," Specify:

   **HEALTH HISTORY FORM (HHXB screen 3 of 19)**

5. Has a doctor ever said you had any of the following: [Read each disease name and code "N" if "NO" or "NEVER TESTED."]

<table>
<thead>
<tr>
<th>Disease</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. High blood pressure or hypertension (high blood)</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>b. High blood cholesterol</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>c. Heart attack</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>d. Diabetes (sugar in the blood)</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>e. Chronic lung disease, such as chronic bronchitis, or emphysema</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>f. Asthma</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>g. Cancer</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
</tbody>
</table>

*Go to Item 6*
### HEALTH HISTORY FORM (HHXB screen 4 of 19)

**h. Can you tell me in what part of the body the cancer was located?**

[Unfilled field]

**i. And the date it was diagnosed?**

[Unfilled field]

**j. Have you had another cancer?**

Y

**k. Can you tell me in what part of the body the cancer was located?**

[Unfilled field]

**l. And the date it was diagnosed?**

[Unfilled field]

---

### HEALTH HISTORY FORM (HHXB screen 5 of 19)

**6. Have you ever had to sleep on 2 or more pillows to help you breathe?**

Yes Y

No N

**7. Have you ever been awakened at night by trouble breathing?**

Yes Y

No N

**8. Have you ever had swelling of your feet or ankles (excluding during pregnancy)?**

[Include parenthetical comment for females only.]

Yes Y

No N

**9. Did it tend to come on during the day and go down overnight?**

Yes Y

No N
### C. REPRODUCTIVE HISTORY

10. Sex of participant: ............ Male M
    Female F

    Go to Item 14

11. Had this participant had a vasectomy at the time of Visit 17
    [See PIN sheet]. ............ Yes Y
    No N

    Go to Item 44

12. Have you had a vasectomy (sperm tubes tied)? ............ Yes Y
    No N

    Go to Item 44

13. At approximately what age did you have this operation?

    Go to Item 44

14. Did the participant have menstrual periods within 2 years prior to Visit 17 [See PIN sheet]. ............ Yes Y
    No N

    Go to Item 22

15. Have you had any menstrual periods during the past 2 years? ............ Yes Y

    Go to Item 18

16. In what month and year was your last menstrual period?

    

17. In the past 2 years, how many periods did you miss?
    [If "00" go to item 21]

18. Have you reached menopause? ........ Yes Y

    Go to Item 22

19. At approximately what age did menopause begin?

    

20. Was your menopause natural or the result of surgery or radiation?

    Natural N
    Surgery S
    Radiation R
    Unknown U

21. Are you having hot flashes?........ Yes Y
    No N

    Go to Item 37

22. Since your first ARIC exam on (date) have you taken or used any female hormone pills, dermal patches, shots, or implants?.... Yes Y

    Go to Item 37

    No N

    Unknown U
Please give me the names of all female hormones you have used since that exam, starting with any you may be taking currently or with the most recent one. Please exclude hormone creams.

1. Name 1:
   a. __________________________

   Concentration (mg or mcg units):
   b. __________________________ c. __________________________

   first hormone second hormone (if any)

   Code 1: __________________________

25. At what age did you start taking this hormone for the first time?

26. Are you currently taking this hormone? Yes Y

   Go to Item 28 No N

27. At what age did you stop taking this hormone?

28. For how long altogether since your first ARIC exam have you used this hormone?
   a. ________ b. ________

   years months

29. a. How many days do/did you take this hormone in a 4 week period?

   b. On a typical day when you take/took this hormone, how many pills, dermal patches, shots or implants do/did you take or use?

   per day

30. Name 2:
   a. __________________________

   Concentration (mg or mcg units):
   b. __________________________ c. __________________________

   first hormone second hormone (if any)

31. Code 2: __________________________

32. At what age did you start taking this hormone for the first time?

33. Are you currently taking this hormone? Yes Y

   Go to Item 35 No N

34. At what age did you stop taking this hormone?

35. For how long altogether since your first ARIC exam have you used this hormone?
   a. ________ b. ________

   years months
36. a. How many days do/did you take this hormone in a 4 week period?

b. On a typical day when you take/took this hormone, how many pills, dermal patches, shots, or implants do/did you take or use?

37. Did participant have a partial or total hysterectomy or oophorectomy at the time of Visit 1? [See PIN sheet]

38. At your last visit on (date), you reported prior surgery to have your uterus or ovaries removed. Have you had additional surgery on your uterus or ovaries?

39. Have you had surgery to have your uterus or ovaries removed? (That is, a partial or total hysterectomy or oophorectomy.)

40. Has your uterus (womb) been removed?

41. How old were you when this operation was performed?

42. Have you had either one or both ovaries removed?

43. How old were you when this operation was performed?

44. Have you ever smoked cigarettes? [Code "NO" if less than 400 cigarettes in a lifetime.]

45. Do you now smoke cigarettes?
### HEALTH HISTORY FORM (HHXB screen 12 of 19)

46. When did you smoke your last cigarette?  
   - Less than 2 months ago A  
   - 2-12 months ago B  
   - 13-24 months ago C  
   - 25-36 months ago D  
   - More than 36 months ago E  
   [Go to Item 50]

47. Prior to quitting, how many cigarettes did you usually smoke per day? [Code "00" if less than one per day.]
   [Go to Item 49]

48. How many cigarettes do you smoke per day now? [Code "00" if less than one per day.]
   [ ] cigarettes

49. Do/Did you inhale the cigarette smoke?  
   [Read response categories]
   - Not at all N
   - Slightly S
   - Moderately M
   - Deeply D

50. Do you now smoke a pipe? ........Yes Y  
    [Go to Item 53]  
    No N

### HEALTH HISTORY FORM (HHXB screen 13 of 19)

51. How much pipe tobacco are you smoking now? [Record 02 per week: A standard pouch of tobacco contains 1 ½ oz. Code "00" if less than one 02 per week.]
   [ ] oz

52. Do you inhale the pipe smoke?  
   [Read response categories]
   - Not at all N
   - Slightly S
   - Moderately M
   - Deeply D

53. Do you now smoke cigars or cigarillos? ............ Yes Y  
    [Go to Item 56]  
    No N

54. How many (cigars/cigarillos) do you smoke per week now? [Code "00" if less than one per week.]
   [ ] cigars/cigarillos

55. Do you inhale the (cigar/cigarillo) smoke?  
   [Read response categories]
   - Not at all N
   - Slightly S
   - Moderately M
   - Deeply D
5. Please tell me if you are currently using or have ever used chewing tobacco, snuff, or nicotine gum prescribed by a doctor; for example, Nicorette. [If "YES," probe for current or past use.]

   a. Chewing Tobacco .... Currently C
      Never N
      Past Use P

   b. Snuff .................... Currently C
      Never N
      Past Use P

   c. Nicotine Gum ............ Currently C
      Never N
      Past Use P

57. ASK NON-SMOKERS ONLY: During the past year, about how many hours per week, on the average, were you in close contact with people when they were smoking? For example, in your home, in a car, at work or other close quarters.

6. Please tell me if you are currently using or have ever used chewing tobacco, snuff, or nicotine gum prescribed by a doctor; for example, Nicorette. [If "YES," probe for current or past use.]

   a. Chewing Tobacco .... Currently C
      Never N
      Past Use P

   b. Snuff .................... Currently C
      Never N
      Past Use P

   c. Nicotine Gum ............ Currently C
      Never N
      Past Use P

HEALTH HISTORY FORM (HEXH screen 15 of 19)

E. ALCOHOL

"Next I am going to ask you about wine, beer and drinks made with hard liquor because these are the three major types of alcoholic beverages."

58. Do you presently drink alcoholic beverages? ................. Yes Y

       Go to Item 64 No N

59. Have you ever consumed alcoholic beverages? ............... Yes Y

       Go to Item 69 No N

60. Approximately how many years ago did you stop drinking? 

61. For how many years did you drink alcoholic beverages?

62. In the past, which types of alcoholic beverages did you ordinarily drink?

   a. Wine.............. Yes No

   b. Beer.............. Yes No

   c. Drinks made with hard liquor Yes No

   d. Other.............. Yes No

Specify: ___________________
### 63. What was the usual number of drinks you had per week before you stopped drinking alcoholic beverages? One drink means 1 beer or 1 glass of wine or 1 shot of liquor or one mixed drink.

[Record 00 if less than one drink per week.]

<table>
<thead>
<tr>
<th>per week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**After completing item 63, Go to Item 69**

### 64. How many glasses of wine do you usually have per week?

[4 oz. glasses; round down]

<table>
<thead>
<tr>
<th>per week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

### 65. How many bottles or cans of beer do you usually have per week?

[12 oz. bottles or cans; round down]

<table>
<thead>
<tr>
<th>per week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

### 66. How many drinks of hard liquor do you usually have per week?

[1½ oz. shots; round down]

<table>
<thead>
<tr>
<th>per week</th>
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<tbody>
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<td></td>
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</table>

### 67. During the past 24 hours, how many drinks have you had?

[If "0" go to Item 69]

<p>| |</p>
<table>
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<tbody>
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<td></td>
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</tbody>
</table>

### 68. Were these:

<table>
<thead>
<tr>
<th></th>
<th>a. Wine?</th>
<th>Yes Y</th>
<th>No N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b. Beer?</td>
<td>Yes Y</td>
<td>No N</td>
</tr>
<tr>
<td></td>
<td>c. Liquor?</td>
<td>Yes Y</td>
<td>No N</td>
</tr>
</tbody>
</table>

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### F. OCCUPATION

"Now, I would like to update some of the questions we asked you last time about your occupation."

9. I would like you to look at this card while I read it to you. Please tell me the letter of the response which best describes your CURRENT occupation. [HAND CARDS TO RESPONDENT AND READ EACH RESPONSE CATEGORY.]

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Go to Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Homemaking, not working outside the home</td>
<td>Go to Item 73</td>
</tr>
<tr>
<td>B</td>
<td>Employed at a job for pay, either full or part time</td>
<td>Go to Item 70</td>
</tr>
<tr>
<td>C</td>
<td>Employed, but temporarily away from my regular work</td>
<td>Go to Item 70</td>
</tr>
<tr>
<td>D</td>
<td>Unemployed, looking for work</td>
<td>Go to Item 70</td>
</tr>
<tr>
<td>E</td>
<td>Unemployed, not looking for work</td>
<td>Go to Item 70</td>
</tr>
<tr>
<td>F</td>
<td>Retired from my usual occupation and not working</td>
<td>Go to Item 70</td>
</tr>
<tr>
<td>G</td>
<td>Retired from my usual occupation but working for pay</td>
<td>Go to Item 70</td>
</tr>
</tbody>
</table>
70. Was this participant retired at Visit 1? [See PIN sheet] ...... Yes Y Go to Item 73 No N

71. Did you retire because of health reasons?................. Yes Y No N

72. Please give me the name and address of the company for your current (most recent) occupation. [Check against PIN sheet]

<table>
<thead>
<tr>
<th>a. COMPANY NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>b. STREET ADDRESS</th>
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<table>
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<tr>
<th>c.</th>
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<table>
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<tr>
<th>d.</th>
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<table>
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<th>e.</th>
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<table>
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<tr>
<th>f. CITY</th>
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<thead>
<tr>
<th>g. STATE ZIP CODE</th>
</tr>
</thead>
</table>

G. HANDEDNESS

"Finally, I would like to ask you about which hand you use most often?"

73. Are you right-handed or left-handed?

| Right | R |
| Left  | L |
| Either (ambidextrous) | E |

H. ADMINISTRATIVE INFORMATION

74. Date of data collection: 

<table>
<thead>
<tr>
<th>month</th>
<th>day</th>
<th>year</th>
</tr>
</thead>
</table>

75. Method of data collection:

- Computer C
- Paper form P

76. Code number of person completing this form:

```
Appendix 2.9b

INSTRUCTIONS FOR THE HEALTH HISTORY FORM
HHX, VERSION B, 06/06/90
PREPARED 06/19/90

The Health History (HHX) Form is administered to all cohort participants in Visit 2 during the clinic visit. Its primary purpose is to update information originally obtained at the baseline visit on medical care use, congestive heart disease, reproductive history, smoking, alcohol consumption, and occupation. Although a few new questions have been added at Visit 2, the HHX Form is, by in large, a composite of questions from the Visit 1 Home Interview, and the Medical History, Reproductive History, and Dietary Intake forms. The questionnaire is completed during the interview portion of the clinic visit. The interviewer must be certified in general clinic interviewing and familiar with the ARIC data entry system (DES) and the "General Instructions for Completing Paper Forms" (in case the computer is down) prior to administering this form. Items in BRACKETS and/or CAPITAL LETTERS are instructions to the interviewer and are not read to the participant.

COMPLETE THE HEADER (paper form) by applying a long participant ID label and entering the participant's Name. READ THE QUESTIONS CLEARLY USING THE EXACT WORDING ON THE FORM. The introductory and transitional scripts may deviate from the prototypes provided, but must include the same information.

READ INTRODUCTORY SCRIPT

"These questions update information you provided us about your occupation and health during your first visit. Some of the questions need a direct answer from you and some require you to choose an answer from a series of responses. I will let you know which type of response is necessary for each question."

SECTION A Routine Medical Care and Health

Section A contains questions on the use of medical care services. Questions on the frequency and type of medical care use are not restricted to any time period, whereas, the question on health insurance (Item 3) refers to current coverage.

1. Zero fill the "years" boxes if the participant has seen a doctor within the last 12 months. The question refers to any type of medical interaction with a doctor (physician), whether it be for a general check-up or a specific problem. Family doctors, specialists, hospitals, and clinics all apply. Dentists do not apply. If asked for clarification, tell the participant that nurses, physician assistants, chiropractors, herbalists and other allied health professionals also do not apply.

2. READ THE RESPONSES CATEGORIES. Emphasize that this question refers to a general check-up, including a routine gynecologic exam, and not a visit to resolve a specific problem.

3. "Health Insurance" includes private (Blue Cross, Travelers, etc.) or public (Medicaid or Medicare) health insurance coverage or medical plans such as HMOs (Health Maintenance Organization).

06-19-90
4. **Do NOT** read the responses. If the response corresponds to one of the printed responses, enter the code. "Regular clinic" is defined as a medical facility which pre-schedules patients for appointments (i.e., not a "walk-in" appointment) with the available physician (i.e., the patient does not have a "private physician"). If more than one usual source of medical care, choose the one used most often. If the participant's response does not correspond to one of the written categories, select "Other" and record where the participant goes.

5. **ENTER "YES", "NO" OR "UNSURE" FOR EACH CONDITION.** Conditions are not mutually exclusive and there can be more than one "yes" recorded. A "Yes" is coded only if the respondent was told by a doctor that he/she had the disease. Do not read the explanatory notes in parentheses unless the respondent appears to be unclear as to the meaning of the medical terminology. A diagnosis of borderline ( ) should be coded "Yes" if the participant was told to have that condition by her or his physician. A "No" is recorded if the respondent was told by a doctor that he/she did not have the disease specified, was never told by a doctor that he/she had the disease or was never tested for the disease. An "Unknown" is recorded if the respondent is not sure that the doctor said that he/she had this disease. This code is most frequently used when the respondent cannot remember accurately what the doctor said. Do not try to define the disease for the respondent. Do not define diseases yourself based on the respondent's answer. Record ambiguous responses in the note log. If the response to (g) cancer is NO or UNSURE, go to Item 6. If the response to (g) is YES, ask what part of the body was affected and record in 5 (h) the site and in 5 (i) the date of the diagnosis. Ask if the participant has had multiple diagnoses of cancer (j). If NO or UNSURE, go to Item 6. If YES, record the site and date of diagnosis of the second cancer in Items 5 (k and l), respectively. **NOTE:** Space is provided for recording information on only two cancers. If the participant reports more than two, record the location and date of the two earliest diagnoses. Do not probe to determine whether these diagnoses represent two separate malignancies or a malignancy and its recurrence.

SECTION B. Congestive Heart Failure

The purpose of this section of the questionnaire is to standardize the updating of questions originally asked at the baseline examination on symptoms of congestive heart failure. These four questions may fail to identify some participants whose symptoms are regarded by the physician as diagnostic of congestive heart failure. It may categorize other cases as due to a quite different cause. Any special effort, however, to alter the conduct of the interview in such instances would destroy the basic purpose of the questionnaire technique, which is to insure uniformity in the eliciting of defined symptoms. Interviewer's comments may be recorded in the note logs, but should not appear in the spaces provided for recording answers.

06-19-90
6-8. Questions 6-8 are prefaced by the phrase, "Have you ever ...", thus it is not necessary that the condition be habitual. READ THE QUESTIONS and RECORD THE RESPONSES.

8. Include the parenthetical comment for females only. If NO, skip to Item 10.

9. The question refers to the swelling of feet or ankles established in the previous item.

SECTION C. Reproductive History

This section updates some aspects of the reproductive history of both male and female participants since Visit 1. The exact wording and order of the questions should be followed to insure standardization. Questions should not be skipped unless indicated by the skip pattern instructions. Because there are many skip patterns in this survey, the interviewer should be very familiar with the flow of the survey to insure smooth administration with a conversational tone.

Some participants may view this material as very sensitive. The interviewer should be aware of the sensitive nature of the information and make the participant feel comfortable. If required, the interviewer should explain that these are characteristics that can explain the development of heart disease. Beyond this, however, no specific information should be mentioned to the participant.

10. DO NOT READ TO THE PARTICIPANT. ENTER the appropriate code. If FEMALE, go to item 14.

11. DO NOT READ THE QUESTION, CHECK THE ARIC PARTICIPANT INFORMATION SHEET. Determine whether the male participant reported a previous vasectomy at Visit 1. If YES, go to Item 44. If a PIN sheet is not available, enter two horizontal lines and continue to item 12.

12. Do not include the parenthetical explanation unless the respondent does not appear to understand the medical terminology. If NO, go to Item 44.

13. "This operation" refers to the vasectomy in the previous question. If the respondent does not remember the exact age, an estimation is adequate. After recording the age, go to Item 44.

14. DO NOT READ THE QUESTION, CHECK THE ARIC PARTICIPANT INFORMATION SHEET to determine whether the participant had menstrual periods within 2 years prior to Visit 1. If YES or UNKNOWN, go to Item 15. If NO, go to Item 22. If a PIN sheet is not available, enter UNKNOWN.

15. Even if the participant has had only one menstrual period in the past 2 years, or reports any bleeding in the past 2 years, enter "Yes". Consider regular bleeding induced by medicine as a menstrual period. If the participant reports that she has not had any menstrual periods during the past 2 years, skip to item 18 to determine whether the participant has reached menopause.
16. If the participant cannot remember when she had her last menstrual period, draw 2 horizontal lines through the boxes.

17. This question determines the number of periods missed over the last 2 years. If the participant has not missed any periods over the last 2 years, record "00" and skip to item 21. If not known, draw 2 horizontal lines through the boxes.

18. If the term "menopause" is not immediately understood, ask: "have your periods stopped for at least 6 months?" If the participant hesitates or is unsure, record "unknown" as her response and skip to question 22. If she reports with certainty that she has not reached menopause, enter "NO" and skip to question 22.

19. If the term "menopause" is not immediately understood, the age at which menopause began should be defined as the age at which "periods had stopped for at least 6 months." If not known, draw two horizontal lines through the boxes. A logical inconsistency among the previous responses is acceptable here; for instance, if a participant has indicated that she has reached menopause ("yes" to item 18 even if she has reported menstrual periods within the last 6 months (Items 16 or 17). There could be reasons for these "inconsistencies" which are not explored in the interview, such as irregular menses or symptoms associated with the peri-menopausal stage.

20. If the participant reports that she had already reached menopause before she had gynecological surgery, record the response as "natural."

21. If the participant is unsure of having hot flashes, suggest that a hot flash is "an intense sensation of warmth or feeling flushed all over, lasting anywhere from a few seconds to a few minutes."

22. Hormonal creams do not apply. Birth control pills prescribed for therapeutic indications should be included in this section (e.g., for control of symptoms of a painful pelvic condition called "endometriosis;") for control of too frequent or too irregular menstrual periods). Note that this does not include birth control pills for family planning use. If the participant only reports having taken one complete cycle (21 or 28 day) since Visit 1, record "YES." (Consider a complete "mini-pill" regimen the same as a cycle.) If the participant hasn't completed even one (21 or 28 day) cycle, record "NO."

23. Note: This form records information on a maximum of two different hormone preparations, starting with the most recent one. Information on the first hormone is recorded in items 23-29b. Information on the second hormone is recorded in items 30-36b. If more than two were used in the last 3 years, only record the two which were most recent. This should not be confused with a single hormone preparation that consists of two hormones as described for item 23b.

06-19-90
23.a. and 30.a. Record the name of the hormone medication or preparation. Print clearly. If the name is not known, draw two horizontal lines here and through the boxes for medication code, but attempt to complete the remaining questions.

When a hormone(s) is reported in items 23.a or 30.a, look it up on the List of Gonadal Hormones. This list provides the location of the picture of the drug in the PDR, its MEDISPAN drug code, its trade and generic names and the possible concentrations. If the participant has the hormone with her, use the label on the bottle in conjunction with the list to determine and record the correct concentration. All valid concentrations are provided in the list. There are multiple concentrations of most hormones; pick the correct one.

Combination preparations have the concentration of each component separated by a slash, e.g., Estratest (estratified estrogen/methyltestosterone: 1.25/2.5 mg, 0.625/1.25 mg). If the label is not informative or if the participant has no bottle or pills, use the PDR picture to help determine the name and concentration. If the hormone is not on the list or cannot be found in the PDR, set the status field to Q (questionable). The hormone will be coded by the pharmacist at the Coordinating Center.

23.b., c. and 30.b., c. Record the concentration of the hormone(s) in this preparation, including the decimal. Enter leading zeros if necessary so the response is right justified. The concentration should be read off the medication container, label, or prescription that the participant brought to the field center. Only if this information is not available should the interviewer rely on the participant's memory or recall to identify the concentration of the hormone. In this case, the interviewer should refer to the list of gonadal hormone names and the color photographs, as appropriate, to assist in identifying the hormone concentration.

At times, participants will report taking hormones which have two active preparations, typically a female hormone (estrogen) and a male hormone (androgen) or a sedative. In these instances, the concentration of the female hormone should be recorded first (part b), followed by the concentration of the second ingredient (part c).

24. 24 and 31. Record the 6-digit medication code number of the hormone just recorded. This item may be temporarily skipped and completed later.

25. 25 and 32. If the participant started taking the specified hormone more than once, enter the age of the first time. If not known, draw two horizontal lines through the boxes.

26. 26 and 33. "Current" means either in a cycle at the time of the interview or between cycles, or currently in a program of shots or implants.

06-19-90
27. 27 and 34. Enter the age of the last time she stopped taking the specified hormone. If not known, draw two horizontal lines through the boxes.

28. 28 and 35. Add together all the years and months since the last ARIC visit during which the specified hormone was used. If the participant's response sums to a total greater than the total number of years and months since the Visit 1 exam, remind the participant that "we are looking for the length of time that you have used the hormone since your exam at Visit 1." If the participant has used the hormone more than once, enter the total number of months or years used, not counting the intervening periods of non-use. This requires all the time intervals of usage to be summed.

29. 29.a. and 36.a. Enter the usual or most representative figure if it has varied over time. NB: One injection per week counts as a cycle. Make notelogs for cycles of more than 4 weeks. If not known, draw two horizontal lines through the boxes.

29.b. and 36.b. We want the total number of pills (dermal patches, implants, or shots) taken per day on the days that the hormone was used. If the participant indicates that the daily dosage changed during the time since the first ARIC examination, ask for the most representative dosage.

30. Repeat for the second hormone preparation. If none, skip to item 37. (Use "Next Field" or "Next Screen" key when skipping on computer.)

37. DO NOT READ THIS QUESTION TO THE PARTICIPANT. CHECK THE VISIT 1 INFORMATION SHEET (PIN) to determine whether the participant reported having had a partial or total hysterectomy at Visit 1. If YES, enter Y and go to item 38. If No or Unknown, go to item 39. If a Visit 1 PIN sheet is not available, enter UNKNOWN.

38. READ THE QUESTION and RECORD THE RESPONSE. If YES, enter Y and go to item 40. IF NO, enter N and go to item 44.

39. If the participant is unsure, probe by suggesting that the uterus is also called the womb, and that in some places this is called a "female operation." It may be necessary in some cases to clarify that surgery to "tack-up the bladder" is a different operation that does not involve the uterus or ovaries. If NO or UNKNOWN, go to Item 44.

40. If necessary, suggest that the uterus is also called the womb.

41. Enter the age at which the uterus was removed. If not known, draw two horizontal lines through the boxes.

06-19-90
42. The interviewer should probe to determine whether only one or both ovaries were removed. Also note that with a vaginal hysterectomy (when the uterus is removed through the vagina and no abdominal incision is made), the ovaries are not removed.

*Note:* "Half" an ovary should be recorded as no ovary removed.

43. If more than one operation was performed, record the age of the most recent one. If not known, draw two horizontal lines through the boxes.

**SECTION D. Smoking**

The questions in this section on smoking habits are adapted from the NHLBI Epidemiology Standardization Project. The purpose of its use at Visit 2 is to update the information on smoking patterns originally obtained at the baseline visit and to quantify passive exposure of non-smokers to smoke from cigarettes, cigars, pipes and cigarillos. Questions 44-49 refer to all types of tobacco cigarettes; questions 50-52 refer to pipe smoking; questions 53-55 cover cigars and cigarillos.

44. Code NO if the participant smoked less than 400 cigarettes over his/her lifetime. Most US cigarettes are and have been sold in packages containing 20 cigarettes. Therefore, 400 cigarettes will usually be equivalent to 20 packs of cigarettes or two cartons. If NO, go to item 50.

45. "Now" refers to within the last month. If YES, go to Item 48.

46. Code the response in the appropriate category. If it has been more than 36 months, go to item 50. (If the participant quit smoking more than 36 months ago, consumption patterns will have been documented at Visit 1 and the data do not need to be collected again.)

47. PROBE if the response does not allow you to easily estimate the number of cigarettes smoked on the average day. You are looking for the usual number of cigarettes smoked per day over the entire lifetime of smoking. Usual is defined as the amount smoked for the longest time period. CODE 00 if the average number of cigarettes smoked is less than one per day. SKIP TO ITEM 49.

48. PROBE if the response does not allow you to easily estimate the usual number of cigarettes smoked on the average day over the entire lifetime of smoking.

49. READ THE RESPONSE CATEGORIES. Note the choice of tense. If the respondent varied inhalation, code what was done for the longest period of time.

50. "Now" is defined as within the last month. If NO, skip to Item 53.
INSTRUCTIONS FOR HEALTH HISTORY FORM

51. Note that the interval for pipes is on a weekly basis rather than on a daily basis, as for cigarettes. RECORD ounces per week. A standard pouch of tobacco contains $1\frac{1}{2}$ oz. RECORD THE RESPONSE. CODE "00" if less than one ounce per week is smoked. Note: tobacco cans are sold in various sizes, typically 2, 3\(\frac{1}{2}\), 7 and 12 oz. To record pouches with $\frac{1}{2}$ ounces, round down.

52. READ THE RESPONSE CATEGORIES. If the respondent varied inhalation, code what was done for the longest period of time.

53. "Now" is defined as within the last month. If NO, skip to Item 56.

54. Note that the interval for cigars/cigarillos is on a weekly basis rather than on a daily basis, as for cigarettes. CODE "00" if less than one cigar/cigarillo per week is smoked.

55. READ THE RESPONSE CATEGORIES. If the respondent varied inhalation, code what was done for the longest period of time.

56. Only the nicotine gum needs to be prescribed by a doctor. CODE a response for each category, e.g., chewing tobacco, snuff and nicotine gum. Note that there is no place to record a YES response. If YES, PROBE for current (within the past month) and past use. Code minimal use, such as only 3 or 4 times, as P for past use.

57. QUESTION APPLIES ONLY TO NON-SMOKERS. Non-smokers are identified as NO for item 44, 50 and 53, or C, D, or E (any time period greater than 12 months ) for item 46. If the participant is a smoker, move past item 57 by using F6. To obtain information on passive exposure to tobacco smoke from cigarettes, cigars, pipes and cigarillos, RECORD the number of hours in the typical week over the past year as opposed to an atypical situation such as holidays or short-term smoking house guests.

SECTION E. Alcohol Consumption

Frequency of alcohol consumption is determined as usual weekly intake. The serving sizes are different for beer, wine, and hard liquor. Interviewers should clarify that serving sizes are "12 oz. bottles or cans of beer", "4 oz. glasses of wine", and "1 and 1/2 oz. shots of hard liquor."

58. If the participant asks, or if the answer is not explicit, "presently" is defined as within the last 6 months. If YES, go to Item 64.
59. If the response is "NO", skip to item 69. If the response is "YES", continue with Question 60 to determine past alcohol consumption.

60. Record the response in years, rounding $\frac{1}{2}$ down. For example, "1-$\frac{1}{2}$ years" would be recorded as 1 year. "About a half a year ago" would be recorded as "00". If the participant stopped more than once, record the years since the most recent stopping. For example, if the participant says: "The last time I quit was two years ago. The first time I quit was twenty years ago," the response would be recorded as "02".

If not known, draw two horizontal lines through the boxes.

61. For those who have quit more than one time, record the total number of drinking years combined. Include in the total years that were "light" drinking years. If not known, draw two horizontal lines through the boxes.

62. The interviewer reads each type (wine, beer and drinks made with hard liquor) and allows the respondent to answer with "Yes" or "No" to each. The respondent can answer "Yes" to more than one. "Wine" includes wine coolers, cordials, and "sweet wines". "Liquor" includes liqueurs.

63. The definition of "drinks" in terms of serving size should be clear to the participant. Indicate that "per week" should include weekends. If the respondent used to drink more than one type of beverage, record the appropriate total (e.g., record "5" if the participant drank three beers and two glasses of wine per week). If not known, draw two horizontal lines through the boxes.

64 - 66. These questions are asked only if the participant answered "Yes" to question 58. The serving sizes of wine, beer and hard liquor must be clear to the participant. For example, after asking: "How many glasses of wine do you usually have per week?", indicate that you are referring to 4 oz glasses, and that "per week" includes the weekends. If the participant answers in terms of drinks per month, divide by four to derive the weekly intake. If the number of drinks is "half a drink" or less, record "00"; greater than half a drink would be rounded up. If the number of drinks is more than 99 record as "99". "Wine" includes wine coolers, cordials, and "sweet wines". "Liquor" includes liqueurs. If not known, draw two horizontal lines through the boxes.

67. The definition of "drinks" should be clear to the participant. If the participant asks, or the interviewer thinks that the serving sizes are no longer clear to him/her, read the serving size definitions given in items 64-66. If not known, draw two horizontal lines through the boxes.

68. Ask the participant slowly and in sequence if he/she had wine, beer or liquor, and allow the participant to answer "yes" or "no" for each type. "Wine" includes wine coolers, cordials and "sweet wines." "Liquor" includes liqueurs.
INSTRUCTIONS FOR HEALTH HISTORY FORM

ALCOHOL CONSUMPTION BY THE DRINK CONVERSION TABLE

<table>
<thead>
<tr>
<th>BEVERAGE</th>
<th>SERVING SIZE</th>
<th>CONTAINER/SERVINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINE</td>
<td>1 glass = 4 oz</td>
<td>Fifth = 6 (4 oz) glasses</td>
</tr>
<tr>
<td>WINE COOLERS</td>
<td>1 glass = 4 oz</td>
<td>1 (12 oz) bottle = 3 (4 oz) glasses</td>
</tr>
<tr>
<td>BEER</td>
<td>1 can/bottle = 12 oz</td>
<td>Pony (7 oz) = &lt; 1 serving</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regular can (12 oz) = 1 serving</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tall can (16 oz) &gt; 1 serving</td>
</tr>
<tr>
<td>HARD LIQUOR (SPIRITS)</td>
<td>1 shot = 1.5 oz</td>
<td>Pint bottle = 11 (10.67) shots</td>
</tr>
<tr>
<td></td>
<td></td>
<td>375 ml bottle = 8 (8.3) shots</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fifth = 16 shots</td>
</tr>
<tr>
<td></td>
<td></td>
<td>750 ml bottle = 17 (16.67) shots</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quart = 21 shots</td>
</tr>
</tbody>
</table>

SECTION F. Occupation

Section F updates occupation information which will also be used for tracking if the participant is lost to follow-up.

69. GIVE THE RESPONSE CARD to the participant and READ ALL THE RESPONSES. Response B, "employed at a job for pay, either full time or part time", includes those who are self-employed and working at home, but not "homemaker" or "mother" (Response A). Work without remuneration (i.e., volunteer work) should not be recorded as currently employed/working. If the participant answers A, go to item 73; if B-E, go to item 72; if F or G, go to item 70. RETRIEVE THE RESPONSE CARD.

70. DO NOT READ THIS QUESTION TO THE PARTICIPANT. See the visit 1 information sheet (PIN) to determine whether the participant was retired at Visit 1. If YES, enter Y and go to item 73. If NO, enter N and go to item 71.

71. Health reasons should refer to the participant's personal health and not that of someone the participant needed to take care of.

72. Read the question using the parenthetical phrase (most recent) if the participant is currently unemployed or retired from the usual occupation and not working. Record the name and address of the company for the current (or most recent) occupation. If the participant is uncertain about the company's address and if this is the same company as reported in Visit 1, then the PIN sheet may be referred to. However, first verify that the company has not moved.

06-19-90
SECTION G. Handedness

73. If further clarification is requested, "handedness" can be defined as the hand which is naturally used to throw or catch an object.

SECTION H. Administration

74. Record the date of the interview using the standard date format.

75. Method of data collection. Record "C" if the form was completed on the computerized data entry screen, or "P" if the paper form was used.

76. The person at the clinic who has performed the interview and completed the form must enter his/her code number in the boxes provided.
### List of Gonadal Hormones

<table>
<thead>
<tr>
<th>Code</th>
<th>Trade (Generic)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>ESTROGEN</strong></td>
<td></td>
</tr>
<tr>
<td>108351</td>
<td>Premarin (conjugated estrogen)</td>
<td>0.3, 0.625, 0.9, 1.25, 2.5 mg</td>
</tr>
<tr>
<td>108347</td>
<td>PMB 200, PMB 400 Milprem 400 (conjugated estrogen and meprobamate)</td>
<td>0.45 mg of conj. estr.</td>
</tr>
<tr>
<td>107257</td>
<td>Diethylstilbestrol</td>
<td>1, 5 mg</td>
</tr>
<tr>
<td>108453</td>
<td>Estinyl Feminone (ethinyl estradiol)</td>
<td>0.02, 0.05, 0.5 mg</td>
</tr>
<tr>
<td>108282</td>
<td>Estrace (estradiol)</td>
<td>1, 2 mg</td>
</tr>
<tr>
<td>108276</td>
<td>Estratab Menest (esterified estrogens)</td>
<td>0.3, 0.625, 1.25, 2.5 mg</td>
</tr>
<tr>
<td>116748</td>
<td>Estrovis (quinestrol)</td>
<td>100 mcg</td>
</tr>
<tr>
<td>108323</td>
<td>Menrium 5-2, 5-4, 10-4 (benzodiazapine + esterified estrogen)</td>
<td>0.2, 0.4 mg of esterified estrogen</td>
</tr>
<tr>
<td>108379</td>
<td>Ogen (estropipate)</td>
<td>0.625, 1.25, 2.5, 5 mg</td>
</tr>
<tr>
<td>105024</td>
<td>Tace (chlorotrianisene)</td>
<td>12 mg, 25 mg, 72 mg</td>
</tr>
<tr>
<td>108351</td>
<td>Conjugated estrogens</td>
<td>0.3, 0.625, 1.25, 2.5 mg</td>
</tr>
<tr>
<td>108282</td>
<td>Estraderm (estradio transdermal)</td>
<td>0.05, 0.1, 4, 8 mg</td>
</tr>
<tr>
<td></td>
<td><strong>ESTROGEN &amp; ANDROGEN</strong></td>
<td></td>
</tr>
<tr>
<td>108265</td>
<td>Estratest (esterified estrogen/methyltestosterone)</td>
<td>1.25/2.5 mg, 0.625/1.25 mg</td>
</tr>
<tr>
<td>106327</td>
<td>Mediatric (con. estro./methyltestosterone)</td>
<td>0.25/2.5 mg</td>
</tr>
<tr>
<td></td>
<td>Premarin with methyltestosterone</td>
<td>1.25/10 mg, 0.625/5 mg</td>
</tr>
<tr>
<td>------</td>
<td>Halodren (ethinyl estradiol/fluoxymestrone)</td>
<td>0.02/1 mg</td>
</tr>
<tr>
<td>108335</td>
<td>Tylosterone (diethylstilbesterol/methyltestosterone)</td>
<td>0.25/5 mg</td>
</tr>
<tr>
<td></td>
<td><strong>PROGESTINS</strong></td>
<td></td>
</tr>
<tr>
<td>111112</td>
<td>Amen (medroxyprogesterone)</td>
<td>10 mg</td>
</tr>
<tr>
<td>112601</td>
<td>Aygestin (norethindrone acetate)</td>
<td>5 mg</td>
</tr>
<tr>
<td>112614</td>
<td>Micronor (norethindrone)</td>
<td>0.35 mg</td>
</tr>
<tr>
<td>112601</td>
<td>Norulatn (norethindrone acetate)</td>
<td>5 mg</td>
</tr>
<tr>
<td>112622</td>
<td>Norlutin (norethindrone)</td>
<td>5 mg</td>
</tr>
<tr>
<td>112614</td>
<td>Nor-QD (norethindrone)</td>
<td>0.35 mg</td>
</tr>
<tr>
<td>111112</td>
<td>Provera (medroxyprogesterone acetate)</td>
<td>2.5, 5, 10 mg</td>
</tr>
<tr>
<td>111112</td>
<td>Cycrin (medroxyprogesterone acetate)</td>
<td>10 mg</td>
</tr>
<tr>
<td>111112</td>
<td>Curretab (medroxyprogesterone acetate)</td>
<td>10 mg</td>
</tr>
<tr>
<td>111112</td>
<td>Medroxyprogesterone acetate</td>
<td>10 mg</td>
</tr>
<tr>
<td>111112</td>
<td>DepoProvera</td>
<td>injection</td>
</tr>
<tr>
<td></td>
<td><strong>ESTROGENS &amp; PROGESTERINS</strong></td>
<td></td>
</tr>
<tr>
<td>112636</td>
<td>Enovid (norethynodrel/mestranol)</td>
<td>5 mg/7 mcg, 10 mg/0.15 mg</td>
</tr>
</tbody>
</table>

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06-19-90
ARIC

(Atherosclerosis Risk in Communities)

Consent Form Information

ARIC is a medical research project sponsored by the National Institutes of Health, conducted in four communities in the United States. The purpose of the study is to learn more about the factors associated with heart diseases and hardening of the arteries. As you know, the (NAME OF INSTITUION) is conducting the study in (FIELD CENTER LOCATION), and you were one of 4,000 people between the ages of 45 and 65 who was selected at random (by chance) from the community.

If you agree to take part in this second clinic visit, you will be given a series of examinations similar to those last time. These include:

1. An interview to obtain information about your health, previous illnesses, and hospitalizations. In addition you will be asked questions about your use of tobacco, alcohol, and medications.

2. A physical examination that will include measuring your blood pressure, listening to your heart and lungs, measuring your reflexes, testing your lungs, and recording weight.

3. An electrocardiogram (ECG) which records the functioning of your heart.

4. An ultrasound examination that will take pictures of the arteries in your neck using sound waves.

5. We will take 2.5 ounces of blood from your arm for blood tests that will indicate whether you have high cholesterol and other conditions.

These examinations will take between 3 and 4 hours to complete. The ARIC examination procedures are considered safe. There may be some slight discomfort during the blood drawing; however, we will have a skilled technician draw your blood. You will not be exposed to any X-rays. Ultrasound is now widely used in the evaluation of pregnancy and in other clinical applications. Your exposure to ultrasound in this examination will be no greater than a typical clinical examination. In 25 years of clinical experience with ultrasound, no confirmed harmful effects have been reported. All of the tests are free of charge.

In the unlikely event that during the examination procedures you should require medical care, first aid will be available. If the examinations uncover any medical problems that require medical diagnosis or treatment, you will be so advised and that information will be provided to the physician or clinic that you choose. In that case payment must be provided by you and your third party payer, if any (for example, health insurance or Medicare). It is important to note that the ARIC Study does not provide medical treatment, and that the examination that you receive here does not substitute for a medical examination that your doctor might give you. Similarly, the ultrasound examination you receive here is different from a medical ultrasound examination and does not provide the same information to a physician.
We will report to you or your physician those results from the examination that are of known medical value. Unless you or your physician requests, we will not be reporting results which are of research value only.

As has been done in the last several years, after this examination we will contact you once a year by phone or mail to ask about your health during the past year. A third physical examination may be repeated after three more years.

If you are hospitalized for any reason, we would like to check your hospital records to obtain medical information that may apply to this study. If you have a heart attack or stroke during the study period, or if you were to die, we would like to ask your relatives and physician for details about your illness that apply to this study.

The information you provide will be confidential. It will be used only for scientific purposes without revealing your name.

We anticipate that your participation in this study will help provide new and valuable information that will reduce the risk of heart disease in the U.S. and in other countries.

If you have any additional questions about the ARIC study, feel free to ask our personnel, or contact any of the following persons:

Dr. (NAME OF CLINIC DIRECTOR) at (PHONE NUMBER)

Dr. (NAME OF PI), Principal Investigator at (PHONE NUMBER)

(Chair, Institutional Review Board, if required by institution)
CONSENT FORM
ARI(C
(Atherosclerosis Risk in Communities)

I have read the above and understand that I am invited to continue my participation in the ARIC study. I understand that the risks of participation are small. I understand that the benefits of taking part include possible early detection of heart and blood vessel problems that I may have. I also understand that my participation will add to our knowledge of risk factors for heart disease and may help to prevent premature deaths from heart attacks.

I agree to be contacted by ARIC study personnel once a year by phone or mail, and to answer questions about my health. I understand that in three years I may be invited to the ARIC field center for a repeat examination.

I authorize the ARIC study to obtain medical records from my physician and any hospitals where I might be admitted, and to contact my relatives if I die.

I understand that my participation is completely voluntary and that I am free to withdraw my consent and to stop taking part in this study at any time, without affecting any future relationship with (NAME OF THE INSTITUTION). The procedures involved have been explained to me and understanding them fully I hereby consent to participate in the ARIC study.

________________________________________  ______________________________
Date                                               Signature of Participant

________________________________________
Printed Name of Participant

________________________________________
Witness
ARIC
Medical Data Review

1. Name: (UPDA1a-d)

2. ID Number: (UPDA1d) FUU0101

3. Date of Birth: (UPDAl4)

4. Date of Visit: (FTRBl) 06/13/90

5. Age in Years: 

6. Physician Name: (UPDA16a-c)

7. Weight: (ANTBl)

8. Average sitting BP: (SBPB21)/(SBPB22) ===/===

9. Participant currently taking antihypertensives? (MSRB24a) =

10. M.D. ever said you had High Blood Pressure? (HHXB5a)

11. M.D. ever said you had Diabetes? (HHXB5d)

12. M.D. ever said you had Cancer? (HHXB5g)

13. Pulmonary Function Test: Record from printout

   FEV1 _____ ml _____ % of predicted
   FVC _____ ml _____ % of predicted
   FEV1/FVC ______

14. Have you ever smoked cigarettes? (HHXB44)

15. Do you currently smoke cigarettes? (HHXB45)

16. Troubled by shortness of breath when hurrying? (RPAB14) =

17. Do you walk slow due to breathlessness? (RPAB15) =

18. Do you have to stop for breath when walking? (RPAB16) =

19. Ever had chronic bronchitis or emphysema confirmed by M.D.? (HHXB5e)

20. Asthma confirmed by M.D.? (HHXB5f)
21. ECG: Read tracing.
   a. Preliminary Interpretation
      
      
      
      
      
      
      
      b. Was a physician notified?  ___ No  ___ Yes
         If yes, Physician's name ________________________

22. Physical examination findings:
   a. Abnormal gait: (PHEB12)
      =
   b. Arm weakness: (PHEB13)
      =
   c. Romberg: (PHEB14)
      =
   d. Carotid Bruits: (PHEB15)
      =
   e. Other Neck Findings: (PHEB16)
      (If Yes, see Note Log PHEB16)
      =
   f. Rhonchi: (PHEB17)
      =
   g. Rales: (PHEB18)
      =
   h. Other Pulmonary Findings: (PHEB19)
      (If Yes, see Note Log PHEB19)
      =
   i. Systolic Murmur: (PHED20)
      Grade: (PHEB20a)
      =
   j. Diastolic Murmur: (PHEB21)
      Grade: (PHEB21a)
      =
   k. Other Heart Findings: (PHEB22)
      (If Yes, see Note Log PHEB22)
      =
1. Ankle Edema: (PHEB23) = 

m. Posterior tibial pulse: (PHEB24) = 

n. Babinski: (PHEB26) = 

o. Other Significant Findings: (PHED27) = 

(If Yes, note Log PHEB27)

23. History Consistent With:

a. Chest Pain diagnosis:
   Saw doctor for chest pain or discomfort? (AFUB/C15) = 
   What did doctor say chest pain was? (AFUB/C16) = 

b. Did participant confirm chest pain? (PHEB2) = 

c. Was discomfort more frequent, longer, at rest? (PHEB3) = 

d. Previous MI:
   Had severe chest pain? (AFUB/C17) = 
   Saw a doctor for severe chest pain? (AFUB/C18) = 
   What did doctor say chest pain was? (AFUB/C19) = 
   Hospitalized for a heart attack? (AFUB/C30) = 

e. Possible congestive heart failure:
   Ever needed 2 pillows? (HHXB6) = 
   Awakened by trouble breathing? (HHXB7) = 
   Swelling go down overnight? (HHXB9) = 

f. Claudication:
   Leg pain relieved in 10 minutes? (AFUB/C28) = 

g. Recognized TIA or stroke: (TIAC1) = 
   Date of occurrence since Visit 1 (TIAC2) = 

h. Unrecognized TIA or stroke:
   Loss of speech? (TIAC3) = 
   Loss of vision? (TIAC10) = 
   Double vision? (TIAC17a) = 
   Numbness or tingling? (TIAC24) = 
   Paralysis or weakness? (TIAC32) = 
   Dizziness or loss of balance? (TIAC41) =
24. Invasive Cardiovascular Procedure:
   a. Ever had heart or arterial surgery? (PHEB4) =
      Coronary bypass? (PHEB5a) =
      Other heart procedure? (PHEB5b) =
      (If Yes, see Note Log PHEB5b) =
      Carotid endarterectomy? (PHEB5c) =
      Site? (PHEB5d) =
      Other arterial revascularization? (PHEB5e) =
      Other procedures? (PHEB5f) =
   
   b. Ever had balloon angioplasty? (PHEB6) =
      Angioplasty of coronary artery? (PHEB7a) =
      Angioplasty of leg artery? (PHEB7b) =
      Cardiac catheterization? (PHEB8a) =
      Other arterial revascularization? (PHEB8b) =

25. Verify HPBA items 7, 10 and 16.

26. Was a referral made?  
   ___ No  
   ___ Yes; Specify on Alert/Referral Form

27. Code of person completing Medical Data Review ___ ___ ___

   M.D. Review

28. M.D. reviewed Medical Data Review Report?  ___ No  ___ Yes

29. Any referrals/action taken modified by M.D.?  ___ No  ___ Yes

30. Date of review by M.D. ___ / ___ / ___

31. Code number of M.D. reviewing this form ___ ___ ___
MEDICATION SURVEY FORM

Institutional reporting burden for this collection of information is estimated to average 4. minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to the clearance officer, PHS, 721-H Hubert H. Humphrey Bldg., 200 Independence Ave. SW, Washington, D.C. 20010, Attn. PRA; and to the Office of Management and Budget, Paperwork Reduction Project (OMB 0925-0281), Washington, D.C. 20503.

INSTRUCTIONS: This form is completed in several stages by appropriately trained persons at the workstations identified for this purpose. If the paper form is used for data collection, data are keyed into the data entry system as soon as possible following its completion. ID number, participant name and contact year are entered above. Whenever numerical responses are required, enter the number so that the last digit appears in the rightmost box. Enter leading zeros where necessary to fill all boxes. If a number is entered incorrectly on a paper form, mark through the incorrect entry with an "X". Code the correct entry clearly above the incorrect entry. For "multiple choice" and "yes/no" type questions, circle the letter corresponding to the most appropriate response. If a letter is circled incorrectly, mark through it with an "X" and circle the correct response.

At the Reception station, verify that the medication bag is clearly identified with the participant's name. Do not open the medication bag or transcribe medications until the participant has signed the informed consent. The transcription section of Section B is completed while the participant proceeds with the visit. Medications are coded by trained field center personnel after the transcription and interview portions have been completed. Code numbers of the interviewer, transcriber and coder are recorded in the appropriate locations.

MEDICATION SURVEY FORM (MSRB screen 1 of 7)

RECEPTION

Did you bring the containers of all medications you used in the past two weeks?.............Yes, all

Some of them

No

If "Yes, all", go to Section B and begin transcription while participant proceeds with clinic visit.

If "Some of them", go to Item 3; transcribe those medications which were brought at this time.

Is this because you forgot, because you have not taken any medications at all in the last two weeks, or because you could not bring your medications?........ Took no medications

Forgot or was unable to bring medications

Go to Item 25
Screen 6
**MEDICATION SURVEY FORM (MSRB screen 2 of 7)**

t's all right. Since the information on medications is so important would still like to ask you about it during the interview."

Could we follow up on this after the visit so that we can get the information from the (other) medication labels? {Explain follow-up options.} 

- Yes Y
- No or not applicable N

(Attempt to convert refusals; indicate on Itinerary Form)

type method of follow-up to be used: ________________________________

---

**MEDICATION SURVEY FORM (MSRB screen 3 of 7)**

**DIAGNOSIS RECORDS**

Transcription (Copy the NAME followed by the CONCENTRATION of each medication in the spaces below. Continue on second line if needed.):

<table>
<thead>
<tr>
<th>D</th>
<th>MEDICATION NAME &amp; CONCENTRATION</th>
<th>CODE NO.</th>
<th>RX (R)/OTC (O)/SHARED (S)/UNKNOWN (U)</th>
<th>YES (Y)/NO (N)/UNKNOWN (U)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

II. Interview (For each medication, circle the appropriate response to the following questions.):

- c. "Was this medication prescribed for you, over-the-counter, or shared?"
- d. "Did you take this medication in the past 24 hours?"
<table>
<thead>
<tr>
<th>RD</th>
<th>MEDICATION NAME &amp; CONCENTRATION</th>
<th>CODE NO.</th>
<th>RX (R)/OTC (O)/SHARED (S)/UNKNOWN (U)</th>
<th>YES (Y)/NO (N)/UNKNOWN (U)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>R O S U Y N</td>
</tr>
<tr>
<td>2</td>
<td></td>
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<td></td>
<td>R O S U Y N</td>
</tr>
<tr>
<td>3</td>
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<td>R O S U Y N</td>
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<td>R O S U Y N</td>
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<td>R O S U Y N</td>
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<td>9</td>
<td></td>
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<td>R O S U Y N</td>
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<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td>R O S U Y N</td>
</tr>
</tbody>
</table>
MEDICATION SURVEY FORM (MSRB screen 5 of 7)

- Total number of medications in bag:............................
- Number of medications unable to transcribe:..........................
- Code numbers of persons transcribing and coding medications:
  a. Transcriber code number:........................................
  b. Medication coder code number:...................................
  c. Date of medication coding:............................
      month / day / year

MEDICATION SURVEY FORM (MSRB screen 6 of 7)

INTERVIEW

Now I would like to ask about a few specific medications."

1. Were any of the medications you took during the past two weeks for:
   {If "Yes", verify that medication name is on medication record.}
      Yes   No   Unknown
   1. High Blood Pressure....................  Y   N   U
   2. Angina or Chest Pain..............  Y   N   U
   3. Control of Heart Rhythm..........  Y   N   U
   4. Heart Failure.....................  Y   N   U
   5. Blood Thinning....................  Y   N   U
   6. Diabetes or High Blood Sugar.....  Y   N   U
   7. Stroke.............................  Y   N   U
   8. Leg pain when walking............  Y   N   U

5. During the past two weeks, did you take any Aspirin,
   Alka-Seltzer, cold medicine, or headache powder?....................Yes  Y
   No   N
   Unknown  U
MEDICATION SURVEY FORM (MSRB screen 7 of 7)

During the past two weeks, did you take any [other] medication for arthritis, fever, or muscle aches and pains, (or menstrual cramps)?.....Yes Y

{Read bracketed "other" unless no meds were reported;
 include parenthetical portion for females only.}

No N

Unknown U

ADMINISTRATIVE INFORMATION

. Date of medications interview:........ [ ] / [ ] / [ ]

month day year

. Interviewer Code Number:............................. [ ] [ ] [ ]
INSTRUCTIONS FOR MEDICATION SURVEY FORM
MSR, VERSION B, 1/25/90
PREPARED 1/25/90

I. GENERAL INSTRUCTIONS

The purpose of the Medication Survey is to assess medication usage in the two weeks preceding the examination date. Both prescription and non-prescription drugs are ascertained. To obtain this information, the participant is asked prior to the clinic visit to bring to the field center all medications taken in the two-week period preceding Visit 2.

The interviewer and transcriber should be familiar with and understand the document titled "General Instructions for Completing Paper Forms" prior to administering this form. ID Number, Contact Year, and Name are completed in the format described in that document.

If the paper form is used for data collection, the header information is completed prior to the arrival of the participant at the field center and the information is keyed into the data entry system as soon as possible following its completion.

II. DETAILED INSTRUCTIONS FOR EACH ITEM

Section A. RECEPTION

If you bring the containers of all medications you used in the past two weeks?..............Yes, all Y
Some of them S
No N

If "Yes, all", go to Section B and begin transcription while participant proceeds with clinic visit.
If "Some of them", go to Item 3; transcribe those medications which were brought at this time.

If the response is "Yes, all", go to Section B (MEDICATION RECORDS) and begin the transcription. This can take place at the reception station or while the participant proceeds with the clinic visit. As the participant delivers the medications, indicate where (and by whom) they will be returned before he/she leaves. Mention that medication names will be copied from the labels, and that if required, medications will be taken out of their container only in the presence of, and with approval of, the participant. Finally, indicate that a trained interviewer will later ask a few questions about each medication. Verify that the medications bag is clearly identified with the participant's name. Do not open the medications bag or transcribe medications until the participant has signed the informed consent.
If the response is "Some of them", go to Item 3 to make arrangements for those medications which were not brought; transcribe those medications which were brought in Section B (MEDICATION RECORDS).

If the response is "No", ask Item 2:

2. Is this because you forgot, because you have not taken any medications at all in the last two weeks, or because you could not bring your medications? Took no medications Z

<table>
<thead>
<tr>
<th>Go to Item 25</th>
<th>Screen 6</th>
</tr>
</thead>
</table>

Forgot or was unable to bring medications F

If the response is "Took no medication" in the past two weeks, Section A ends here. Leave Section B (MEDICATION RECORDS) blank (field or screen forward).

Section C (INTERVIEW, Items 24-26) is administered by a certified interviewer, either at the reception or a subsequent workstation.

If the response is "Forgot or was unable to bring medications", reassure the respondent and ask Item 3:

3. Could we follow up on this after the visit so that we can get the information from the (other) medication labels? {Explain follow-up options.} Yes Y

| No or not applicable N |

{Attempt to convert refusals; indicate on Itinerary Form}

Describe method of follow-up to be used:

If the participant agrees to follow-up, make arrangements for obtaining the information over the telephone. Describe the method of follow-up after Item 3 on the form. If the participant brought some medications, complete as much of Section B (MEDICATION RECORDS) as possible.

In case of deliberate omission to bring medications to the field center, the trained interviewer attempts participant conversion at the reception or a subsequent workstation. If participant conversion is to be attempted after reception, write a note to that effect on the Itinerary Sheet. Leave Section B (MEDICATION RECORDS) blank if no medications were brought in. Even if the participant declines to bring in (or provide medication names by telephone interview), attempt to complete as much of Section C (INTERVIEW) as possible. If the participant has not brought his/her medications, but remembers the names and concentration (strength) of all medications taken during the previous two weeks with confidence, the interviewer can make the judgement to record this information without a follow-up phone call.
B. MEDICATION RECORDS

Section B (MEDICATION RECORDS) is divided into two components to document information about each medication used by the participant: (I) Transcription and (II) Interview. Transcription has two parts: the name and concentration (strength) of each medication is listed in column (a); a code number is entered in column (b). The interview also has two parts: the source of the medication (prescription, over-the-counter, or shared) is recorded in column (c). And the use of the medication within the last 24 hours is documented in column (d). The transcription of the medication name and concentration (column a) can be done by a trained transcriptionist or in conjunction with the administration of the questions in columns (c) and (d) by a trained interviewer. The coding of the medications is always done later by a trained coder after the interview is completed.

Column (a). MEDICATION NAME & CONCENTRATION

Open the medications bag and remove all medications. In column (a), transcribe the medication name (in BLOCK LETTERS if using a paper form), followed by the concentration, beginning with Item 4. Include all parts of the medication name and any numbers and/or letters that identify the strength (concentration). For keying purposes, the following format should be used when transcribing the medication name and concentration: Drug Name (1 space) weight (1 space) unit. For example:

- AMPICILLIN 250 mg
- CHLOR-TRIMETHON 12 mg
- TELORIN 8 mg

Also copy any numbers and codes which follow or are part of the name. For example:

- ANACIN-3
- ACEROLA C (100 MG)
- TIAMINICL2
- OVRL28
- ORTHO-NOVUM 10/11-28

If in doubt, it is preferable to add information that may be significant. This will help later in identifying (and coding) a medication.

To facilitate the recording process some standard abbreviations have been established.

- CAP = capsule(s)
- CPD = compound
- OINT = ointment
- OP= ophthalmic
- SOLN = solution
- SUPP = suppositories
- W = with
Each drug name should be written out even if the same name or a portion of the name appeared in the previous drug. Do not use ditto marks (") to indicate a repeat of a previous item.

For this study we are not interested in the strength or dose of the drug taken. Sometimes the drug name may include numbers or letters which could be mistaken for dosage or dosage forms. Therefore, it is better to record all the information related to medication name and concentration on the form in a standard format. The following guidelines are offered for standardization.

Medication Name

* Print complete names using block capital letters.

* Record all identifying characters and numbers referring to concentration.

* Include as much identifying information as possible.

Sometimes the dosage form may appear to be part of the drug name since a few companies have trademarks for their dosage forms. For example, Enseals for enteric coated tablets and Kapseals or Pulvales for capsules. You may record these names as identifying information.

Combination Drugs

Combination medicines contain two or more drugs in a single pill or tablet. Some combination medicines such as Dyazide come in only one fixed combination (hydrochlorothiazide 25 mg and triamterene 50 mg); these combination medicines do not generally list a strength. Record DYAZIDE, in the space medication name and do not record anything for concentration.

Other combination medicines such as Inderide are available in more than one fixed dose combination (propranolol 40 mg and hydrochlorothiazide 25 mg; or propranolol 80 mg and hydrochlorothiazide 25 mg); these combination medicines generally list the strength as in "Inderide 40/25" or "Inderide 80/25." For these medicines, record INDERIDE, in the space for name, and "40/25" or "80/25" after the name as the concentration. For example:

Drugs containing two or more medications:
Example: Dyazide (hydrochlorothiazide and triamterene) code "DYAZIDE"

Variable Dosage:

Examples:

Inderide 40/25 (40 mg Inderal, 25 mg hydrochlorothiazide)
code "INDERIDE 40/25"

Inderide 80/25 (80 mg Inderal, 25 mg hydrochlorothiazide)
code "INDERIDE 80/25"

* Do not record flavors of products and whether the preparations are sugar-free or sodium-free.
Concentration

Most drug concentrations are given in grams or milligrams. Record as written on the label using the abbreviations "gm" for grams and "mg" for milligrams. Rarely the dosage may be given in grains. Use the abbreviation gr for this.

When strength is not recorded as milligrams (mg) record all numbers, digits and characters used to denote concentration; this includes:

- decimal point
- ml - milliliter
- /ml - per milliliter
- mEq - milliequivalents
- hr - hour
- /hr - per hour and
- % - percent

Note: When the abbreviation, "PC" (percent) is used, record percent symbol, ".%".

SPECIFICS:

* Record strength of combination drugs where strength is separated by a "/" here.

* Liquid medicines concentration is often written in mg/ml (milligrams per milliliter). For example, Ampicillin 125 mg /5 ml, is recorded as:
  - Name: AMPICILLIN
  - Concentration: 125 mg/5ml

* Concentration for some medicines may be written as a percentage. For example: Alupent 0.6%, is recorded as:
  - Name: ALUPENT
  - Concentration: 0.6%

* Concentration for insulin is generally "U100" or 100 units per milliliter." This is often written as "100/ml" or "100U/ml." Record Insulin concentration as "U100" unless another strength is listed on the label.

NOTE: Do not record the quantity or number of pills/tablets dispensed.

If more than 17 medications are present or reported by the participant only 17 medications are coded and keyed, selected according to the priorities described below. If it is necessary to defer the assignation of priorities for medications to be transcribed, the name and strength of each additional medications is recorded on the back of page 3 of the paper form, until 17 medication names are selected for transcription and coding. Medications may be prioritized during transcription by combining the transcription and interview components and asking the participant whether each medication is a prescription, over-the-counter, or shared medication and whether it was taken (used) within the last 24 hours. Prioritization is based on the following algorithm: prescription medications first; then aspirin, aspirin-containing medications and anti-inflammatory preparations (aspirin, Alka-Seltzer, headache powders, cold medicine, medication for arthritis); followed by other over-the-counter preparations; and vitamins and food supplements last. The definitions of prescription, over-the-counter and shared medications and the instructions for the administration of the interview questions are below in the instructions for administering columns (c) and (d).
Example:

MEDICATION SURVEY FORM (MSRB screen 3 of 7)

B. MEDICATION RECORDS

I. Transcription (Copy the NAME followed by the CONCENTRATION of each medication in the spaces below. Continue on second line if needed):

II. Interview (For each medication, circle the appropriate response to the following questions):

c. "Was this medication prescribed for you, over-the-counter, or shared?"
d. "Did you take this medication in the past 24 hours?"

<table>
<thead>
<tr>
<th>RECORD NUMBER</th>
<th>MEDICATION NAME &amp; CONCENTRATION</th>
<th>CODE NO.</th>
<th>RX (R)/OTC (O)/YES (Y)/NO (N)</th>
<th>SHARED (S)/UNKNOWN (U)</th>
<th>UNKNOWN (U)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>AMPICILLIN 125 mg/5 ml</td>
<td></td>
<td>R S U Y N U</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Once all names are transcribed, count the total number of different medications (including those which could not be transcribed) and enter this number in Item 21. Count the actual medications to determine the total. Do not refer to the record numbers on the screen. Set aside any containers which have no clear label and/or identification or medications without containers for later transcription by a trained interviewer. Add the number of these medications which you are unable to transcribe, and enter this number in Item 22. For example, if there were 7 medications in the bag, and you were able to transcribe 5 of them, items 21 and 22 would be completed as follows:

MEDICATION SURVEY FORM (MSRB screen 5 of 7)

21. Total number of medications in bag: 07
22. Number of medications unable to transcribe: 02
Open containers to examine medications only in the presence of the participant. If necessary, make a note on the form, and let the participant know that a trained interviewer will identify these medications with him/her. Enter your ARIC ID number in Item 23a (Transcriber code number). The ID number of the person coding the medication is entered in Item 23b. The date on which the medications are coded is entered in Item 23c. Return the medications to the carrier bag. If the interview portion has not been administered, place the Medication Survey paper form (if appropriate) in the medication bag and take the medication bag to the workstation in which the interview will be administered. If the interview portion of Section B has been administered, take the bag to a secure place at the physical exam workstation. AT NO TIME SHOULD THE MEDICATIONS BE LEFT UNATTENDED AT THE RECEPTION AREA.

Column (b). CODE NUMBER.

The six-digit medication code numbers are found in the Medication Dictionary which has been distributed to each Field Center. The drug names are listed in alphabetical order. Drug names that begin with a number, ditto ("), or a dash (-) are listed first. If a drug name is separated by a hyphen, the portion of the name preceding the hyphen is listed in alphabetical order.

If you encounter a drug name which is not in the dictionary, do not guess at a match. Simply set the status code to Q (questionable) so that the pharmacist at the Coordinating Center can develop a code number and update the dictionary.

For this study we are not interested in the actual strength of medication taken by the participant. Therefore, we have not included strength in the dictionary. Numbers that appear in the dictionary are used to differentiate between products. Before coding a drug entry, determine whether the numbers which are recorded are part of the name or are strength/concentration information. Numbers referring to strength/concentration are not used in the matching process.

Some drug products use a suffix to distinguish between combination products containing the same primary drug. For example:

Davron = propoxyphene hydrochloride
Davron N = propoxyphene napsylate
Davron Cmpd = propoxyphene hydrochloride with aspirin and caffeine
Davron with ASA = propoxyphene hydrochloride and aspirin

When coding a drug entry which contains more than one word, look for a match of the entire name in the dictionary. If the name matches then code it. If the dictionary only contains a single entry containing the first word in the compound name and no other entry containing this word, then use that word and corresponding code for the entry.
In order to put drug names on the prescription label, pharmacists may use abbreviations. Unfortunately, these abbreviations are often not standardized. Some frequently used abbreviations, however, occur in the Medication Dictionary. For example:

- APAP = acetaminophen
- ASA = aspirin
- CAFF = caffeine
- Cl = chloride
- CMP = compound
- COD = codeine
- DM = dextromethorphan
- Fl = fluoride
- GG = glyceralguicolate
- HC = hydrocortisone
- HCI = hydrochloride
- HCTZ = hydrochlorothiazide
- IV = intravenous
- K = potassium
- M = minerals
- SR = sustained release
- T = therapeutic

Column (c). SOURCE OF MEDICATION

If done separately from the transcription of medication names/concentration, begin the interview portion of Section B by retrieving the participant's medication bag and form (if data are collected by paper form) and verifying the participant's name. Otherwise, begin this portion of Section B by placing all medications from the bag on the desk or counter so that the participant can see each one.

Take each medication, one at a time, and verify its name and the concentration as transcribed on the form (or enter it in column (a)). If the medication names have already been transcribed, verify the accuracy of the transcription and correct any discrepancies. Confirm that each medication was used during the last two weeks. If not, cross out its name and concentration in the transcription list (column a). If its use is confirmed, show the medication to the participant and ask the question in column (c) and then the question in column (d).

c. "Was this medication prescribed for you, over-the-counter, or shared?"

There are four response categories for this question: RX (R), prescription; OTC (O), over-the-counter; SHARED (S); and UNKNOWN (U). For the purposes of this study, a PRESCRIPTION medicine is one for which the participant has received from his or her physician a prescription that is filled by a pharmacist. An OVER-THE-COUNTER medication is one that may be purchased without a prescription from a physician. Physicians sometimes write prescriptions for over-the-counter medications. For example, the participant may take one aspirin a day. If the physician wrote a prescription for the aspirin, then it counts as a prescription medication. If the physician recommended the use of an over-the-counter medicine, such as aspirin, but did not write a prescription for it, then the aspirin is not coded as a prescription medication. Be sure to ask the participant if a product was prescribed. Even if it is normally an OTC product, or not labelled as a prescription, it may have been prescribed. A SHARED medication is a prescription medication written for another individual (e.g., other than the participant). An UNKNOWN medicine is a medication for which the dispensing source cannot be determined.
Column (d). USE IN PAST 24 HOURS

This is the second part of the interview. For each medication, past use should be determined immediately after the source, while the medication being queried is clearly and visibly indicated to the participant. The following question is asked for each medication

d. "Did you take this medication in the last 24 hours?"

The question in column (d) is self-explanatory. To assist the participant in remembering, one may ask the question specifying a time on the previous day. For example, "Have you taken this medication since 10:00 a.m. yesterday?"

<table>
<thead>
<tr>
<th>RECORD NUMBER</th>
<th>MEDICATION NAME &amp; CONCENTRATION</th>
<th>CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AMPICILLIN 125 mg/5 ml</td>
<td></td>
</tr>
</tbody>
</table>

Repeat this process for all medications, e.g., transcribe or verify the transcription of the medication/concentration and ask the questions in columns (c) and (d). Determine from Item 22 on the form at the end of Section B whether there are any medications in the bag for which the receptionist was unable to transcribe the name/concentration. These may include unmarked containers, loose pills, and containers with more than one medication. Ask the participant to open any unmarked containers, and to handle loose pills. With the participant's help and using a Physicians Desk Reference (PDR), attempt to identify these medications. If possible, enter the name and concentration, and ask the questions in columns (c) and (d). If the medication cannot be identified, write UNKNOWN for the medication name and draw two horizontal lines through the boxes (enter "=" in the spaces) for the medication code number. If additional medications can be transcribed, adjust the total for Item 22, "Number of medications unable to transcribe;", accordingly. After this has been completed for all containers, prescriptions and medications in the bag, probe the participant on whether all medications taken in the previous two weeks are included. For any additional medications recalled by the participant, record the names and answer the questions with as much detail as
possible. If there is any doubt, arrange for a phone call during which the participant can provide accurate information.

Often during an interview the participant will recall other medications or vitamins taken during the past two weeks. These should be transcribed and their source and last ingestion (use) documented at this time, just as if they had been in the medication bag. However, the number of medications in the bag is not changed. This documents that the information on some medications were provided from the participant's memory.

Section C. INTERVIEW

This portion of the Medication Survey is administered by the physicians assistant/nurse clinician or a trained interviewer. Items 25 - 26 are administered to all participants, even if use of any medication during the last two weeks was denied or no medication was brought to the field center. It may help to preface Items 25-26 with an explanation. "I know you said you took no medications, but we use these questions as a memory jogger." or "In addition to recording the names of the medication(s) you used in the last two weeks, we want to know why you are taking this (these) medication(s)."

For Item 24, ask if medications were taken in the past two weeks for the eight listed reasons. If answered affirmatively, be sure that the medication is recorded in Section B. It is not, however, necessary to indicate which medication corresponds to which symptom/condition. The following synonyms may be given in response to participant questions.

a. High blood pressure = hypertension
b. Angina or chest pain = heart pains
c. Control of heart rhythm = medicine for fast or irregular heart rate or heart beats
d. Heart failure = congestive heart failure, not heart attack
e. Blood thinning = anticoagulation
h. Leg pain when walking = claudication

Note: Stroke does not include TIA nor "slight strokes" which lasted less than 24 hours.
For example, if the participant had taken medication for high blood pressure and claudication and no other listed conditions, Item 24 would be coded as follows:

**MEDICATION SURVEY FORM** (MSRB screen 6 of 7)

C. INTERVIEW

"Now I would like to ask about a few specific medications."

24. Were any of the medications you took during the past two weeks for:
   (If "Yes", verify that medication name is on medication record.)

<table>
<thead>
<tr>
<th>Medication</th>
<th>Y</th>
<th>N</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. High Blood Pressure</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>b. Angina or Chest Pain</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>c. Control of Heart Rhythm</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>d. Heart Failure</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>e. Blood Thinning</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>f. Diabetes or High Blood Sugar</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>g. Stroke</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>h. Leg pain when walking</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
</tbody>
</table>

The administration guidelines for Items 25 and 26 are the same as those for Item 24. They are asked of all participants, regardless of whether they reported taking any medications during the past two weeks or whether they brought any medication to the field center. Questions 25 and 26 should be asked as worded and are not intended to record only aspirin-containing medications or specific anti-inflammatory agents. Comparable explanations about "memory jogging" or "medical conditions" may be offered at the beginning of each question. In Item 25, the use of aspirin or aspirin containing medication(s) is verified because these may affect some of the hemostasis analyses. Again, confirm whether any reported medications are documented in Section B.

25. During the past two weeks, did you take any Aspirin, Alka-Seltzer, cold medicine, or headache powder?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Y</th>
<th>N</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Read Item 26 following the instructions provided at the end of the question, e.g., read the bracketed "other" unless no medications were reported and include "or menstrual cramps" for females only. The use of analgesic and anti-inflammatory medications that are not aspirin based is verified because these may also affect some of the hemostasis tests. As for the two above questions, confirm whether the reported medications are transcribed in Section B.

**MEDICATION SURVEY FORM (MSRB screen 7 of 7)**

26. During the past two weeks, did you take any [other] medication for arthritis, fever, or muscle aches and pains, (or menstrual cramps)....Yes Y

{Read bracketed "other" unless no meds were reported; include parenthetical portion for females only.} No N

Unknown U

Section D. ADMINISTRATIVE INFORMATION

Review the form for completeness. Record the date of the interview in Item 27 using the standard date format and enter your code in the spaces provided in Item 28. Secure all medications in the carrier bag and return it to the participant or explain where he/she should pick it up before leaving. The medication bag must be stored in a secure location until it is returned to the participant. If data were collected on a paper form, place the form in the participant's folder.

III. MEDICATION CODING

Each medication name is coded by trained field center personnel, as specified in the instructions for column b. This may be done after the participant has left. A (hard copy) translation dictionary is used at the field center. If no match is found in the dictionary, set the status field to Q (questionable). The drug will be coded by the pharmacist at the Coordinating Center. The appropriate code will then be relayed to the field center for local data entry. Only exact matches and specific spelling variants listed in the dictionary are coded, by entering the corresponding numeric code in the boxes in column (b) of Section B.
ARIC PARTICIPANT ITINERARY FORM

VISIT 2

ID NUMBER: __________ Date __/__/__ CONTACT YEAR: 04

NAME: ________________________ SEX: ______

DATE OF BIRTH: __/__/__ TIME OF CHECK-IN: __:__

VISIT 1 NOTES __________________________

ANY MAJOR MEDICAL PROBLEMS WE SHOULD KNOW ABOUT? YES____ NO____

- DIABETES
- SEIZURE DISORDERS
- RECENT BLACKOUTS
- SURGERY IN PAST 6 WEEKS
- HEART TROUBLE
- HX OF ANEURYSMS
- OTHER SPECIFY

ANCILLARY STUDY PARTICIPANT? YES____ NO____

<table>
<thead>
<tr>
<th>SEQUENCE</th>
<th>PROCEDURE</th>
<th>TIME STARTED</th>
<th>TIME COMPLETED</th>
<th>STAFF CODE #</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>__</td>
<td>RECEPTION (UPD,FTR,MSR)</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>__</td>
<td>SITTING BLOOD PRESSURE</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
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<td></td>
</tr>
<tr>
<td>__</td>
<td>ANTHROPOMETRY</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>__</td>
<td>VENIPUNCTURE</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>__</td>
<td>SNACK</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>__</td>
<td>PULMONARY FUNCTION</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>__</td>
<td>PHYSICAL EXAM,ECG</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>__</td>
<td>ULTRASOUND</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>__</td>
<td>INTERVIEWS</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DIETARY INTAKE YES_ NO_</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COGNITIVE FUNCTION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FAMILY HISTORY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HEALTH HISTORY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RESPIRATORY SYMPTOMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>STROKE/TIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HEALTH/LIFE PROFILE A,B,C...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>__</td>
<td>MEDICAL DATA REVIEW</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>__</td>
<td>EXIT</td>
<td><strong>:</strong></td>
<td><strong>:</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PROCEDURE RESCHEDULED __________ DATE/TIME __________
**ARIC PARTICIPANT INFORMATION SHEET (PIN)**

**CONFIDENTIAL**

**Version A**

01/10/90

UC0696

---

**Date of Visit 1:** APRIL 5, 1988

<table>
<thead>
<tr>
<th><strong>FAMILY HISTORY FORM (FHXA)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Natural Mother Living at Visit 1?.... No</td>
</tr>
<tr>
<td>4. Natural Father Living at Visit 1?.... No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>HEALTH HISTORY FORM (HHXA)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Vasectomy at Visit 1?..... _</td>
</tr>
<tr>
<td>14. Menstrual Periods within 2 Years prior to Visit 1?..... Yes</td>
</tr>
<tr>
<td>37. Partial or Total Hysterectomy at Visit 1?..... No</td>
</tr>
<tr>
<td>70. Participant Retired at Visit 1?..... No</td>
</tr>
<tr>
<td>72. Company for Visit 1 Occupation..... BOARD OF EDUCATION COMMONWEALTH AVENUE</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>PULMONARY FUNCTION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Standing Height at Visit 1..... 154 (cm)</td>
</tr>
</tbody>
</table>

**Comments:**

---

---
PHYSICAL EXAMINATION FORM

AFU CHEST PAIN CONFIRMATION

Did the participant report positive Rose angina in the Annual Follow-up call preceding this visit? 

Yes Y 
No N

2. In the ARIC telephone call you mentioned having some pain or discomfort in your chest in the past year. Could you tell me where it was?

   a. Sternum (upper or middle)..................... Y 
   b. Sternum (lower).............................. Y 
   c. Left anterior chest......................... Y 
   d. Left arm.................................... Y 
   e. Other........................................ Y 

Specify: ____________________________

INSTRUCTIONS: This form should be completed during the participant's visit. ID Number, Contact Year and Name must be entered above. Whenever numerical responses are required, enter the number so that the last digit appears in the rightmost box. Enter leading zeroes where necessary to fill all boxes. If a number is entered incorrectly, mark through the incorrect entry with an "X". Code the correct entry clearly above the incorrect entry. For "multiple choice" and "yes/no" type questions, circle the letter corresponding to the most appropriate response. If a letter is circled incorrectly, mark through it with an "X" and circle the correct response.

PUBLIC REPORTING BURDEN FOR THIS COLLECTION OF INFORMATION IS ESTIMATED TO AVERAGE 7 MINUTES PER RESPONSE, INCLUDING TIME FOR REVIEWING INSTRUCTIONS, SEARCHING EXISTING DATA SOURCES, GATHERING AND MAINTAINING THE DATA NEEDED, AND COMPLETING AND REVIEWING THE COLLECTION OF INFORMATION. SEND COMMENTS REGARDING THE BURDEN ESTIMATE OR ANY OTHER ASPECT OF THIS COLLECTION OF INFORMATION INCLUDING SUGGESTIONS FOR REDUCING THIS BURDEN TO REPORTS CLEARANCE OFFICER, PHS, 721-H Hubert H. Humphrey Bldg., 200 Independence Ave. SW, Washington, D.C. 20201, Atttn. PRA; and to the Office of Management and Budget, Paperwork Reduction Project (OMB 0925-0281), Washington, D.C. 20503.
### PHYSICAL EXAMINATION (PHED screen 2 of 9)

In the past two months has your chest discomfort either occurred more often, lasted longer when it occurs, or come on at rest? 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

**INVASIVE PROCEDURES**

Have you ever had surgery on your heart, or the arteries of your neck or legs, excluding surgery for varicose veins? 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

Go to Item 6

Screen 3

---

5. [Probe for type of invasive procedure]  
   a. Coronary bypass:  
   - Yes  
   - No  

b. Other heart procedure:  
   - Go to Item c  
   - Specify: 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

c. Carotid endarterectomy:  
   - Go to Item e  
   - No

<table>
<thead>
<tr>
<th>Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right</td>
</tr>
<tr>
<td>Left</td>
</tr>
<tr>
<td>Both</td>
</tr>
</tbody>
</table>

d. Site:  
   - Right  
   - Left  
   - Both

e. Other arterial revascularization:  
   - Go to Item f  
   - No

If yes specify: 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

f. Other:  
   - Yes  
   - No
### PHYSICAL EXAMINATION (PHEB screen 3 of 9)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever had a balloon angioplasty on the arteries of your heart or legs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Probe for type of procedure]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Angioplasty of coronary artery(ies):</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>2. Angioplasty of lower extremity arteries:</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

8. Have you ever had:

a. Heart catheterization: Yes
   No

b. Other arterial catheterization: Yes
   Go to Item 9
   Screen 4

### PHYSICAL EXAMINATION (PHEB screen 4 of 9)

### DIAGNOSTIC PROCEDURES

9. Since your last visit to the ARIC clinic, have you had any of the following procedures performed?

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Echocardiogram:</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>b. Electrocardiogram:</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>c. Treadmill or cardiac stress test:</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>d. Carotid ultrasound studies:</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>e. Heart catheterization:</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

### D. WALKING/STANDING

10. Does the participant use a wheelchair, crutches or walker? Yes
    Go to Item 13
    Screen 5

11. Does the participant walk with a cane? Yes
    No
<table>
<thead>
<tr>
<th>PHYSICAL EXAMINATION (PHEX screen 5 of 9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The participant's gait is.............Normal N</td>
</tr>
<tr>
<td>Abnormal A Go to Item 13</td>
</tr>
<tr>
<td>a. Dystaxic............................Yes Y</td>
</tr>
<tr>
<td>No N</td>
</tr>
<tr>
<td>b. Hemiplegic or hemiparetic...........No N</td>
</tr>
<tr>
<td>Right R</td>
</tr>
<tr>
<td>Left L</td>
</tr>
<tr>
<td>13. Is there arm weakness?.............No N</td>
</tr>
<tr>
<td>Right R</td>
</tr>
<tr>
<td>Left L</td>
</tr>
<tr>
<td>Both B</td>
</tr>
<tr>
<td>14. Romberg?.........................Positive P</td>
</tr>
<tr>
<td>Negative N</td>
</tr>
<tr>
<td>Cannot Balance C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHYSICAL EXAMINATION (PHEX screen 6 of 9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NECK</td>
</tr>
<tr>
<td>Carotid Bruits?..........................No N</td>
</tr>
<tr>
<td>Right R</td>
</tr>
<tr>
<td>Left L</td>
</tr>
<tr>
<td>Both B</td>
</tr>
<tr>
<td>Other head or neck findings?............Yes Y</td>
</tr>
<tr>
<td>No N Go to Item 17</td>
</tr>
<tr>
<td>a.</td>
</tr>
<tr>
<td>Right</td>
</tr>
<tr>
<td>Left</td>
</tr>
<tr>
<td>Both</td>
</tr>
<tr>
<td>18. Rales?..............................No</td>
</tr>
<tr>
<td>Right</td>
</tr>
<tr>
<td>Left</td>
</tr>
<tr>
<td>Both</td>
</tr>
</tbody>
</table>
PHYSICAL EXAMINATION (PHEA screen 7 of 9)

Other chest findings? .................Yes Y

Go to Item 20

No N

Go to Item 21

Don't Know D

Systolic murmur? .................Yes Y

a. 

Go to Item 21

No N

b. Location:

Grade: 1 2 3 4 5 6

Location:

Apex A

Left lower sternal border S

2nd left interspace L

2nd right interspace R

Other O

Diastolic murmur? .................Yes Y

Go to Item 22

No N

Don't Know D

a. Grade: 1 2 3 4 5 6

b. Location:

Apex A

Left lower sternal border S

2nd left interspace L

2nd right interspace R

Other O

Other heart findings? .................Yes Y

Go to Item 23

No N

Screen 8

a. 

22. Other heart findings? .................Yes Y

Go to Item 23

No N

Screen 8

a. 

23. Posterior tibial pulse? Absent bilaterally /

Present right only I

Present left only I

Present bilaterally

24. Posterior tibial pulse? Absent bilaterally /

Present right only I

Present left only I

Present bilaterally

25. Other extremity findings? .................Yes Y

Go to Item 26

No N

26. Babinski? ................. No

Right

Left

Both

PHYSICAL EXAMINATION (PHEB screen 8 of 9)

LOWER EXTREMITIES

Ankle edema? .................Yes Y

Go to Item 24

No N

a. Right ankle edema: .................No N

Mild L

Marked R

b. Left ankle edema: .................No N

Mild L

Marked R

24. Posterior tibial pulse? Absent bilaterally /

Present right only I

Present left only I

Present bilaterally

25. Other extremity findings? ................. Yes

Go to Item 26

No N

a. 

26. Babinski? ................. No

Right

Left

Both
1. Other significant physical findings?......Yes Y

Go to Item 28

No N

a. __________________________

b. __________________________

c. __________________________

I. ADMINISTRATIVE INFORMATION

28. Date of data collection: 

[ ] / [ ] / [ ]

month day year

29. Method of data collection: ....Computer C

Paper Form P

30. Code number of person performing this examination: [ ] [ ] [ ]
INSTRUCTIONS FOR THE PHYSICAL EXAMINATION FORM
PHE, VERSION B, 01/22/90
PREPARED 01/22/90

I. GENERAL INSTRUCTIONS

The Physical Examination Form should be completed during the participant's clinic visit to record the results of that procedure. The technician must be certified and should have a working knowledge of the ARIC Physical Examination Manual of Operations. The recorder should be familiar with and understand the document entitled "General Instructions for Completing Paper Forms" prior to completing this form. ID Number, Contact Year, and Name should be completed as described in that document.

II. DETAILED INSTRUCTIONS FOR EACH ITEM

A.1. This item refers to the current Annual Follow-Up Form. Note that the most recent annual follow-up refers to the telephone call immediately preceding Visit 2, that is, the third anniversary follow-up. Results will be available in the participant folder. If AFU item 12 was answered L (10 minutes or less) then PHE item 1 should be answered Yes. If AFU item 12 was answered M (more than 10 minutes) then item 1 should be answered No. If the answer for AFU item 12 is missing, then item 1 should be No.

2. The past year refers to the period between the second and most recent annual follow-up call. If an episode of pain is identified that falls outside this time, that is, between Visit 1 and the second annual follow-up, the item should not be coded but the episode should be recorded on a note log. The location of the pain should be ascertained by asking the participant to point to the area or areas and each should be recorded under A, B, C, D. Areas other than those should be specified on a note log after item E. The areas are the examiner's best approximation with the sternum divided into thirds, and the anterior chest to the left of the sternum and below the clavicle. The left arm includes the area below the clavicle and above the left hand. The left shoulder (clavicle and above), neck and jaw are coded E (other).

3. Ask question as written. Code yes for any positive response when comparing the pain in the last two months to any previous chest pain.

B.4. "Legs" refers to the entire lower extremity (not just "below the knee," which is the restricted anatomical definition). Answer "Yes" if there is any doubt, because you will be probing as part of Question #5 anyway. "Surgery" does not include lower extremity arteriography, even though that is an "invasive" procedure. Also, abdominal aortic aneurysm repair would be included here.

5. When probing, remember that a person who has had coronary bypass surgery may have had another "open heart" procedure concomitantly (or vice versa), in which case you should mark "Yes" for both "a" and "b". Examples of "other heart procedures" include: valve replacement, ventricular aneurysm resection, ASD repair, VSD repair, patent ductus closure, etc. Also, do not omit heart surgery procedures
done in childhood, such as congenital defect repairs (e.g., Tetralogy of Fallot, septal defects, valvulotomies, etc.); note that coarctation of the aorta would not be included here as an isolated surgical procedure.

With regard to the lower extremity, "Other arterial revascularization" does include any procedure where additional blood flow is brought to the lower extremity via bypass from a location elsewhere in the body (e.g., an ilio-femoral bypass procedure).

Note that balloon angioplasty is covered in the next item (Question #6), so do not enter information relating to such procedures here.

For all of the "Specify" items (b and e), please restrict any entries to the allotted space.

Note that answering Yes (Y) to item 5f. will not produce a notelog. Continue on to item 6.

6. "Legs" refers to the entire lower extremity (not just "below the knee," which is the restricted anatomical definition). Make sure that the participant knows the difference between simply a catheterization and a balloon angioplasty procedure before recording any "Yes" or "No" response.

7. Balloon angioplasty of the renal arteries does not fit any of the categories for Question #7 and should not be recorded.

8. The overlap in Items 8 and 9.e. is deliberate. If a catheterization had taken place prior to Visit 1 and another since Visit 2, both Items 8 and 9.e. would be coded Y.

C.9. Ask as written. May remind participant of date of Visit 1, not of the dates of follow-up phone call.

a. Echocardiogram; if required describe the procedure to the participant.

b. ECG at rest; do not include the treadmill or stress test.

c. May also be called exercise test; include Thallium or other nuclear tests.

D.10, 11. Should be ascertained at the time the participant comes to the examination room.

12. Individuals should walk ten steps along a line in the center of a hallway at a rapid rate. A dystaxic gait is present if the individual passes one ankle more than six inches away from the other in walking. A hemiplegic or paretic gait is noted when the normal leg is on the floor, and the abnormal leg swings in a circular motion to place the opposite foot on the floor. A limp is usually apparent. If an arm is affected, it usually does not swing and may be held flexed at the elbow.
13. Arm weakness is shown by a drop of 6 inches or more from the horizontal or pronation of the hand beyond 90 degrees.

14. The participant stands with feet together, ankles and big toes of each foot touching. He or she is asked to fix gaze on a distant location putting arms outstretched horizontally, but not touching each other, palms up. After the participant is well balanced, he or she is asked to close his or her eyes and balance for 10 seconds. A positive test is one in which the individual has to move a foot to maintain balance.

E.15. The participant should be supine. If breath sounds interfere, the participant should be asked to stop breathing momentarily. The areas to listen with the stethoscope bell are (a) above the clavicle for the carotid artery, and (b) at the angle of the jaw for the carotid bifurcation.

In each position the stethoscope should be placed for three cardiac cycles alternating sides of the neck.

16. Other findings include venous pulsations or other arterial sounds.

F.17,18. The participant is in the sitting position. The stethoscope diaphragm (which should be warmed in the palm of the hand) will be used. The participant should be instructed to breathe through his or her mouth. Each side of the chest should be auscultated beginning posteriorly at the apices for one full breath in each location. There should be three descending locations from the apex to the base of the lung on each side for a total of six locations. Rhonchi are defined as coarse breathing noises. Rales are fine moist noises.

19. Other findings include changes in the breath sounds and evidence of surgery.

20, 21. With the participant sitting, first listen with the diaphragm of the stethoscope consecutively at the apex (the point of apical impulse), the left sternal border at the fifth intercostal space, the left sternal border at the second intercostal space, and the right sternal border at the second intercostal space. Listen for at least five beats in each location. Re-do each of the four spaces with the bell of the stethoscope lightly applied to each area. S3 is heard best at the apex, occurring after the second sound and usually with the stethoscope bell. The location of systolic and diastolic murmurs is reported in the area in which it appears loudest. More than one location of equal intensity is acceptable. Grade one is barely audible. Grade two is just easily audible. Grades three and four are intermediate and increasing in intensity; grade four is palpable as a thrill; grade five is louder, palpable but still requires the stethoscope on the chest, lightly applied. Grade six can be heard with the stethoscope off the surface of the chest.

Repeat cardiac auscultation with the participant lying supine.
22. Other findings include radiation and character of the murmur.

G.23. Examine with the participant in the supine position. Press gently but firmly along the mid-tibia, anteriorly down to the ankle in each leg. Pitting or indentation remaining after pressure is removed is definite edema. Identify the midpoint between the prominence of the medial malleolus and the inferior border of the patella. Pitting at or above that midpoint is recorded as "marked" edema (corresponding to ++). Pitting only below that point is recorded as "mild" edema.

24. Palpate inferior to the medial malleolus of each foot. Record the presence or absence of arterial pulsation. If in doubt, compare with the radial pulsation.

25. Other findings include any structural abnormality in the legs or evidence of vascular surgery or vascular compromise and any findings regarding edemas.

26. The lateral surface of the sole of the foot (plantar surface) is stroked with pressure beginning at the heel and going forward along the lateral surface and crossing the forefoot (ball of the foot) toward the big toe. The absence of Babinski reflex is a plantar flexion of the great toe. If the leg is withdrawn (a tickle response), the lateral surface of the foot (not the sole) should be stroked similarly beginning at the heel and going forward toward the little toe. The Babinski sign is one in which the great toe extends on these maneuvers (dorsiflexion).

H.27. Record any physical findings of note.

28. Record the date on which the measurements were performed.

29. Record "C" if the form was completed on the computerized data entry system, or "P" if the paper form was used.

30. The person at the clinic who has completed the form must enter his/her code number in the boxes provided.
# RESPIRATORY SYMPTOMS FORM

<table>
<thead>
<tr>
<th>I.D.</th>
<th>CONTACT YEAR</th>
<th>FORM CODE</th>
<th>VERSION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>RPA</td>
<td>B 07-?</td>
</tr>
</tbody>
</table>

**INSTRUCTIONS:** This form is completed during the participant's visit. ID Number, Contact Year, and Name must be entered above. Whenever numerical responses are required, enter the number so that the last digit appears in the rightmost box. Enter leading zeroes where necessary to fill all boxes. If a number is entered incorrectly on the paper form, mark through the incorrect entry with an "X". Code the correct entry clearly above the incorrect entry. For "multiple choice" and "yes/no" type questions, circle the letter corresponding to the most appropriate response. If a letter is circled incorrectly, mark through it with an "X" and circle the correct response.

## RESPIRATORY SYMPTOMS FORM (RPAB screen 1 of 5)

"All of these questions apply to the time period since your ARIC visit on [date]."

### COUGH

- Do you usually have a cough?...YES Y
  - [Count a cough with first smoke or on first going out-of-doors. Exclude clearing throat.]
  - NO N
  
  Go to Item 4

- Do you usually cough as much as 4 to 6 times a day, 4 or more days out of the week?...YES Y
  
  NO N

### PHLEGM

- Do you usually bring up phlegm from your chest?...YES
  
  NO

- [Count phlegm with the first smoke or on first going out-of-doors. Exclude phlegm from the nose. Count swallowed phlegm.]

Go to Item 7

3. Do you usually cough like this on most days for 3 consecutive months or more during the year?...YES

NO
### RESPIRATORY SYMPTOMS FORM (RPAB screen 2 of 5)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you usually bring up phlegm like this as much as twice a day, 4 or more days out of the week?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Do you bring up phlegm like this on most days for 3 consecutive months or more during the year?</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

*Remember, the following questions still refer to the time period since you last ARIC visit.*

### C. WHEEZING

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Does your chest ever sound wheezy or whistling when you have a cold?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>8. Does your chest ever sound wheezy or whistling apart from colds?</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

*If either question 7 or 8 are answered "Yes," answer question 9; if not, go to item 10.*

### RESPIRATORY SYMPTOMS FORM (RPAB screen 3 of 5)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your chest sound wheezy or whistling most days or nights?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Have you had an attack of wheezing that has made you feel short of breath?</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

*Go to Item 13*  
*The remaining questions still refer to the time period since your last ARIC visit.*

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Have you required medicine or treatment for the(se) attack(s)?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>13. Are you disabled from walking by any condition other than heart or lung disease?</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

*Go to Item 19*

### RESPIRATORY SYMPTOMS FORM (RPAB screen 4 of 5)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you troubled by shortness of breath when hurrying on the level or walking up a slight hill?</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

*Go to Item 19*  
| Do you have to walk slower than people of your age on the level because of breathlessness? | YES | NO |
| 16. Do you ever have to stop for breath when walking at your own pace on the level? | YES | NO |
| 17. Do you ever have to stop for breath after walking about 100 yards (or after a few minutes) on the level? | YES | NO |
| 18. Are you too breathless to leave the house or breathless on dressing or undressing? | YES | NO |
RESPIRATORY SYMPTOMS FORM (RFAB screen 3 of 3)

ADMINISTRATIVE INFORMATION

9. Date of data collection: 
   month / day / year

10. Method of data collection: 
    Computer C
    Paper form P

11. Code number of person collecting data: 
    [ ] [ ] [ ]
INSTRUCTIONS FOR RESPIRATORY SYMPTOMS FORM
RPA, VERSION B, 7/25/89
PREPARED 10/19/89

I. GENERAL INSTRUCTIONS

The Respiratory Symptoms Form is completed during the interview portion of the participant clinic visit. The interviewer must be certified and should understand the document titled "General Instructions For Completing Paper Forms" prior to completing this form. ID Number, Contact Year, and Name are completed as described in that document. Items on the form enclosed in brackets are instructions to the interviewer, and are not stated verbally during the interview. Items in double quotes are read aloud. Skip rules are enclosed in boxes. When after a brief explanation doubt remains as to whether the answer should be "Yes" or "No", the answer should be recorded as "No".

The Respiratory Symptoms portion of the questionnaire has been adapted from the Epidemiology Standardization Project. Questions must be put to the subject exactly as they are printed; small changes may make unexpectedly large differences in responses. Unequivocal answers must be recorded as such, whether they seem reasonable or not. Probing questions should rarely be needed. When they have to be asked, they should depart as little as possible from the wording of the initial question, and must not be such as to suggest any particular answer to the respondent.

II. DETAILED INSTRUCTIONS FOR RESPIRATORY QUESTIONS

READ INSTRUCTIONS TO THE PARTICIPANT.

"I would like to ask you some questions about respiratory symptoms you may have had since your first ARIC Visit on (___/___/___). Although you may have experienced one or more of these conditions more than once in your life, we are asking you to restrict your answers to the last (3) years." (If it has been more than 3 years since the baseline exam, insert the correct number of years in the parenthesis.)

A. COUGH

1. The explanation in the [ ] is read only if the participant asks for clarification. If the response is NO, go to item 4.

2. READ THE QUESTION EXACTLY AS WORDED AND RECORD THE RESPONSE.

3. READ THE QUESTION EXACTLY AS WORDED AND RECORD THE RESPONSE.

B. PHLEGM

4. Emphasis is placed upon phlegm coming up from the chest. Postnasal discharge is discounted. The following probe may be used: "Do you raise it up from your lungs, or do you merely clear it from your throat?" Some respondents admit to bringing up phlegm without reporting a cough. A positive response to phlegm with a negative response to cough is accepted without changing the replies to "cough". Phlegm coughed up from the chest counts as positive. Include, if volunteered, phlegm with first smoke or "on first going out-of-doors." A brief explanation of acceptable responses is provided in the [ ]. If the response is NO, go to item 7.
5. READ THE QUESTION EXACTLY AS WordED AND RECORD THE RESPONSE.

6. READ THE QUESTION EXACTLY AS WordED AND RECORD THE RESPONSE.

C. WHEEZING

These questions attempt to identify respondents with occasional and/or frequent wheezing. Questions 10-12 pertain to asthma.

7. Participants may confuse wheezing with snoring or bubble sounds in the chest; a demonstration "wheeze" often helps if further clarification is requested.

8. If the response to both Items 7 and 8 is NO, go to Item 10.

9. Again, respondents may confuse wheezing with snoring. The following probe can be helpful: "Does your husband (or wife) regularly complain of your wheezing (not snoring) at night?"

10. If the response is NO, go to Item 13.

11. READ THE QUESTION EXACTLY AS WORDED AND RECORD THE RESPONSE.

12. READ THE QUESTION EXACTLY AS WORDED AND RECORD THE RESPONSE.

D. BREATHELESSNESS

13. If the participant volunteers that he/she is disabled from walking (does not walk) by any condition other than heart or lung disease, or obviously is confined to a wheelchair, enter YES and go to Item 19.

14. Questions 13-18 refer to average conditions. No attempt is made to separate out cardiac breathlessness. If the response is NO, go to Item 19.

15. READ THE QUESTION EXACTLY AS WORDED AND RECORD THE RESPONSE.

16. READ THE QUESTION EXACTLY AS WORDED AND RECORD THE RESPONSE.

17. READ THE QUESTION EXACTLY AS WORDED AND RECORD THE RESPONSE.

18. READ THE QUESTION EXACTLY AS WORDED AND RECORD THE RESPONSE.

E. ADMINISTRATIVE INFORMATION

19. Record the date on which the interview took place.

20. Record "C" if the form was completed on the computerized data entry system, or "P" if the paper form was used.

21. The person at the clinic who has performed the interview and completed the form must enter his/her code number in the boxes provided.
## SITTING BLOOD PRESSURE FORM

**INSTRUCTIONS:**
This form should be completed during the participant’s visit. ID Number, Contact Year, and Name must be entered above. Whenever numerical responses are required, enter the number so that the last digit appears in the rightmost box. Enter leading zeroes where necessary to fill all boxes. If a number is entered incorrectly, mark through the incorrect entry with an “X”. Code the correct entry clearly above the incorrect entry. For “multiple choice” and “yes/no” type questions, circle the letter corresponding to the most appropriate response. If a letter is circled incorrectly, mark through it with an “X” and circle the correct response.

### TEMPERATURE

Room Temperature (degrees centigrade):

```
    1
```

### TOBACCO AND CAFFEINE USE

Smoking can change the results of the exams and laboratory tests we will do today. Because of this, we would like to ask you...

Have you smoked or used chewing tobacco or snuff within the last 4 hours? ....... Yes Y No N

Go to Item 4

3. How long ago did you last smoke or last use chewing tobacco or snuff? .......
   a. ______ hours, b. ______ minutes

   “We are going to ask you not to smoke until you have completed your visit with us today. We do this so that your test results are not affected by smoking. If you must smoke, please tell us that you did before you leave.”

4. Have you had any coffee, tea, or chocolate within the last 4 hours? ....... Yes No

Go to Item 6, Screen 2

---

*Appendix 2.18a*

SITTING BLOOD PRESSURE FORM

**NAME:**

**INITIALS:**
### SITTING BLOOD PRESSURE FORM (SBPB screen 2 of 4)

**How long ago did you last have any coffee, tea, or chocolate? ...**

a. [ ] hours, b. [ ] minutes

**RELIMINARY MEASUREMENTS**

**Right Arm Circumference (cm) ............**

[ ]

### SITTING BLOOD PRESSURE FORM (SBPB screen 3 of 4)

**a. Time of Day: ............ [ ] [ ] [ ]
   h h m m**

**b. AM or PM: ................ AM A**
   **FM P**

**Pulse Obliteration Pressure: .......... [ ] [ ] [ ]**

**Maximum Zero: ..................... [ ] [ ]**

\[ + 30 \]

**Peak Inflation Level**

{Computation—Item #9 + Item #10 + 30}: .......... [ ] [ ] [ ]

**7. Cuff Size: ..........**

- Pediatric (under 24 cm) P
- Regular Arm (24-32 cm) R
- Large Arm (33-41 cm) L
- Other O
### SITTING BLOOD PRESSURE FORM (SBPB screen 4 of 4)

<table>
<thead>
<tr>
<th>Second Blood Pressure Measurement</th>
<th>G. COMPUTED NET AVERAGE OF SECOND AND THIRD BLOOD PRESSURE MEASUREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diastolic: .............</td>
<td>22. Diastolic: .......................</td>
</tr>
<tr>
<td>Zero Reading: .............</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Blood Pressure Measurement</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Systolic: .............</td>
<td></td>
</tr>
<tr>
<td>Diastolic: .............</td>
<td></td>
</tr>
<tr>
<td>Zero Reading: .............</td>
<td></td>
</tr>
</tbody>
</table>

### H. ADMINISTRATIVE INFORMATION

23. Date of data collection: ...


25. Code number of person completing this form: ...

### WORKSHEET FOR COMPUTING AVERAGE OF 2ND AND 3RD READINGS (ITEMS 21 AND 22)

<table>
<thead>
<tr>
<th>SYSTOLIC</th>
<th>DIASTOLIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Measurement</td>
<td>— — — (#15)</td>
</tr>
<tr>
<td>2nd Zero Reading</td>
<td>— — — (#17)</td>
</tr>
<tr>
<td>Second Corrected</td>
<td>— — —</td>
</tr>
<tr>
<td>Third Measurement</td>
<td>— — — (#18)</td>
</tr>
<tr>
<td>3rd Zero Reading</td>
<td>— — — (#20)</td>
</tr>
<tr>
<td>Third Corrected</td>
<td>— — —</td>
</tr>
<tr>
<td>Average Corrected</td>
<td>— — — (#21)</td>
</tr>
</tbody>
</table>
INSTRUCTIONS FOR THE SITTING BLOOD PRESSURE FORM
SBF, VERSION B, 01/23/90
PREPARED 01/23/90

I. GENERAL INSTRUCTIONS

The Sitting Blood Pressure Form should be completed during the participant's clinic visit. The technician must be certified and should have a working knowledge of the ARIC Blood Pressure Manual of Procedures. He/she should also be familiar with and understand the document titled "General Instructions For Completing Paper Forms" prior to completing this form. ID Number, Contact name, and Name should be completed as described in that document.

There should be no exertion, eating, smoking, or exposure to cold for half an hour before recording blood pressure. It is also important that the subject have no change of posture for five minutes before recording blood pressure.

Blood pressure is measured three times using a random zero sphygmomanometer. The detailed instructions below should be reviewed in combination with the Blood Pressure Manual of Procedures.

II. DETAILED INSTRUCTIONS FOR VARIOUS QUESTIONS

1. Temperature

1. Record the room temperature in degrees centigrade. A thermometer need not be read each time the procedure is initiated, but should be consulted two or three times during the day to note fluctuations.

3. Tobacco and Caffeine Use

3. Ask the question as stated. Any type of smoking, chewing tobacco, snuff, nicotine gum, etc. should be noted if within the last 4 hours. If there was none, skip to item 4.

3. Ask about the most recent time. The question is phrased "How long ago..." instead of "At what time..." in order to make it easier for the participant to answer. Record the answer in the same way, noting it must be 4 hours or less. If unknown, mark through the boxes with two horizontal lines.

At present, the script question between items 3 and 4 is asked only to reinforce the need to abstain from smoking. No action is required if the participant reports having smoked.

-5. Ask the questions as stated, following the same procedures given for items 2 and 3 above.

3. Preliminary Measurements

5. Measure right arm circumference once according to the Manual of Procedures. Record to the nearest centimeter.
Cuff size should be determined by the arm circumference measurement in item 6. The appropriate size for a given arm circumference is given below, and also appears on the form itself.

<table>
<thead>
<tr>
<th>Arm Circumference</th>
<th>Cuff Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>under 24 cm</td>
<td>Pediatric</td>
</tr>
<tr>
<td>24-32 cm</td>
<td>Regular Arm</td>
</tr>
<tr>
<td>33-41 cm</td>
<td>Large Arm</td>
</tr>
<tr>
<td>over 41 cm</td>
<td>Thigh (record as &quot;other&quot;)</td>
</tr>
</tbody>
</table>

Record the time. A five minute wait with no change of posture must precede the first blood pressure measurement.

10. Record as described in the Manual of Procedures.

1. Calculate peak inflation level as "pulse obliteration pressure" + "maximum zero" + 30. This item is calculated automatically when the form is entered on the computer. (As a way of denoting this on the paper form, lines are provided rather than boxes for recording the result.)

First Blood Pressure Measurement

2-13. Measure and record systolic and diastolic blood pressures as described in the Manual of Procedures. Right justify, using leading zeroes if necessary.

4. Record the zero reading.

OTE: Do not calculate net blood pressure at this time.

& F. Second and Third Blood Pressure Measurements

5-20. Repeat as in 12-14 above.

1. Computed Net Average of Second and Third Blood Pressure Measurements

11-22. These items are calculated automatically when the form is entered on the computer. (As a way of denoting this on the paper form, lines are provided rather than boxes for recording the result.) When the paper form is being used, these must be calculated using a hand calculator. A worksheet is provided at the end of the form to accomplish this. Items 15-20 are transcribed onto that worksheet in the specified spaces. The "corrected" readings are calculated as the measurement itself minus the corresponding zero reading. These (second and third corrected) are then averaged for systolic and diastolic. An example is given below.
H. Administrative Information

23. Record the date on which the measurements were performed.

24. Record "C" if the form was completed on the computerized data entry system, or "P" if the paper form was used.

25. The person at the clinic who has completed the form must enter his/her code number in the boxes provided.

EXAMPLE:

Worksheet for Computing Average of 2nd and 3rd Readings (Items 21 and 22)

<table>
<thead>
<tr>
<th>SYSTOLIC</th>
<th>DIASTOLIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Measurement</td>
<td>1 4 8 (#15)</td>
</tr>
<tr>
<td>2nd Zero Reading</td>
<td>-2 6 (#17)</td>
</tr>
<tr>
<td>Second Corrected</td>
<td>1 2 2</td>
</tr>
<tr>
<td>Third Measurement</td>
<td>1 4 0 (#18)</td>
</tr>
<tr>
<td>3rd Zero Reading</td>
<td>-2 2 (#20)</td>
</tr>
<tr>
<td>Third Corrected</td>
<td>1 1 8</td>
</tr>
<tr>
<td>Average Corrected</td>
<td>1 2 0 (#21)</td>
</tr>
</tbody>
</table>
INSTRUCTIONS:

This form is completed during the interview portion of the participant's visit. ID Number, Name and Contact Year must be entered above. Whenever numerical responses are required, enter the number so that the last digit appears in the rightmost box. Enter leading zeroes where necessary to fill all boxes. If a number is entered incorrectly, on the paper form, mark through the incorrect entry with an "X". Code the correct entry clearly above the incorrect entry. For "multiple choice" and "yes/no" type questions, circle the letter corresponding to the most appropriate response. If a letter is circled incorrectly, mark through it with an "X" and circle the correct response.
### TIA/STROKE FORM (TIAC screen 2 of 30)

**During this time, how many episodes of loss or changes in speech have you had?**

- 1
- 2
- 3
- 4
- 5
- 6-20
- More than 20, or frequent, intermittent events, too numerous to count.

**5. During this same time period when did the earliest occur?**

- A. Within the last 6 months
- B. Greater than 6 months, but less than 1 year ago
- C. Greater than 1 year, but less than 2 years ago
- D. Greater than 2 years, but less than 3 years ago

### TIA/STROKE FORM (TIAC screen 3 of 30)

**How long did it (the longest episode) last?**

- Less than 30 seconds
- At least 30 seconds, but less than 1 minute
- At least 1 minute, but less than 3 minutes
- At least 3 minutes, but less than 1 hour
- At least 1 hour, but less than 6 hours
- At least 6 hours, but less than 12 hours
- At least 12 hours, but less than 24 hours
- At least 24 hours

**7. Did the (worst) episode come on suddenly?**

- A. Yes
- B. No

**a. How long did it take for the symptoms to get as bad as they were going to get?**

- 0-2 seconds (instantly)
- At least 3 seconds, but less than 1 minute
- At least 1 minute, but less than 1 hour
- At least 1 hour, but less than 2 hours
- At least 2 hours, but less than 24 hours
- At least 24 hours
### TIA/STROKE FORM (TIAC screen 4 of 30)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>any of the following describe your change in speech? ......................</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>{READ ALL CHOICES}</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Slurred speech like you were drunk ................................... Y N D
- Could talk but the wrong words came out ................................ Y N D
- Knew what you wanted to say, but the words would not come out .......... Y N D

9. While you were having your (worst) episode of change in speech, did any of the following occur? .......

{INCLUDE ALL THAT APPLY}

- a. Numbness or tingling ........................................ Yes Y No N
  Go to Item 9.c Screen 5

- b. Did you have difficulty on: .............................
  {READ ALL CHOICES}
  - The right side only R
  - The left side only L
  - Both sides B

### TIA/STROKE FORM (TIAC screen 5 of 30)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
</table>
| Paralysis or weakness ................................................. Yes Y
  Go to Item 9.e Screen 5
  No N |
| 9.f. Blackouts or fainting ........................................ Yes Y
  No N |
| g. Seizures or convulsions .......................................... Yes Y
  No N |
| h. Headache ......................................................... Yes Y
  No N |
| Lightheadedness or dizzy spells ...................................... Yes Y
  No N |
| Did you have difficulty on: .............................
  {READ ALL CHOICES}
  - The right side only R
  - The left side only L
  - Both sides B |
TIA/STROKE FORM (TIAC screen 6 of 30)

Visual Disturbances .................. Yes Y

No N

Go to Item 10, Screen 6

Did you have: ............
READ ALL CHOICES UNTIL A POSITIVE RESPONSE IS GIVEN

Double vision A
Vision loss in right eye only B
Vision loss in left eye only C
Total loss of vision in both eyes D
Trouble in both eyes seeing to the right E
Trouble in both eyes seeing to the left F
Other G
If "Other," specify ...

TIA/STROKE FORM (TIAC screen 7 of 30)

C. SUDDEN LOSS OF VISION

10. Since the last ARIC visit, have you ever had any sudden loss of vision, complete or partial?............. Yes

No

Don't Know

Go to Item 17, Screen 10

During this time, how many episodes of loss of vision have you had? ..... 12. During this same time period, when did the earliest occur? ...

1 A Within the last 6 months
2 B Greater than 6 months, but less than 1 year ago
3 C Greater than 1 year, but less than 2 years ago
4 D Greater than 2 years, but less than 3 years ago
5 E
6-20 F
More than 20, or frequent, intermittent events, too numerous to count. G
### TIA/STROKE FORM (TIAC screen 6 of 30)

**Visual Disturbances**

<table>
<thead>
<tr>
<th>Yes</th>
<th>Y</th>
<th>No</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go to Item 10, Screen 6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Did you have: .......... READ ALL CHOICES UNTIL A POSITIVE RESPONSE IS GIVEN)

- Double vision
- Vision loss in right eye only
- Vision loss in left eye only
- Total loss of vision in both eyes
- Trouble in both eyes seeing to the right
- Trouble in both eyes seeing to the left
- Other
  - If "Other," specify ...

### TIA/STROKE FORM (TIAC screen 7 of 30)

**During this time, how many episodes of loss of vision have you had? ......**

| 1 | A |
| 2 | B |
| 3 | C |
| 4 | D |
| 5 | E |
| 6-20 | F |
| More than 20, or frequent, intermittent events, too numerous to count. | G |

12. During this same time period, when did the earliest occur? ...

- Within the last 6 months
- Greater than 6 months, but less than 1 year ago
- Greater than 1 year, but less than 2 years ago
- Greater than 2 years, but less than 3 years ago
### TIA/STROKE FORM (TIAC screen 8 of 30)

**Long did it (the longest episode) last? ....**

<table>
<thead>
<tr>
<th>Duration</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 30 seconds</td>
<td>A</td>
</tr>
<tr>
<td>At least 30 seconds, but less than 1 minute</td>
<td>B</td>
</tr>
<tr>
<td>At least 1 minute, but less than 3 minutes</td>
<td>C</td>
</tr>
<tr>
<td>At least 3 minutes, but less than 1 hour</td>
<td>D</td>
</tr>
<tr>
<td>At least 1 hour, but less than 6 hours</td>
<td>E</td>
</tr>
<tr>
<td>At least 6 hours, but less than 12 hours</td>
<td>F</td>
</tr>
<tr>
<td>At least 12 hours, but less than 24 hours</td>
<td>G</td>
</tr>
<tr>
<td>At least 24 hours</td>
<td>H</td>
</tr>
</tbody>
</table>

**14. Did the (worst) episode come on suddenly? ..................**

- Yes Y
- No N

**a. How long did it take for the symptoms to get as bad as they were going to get? ....**

<table>
<thead>
<tr>
<th>Duration</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 seconds (instantly)</td>
<td>A</td>
</tr>
<tr>
<td>At least 3 seconds, but less than 1 minute</td>
<td>B</td>
</tr>
<tr>
<td>At least 1 minute, but less than 1 hour</td>
<td>C</td>
</tr>
<tr>
<td>At least 1 hour, but less than 2 hours</td>
<td>D</td>
</tr>
<tr>
<td>At least 2 hours, but less than 24 hours</td>
<td>E</td>
</tr>
<tr>
<td>At least 24 hours</td>
<td>F</td>
</tr>
</tbody>
</table>

### TIA/STROKE FORM (TIAC screen 9 of 30)

**During the (worst) episode, which of the following parts of your vision were affected? ......**

[READ ALL CHOICES]

- Only the right eye R
- Only the left eye L
- Both eyes B

Go to Item 16, Screen 9

**Did you have: ..................**

READ ALL CHOICES UNTIL A POSITIVE RESPONSE IS GIVEN

<table>
<thead>
<tr>
<th>Difficulty</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total loss of vision</td>
<td>B</td>
</tr>
<tr>
<td>Trouble seeing to the right</td>
<td>R</td>
</tr>
<tr>
<td>Trouble seeing to the left</td>
<td>L</td>
</tr>
<tr>
<td>Other vision difficulties</td>
<td>O</td>
</tr>
</tbody>
</table>

**16. While you were having your (worst episode of) loss of vision, did any of the following occur?**

{INCLUDE ALL THAT APPLY}

- Yes Y
- No N

**a. Speech disturbance ....................**

- Yes Y
- No N

**b. Numbness or tingling ..................**

- Yes Y
- No N

**c. Did you have difficulty on: ......**

{READ ALL CHOICES}

- The right side only 1
- The left side only 1
- Both sides 1
TIA/STROKE FORM  (TIAC screen 10 of 30)

1. Paralysis or weakness . . . . . . . . . . . . . . . . . . . . Yes Y
   No N

   Go to Item 16.f, Screen 10

2. Did you have difficulty on: ......
   {READ ALL CHOICES}
   The right side only R
   The left side only L
   Both sides B

3. Lightheadedness or dizzy spells . . . . . . . . . . . . . . . . . . Yes Y
   No N

4. Blackouts or fainting . . . . . . . . . . . . . . . . . . . . . . . . Yes Y
   No N

5. Headache . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Yes Y
   No N

6. Seizures or convulsions . . . . . . . . . . . . . . . . . . . . . . Yes Y
   No N

7. Since the last ARIC visit, have you had a sudden spell of double vision?..Yes
   No
   Don't Know

   Go to Item 23, Screen 15

D. DOUBLE VISION

17. Since the last ARIC visit, have you had a sudden spell of double vision?..Yes
   No
   Don't Know

   Go to Item 23, Screen 15

18. If you closed one eye, did the double vision go away? ...... Yes
   No
   Don't Know

   Go to Item 23, Screen 15

TIA/STROKE FORM  (TIAC screen 11 of 30)

- During this time, how many episodes of double vision have you had? ....

1 A

2 B

3 C

4 D

5 E

6-20 F

More than 20, or frequent, intermittent events, too numerous to count. G

19. During the same time period, when did the earliest occur? ...

Within in the last 6 months

Greater than 6 months, but less than 1 year ago

Greater than 1 year, but less than 2 years ago

Greater than 2 years, but less than 3 years ago
<table>
<thead>
<tr>
<th>TIA/STROKE FORM (TIAC screen 12 of 30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>long did it (the longest episode) last? ....</td>
</tr>
<tr>
<td>Less than 30 seconds A</td>
</tr>
<tr>
<td>At least 30 seconds, but less than 1 minute B</td>
</tr>
<tr>
<td>At least 1 minute, but less than 3 minutes C</td>
</tr>
<tr>
<td>At least 3 minutes, but less than 1 hour D</td>
</tr>
<tr>
<td>At least 1 hour, but less than 6 hours E</td>
</tr>
<tr>
<td>At least 6 hours, but less than 12 hours F</td>
</tr>
<tr>
<td>At least 12 hours, but less than 24 hours G</td>
</tr>
<tr>
<td>At least 24 hours H</td>
</tr>
</tbody>
</table>

| a. How long did it take for the symptoms to get as bad as they were going to get? .......... |
| 0-2 seconds (instantly) A | |
| At least 3 seconds, but less than 1 minute B | |
| At least 1 minute, but less than 1 hour C | |
| At least 1 hour, but less than 2 hours D | |
| At least 2 hours, but less than 24 hours E | |
| At least 24 hours F | |

<table>
<thead>
<tr>
<th>TIA/STROKE FORM (TIAC screen 13 of 30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>if you were having your (worst episode of) trouble vision, did any of the following occur? (INCLUDE ALL THAT APPLY)</td>
</tr>
<tr>
<td>speech disturbances ..................... Yes Y</td>
</tr>
<tr>
<td>No N</td>
</tr>
<tr>
<td>c. Did you have difficulty on: ...... (READ ALL CHOICES)</td>
</tr>
<tr>
<td>The right side only</td>
</tr>
<tr>
<td>The left side only</td>
</tr>
<tr>
<td>Both sides</td>
</tr>
</tbody>
</table>
TIA/STROKE FORM (TIAC screen 14 of 30)

1. Analysis or weakness .................. Yes Y
   No N

   Go to Item 22.f, Screen 14

2. Did you have difficulty on: ......

   (READ ALL CHOICES)

   The right side only R
   The left side only L
   Both sides B

3. Lightheadedness or dizzy spells .................. Yes Y
   No N


TIA/STROKE FORM (TIAC screen 15 of 30)

4. Sudden numbness or tingling
   since the last ARIC visit, have you had sudden numbness, tingling, or loss of
   feeling on one side of your body? ... Yes Y
   No N

   Go to Item 32, Screen 20

5. If the feeling of numbness or tingling occur only when you kept your arms or legs in a
   certain position? .................. Yes Y
   No N

   Go to Item 32, Screen 20

6. During this time, how many episodes of numbness, tingling, or loss of sensation
   have you had?

   1
   2
   3
   4
   5
   6-20
   More than 20, or frequent, intermittent events, too numerous to count. G
### TIA/STROKE FORM (TIAC screen 16 of 30)

<table>
<thead>
<tr>
<th>During this same time period, when did the earliest occur? ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the last 6 months</td>
</tr>
<tr>
<td>Greater than 6 months, but less than 1 year ago</td>
</tr>
<tr>
<td>Greater than 1 year, but less than 2 years ago</td>
</tr>
<tr>
<td>Greater than 2 years, but less than 3 years ago</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>27. How long did it (the longest episode) last? ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 30 seconds</td>
</tr>
<tr>
<td>At least 30 seconds, but less than 1 minute</td>
</tr>
<tr>
<td>At least 1 minute, but less than 3 minutes</td>
</tr>
<tr>
<td>At least 3 minutes, but less than 1 hour</td>
</tr>
<tr>
<td>At least 1 hour, but less than 6 hours</td>
</tr>
<tr>
<td>At least 6 hours, but less than 12 hours</td>
</tr>
<tr>
<td>At least 12 hours, but less than 24 hours</td>
</tr>
<tr>
<td>At least 24 hours</td>
</tr>
</tbody>
</table>

### TIA/STROKE FORM (TIAC screen 17 of 30)

<table>
<thead>
<tr>
<th>Did the (worst) episode come on suddenly? ................. Yes</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How long did it take for the symptoms to get as bad as they were going to get? ......</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 seconds (instantly)</td>
</tr>
<tr>
<td>At least 3 seconds, but less than 1 minute</td>
</tr>
<tr>
<td>At least 1 minute, but less than 1 hour</td>
</tr>
<tr>
<td>At least 1 hour, but less than 2 hours</td>
</tr>
<tr>
<td>At least 2 hours, but less than 24 hours</td>
</tr>
<tr>
<td>At least 24 hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>29. During the (worst) episode, which part or parts of your body were affected? {READ ALL CHOICES}</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Left arm or hand</td>
</tr>
<tr>
<td>b. Left leg or foot</td>
</tr>
<tr>
<td>c. Left side of face</td>
</tr>
<tr>
<td>d. Right arm or hand</td>
</tr>
<tr>
<td>e. Right foot or leg</td>
</tr>
<tr>
<td>f. Right side of face</td>
</tr>
<tr>
<td>g. Other</td>
</tr>
</tbody>
</table>
### TIA/STROKE FORM (TIAC screen 18 of 30)

During this episode, did the abnormal sensation start in one part of your body and spread to another, or did it stay in the same place?

<table>
<thead>
<tr>
<th>Option</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>In one part and spread to another</td>
<td>S</td>
</tr>
<tr>
<td>Stayed in one part</td>
<td>O</td>
</tr>
<tr>
<td>Don't Know</td>
<td>D</td>
</tr>
</tbody>
</table>

31. While you were having your (worst) episode of numbness, tingling or loss of sensation, did any of the following occur?

{INCLUDE ALL THAT APPLY}

| a. Speech disturbance | Y | No |

### TIA/STROKE FORM (TIAC screen 19 of 30)

Paralysis or weakness ................. Yes Y

<table>
<thead>
<tr>
<th></th>
<th>No N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go to Item 31.d.</td>
<td></td>
</tr>
<tr>
<td>Screen 19</td>
<td></td>
</tr>
</tbody>
</table>

Did you have difficulty on: ....

{READ ALL CHOICES}

| The right side only | R    |
| The left side only  | L    |
| Both sides          | B    |

Lightheadedness or dizzy spells ................. Yes Y

|                       | No N |

Blackouts or fainting ................. Yes Y

|                       | No N |
### Visual Disturbances

<table>
<thead>
<tr>
<th>Visual Disturbances</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Go to Item 32, Screen 20

Did you have: 

1. Double vision  
2. Vision loss in right eye only  
3. Vision loss in left eye only  
4. Total loss of vision in both eyes  
5. Trouble in both eyes seeing to the right  
6. Trouble in both eyes seeing to the left  
7. Other  

If "Other," specify ...

### F. Sudden Paralysis or Weakness

32. Since the last ARIC visit, have you had any sudden episodes of paralysis or weakness on one side of your body? .. Yes

33. During this time, how many episodes of paralysis or weakness have you had? 

<table>
<thead>
<tr>
<th>Number of Episodes</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>6-20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F</td>
</tr>
<tr>
<td>More than 20, or frequent, intermittent events, too numerous to count.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>G</td>
</tr>
</tbody>
</table>

34. During this same time period when did the earliest occur? ...

- Within the last 6 months
- Greater than 6 months, but less than 1 year ago
- Greater than 1 year, but less than 2 years ago
- Greater than 2 years, but less than 3 years ago
### How long did it (the longest episode) last? ....

<table>
<thead>
<tr>
<th>Duration</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 30 seconds</td>
<td>A</td>
</tr>
<tr>
<td>At least 30 seconds, but less than 1 minute</td>
<td>B</td>
</tr>
<tr>
<td>At least 1 minute, but less than 3 minutes</td>
<td>C</td>
</tr>
<tr>
<td>At least 3 minutes, but less than 1 hour</td>
<td>D</td>
</tr>
<tr>
<td>At least 1 hour, but less than 6 hours</td>
<td>E</td>
</tr>
<tr>
<td>At least 6 hours, but less than 12 hours</td>
<td>F</td>
</tr>
<tr>
<td>At least 12 hours, but less than 24 hours</td>
<td>G</td>
</tr>
<tr>
<td>At least 24 hours</td>
<td>H</td>
</tr>
</tbody>
</table>

### 36. Did the (worst) episode come on suddenly? ................. Yes

a. How long did it take for the symptoms to get as bad as they were going to get? .......

<table>
<thead>
<tr>
<th>Duration</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 seconds (instantly)</td>
<td></td>
</tr>
<tr>
<td>At least 3 seconds, but less than 1 minute</td>
<td></td>
</tr>
<tr>
<td>At least 1 minute, but less than 1 hour</td>
<td></td>
</tr>
<tr>
<td>At least 1 hour, but less than 2 hours</td>
<td></td>
</tr>
<tr>
<td>At least 2 hours, but less than 24 hours</td>
<td></td>
</tr>
<tr>
<td>At least 24 hours</td>
<td></td>
</tr>
</tbody>
</table>

### During this episode, what part or parts of your body were affected? (READ ALL CHOICES)

<table>
<thead>
<tr>
<th>Body Part</th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left arm or hand</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>Left leg or foot</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>Left side of face</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>Right arm or hand</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>Right foot or leg</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>Right side of face</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
<tr>
<td>Other</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
</tbody>
</table>

### 38. During this episode, did the paralysis or weakness start in one part of your body and spread to another, or did it stay in the same place? ........

- Started in one part and spread to another
- Stayed in one part
- Don't know

### 39. While you were having your worst episode of paralysis or weakness did any of the following occur? (INCLUDE ALL THAT APPLY)

a. Speech disturbances ......................... Yes

No
### TIA/STROKE FORM (TIAC screen 24 of 30)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numbness or tingling</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Blackouts or fainting</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Seizures or convulsions</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Headache</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Pain in the weak arm, leg or face</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Lightheadedness or dizzy spells</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**Did you have difficulty on:**

**{READ ALL CHOICES}**

- The right side only: R
- The left side only: L
- Both sides: B

---

### TIA/STROKE FORM (TIAC screen 25 of 30)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Disturbances</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Double vision</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Vision loss in right eye only</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Vision loss in left eye only</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Total loss of vision in both eyes</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Trouble in both eyes seeing to the right</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>Trouble in both eyes seeing to the left</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>G</td>
<td></td>
</tr>
</tbody>
</table>

**Did you have:**

**{READ ALL CHOICES UNTIL A POSITIVE RESPONSE IS GIVEN}**

- Other, specify...

---

**G. SUDDEN SPELLS OF DIZZINESS OR LOSS OF BALANCE**

40. Since the last ARIC visit, have you had any sudden spells of dizziness, loss of balance, or sensation of spinning? Yes

41. Did the dizziness, loss of balance or spinning sensation occur only when changing the position of your head or body? Yes

---

No

Don't Know

Don't Know
<table>
<thead>
<tr>
<th>TIA/STROKE FORM (TIAC screen 26 of 30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>While you were having your (worst) episode of dizziness, loss of balance or spinning sensation, did any of the following occur? [INCLUDE ALL THAT APPLY]</td>
</tr>
<tr>
<td>Speech disturbances ....................... Yes Y</td>
</tr>
<tr>
<td>No N</td>
</tr>
<tr>
<td>42.b. Paralysis or weakness ...................... Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Go to Item 42.d, Screen 27</td>
</tr>
<tr>
<td>c. Did you have difficulty on: ......</td>
</tr>
<tr>
<td>{READ ALL CHOICES}</td>
</tr>
<tr>
<td>The right side only</td>
</tr>
<tr>
<td>The left side only</td>
</tr>
<tr>
<td>Both sides</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TIA/STROKE FORM (TIAC screen 27 of 30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numbness or tingling ...................... Yes Y</td>
</tr>
<tr>
<td>No N</td>
</tr>
<tr>
<td>Go to Item 42.f, Screen 27</td>
</tr>
<tr>
<td>42.f. Blackouts or fainting ...................... Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>g. Seizures or convulsions ...................... Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>h. Headache ................................. Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Did you have difficulty on: ......</td>
</tr>
<tr>
<td>{READ ALL CHOICES}</td>
</tr>
<tr>
<td>The right side only R</td>
</tr>
<tr>
<td>The left side only L</td>
</tr>
<tr>
<td>Both sides B</td>
</tr>
</tbody>
</table>
### TIA/STROKE FORM (TIAC screen 28 of 30)

#### Visual disturbances

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

**Go to Item 43, Screen 28**

#### Did you have:

**{READ ALL CHOICES UNTIL A POSITIVE RESPONSE IS GIVEN}**

| Double vision | A |
| Vision loss in right eye only | B |
| Vision loss in left eye only | C |
| Total loss of vision in both eyes | D |
| Trouble in both eyes seeing to the right | E |
| Trouble in both eyes seeing to the left | F |
| Other (If "Other," specify...) | G |

### TIA/STROKE FORM (TIAC screen 29 of 30)

#### During this time period, when did the earliest occur? ...

| Within 6 months | A |
| Greater than 6 months, but less than 1 year ago | B |
| Greater than 1 year, but less than 2 years ago | C |
| Greater than 2 years, but less than 3 years ago | D |

#### 43. During this time, how many episodes of dizziness, loss of balance or spinning sensation have you had? .......

- 1
- 2
- 3
- 4
- 5
- 6-20 More than 20, or frequent, intermittent events, too numerous to count.

#### 45. How long did it (the longest episode) last? ....

- Less than 30 seconds
- At least 30 seconds, but less than 1 minute
- At least 1 minute, but less than 3 minutes
- At least 3 minutes, but less than 1 hour
- At least 1 hour, but less than 6 hours
- At least 6 hours, but less than 12 hours
- At least 12 hours, but less than 24 hours
- At least 24 hours
### TIA/SKROKE FORM (TIAAG screen 30 of 30)

5. Did the (worst) episode come on suddenly?  
   - Yes  Y  
   - No  N  

   a. How long did it take for the symptoms to get as bad as they were going to get?  
      - 0-2 seconds (instantly)  A  
      - At least 3 seconds, but less than 1 minute  B  
      - At least 1 minute, but less than 1 hour  C  
      - At least 1 hour, but less than 2 hours  D  
      - At least 2 hours, but less than 24 hours  E  
      - At least 24 hours  F  

### H. ADMINISTRATIVE INFORMATION

<table>
<thead>
<tr>
<th>47. Date of data collection:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>48. Method of data collection:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>49. Code number of person completing this form:</th>
</tr>
</thead>
</table>
I. GENERAL INSTRUCTIONS

The TIA/Stroke form is completed during the participant's baseline visit and subsequent clinic exams. The interviewer must be certified and understand the "General Instructions for Completing Paper Forms" and the "DES Training Manual" prior to administering the form. Participant ID number, Contact Year and Name are completed as described in these documents. The interview is conducted using direct data entry unless there is a system failure, in which case data are initially recorded on the paper form for delayed data entry.

II. GENERAL DEFINITIONS

This set of questions is designed to help determine whether the participant has had a physician-diagnosed or undiagnosed stroke or transient ischemic attack (TIA) since the baseline exam (Visit 1). The reference period for an event during the baseline visit was anytime in the past, e.g., "have you ever had ...?". During subsequent exams, beginning with Visit 2, the reference period is the interim between the previous and current exam, generally about 3 years. The lead-in question to each section is now worded "Since the last ARIC visit". Throughout the questions, the words "sudden" and "suddenly" should be taken to mean what the participant perceives suddenly to be.

A stroke generally includes one or more of the following symptoms which begin suddenly: (1) loss or change of speech, (2) loss of vision, (3) double vision, (4) numbness or tingling on one side of the body, (5) paralysis or weakness on one side of the body, or (6) spells of dizziness or loss of balance. A series of questions is asked for each symptom to determine whether an event took place, its duration, and its location, e.g., right carotid, left carotid or vertebrobasilar (VBI).

TIA is considered to be a slight (light) stroke where the same patterns occur as in a stroke; the major difference being the duration of the symptoms, i.e., less than 24 hours.
III. DETAILED INSTRUCTIONS

SECTION A: MEDICAL HISTORY

1. Emphasize to the participant that the stroke/TIA must have been diagnosed by a physician since the last ARIC visit. Light (minor or small) stroke is a synonym for TIA.

2. Emphasize "During this time" which refers to the period since the last ARIC visit. Use standard date format. Enter "==" for unknown month or year.

SECTION B: LOSS OR CHANGE IN SPEECH.

3. Emphasize "Since the last ARIC Visit" and sudden onset of loss or changes of speech. Enter Y, N or D. If NO or DON'T KNOW, skip to SECTION C, Item 10.

4. DO NOT READ RESPONSES. PROBE to select the appropriate category for a response of more than one episode.

5. This question replaces the question in the Visit 1 form, "When did the most recent event occur?" (It is asked again later during the Medical Data Review.) The objective for this new question is to begin collecting incidence data by documenting when the first (or only) episode occurred since the previous ARIC visit. READ THE QUESTION BUT DO NOT READ THE RESPONSES. Select the response category using the current visit as the reference point and counting backwards.

6. Replace "it" with the parenthetical phrase if more than one episode was previously reported. DO NOT READ THE RESPONSE CATEGORIES; however, probes, such as "a few seconds" or "several hours", may be given to identify the category.

7. Use the parenthetical phrase if more than one episode was previously reported. If asked, WORST can be defined in terms of severity, intensity or association with other symptoms.

7a. READ QUESTION. DO NOT READ RESPONSES. Probe to select duration category.

8. READ THE QUESTION AND ALL RESPONSE CATEGORIES. Enter Y, N or D for each response.

9. READ THE QUESTION AND ALL RESPONSES. Responses are not mutually exclusive. Stress that the symptoms must have occurred at the same time as the (worst) episode described in Item 7. Note the skip patterns for responses (a,c and i). FOR POSITIVE RESPONSES to (a and c), READ ALL THE CATEGORIES FOR RESPONSES (b and d). FOR A POSITIVE RESPONSE TO (i), READ THE CATEGORIES FOR (j) UNTIL THERE IS A POSITIVE RESPONSE, THEN STOP.
SECTION C: SUDDEN LOSS OF VISION.

10. Emphasize "Since the last ARIC Visit" and sudden onset of loss of vision. Enter Y, N or D. If NO or DON'T KNOW, skip to SECTION D, Item 17.

11. DO NOT READ RESPONSES. PROBE to select the category for a response of more than one episode.

12. DO NOT READ RESPONSES. Select the response category using the current visit as the reference point and counting backwards.

13. Use parenthetical phrase if multiple events were reported. DO NOT READ RESPONSES, but probe to select appropriate category.

14. Use parenthetical phrase if multiple events were reported. WORST is defined by the respondent in terms of severity, intensity or association with other symptoms. Enter Y or N.

14a. READ QUESTION. DO NOT READ RESPONSES. Probe to select duration category.

15. READ QUESTION using parenthetical expression if multiple events were reported. READ ALL 3 CHOICES before eliciting a response. The key word in the responses is ONLY. If R or L, go to Item 16.

15a. READ QUESTION AND EACH CATEGORY UNTIL THERE IS A POSITIVE RESPONSE, THEN STOP.

16. READ THE QUESTION AND ALL RESPONSES. Responses are not mutually exclusive. Stress that the symptoms must have occurred at the same time as the (worst) episode described in item 14. Note the skip patterns for (b and d). For positive responses to (b and d), READ ALL THE CATEGORIES FOR RESPONSES TO (c and e).
SECTION D: SUDDEN ONSET OF DOUBLE VISION

17. Emphasize "Since the last ARIC Visit" and sudden onset of double vision. Enter Y, N or D. If NO or DON'T KNOW, skip to SECTION E, Item 23.

17a. READ QUESTION AND ENTER Y, N, OR D.

18. DO NOT READ RESPONSES. PROBE to select the category for a response of more than one episode.

19. DO NOT READ RESPONSES. Select the response category using the current visit as the reference point and counting backwards.

20. Use parenthetical phrase if multiple events were reported. DO NOT READ RESPONSES, but probe to select appropriate category.

21. Use parenthetical phrase if multiple events were reported. WORST is defined by the respondent in terms of severity, intensity or association with other symptoms. Enter Y or N.

21a. READ QUESTION. DO NOT READ RESPONSES. Probe to select duration category.

22. READ THE QUESTION AND ALL RESPONSES. Responses are not mutually exclusive. Stress that the symptoms must have occurred at the same time as the (worst) episode described in Item 21. Note the skip patterns for responses (b, and d). FOR POSITIVE RESPONSES to (b and d), READ ALL THE CATEGORIES FOR RESPONSES (c and e).
SECTION E: SUDDEN NUMBNESS OR TINGLING

23. Emphasize "Since the last ARIC Visit" and sudden onset of numbness or tingling. Enter Y, N or D. If NO or DON'T KNOW, skip to SECTION F, Item 32.

24. READ QUESTION AND ENTER Y, N, OR D. If Y, skip to SECTION F, Item 32.

25. DO NOT READ RESPONSES. PROBE to select the category for a response of more than one episode.

26. DO NOT READ RESPONSES. Select the response category using the current visit as the reference point and counting backwards.

27. Use parenthetical phrase if multiple events were reported. DO NOT READ RESPONSES, but probe to select appropriate category.

28. Use parenthetical phrase if multiple events were reported. WORST is defined by the respondent in terms of severity, intensity or association with other symptoms. Enter Y or N.

28a. READ QUESTION. DO NOT READ RESPONSES. Probe to select duration category.

29. READ THE QUESTION AND ALL RESPONSES. This episode should be the same one described in the previous question, item 28. Responses are not mutually exclusive. Enter Y, N, or D for each response (a-g).

30. Referring to the previous episode (items 28 and 29), READ QUESTION. SELECT one category based on the response.

31. READ THE QUESTION AND ALL RESPONSES. Responses are not mutually exclusive. Stress that the symptoms must have occurred at the same time as the (worst) episode described in items (28-30). Note the skip patterns for responses (b and i). FOR POSITIVE RESPONSES to (b), READ ALL THE CATEGORIES FOR RESPONSES (c). FOR A POSITIVE RESPONSE TO (i), READ THE CATEGORIES FOR (j) UNTIL THERE IS A POSITIVE RESPONSE, THEN STOP.
SECTION F: SUDDEN PARALYSIS AND WEAKNESS

32. Emphasize "Since the last ARIC Visit" and sudden onset of paralysis and weakness. Enter Y, N or D. If NO or DON'T KNOW, skip to SECTION G, Item 40.

33. DO NOT READ RESPONSES. PROBE to select the category for a response of more than one episode.

34. DO NOT READ RESPONSES. Select the response category using the current visit as the reference point and counting backwards.

35. Use parenthetical phrase if multiple events were reported. DO NOT READ RESPONSES, but probe to select appropriate category.

36. Use parenthetical phrase if multiple events were reported. WORST is defined by the respondent in terms of severity, intensity or association with other symptoms. Enter Y or N.

36a. READ QUESTION. DO NOT READ RESPONSES. Probe to select duration category.

37. READ THE QUESTION AND ALL RESPONSES. This episode should be the same one described in the previous question, item 36. Responses are not mutually exclusive. Enter Y, N, or D for each response (a-g).

38. Referring to the previous episode (items 36 and 37), READ QUESTION. SELECT one category based on the response.

39. READ THE QUESTION AND ALL RESPONSES. Responses are not mutually exclusive. Stress that the symptoms must have occurred at the same time as the (worst) episode described in Items (36-38). Note the skip patterns for responses (b and i). FOR A POSITIVE RESPONSE to (b), READ ALL THE CATEGORIES FOR RESPONSE (c). FOR A POSITIVE RESPONSE TO (i), READ THE CATEGORIES FOR (j) UNTIL THERE IS A POSITIVE RESPONSE, THEN STOP.
SECTION G: SUDDEN SPELLS OF DIZZINESS OR LOSS OF BALANCE

40. Emphasize "Since the last ARIC Visit" and sudden onset of dizziness or loss of balance. Enter Y, N or D. If NO or DON'T KNOW, skip to SECTION H, Item 47.

41. READ QUESTION AND ENTER Y, N, OR D. If Y, skip to SECTION H, Item 47.

42. READ THE QUESTION AND ALL RESPONSES. Responses are not mutually exclusive. Stress that the symptoms must have occurred at the same time as the (worst) episode described in Item 40. Note the skip patterns for responses (b, d and i). FOR POSITIVE RESPONSES to (b and d), READ ALL THE CATEGORIES FOR RESPONSES (c and e). FOR A POSITIVE RESPONSE TO (i), READ THE CATEGORIES FOR (j) UNTIL THERE IS A POSITIVE RESPONSE, THEN STOP.

43. DO NOT READ RESPONSES. PROBE to select the category for a response of more than one episode.

44. DO NOT READ RESPONSES. Select the response category using the current visit as the reference point and counting backwards.

45. Use parenthetical phrase if multiple events were reported. DO NOT READ RESPONSES, but probe to select appropriate category.

46. Use parenthetical phrase if multiple events were reported. WORST is defined by the respondent in terms of severity, intensity or association with other symptoms. Enter Y or N.

46a. READ QUESTION. DO NOT READ RESPONSES. Probe to select duration category.

SECTION H: ADMINISTRATIVE INFORMATION

47. Enter date using standard date format.

48. Enter C for data collected using computer; P for data collected on a paper form.

49. Enter three digit ARIC code number.
PUBLIC REPORTING BURDEN FOR THIS COLLECTION OF INFORMATION IS ESTIMATED TO AVERAGE 2 MINUTES PER RESPONSE, INCLUDING TIME FOR REVIEWING INSTRUCTIONS, SEARCHING EXISTING DATA SOURCES, GATHERING AND MAINTAINING THE DATA NEEDED, AND COMPLETING AND REVIEWING THE COLLECTION OF INFORMATION. SEND COMMENTS REGARDING THE BURDEN ESTIMATE OR ANY OTHER ASPECT OF THIS COLLECTION OF INFORMATION INCLUDING SUGGESTIONS FOR REDUCING THIS BURDEN TO REPORTS CLEARANCE OFFICER, PHS, 721-H HUBERT H. HUMPHREY BLDG., 200 INDEPENDENCE AVE. SW, WASHINGTON, D.C. 20201, ATTN. PRA; AND TO THE OFFICE OF MANAGEMENT AND BUDGET, PAPERWORK REDUCTION PROJECT (OMB 0925-0261), WASHINGTON, D.C. 20503.

INSTRUCTIONS: THIS FORM IS COMPLETED DURING THE MEDICAL DATA REVIEW AFTER ALL CLINICAL EXAMS ARE COMPLETED. FOR EVERY POSITIVE SYMPTOM CHECKED IN COLUMN (A), CHECK EITHER YES, NO OR UNSURE IN COLUMNS (B) AND/OR (C). IN ADDITION, INDICATE IN COLUMN (B) AND/OR (C) YOUR OPINION WHETHER THE EVENT(S) CORRESPOND TO A TIA/STROKE. IF ONE OR MORE EVENTS WERE A TIA/STROKE, THE MEDICAL DATA REVIEWER RECORDS THE DATE OF MOST RECENT EVENT IN ITEM 7B.
### TIA/STROKE SUMMARY FORM

#### (a) Symptoms from TIA/Stroke Form

<table>
<thead>
<tr>
<th>Questions from TIA/Stroke Form</th>
<th>POSITIVE SYMPTOM (Check Yes or No)</th>
<th>MEDICAL DATA REVIEWER (Check Yes, No or Unsure)</th>
<th>ARIC PHYSICIAN (Check Yes, No or Unsure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Sudden loss of speech. Question 3 is Yes.</td>
<td>[ ] Yes [ ] No</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
</tr>
<tr>
<td>C. Sudden loss of vision. Question 10 is Yes.</td>
<td>[ ] Yes [ ] No</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
</tr>
<tr>
<td>D. Sudden double vision. Question 17a is Yes or Don't Know.</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
</tr>
<tr>
<td>E. Sudden numbness, tingling or loss of feeling. Question 24 is No or Don't Know.</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
</tr>
<tr>
<td>F. Sudden paralysis or weakness. Question 32 is Yes.</td>
<td>[ ] Yes [ ] No</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
</tr>
<tr>
<td>G. Sudden dizziness, loss of balance or sensation of spinning. Question 41 is No or Don't Know.</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
<td>[ ] Yes [ ] No [ ] Unsure</td>
</tr>
</tbody>
</table>

**WAS THIS A TIA/STROKE?**

- 7a. [ ] Yes [ ] No [ ] Unsure
- 15. [ ] Yes [ ] No [ ] Unsure

**DATE OF MOST RECENT TIA/STROKE**

- 7b. [ ] [ ] [ ] Month [ ] [ ] [ ] Year

**H. CODE NUMBER**

- 8a. [ ] [ ] [ ] (Reviewer)
- 16. [ ] [ ] [ ] (Reviewer)

**DATE OF MEDICAL DATA REVIEW WITH PARTICIPANT**

- 8b. [ ] [ ] [ ] month [ ] [ ] [ ] day [ ] [ ] [ ] year

**IF ONE OR MORE POSITIVE SYMPTOMS, FILE ORIGINAL IN PARTICIPANT'S FOLDER.**
TIA/STROKE SYMPTOMS MEDICAL DATA REVIEW WORKSHEET:

1. Please describe this event:

2. Did you see a physician for your problem? □ □ If NO, skip to question 2b.
   Yes No
   a. What was the diagnosis?
      TIA Stroke Unk Other: Specify
   b. What is your explanation for this event?

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SPEECH VISION DOUBLE VISION NUMBNESS WEAKNESS DIZZINESS (Circle one)

Please describe this event: ________________________________

____________________________________________________________________

. Did you see a physician for your problem? ☐ ☐ If NO, skip to question 2b.
  Yes No
  a. What was the diagnosis? ☐ ☐ ☐ ☐
     TIA Stroke Unk Other: Specify____________________
  b. What is your explanation for this event? _______________________________

SPEECH VISION DOUBLE VISION NUMBNESS WEAKNESS DIZZINESS (Circle one)

Please describe this event: ________________________________

____________________________________________________________________

. Did you see a physician for your problem? ☐ ☐ If NO, skip to question 2b.
  Yes No
  a. What was the diagnosis? ☐ ☐ ☐ ☐
     TIA Stroke Unk Other: Specify____________________
  b. What is your explanation for this event? _______________________________

SPEECH VISION DOUBLE VISION NUMBNESS WEAKNESS DIZZINESS (Circle one)

Please describe this event: ________________________________

____________________________________________________________________

. Did you see a physician for your problem? ☐ ☐ If NO, skip to question 2b.
  Yes No
  a. What was the diagnosis? ☐ ☐ ☐ ☐
     TIA Stroke Unk Other: Specify____________________
  b. What is your explanation for this event? _______________________________

Date of data collection: □ □ □
  month  day  year

Code of person completing this worksheet: □ □ □
INSTRUCTIONS FOR TIA/STROKE SUMMARY FORM
TSR, VERSION B, 01/22/90
PREPARED 05/09/90

INTRODUCTION

The TIA/STROKE SUMMARY FORM is completed during the Medical Data Review for all participants. The form has two sections: the header and the review of symptoms. The header consists of the participant's ID number, contact year, name (last and initials) and the date of the TIA/Stroke interview.

The remainder of the form is divided into four columns. The first column lists the three elements which are recorded in columns (a), (b) and (c). These include (1) the symptoms from the TIA/STROKE questionnaire which could be attributable to a non-CVD cause, (2) the verification of a stroke/TIA and (3) the reviewer's administrative ID numbers.

The second column (a) is a check list to use as an aid in preparing the TIA/STROKE medical data review worksheet(s). The Yes/No responses correspond to the categories B-G in the first column. The three blank boxes corresponding to line H in the first column are to record the reviewer's ID number.

The third column (b) is completed by the individual conducting the Medical Data Review. Questions (1-6) document the Reviewer's clinical impression as to whether the positive symptom(s) checked in the second column (a) was attributable to a non-cerebrovascular (non-CVD) cause. Question (7a) records whether the reviewer felt the positive symptom(s) constituted a stroke/TIA. If Question 7a was answered Yes, the date of the most recent TIA/Stroke is recorded in Question 7b. If the participant is unable to give precise information, record approximate date. Question (8a) records the Medical Data Reviewer's ARIC identification code; (8b) documents the date of the interview.

The fourth column (c) is completed by the ARIC physician, if different from the person who performed the Medical Data Review and completed the third column. Questions (9-14) document the physician's clinical impression as to whether the positive symptom(s) checked in the second column (a) was attributable to a non-CVD cause. Question (15) records whether the physician thought the positive event(s) was a TIA/Stroke. Question 16 records the physician's ARIC ID.
POSITIVE SYMPTOM CHECKLIST

After the participant has completed the TIA/Stroke interview and before beginning the medical data review, the header section of the TIA/STROKE SUMMARY FORM is completed. A patient ID label can be substituted for hand coded information. Information not printed on the label must be entered by hand.

EXAMPLE OF HEADER OF TIA/STROKE SUMMARY FORM

INSTRUCTIONS: This form is completed during the Medical Data Review after all clinical exams are completed. For every positive symptom checked in column (a), check either Yes, No or Unsure in columns (b) and/or (c). In addition, indicate in column (b) and/or (c) your opinion whether the event(s) corresponds to a TIA/Stroke. If one or more events were a TIA/STROKE, the medical data reviewer records the date of most recent event in item 7b.
The receptionist, interviewer, or designated staff completes the checklist in the second column (a). Symptom categories which are positive (see the definitions for positive symptoms) are recorded in the boxes under the YES column. Those which do not meet the definition are recorded in the boxes under the NO column.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Positive Symptom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sudden loss of speech. Question 3 is Yes.</td>
<td>Yes</td>
</tr>
<tr>
<td>Sudden loss of vision. Question 10 is Yes.</td>
<td>No</td>
</tr>
<tr>
<td>Sudden double vision. Question 17a is Yes or Don't Know.</td>
<td>No</td>
</tr>
<tr>
<td>Sudden numbness, tingling or loss of feeling. Question 24 is No or Don't Know.</td>
<td>Yes</td>
</tr>
<tr>
<td>Sudden paralysis or weakness. Question 32 is Yes.</td>
<td>No</td>
</tr>
<tr>
<td>Sudden dizziness, loss of balance or sensation of spinning. Question 41 is No or Don't Know.</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**WAS THIS A TIA/STROKE?**

**DATE OF MOST RECENT TIA/STROKE**

**H. CODE NUMBER**

**DATE OF REVIEW**

IF ONE OR MORE POSITIVE SYMPTOMS, FILE ORIGINAL IN PARTICIPANT'S FOLDER.
MEDICAL DATA REVIEW

The medical Data Reviewer reviews the positive symptom checklist on the TIA/STROKE SUMMARY FORM. If there are any positive symptoms, each positive symptom requires the completion of a positive symptom module on the TIA/STROKE SYMPTOMS MEDICAL DATA REVIEW WORKSHEET and the corresponding Yes/No/Unsure box in Column (b) of the SUMMARY FORM.

The TIA/STROKE SYMPTOMS MEDICAL DATA REVIEW WORKSHEET provides space to record the participant's impression as to why he/she reported a positive symptom. To complete the WORKSHEET, the Reviewer identifies the category which the participant reported as positive by circling the appropriate symptom at the top of the module. The written set of questions are read to the participant and the answers recorded. If the participant reported more than one positive symptom, a second, third, etc., module is completed.

EXAMPLE OF TIA/STROKE SYMPTOMS MEDICAL DATA REVIEW WORKSHEET

ARIC ID LABEL: F001234
LAST NAME

TIA/STROKE SYMPTOMS MEDICAL DATA REVIEW WORKSHEET:

SPEECH VISION DOUBLE VISION NUMBNESS WEAKNESS DIZZINESS (Circle one)

1. Please describe this event:

2. Did you see a physician for your problem? [ ] Yes [ ] No If NO, skip to question 2b.
   a. What was the diagnosis? [ ] TIA [ ] Stroke [ ] Unk [ ] Other: Specify
   b. What is your explanation for this event?

SPEECH VISION DOUBLE VISION NUMBNESS WEAKNESS DIZZINESS (Circle one)

2. Did you see a physician for your problem? [ ] Yes [ ] No If NO, skip to question 2b.
   a. What was the diagnosis? [ ] TIA [ ] Stroke [ ] Unk [ ] Other: Specify
   b. What is your explanation for this event?

SPEECH VISION DOUBLE VISION NUMBNESS WEAKNESS DIZZINESS (Circle one)

2. Did you see a physician for your problem? [ ] Yes [ ] No If NO, skip to question 2b.
   a. What was the diagnosis? [ ] TIA [ ] Stroke [ ] Unk [ ] Other: Specify
   b. What is your explanation for this event?

(turn over)

05-09-90
After the WORKSHEET is completed, it is stapled to the TSR. Then the Reviewer proceeds to complete the third column (b) of the TIA/STROKE SUMMARY FORM. For each positive symptom category checked as positive in the second column, the Reviewer checks Yes/No/Unsure in column (b) to indicate whether, in his/her opinion, the symptom could be attributable to a non-CVD cause. The Reviewer must also check Yes/No/Unsure in Question 7a to document his/her clinical impression of the occurrence of a TIA/stroke. If the answer to 7a is YES, the date of the most recent TIA/STROKE is recorded in Question 7b. Item 7b is not keyed into the data entry system. The date of the most recent event is asked to provide additional information for the clinician to use in deciding whether the reported symptom(s) require(s) referral. The Reviewer completes the column by recording his/her ID code in Question 8a and the date of the interview in Question 8b.

**EXAMPLE OF FIRST THREE COLUMNS OF TIA/STROKE SUMMARY FORM**

<table>
<thead>
<tr>
<th>Symptoms from TIA/Stroke Form</th>
<th>POSITIVE SYMPTOM (Check Yes or No)</th>
<th>MEDICAL DATA REVIEWER (Check Yes, No or Unsure)</th>
<th>IS THERE A NON-CVD CAUSE?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questions from TIA/Stroke Form</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Sudden loss of speech. Question 3 is Yes.</td>
<td>Yes No</td>
<td>1. Yes No Unsure</td>
<td></td>
</tr>
<tr>
<td>C. Sudden loss of vision. Question 10 is Yes.</td>
<td></td>
<td>2. Yes No Unsure</td>
<td></td>
</tr>
<tr>
<td>D. Sudden double vision. Question 17a is Yes or Don't Know.</td>
<td></td>
<td>3. Yes No Unsure</td>
<td></td>
</tr>
<tr>
<td>E. Sudden numbness, tingling or loss of feeling. Question 24 is No or Don't Know.</td>
<td>Yes No</td>
<td>4. Yes No Unsure</td>
<td></td>
</tr>
<tr>
<td>F. Sudden paralysis or weakness. Question 32 is Yes.</td>
<td></td>
<td>5. Yes No Unsure</td>
<td></td>
</tr>
<tr>
<td>G. Sudden dizziness, loss of balance or sensation of spinning. Question 41 is No or Don't Know.</td>
<td></td>
<td>6. Yes No Unsure</td>
<td></td>
</tr>
<tr>
<td>WAS THIS A TIA/STROKE?</td>
<td></td>
<td>7a. Yes No Unsure</td>
<td></td>
</tr>
<tr>
<td>DATE OF MOST RECENT TIA/STROKE</td>
<td></td>
<td>7b. 07 89 Month Year</td>
<td></td>
</tr>
<tr>
<td>CODE NUMBER</td>
<td></td>
<td>8a. 888 (Reviewer)</td>
<td></td>
</tr>
<tr>
<td>DATE OF REVIEW</td>
<td></td>
<td>8b. 02 01 90 month day year</td>
<td></td>
</tr>
</tbody>
</table>

IF ONE OR MORE POSITIVE SYMPTOMS, FILE ORIGINAL IN PARTICIPANT'S FOLDER.
The ARIC physician completes the fourth column of the TIA/STROKE SUMMARY FORM as part of the medical review. If there are no positive symptoms checked in column (a), Questions 9-15 are left blank and the Physician records his/her ID code in Question 16.

If there are positive symptoms checked in the second column, the physician reviews the MEDREVU printout and the TIA/STROKE SYMPTOMS MEDICAL DATA REVIEW WORKSHEET. The physician then completes the fourth column (c) of the TIA/STROKE SUMMARY FORM. For each positive symptom category checked as positive in the second column, the Reviewer checks Yes/No/Unsure for Questions 9-14 in column (c) to indicate whether, in his/her opinion, the symptom could be attributable to a non-CVD cause. The Physician also checks Yes/No/Unsure is Question 15 to document his/her clinical impression of the occurrence of a TIA/stroke. The physician completes column (c) by recording his/her ID code in Question 16. In cases where the Medical Data Review and the subsequent medical review are performed by the same ARIC physician, that physician must complete both column (b) and (c).
A-187

SAMPLE OF FIRST FOUR COLUMNS OF TIA/STROKE SUMMARY FORM

<table>
<thead>
<tr>
<th>Symptoms from TIA/Stroke Form</th>
<th>(a) POSITIVE SYMPTOM (Check Yes or No)</th>
<th>(b) MEDICAL DATA REVIEWER (Check Yes, No or Unsure)</th>
<th>(c) ARIC PHYSICIAN (Check Yes, No or Unsure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questions from TIA/Stroke Form</td>
<td>Yes No</td>
<td>Yes No Unsure</td>
<td>Yes No Unsure</td>
</tr>
<tr>
<td>B. Sudden loss of speech.</td>
<td>Yes</td>
<td>1. Yes</td>
<td>9. Yes</td>
</tr>
<tr>
<td>Question 3 is Yes.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Sudden loss of vision.</td>
<td>No</td>
<td>2. No</td>
<td>10. No</td>
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<tr>
<td>Question 10 is Yes.</td>
<td></td>
<td></td>
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<tr>
<td>D. Sudden double vision.</td>
<td>Yes</td>
<td>3. Yes</td>
<td>11. Yes</td>
</tr>
<tr>
<td>Question 17a is Yes or Don't Know.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Sudden numbness, tingling</td>
<td>No</td>
<td>4. No</td>
<td>12. No</td>
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<tr>
<td>or loss of feeling.</td>
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<td></td>
<td></td>
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<tr>
<td>Question 24 is No or Don't Know.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>F. Sudden paralysis or</td>
<td>Yes</td>
<td>5. Yes</td>
<td>13. Yes</td>
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<tr>
<td>weakness.</td>
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<tr>
<td>Question 32 is Yes.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>G. Sudden dizziness,</td>
<td>No</td>
<td>6. No</td>
<td>14. No</td>
</tr>
<tr>
<td>loss of balance or</td>
<td></td>
<td></td>
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<tr>
<td>sensation of spinning.</td>
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<td></td>
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<tr>
<td>Question 41 is No or</td>
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<tr>
<td>Don't Know.</td>
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<td></td>
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</tbody>
</table>

WAS THIS A TIA/STROKE?

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<tr>
<th>(a)</th>
<th>(b)</th>
<th>(c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>7a. Yes</td>
<td>15. Yes</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DATE OF MOST RECENT TIA/STROKE

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<td>7b. 07 89</td>
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<tr>
<td>Month Year</td>
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</table>

CODE NUMBER

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DATE OF REVIEW

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<tbody>
<tr>
<td>8b. 02 01 90</td>
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<tr>
<td>month day year</td>
</tr>
</tbody>
</table>

IF ONE OR MORE POSITIVE SYMPTOMS, FILE ORIGINAL IN PARTICIPANT'S FOLDER.
UPDATE FORM (UPDA screen 1 of 6)

1. VERIFICATION OF IDENTIFYING INFORMATION

1. a. Title: ____  b. First Name: __________
   c. Middle Name: ________  d. Last Name: _____________

2. Mailing Address:  
   a. ________________________
   b. ________________________
   c. ________________________

3. Home Phone Number: ________  4. Other Phone Number: ________
   area-###-####  area-###-####

5. a. What is your driver's license number? __________
   b. What state is your driver's license registered in? ____
CONTACT PERSON 1

[Press Esc-2 to produce explanatory statement before proceeding.]

a. Title: ___ b. First Name: __________

c. Last Name: ________________

Mailing Address:

a. _________________________
b. _________________________
c. _________________________


Telephone: __________ 9. Relationship: ________________
area-###-####
UPDATE FORM (UPDA screen 3 of 6)

J. CONTACT PERSON 2

10. a. Title: ___  b. First Name: __________
   c. Last Name: _______________

11. Mailing Address:
   a. _______________________
   b. _______________________
   c. _______________________

12. Telephone: ______
    area-###-####

13. Relationship: _______________
PARTICIPANT INFORMATION

4. Date of Birth: ____________  
   mm/dd/yy

15. Social Security Number: ____________
   ###-##-####

PHYSICIAN INFORMATION

6. a. First Name: ____________  
   b. Middle Initial: ____________
   c. Last Name: ____________

7. a. Clinic/Building: ____________
   Mailing Address:
   b. ____________
   c. ____________
   d. City: ____________  
   e. State: ____________  
   f. Zip Code: ________
7. NOTIFICATION OF TEST RESULTS

18. {Show and explain Results Reporting Sheet.}

"Our usual procedure is to send results to you and your physician as shown on this sheet."

(Enter "U" unless participant volunteers that this procedure is not satisfactory or has no personal physician. If no personal physician, enter "T". If participant requests another procedure, offer those given below.)

Usual procedure (detailed results to physician, summary to participant) U
Detailed results to participant, but not to physician T
Detailed results to both participant and physician B
ADMINISTRATIVE INFORMATION

9. Date of data collection/update: ________________

10. Code number of person completing/updating this form: ___
INSTRUCTIONS FOR THE UPDATE FORM
UPD, VERSION A
Prepared 1/25/90

The UPDATE form is administered during Reception. The form confirms the participant's demographic data and updates the tracking data which may have been collected up to three years ago. Unlike other forms which are completed during Visit 2, this form already contains data retrieved from the study's central database. An Update Form must be present in the local database in order for a participant diskette to be initialized. If one is not already present on the local database, it must be added prior to initialization. When the form is administered using the computerized version of the UPDATE form, it is entered in the CHANGE mode of the data entry system.

If a paper form should be needed, print the Update Form from either the participant diskette or from the local database.

INTRODUCTION OF THE FORM

I would like to verify some of the information we have collected from you over the telephone.

A. VERIFICATION OF IDENTIFYING INFORMATION

1 (a-d). Read the participant's title, first, middle and last name. If there is a question as to spelling of any of the names, verify the spelling.

2 (a-f) Read the mailing address to the participant, indicating that you need the mailing address and not the participant's residence, and verify its accuracy.

3. Confirm the home telephone number.

4. Confirm the "other" telephone number. If none is (has been) given, ask if there is another telephone number where the participant could be reached.

5 (a-b). Ask to see the participant's driver's license and confirm the number and state. If the participant did not bring the license, go to the next question.

Prior to Visit 2 the participant was asked to fill out an information sheet with the names and addresses of two contact persons, the primary care physician, and their social security number. Ask if he/she brought in the information sheet and offer to review it together while updating the next few questions.

B. CONTACT PERSON 1

6 - 9 Read the name, address, telephone number and relationship of the first contact person on the form to the participant. Ask if any of it needs to be updated.
C. CONTACT PERSON 2

10 - 13 Read the name, address, telephone number and relationship of the second contact person on the form to the participant. Ask if any of it needs to be updated.

D. PARTICIPANT INFORMATION

14. Ask the participant's date of birth and confirm its accuracy. When phrasing the question, do not provide the date but rather allow the participant to say it.

Show the participant the SOCIAL SECURITY DISCLOSURE STATEMENT card before verifying the participant's social security number.

15. Verify the participant's social security number, either by checking the data on the screen against the information sheet completed by the participant or by slowly reading the number to the participant. If the number can't be confirmed, go to the next question.

E. PHYSICIAN INFORMATION

16 (a-c). Read the first name, middle initial and last name of the participant's physician. If there is a question as to spelling of any of the names, verify the spelling. If the participant has changed physicians, enter the new name.

17 (a) Read the Clinic/Building name to the participant and verify its accuracy or ask if there is one if the field is empty.

17 (b-f) Read the mailing address to the participant, and verify its accuracy. If the participant changed physicians, enter the new address.

F. NOTIFICATION OF TEST RESULTS

Show and explain to the participant a blank copy of the Results Reporting Sheet that they received after Visit 1 and then read Item 18. Do not read the responses.

18. This question should be asked regardless of whether or not a response is already present from Visit 1 data. Enter "U" unless the participant volunteers that this procedure is not satisfactory or has no personal physician. If no personal physician, enter "T". If the participant requests another procedure, offer only those listed on the screen (paper form).

G. ADMINISTRATIVE INFORMATION

19. Record the date of the interview using the standard date format.

20. The person at the clinic who has performed the interview and completed the form must enter his/her code number.
INSTRUCTIONS: This form should be completed on paper during participant's visit.

A. BLOOD DRAWING

1. Do you have any bleeding disorders? ............ YES Y
   NO N
   DON'T KNOW D
   If YES, specify in Item 13

2. Date of blood drawing:       /       /
   month   day   year

3. Time of blood drawing:   h   h   m   m
   a. AM ............ A
   PM ............ P

4. Was all blood drawn before the snack? ............ YES Y
   NO N
   If NO, specify non-fasting tubes on page 3.

5. Number of venipuncture attempts: 

6. Filling time of Tube 1:        seconds

7. Was the tourniquet reapplied? ................. YES Y
   NO N
   If YES, specify on page 3.

8. Code number of phlebotomist:
B. BLOOD PROCESSING

9. Time at which specimen Tubes 2-7 were spun.
   a. AM  
   PM  

10. Time at which specimen Tube 1 was spun.
    a. AM  
    PM  

11. Time at which specimens were placed in freezer:
    a. AM  
    PM  

12. Code number of technician processing the blood.  

13. Comments on blood drawing/processing: 

14. Paper Incident Record (page 3) used?  YES Y  NO N 

05-09-90
A. BLOOD DRAWING INCIDENTS: THIS LOG IS COMPLETED TO DOCUMENT PROBLEMS WITH THE VENIPUNCTURE. PLACE AN "X" IN BOXES CORRESPONDING TO THE TUBES IN WHICH BLOOD DRAWING PROBLEMS OCCURRED. IF A PROBLEM OTHER THAN THOSE LISTED OCCURRED, USE ITEM 6.

<table>
<thead>
<tr>
<th>Tubes</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sample not drawn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. Partial sample drawn</td>
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<td></td>
</tr>
<tr>
<td>3. Tourniquet reapplied</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4. Needle movement</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>5. Phlebotomist code:</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>6. Other problems in blood drawing:</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

B. BLOOD PROCESSING INCIDENTS: THIS LOG IS COMPLETED TO DOCUMENT PROBLEMS PROCESSING THE SPECIMENS. PLACE AN "X" IN BOXES CORRESPONDING TO THE TUBES IN WHICH PROCESSING PROBLEMS OCCURRED. IF A PROBLEM OTHER THAN THOSE LISTED OCCURRED, USE ITEM 13.

<table>
<thead>
<tr>
<th>Tubes</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Broken tube</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Clotted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Hemolyzed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Lipemic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Other Contamination</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>12. Blood Processor Code:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>13. Other problems in blood processing:</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

14. Date of procedures: _ _ / _ _ / _ _ .
INSTRUCTIONS FOR VENIPUNCTURE FORM
VEN, VERSION B, 05/09/90
PREPARED 01/19/90

I. GENERAL INSTRUCTIONS

The Venipuncture Form should be completed during the participant's clinic visit to record the results of that procedure. Technicians performing venipuncture and blood processing must be certified and should have a working knowledge of the ARIC Blood Collection and Processing Manual of Operations. Technicians should also be familiar with and understand the document entitled "General Instructions for Completing Paper Forms" prior to completing this form. ID Number, Contact Year, and Name should be completed, as described in that document, prior to the arrival of the participant.

II. SPECIFIC INSTRUCTIONS

A. BLOOD DRAWING

1. Do you have any bleeding disorders? ............ YES Y

NO N

DON'T KNOW D

If YES, specify in Item 13

If the participant has a bleeding disorder, consult with the field center physician, physician assistant or nurse practitioner before proceeding with the venipuncture. If the participant does not know whether he/she has a bleeding disorder, offer the explanation, "If you have a bleeding disorder you would have symptoms like excessive nose bleeds, or very easing bruising, or problems with bleeding after tooth extractions, or any type of surgery." If the participant is still unsure, consult with field center medical personnel before going on. Specify any bleeding disorders as briefly as possible in Item 13 of the Venipuncture Form.

2. Date of blood drawing: ............ 05/03/86

month day year

Note the date of blood drawing on the form. Code in numbers using leading zeros where necessary to fill all fields. For example, May 3, 1986 would be entered as shown above.

If the participant is rescheduled for another day, the actual date when blood is drawn should be entered.

3. Time of blood drawing: ............ AM A

PM P

01-19-90
Note the time of venipuncture on the form. This is the time when the vein is punctured. Fill in the fields using leading zeroes where necessary and indicate AM or PM.

4. Was all blood drawn before the snack? ......... YES Y
   NO N

   If NO, specify non-fasting tubes on page 3.

Check the participant's Itinerary Sheet, or ask the participant if he/she has had the clinic snack. If so, specify non-fasting tubes in Section A, question 6 of the Incident Record.

5. Number of venipuncture attempts: ................. _

Include all venipuncture attempts by all phlebotomists. The same technician should not attempt a venipuncture more than twice.

6. Filling time of Tube 1: _ _ seconds

Note the time required to fill tube 1. If the flow rate in the tube is so slow that blood does not fill the first collection tube within 36 seconds, stop the blood collection and repeat on the other arm. If blood is flowing freely, the butterfly needle may be taped to the donor's arm for the duration of the draw.

7. Was the tourniquet reapplied? .................YES Y
   NO N

   If YES, specify on page 3.

Do not reapply the tourniquet during tubes #2 - #5. Only reapply the tourniquet after tube #5, and only if this is necessary to spare the participant another stick. Specify which tubes correspond to the tourniquet reapplication in Section A of the Incident Record.

8. Code number of phlebotomist: _ _ _

The phlebotomist who performed the blood drawing procedure must enter his/her code number in the fields provided. If more than one phlebotomist attempts to draw the blood, enter the code of the first phlebotomist.

B. BLOOD PROCESSING

9. Time at which specimen Tubes 2-7 were spun. _ _ : _ _ AM A
   PM P

Note the time at which the centrifuge containing these tubes began to spin. Fill in the fields using leading zeroes where necessary and indicate AM or PM.

01-19-90
10. Time at which specimen Tube 1 was spun. __:__ AM __ PM

Note the time at which the centrifuge containing this tube began to spin. Fill in the fields using leading zeroes where necessary and indicate AM or PM.

11. Time at which specimens were placed in freezer: __:__ AM __ PM

Note the time at which the samples were placed in the freezer. Fill in the fields using leading zeroes where necessary and indicate AM or PM.

12. Code number of technician processing the blood. __ __

Enter the code number of the technician who began processing the blood.

13. Comments on blood drawing/processing: ________________________________

Include any clarifications or other information relevant to the assays being performed that are not included in the Incident Record, Fasting Tracking Form (FTR), Medication Survey Form (MSR), or the Health History Form (HHX). This information will be keyed into the Venipuncture DES record. Be as clear and concise as possible.

14. Paper Incident Record (page 3) used? .................YES Y

Answer "Y" if any problem occurred in either blood drawing or blood processing that necessitated use of the paper Incident Record attached to the venipuncture form. In such a case, attach the correct ARIC ID label on the original and make copies. Send original to the ARIC Coordinating Center and a copy to the pertinent central laboratory(ies). Place one copy in the participant's folder. Answer "N" if no such problems occurred. In this case, an Incident Record is unnecessary and therefore a copy need not be made.

01-19-90
### RESULTS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematocrit</td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Hemoglobin</td>
<td></td>
<td>g/dL</td>
</tr>
<tr>
<td>White Blood Count</td>
<td></td>
<td>x1000/mm³</td>
</tr>
<tr>
<td>Platelet Count</td>
<td></td>
<td>x1000/mm³</td>
</tr>
<tr>
<td>Neutrophils</td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Neutrophil Bands</td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Lymphocytes</td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Monocytes</td>
<td></td>
<td>%</td>
</tr>
</tbody>
</table>

9. Eosinophils
10. Basophils
11. Other cells? Yes (Y)* No (N)
12. Sample condition comments? Yes (Y)* No (N)
13. Mean Corpuscular Volume (MCV) (to nearest whole unit)

### B. ADMINISTRATIVE INFORMATION

14. Date of data collection: mm/dd/
15. Code number of person completing this form: ___
HEMATOLOGY SCREEN INSTRUCTIONS
HMT, VERSION B
PREPARED 01/25/90

GENERAL INSTRUCTIONS:

The Hematology Form should be completed when the results are received at the Field Center from the lab and will be entered in batch mode on the Data Coordinator's machine. The coder must be trained in using the ARIC Data Entry System and in transcribing Hematology Lab results to the HMT form.

With reference to Items 1 -10, if your lab does not do a procedure, enter "=" (equal sign) into the available space. (For this particular form, depressing Fl will automatically fill the corresponding field with equal signs.) This will give the item a status of Unresolvable.

DETAILED INSTRUCTIONS:

Items 1 - 4:

The edit limits for these items are set as the narrower of those requiring immediate medical notification or what are considered to be "normal" ranges.

When a number entered for these variables causes an edit failure, the value should be "confirmed" and remaining values entered on the screen. Upon completion of entering data, all values failing these edits are to be reported according to the Medical Alert Value Reporting Procedure. Medical Alert Value items are identified on the screen with the abbreviation (MAV).

Items 5 - 10, 13:

For these variables no Medical Alert Values have been set. For those that fail the edit limits, the status byte should be set to "questionable" and the matter brought to the attention of the Field Center medical staff. If the value is not so extreme that the medical staff does not feel it necessary to contact the lab, or the lab verifies the value, the status byte should be changed to "confirmed." If the lab feels this result is in error and cannot rerun the procedure, the status byte should be set to "unresolvable." In no case should the status byte be permanently left as "questionable."

Item 11:

This item provides a place to record the presence of any abnormal cells (if there are any). A note log screen can be used to record a brief description of the type and proportion of abnormal cells. It is not intended to include the participants MCH or MCHC.
Item 12:

This question provides a place to record any notes on sample condition that are found in the Comments section of the hematology lab slip. If no comments relative to the sample condition are found, the answer to the question is NO.

Item 14:

Enter the date when the data were collected from the participant. This information will be found on the Hematology lab slip.

Item 15:

The person at the Clinic who has entered this form must enter his/her three digit code number.