

Exam 29 Table of Contents

Section I: General Information

- 1) Exam Components – clinic and offsite
- 2) Equipment for Exam Procedures & Equipment Calibration Times
- 3) Guidelines for Coding Accuracy

Section II: Informed Consent & Tracking Procedures

- 1) Informed Consent
- 2) Waiver of Informed Consent
- 3) HIPPA - Release of Health Information for Research Purposes
- 4) FHS Follow-up by Proxy

Section III: Clinical Measurements & Procedures

- 1) Anthropometrics
 - a) Weight
 - b) Height
- 2) Blood Pressure & Maximum Inflation
- 3) ECG
- 4) Observed Physical Performance
 - a) Hand Grip Test
 - b) Chair Stand
 - c) Balance
 - d) Measured Walks

Section IV: Tech-Administered Questionnaires

- 1) Healthcare Preferences
- 2) MMSE- Cognitive Function Test
- 3) Sociodemographics and Subjective Health
- 4) Activities of Daily Living Self Reported Performance:
 - a) Rosow-Breslau
 - b) NAGI Scale
 - c) KATZ
 - d) Compensatory Strategies for Walking in the Home
- 5) IADL'S (Instrumental Activities of Daily Living)
- 6) CES-D (Center for Epidemiologic Studies Depression Scale)
- 7) Berkman Social Network Questionnaire
- 8) Leisure Time Cognitive & Physical Activities
- 9) Other
 - a) Use of Nursing and Community Services
 - b) Falls and Fractures
 - c) Procedure Sheet & Exit Interview

Section V: Physician-Administered Medical History

- 1) Medical History
- 2) Resting Blood Pressure
- 3) ECG Coding
- 4) Referral Tracking
- 5) Doctors Letter

Section VI: Offsite Examination

- 1) Scheduling Offsite Visits
- 2) Preparation for an Offsite Examination
- 3) Proposed Sequence of Exam
- 4) Visiting the Cognitively Impaired
- 5) Nursing Home Chart Review Protocol
- 6) Off-Site Visit Chart Completion

Section VII: Appendix

- 1) Exam Forms
- 2) Exam Referral Forms & Medical Encounter Forms
- 3) Supervisor Observation Forms
- 4) Tracking Forms
- 5) Participant Letters
- 6) Massachusetts Counties
- 7) WORLD Scoring for MMSE

Cohort Exam 29 Clinic Components

Section I: Informed Consent & Tracking Procedures

- 1) Informed Consent
- 2) Waiver of Informed Consent
- 3) HIPPA-Release of Health Information for Research Purpose
- 4) FHS Follow-up by Proxy
- 5) Tracking Information Form (Salmon Sheet)

Section II: Clinical Measurements & Procedures

- 1) Anthropometrics
 - a. Height
 - b. Weight
 - c. Blood Pressure
- 2) Observed Physical Performance
 - a. Handgrip
 - b. Chair Stands
 - c. Balance
 - d. Timed Walk

Section III: Tech-Administered Questionnaires

- 1) Healthcare Preferences
- 2) Cognitive Function: The Mini-Mental Status Examination
- 3) Sociodemographics and Subjective Health
- 4) Activities of Daily Living Self Reported Performance:
 - a. Rosow-Breslau
 - b. NAGI Scale
 - c. KATZ-Activities of Daily Living
 - d. Compensatory Strategies for Walking in the Home
- 5) IADL'S (Instrumental Activities of Daily Living)
- 6) CES-D (Center for Epidemiologic Studies Depression Scale)
- 7) Berkman Social Network Questionnaire
- 8) Leisure Time Cognitive & Physical Activities
- 9) Other
 - a) Use of Nursing and Community Services
 - b) Falls and Fractures
 - c) Procedure Sheet & Exit Interview
 - d) Walking in the Home

Section IV: Physician-Administered Medical History

- 1) Medical History
- 2) Resting Blood Pressure (2)
- 3) Referral Tracking

Section V: Exam Completeness

- 1) Procedure Sheet
- 2) Exit Interview
- 3) Adverse Events

Cohort Exam 29 Offsite Components

Section I: Informed Consent & Tracking Procedures

- 1) Informed Consent
- 2) Waiver of Informed Consent
- 3) HIPPA-Release of Health Information for Research Purpose
- 4) FHS Follow-up by Proxy
- 5) Tracking Information Form (Salmon Sheet)

Section II: Clinical Measurements & Procedures

- 1) Anthropometrics
 - a. Weight
- 2) Observed Physical Performance
 - a. Handgrip
 - b. Chair Stands
 - c. Balance
 - d. Timed Walk

Section III: Tech-Administered Questionnaires

- 1) Healthcare Preferences
- 2) Cognitive Function: The Mini-Mental Status Examination
- 3) Sociodemographics and Subjective Health
- 4) Activities of Daily Living Self Reported Performance:
 - a. Rosow-Breslau
 - b. NAGI Scale
 - c. KATZ-Activities of Daily Living
 - d. Compensatory Strategies for Walking in the Home
- 5) IADL'S (Instrumental Activities of Daily Living)
- 6) CES-D (Center for Epidemiologic Studies Depression Scale)
- 7) Berkman Social Network Questionnaire
- 8) Leisure Time Cognitive & Physical Activities
- 9) Other
 - a) Use of Nursing and Community Services
 - b) Falls and Fractures
 - c) Proxy Form

Section IV: Technician-Administered Medical History

- 1) Medical History
- 2) Resting Blood Pressure

Section V: Exam Completeness

- 1) Exit Interview
- 2) MD Chart Review
- 3) Referral Tracking & Adverse Events
- 4) Participant Letter
- 5) MD Letter to Personal Physician

Equipment for Exam 29 Procedures

1. A. Clinic: Detecto Scale
Worcester Scale Co., Inc. *FV254*
[Redacted]
Worcester, MA
[Redacted]

Detecto Scale
Halliday Medical *FV254*
Walpole, MA 02081
[Redacted]
- B. Offsite: SECA Portable Scale Model #841 *FV254*
MSI: Measurement Specialties Inc.
Fairfield, NJ 07007
2. Weight to calibrate scale: 50 lbs.
Worcester Scale Co., Inc. (See address above) *FV254*
3. Marquette Mac5000 (electrocardiogram cart)
Marquette Electronics
[Redacted]
Jupiter, FL 33468-9100
[Redacted] *ECG:
FV202-
FV237*
4. Acquisition Module for Mac5000
Cam-14 (see address above)
5. Marquette Mac5000 – Offsite Visits
6. Portable standard mercury column sphygmomanometer:
Baumanometer 300 model *FV263, FV264*
W.A. Baum Co., Inc. *FV019, FV020*
[Redacted] *FV153, FV154*
Copiague, NY 11726
[Redacted]

- 7. Aneroid Sphygmomanometer – gauge type (offsite)
 P/N 5090 – 03 Tycos
 Samuel Perkins, Inc.
 Quincy, MA 02169

 Repairs and Calibration
 Welch Allyn
 Arden, NC 28704
 [Redacted]
- 8. Litman stethoscope tubing and earpieces with bell: Classic II
- 9. Bauman latex free blood pressure cuffs in four sizes: regular adult, large adult, pediatric, thigh (clinic only).
- 10. JAMAR dynamometer
 Model #5030J1
 Sales Address:
 Lafayette Instrument Co.
 [Redacted]
 Lafayette, IN 47903
 [Redacted]

 Calibration Address:
 Sammons Preston
 [Redacted]
 Chicago, IL 60622
 [Redacted]
- 11. Stopwatch -Water Resistant/Shock Resistant VCAT: 1045
 Used as of 1-31-2007
 Fisher Scientific
 Atlanta, GA
 [Redacted]
- 12. Heart Square, by Heartware Inc.
 purchased from: Nova Heart
- 13. Adjusted stool, 18”
 United Chair
 [Redacted]
 Leeds, AL 35094

fV 263, fV 264
 fV 019, fV 020
 fV 153, fV 154

fV 288 - fV 295

fV 296 - fV 304

fV 306 - fV 324

fV 202 - fV 237

fV 306 - fV 311

14. Pocket Talker II
Williams Sound Corp.
[REDACTED]
Eden Prairie, MN 55344
[REDACTED]

used only with those
participants who are
hard of hearing

15. SECA Stadiometer
Halliday Medical
[REDACTED]
Walpole, MA 02081
[REDACTED]

fv 260

Used for administrative purposes only

Equipment Calibration Time Table

<u>Activity</u>	<u>Daily</u>	<u>Weekly</u>	<u>Monthly</u>	<u>Yearly</u>
Scale (Onsite)				
Zero Reading	X			
50# Weight			X	
Professionally Calibrated				X
Digital Scale (Offsite)				
50# Weight			X	
Stadiometer (Onsite)				
Check w/ measuring tape			X	
Tape Measure (Onsite & Offsite)				
Use purple tape measure			X	
Mercury Manometer (Onsite)				
Zero Reading	X			
Check Inflation System			X	
Aneroid-Gauge Type (Offsite)				
Check Inflation System			X	
Hand Grip (Onsite)				
Zero Reading	X			
Professional Calibration				X
Hand Grip (Offsite)				
Zero Reading			X	
Professional Calibration				X
Digital Timer (Onsite & Offsite)				
Professional Calibration				X

Used for administrative purposes only

Equipment Calibration Time Table

<u>Activity</u>	<u>Daily</u>	<u>Weekly</u>	<u>Monthly</u>	<u>Yearly</u>
Scale				
Detecto Scale (Clinic)				
Zero Reading	X			
50 lb. Weight				
Professionally Calibrated			X	
Seca Scale (Offsite)				X
Zero Reading				
50 lb. Weight		X		
			X	
Sphygmomanometer				
Mercury Manometer				
Zero Reading	X			
Check Inflation System				
Aneroid-Gauge Type				
Check Inflation System			X	
Stadiometer (Check level)			X	
Dynamometer (Professional Calibrated)			X	X

Guidelines For Coding Accuracy

To insure maximum accuracy and legibility for persons performing data entry, please adhere to the following guidelines:

1. Use a red or blue pen or any other pen which will stand out from the page (pencil or black ball-point pens are unacceptable).
2. Make sure all numerals are unmistakably clear.
3. If measurements are not taken, please enter 9s in blanks if the coding option is available and document the reason. If the coding option of 9 is not available, leave blank and write any comments on why the questions were not asked. Your comments are helpful at any point of the exam where data is not recorded in the standard manner.
4. If you make an error, please cross it out entirely, write the correct information *in the margin*, and **initial the change**. **Do not superimpose numerals one on top of the other.**
5. Make sure both sides of the examination form are completed.

Informed Consent

An informed consent is administered to each participant by a trained interviewer prior to the collection of any research examination study data. The "consent form" is a two-part document. The first part is a narrative description of the studies goals, the content of the exam, the risks and benefits of participating, the confidentiality policies, the right to withdraw from the study, and what compensation is provided in the unlikely event that results in the need for medical care. The second part is the participants authorization page, which the participant signs. This documents the participant's consent agreeing to (1) participate in an interview and clinical examination, (2) be contacted by study personnel in the future, (3) obtain medical records concerning information relevant to the study, (4) release their clinically relevant study data to their medical care provider, and (5) use of previously frozen blood samples for research. The documents core content complies with guidelines from the National Heart, Lung, and Blood Institute and is approved by BU Medical Center IRB.

A. Overview

Informed consent is the first data collection form administered during the FHS exam. Only updated versions of the informed consent form, approved by the BUMC IRB will be used. All study subjects will be provided with:

- (1) A description of what data collection procedures will be followed and what is involved in each procedure;
- (2) The benefits and risks of participating in a research study which includes genetic analysis;
- (3) A description of what procedures are in place to protect confidentiality;
- (4) Information on the right to withdraw from the study, to not participate in a procedure or to decline to answer a question(s) without penalty;
- (5) An opportunity to document their preference for the use and disposition of their study data and genetic materials; and
- (6) A record of and a mechanism for contacting the project director/principal investigator and the study coordinator.

B. Administration

As the FHS staff person obtaining informed consent for cohort exam 29, one must provide ample time for the participant to read the consent and answer any questions the participant may have. During the consent process the consentor must "...minimize the possibility of coercion or undue influence..."(46.116 Code of Federal Regulations). One does this by allowing the participant to make their decision to participate on their own, without rushing them during the consent process. Participants must be given "...sufficient opportunity to consider whether or not to participate..." and if the participant refuses the exam their wishes must be honored (46.116 Code of Federal Regulations).

Once the participant has agreed to participate in the current exam cycle, their consent must be documented. This is done by using "...a written consent form approved by the IRB and [the consent must be] signed and dated by the subject..." (50.27 Code of Federal Regulations). Note: Be sure to use the current version of the approved consent, if you have any question of what consent should be used please ask either [REDACTED] or the BU/FHS liaison.

Listed below is important information that must also be documented during the consent process.

Completing the Physician Checkbox

A participant should check **yes** in the following situations:

- If the participant has a doctor and would like us to send results to their doctor;
- If the participant does not have a doctor, but will be getting one within the next 4-6 weeks and would like us to send results to their new physician.

A participant should check **no** in the following situations:

- If the participant does not want their research exam results sent to their personal physician
- If the participant does not have a doctor and will not be getting one within 4-6 weeks

Visual Impaired Participants

For participants that are visually impaired, the consent form should be read to the participant. A witness must be present during the consent process. The witness must attest that the information in the consent form was accurately explained to and apparently understood by the participant. Therefore, the subject can either sign ("make their mark") and date the consent form if they can or verbally agree to participate. The consentor signs the form as the person obtaining the consent and the witness will write on the consent form "consent witnessed by" and she/he also will sign and date the form.

If the participant refuses to have the consent form read to them (i.e., asks you to stop), a detailed summary of the exam contents must be provided to the participant. After the participant is informed of what is contained in the consent and they have indicated their agreement to participate, have them sign ("make their mark") and date the consent form if

they can, to indicate their willingness to participate or allow them to verbally agree. The consentor must also document on the consent the way he/she communicated this information and also have the witness sign and date.

Photocopying Consents

A photocopy of the participant's signed consent must be given to the participant. According to the Code of Federal Regulation 21CFR 50.27 *Documentation of Informed Consent* "(a)...informed consent shall be documented by the use of a written consent form approved by the IRB and signed and dated by the subject... at the time of the consent. A copy shall be given to the person signing the form."

For offsite visits, the consent will need to be copied and mailed to the participant after the visit.

Consent Form Waiver-Cohort Exam 29

On _____ the Boston Medical Center IRB approved a continuation of the protocol for cognitively impaired original cohort participants allowing a waiver of consent. Original cohort with moderately or severe dementia determined by the Dementia Study will no longer be required to sign an informed consent form nor have a proxy sign a consent by substituted judgment form. If the original cohort participant is not known to have moderate or severe dementia as determined by the Dementia Study and a cognitive impairment is evident, the participant will sign an informed consent form to provide evidence of assent for the exam and a consent by substituted judgment form will not be needed.

The exam 29 appointment will be arranged with a family member according to established protocols. The family member will be informed regarding the content of exam 29 but will not be required to provide verbal or written consent for the exam under the new waiver. However, should the family member object to a Heart Study visit, this objection will be honored.

For all participants who do not sign a consent form and/or signed a consent but fall under the Waiver, this sheet will be completed by FHS staff and kept with the participant's chart.

To Be Completed by Clinic Team		Staff ID: _____
Exam/Draw Date: ____ - ____ - ____	Exam Number: _____	
FHS ID: ____ - ____	Participant Name: _____	
Event: ____ 0= Clinic Exam 1= NH 2= Residence 3=Blood draw only		
4= Other: _____ (write in)		
Informed Consent Status: ____ If IC Status = 3, send to Neurology Group		
1= Informed Consent, 2= Waiver Only, 3= Consent form signed may qualify for Waiver, 4=Other _____		
Clinical Dementia Rating Scale*(CDR): _____	on	____/____/____
Dementia Review Outcome/Severity Score*: _____	on	____/____/____
Consent Status*: _____	on	____/____/____
MMSE Score: ____ at exam ____	on	____/____/____
MMSE Score: ____ at exam ____	on	____/____/____
Comments: _____		
*Based on Dementia Review Tracking		

Send to Neurology for Review: ____ 1=Yes 2=No

Date sent to Neurology: ____/____/____

Over →

To be Completed by Neurology Group Neuro ID: _____

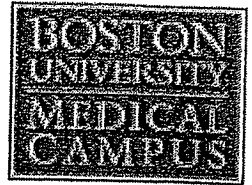
Reviewed: ___/___/___

NP disposition of consent status: _____ 1= Use Consent 2 = Consent Waived*

*Stamp Consent, initial and date

Comments: _____

Keyer's initials: _____ Date Keyed: ___ - ___ - ___



RESEARCH SUBJECT'S AUTHORIZATION

FOR RELEASE OF HEALTH INFORMATION FOR RESEARCH PURPOSES

Name of Research Study: The Framingham Heart Study
Framingham, MA 01702-5827

IRB Number: 1910G

Subject's Name: Birth Date:

We want to use your private health information in this research study. This will include both information we collect about you as part of this study as well as health information about you that is stored in your medical records. The law requires us to get your authorization (permission) before we can use your information or share it with others for research purposes. You can choose to sign or not to sign this authorization. If you choose not to sign this authorization, you will still be able to take part in the research study.

Section A:

I authorize the use or sharing of my health information as described below:

Who will be asked to give us your health information:

- Hospitals and physicians you have identified as providing medical care for a reported health problem

Who will be able to use your health information for research:

- The researchers and research staff conducting the Framingham Heart Study.

Section B: Description of information:

(1) The researchers need to collect information about you and your health. This will include information collected during the study as well as information from your existing medical records so we can review the health problem(s) you have reported to us. The information disclosed under this authorization will not be redisclosed to anyone but the researchers conducting this study except as required by law.

(2) I authorize [blank] to release to the [blank] (List name of hospital/physician or clinic)

Framingham Heart Study the following information from my medical records. Disclose the following information for the dates ranging from [blank] to [blank].



Specific description of information we will collect may include:

- Face Sheet
- Discharge Summary
- ER Report
- Admission Notes
- Progress Notes
- Operative Report
- Pathology report
- Chest X-Rays
- EKGs (All)
- CT Scan (Head/Heart)
- MRI/MRA (Head/Neck)
- Lab Reports - Cardiac Enzymes
- Consults (Cardiology & Neurology)
- Cardiac Catheterization
- Exercise Tolerance Test
- Nursing Home Notes
- Notes near time of death
- Other: (for example: Echocardiogram, Arteriography, Venous Ultrasound, V/Q Scan, PA gram, etc.)

Section C: General

- (1) **Expiration:**
This authorization expires at the end of the study.
- (2) **Right To Revoke:**
You may revoke (take back) this authorization at any time. To do this, you must ask the Framingham Heart Study for the names of the Privacy Officers at the institutions where we got your health information. You must then notify those Privacy Officers in writing that you want to take back your Authorization. If you do, we will still be permitted to use the information that we obtained before you revoked your authorization but we will only use your information the way the Informed Consent Form says.
- (3) **Your Access to the Information:**
You have the right to see your Framingham Heart Study record only after the research study has been completed.

.....
I have read this information, and I will receive a signed copy of this form.

Signature of research subject or personal representative Date

Printed name of personal representative: _____

Relationship to research subject: _____

Please describe the personal representative's authority to act on behalf of the subject:

HIPPA:
Research Subject's Authorization for Release of Health Information for Research Purposes

The HIPPA Privacy Rule, in effect April 14, 2003, protects the privacy of subject's health information which is used in human research. For researchers to gain access to health information that is stored at any HIPPA "covered entity" investigators must provide the covered entity with written assurances covering how the health information will be used and protected.

The Framingham Heart Study is not a "covered entity". However hospitals, nursing homes and physician offices from which the FHS collect medical records are covered by HIPPA rules. Therefore, in order for the FHS to retrieve medical records, participants must sign the HIPPA medical release form. If the participant chooses not to sign the form they will be able to participate in the exam but the FHS will not be able to obtain any outside medical records.

The following explanation of the form is to be given during the intake process:

We want to use your private health information in this research study. This will include both information we collect about you as part of this study as well as health information about you that is stored in your medical records. The law requires us to get your authorization (permission) before we can use your information or share it with others for research purposes. You can choose to sign or not sign this authorization. If you choose not to sign this authorization, you will still be able to take part in the research study.

The participant must also be given adequate time to read the release form. If they agree to sign the form, they must also be given a copy of it with their signature. For offsite exams, a photocopy will be mailed with the Informed Consent to the participant.

For cognitively impaired participants: If the participant is cognitively impaired and have had their consent form waived, have the participants' POA sign the HIPPA form and ask for copies of the POA documentation to go along with it. The POA documentation is necessary for medical records to obtain records from covered entities.



The Framingham Heart Study

FHS ID: ____ - ____

Participant Name: _____
First MI Last

I have named as my proxy: _____
(Name of person you choose as FHS Proxy)

Proxy Address: _____

Proxy Phone Number: _____

Relationship: _____

Optional: If my FHS Proxy is unwilling or unable to serve, then I appoint as my Alternate FHS Proxy:

_____ (name of person you choose as your alternate proxy)

of _____
(street) (city/town) (state) (phone)

He/she has the authority to provide medical information, consent for examinations, and/or to sign a Medical Release Form to obtain hospital records or physician records for the Framingham Heart Study.

Participant's Signature _____

_____ Date

Witness _____

_____ Date

Complete only if Participant is physically unable to sign: I have signed the Participant's name above at his/her direction in the presence of the Participant and witness.

_____ (Name)

_____ (Street)

_____ (City/Town) (State)



The Framingham Heart Study

Follow-Up by Proxy

One of the most important goals of the Framingham Heart Study (FHS) is to keep track of any major changes in your health through the end of the study. This information is important for answering scientific questions about heart disease and other health conditions. You are the best source of information regarding your health, but there may come a time when you are not able to provide details of your health. We are asking you to provide us with the name of a person that can answer questions about your health if you cannot. This person will be considered your "proxy" for the Framingham Heart Study.

What is a proxy?

A proxy is someone who can "stand in" for you and tell us about your health when you cannot because of a serious illness.

Why is a proxy needed?

For over 50 years you have been providing important information about your health to FHS. This information should not be lost, even if you are unable to provide it.

What does a proxy do?

We will ask your proxy to answer questions about your health, just like the questions you have been asked each exam cycle on your medical history update.

Whom should I name as my proxy?

You should select someone who knows you well enough to provide health information about you. For example, your proxy can be your power of attorney, your legal health care proxy, or your legal next-of-kin (including your spouse, son, daughter, brother, sister, etc.).

Am I allowed to change my proxy?

Yes, you may change your proxy at any time by either calling FHS or by indicating your wishes at your FHS examination.

Will you give my proxy information about me?

No, all of your information is strictly confidential and will not be provided to your proxy.

What would you like me to do now?

Using the attached form please indicate whom you have chosen to be your proxy. Please indicate his/her name, contact information, relationship to you, and then sign the form.

You will be given a copy of this form for your own records and one to give to your proxy. This material should be kept by your proxy so he/she understands your wishes as a participant in the Framingham Heart Study.

If you have any questions, call [REDACTED] Cohort Participant Coordinator, [REDACTED] or [REDACTED]

Thank you for your continued dedication to the Framingham Heart Study!

FHS Follow-up by Proxy

During each exam cycle the cognitively intact participant will be asked to designate a health care proxy for the Framingham Heart Study. They are asked to provide a proxy in the event that they are unable to provide the details of their health. The participant should select someone who knows them well enough to provide health information about them.

Ask the participant to read the letter entitled "Follow-up by Proxy" and complete the designation form. Examples of proxies are: Power of Attorney, Legal Health Care Proxy, and/or legal next-of-kin (spouse, son or daughter, brother or sister, or their doctor). If they have a Power of Attorney (POA) and have paperwork, a photocopy of this is necessary for the Medical Records Department to obtain records in the event the participant becomes cognitively impaired and the proxy signs a medical release form.

Two photocopies of the proxy packet must be given to the participant, one for them to keep, the other to give to their "proxy".

Update Sociodemographic Data and Family History

Personal and family information is found on the Personal and Family History Data Sheet (salmon colored sheets). A copy is made in which to write updated information on during intake. The information can be obtained from the participant, the proxy or the chart at the facility where they reside.

Updated information regarding the participant's current address, physician and two contacts should be written on the photocopied sheet provided.

On the inside of the form is the family demographic information. This covers the participant's spouse, children, parents and siblings. Updated information regarding their vital status (living or dead) and health status should be documented.

FV254 FV255 FV256 FV257 FV258 FV259

Weight Measurement

Clinic

1. Ask participant to wear FHS gown for measurement if he/she brought a heavy gown from home ask them to remove it. The participant should remove slippers or shoes.
2. Prior to asking participant to step onto the scale lift the counter poise and position it at zero.
3. Ask the participant to step onto the scale, facing measurement beam.
4. Instruct the participant to stand in the middle of the scale platform with head erect and eyes looking straight ahead. Weight should be equally distributed on both feet and the participant should not touch or support him/herself.
5. With the participant standing still in the proper position lift the counterweight (larger weight) and slide it to the right until the beam approaches balance.
6. Adjust the top poise until the beam is evenly balanced.
7. Have the participant step off the scale. The technician should stand directly in front of the scale and read the weight with eyes level to the point of measurement.
8. Record the weight to the nearest pound; **round up if ≥ 0.5 , round down if < 0.5 .**
9. Calibrate the scale daily
10. Protocol modification- if deviations from protocol record it as a protocol modification.
Example: Left Shoes On.

Offsite

1. The participant should remove slippers or shoes.
2. Prior to asking participant to step on the scale turn scale on and check to make sure it reads 0.0. The scale should be on a flat, hard surface.
3. Ask the participant to step onto the scale.
4. Instruct the participant to stand in the middle of the scale platform with head erect and eyes looking straight ahead. Weight should be equally distributed on both feet and the participant should not touch or support himself/herself.
5. Read the digital display while participant is on the scale.
6. Have the participant step off the scale.

FV254 FV255 FV256 FV257 FV258 FV259

7. Record the weight to the nearest pound; round up if ≥ 0.5 , round down if < 0.5 .
8. If participant is unable to stand for weight measurement at a nursing home record the last weight in nursing home chart and the date the weight was obtained. If the participant is unable to stand on a scale during a home visit, record the weight measurement as 999.
9. Calibrate the scale monthly

FV260 FV261

Standing Height Measurement
(clinic only)

Clinic

1. Participant should be barefoot or wearing thin socks so positioning of the body can be seen. Ask participant to stand erect with his/her back to vertical mounted stadiometer.
2. Heels should be together and against the vertical ruler, both feet flat on the floor, with weight distributed evenly across both feet. Check to make sure both feet are back against the wall.
3. Participant faces straight ahead with his/her head positioned in the Frankfort horizontal plane (see next page). The lower margin of the bony orbit (the socket containing the eye) should be on the same horizontal plane as the most forward point in the supratragal notch (the notch just above the anterior cartilaginous projections of the external ear).
4. Ask participant to let arms hang freely by the sides of the trunk, palms facing the thighs. Ask participant to inhale deeply and maintain a fully erect position.
5. Bring the level down snugly (but not tightly) on top of participant's head.
6. Record measurement to the nearest 1/4 inch, rounding down.

Note: Measurement is not taken during offsite visits.

FV263 FV264 FV265 FV266

Technician's Seated Blood Pressure

A. Equipment:

1. One standard Litman stethoscope tubing and earpieces with bell: Classic II 3M
2. One standard mercury column sphygmomanometer: Baumanometer (clinic)
3. Aneroid sphygmomanometer (off-site)
4. BP cuffs in four sizes (all Latex free)

Thigh adult cuff
Large adult cuff
Regular adult cuff
Pediatric cuff

B. Blood Pressure Cuff Placement:

1. Bare participant's left arm to above the point of the shoulder.
2. Determine correct cuff size using guidelines inside the cuff.
3. Palpate the brachial artery.
4. With participant seated, place the appropriate cuff around the upper left arm. The midpoint of the length of the bladder should lie over the brachial artery. Each cuff has an artery marker. The mid-height of the cuff should be at heart level.
5. Place the lower edge of the cuff, with its tubing connections, about one inch (1") above the natural crease across the inner aspect of the elbow.
6. Wrap the cuff snugly about the arm, with the palm of the participant's hand turned upward.
7. If the subject has had a left-sided mastectomy, the right arm may be used for blood pressure measurement. If right arm is used, note it on the form.

C. Determination of Maximal Inflation Level

For each participant, determine the maximal inflation level, or the pressure to which the cuff is to be inflated for blood pressure measurement. This assures that the cuff pressure

FV263 FV264 FV265 FV266

at the start of the reading exceeds the systolic blood pressure and thus allows the first Kortokoff sound to be heard.

1. Attach the cuff tubing to the sphygmomanometer.
2. Palpate the radial pulse.
3. Inflate the cuff rapidly until the radial pulse is no longer felt (palpated systolic pressure) by inflating rapidly to 70 mmHg, then inflating by 10mmHg increments.
4. Deflate the cuff quickly and completely.
5. The maximal inflation level is 30 mmHg **above** the palpated systolic pressure.

D. Guidelines for Accurate Blood Pressure Readings:

1. The participant should be in a seated position for at least 5 minutes before the blood pressure is measured.
2. All readings are made to the nearest even digit.
3. Any reading which appears to fall exactly between marking on the mercury column should be read to the next higher marking (i.e. 2, 4, 6, 8, or 0).
4. All readings are made to the top of the meniscus, the rounded surface of the mercury column.
5. When the pressure is released quickly from a high level, a vacuum is formed above the mercury and the meniscus is distorted. Allow a few moments for it to reappear before reading the manometer.

For offsite Blood Pressures: Check that the needle is at the zero mark at the start and the end of the measurement. Place the manometer in direct line of sight with the eye on a line perpendicular to the center of the face of the gauge.

E. Blood Pressure Readings:

1. Following any previous inflation, wait at least 30 seconds after the cuff has completely deflated.
2. By closing the thumb valve and squeezing the bulb, inflate the cuff at a rapid but smooth continuous rate to the maximal inflation level (30 mmHg above palpated systolic pressure).

fV263 fV264 fV265 fV266

3. The examiner's eyes should be level with the mid-range of the manometer scale and focused at the level to which the pressure will be raised.
4. Open the thumb valve slightly. Allow the cuff to deflate, maintaining a constant rate of deflation at approximately 2 mmHg per second.
5. Using the bell of the stethoscope, listen throughout the entire range of deflation, from the maximum pressure past the systolic reading (the pressure where the FIRST regular sound is heard), until 10 mmHg BELOW the level of the diastolic reading (that is, 10 mmHg below the level at which the LAST regular sound is heard).
6. Deflate the cuff fully by opening the thumb valve.
7. Remove the stethoscope. Neatly enter systolic and diastolic readings in the spaces provided on the form.

FV263 FV264 FV265 FV266

Elevated Blood Pressure

If, during a home visit the blood pressure is:

> **200/110** a call is made to a FHS physician who will notify the participant's personal physician. The chart will be marked "expedite" so that the letter to the personal physician is sent out ASAP.

> **180/100** the chart is expedited

-The Referral sheet is completed to note that contact was made to an FHS MD during the exam.

-If a phone contact was made by an FHS MD to the participant's personal physician, the FHS MD is to completed a "Record of Telephone Encounter" form.

If, during a nursing home visit the blood pressure is:

> **140/90** inform the nurse caring for the participant or the charge nurse

> **180/100** inform the nurse caring for the participant or the charge nurse. The chart will be marked "expedite" so that the letter to the personal physician is sent out ASAP.

FV202 - FV237

ECG Lead Placement

1. **V1:** The first intercostal space is palpated just below the clavicle. Count down and identify the 4th intercostal space just below the fourth rib. **Point V1** is just to the right of the sternum in the *fourth* intercostal space. Make a small line with a marking pencil here to show where the ECG lead should be placed.
2. **V2:** Should be at the same level as **Point V1** and immediately to the left of the sternum. Make a small line with a marking pencil to show where the ECG lead should be placed.
3. To locate the horizontal reference level for electrodes (**Point E**), starting from **V2**, locate the **fifth** intercostal space. Move your finger in the **5th** intercostal space laterally to where the midclavicular (center of the chest where you feel a bend in the clavicle) line intersects the **fifth** intercostal space. Make a horizontal line at this point.

Mark the exact transverse (horizontal) level at this spot with the midsternal line. It should be about one inch (1") below **V1** and **V2** placements.

4. **V6:** Move the participant's elbow laterally away from the body. Mark the midaxillary line in the exact vertical center plane of the thorax down to the intersection of the horizontal plane marked by the location of **E**. This is the exact location of **V6**. (**NOTE:** It is a common mistake to locate the midaxillary line too far anteriorly, toward the **V5** location).
5. **V4:** Place the # arm of the Heart Square firmly across the lower sternum at the level of **Point E** (as you face the participant, the writing on the Heart Square will appear upside down and backwards). Adjust the **E** and **V6** arms of the Heart Square so they are both perpendicular to the long axis of the thoracic spine at the level of the **E** position. The **E** arm should be exactly horizontal. If the participant is lying flat, the **V6** arm should be exactly vertical.

Slide the **V6** arm so the **0** point (the *arrow* labeled **V6**) is at the marked location for **V6**. Double check that the **E** arm is still in the correct spot.

V4: On the **V6** arm (the slide), find the number corresponding to the **E** measurement. Following the corresponding 45 degree line to the surface (e.g. 16) and mark the location following the inside of the square. Place electrodes on **TOP** of the breast.

The participant may now lower the left arm in a more comfortable position.

6. **V3:** Exactly halfway between **V2** and **V4**.

FV202 - FV237

7. V5: Exactly halfway between V4 and V6.
8. Before electrodes are placed on the participant, ask if he/she is known to be allergic to alcohol wipes. If yes, prepare the areas of electrode placement by rubbing with water and drying with a washcloth. If allergies are denied, prepare the areas by wiping with an alcohol wipe and drying with a washcloth.

NOTE: Place the electrodes on the participant and hook up the leads before entering the data in the ECG machine. This will allow ample time for the participant to relax and the machine interference to smooth out.

9. Attach limb leads in the following order: right leg (RL), left leg (LL), right arm (RA), left arm (LA). This will avoid lead reversal.
10. The body of the electrode is placed centrally at the pencil mark with the tab extending downward. Precordial electrodes are attached in the following order: V1, V2, V3, V4, V5, V6. Recheck all leads for proper placement.
11. Ask the participant to lie still and relax. In the computer, enter the participants Name, ID, Age, Height (clinic only), Weight, and Gender. Enter the Exam Cycle, Location (1=clinic 2=offsite) and your Tech ID.
12. The ECG is printed and reviewed for errors. If ECG needs to be run at **5 mmHg** because of high voltage (if the standard **10 mmHg** is beyond the lines of the ECG paper), highlight (yellow or orange highlighter) the **5 mmHg** on the bottom of the printed ECG. On the top margin of the tracing write "**1/2 STANDARD**" using a bold magic marker.
13. Leads are checked again for proper placement and disconnected. Electrodes are carefully removed.

FV202 - FV237

ECG CODING FOR FRAMINGHAM HEART STUDY EXAMINATIONS

A. General Comments:

Although the computerized ECGs which are recorded in clinic include measurements of rate, intervals and axis, it is important that the examining MD carefully examine the ECG and record these features on the coding forms. Your measurements (not those made by the computer) form the basis of the official ECG interpretation.

An important rule to remember: Please ask for help when you are unsure about interpretation of ECGs or our methods of coding. Be sure to always look at the old ECG for interim changes.

B. Heart Rate:

Each exam room is equipped with a rate stick with which heart rate can be measured. (The computer does a good job with this measurement).

C. Intervals:

PR, QRS and QT intervals are measured in hundredths of a second based upon examination of the ECG recording. (Lead II should be used when possible for these measurements). A QRS of 0.08 seconds is coded as 08.

D. QRS Angle"

This refers to frontal plane axis in degrees. Each exam room is equipped with a hexaxial device for measuring QRS axis. (The computer does a good job with this measurement).

E. Conduction Abnormality:

1. IV Block

This refers to right and left bundle branch block. Note that the code 1 is used for incomplete BBB and 2 is for complete BBB. For complete BBB the QRS interval should be .12 sec or greater. When the QRS is prolonged, but the pattern is not that of right or left BBB, the indeterminate IV block is coded as follows: 1=QRS .12 or greater, 2=QRS of .11 or .10. Remember that the measurements of QRS duration are those made by the examining physician and not by the computer. An RSR' pattern in the absence of QRS prolongation should be coded as normal. When

FV202 - FV237

an RSR' pattern occurs with a QRS duration of .09 sec or greater it represents incomplete RBBB.

2. Hemi block

1=left anterior. This is present when the QRS axis is -30 or less and small q wave is present in lead I.

2=left posterior. QRS axis is >90 and small q is present in AVF, in absence of evidence of right ventricular hypertrophy.

3. Fascicular block

1=bifascicular. A) If complete RBBB + (1st degree AV block or a hemiblock) are present. B) Complete LBBB.

2=trifascicular. If RBBB + hemiblock + 1st degree AV block. Or LBBB + 1st degree AV block.

4. AV Block

1st degree when QRS duration is .20 seconds or greater (measured in lead II).

2nd degree when some P waves are not conducted. This comes in tow forms a) Mobitz I. When progressive PR prolongation precedes the dropped P wave and b) Mobitz II when QRS complexes are dropped without prior PR prolongation. AV dissociation occurs when P waves are QRS complexes march out independent of each other.

5. WPW

A short PR intervals is present (typically .12 seconds or less) and a slurred upstroke of the QRS is present (so called delta wave).

When these features are both fulfilled, WPW=1. When the PR is .12 or less and a delta wave is possibly present, or when a delta wave is present but the PR is marginally short .13 to .14 seconds, WPW=2.

6. Atrial Enlargement:

Right Atrial Abnormality

The P wave in inferior leads is peaked with a height of 2.5 mm.

fV202 - fV237

Morris P wave

The terminal portion of the V wave in lead V1 is inverted and measures at least 1mm by 1mm (at normal standardization). This reflects left atrial enlargement.

7. Myocardial Infarction

This is determined on the basis of the appearance of wide (.04 seconds) or deep (1/4 the height or the R wave) q waves. All tracings should be compared to the prior exam ECG which is always provided. The appearance of new, but small q waves should also be regarded as suggestive of MI. Loss of R waves in leads where they were previously present (see prior exam's ECG) should also raise suspicion of MI. A posterior MI is present when $R > S$ in V1, R is .04 seconds in duration, and an upright T wave is recorded in that lead. When criteria are largely, but incompletely fulfilled be sure to code this item as maybe!

8. Maximum I Wave Amplitude <-5mm

This refers to giant inverted T waves at least 5mm deep. This condition is occasionally seen in hypertrophic cardiomyopathy.

9. Left Ventricular Hypertrophy

Be sure to carefully code each of the voltage criteria individually. Definite LVH is present when increased voltage is present together with a strain pattern (downsloping ST). Possible LVH is present when voltage criteria are fulfilled but only mild ST-T abnormalities (flattening) are noted. For cohort Exam 21, we have a separate code for LVH by voltage only. When complete BBB is present, LVH should be coded as unknown (9).

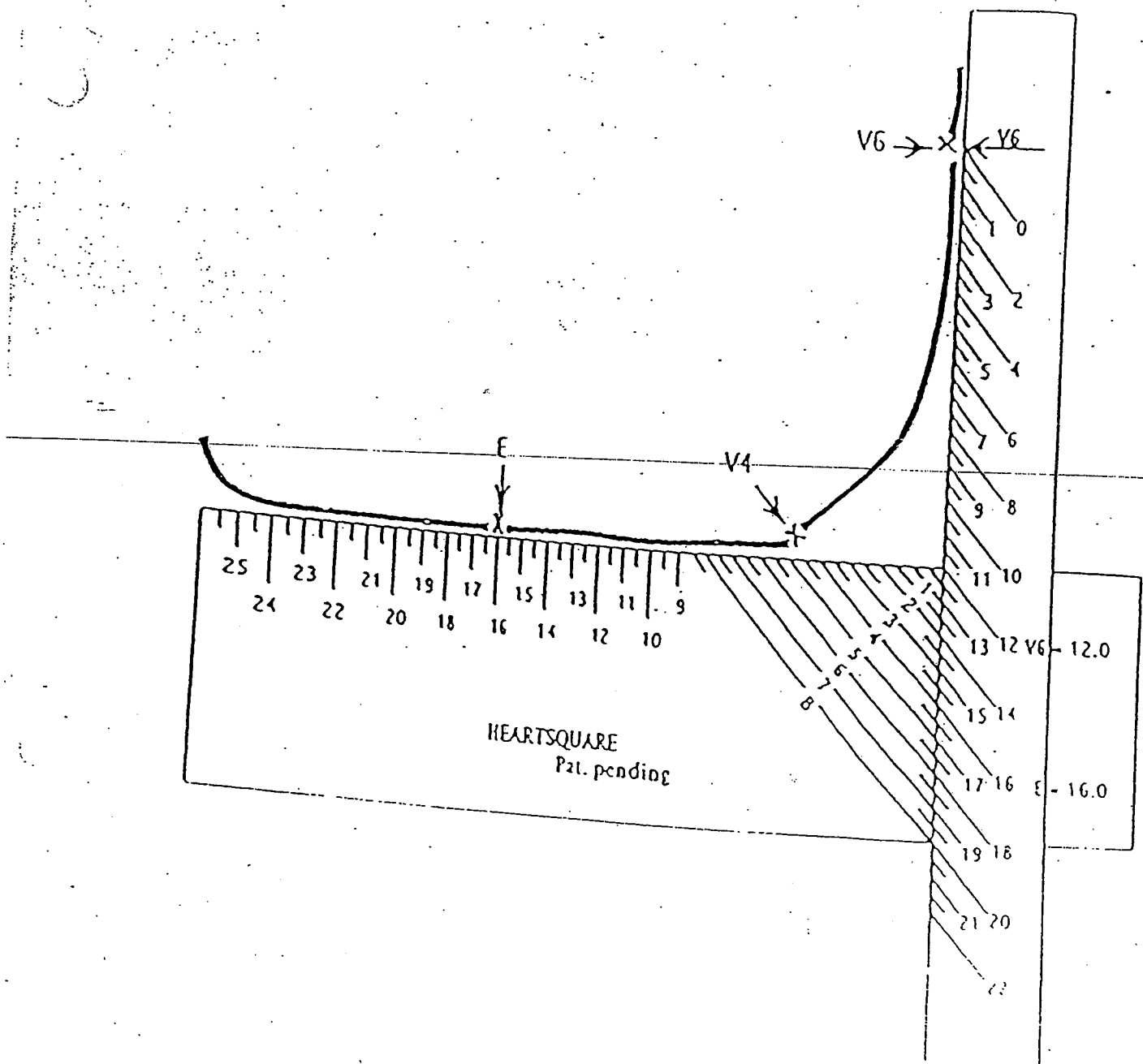
10. Right Ventricular Hypertrophy

Definite RVH is present when increased R wave voltage is present in V1 and increase S wave voltage is present in V5 in the absence of RBBB. The sum of RV1 + SV5 should be at least 10.5mm.

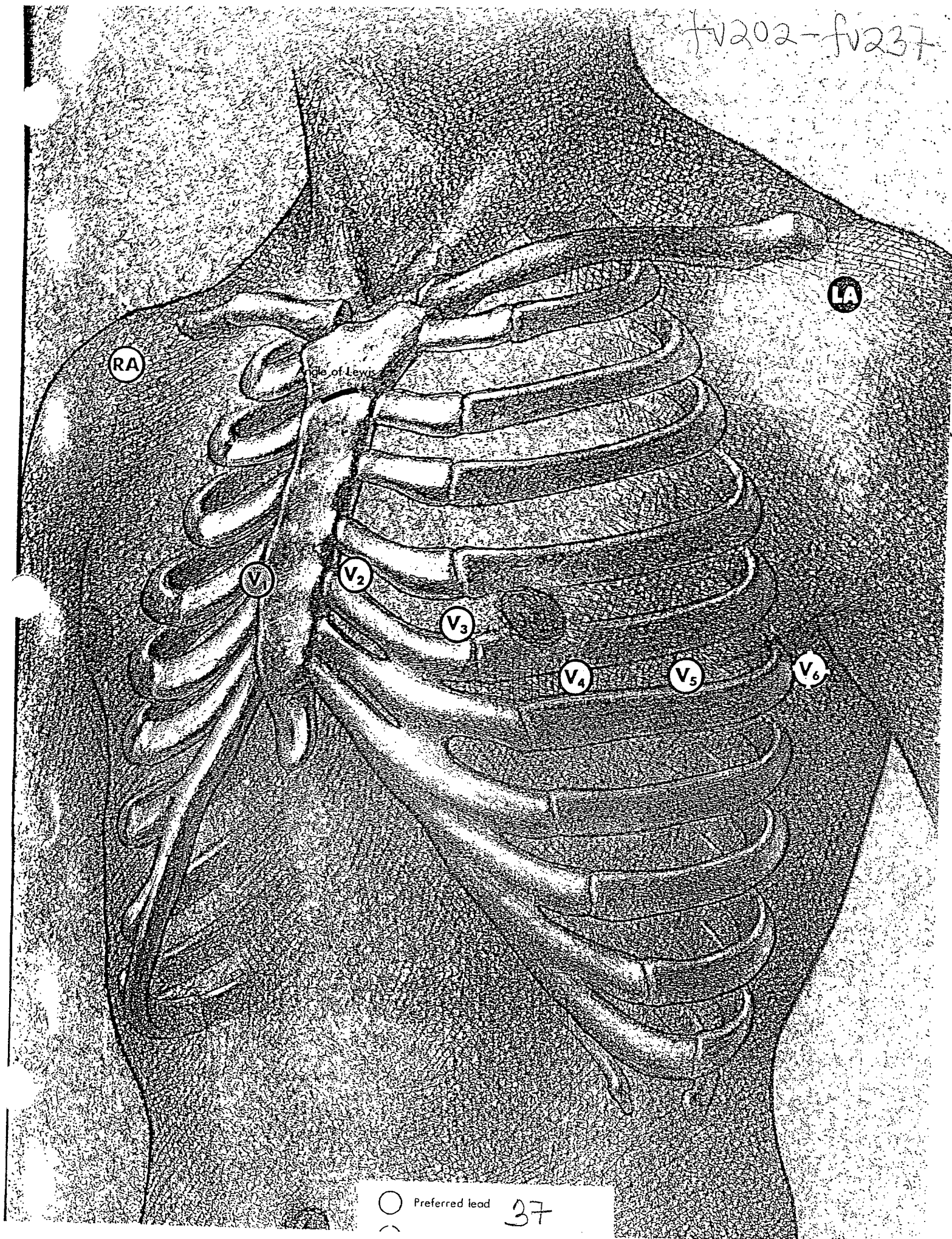
11. Arrhythmias

The presence of rhythm disturbances should be made on the basis of examination of the 1/2 speed rhythm strip which accompanies each ECG. This represents a simultaneous 3 lead recording of the entire 12-lead ECG.

FV202 - FV237



fv202-fv237



FV288 - FV304, FV306 - FV324

Observed Physical Performance

A. Overview:

An objective performance measure of physical functioning is an assessment instrument in which an individual is asked to perform a specific task and is evaluated in an objective, standardized manner using predetermined criteria, which may include counting of repetitions or timing of the activity as appropriate. Two theoretical models of the pathway from disease to disability have been developed. The first comes from the World Health Organization and goes from disease to impairment to disability, to handicapped. The second, which is being used more now by geriatricians and aging researchers, progresses from disease, to impairment, to functional limitations, to disability.

Definitions

Impairment: Dysfunctional and structural abnormalities in specific body systems, such as the musculoskeletal system or the cardiovascular system.

Functional limitations: Restrictions in basic physical and mental actions, including things such as ambulation reaching, and grasping.

Disability: Difficulty doing activities of daily life, including not only personal care, but household management, jobs, and hobbies.

B. Methods:

During all tests, participant safety is paramount. Participants who do not feel safe or who are unable to perform a test should not be pressed. All procedures should be clearly demonstrated to the participant prior to performing any test and the participant should be queried to ensure that they understand the instructions. If it is obvious that the participant has not understood the directions, reread the standard instructions. You will be demonstrating each maneuver. Someone who may not completely understand the verbal instructions may still be able to perform the test following the demonstration.

C. Equipment:

1. Data sheets
2. Pen
3. Stopwatch
4. 1 Armless straight back chair measuring approximately 18" high from floor to top of seat.
5. JAMAR Dynamometer
6. Straight back chair with arm rests
7. Measured 4 meter walking course

FV288-FV304, FV306-FV324

D. A note on encouragement:

If a participant expresses doubt as to whether he or she can perform the task, ask the participant whether they would like to try. If they say yes, proceed with the task but if they say no, honor the participant's choice to decline the testing.

E. Introductory script:

We are going to try to do different physical activities together. I will ask you to stand in different positions for me. I will ask you to walk for me and then I will ask you to stand up from a chair.

I will first explain what I would like you to do, then I will demonstrate it for you, and then I will ask you to try it for me.

F. Performance Measures:

1. Hand Grip Strength Test
2. Stands
3. Repeated Chair Stands
4. Measured Walks

FV288-FV295

JAMAR Hand Grip Strength Test:

1. Introductory script: *This instrument will measure your grip strength. The instrument is a little heavy, so be careful. When I tell you, I want you to squeeze the instrument as hard as you can. Do not expect the handle to move very much.*
2. Participant is seated in chair with arms, forearm resting on chair arm, elbow at about a 90 degree angle.
3. Participant should hold JAMAR in upright position, wrist in neutral position, JAMAR facing the technician.
4. Make sure that red peak-hold needle is set to zero.
5. Tell participant to squeeze as hard as s/he can, and squeeze until you tell s/he to stop. Hold squeeze for a 3 to 5-1000 second count.
6. Take back JAMAR, hold at eye level at about a foot from your eyes and record reading on the kilogram scale. If directly in the middle of the scale then the reading is the odd number between the two even hash marks; otherwise record as the closest hash mark.
7. Repeat steps until three measurements are recorded with the right hand.
8. Repeat steps for three trials with the left hand.

FV296-FV304

Stands:

The tests of balance provide an assessment of the participant's ability to hold three basic standing positions with the eyes open. These positions are side-by-side, semi-tandem, and full tandem stand (or heel-to-toe) and are performed in this order. Participants taking this test must be able to stand unassisted without using a cane or a walker. Don't assume that a participant who arrives for testing using a cane or walker can't stand unassisted. Ask them if they can stand without the device and are willing to try the test. If they say yes, you can assist them to assume the correct position for the testing.

The participant will hold each standing position for ten seconds.

Side by Side: Feet together

Semi-Tandem: Heel of one foot lines up with the big toe of the other foot

Tandem: Heel of one foot touching the toes of the other foot

While performing stands, the participant should be wearing comfortable shoes, with low heels. No bare feet or slippers. The participant must be able to stand unaided. You may assist participant with getting up from a chair.

1. Side by Side stand:

First, I would like you to stand with your feet together, side by side, for ten seconds. Please watch first while I demonstrate. You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I say "stop".

Are you ready? Begin.

You may help the participant into the position. Allow them to hold onto your arms to obtain their balance. If they are holding on, say, *When you are ready, let go of my arms. Begin timing the ten seconds when he or she lets go.*

When the subject steps out of position, grasps your arm, or when the ten seconds have elapsed, stop timing and say, *stop*. If the participant steps out of position, the stopwatch is stopped when their foot is replanted on the floor. Record results on data sheet.

If the participant is unable to hold the side by side position for ten seconds, skip the next two stands.

2. Semi-tandem stand:

Next, I would like you to stand with the heel of one foot touching the big toe of the other foot for ten seconds. You may put either foot in front, whichever is more comfortable for you. Please watch while I demonstrate. You may use your arms, bend your knees or

FV296-FV304

move your body to maintain your balance, but try not to move your feet. Try to hold this position until I say "stop".

Are you ready? Begin.

If the participant is unable to hold the semi-tandem stand for ten seconds, skip the tandem stand.

3. Tandem:

Next, I want you to try to stand with the heel of one foot in front of and touching the toes of the other foot for ten seconds. You may put either foot in front, whichever is more comfortable for you. Please watch while I demonstrate. You may use your arms, bend your knees or move your body to maintain your balance but try not to move your feet. Try to hold this position until I say "stop".

Are you ready? Begin.

The following questions should be answered for each stand:

Was this test completed? (Held for 10 seconds)

Coding

0 = No

1 = Yes

8 = N/A

9 = Unknown

If test was not attempted or completed, why not?

Coding

1 = Physical limitation

2 = Refused

3 = Other (write in)

9 = Unknown

Number of seconds held if less than 10 seconds.

FV306 - FV311

Repeated Chair Stands:

The participant will attempt to stand up once from his chair without using his or her arms. This is not timed. If he or she is able to do this, then proceed to the timed five consecutive chair stands.

If participant feels it is unsafe, skip the chair stands

Do you think it is safe to try to stand up from a chair without using your arms?

The next tests measure the strength in your legs. First, I will ask you to fold your arms across your chest and sit so that your feet are flat on the floor. Then I will ask you to stand up without using your arms.

Please watch while I demonstrate.

Please fold your arms across your chest and begin when I say, "Ready, stand."

Stand in front of the participant before he or she begins. Be prepared to supply physical support if the participant's safety requires it, but do not stand so close as to impede the task.

If he or she cannot get up from his chair the first time without using their arms, ask him to try standing up using his arms. Score this and skip the repeated stands.

Do you think it is safe to try and stand up from a chair five times without using your arms?

If participant does not feel that it would be safe, abort the five chair stands and record on data sheet.

I will ask you to stand up straight, as quickly as you can, five times without stopping in between. After you stand up each time, sit down and then stand up again. Keep your arms folded across your chest. I will be timing you.

When you have finished the last stand, please sit down and hold out your left arm, with the palm facing up, so that I can take your pulse.

Please watch while I demonstrate.

Please fold your arms across your chest and begin when I say, "Ready, stand".

Start timing on the word "Stand".

Count aloud after the participant reaches the top of each stand.

If the participant appears to be fatigued before completing all five stands, ask if they can continue. Only if they say "no" should the examiner stop timing and stop the procedure.

FV306-FV311

If the participant did not use his or her hands during the initial chair stand, but begins to use them during the repeated stands, then stop.

If, after one minute has elapsed, the participant has not completed all five stands, then stop.

Stop timing when the participant has straightened up completely for the fifth time.

Have the subject sit down immediately after the fifth stand so that you can take the thirty second pulse on the left wrist.

Answer the following questions:

Was this test completed?

Coding

0= No

1= Yes

8= Not attempted

9= Unknown

If not attempted or completed, why not?

Coding

1 = Physical limitations

2 = Test not completed

3 = Refused

4 = Other _____

5 = Test stopped in 60 seconds

9 = Unknown

If it is an offsite visit, the height of the chair used is measured and recorded.

The time to complete five stands in seconds is recorded.

If less than five stands are completed, enter the number of stands completed.

FV312 - FV324

Measured Walks:

The participant will first observe while the examiner demonstrates how to walk the measured course at a normal pace. The participant will then be asked to walk the measured 4 meter course at a normal walking pace while being observed and timed. Next, he or she will repeat this usual pace while being timed. The examiner will then demonstrate the rapid pace walk and the participant will be asked to walk the course at a rapid pace while being timed.

A cane or walker may be used during the walk, but if people with such devices can walk short distances without them, they should be encouraged to do so. Many people with assistive devices use them only when they walk outdoors or for long distances indoors. Doing the test without the device provides a much more accurate assessment of the functional limitation of the participant. Ask the participant if she ever walks at home without the device. Then ask the participant if s/he thinks he/she can walk a short distance for the test. Participants who normally use assistive devices should be watched particularly closely during the test to prevent falling.

The walking course should be unobstructed and include at least an extra one-half meter on each end. You will need a measuring tape to measure the distance of the walking course and masking tape to mark the starting and finish lines.

1. Walk #1:

Now I am going to observe how you normally walk, if you use a cane or other walking aid and would be more comfortable with it, you may use it.

This is our walking course. I want you to walk to the other end of the course at your usual speed, just as if you were walking down the street. Walk all the way past the other end of the tape before you stop. Do you think this would be safe?

If participant says that it would not be safe indicate this on the data sheet and abort walks.

Please watch while I demonstrate. When I want you to start, I will say "Ready, begin."

Have the participant line up his or her toes behind the line on the floor. Start timing when you say, "begin" and stop timing when the participant breaks the plane of the line at the end of the course. Record the time on data sheet.

2. Walk #2:

Now I want you to repeat the walk. Remember to walk at your usual pace, and all the way past the other end of the course.

Ready? Begin.

fv312 - fv324

Observed Performance Scoring

If a participant has an actual measured time of 9.99, make a note on the exam stating that the figure represents an actual time as opposed to unknown, and flag the variable so that when it gets cleaned, whoever is cleaning can make a point of changing the person's time back from missing. Otherwise, round the time up to ten seconds and code that the participant was able to hold their position for 10 seconds.

FV438 - FV480, FV482 - FV496

End of Life Preference Questionnaire

A. Rationale and Background:

Americans today enjoy a longer lifespan, many living well into their 80s and 90s. For many, however, an unfortunate consequence of living well into old age is a life accompanied by chronic and debilitating illnesses. Advances in medical technology have left many frail elderly patients vulnerable to a prolonged death commonly characterized by extended hospitalizations and costly invasive medical procedures. A key element to improving care at the end of life is the principle of patient autonomy including patients' rights to participate in decisions about the medical care. However, many patients near the end of life are not cognizant and are unable to participate in these important decisions. Therefore, advance care planning is a necessary component to achieve quality of care at the end of life.

The questionnaire should be introduced to the participant by using the following text:

People have many ideas about health and health care. Understanding these ideas is crucial to improving care. We are interested in learning what you believe to be the most important considerations at this point in your life. There are no right or wrong answers. We are simply interested in your opinions. We understand that this is a sensitive topic. Your participation is voluntary and you may choose to stop answering questions at any time.

Would you like to proceed? (0=No, 1=Yes, 9=Not done due to cognitive status)

This question will be used to assess the feasibility of collecting information about advance care planning in community-dwelling elders and the acceptability of this questionnaire to original cohort participants.

B. Definition of Terms:

Health Care Proxy - is a legal document that designates a trusted relative or friend to make health care decisions for you if, because of an illness or accident, you're incapable of making or communicating them yourself.

Living Will - A living will is a document in which you specify in advance medical treatment that you would or would not want in the event that you became unable to express your wishes. Massachusetts is one of only three states that recognizes health care proxies but does not recognize living wills. Living wills are still potentially useful because they guide Agents (for example your health care proxy, family members) and physicians about the types of choices a person would make.

Health Care Preferences - Are a statement of what an individual values in their life and their preferences concerning future health states such as being permanently comatose, ventilated or tube fed. Some patients want to "fight to the end" while others believe if they decline treatment

FV438-FV480, FV482-FV496

they are "giving up"; yet others want to focus on their "quality of life" or "live life until they die". Depending on an individual's preferences their medical care can be focused on extending life as much or on minimizing suffering and promoting comfort until death.

Power of Attorney – is a legal document that designates a trusted relative or friend to make legal and financial decisions for you if, because of an illness or accident, you're incapable of making or communicating them yourself. Sometimes, a Power of Attorney also gives the designee the right to make health care decisions.

If the participant requests further information encourage the participant to contact their physician or other health care provider.

C. Procedure:

1. Read the introduction to the participant including the statement that this is a sensitive topic, their participation is voluntary, and they may choose to stop answering questions at any time.
2. Ask if they want to proceed.
3. Always read the introduction to each set of questions.
4. Remember that we are asking a participant about their beliefs and preferences. There are no right or wrong answers. We want to know their thoughts.
5. These questions must be answered by the participant, not a proxy.

D. Methods:

There are 16 items included in the Health Care Preferences Questionnaire.

1. Read the introduction to each set of questions.
2. Read each question as it is written on the form and then read the available responses.
3. Code 9 = Refused or Do not know is used when:
 - a. The question was asked, but the participant chooses not to answer. For example, response was I would rather not say or Go on to the next question.
 - b. The question was asked, but the participant does not know, does not remember or does not understand the statement.
4. Circle the response on the form.

FV438-480, 482-496

5. When the participant asks about the meaning of any item or tries to qualify a statement, simply repeat the statement. If the participant still asks about the meaning or says he/she does not understand, check 9 = refused or don't know. Do not try to interpret the statement for the participant.
6. If a participant becomes visibly upset by the questions do not continue and document which question they found upsetting and inform Dr. Murabito.
7. If a participant wants further information refer them to their physician.

E. Interviewer Feedback:

At the end of each questionnaire, the interviewer will be asked to answer the following questions for each participant:

1. Did the participant choose to stop before completing all 16 questions? If so, why did they stop and at what question.
2. Did the participant seem upset or bothered by any of the questions that were asked? If yes, which question.
3. Where there any questions that the participant had particular difficulty understanding? If yes, which question(s).

FV438-FV480, FV482-FV496

Important Differences Between Health Care Proxies and Living Wills
Committees and MINS - Advance Directives 08/01/2000

Advance Directives, such as Health Care Proxies and Living Wills, allow people to retain control over medical decisions. Massachusetts law allows people to make their own Health Care Proxies, but does not officially recognize Living Wills. A Health Care Proxy designates another person to make medical decisions should you be unable to do so, and a Living Will allows you to list medical treatments that you would or would not want if you became terminally ill and unable to make your own decisions.

Massachusetts is one of only three states that recognizes Health Care Proxies but does not recognize Living Wills. Living Wills are still potentially useful because they guide Agents and physicians about the types of choices a person would make. More information about advance directives can be found at:

What is a Living Will?

A living will is a document in which you specify in advance medical treatment that you would or would not want in the event that you become unable to express your wishes. Massachusetts is one of only three states that recognizes health care proxies but does not recognize living wills. Living Wills are still potentially useful because they guide Agents and physicians about the types of choices a person would make.

fv438-fv480, fv482-fv496

MASSACHUSETTS HEALTH CARE PROXY

What does the Health Care Proxy Law allow?

The Health Care Proxy is a simple legal document that allows you to name someone you know and trust to make health care decisions for you if, for any reason and at any time, you become unable to make or communicate those decisions. It is an important document, however, because it concerns not only the choices you make about your health care, but also the relationships you have with your physician, family, and others who may be involved with your care. Read this and follow the instructions to ensure that your wishes are honored.

Under the Health Care Proxy Law (Massachusetts General Laws, Chapter 201D), any competent adult 18 years of age or over may...appoint a Health Care Agent. You (known as the "Principal") can appoint any adult EXCEPT the administrator, operator, or employee of a health care facility such as a hospital or nursing home where you are a patient or resident UNLESS that person is also related to you by blood, marriage, or adoption.

What can my Agent do?

Your Agent will make decisions about your health care only when you are, for some reason, unable to do that yourself. This means that your Agent can act for you if you are temporarily unconscious, in a coma, or have some other condition in which you cannot make or communicate health care decisions. Acting with your authority, your Agent can make any health care decision that you could, if you were able.

Your Agent will make health care decisions for you according to your wishes or according to his/her assessment of your wishes, including your religious or moral beliefs. It is very important that you talk with your Agent so that he or she knows what is important to you. If your Agent does not know what your wishes would be in a particular situation, your Agent will decide based on what he or she thinks would be in your best interests...if you still object to any decision made by your Agent, your own decisions will be honored unless a Court determines that you lack capacity to make health care decisions.

Your Agent's decisions will have the same authority as yours would, if you were able, and will be honored over those of any other person, except for any limitation you yourself made, or except for a Court Order specifically overriding the Proxy.

Who should have the original and copies?

After you have filled in the form, remove this information page and make at least four photocopies of the form. Keep the original yourself where it can be found easily (not in your safe deposit box). Give copies to your doctor and/or health plan to put into your medical record. Give copies to your Agent. You can give additional copies to family members, your clergy and/or lawyer, and other people who

FV438- FV480, FV482- FV496

may be involved in your health care decision making.

How can I revoke or cancel the document?

Your Health Care Proxy is revoked when any of the following four things happens:

1. You sign another Health Care Proxy later on.
2. You legally separate from or divorce your spouse who is named in the Proxy as your Agent.
3. You notify your Agent, your doctor, or other health care provider, orally or in writing, that you want to revoke your Health Care Proxy.
4. You do anything else that clearly shows you want to revoke the Proxy, for example, tearing up or destroying the Proxy, crossing it out, telling other people, etc.

For More Information on Choice in Death and Dying:

<http://www.abcd-caring.org> Americans for Better Care of Dying

<http://www.careguide.net> Everything families need to understand, plan, and manage care for their elderly loved ones

<http://www.choices.org> (Choice In Dying web site, which has general information as well as information about Massachusetts)

<http://www.partnershipforcaring.org> Partnership for caring: *America's voices for the dying.*

The following information on Advance Directives was printed from the Partnership for Caring website.

<http://www.partnershipforcaring.org> Partnership for caring: *America's voices for the dying.*

FV438- FV480 , FV482- FV496

Very Willing

Somewhat Willing

Somewhat Unwilling

Very Unwilling

Rather Die

FV326 - FV350

Mini-Mental State Exam (MMSE)

A. Background and Rationale:

Cognitive function may decline as a result of certain risk factors (e.g. hypertension, elevated cholesterol, cardiac arrhythmias). This in turn could adversely impact the physical functioning and quality of life of older adults. Dementia is a major illness and cause of disability among the elderly. Cerebrovascular disease or multi infarct dementia is the second leading cause of dementing illness among Caucasians, preceded only by Alzheimer's Disease.

The Mini-Mental State Exam (MMSE) is a widely used test of cognitive function among the elderly; it includes tests of orientation, attention, memory, language and visual-spatial skills.

B. Definitions:

1. **Alert Level:** In general participant scoring below education-adjusted cut-off scores* on the MMSE may be cognitively impaired.

MMSE-EDUCATION ADJUSTED CUT-OFF SCORES

- a. Subjects whose education levels are **7th grade or lower**, a score on the **MMSE of 22 or below**
- b. Subjects whose education attainment level is **8th grade or some high school** (but not a graduate of), a score on the **MMSE of 24 or below**
- c. Subjects whose education attainment level is **high school graduate**, a score on the **MMSE of 25 or below**
- d. Subjects whose education attainment level is **some college or higher**, a score on the **MMSE of 26 or below**.

***Note: The Education Adjusted Cut-off Scores are calculated by data management.**

2. **Mini-Mental State Exam Scoring:**

The official total score for the MMSE (i.e. the scores used for statistical analyses) are computer generated. Examiners record individual test item scores on the MMSE test form. The one exception is "WORLD" where examiners record the response of subjects in the exact order that it is given by the subject.

FV326 - FV350

For **referral purposes**, any participant with a drop of 3 points in score since their last exam should be referred to neurology group. A preliminary score can be calculated by Bernadette Shaw to determine if the participant should be referred. A referral form should be completed and given to the Neuro Project Coordinator, [REDACTED] after the exam. Referral forms can be found in the appendices.

If a participant is referred they may also qualify for a consent form Waiver.

3. **Consent Form Waiver:**

Guidelines dated 3/10/01 verified 3/25/04:

Any subject with MMSE at or above 26 may be presumed competent unless listed otherwise at last evaluation

Any subject with MMSE below 13 requires use of a Waiver unless seen by a neurologist and declared not demented

MMSEs between 25 and 13 would trigger a decision process. The participants in this category will sign a consent but they may qualify for a waiver. The neurology team will review each case and decide which category to be in (Consent or Waiver).

Refer to Waiver of Informed Consent Section of manual for full protocol.

C. Methods:

1. The MMSE asks questions to ascertain cognitive status. Responses are scored:
0=incorrect
1=correct
6=item administered, participant does not answer
9=test item not administered/unknown
2. If a response is ambiguous, the interviewer records the response in the margin so a decision can be made on its appropriateness. Please refer all questionable responses to the neuropsychologists (i.e. [REDACTED])
3. When a participant is incapacitated by blindness, has a functional disability, is illiterate, or is otherwise unable to respond to a question, the interviewer should specify the problem and questions involved (see "Factors Potentially Affecting Mental Status Testing" later in the section).

fV326 - f350

D. Expanded Scoring Instructions for Mini-Mental Exam:

Important note: The single exception to scoring 6 for no response is if a participant is in a coma (this circumstance would be encountered in a nursing home visit) In this instance, administer the first item (to establish no response -- give a 0 to the first item if there is no response). (This exception is made to conform with the stroke protocol.)

9 = When test item was not administered (refused or inability because of physical limitations) or subject's response is uninterpretable (response could be correct, but tester is unable to discern the response).

Important note: Sometimes a participant might produce a response that is not a word (i.e. a neologism) but has been responding with intelligible responses on previous items (right or wrong). In this case the items should be scored 0. The key to differentiating a 0 or a 9 is consistency within test. If a person has a speech abnormality, such as aphasia or dysarthria, across all items, most (or many) responses will be unintelligible. If a person is, for example, demented, he/she may produce a flow of intelligible responses with occasional unintelligible responses. A "9" must represent situations in which the EXAMINER is not sure whether (1) the participant responded correctly (because of slurred speech, severe stuttering, etc.), or (2) if the participant has some other factor that prevents test item administration (such as an inability to administer *copy this figure* test item to a right-handed person who has right-handed paralysis, or to someone who has a visual impairment or inability to hear).

Scoring for Administered Individual Items: (applies only if a test item is administered)

Score 0 for the following reasons:

1. Incorrect response
2. *I don't know*
3. Unintelligible response in context of other intelligible responses (see scoring of 9 as well).
4. Participants attempted to respond but responds incorrectly (i.e. they are demonstrating that they heard the question and are making an attempt to respond to it).

E. Questions: Scripts and Procedures for Each Question:

Introductory Script: *I'm going to start by asking questions that require concentration and memory. Some questions are more difficult than others and some will be asked more than one time.*

Read each question on the form.
Record the response on the form.

fV326 - fV350

1. *What is the date today?* (3 = correct score for month (1 pt), day (1 pt) and year (1 pt))

- a. Ask for the date. Then ask specifically for parts omitted (e.g. *Can you also tell me what month, year it is?*)
- b. If participant supplies part or all of the date (e.g. month and day, or month, day, and year), record as appropriate and do not ask those questions again.

2. *What is the season?*

Since distinctions between seasons can be difficult during certain months, one week leeway is allowed on either side of the actual date.

<u>Month</u>	<u>Correct Response</u>
January	Winter
February	Winter
March	Winter or Spring
April	Spring
May	Spring
June	Spring or Summer
July	Summer
August	Summer
September	Summer or Fall
October	Fall
November	Fall
December	Fall or Winter

3. *What day of the week is it?*

4. *What town, county, and state are we in?*

- a. Ask the participant what town, county, and state we are in.
- b. For offsite visits, refer to the section of the manual titled "New England Counties" for a complete list of all counties.
- c. If a participant has **Never** lived in Framingham, MA. They can give the name of the town, county, and state they live in. The examiner can look up their answer for correctness and score it appropriately.

5. *What is the name of this place?*

- a. Ask the participant where they are. Any appropriate answer is okay. On q home visits, the examiner can ask, *what is the address of this place?*

6. *What floor of the building are we on?*

FV326 - FV350

7. I am going to name 3 objects. After I have said them I want you to repeat them back to me. Remember what they are because I will ask you to name them again in a few minutes: Apple, Table, Penny.

- a. Make sure participant is attentive when beginning the question.
- b. Read the list of objects slowly. DO NOT REPEAT ITEMS UNTIL AFTER THE FIRST TRIAL.
- c. If participant asks you to repeat the 3 items, respond, *Can you tell me the items I just mentioned?* or *Just do the best you can.*
- d. Read *Apple, Table, Penny.*
- e. Script: *Could you repeat the three items for me?*
- f. Record the score for the first trial.
- g. If, after scoring the first attempt, the participant has not learned the 3 objects, repeat the list of objects up to 6 times until he/she has learned them.
- h. If 3 items are repeated regardless of order, score 3 points. Occasionally hearing impairments prevent subjects from correctly hearing test questions (for example, when asked to repeat three items, *apple, table, penny*, they may repeat *April, tablet, pencil* -- these alternate responses should be accepted both under the repetition and recall conditions).

8. Now I am going to spell a word forward and I want you to spell it backwards. The word is *WORLD*. *W-O-R-L-D*. Please spell it in reverse order. Write in letters _____ (letters are entered and computer scored later. For tabulating a total MMSE score for screening purposes, please determine a total score between 0-5 for this item).

- a. Read the question slowly. Where *world* has hyphens between the letters, spell out the word.
- b. Repeat the spelling if necessary.
- c. Record the participant's response. Write in the letter as the participant has spelled the word.

9. What are the 3 objects I asked you to remember a few moments ago?

- a. Items may be repeated in any order.

10. What is this called? (Watch)

Show the wristwatch to the participant
Correct responses include: watch, wristwatch, and timepiece
Code 1 = correct answer

11. What is this called? (Pencil)

FV326 - FV350

- a. Show the pencil to the participant. NOTE: the pencil should be a standard sharpened wooden pencil with eraser.
- b. Correct responses include: Pencil, number 2 pencil
- c. Code 1 = correct for correct answer.

12. Please repeat the following: No ifs, ands or buts.

- a. Enunciate clearly -- include the "S" at the end of *ifs*, *ands*, or *buts*, (if you think the participant heard you but repeated it incorrectly, make a note of what was missed and score 0).
- b. Allow only **one** attempt.
- c. Code 1 = correct when the participant correctly repeated the phrase.
- d. Code 0 = incorrect when the participant did not repeat the phrase exactly.

Occasionally hearing impairments prevent participants from correctly hearing test questions. In the case of repeating *no ifs, ands, or buts*, some judgment must be made on the part of the examiner as to whether the participant could hear the "s" or not.

13. Please read the following and do what it says.

- a. Hand participant the "Please Close Your Eyes" card.
- b. The participant may read the sentence out loud. The task to be coded is the participant's ability to follow instructions by closing his/her eyes. It is not necessary for the sentence to be read out loud if the participant performs the function properly.
- c. Code 1 = correct when the participant closes his/her eyes.
- d. Code 0 = incorrect when the participant did not close his/her eyes.

14. Please write a sentence.

- a. Script: *Write any complete sentence on this piece of paper for me.*
- b. Repeat the instructions to participant if necessary.
- c. Code 1 = correct if the participant wrote a complete sentence as directed.
- d. Written commands, such as *sit down*, where the subject is implied, are considered correct responses.
- e. Spelling and/or punctuation errors are not counted as errors.
- f. Code 0 = incorrect when the participant did not write a complete sentence as directed.
- g. Code 1 = if the participant is cognitively able to dictate a sentence but is physically unable to write it. In this case the examiner should write the dictated sentence and make a note that it was dictated.
Code 6 = Low vision

FV326 - FV350

15. Please copy this drawing.

- a. Script: *Here is a drawing. Please copy the drawing on the same piece of paper.*
- b. If the participant asks if the figures should be drawn separately or together the examiner should respond, *Draw the figures as you see them.*
- c. To be correct, each pentagon must have 5 sides, 5 sides that point outward. The two figures must be overlapping.
- d. The overlap figures must have 4 sides.
- e. Code "0" = incorrect when the participant's figure did not match.

16. *Take this piece of paper in your right hand, fold it in half with both hands, and put it in your lap.*

(If participant is unable to use right hand because of physical disability, you can alter instructions to read "Take this piece of paper in your left hand, fold it in half with your left hand, and put it in your lap". The goal is to see whether the subject is able to follow a 3-step command, so this variation to the directions to accommodate subject's physical limitations is allowable.)

- a. Read the full statement **BEFORE** handing the paper to the participant.
- b. **DO NOT** direct the paper to participant's right side. Hold the paper in front and have the participant reach out to take it. Observe which hand is used.
- c. **DO NOT** repeat instructions or coach participant. Only repeat if the examiner felt it was not heard or if instructions were not given clearly (just repeat the directions in full as they were the first time).
- d. Score: 1 for each correctly performed act (code 6 if low vision).

F. Factors Potentially Affecting Mental Status Testing

The examiner's impression for Cohort Cycle 28 will include the following:

<u>NO</u>	<u>YES</u>	<u>MAYBE</u>	<u>UNKNOWN</u>	
0	1	2	9	Illiteracy or low education
0	1	2	9	Not fluent in English
0	1	2	9	Poor eyesight
0	1	2	9	Poor hearing
0	1	2	9	Paralysis
0	1	2	9	Depression/Possible Depression
0	1	2	9	Aphasia
0	1	2	9	Coma
0	1	2	9	Parkinsonism or neurological
0	1	2	9	Impairment
0	1	2	9	Other

FV326 - FV350

PLEASE CLOSE YOUR EYES

FV352 - FV363

Sociodemographics and Subjective Health

This is a self-reported form. If not self-reported the Proxy Section of the exam form must be completed.

A. Socio-demographics

1. *Where do you live?*

Coding

0 = Private residence

1 = Nursing home

2 = Other institution, such as an assisted living facility or retirement community

9 = Unknown

2. *Does anyone live with you?* (NOTE: Code nursing home resident as NO to these questions.)

Coding

0 = No

1 = Yes

9 = Unknown

NOTE: If the answer to the above question was 0 or 9 you may skip the following section. If the answer was yes, the examiner needs to determine who lives in the same household. It is important to ask whether others lives in the same household for < 3 months per year or > 3 months per year. The list is:

Spouse

Significant other

Children

Friends

Relatives

Pets

Coding

0 = No

1 = Yes, less than 3 months per year

2 = Yes, more than 3 months per year

9 = Unknown

FV352 - FV363

3. *Are you Currently working at a paying job or doing unpaid volunteer or community work?*

Coding

0=No

1=Yes,

9=Unknown

4. *During the past 6 months (180 days) how many days were you so sick that you were unable to carry out your usual activities?*

Coding

999 = Unknown

B. Subjective Health

The following two questions MAY NOT be answered by a proxy.

1. *In general, how is your health now?*

Coding

1 = Excellent

2 = Good

3 = Fair

4 = Poor

9 = Unknown

2. *Compare your health to most people your own age:*

Coding

1 = Better

2 = About the same

3 = Worse than most people your own age

9 = Unknown

Rosow-Breslau Questions

A. Rationale & Background

Respondents' self-assessments of health may raise questions about the validity of such judgments. However, we are not interested in the literal details of people's medical condition as much as in the behavioral consequences, their physical capacity for role fulfillment and social participation. We are primarily concerned with the *functional* health which old people report, i.e., the degree to which they claim they can manage adequately or are restricted in their activities because of their physical condition or capacity.
Breslau, M, Rosow, I: A Guttman Health Scale for the Aged. 556-559

B. Methods

The method of assessing physical functioning is **self-report**. The questions assess the degree of difficulty that a person has performing a specific activity. This form has several important purposes:

1. These data will enable us to assess the level of independence and function in the study population.
2. It is hypothesized that impairments of physical function may be a risk factor for cardiovascular end points and progression of disease.
3. It will measure loss of physical functioning as a consequence of cardiovascular disease.

C. Procedures

Questions:

Coding

- 0 = No, unable to do
- 1 = Yes, independent
- 2 = Does not do
- 9 = Unknown

1. *Are you able to do heavy work around the house, like shovel snow or wash windows, walls, or floors without help?* (Scrub floors, wash windows, rake leaves, and mow lawn). (Note: Code 2 if person **does not** do this activity).
2. *Are you able to walk half a mile without help?* (Walk one half mile or 4-6 blocks without stopping for more than 5 minutes). (Note: Code 2 if person **does not** do this activity).

Questions 3 & 4 should be asked exactly how they are listed on the exam form.

FV376 - FV384

Nagi Questionnaire

Tech-Administered

A. Method

Show and explain the answer key *before* administering the questionnaire. The participant is to choose one of the following answers for each activity:

No Difficulty

A Little Difficulty

Some Difficulty

A Lot of Difficulty

Unable to Do

Don't Do on MD Orders

Unable to Assess Difficulty Because Not Done as Part of Daily Activities

B. Procedure

1. Start with, *For each activity, tell me whether you have No Difficulty, A little Difficulty, Some Difficulty, A Lot of Difficulty, if you are Unable to do it, if you Do not do it on MD Orders or Institutional Orders, or if you are Unable to Assess Difficulty Because the activity is not done as part of your daily activities.*
2. Read each activity separately, and go through the level of difficulty for each one until the participant understands the response choices.

Notes:

"Institutional Orders" is any facility that assists a person with their daily activities, (ex. Nursing homes, assisted living facilities, etc.)

Do not ask these questions if the participant is cognitively impaired; proxy may answer these questions.

fV 376 - fV 384

No Difficulty

A Little Difficulty

Some Difficulty

A Lot of Difficulty

Unable to Do

**Don't Do on MD Orders or
Institutional Orders**

**Unable to Assess Difficulty Because
Not Done as Part of Daily Activities**

f1391 - f1399

KATZ: Activities of Daily Living

A. Background and Rationale:

This section is designed to assess the following spectrum of physical functioning.
This section assesses:

- a. General level of physical functioning and mobility
- b. Ability to carry out instrumental activities of daily living
- c. Ability to carry out activities of daily living
- d. Framingham Disability Index

B. Activities of Daily Living (Title on top of form):

Part 1:

Ask the participant, *During the course of a normal day, can you do the following activities independently or do you need human assistance or the use of a device?*

The answers will be coded by the examiner as:

- 0 = No help needed, independent
- 1 = Uses device, independent
- 2 = Human assistance needed, minimally dependent
- 3 = Dependent
- 4 = Does not do during a normal day
- 9 = Unknown

NOTE: With a nursing home visit, the participant's chart may be used to verify or to obtain accurate information on ADL's. If information is obtained from the nursing home chart or staff then proxy information on screen must be completed.

FV391 - FV399

The activities include:

1. Dressing
 - Undressing and redressing
 - Picking out clothes, dress oneself including buttoning, fastening, etc.
 - Devices such as: velcro, elastic laces.
2. Bathing
 - Including getting in and out of tub or shower
 - Getting water, soap, towel and other necessary items and wash oneself
 - Devices such as: bath chair, long handled sponge, hand held shower, safety bars.
3. Eating
 - Able to eat from a dish and drink from a cup
 - Devices such as: rocking knife, spork, long straw, plate guard.
4. Transferring
 - Getting in and out of a chair
 - Arising from a sitting position to a standing position and back
 - Devices such as: sliding board, grab bars, special seat.
5. Toileting activities
 - Using the bathroom facilities and handling clothing
 - Devices such as: special toilet seat, commode.
6. Bladder continence
 - Ask if person has "accidents" (code=5 if use special product)
 - Devices such as: external catheter, drainage bags, ileal appliance, protective device.
7. Bowel continence
 - Ask if person has "accidents" (code=5 if use special products)
 - Devices such as: suppositories, bedpan, regular enemas.
8. Walking on a level surface about 50 yards
 - Devices such as: cane, crutches, or walker.
9. Walking up and down one flight of stairs
 - Devices such as: handrail, cane.

FV 391 - FV 399

No Help Needed

Uses Device

Human Assistance needed

Dependent

Do no do during a normal day

FV400 - FV408

Compensatory Strategies for Walking in the Home

Do not administer to Nursing home residents

A. Method

Tech administered-

Coding procedure as follows:

0 = No

1 = Yes

8 = Refused

88 = n/a, reside in assisted living

9 = Don't Know

B. Procedure

1. Read each question to the participant and record answer using the appropriate code.

2. Questions:

1. Is there a step to go into your (entry way step)?
2. In you home, are the bedrooms, bathrooms, and kitchen all on the same floor?
3. When you walk, do you use a cane at home?
4. When you walk, do you use a walker at home?
5. Do you use a wheel chair at home?
6. When you walk, do you reach out for or hold on to the furniture or walls at home?
7. When you walk, do you hold on to another person at home?
8. When you walk in the dark, do you hold on to furniture or walls?
9. When you walk in the dark, do you hold on to another person?

FV 364 - FV 374

IADL'S-Instrumental Activities of Daily Living
Tech-Administered

A. **Background and Rationale:**

The Lawton IADL's is used to assess the ability to carry out instrumental activities of daily living.

B. **Instrumental Activities of Daily Living are coded by the examiner as:**

- 01 = Completely Unable
- 02 = With Some Help
- 03 = Without Help

The Participant uses the prompt card when asking these questions. The participant will choose one answer from the prompt card that best describes their ability to carry out the activities.

- **The IADL questions are NOT administered to nursing home residents.**

Questions:

- 1) Can you use the phone:
- 2) Can you get to places out of walking distance:
- 3) Can you go shopping for groceries:
- 4) Can you prepare your own meals:
- 5) Can you do your own housework:
- 6) Can you do your own handyman work:
- 7) Can you do your own laundry:
- 8a) Do you take medicines or use any medications:
- 8b) Do you take your own medicines:
- 8c) If you had to take medicine, could you do it:
- 9) Can you manage your own money:

FV364 - FV374

Completely Unable

With Some Help

Without Help

fV520 - fV539

CES-D Scale

A. Rationale and Background:

The Center for Epidemiologic Studies Depression Scale (CES-D) was developed for use in epidemiologic research of depressive symptomatology in the general population. It was designed as a screening instrument to elicit symptoms associated with depression. It is intended to document the presence and severity of depressive symptoms but is not intended to make clinical diagnosis. It assesses the current state of the subject by focusing on symptomatology in the past week.

Note: The depression questions used in the NHANES 1 survey were the 20-item set of the CES-D developed and validated by the Center for Epidemiologic Studies, National Institute of Mental Health (NIMH).

The scale is given at each exam. The scale is not given if the patient is: sedated, aphasic, non-English speaking, or uncooperative.

B. Procedure:

1. Each question is read to the participant who responds with one of four answers.
2. Response alternatives should be printed on paper which is placed in front of the participant for reference.
3. Each category of response should be explained to the participant prior to administering the scale.
4. If the participant is unable to read the response sheets, the interviewer should read each response as well as the question referring to their feelings in the past week.
5. Be sure the participant understands that the questions refer to his/her feelings only during the past week.

fV520 - fV539

C. CES-D Scoring:

Each item has a range of four response options which indicated how often the survey examinee had felt that way during the past week:

<i>Code</i>	<i>Response Option</i>
0	Rarely or none of the time (less than 1 day)
1	Some or a little of the time (1-2 days)
2	Occasionally or a moderate amount of the time (3-4 days)
3	Most or all of the time (5-7 days)

Questionnaire items 4, 8, 12, and 16 were worded in a positive (i.e., nondepressed) direction. The other 16 scale items were worded in a negative direction to elicit depressive symptomatology directly. To score the CES-D, the sense of the four positive questionnaire items was reversed by subtracting their coded value (indicating the response option selected) from 3. Then the coded values for all 20 items were summed into a total score. The range of possible scores was 0-60. The final score is calculated by the computer.

D. Methods:

The CES-D Questionnaire consists of 20 questions. Since it is a scale for depression, it must be completed using responses by the participant, not a proxy.

SCRIPT: The questions below ask about your feelings. For each of the following statements, please say if you felt that way during the past week.

1. Hand the response sheet to the participant and explain the response options. The following definitions should be given:

Code

Rarely or none of the time (< one full day)

Some or a little of the time (1 to 2 days in the past week)

Occasionally or moderate amount of time (3 to 4 days in the past week, or about 1/2 the time)

Most of the time (5 to 7 days in the past week)

If participant answers *YES* to a given statement, repeat the above responses to get a correct answer.

FV520 - FV539

2. Read each item as it is written on the form, prefacing each question with the statement *During the past week*, then continuing with the response categories. For example:

SCRIPT: *During the past week I was bothered by things that usually don't bother me. Did you feel that way rarely or none of the time, some or a little of the time, occasionally or moderate amount of time, or most or all of the time?*

3. Discontinue reading the responses when the participant provides a response before you are finished. On the next item, however, again begin to read the entire set of responses.
4. Code 9 = *Refused* or *Do not know* is used when:
 - a. The question was asked, but the participant chooses not to answer. For example, response was *I would rather not say*, or *Go on to the next question*.
 - b. The question was asked, but the participant does not know, does not remember, or does not understand the statement.

** If "unknown" is used more than 4 times on the questionnaire it is no longer considered valid for research. Do your best to have the participant give you an answer listed on the response key.**

5. Circle the response on the form.
6. When the participant asks about the meaning of any item or tries to qualify a statement, simply repeat the statement. For example:

Participant: *What do you mean by bothered?*

Interviewer: *I was bothered by things that usually don't bother me. Did you feel that way rarely or none of the time, some or a little of the time, occasionally or moderate amount of time, or most or all of the time during the past week?*

7. When the participant still asks about the meaning or says he/she does not understand, check 9 = refused or do not know. Do not try to interpret the statement for the participant.

fv520-fv539

Rarely or none of the time (Less than 1 day)

Some or a little of the time (1-2 days)

Occasionally or moderate amount of time (3-4 days)

Most or all of the time (5-7 days)

FV498 - FV509

Berkman Social Network Questionnaire

A. Background & Rationale

The intent of the Berkman Social Network Questionnaire (BSNQ) is to determine the participant's social support systems both from friends and relatives. Printed response sheets in large font should be given to the participant to help them better understand and answer the questions.

B. Procedures

Before administering the BSNQ, read the following statement, *The next questions ask about your social support. Please tell me the response that most closely describes your current situation.*

The first four (4) questions should be answered with the following responses:

None	6 to 9
1 or 2	10 or more
3 to 5	Unknown*

* **Unknown** can be used only when participant is unable to answer, refuses, or if the question was not asked. The participant is not told this is an option for an answer.

1. *How many close friends do you have; people that you feel at ease with and can talk to about private matters?*

The response should be based on whom the participant can **talk** to, in person and telephone contact.

2. *How many of these close friends do you see at least once a month?*

This question refers only to friends the participant has been in physical contact with, or spoken to in person. **Talking on the phone should not be included in the scoring.** This separates how often the participant talks to people versus physically meeting with them.

3. *How many relatives do you have; people that you feel at ease with and can talk to about private matters?*

The response should be based on relatives whom the participant can **talk** to, in person and telephone contact

FV 498 - FV 509

4. *How many of these relatives do you see at least once a month?*

This question refers only to relatives the participant has been in physical contact with, or spoken to in person. **Talking on the phone should not be included in the scoring.** This separates how often the participant talks to people versus physically meeting with them.

5. *Do you participate in any groups such as a senior center, social or work group, religious connected group, self-help group, or charity, public service or community group?*

This can include volunteer work or groups where the participant physically works or joins others. Again, it does not include telephone contact.

Coding

0 = No

1 = Yes

9 = Unknown

6. *About how often do you go to religious meetings or services?*

The answer should reflect how often the participant **goes** to meetings or services. Watching services on television should not be scored as having gone to meetings or services. The intent of this question is how often the person **joins** others in this particular activity.

Coding

1 - 9

See Exam Form

Question 7 asks about insurance coverage.

7. *Do you have health insurance other than Medicare or Medicaid?*

The intent of questions 8-12 is for friends and family, not mental health specialists. They should be answered with the following responses:

<i>None of the time</i>	<i>Most of the time</i>
<i>A little of the time</i>	<i>All of the time</i>
<i>Some of the time</i>	

* **Unknown** can be used only when participant is unable to answer, refuses, or if the question was not asked. The participant is not told this is an option for an answer.

The remaining questions should be asked exactly as they are printed on the page. The technician should not try to explain them.

FV 498 - FV 509

None

1 or 2

3 to 5

6 to 9

10 or more

FV498-FV509

None of the time

A little of the time

Some of the time

Most of the time

All of the time

f1511 - f1518

Leisure Time Cognitive and Physical Activities

A. Background and Rationale

The intent of the Leisure Time Cognitive and Physical Activities questionnaire is to determine whether increased participation in leisure activities lowers the risk of dementia or participation in leisure activities declines during the preclinical phase of dementia. Response sheets, using large print should be given to the participant to help them better understand and answer the questions.

B. Procedures

1. Show and explain the answer key *before* administering the questionnaire. The participant is to choose one of the following answers for each activity:

Never
Daily (7 days/week)
Several Days Per Week (2-6 days/week)
Once Weekly (1 day/week)
Monthly (once a month)
Occasionally (less than once a month)

2. Ask each question individually. Start with, *During the past year, how often have you participated in the following leisure time activities?*
3. These questions can be answered by the participants' proxy. For nursing home visits this information can also be taken from the up-to-date Minimum Data Sheets.
4. This questionnaire can be asked of all participants regardless of their cognitive status.

Note:

"Group exercises" is considered done as a group, not exercise done alone.

"Crossword Puzzles" Include word searches

"Reading books/Newspapers" If the participant is legally blind but listens to books on tape, this is considered as a book on tape reader. It involves the same process once it migrates to the brain: attention, memory, and sequence.

fV511-fV518

Never

Daily (7 days per week)

Several Days Per Week (2-6 days)

Once Weekly (1 day per week)

Monthly (Once a month)

Occasionally (less than once a month)

FV410 - FV423

Use of Nursing and Community Services

These questions are meant to gather information on use of nursing and community services in the interim.

Question 1: Have you been admitted to a nursing home (or skilled facility) since your last exam or medical history update?

Question 2: Since your last exam, have you been visited by a nursing service, or used home, community, or outpatient programs?

If a participant moved into a nursing home prior to the two year interim, then the first question 1 is 0 = No. If the first question is No because the participant has been living in a nursing home for more than 2 years, the rest of Nursing and Community Services should be coded as 0 = No.

FV431 — FV436

Falls and Fractures

1. Falls

Ask the participant, *Since your last exam have you accidentally fallen and hit the floor or ground?*

Coding

0 = No

1 = Yes

2 = Maybe

9 = Unknown

If yes, ask *How many times did you fall in the past year?*

NOTE: Falls during sports activities are not coded.

2. Fractures

Ask the participant, *Since your last exam or medical history update have you broken any bones?*

Coding

0 = No

1 = Yes

2 = Maybe

9 = Unknown

List the location of each fracture individually (3 spaces available)

FV267 - FV286, FV540 - FV550

Procedure Sheet and Exit Interview
(Clinic & Offsite)

On the back of the Numerical Data Sheet there is a Procedure Sheet and Exit Interview.

A. Procedure Sheet

Prior to the exit interview staff should check the participant chart to see what procedures were completed. The staff should then fill in the procedure sheet using the corresponding codes.

B. Exit Interview

Once the procedures are reviewed an exit interview is to be completed with the participant. During the exit interview:

1. Check the referral tracking sheet (complete with your ID number and any adverse events in clinic) and review with the participant any referral recommendations.
2. Make sure the participant leaves the clinic area with all of their belongings; and
3. Ask for feedback from the participant on how they felt about their examination.
 - a. Enter one of the following codes:
0=No Feedback
1=Positive Feedback
2=Negative Feedback
3=Other
 - b. Write in any comments that are made.

C. Proxy Information

Whenever someone else is providing information about a participant that is collected on the forms, this person is considered a "proxy". When an offsite visit is to a nursing home frequently a nurse familiar with the participant will be the proxy. Sometimes during offsite exams there will be more than one proxy. For example a Home Health Aid may answer all of the questions relating to ADL's, and the daughter may answer all of the medical questions. In cases like these, record information for both proxies on the numerical data sheet.

Important: The proxy that is designated by the participant as their FHS proxy does not have to be the same person as the one listed on the numerical data sheet.

fv001 - fv200 , fv202 - fv250

Medical History

The forms from the participant's last examination are provided in a folder behind the current medical history form. The medical history taken from the participant is an update from the Heart Study's last contact with the participant (based on the date of the last Health History Update or last examination). The examiner should also refer to the Summary of Findings form in the participant's chart to verify whether a medical encounter is new or has already been identified. This form records the outcome of all Endpoint reviews and therefore documents all cardiovascular disease events adjudicated by the study.

The health status page may have incomplete data on medical encounters. Be sure to clarify any missing information and record it under medical encounters on the first page of the medical history form.

Medical History Form

1st Examiner Prefix

(0=MD, 1=Tech, for OFFSITE visit)

Hospitalization in interim

A hospitalization is considered an overnight stay.

If the participant was in the Emergency Room (E.R.) and then admitted, the event would be considered only for hospitalization and not as E.R. visit.

E.R. visit in interim

An emergency room visit is when the person is both admitted to and discharged from the emergency room the same day.

Day surgery in interim

Day surgery is a surgical procedure performed on an out-patient basis either in an ambulatory surgery department of a hospital or in a physician's office.

The person is in and out the same day.

Major illness with visit to the doctor in interim

Illness with visit to physician is defined as a visit outside of a regular check-up. It can be further clarified by defining it as a visit to the doctor for a specific reason.

It is imperative that the reason for the visit be documented.

Check-up in interim by doctor

A check-up is considered to be a routine visit.

Details of all hospitalizations, ER visits, day surgery, and physician visits must be provided as follows:

fv001 - fv200, fv202 - fv250

A. Medical Encounter

Write the details about the medical event. If the participant cannot provide a "medical condition", symptoms leading to the medical encounter should be listed (for example, chest pain, shortness of breath).

B. Month/Year

Record the date of the medical encounter. People often cannot recall the exact month or even the year. Trying to couple the event with a season or holiday sometimes helps.

C. Site of the hospital or office

The hospital and the city and state are most important.

D. Doctor

Record the name of the physician seen. If the participant sees a physician's assistant or a nurse practitioner in the physician's office, obtain both names.

Note: If FHS needs outside hospital records, please obtain details: mo/yr, hospital site.

FV001 - FV200, FV202 - FV250

Medical History – Prescription and Non-Prescription Medication

On home visits, the participant is asked to show the medical technician his/her medication bottles including over-the counter preparations. In the case of a nursing home visit, the technician should record the medications from the participant's medication orders in their nursing home chart.

Copy the name of the medication, the strength including units, and the total number of doses per day/week/month. Include pills, skin patches, eye drops, creams, salves, injections. Include herbal, alternative, and soy-based preparations.

Print the medication name, strength, number per day/week/month, and if taken PRN.

*****List ONLY medications taken regularly in the past month/ongoing medications*****

Medical History

The physician or off-site medical technician will obtain an interim medical history using the standardized exam 29 form. The questions should be asked exactly as written on the form and the participant's response recorded according to the response choices provided on the form. In addition a comment area is provided on the form to record a narrative account of cardiovascular symptoms including chest pain, shortness of breath, syncope, exertional leg discomfort and cerebrovascular symptoms. It is critical that a narrative be provided to clarify the symptoms for investigators adjudicating events in Endpoint Review.

It is also critical to record all health care visits (physician, ER, hospital) the participant has had for the symptom. Outside medical records will be obtained to verify the participant's account of their medical condition.

Additional instructions for obtaining the medical history and properly coding the participant's responses are as follows.

Alcohol Consumption (screen MD06)

Code number of alcoholic beverages as EITHER weekly OR monthly as appropriate.

Chest pain (screen MD09)

When the participant states that they have not experienced any chest discomfort, clarify further using the terms *chest pain*, *chest tightness*, *chest pressure*.

If the participant states that they never used Nitroglycerin as a way to relieve the discomfort be sure to code as 8= not tried, rather than 0= no relief.

FV001 - FV200, FV202 - FV250

Cerebrovascular, Neurological and Venous Diseases (screen MD11)

It is important to stress that these CVA symptoms are **sudden**, not a gradual progression of a symptom.

1. Sudden Muscular Weakness
*Since (date of last FHS exam) until today, have you experienced any **sudden** muscular weakness? For example, face drooping or weakness, particularly on one side of your body.*
2. Sudden Speech Difficulty
*Since (date of last FHS exam) until today, have you experienced any **sudden** difficulty with your speech such as understanding spoken words or trouble speaking?*
3. Sudden Visual Defect
*Since (date of last FHS exam) until today, have you experienced any **sudden** visual defect?*
4. Sudden Double Vision
Since (date of last FHS exam) until today, have you experienced any double vision?
5. Sudden Loss of Vision in One Eye
*Since (date of last FHS exam) until today, have you experienced any **sudden** loss of vision in one eye, like a shade coming down over your eye?*
6. Sudden Numbness, Tingling
Since (date of last FHS exam) until today, have you experienced any numbness or tingling on one side of your face or one side of your body?

If the participant answers yes, ask is numbness and tingling positional?

CVD Procedures (MD14)

The participant is queried regarding CVD procedures since the last Heart Study contact.

If the participant has had more than one procedure of a particular type code only the first procedure and list all other procedures in the comment section.

Clarify the procedure list for the participant as follows:

Heart valvular surgery

Have you had surgery on your heart valves?

Exercise tolerance test

Have you had an exercise stress test or a treadmill test of your heart?

f1001 - f1200, f1202 - f1250

Coronary Arteriogram

This test is an invasive test done in the hospital. An x-ray is taken of your arteries after you receive an injection of a dye that outlines the blood vessels of your heart.

Coronary artery angioplasty/stent/PCI

Angioplasty is a procedure in which a balloon is used to open a narrowed or blocked artery in your heart. (This is also known as Percutaneous Coronary Intervention (PCI)). A stent is a wire mesh tube that is placed in the artery to hold it open. The stent is usually placed in the artery during angioplasty.

Coronary bypass surgery

Have you had bypass surgery also known as CABG (coronary artery bypass grafting)? During bypass surgery the diseased section of your coronary arteries are bypassed with a healthy artery or a vein in order to increase blood flow to your heart muscle.

Permanent pacemaker insertion

Have you had a pacemaker inserted? A pacemaker is used to replace the function of the natural pacemaker in your heart when your heart is beating too slowly. Permanent pacemakers are surgically placed into the chest through a small incision.

Carotid artery surgery

The carotid artery is located in your neck and carries blood and oxygen to your brain. Carotid artery surgery is a surgical procedure to restore adequate blood flow to your brain. A stent is inserted into the carotid artery to open a narrowed or blocked area of the artery to help maintain an adequate blood flow to the brain.

Thoracic aorta surgery

Have you had surgery on your aorta- the large blood vessel coming from your heart? This surgery is done to repair the aorta for example when there is an aneurysm (a weakening or bulge in the wall of the aorta).

Abdominal aorta surgery

Have you had surgery on the large blood vessel in your abdomen (belly) called the aorta? This surgery would be done to repair a problem such as an aneurysm (weakening or bulge in the wall of the artery) or blockage in the aorta.

Femoral or lower extremity surgery

Have you had any surgery to improve the circulation in your legs such as bypass surgery or angioplasty?

Lower extremity amputation

Have you had an amputation of part of your leg or foot?

Other cardiovascular procedures (write in)

Have you had any other tests or procedures on your heart or blood vessels?

fV001 - fV200, fV202 - fV250

For Offsite visits a technician will complete the physician medical history portion of the exam. The form will then be reviewed and completed by a physician. ALL physicians will be asked to share in this responsibility during their assigned clinic time. The physician chart review includes the following:

1. Review the physician exam form and complete all physician opinions regarding endpoints (AP, MI, CI, CHF, stroke, syncope, and IC) based upon the coded and written narratives the technician obtained at the time of the visit.
2. Code the ECG. The MD ECG reading should be added to the letter to the personal physician.
3. Complete the "clinical diagnostic impression"
3. Review the letter to the personal physician making any deletions/additions/changes in medical terminology that are required.
4. Return the chart the SAME day to the technician or the clinic tech at the board in clinic.

NOTE: The area entitled "Examiner's Opinion" at the bottom of every page is not to be completed by the medical technician but by the physician reviewing the chart in clinic.

FV019 - FV022, FV153 - FV156

Physician-Administered Blood Pressure

A. Equipment:

1. One standard Litman stethoscope tubing and earpieces with bell: Classic II 3M
2. One standard mercury column sphygmomanometer: Baumanometer (clinic)
3. Aneroid sphygmomanometer (off-site)
4. BP cuffs in four sizes (**All Latex Free**)

Thigh adult cuff
Large adult cuff
Regular adult cuff
Pediatric cuff

B. Blood Pressure Cuff Placement:

1. Bare participant's left arm to above the point of the shoulder.
2. Determine correct cuff size using guidelines inside the cuff.
3. Palpate the brachial artery.
4. With participant seated, place the appropriate cuff around the upper left arm. The midpoint of the length of the bladder should lie over the brachial artery. Each cuff has an artery marker. The mid-height of the cuff should be at heart level.
5. Place the lower edge of the cuff, with its tubing connections, about one inch (1") above the natural crease across the inner aspect of the elbow.
6. Wrap the cuff snugly about the arm, with the palm of the participant's hand turned upward.
7. If the subject has had a left-sided mastectomy, the right arm may be used for blood pressure measurement. If right arm is used, note it on the form.

C. Determination of Maximal Inflation Level

For each participant, determine the maximal inflation level, or the pressure to which the cuff is to be inflated for blood pressure measurement. This assures that the cuff pressure

f1019 - f1022, f1153 - f1156

at the start of the reading exceeds the systolic blood pressure and thus allows the first Kortokoff sound to be heard.

1. Attach the cuff tubing to the sphygmomanometer.
2. Palpate the radial pulse.
3. Inflate the cuff rapidly until the radial pulse is no longer felt (palpated systolic pressure) by inflating rapidly to 70 mmHg, then inflating by 10mmHg increments.
4. Deflate the cuff quickly and completely.
5. The maximal inflation level is 30 mmHg above the palpated systolic pressure.

D. Guidelines for Accurate Blood Pressure Readings:

1. The participant should be in a seated position for at least 5 minutes before the blood pressure is measured.
2. All readings are made to the nearest even digit.
3. Any reading which appears to fall exactly between marking on the mercury column should be read to the next higher marking (i.e. 2, 4, 6, 8, or 0).
4. All readings are made to the top of the meniscus, the rounded surface of the mercury column.
5. When the pressure is released quickly from a high level, a vacuum is formed above the mercury and the meniscus is distorted. Allow a few moments for it to reappear before reading the manometer.

For offsite Blood Pressures: Check that the needle is at the zero mark at the start and the end of the measurement. Place the manometer in direct line of sight with the eye on a line perpendicular to the center of the face of the gauge.

E. Blood Pressure Readings:

1. Following any previous inflation, wait at least 30 seconds after the cuff has completely deflated.
2. By closing the thumb valve and squeezing the bulb, inflate the cuff at a rapid but smooth continuous rate to the maximal inflation level (30 mmHg above palpated systolic pressure).

f1019 - f1022, f1153 - f1156

3. The examiner's eyes should be level with the mid-range of the manometer scale and focused at the level to which the pressure will be raised.
4. Open the thumb valve slightly. Allow the cuff to deflate, maintaining a constant rate of deflation at approximately 2 mmHg per second.
5. Using the bell of the stethoscope, listen throughout the entire range of deflation, from the maximum pressure past the systolic reading (the pressure where the FIRST regular sound is heard), until 10 mmHg BELOW the level of the diastolic reading (that is, 10 mmHg below the level at which the LAST regular sound is heard).
6. Deflate the cuff fully by opening the thumb valve.
7. Remove the stethoscope. Neatly enter systolic and diastolic readings in the spaces provided on the form.

FV202 - FV237

ECG CODING FOR FRAMINGHAM HEART STUDY EXAMINATIONS

A. General Comments:

Although the computerized ECGs which are recorded in clinic include measurements of rate, intervals and axis, it is important that the examining MD carefully examine the ECG and record these features on the coding forms. Your measurements (not those made by the computer) form the basis of the official ECG interpretation.

An important rule to remember: Please ask for help when you are unsure about interpretation of ECGs or our methods of coding. Be sure to always look at the old ECG for interim changes.

B. Heart Rate:

Each exam room is equipped with a rate stick with which heart rate can be measured. (The computer does a good job with this measurement).

C. Intervals:

PR, QRS and QT intervals are measured in hundredths of a second based upon examination of the ECG recording. (Lead II should be used when possible for these measurements). A QRS of 0.08 seconds is coded as 08.

D. QRS Angle?

This refers to frontal plane axis in degrees. Each exam room is equipped with a hexaxial device for measuring QRS axis. (The computer does a good job with this measurement).

E. Conduction Abnormality:

1. IV Block

This refers to right and left bundle branch block. Note that the code 1 is used for incomplete BBB and 2 is for complete BBB. For complete BBB the QRS interval should be .12 sec or greater. When the QRS is prolonged, but the pattern is not that of right or left BBB, the indeterminate IV block is coded as follows: 1=QRS .12 or greater, 2=QRS of .11 or .10. Remember that the measurements of QRS duration are those made by the examining physician and not by the computer. An RSR' pattern in the absence of QRS prolongation should be coded as normal. When an RSR' pattern occurs with a QRS duration of .09 sec or greater it represents incomplete RBBB.

FV202 - FV237

2. Hemi block

1=left anterior. This is present when the QRS axis is -30 or less and small q wave is present in lead I.

2=left posterior. QRS axis is >90 and small q is present in AVF, in absence of evidence of right ventricular hypertrophy.

3. Fascicular block

1=bifascicular. A) If complete RBBB + (1st degree AV block or a hemiblock) are present. B) Complete LBBB.

2=trifascicular. If RBBB + hemiblock + 1st degree AV block. Or LBBB + 1st degree AV block.

4. AV Block

1st degree when QRS duration is .20 seconds or greater (measured in lead II).

2nd degree when some P waves are not conducted. This comes in two forms a) Mobitz I. When progressive PR prolongation precedes the dropped P wave and b) Mobitz II when QRS complexes are dropped without prior PR prolongation. AV dissociation occurs when P waves and QRS complexes march out independent of each other.

5. WPW

A short PR interval is present (typically .12 seconds or less) and a slurred upstroke of the QRS is present (so called delta wave).

When these features are both fulfilled, WPW=1. When the PR is .12 or less and a delta wave is possibly present, or when a delta wave is present but the PR is marginally short .13 to .14 seconds, WPW=2.

FV202 - FV237

6. Atrial Enlargement:

Right Atrial Abnormality

The P wave in inferior leads is peaked with a height of 2.5 mm.

Morris P wave

The terminal portion of the V wave in lead V1 is inverted and measures at least 1mm by 1mm (at normal standardization). This reflects left atrial enlargement.

7. Myocardial Infarction

This is determined on the basis of the appearance of wide (.04 seconds) or deep (1/4 the height of the R wave) q waves. All tracings should be compared to the prior exam ECG which is always provided. The appearance of new, but small q waves should also be regarded as suggestive of MI. Loss of R waves in leads where they were previously present (see prior exam's ECG) should also raise suspicion of MI. A posterior MI is present when $R > S$ in V1, R is .04 seconds in duration, and an upright T wave is recorded in that lead. When criteria are largely, but incompletely fulfilled be sure to code this item as maybe!

8. Maximum I Wave Amplitude < -5 mm

This refers to giant inverted T waves at least 5mm deep. This condition is occasionally seen in hypertrophic cardiomyopathy.

9. Left Ventricular Hypertrophy

Be sure to carefully code each of the voltage criteria individually. Definite LVH is present when increased voltage is present together with a strain pattern (downsloping ST). Possible LVH is present when voltage criteria are fulfilled but only mild ST-T abnormalities (flattening) are noted. For cohort Exam 21, we have a separate code for LVH by voltage only. When complete BBB is present, LVH should be coded as unknown (9).

f0202 - f0237

10. Right Ventricular Hypertrophy

Definite RVH is present when increased R wave voltage is present in V1 and increase S wave voltage is present in V5 in the absence of RBBB. The sum of RV1 + SV5 should be at least 10.5mm.

11. Arrhythmias

The presence of rhythm disturbances should be made on the basis of examination of the ½ speed rhythm strip which accompanies each ECG. This represents a simultaneous 3 lead recording of the entire 12-lead ECG.

FV552 - FV574

Referral Tracking

1. Was further medical evaluation recommended for this participant?

This question is to be answered by the physician completing the chart.

In addition to the physician writing in their physician ID number on the form, he/she will code this question using the following codes:

Coding

0= No

1= Yes

9= Unknown

If No, go to the next section.

If Yes, the MD is to code the reason for further evaluation:

- a. Blood Pressure result /
Phone call > 200/110
Expedite \geq 180/100
Elevated > 140/90

Write in abnormality or identified medical problem

- b. ECG abnormality _____
c. Clinical Physician _____
d. Other _____

2. Was there an adverse event in clinic/offsite exam that does not require further medical evaluation?

This questions is to be completed by a staff member completing the exit interview.

In addition to the staff member writing in their technician ID number on the form, he/she will code this question using the following codes:

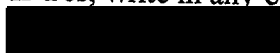
Coding

0= No

1= Yes

9= Unknown

If Yes, write in any comments and photocopy this form and give to



fV552 - fV574

3. Was a FHS physician contacted during the examination due to adverse exam findings?

This question is to be completed at offsite exams only by the staff member completing interview.

In addition to the staff member writing in their technician ID number on the form, he/she will code this question using the following codes:

Coding

0= No

1= Yes

9= Unknown

If Yes, write in any comments regarding the telephone encounter.

4. Method used to inform participants of need for further medical evaluation:

This information is to be coded by the physician completed the chart.

Circle ALL that apply

1= Face-to-face in clinic

2= Phone call

3= Result letter

4= Other

5. Method used to inform participant's personal physician of need for further medical evaluation:

This information is to be coded by the physician completed the chart.

Circle ALL that apply

1= Phone call

2= Results letter mailed

3= Results letter FAX'd

4= Other

Date referral made: ____--____--_____ Use 4 digits for year

ID number of person completing this referral: _____

Notes documenting conversation with participant or participant's personal physician: _____

Protocol for Scheduling Offsite Visits

Before making a call, check the roster.

- On the main screen, check the comment line and Consent Status and C.S. Date.
- Check the Referral screen (F14 or shift F4) for additional comments.
- Check the Booking screen (F12 or shift F2) for scheduled exams, exam history, and the participant's age.

If an appointment is already scheduled for the near future or the participant was seen within the past two months, wait a reasonable amount of time to try to schedule the offsite visit: we do not want to call our participants or their contacts too frequently, and the original members can get confused if they get several calls from the Framingham Heart Study.

There is a minimum of one year required between exams when starting a new cycle for the Original Cohort. A signed consent is good for two years or until the next cycle begins. Each exam cycle the participants must sign a new consent form. This exam cycle we will no longer be using consent by substituted judgment, some of these participants will now fall under the Waiver of Informed Consent.

When an appointment has been scheduled, the schedule is e-mailed to the offsite email list and a hard copy is given to [REDACTED] with the appropriate letter (with the nursing home or home visit form letters attached). Kathy will send the appointment letter with the medical information form attached for Home Visits.

A. Home Visits

You may call the participant directly to schedule an offsite appointment if:

- (1) There is no notation of cognitive impairment (*COG IMP* on the comment line or the F4/F14 screen),
- (2) The Consent Status is less than 3,
- (3) If the participant has not had the regular exam within the past year; and
- (4) There are no comments regarding severe hearing loss or speech difficulties.

If the participants' consent status is 3 or greater or if you have ANY question of their cognitive status, call the participants "FHS Proxy" first following the Waiver of Informed Consent protocol, if they have not designated a proxy, call a family member, preferably a Heart Study member. If you called the participant directly and any "red flags" were raised, call their proxy (if there is not a proxy call a family member) before scheduling. Given the ages of the Original Cohort, it is better to call someone in the next generation, preferably one of the children in the Offspring study. All Heart Study members are listed in the Family screen (F18 or shift F8), but check the F14 or F4 screen to see if they have a FHS proxy, if they don't check the comments and contact names to determine the best person to call. Whenever possible, call someone who lives near the participant.

If you cannot reach any contacts, (telephones disconnected, etc.), check the participant's chart (the Salmon Sheet) and/or any recent medical records in the chart to see who was listed as the responsible party or next of kin. If the contact person denies any problems (which often happens) and says the participant can sign any necessary form ask the contact if they would be willing to answer any unanswered questions after the exam.

When doing Home Visits where the Waiver of Informed Consent is used and you're not certain whether the participant can accurately answer questions, request that a family member or caretaker very familiar with the participant be present at the exam.

B. Nursing Home Visits

If there is no cognitive impairment noted in the roster, first call the nursing home to schedule the appointment. Identify yourself by name as a staff member of the Framingham Heart Study and ask to speak to the person in charge of the care of the participant. Once you have the nurse in charge of the participant on the line, identify yourself again as noted above, let them know why you are calling, and ask the nurse what the best time to visit the participant would be (some participants have other commitments during the day) and once the best time is determined, schedule an appointment. As a courtesy, call their proxy, if one is not listed contact a relative we have listed, starting with the spouse (unless there are instructions to the contrary on the roster) to inform her/him that we will be going to the nursing home; sometimes a relative wants to be present at the exam.

If the participant has a cognitive impairment follow the procedure for the Waiver of Informed Consent.

If the nursing home staff member tells you the participant has died since our last visit or health update, complete a Death Information Form which goes to the Participant Coordinator. If the nursing home can't or won't provide the information we need and the death occurred several months ago, call the proxy (if available) or a family member for information.

If you're told the participant is too ill for a visit and/or has had serious medical events since our last update, you may call a family member and ask them about the participants' condition and whether they feel we can visit, if they also say no, ask if you can complete a health update with them (using the Medical History Update form).

Preparation for an Off-site Examination

A. Supplies

The following supplies should be brought with you on an offsite visit:

- 1 Portable EKG machine
- 1 Portable EKG acquisition module
- 1-2 Packs of EKG electrodes
- 1 Heart square
- Alcohol wipes
- Gauze
- Adhesive remover pads
- 3 Blood pressure cuffs; large adult, adult and pediatric (**Latex Free**)
- 1 Pocket Aneroid Sphygmomanometer
- 1 Litman Classic II Stethoscope
- 1 Pencil
- 1 Wristwatch
- 1 Portable scale
- Response sheets for participant
- 1 JAMAR dynamometer
- 1 Stopwatch
- 1 Tape measure
- 1 Pocket Talker (very helpful for hearing impaired participants)
- Masking tape or tape of equal visibility
- Participant's chart containing last exam, including the MMSE and paperwork for Exam 29

B. Preparation

On the day of the scheduled Heart Study visit it is best to call the participant or nursing home to confirm the appointment. Instruct the participant that he/she should wear a top that easily opens in the front to facilitate the ECG and remind them to have any available medications they take. With their confirmation letter, a form is included that helps to summarize their medical history since their last exam. Ask them to have this form ready.

When calling a nursing home inform the nurse that access to their patient's chart is necessary. Most nursing homes are accommodating and have the chart set aside for the visit.

Proposed Sequence of Exam (offsite)

A. Offsite Technician Completes:

1. Informed Consent (Use of Waiver if applicable)
2. Sociodemographic and family history (Salmon Sheet)
3. HIPPA Medical Release Form
4. Healthcare proxy form
5. Medical History Update
6. 2 Blood Pressures
7. MMSE
8. Numerical Data: Weight, Marital Status
9. ECG
10. End of Life Preference Questions & Questionnaire's (CES-D, ADL's, Nagi, R-B, etc)
11. Observed Performance
12. Nursing Home Chart Review-Update any incomplete information (offsite NH exam only)
13. Proxy Interview (if needed)
14. Chart Completion

B. MD Completes:

1. Medical History-First Opinions
2. MD Letter
3. Referral Tracking
4. Patient Letter

Visiting the Cognitively Impaired

The physical component of the exam requires the cooperation of the participant. The following are some suggestions to be able to effectively communicate with those with dementia.

Effective Communication Suggestions:

1. Be patient
2. Do not try to reason
3. Keep information simple
4. Use given names
5. Use eye contact
6. Give one direction at a time
7. Give clear instructions instead of asking questions
8. Keep communication in the present
9. Use sensitive touch when possible
10. Give frequent acknowledgment and encouragement
11. Ignore misinformation and simply acknowledge the communication

Nursing Home Chart Review Protocol

When visiting a participant in a Nursing Home, most of the necessary information may be obtained through the review of the participants Nursing Home chart. When calling to confirm the offsite visit to the Nursing Home, inform the nurse taking care of the participant that you will need to look through his or her chart. Most nurses will ensure that the chart will be available upon your arrival.

1. Updating Sociodemographic Data and Family History

Upon opening the nursing home chart, one should see a face sheet. This sheet contains all the personal demographic data on their patient, including their next of kin. If these name(s) vary from the most recent ones on the Personal and Family History they should be documented, along with their addresses and phone numbers.

At the bottom of the face sheet it often lists the admission diagnosis of the patient. This is extremely important, especially if this is their first Nursing Home offsite visit.

2. Medications

Most charts contain an up-to-date list of the patient's medications. Some facilities keep the medications in a separate chart. If the patient's medications are not listed in their chart, ask for the medication book. Many times the medication sheets for months prior may also still be in the chart, make sure you use the most recent medication list (the dates will be at the bottom of the form).

3. Interim Medical History

The two sections that are most helpful in locating medical history information are "Consults" and "Medical History". Some nursing homes keep copies of all hospitalization records in a clear sleeve. The "Physician's Notes" and "Nurses Notes" sections are also helpful.

NOTE: Since all facilities have their own chart organization system it is best to thoroughly examine the whole chart. Some facilities thin their charts more frequently and if only the last month's information is present, then ask to see the whole interim period. This will ensure that nothing is missed.

4. Activities of Daily Living

To update a participant's activities of daily living the best reference is the MDI or minimum data sheet. This is a computer sheet, usually at the front of the chart, and it is updated about every 4 to 6 months. This sheet lists activities of daily living, hospitalizations etc. Always refer back to notes and daily documented information to corroborate data, but this gives a nice head start. To truly confirm the current level of functioning of the patient consult with his or her nurse and list nurse as the Proxy.

5. Weight

If you are unable to obtain the participants weight using the FHS protocol you can use their nursing home chart records. Weight is typically done weekly at NH facilities. If you can't find a list of their current weight you can reference their physical exam report. Check to see if the NH keeps a separate weight book first before using the physical, we want to use the most recent measurement. Record the weight on file and the date it was obtained.

Offsite Visit Chart Completion

After returning to the Heart Study the following procedure is used to ensure that the chart is processed in an efficient manner.

A. ECG Physician Review

The full size tracing of the ECG and the ECG from the participant's previous exam should be presented to a FHS physician within 24 hours of the visit or within 24 hours of the tech returning to the FHS. This is done for comparison and reading. Should there be any marked ECG changes; the FHS physician should inform the participant's personal physician immediately.

After a contact is made with the PCP, the physician should complete a phone encounter sheet or the referral tracking form to document his/her actions.

The field visit tech will complete the chart the day of the visit or the next day if the visit occurred late in the day or was out of the Metrowest area.

Field visit charts will be processed within 1-2 days of the visit and the tracking sheet will be returned to the off-site tech for confirmation of completion.

B. Chart Review Protocol

1. Review all forms to ensure that all areas are completed. This includes the participant's letter and the physician summary sheet. On the summary sheet, document the medical findings that are new since the last exam and any other significant medical conditions carried over from previous exams.
2. If the participant had a stroke or has shown marked cognitive changes in the interim, a referral is made to the Stroke and/or Dementia study. After completing the referral forms, attach to the front of the chart.
3. A Routing Sheet is used to ensure that the doctor, the Study Coordinator, the Offsite Technician and Data technician review the chart.
4. When preparing the chart for the MD to review in clinic, the following documents should be clipped together and put in the front of the chart:
 - a) ECG – current and from last exam
 - b) Medical History Update
 - c) Summary Sheet to MD
 - d) Letter to Participant
 - e) Referral Tracking Form
 - f) Photocopied Summary of Findings from previous letter

5. The chart should be left for the MD to review in clinic that morning. A participant label should be put on the float sheet and the person working the float position should inform the MD that they have a chart to review.
6. It is the responsibility of the MD to review the chart in clinic that morning. The chart should not be brought upstairs.
7. Once the chart is reviewed by the MD the offsite technician should again review the chart for completeness and put the chart in order.
8. The chart should then be given to the Cohort Participant Coordinator. The CPC will update the roster and give the chart to the data technician to type the MD letter.
9. Once the data technician is finished with the chart he/she should return the routing sheet to the offsite technician. Once this is returned this will indicate the chart is completed.

Appendix

- A. Exam Forms
- B. Exam Referral Forms & Medical Encounter Forms
- C. Supervisor Observation Forms
- D. Tracking Forms
- E. Participant Letters
- F. Massachusetts Counties
- G. WORLD Scoring for MMSE

Used for administrative purposes only

Neurology Clinic Referral Form

ID#: _____
Date: ___/___/___

Name: _____
Person Making Referral: _____

Source of Referral: _____
1= Hospital Admission
2= Biennial Exam
3= Offspring Exam
4= Family

5= Medical Records
6= Other (Please specify)
7= Review

Reason for Referral: _____

Reason for Hospitalization (if applicable): _____

Living Situation (if applicable): _____

1 = Own Home
2 = Elderly House
3 = Hospital
4 = Relative's Home
5 = Nursing Home
6 = Other

DISPOSITION (OFFICE USE)

Date Opened: ___/___/___
Date Closed: ___/___/___

1. To be scheduled for Neuro Clinic
2. Seen in Neuro Clinic: ___/___/___
3. Medical Records to be Obtained
4. Medical Records Complete: ___/___/___
5. Review Status: _____
1 = Reviewed
2 = Awaiting review
3 = No review to be done
6. Enrolled Case in Stroke Study: _____
1 = No
2 = Yes
Date: ___/___/___
7. Reasons Not Seen: _____
1 = N/A
2 = Refused
3 = Deceased
4 = Out of State
8. Previously Seen: _____
1 = Stroke
2 = Dementia

|||

Used for administrative purposes only

Stroke Tracking Referral Form
The Framingham Study

* Please complete the upper portion of this form if you identify a new neurological event.

ID#: _____ Name: _____

Date Opened: ___/___/___ Date Type: ___ (0=Exact, 1= Approximate)

Date of Event: ___/___/___

Source of Referral: _____

1 = Hospital Admission	5 = Medical Records
2 = Biennial Exam	6 = Review
3 = Offspring Exam	7 = Other (Please specify)
4 = Family	

Initials: _____

Reason for Referral: _____

Reason for Hospitalization: _____ (1=Neurology, 2=Other, 3=N/A)

Comments: _____

DISPOSITION (FOR TRACKING PERSONNEL TO COMPLETE)

1. Dictation: _____ (0=Awaiting, 1=In)
2. To be Scheduled in Stroke Clinic: _____ (0=No, 1= Yes, 2=Pending)
3. Date Seen in Stroke Clinic: ___/___/___
4. Reason Not Seen in Clinic: _____ (1=N/A, 2=Refused, 3=Deceased, 4=Out of State)
5. Part of PSIP Follow-Up Protocol: _____ (0=No, 1=Yes, 9=Unknown)
6. Previously Seen: _____ (0=No, 1=Stroke, 2=Dementia, 3=Other)
7. Medical Records needed: _____ (0=No, 1=Yes)
8. Date: ___/___/___
9. CT/MRI/MRA to be obtained: _____ (0=No, 1= Yes)
10. Date: ___/___/___
11. Review Status: _____ (1=Awaiting Review, 2=Reviewed, 3=Need Info)
12. Date Reviewed: ___/___/___
13. Status of Case: _____ (0=Opened, 1=Closed)
14. Date: ___/___/___
15. Diagnosis: _____
(1=Stroke, 2=TIA, 3=?TIA, 4=Parkinson's, 5=No CVA, 6=Other Neuro, 7=Migraine, 10=?Stroke, 20=Recurrent TIA, 9=Unknown, 11=Multiple Sclerosis)

Used for administrative purposes only

Date: _____

Tech ID# _____

Supervisor: _____

Participant _____

**Blood Pressure and Maximum Inflation
Supervisor Checklist**

Check that each procedure is carried out correctly. Check yes if correct or no if incorrect. Provide an explanation of the incorrect item. Items are presented in the sequence of the examination procedure, but may require confirmation before or after the exam.

Yes	No	Blood Pressure Cuff Placement
		Bare participant's left arm to above the point of the shoulder.
		Determine correct cuff size using guidelines inside the cuff.
		Palpate the brachial artery.
		With participant seated, place the appropriate cuff around the upper left arm. The midpoint of the length of the bladder should lie over the brachial artery. Each cuff has an artery marker. The mid-height of the cuff should be at heart level.
		Place the lower edge of the cuff, with its tubing connections, about one inch (1") above the natural crease across the inner aspect of the elbow.
		Wrap the cuff snugly about the arm, with the palm of the participant's hand turned upward.
		If the subject has had a left-sided mastectomy, the right arm may be used for blood pressure measurement. If right arm is used, note it on the form.

Yes	No	Determination of Maximal Inflation Level
		For each participant, determine the maximal inflation level, or the pressure to which the cuff is to be inflated for blood pressure measurement. This assures that the cuff pressure at the start of the reading exceeds the systolic blood pressure and thus allows the first Kortokoff sound to be heard.
		Attach the cuff tubing to the sphygmomanometer.
		Palpate the radial pulse.
		Inflate the cuff rapidly until the radial pulse is no longer heard (palpated systolic pressure) by inflating rapidly to 70 mmHg, then inflating by 10mmHg increments.
		Deflate the cuff quickly and completely.
		The maximal inflation level is 30 mmHg above the systolic pressure.

Used for administrative purposes only

BLOOD PRESSURE AND MAXIMUM INFLATION
SUPERVISOR CHECKLIST

Yes	No	Guidelines for Accurate Blood Pressure Readings
		The participant should be in a seated position for at least 5 minutes before the blood pressure is measured.
		All readings are made to the <u>nearest even digit</u> .
		Any reading which appears to fall exactly between marking on the mercury column should be read to the next higher marking (i.e. 2, 4, 6, 8, or 0).
		All readings are made to the <u>top of the meniscus</u> , the rounded surface of the mercury column
		When the pressure is released quickly from a high level, a vacuum is formed above the mercury and the meniscus is distorted. Allow a few moments for it to reappear before reading the manometer.
		For offsite Blood Pressures: Check that the needle is at the zero mark at the start and the end of the measurement. Place the manometer in direct line of sight with the eye on a line perpendicular to the center of the face of the gauge.

Yes	No	Blood Pressure Readings
		Following any previous inflation, wait at least 30 seconds after the cuff has completely deflated.
		By closing the thumb valve and squeezing the bulb, inflate the cuff at a rapid but smooth continuous rate to the maximal inflation level (30 mmHg above palpated systolic pressure).
		<u>The examiner's eyes should be level with the mid-range of the manometer scale</u> and focused at the level to which the pressure will be raised.
		Open the thumb valve slightly. Allow the cuff to deflate, maintaining a constant rate of deflation at approximately <u>2 mmHg per second</u> .
		Using the bell of the stethoscope, listen throughout the entire range of deflation, from the maximum pressure past the systolic reading (the pressure where the <u>FIRST</u> regular sound is heard), until 10 mmHg <u>BELOW</u> the level of the diastolic reading (that is, 10 mmHg below the level at which the <u>LAST</u> regular sound is heard).
		Deflate the cuff fully by opening the thumb valve.
		Remove the stethoscope. Neatly enter systolic and diastolic readings in the spaces provided on the form.

Used for administrative purposes only

BLOOD PRESSURE AND MAXIMUM INFLATION
SUPERVISOR CHECKLIST

Comments/Corrections:
Supervisor:
Date:

Used for administrative purposes only

Date: _____

Tech ID# _____

Supervisor: _____

Participant _____

**Standing Height Measurement
Supervisor Checklist**

Check that each procedure is carried out correctly. Check yes if correct or no if incorrect. Provide an explanation of the incorrect item. Items are presented in the sequence of the examination procedure, but may require confirmation before or after the exam.

Yes	No	Standing Height Measurement
		The participant should be barefoot or wearing thin socks so positioning of the body can be seen. Ask participant to stand erect with his/her back to vertical mounted stadiometer.
		Heels should be together and against the vertical ruler, both feet flat on the floor, with weight distributed evenly across both feet. Check to make sure both feet are back against the wall.
		Participant faces straight ahead with his/her head positioned in the Frankfort horizontal plane. The lower margin of the bony orbit (the socket containing the eye) should be on the same horizontal plane as the most forward point in the supratragal notch (the notch just above the anterior cartilaginous projections of the external ear).
		Ask participant to let arms hang freely by the sides of the trunk, palms facing the thighs. Ask participant to inhale deeply and maintain a fully erect position.
		Bring the level down snugly (but not tightly) on top of participant's head. Use an extension board for proper measurement of severely kyphotic subjects.
		Record measurement to the nearest 1/4 inch, rounding down.

Comments/Corrections:

Supervisor: _____

Date: _____

Note: Measurement is not taken during offsite visits.

Used for administrative purposes only

Date: _____

Tech ID# _____

Supervisor: _____

Participant _____

ECG Supervisor Checklist

Check that each procedure is carried out correctly. Check yes if correct or no if incorrect. Provide an explanation of the incorrect item. Items are presented in the sequence of the examination procedure, but may require confirmation before or after the exam.

Yes	No	ECG Procedures
		Participant is informed that ECG is going to be done. Procedure is explained. Participant is asked to lie on bed, get comfortable.
		Tech establishes a rapport with participant so participant is at ease with procedure. Answers any questions participant may have.
		Electrode location V2 is located in the 4 th intercostals space at the left sternal border, a mark is made with pencil.
		V1 is found at the same level as V2 but at the right sternal border, a mark is made.
		The E point is located at the intersection of the 5 th intercostal space and the mid-clavicular line, a mark is made.
		A line is drawn at mid axillary in exact vertical center plane of the thorax.
		V6 is located in the mid axilla at the same level as the E point. (The heart square should be firmly placed on the body and kept on a horizontal plane from the E point to the mid-axillary point).
		The difference between the E0 measurement and V6 measurement is calculated.
		The difference from the above calculation is located in the heart square and V4 is located on the chest, a mark is made.
		V3 is located midway between V2 and V4, a mark is made.
		V5 is located midway between V4 and V6, a mark is made
		Alcohol wipe is used to clean each area, V1, V2, V3, V4, V5, V6 and RA, LA, RL, LL
		Chest Electrodes are placed at V1, V2, V3, V4, V5, V6 with the body of the electrode placed centrally on each pencil measurement, tab extending down.
		RA electrode is located on the upper (dorsal) surface of right forearm, placed with tab extending away from body.
		LA electrode is located on the upper (dorsal) surface of left forearm, placed with tab extending away from body.
		RL electrode is located on the inside surface of the right lower leg, placed with tab extending away from body.
		LL electrode is located on the inside surface left lower leg, placed with tab extending away from body.

Used for administrative purposes only

Yes	No	ECG Procedures (cont'd)
		Leads are connected to electrodes in the following order: RL, LL, RA, LA, V1, V2, V3, V4, V5, V6.
		All leads are rechecked for proper placement
		The participant's identifying information is typed into the MAC.
		Participant is requested to relax and lie quietly while ECG recording is in process.
		When tracing appears acceptable, the ECG is printed and reviewed for errors
		Leads are disconnected and electrodes gently removed
		2 copies of the ECG is printed and stamped with the correct exam number.

Comments/Corrections:
Supervisor:
Date:

Used for administrative purposes only

Date: _____

Tech ID# _____

Supervisor: _____

Participant _____

**Self-Reported Performance – KATZ-ADL's
Supervisor Checklist**

Check that each procedure is carried out correctly. Check yes if correct or no if incorrect. Provide an explanation of the incorrect item. Items are presented in the sequence of the examination procedure, but may require confirmation before or after the exam.

Yes	No	Activities of Daily Living
		<p>Ask the participant: <i>During the course of a normal day, can you do the following activities independently or do you need human assistance or the use of a device?</i></p> <p>The answers will be coded by the examiner as: 0 = No help needed, independent 1 = Uses device, independent 2 = Human assistance needed, minimally dependent 3 = Dependent 4 = Does not do during a normal day 9 = Unknown</p>
		<p>Dressing</p> <ul style="list-style-type: none"> • Undressing and redressing • Picking out clothes, dress oneself including buttoning, fastening, etc. • Devices such as: velcro, elastic laces.
		<p>Bathing</p> <ul style="list-style-type: none"> • Including getting in and out of tub or shower • Getting water, soap, towel, and other necessary items and washing oneself. • Devices such as: bath chair, long handled sponge, hand held shower, safety bars.
		<p>Eating</p> <ul style="list-style-type: none"> • Able to eat from a dish and drink from a cup • Devices such as: rocking knife, spork, long straw, plate guard

Used for administrative purposes only

KATZ-ADL'S COHORT EXAM 29
SUPERVISOR CHECKLIST

Yes	No	Activities of Daily Living (Continued)
		Transferring <ul style="list-style-type: none"> • Getting in and out of a chair • Arising from a sitting position to a standing position and back • Devices such as: sliding board, grab bars, special seat.
		Toileting activities <ul style="list-style-type: none"> • Using the bathroom facilities and handling clothing • Devices such as: special toilet seat, commode
		Bladder Continence <ul style="list-style-type: none"> • The participant is asked, "Do you have accidents?" • Devices such as: external catheter, drainage bags, ileal appliances, protective devices
		Bowel Continence <ul style="list-style-type: none"> • The participant is asked, "Do you have accidents?" • Devices such as: suppositories, bedpan, regular enemas, colostomy.
		Walking on a Level Surface about 50 Yards <ul style="list-style-type: none"> • Devices such as: cane, crutches, or walker
		Walking up and down One Flight of Stairs <ul style="list-style-type: none"> • Devices such as: handrail, cane.

Yes	No	Compensatory Strategies for Walking in the Home
		The answer will be coded by the examiner as: 0 = Yes 1 = No 8 = Refused 88 = n/a, resides in assisted living 9 = Don't know
		Is there a step to go into your home (entry way step)?
		In your home, are the bedroom, bathroom, and kitchen all on the same floor (multi-level living)?
		When you walk, do you use a cane at home?
		When you walk, do you use a walker at home?
		Do you use a wheelchair at home?
		When you walk, do you reach out for or hold on to the furniture or walls at home?
		When you walk, do you hold on to another person at home?
		When you walk in the dark, do you hold on to the furniture or walls?

Used for administrative purposes only

KATZ-ADL'S COHORT EXAM 29
SUPERVISOR CHECKLIST

		When you walk in the dark, do you hold on to another person?
--	--	--

Yes	No	Technician Review
		Did the technician introduce the set of questions with clear explanation?
		Did the technician ask the questions exactly as written on the form?
		Did the technician correctly clarify any questions the participant had?
		Did the technician score the participant's responses correctly?
		Did the technician review the form for completeness?

Comments/Corrections:
Supervisor:
Date:

Used for administrative purposes only

Date: _____

Tech ID# _____

Supervisor: _____

Participant _____

**MMSE Exam
Supervisor Checklist**

Check that each procedure is carried out correctly. Check yes if correct or no if incorrect. Provide an explanation of the incorrect item. Items are presented in the sequence of the examination procedure, but may require confirmation before or after the exam.

Methods
The MMSE asks questions to ascertain cognitive status. Responses are scored: 0=incorrect 1=correct 6=item administered, participant does not answer 9=test item not administered/unknown
Scoring for Administered Individual Items
Score 0 for the following reasons: 1. Incorrect response 2. <i>I don't know</i> 3. Unintelligible response in context of other intelligible responses (see scoring of 9 as well). 4. Participants attempted to respond but responds incorrectly (i.e. they are demonstrating that they heard the question and are making an attempt to respond to it).

Used for administrative purposes only

MMSE EXAM
SUPERVISOR CHECKLIST

Yes	No	Questions: Scripts and Procedures for Each Question																										
		Introductory Script: <i>I'm going to start by asking questions that require concentration and memory. Some questions are more difficult than others and some will be asked more than one time</i>																										
		Read each question on the form.																										
		Record the response on the form.																										
		<i>What is the date today?</i> (3 = correct score for month (1 pt), day (1 pt) and year (1 pt)) <ul style="list-style-type: none"> a. Ask for the date. Then ask specifically for parts omitted (e.g. <i>Can you also tell me what month, year it is?</i>) b. If participant supplies part or all of the date (e.g. month and day, or month, day, and year), record as appropriate and do not ask those questions again. 																										
		<i>What is the season?</i> Since distinctions between seasons can be difficult during certain months, one week leeway is allowed on either side of the actual date. <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><u>Month</u></th> <th style="text-align: left;"><u>Correct Response</u></th> </tr> </thead> <tbody> <tr><td>January</td><td>Winter</td></tr> <tr><td>February</td><td>Winter</td></tr> <tr><td>March</td><td>Winter or Spring</td></tr> <tr><td>April</td><td>Spring</td></tr> <tr><td>May</td><td>Spring</td></tr> <tr><td>June</td><td>Spring or Summer</td></tr> <tr><td>July</td><td>Summer</td></tr> <tr><td>August</td><td>Summer</td></tr> <tr><td>September</td><td>Summer or Fall</td></tr> <tr><td>October</td><td>Fall</td></tr> <tr><td>November</td><td>Fall</td></tr> <tr><td>December</td><td>Fall or Winter</td></tr> </tbody> </table>	<u>Month</u>	<u>Correct Response</u>	January	Winter	February	Winter	March	Winter or Spring	April	Spring	May	Spring	June	Spring or Summer	July	Summer	August	Summer	September	Summer or Fall	October	Fall	November	Fall	December	Fall or Winter
<u>Month</u>	<u>Correct Response</u>																											
January	Winter																											
February	Winter																											
March	Winter or Spring																											
April	Spring																											
May	Spring																											
June	Spring or Summer																											
July	Summer																											
August	Summer																											
September	Summer or Fall																											
October	Fall																											
November	Fall																											
December	Fall or Winter																											
		<i>What day of the week is it?</i> Ask the participant what town, county, and state we are in. For offsite visits, refer to the section of the manual titled "New England Counties" for a complete list of all counties.																										
		<i>What is the name of this place?</i> Ask the participant where they are. Any appropriate answer is okay. On home visits, the examiner can ask, <i>What is the address of this place?</i>																										
		<i>What floor of the building are we on?</i>																										

Used for administrative purposes only

MMSE EXAM
SUPERVISOR CHECKLIST

Yes	No	Questions (Continued)
		<p><i>I am going to name 3 objects. After I have said them I want you to repeat them back to me. Remember what they are because I will ask you to name them again in a few minutes: Apple, Table, Penny.</i></p> <ol style="list-style-type: none"> Make sure participant is attentive when beginning the question. Read the list of objects slowly. DO NOT REPEAT ITEMS UNTIL AFTER THE FIRST TRIAL. If participant asks you to repeat the 3 items, respond, <i>Can you tell me the items I just mentioned?</i> or <i>Just do the best you can.</i> Read <i>Apple, Table, Penny.</i> Script: <i>Could you repeat the three items for me?</i> Record the score for the first trial. If, after scoring the first attempt, the participant has not learned the 3 objects, repeat the list of objects up to 6 times until he/she has learned them. If, 3 items are repeated regardless of order, score 3 points. Occasionally hearing impairments prevent subjects from correctly hearing test questions (for example, when asked to repeat three items, <i>apple, table, penny</i>, they may repeat <i>April, tablet, pencil</i> -- these alternate responses should be accepted both under the repetition and recall conditions).
		<p><i>Now I am going to spell a word forward and I want you to spell it backwards. The word is WORLD. W-O-R-L-D. Please spell it in reverse order. Write in letters _____ (letters are entered and computer scored later. For tabulating a total MMSE score for screening purposes, please determine a total score between 0-5 for this item).</i></p> <ol style="list-style-type: none"> Read the question slowly. Where <i>world</i> has hyphens between the letters, spell out the word. Repeat the spelling if necessary. Record the participant's response. Write in the letter as the participant has spelled the word.
		<p><i>What are the 3 objects I asked you to remember a few moments ago?</i> Items may be repeated in any order</p>
		<p><i>What is this called? (Watch)</i> Show the wristwatch to the participant Correct responses include: watch, wristwatch, timepiece Code 1 = correct answer</p>

Used for administrative purposes only

MMSE EXAM
SUPERVISOR CHECKLIST

Yes	No	Questions (Continued)
		<p>What is this called? (Pencil)</p> <p>a. Show the pencil to the participant. NOTE: the pencil should be a standard sharpened wooden pencil with eraser.</p> <p>b. Correct responses include: Pencil, number 2 pencil Code 1 = correct for correct answer.</p>
		<p>Please repeat the following: No ifs, ands or buts.</p> <p>a. Enunciate clearly -- include the "S" at the end of <i>ifs</i>, <i>ands</i>, or <i>buts</i>, (if you think the participant heard you but repeated it incorrectly, make a note of what was missed and score 0).</p> <p>b. Allow only one attempt. Code 1 = correct when the participant correctly repeated the phrase. Code 0 = incorrect when the participant did not repeat the phrase <u>exactly</u>.</p> <p>Occasionally hearing impairments prevent participants from correctly hearing test questions. In the case of repeating <i>no ifs, ands, or buts</i>, some judgment must be made on the part of the examiner as to whether the participant could hear the "s" or not.</p>
		<p>Please read the following and do what it says.</p> <p>a. Hand participant the "Please Close Your Eyes" card.</p> <p>b. The participant may read the sentence out loud. The task to be coded is the participant's ability to follow instructions by closing his/her eyes. It is not necessary for the sentence to be read out loud if the participant performs the function properly. Code 1 = correct when the participant closes his/her eyes. Code 0 = incorrect when the participant did not close his/her eyes.</p>
		<p>Please write a sentence.</p> <p>a. Script: <i>Write any complete sentence on this piece of paper for me.</i></p> <p>b. Repeat the instructions to participant if necessary.</p> <p>c. Written commands, such as <i>sit down</i>, where the subject is implied, are considered correct responses.</p> <p>d. Spelling and/or punctuation errors are not counted as errors. Code 1 = correct if the participant wrote a complete sentence as directed. If the participant is cognitively able to dictate a sentence but is physically unable to write it. In this case the examiner should write the dictated sentence and make a note that it was dictated. Code 0 = incorrect when the participant did not write a complete sentence as directed. Code 6 = Low vision</p>

Used for administrative purposes only

MMSE EXAM
SUPERVISOR CHECKLIST

Yes	No	Questions (Continued)
		<p>Please copy this drawing.</p> <ul style="list-style-type: none">a. Script: <i>Here is a drawing. Please copy the drawing on the same piece of paper.</i>b. If the participant asks if the figures should be drawn separately or together the examiner should respond, <i>Draw the figures as you see them.</i>c. To be correct, each pentagon must have 5 sides, 5 sides that point outward. The two figures must be overlapping.d. The overlap figures must have 4 sides. Code "0" = incorrect when the participant's figure did not match.
		<p>Take this piece of paper in your right hand, fold it in half with both hands, and put it in your lap.</p> <p>(If participant is unable to use right hand because of physical disability, you can alter instructions to read "Take this piece of paper in your left hand, fold it in half with your left hand, and put it in your lap". The goal is to see whether the subject is able to follow a 3-step command, so this variation to the directions to accommodate subject's physical limitations is allowable.)</p> <ul style="list-style-type: none">a. Read the full statement BEFORE handing the paper to the participant.b. DO NOT direct the paper to participant's right side. Hold the paper in front and have the participant reach out to take it. Observe which hand is used.c. DO NOT repeat instructions or coach participant. Only repeat if the examiner felt it was not heard or if instructions were not given clearly (just repeat the directions in full as they were the first time). <p>Code: 1 for <u>each</u> correctly performed act (code 6 if low vision).</p>

Used for administrative purposes only

MMSE EXAM
SUPERVISOR CHECKLIST

Yes	No	Factors Affecting Mental Status Testing				
			NO	YES	MAYBE	UNKNOWN
		Illiteracy or low education	0	1	2	9
		Not fluent in English	0	1	2	9
		Poor eyesight	0	1	2	9
		Poor hearing	0	1	2	9
		Paralysis	0	1	2	9
		Depression/Possible Depression	0	1	2	9
		Aphasia	0	1	2	9
		Coma	0	1	2	9
		Parkinsonism or neurological impairment	0	1	2	9
		Other	0	1	2	9

Yes	No	Technician Review
		Did the technician ask the questions exactly as written on the form?
		Did the technician correctly use the handouts?
		Did the technician score the participant's responses correctly?
		Did the technician review the form for completeness?
		Did the technician review the form for neurology referrals?

Comments/Corrections:

Supervisor:

Date:

Used for administrative purposes only

Date: _____

Tech ID# _____

Supervisor: _____

Participant _____

**NAGI Questions
Supervisor Checklist**

Check that each procedure is carried out correctly. Check yes if correct or no if incorrect. Provide an explanation of the incorrect item. Items are presented in the sequence of the examination procedure, but may require confirmation before or after the exam.

Yes	No	Questions
		Show and explain the answer key <i>before</i> administering the questionnaire. The participant is to choose one of the following answers for each activity: No Difficulty A Little Difficulty Some Difficulty A Lot of Difficulty Unable to Do Don't Do on MD Orders Unable to Assess Difficulty Because Not Done as Part of Daily Activities
		Start with, <i>For each activity, tell me whether you have No Difficulty, A little Difficulty, Some Difficulty, A Lot of Difficulty, if you are Unable to do it, if you Do not do it on MD Orders, or if you are Unable to Assess Difficulty Because the activity is not done as part of your daily activities.</i>
		Read each activity separately, and go through the level of difficulty for each one until the participant understands the response choices.

Used for administrative purposes only

NAGI SUPERVISOR CHECKLIST

Yes	No	Technician Review
		Did the technician introduce the set of questions with clear explanation?
		Did the technician ask the questions exactly as written on the form?
		Did the technician correctly clarify any questions the participant had?
		Did the technician correctly use the answer key?
		Did the technician score the participant's responses correctly?
		Did the technician review the form for completeness?

Comments/Corrections:
Supervisor:
Date:

Used for administrative purposes only

Date: _____

Tech ID# _____

Supervisor: _____

Participant _____

**Observed Physical Performance Measures
Supervisor Checklist**

Check that each procedure is carried out correctly. Check yes if correct or no if incorrect. Provide an explanation of the incorrect item. Items are presented in the sequence of the examination procedure, but may require confirmation before or after the exam.

Yes	No	JAMAR Hand Grip Strength Test
		Introductory script: <i>This instrument will measure your grip strength. The instrument is a little heavy, so be careful. When I tell you, I want you to squeeze the instrument as hard as you can. Do not expect the handle to move very much.</i>
		Participant is seated in chair with arms, forearm resting on chair arm, elbow at about a 90 degree angle.
		Participant should hold JAMAR in upright position, wrist in neutral position, JAMAR facing the technician.
		Make sure that red peak-hold needle is set to zero.
		Tell participant to squeeze as hard as s/he can, and squeeze until you tell s/he to stop. Hold squeeze for a 3 to 5-1000 second count.
		Take back JAMAR, hold at eye level at about a foot from your eyes and record reading on the kilogram scale. If directly in the middle of the scale then the reading is the odd number between the two even hash marks; otherwise record as the closest hash mark.
		Repeat steps until three measurements are recorded with the right hand.
		Repeat steps for three trials with the left hand.

JAMAR Comments/Corrections:

Used for administrative purposes only

OBSERVED PHYSICAL PERFORMANCE MEASURES COHORT EXAM 29
SUPERVISOR CHECKLIST

Chair Stands

Yes	No	Repeated Chair Stands
		Repeated Chair Stands is explained to participant
		A demonstration of the Chair Stands is provided to participant.
		Participant is asked if s/he would feel safe doing a Chair Stand. (If no, test is over. If yes, continue)
		Participant is asked to demonstrate the Chair Stand once, without using arms. (arms are folded across chest)
		The safety and ability of participant is assessed
		The Participant is asked if s/he thinks it would be safe to try and stand up from a chair five times without using his arms
		It is explained to Participant that s/he will be timed for the five Chair Stands
		Participant is instructed after the last Chair Stand, while seated, they should hold out their left arm, palm facing up, and a pulse will be obtained
		The command "Ready, Stand" and timing begin simultaneously
		The stopwatch is started on the word "Stand".
		Once participant completes each stand, tester counts out loud.
		After the fifth chair stand is completed, a 30-second pulse at the wrist is obtained.
		Data sheet is completely and accurately filled out, questions are answered and pulse rate is recorded.

Chair Stands Comments/Corrections:

Used for administrative purposes only

OBSERVED PHYSICAL PERFORMANCE MEASURES COHORT EXAM 29
SUPERVISOR CHECKLIST

3 Stands: Side by Side/Semi-Tandem/Tandem

Yes	No	Stand 1: Side by Side
		Instruction for the stand is explained to participant
		Demonstration of stand is provided to participant.
		Participant is wearing comfortable shoes/no bare feet or slippers.
		The participant is able to stand unaided.
		"Are you ready? Begin."
		Participant is allowed to hold onto something for balance before timing begins.
		Results recorded on data sheet
		If participant is unable to hold for 10 seconds, then the next two stands are skipped.

Yes	No	Stand 2: Semi-Tandem
		Instruction for the stand is explained to participant
		Demonstration of stand is provided to participant.
		Timing begins once the participant is balanced
		Participant is allowed to hold onto something for balance before timing begins.
		"Are you ready? Begin."
		Results recorded on data sheet
		If the participant is unable to complete the semi-tandem stand for 10 seconds, skip the tandem stand.

Yes	No	Stand 3: Tandem
		Instruction for the stand is explained to participant
		Demonstration of stand is provided to participant.
		Timing begins once the participant is balanced
		Participant is allowed to hold onto something for balance before timing begins
		"Are you ready? Begin"
		Results recorded on data sheet

3 Stand Comments/Corrections:

Used for administrative purposes only
OBSERVED PHYSICAL PERFORMANCE MEASURES COHORT EXAM 29
SUPERVISOR CHECKLIST

Timed Walk

Yes	No	Instructions for Technician: Walk One
		<i>Now I am going to observe how you normally walk, if you use a cane or other walking aid and would be more comfortable with it, you may use it.</i>
		<i>This is our walking course. I want you to walk to the other end of the course at your usual speed, just as if you were walking down the street. Walk all the way past the other end of the tape before you stop. Do you think this would be safe?</i>
		<i>If participant says that it would not be safe indicate this on the data sheet and abort walks.</i>
		<i>Please watch while I demonstrate. When I want you to start, I will say "Ready, begin."</i>
		<i>Have the participant line up his or her toes behind the line on the floor. Start timing when you say, "begin" and stop timing when the participant breaks the plane of the line at the end of the course. Record the time on data sheet.</i>

Yes	No	Instructions for Technician: Walk Two
		<i>Now I want you to repeat the walk. Remember to walk at your usual pace, and all the way past the other end of the course. Ready? Begin.</i>

Used for administrative purposes only
**OBSERVED PHYSICAL PERFORMANCE MEASURES COHORT EXAM 29
 SUPERVISOR CHECKLIST**

Yes	No	Instructions for Technician: Walk Three <i>Now I want you to repeat the walk again, but this time, I would like you to walk at a rapid pace, as fast as you can. Make sure you go all the way past the other end of the course.</i> <i>Please watch while I demonstrate.</i> <i>Ready? Begin.</i>
		If a walking aid is used, this will be recorded. Coding 0=No aid 1=Cane 2=Walker 3=Wheelchair 4=Other 9=Unknown
		For each walk, the following questions will be answered: <i>Was this test completed?</i> Coding 0 = No 1 = Yes 8 = Not attempted 9 = Unknown <i>If the test was not attempted or completed, why not?</i> Coding 1 = Physical limitation 2 = Refused 3 = Other (write in) 9 = Unknown
		Walk time for each walk is recorded.

Timed Walk Comments/Corrections:

Supervisor:	
Date:	

Used for administrative purposes only

Date: _____

Tech ID# _____

Supervisor: _____

Participant _____

**Self-Reported Performance Part 1
Supervisor Checklist**

Check that each procedure is carried out correctly. Check yes if correct or no if incorrect. Provide an explanation of the incorrect item. Items are presented in the sequence of the examination procedure, but may require confirmation before or after the exam.

Yes	No	Socio-demographics
		<p><i>Where do you live?</i> <u>Coding</u> 0 = Private residence 1 = Nursing home 2 = Other institution, such as: assisted living, retirement community 9 = Unknown</p>
		<p><i>Does anyone live with you? (NOTE: Code nursing home resident as NO to these questions.)</i> <u>Coding</u> 0 = No 1 = Yes 9 = Unknown</p>
		<p>If the answer to the above question was 0 or 9 you may skip the following section. If the answer was yes, the examiner needs to determine who lives in the same household. It is important to ask whether others lives in the same household for < 3 months per year or > 3 months per year. The list is:</p> <ul style="list-style-type: none"> Spouse Significant other Children Friends Relatives Pets <p><u>Coding</u> 0 = No 1 = Yes, less than 3 months per year 2 = Yes, more than 3 months per year 9 = Unknown</p>

Used for administrative purposes only

SELF REPORT PERFORMANCE-LIVING ARRANGEMENT/USE OF SERVICES/ROSOW-BRESLAU/CES-D
SUPERVISOR OBSERVATIONS

		<p>Are you currently working at a paying job or doing unpaid volunteer or community work?</p> <p>Coding 0= No 1= Yes, full time (>32 hrs/week) 2= Yes, part time (<32 hrs/week) 9= Unknown</p>
		<p>During the past 6 months (180 days) how many days were you so sick that you were unable to carry out your usual activities? (999=Unknown)</p>

Yes	No	Self-assessment questions
		<p>In general, how is your health now? 1= Excellent, 2=Good, 3=Fair, 4= Poor, 9=Unknown</p>
		<p>Compare your health to most people your own age: 1=Better, 2=About the same, 3=Worse than most people your own age, 9=Unknown</p>
		Proxy was not used to answer these 2 questions.

Yes	No	Rosow-Breslau Questions
		<p>Are you able to do heavy work around the house, like shovel snow or wash windows, walls, or floors without help? (Scrub floors, wash windows, rake leaves, mow lawn). (Note: Code 2 if person does not do this activity).</p>
		<p>Are you able to walk half a mile without help? (Walk one half mile or 4-6 blocks without stopping for more than 5 minutes). (Note: Code 2 if person does not do this activity).</p>
		<p>If you had to, could you do all the house keeping yourself? (like washing clothes and cleaning)</p>
		<p>Do you drive now?</p> <p>If no, then: Reason for not driving now (1=Health, 2=Other non-health related reasons, 3=never licensed, 8=N/A, current driver, 9=Unknown).</p>

136

Used for administrative purposes only

SELF REPORT PERFORMANCE-LIVING ARRANGEMENT/USE OF
SERVICES/ROSOW-BRESLAU/CES-D
SUPERVISOR OBSERVATIONS

Yes	No	CES-D
		Each question is read to the participant who responds with one of four answers
		Response alternatives are placed in front of the participant for reference.
		Each category of response is explained to the participant prior to administering the scale
		If the participant is unable to read the response sheets, the interviewer reads each response as well as the question referring to their feelings in the past week.
		The interviewer is sure the participant understands that the questions refer to his/her feelings <u>only</u> during the past week.

Yes	No	Use of Nursing and Community Services
		Coding for the following questions is: 0 = No 1 = Yes 9 = Unknown
		Have you been admitted to a nursing home (or skilled facility) in the past year?
		Since your last exam, have you been visited by a nursing service, or used home, community or outpatient programs? If yes, Currently/Since Last Exam/# of Months/Services Used is completed

Yes	No	Technician Review
		Did the technician introduce the set of questions with clear explanation?
		Did the technician ask the questions exactly as written on the form?
		Did the technician correctly clarify any questions the participant had?
		Did the technician score the participant's responses correctly?
		Did the technician review the form for completeness?

137

Used for administrative purposes only

SELF REPORT PERFORMANCE-LIVING ARRANGEMENT/USE OF
SERVICES/ROSOW-BRESLAU/CES-D
SUPERVISOR OBSERVATIONS

Comments/Corrections:
Supervisor:
Date:

Cohort Exam 29 1/30/06

Used for administrative purposes only

WEIGHT MEASUREMENT OFFSPRING EXAM
SUPERVISOR CHECKLIST

Date: _____

Tech ID# _____

Supervisor: _____

Participant _____

Weight Measurement
Supervisor Checklist
Offsite

Check that each procedure is carried out correctly. Check yes if correct or no if incorrect. Provide an explanation of the incorrect item. Items are presented in the sequence of the examination procedure, but may require confirmation before or after the exam.

Yes	No	Weight Measurement
		The participant should remove slippers or shoes.
		Prior to asking participant to step on the scale, turn scale on, check to make sure it reads 0.0. The scale should be on a flat, hard surface.
		Ask the participant to step onto the scale.
		Instruct the participant to stand in the middle of the scale platform with head erect and eyes looking straight ahead. Weight should be equally distributed on both feet, and participant should not touch or support himself/herself.
		Read the digital display while participant is on the scale.
		Have the participant step off the scale.
		Record the weight to the nearest pound; round up if ≥ 0.5 , round down if < 0.5
		If participant is unable to stand for weight measurement at a nursing home, record the last weight in nursing home chart and the date the weight was obtained. If the participant is unable to stand on a scale during a home visit, record the weight measurement as 999

Comments/Corrections:

Supervisor: _____

Date: _____

**Cohort Exam 29
Scheduling Form**

FHS ID#: ____ - ____

Participant Name: _____

Date of Last Encounter: _____

Vital Status Date: _____

Date of Scheduled Exam: _____

Notes:

Change of Address: _____

If yes, new address: _____

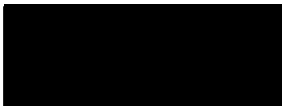
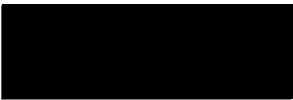
Keyer's initials: _____

Cohort Exam 29
Home Visit/Nursing Home Visit
Routing Sheet

Participant Label: _____

Date of Visit: ___/___/___

Offsite Technician: _____

Chart Flow	Initial & Date Completed
MD Chart/ECG Review in Clinic ↓	
Offsite Technician ↓	
 ↓	
Neurology Group ↓	
	

* Routing Sheet to be returned to Offsite Technician *

Record of Telephone Encounter
(to be filed in chart)

Participant's ID#: ____ - ____ Participant's Name: _____

Date of Incident: ____ / ____ / ____

Person Contacted: _____

Regarding: _____

Contact Made By: _____



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

FRAMINGHAM HEART STUDY

[REDACTED]
Framingham, MA 01702

RECORD OF IN-CLINIC MEDICAL ENCOUNTER
(to be filed in chart)

Participant's ID#: _____ Participant's Name: _____

Date of incident: _____

Description of incident:

Physician: _____

Follow up (if any)

Date of follow-up: _____

Physician/Staff: _____

Date

OMB No=0925-0216

Nursing Home name
Address

Re: *Participant's name*

This letter confirms <<*participant name's*>> appointment for a visit from the Framingham Heart Study on <<*date & time*>>, as part of the Heart Study Exam 29. I, <<*Staff member's name*>> will visit at that time to do the exam.

It would be most helpful if a staff member who knows the patient well and can provide a good history be available to speak with <<*name*>> briefly at the time of her visit. Please let <<*participant's name*>> know we are coming and have <<*her/him*>> wear a top that is easily removed for the ECG. I will also need access to <<*his/her*>> nursing home chart to review medical events since <<*Date last seen*>>.

Thank you in advance for your help. If you have any questions, please call Linda Clark at 508-935-3426.

Sincerely yours,

<<*Technician name*>>
Framingham Heart Study Offsite Technician

Date

OMB No=0925-0216

<<Participant Name & Address>>

Dear <<Participant Name>>:

This letter confirms your appointment for a home visit from the Framingham Heart Study on <<Date & Time>>, as part of the Heart Study Exam 29. I, <<Technician Name>> will visit you at that time to do the exam.

If you could help us by preparing the following items beforehand, it would be greatly appreciated:

- 1) Please wear a top that is easily removed for your ECG. Many people prefer to wear their bathrobes.
- 2) Using the attached form, please list major medical events that have occurred since your last telephone update on <<date>>. We would like to know approximate dates, doctors, and where you were seen.
- 3) Please have all of your medication bottles out, include all of your prescription medications, non-prescription medications, creams, salves, and/or injections.
- 4) If you have legal healthcare proxy, or Power of Attorney please have a photocopy of this authorization for the Heart Study to put in their records.

This will help the exam run smoothly, but if you are unable to prepare beforehand, we will be happy to help during our visit. If you have any questions, please call [REDACTED] at [REDACTED] or [REDACTED]

Sincerely yours,

<<Technician Name>>

Framingham Heart Study Offsite Technician

145

Pt Name and ID

Primary Care Doctor's Name & Address:

Power of Attorney/Health Care Proxy: _____
 (If you have documentation please have a copy available to give to the FHS for their records)

Same-Day Emergency Room Visits Since Your Last Exam on

Date	Reason	Hospital & Address	Doctor's Name
------	--------	--------------------	---------------

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Overnight Hospitalizations Since Your Last Exam on

Date	Reason	Hospital & Address	Doctor's Name
------	--------	--------------------	---------------

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Most Recent Doctors Visits Since Your Last Exam on

Date	Doctor's Name	Findings (if applicable)
------	---------------	--------------------------

Physical: _____

_____	_____	_____
_____	_____	_____

Other Doctors Visits Since Your Last Exam on

Appt Type	Date	Doctor's Name	Findings (if applicable)
-----------	------	---------------	--------------------------

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Pt Name & FHS ID#

Primary Care Doctor's Name & Address:

Power of Attorney/Legal Healthcare Proxy: _____

Same-Day Emergency Room Visits Since the Last Exam on
Date Reason Hospital & Address

Doctor's Name

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Overnight Hospitalizations Since the Last Exam on
Date Reason Hospital & Address

Doctor's Name

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Most Recent Doctors Visits Since the Last Exam on
Date Doctor's Name

Findings (if applicable)

Physical: _____

Massachusetts Counties

Abington	Plymouth County
Acton	Middlesex County
Acushnet	Bristol County
Adams	Berkshire County
Agawam	Hampden County
Alford	Berkshire County
Allston	Suffolk County
Amesbury	Essex County
Amherst	Hampshire County
Andover	Essex County
Aquinnah	Dukes County
Aquinnah	Dukes County
Arlington	Middlesex County
Ashburnham	Worcester County
Ashby	Middlesex County
Ashfield	Franklin County
Ashland	Middlesex County
Ashley Falls	Berkshire County
Assonet	Bristol County
Athol	Worcester County
Attleboro	Bristol County
Attleboro Falls	Bristol County
Auburn	Worcester County
Auburndale	Middlesex County
Avon	Norfolk County
Ayer	Middlesex County
Babson Park	Norfolk County
Baldwinville	Worcester County
Barnstable	Barnstable County
Barre	Worcester County
Bass River	Barnstable County
Becket	Berkshire County
Bedford	Middlesex County
Belchertown	Hampshire County
Bellingham	Norfolk County
Belmont	Middlesex County
Berkley	Bristol County
Berlin	Worcester County
Bernardston	Franklin County
Beverly	Essex County
Billerica	Middlesex County
Blackstone	Worcester County
Blandford	Hampden County
Bolton	Worcester County
Bondsville	Hampden County
Boston	Suffolk County
Boston College	Middlesex County

Bourne	Barnstable County
Boxborough	Middlesex County
Boxford	Essex County
Boylston	Worcester County
Bradford	Essex County
Braintree	Norfolk County
Brant Rock	Plymouth County
Brewster	Barnstable County
Bridgewater	Plymouth County
Brighton	Suffolk County
Brimfield	Hampden County
Brockton	Plymouth County
Brookfield	Worcester County
Brookline	Norfolk County
Brookline Village	Norfolk County
Bryantville	Plymouth County
Buckland	Franklin County
Burlington	Middlesex County
Buzzards Bay	Barnstable County
Byfield	Essex County
Cambridge	Middlesex County
Canton	Norfolk County
Carlisle	Middlesex County
Carver	Plymouth County
Cataumet	Barnstable County
Centerville	Barnstable County
Charlemont	Franklin County
Charlestown	Suffolk County
Charlton City	Worcester County
Charlton Depot	Worcester County
Charlton	Worcester County
Chartley	Bristol County
Chatham	Barnstable County
Chelmsford	Middlesex County
Chelsea	Suffolk County
Cherry Valley	Worcester County
Cheshire	Berkshire County
Chester	Hampden County
Chesterfield	Hampshire County
Chestnut Hill	Middlesex County
Chicopee	Hampden County
Chilmark	Dukes County
Clarksburg	Berkshire County
Clinton	Worcester County
Cohasset	Norfolk County
Colrain	Franklin County
Concord	Middlesex County
Conway	Franklin County
Cotuit	Barnstable County

Cummaquid	Barnstable County
Cumington	Hampshire County
Cushman	Hampshire County
Cuttyhunk	Dukes County
Dalton	Berkshire County
Danvers	Essex County
Dartmouth	Bristol County
Dedham	Norfolk County
Deerfield	Franklin County
Dennis Port	Barnstable County
Dennis	Barnstable County
Dighton	Bristol County
Dorchester	Suffolk County
Dorchester Center	Suffolk County
Douglas	Worcester County
Dover	Norfolk County
Dracut	Middlesex County
Drury	Berkshire County
Dudley Hill	Worcester County
Dudley	Worcester County
Dunstable	Middlesex County
Duxbury	Plymouth County
East Boston	Suffolk County
East Bridgewater	Plymouth County
East Brookfield	Worcester County
East Dennis	Barnstable County
East Falmouth	Barnstable County
East Freetown	Bristol County
East Harwich	Barnstable County
East Longmeadow	Hampden County
East Lynn	Essex County
East Mansfield	Bristol County
East Orleans	Barnstable County
East Princeton	Worcester County
East Sandwich	Barnstable County
East Taunton	Bristol County
East Templeton	Worcester County
Eastham	Barnstable County
Easthampton	Hampshire County
Easton	Bristol County
Edgartown	Dukes County
Egremont	Berkshire County
Elmwood	Plymouth County
Erving	Franklin County
Essex	Essex County
Everett	Middlesex County
Fairhaven	Bristol County
Fall River	Bristol County
Falmouth	Barnstable County

Fayville	Worcester County
Feeding Hills	Hampden County
Fiskdale	Hampden County
Fiskdale	Worcester County
Fitchburg	Worcester County
Florence	Hampshire County
Florida	Berkshire County
Forestdale	Barnstable County
Foxborough	Norfolk County
Framingham	Middlesex County
Franklin	Norfolk County
Freetown	Bristol County
Gardner	Worcester County
Georgetown	Essex County
Gilbertville	Worcester County
Gill	Franklin County
Glendale	Berkshire County
Gloucester	Essex County
Goshen	Hampshire County
Gosnold	Dukes County
Grafton	Worcester County
Granby	Hampshire County
Graniteville	Middlesex County
Granville	Hampden County
Great Barrington	Berkshire County
Green Harbor	Plymouth County
Greenbush	Plymouth County
Greenfield	Franklin County
Groton	Middlesex County
Grove Hall	Suffolk County
Groveland	Essex County
Hadley	Hampshire County
Halifax	Plymouth County
Hamilton	Essex County
Hampden	Hampden County
Hancock	Berkshire County
Hanover	Plymouth County
Hanscom Air Force Base	Middlesex County
Hanson	Plymouth County
Hardwick	Worcester County
Harvard Square	Middlesex County
Harvard	Worcester County
Harwich Port	Barnstable County
Harwich	Barnstable County
Hatchville	Barnstable County
Hatfield	Hampshire County
Hathorne	Essex County
Haverhill	Essex County
Hawley	Franklin County

Haydenville	Hampshire County
Heath	Franklin County
Hingham	Plymouth County
Hinsdale	Berkshire County
Holbrook	Norfolk County
Holden	Worcester County
Holland	Hampden County
Holliston	Middlesex County
Holyoke	Hampden County
Hopedale	Worcester County
Hopkinton	Middlesex County
Housatonic	Berkshire County
Hubbardston	Worcester County
Hudson	Middlesex County
Hull	Plymouth County
Humarock	Plymouth County
Huntington	Hampshire County
Hyannis	Barnstable County
Hyannis Port	Barnstable County
Hyde Park	Suffolk County
Indian Orchard	Hampden County
Ipswich	Essex County
Jamaica Plain	Suffolk County
Jefferson	Worcester County
Kingston	Plymouth County
Lake Pleasant	Franklin County
Lakeville	Plymouth County
Lancaster	Worcester County
Lanesboro	Berkshire County
Lanesborough	Berkshire County
Lawrence	Essex County
Lee	Berkshire County
Leeds	Hampshire County
Leicester	Worcester County
Lenox Dale	Berkshire County
Lenox	Berkshire County
Leominster	Worcester County
Leverett	Franklin County
Lexington	Middlesex County
Leyden	Franklin County
Lincoln	Middlesex County
Linwood	Worcester County
Littleton	Middlesex County
Longmeadow	Hampden County
Lowell	Middlesex County
Ludlow	Hampden County
Lunenburg	Worcester County
Lynn	Essex County
Lynnfield	Essex County

Malden	Middlesex County
Manchaug	Worcester County
Manchester	Essex County
Manchester by the Sea	Essex County
Manomet	Plymouth County
Mansfield	Bristol County
Marblehead	Essex County
Marion	Plymouth County
Marlborough	Middlesex County
Marshfield Hills	Plymouth County
Marshfield	Plymouth County
Marstons Mills	Barnstable County
Mashpee	Barnstable County
Mattapan	Suffolk County
Mattapoisett	Plymouth County
Maynard	Middlesex County
Medfield	Norfolk County
Medford	Middlesex County
Medway	Norfolk County
Melrose	Middlesex County
Mendon	Worcester County
Menemsha	Dukes County
Merrimac	Essex County
Methuen	Essex County
Middleboro	Plymouth County
Middleborough	Plymouth County
Middlefield	Hampshire County
Middleton	Essex County
Milford	Worcester County
Mill River	Berkshire County
Millbury	Worcester County
Millers Falls	Franklin County
Millis	Norfolk County
Millville	Worcester County
Milton	Norfolk County
Milton Village	Norfolk County
Minot	Plymouth County
Mission Hill	Suffolk County
Monponsett	Plymouth County
Monroe Bridge	Franklin County
Monroe	Franklin County
Monson	Hampden County
Montague	Franklin County
Monterey	Berkshire County
Montgomery	Hampden County
Monument Beach	Barnstable County
Mount Hermon	Franklin County
Mount Tom	Hampshire County
Mount Washington	Berkshire County

Nahant	Essex County
Nantucket	Nantucket County
Natick	Middlesex County
Needham	Norfolk County
New Ashford	Berkshire County
New Bedford	Bristol County
New Braintree	Worcester County
New Marlborough	Berkshire County
New Salem	Franklin County
New Town	Middlesex County
Newbury	Essex County
Newburyport	Essex County
Newton Center Carrier Annex	Middlesex County
Newton	Middlesex County
Newton Highlands	Middlesex County
Newton Lower Falls	Middlesex County
Newton Upper Falls	Middlesex County
Newtonville	Middlesex County
Nonantum	Middlesex County
Nonquitt	Bristol County
Norfolk	Norfolk County
North Adams	Berkshire County
North Amherst	Hampshire County
North Andover	Essex County
North Attleboro	Bristol County
North Attleboro	Norfolk County
North Attleborough	Bristol County
North Billerica	Middlesex County
North Brookfield	Worcester County
North Carver	Plymouth County
North Chatham	Barnstable County
North Chelmsford	Middlesex County
North Dartmouth	Bristol County
North Dighton	Bristol County
North Eastham	Barnstable County
North Falmouth	Barnstable County
North Marshfield	Plymouth County
North Oxford	Worcester County
North Reading	Middlesex County
North Scituate	Plymouth County
North Truro	Barnstable County
North Uxbridge	Worcester County
Northampton	Hampshire County
Northborough	Worcester County
Northbridge	Worcester County
Northfield	Franklin County
Norton	Bristol County
Norwell	Plymouth County
Norwood	Norfolk County

Nutting Lake	Middlesex County
Oak Bluffs	Dukes County
Oakham	Worcester County
Ocean Bluff	Plymouth County
Onset	Plymouth County
Orange	Franklin County
Orleans	Barnstable County
Osterville	Barnstable County
Otis	Berkshire County
Oxford	Worcester County
Palmer	Hampden County
Paxton	Worcester County
Peabody	Essex County
Pelham	Hampshire County
Pembroke	Plymouth County
Pepperell	Middlesex County
Peru	Berkshire County
Petersham	Worcester County
Phillipston	Worcester County
Pinehurst	Middlesex County
Pittsfield	Berkshire County
Plainfield	Hampshire County
Plainville	Norfolk County
Plymouth	Plymouth County
Plympton	Plymouth County
Pocasset	Barnstable County
Prides Crossing	Essex County
Princeton	Worcester County
Provincetown	Barnstable County
Quincy	Norfolk County
Randolph	Norfolk County
Raynham Center	Bristol County
Raynham	Bristol County
Reading	Middlesex County
Readville	Suffolk County
Rehoboth	Bristol County
Revere	Suffolk County
Richmond	Berkshire County
Rochdale	Worcester County
Rochester	Plymouth County
Rockland	Plymouth County
Rockport	Essex County
Roslindale	Suffolk County
Rowe	Franklin County
Rowley	Essex County
Roxbury	Suffolk County
Roxbury Crossing	Suffolk County
Royalston	Worcester County
Russell	Hampden County

Rutland	Worcester County
Sagamore	Barnstable County
Sagamore Beach	Barnstable County
Salem	Essex County
Salisbury Beach	Essex County
Salisbury	Essex County
Sandisfield	Berkshire County
Sandwich	Barnstable County
Saugus	Essex County
Savoy	Berkshire County
Scituate	Plymouth County
Seekonk	Bristol County
Sharon	Norfolk County
Shattuckville	Franklin County
Sheffield	Berkshire County
Shelburne Falls	Franklin County
Shelburne	Franklin County
Sheldonville	Norfolk County
Sherborn	Middlesex County
Shirley Center	Middlesex County
Shirley	Middlesex County
Shrewsbury	Worcester County
Shutesbury	Franklin County
Siasconset	Nantucket County
Silver Beach	Barnstable County
Somerset	Bristol County
Somerville	Middlesex County
South Attleboro	Bristol County
South Barre	Worcester County
South Boston	Suffolk County
South Carver	Plymouth County
South Chatham	Barnstable County
South Dartmouth	Bristol County
South Dennis	Barnstable County
South Egremont	Berkshire County
South Grafton	Worcester County
South Hadley	Hampshire County
South Hamilton	Essex County
South Harwich	Barnstable County
South Lee	Berkshire County
South Orleans	Barnstable County
South Walpole	Norfolk County
South Wellfleet	Barnstable County
South Weymouth	Norfolk County
Southampton	Hampshire County
Southborough	Worcester County
Southbridge	Worcester County
Southfield	Berkshire County
Southwick	Hampden County

Spencer	Worcester County
Springfield	Hampden County
Squantum	Norfolk County
Sterling	Worcester County
Still River	Worcester County
Stockbridge	Berkshire County
Stoneham	Middlesex County
Stoughton	Norfolk County
Stow	Middlesex County
Sturbridge	Worcester County
Sudbury	Middlesex County
Sunderland	Franklin County
Sutton	Worcester County
Swampscott	Essex County
Swansea	Bristol County
Taunton	Bristol County
Teaticket	Barnstable County
Templeton	Worcester County
Tewksbury	Middlesex County
Thorndike	Hampden County
Three Rivers	Hampden County
Tisbury	Dukes County
Tolland	Hampden County
Topsfield	Essex County
Tower Square	Hampden County
Townsend	Middlesex County
Truro	Barnstable County
Tufts University	Middlesex County
Turners Falls	Franklin County
Tyngsboro	Middlesex County
Tyngsborough	Middlesex County
Tyringham	Berkshire County
Uphams Corner	Suffolk County
Upton	Worcester County
Uxbridge	Worcester County
Vineyard Haven	Dukes County
Waban	Middlesex County
Wakefield	Middlesex County
Wales	Hampden County
Walpole	Norfolk County
Waltham	Middlesex County
Waquoit	Barnstable County
Ward Hill	Essex County
Ware	Hampshire County
Wareham	Plymouth County
Warren	Worcester County
Warwick	Franklin County
Washington	Berkshire County
Watertown	Middlesex County

Waverley	Middlesex County
Wayland	Middlesex County
Webster	Worcester County
Wellesley Hills	Norfolk County
Wellesley	Norfolk County
Wellfleet	Barnstable County
Wendell Depot	Franklin County
Wendell	Franklin County
Wenham	Essex County
West Barnstable	Barnstable County
West Boxford	Essex County
West Boylston	Worcester County
West Bridgewater	Plymouth County
West Brookfield	Worcester County
West Chatham	Barnstable County
West Chesterfield	Hampshire County
West Chop	Dukes County
West Dennis	Barnstable County
West Falmouth	Barnstable County
West Harwich	Barnstable County
West Hatfield	Hampshire County
West Hyannisport	Barnstable County
West Lynn	Essex County
West Medford	Middlesex County
West Millbury	Worcester County
West Newbury	Essex County
West Newton	Middlesex County
West Otis	Berkshire County
West Roxbury	Suffolk County
West Somerville	Middlesex County
West Springfield	Hampden County
West Stockbridge	Berkshire County
West Tisbury	Dukes County
West Townsend	Middlesex County
West Wareham	Plymouth County
West Yarmouth	Barnstable County
Westborough	Worcester County
Westfield	Hampden County
Westford	Middlesex County
Westhampton	Hampshire County
Westminster	Worcester County
Weston	Middlesex County
Westover Air Force Base	Hampden County
Westport Point	Bristol County
Westport	Bristol County
Westwood	Norfolk County
Weymouth	Norfolk County
Whately	Franklin County
Wheelwright	Worcester County

White Horse Beach	Plymouth County
Whitinsville	Worcester County
Whitman	Plymouth County
Wilbraham	Hampden County
Wilkinsonville	Worcester County
Williamsburg	Hampshire County
Williamstown	Berkshire County
Willimansett	Hampden County
Wilmington	Middlesex County
Winchendon Springs	Worcester County
Winchendon	Worcester County
Winchester	Middlesex County
Windsor	Berkshire County
Winter Hill	Middlesex County
Winthrop	Suffolk County
Woburn	Middlesex County
Wollaston	Norfolk County
Woods Hole	Barnstable County
Woodville	Middlesex County
Worcester	Worcester County
Woronoco	Hampden County
Worthington	Hampshire County
Wrentham	Norfolk County
Yarmouth Port	Barnstable County
Yarmouth	Barnstable County

New Hampshire Counties

Acworth	Sullivan County
Albany	Carroll County
Alexandria	Grafton County
Allenstown	Merrimack County
Alstead	Cheshire County
Alton Bay	Belknap County
Alton	Belknap County
Amherst	Hillsborough County
Andover	Merrimack County
Antrim	Hillsborough County
Ashland	Grafton County
Ashuelot	Cheshire County
Atkinson and Gilmanton Academy Grant	Coos County
Atkinson	Rockingham County
Auburn	Rockingham County
Barnstead	Belknap County
Barrington	Stratford County
Bartlett	Carroll County
Bath	Grafton County
Beans Grant	Coos County
Beans Purchase	Coos County
Bedford	Hillsborough County
Belmont	Belknap County
Bennington	Hillsborough County
Benton	Grafton County
Berlin	Coos County
Bethlehem	Grafton County
Boscawen	Merrimack County
Bow	Merrimack County
Bradford	Merrimack County
Brentwood	Rockingham County
Bretton Woods	Coos County
Bridgewater	Grafton County
Bristol	Grafton County
Brookfield	Carroll County
Brookline	Hillsborough County
Cambridge Township	Coos County
Campton	Grafton County
Canaan	Grafton County
Candia	Rockingham County
Canterbury	Merrimack County
Carroll	Coos County
Center Barnstead	Belknap County
Center Conway	Carroll County
Center Harbor	Belknap County
Center Ossipee	Carroll County
Center Sandwich	Carroll County
Center Strafford	Stratford County

Center Tuftnboro	Carroll County
Center Tuftnboro	Carroll County
Chandlers Purchase	Coos County
Charlestown	Sullivan County
Chatham	Carroll County
Chester	Rockingham County
Chesterfield	Cheshire County
Chichester	Merrimack County
Chocorua	Carroll County
Claremont	Sullivan County
Clarksville	Coos County
Colebrook	Coos County
Columbia	Coos County
Concord	Merrimack County
Contoocook	Merrimack County
Conway	Carroll County
Cornish Flat	Sullivan County
Cornish	Sullivan County
Crawfords Purchase	Coos County
Croydon	Sullivan County
Cutts Grant	Coos County
Dalton	Coos County
Danbury	Merrimack County
Danville	Rockingham County
Deerfield	Rockingham County
Deering	Hillsborough County
Derry	Rockingham County
Dixs Grant	Coos County
Dixville Township	Coos County
Dorchester	Grafton County
Dover	Strafford County
Drewsville	Cheshire County
Dublin	Cheshire County
Dummer	Coos County
Dunbarton	Hillsborough County
Dunbarton	Merrimack County
Durham	Strafford County
East Candia	Rockingham County
East Hampstead	Rockingham County
East Lempster	Sullivan County
East Wakefield	Carroll County
Easton	Grafton County
Eaton	Carroll County
Effingham	Carroll County
Elkins	Merrimack County
Ellsworth	Grafton County
Enfield Center	Grafton County
Enfield	Grafton County
Epping	Rockingham County

Epsom	Merrimack County
Errol	Coos County
Erving's Location	Coos County
Etna	Grafton County
Exeter	Rockingham County
Farmington	Stafford County
Fitzwilliam	Cheshire County
Fracestown	Hillsborough County
Franconia	Grafton County
Franklin	Merrimack County
Freedom	Carroll County
Fremont	Rockingham County
Georges Mills	Sullivan County
Gilford	Belknap County
Gilmanton Iron Works	Belknap County
Gilmanton Ironworks	Belknap County
Gilmanton	Belknap County
Gilsum	Cheshire County
Glen	Carroll County
Glenciff	Grafton County
Goffstown	Hillsborough County
Gorham	Coos County
Goshen	Sullivan County
Grafton	Grafton County
Grantham	Sullivan County
Greenfield	Hillsborough County
Greenland	Rockingham County
Greens Grant	Coos County
Greenville	Hillsborough County
Groton	Grafton County
Groveton	Coos County
Guild	Sullivan County
Hadley's Purchase	Coos County
Hale's Location	Carroll County
Hampstead	Rockingham County
Hampton Falls	Rockingham County
Hampton	Rockingham County
Hancock	Hillsborough County
Hanover	Grafton County
Harrisville	Cheshire County
Harts Location	Carroll County
Hart's Location	Carroll County
Haverhill	Grafton County
Hebron	Grafton County
Henniker	Merrimack County
Hill	Merrimack County
Hillsboro	Hillsborough County
Hillsborough	Hillsborough County
Hinsdale	Cheshire County

Holderness	Grafton County
Hollis	Hillsborough County
Hooksett	Merrimack County
Hopkinton	Merrimack County
Hudson	Hillsborough County
Intervale	Carroll County
Jackson	Carroll County
Jaffrey	Cheshire County
Jefferson	Coos County
Kearsarge	Carroll County
Keene	Cheshire County
Kensington	Rockingham County
Kilkenny Township	Coos County
Kingston	Rockingham County
Laconia	Belknap County
Lancaster	Coos County
Landaff	Grafton County
Langdon	Sullivan County
Lebanon	Grafton County
Lee	Strafford County
Lempster	Sullivan County
Lincoln	Grafton County
Lisbon	Grafton County
Litchfield	Hillsborough County
Littleton	Grafton County
Livermore	Grafton County
Lochmere	Belknap County
Londonderry	Rockingham County
Loudon	Merrimack County
Low and Burbanks Grant	Coos County
Lyman	Grafton County
Lyme Center	Grafton County
Lyme	Grafton County
Lyndeborough	Hillsborough County
Madbury	Strafford County
Madison	Carroll County
Manchester	Hillsborough County
Marlborough	Cheshire County
Marlow	Cheshire County
Martins Location	Coos County
Mason	Hillsborough County
Meadows	Coos County
Melvin Village	Carroll County
Meredith	Belknap County
Meriden	Sullivan County
Merrimack	Hillsborough County
Middleton	Strafford County
Milan	Coos County
Milford	Hillsborough County

Millsfield Township	Coos County
Milton Mills	Strafford County
Milton	Strafford County
Mirror Lake	Carroll County
Monroe	Grafton County
Mont Vernon	Hillsborough County
Moultonboro	Carroll County
Moultonborough	Carroll County
Mount Washington	Coos County
Munsonville	Cheshire County
Nashua	Hillsborough County
Nelson	Cheshire County
New Boston	Hillsborough County
New Castle	Rockingham County
New Durham	Strafford County
New Hampton	Belknap County
New Ipswich	Hillsborough County
New London	Merrimack County
Newbury	Merrimack County
Newfields	Rockingham County
Newington	Rockingham County
Newmarket	Rockingham County
Newport	Sullivan County
Newton Junction	Rockingham County
Newton	Rockingham County
North Hampton	Rockingham County
North Haverhill	Grafton County
North Stratford	Coos County
North Swanzey	Cheshire County
North Woodstock	Grafton County
Northfield	Belknap County
Northfield	Merrimack County
Northumberland	Coos County
Northwood	Rockingham County
Nottingham	Rockingham County
Odell Township	Coos County
Orange	Grafton County
Orford	Grafton County
Ossipee	Carroll County
Pelham	Hillsborough County
Pembroke	Merrimack County
Penacook	Merrimack County
Peterborough	Hillsborough County
Piermont	Grafton County
Pike	Grafton County
Pinkhams Grant	Coos County
Pittsburg	Coos County
Pittsfield	Merrimack County
Plainfield	Sullivan County

Plaistow	Rockingham County
Plymouth	Grafton County
Portsmouth	Rockingham County
Randolph	Coos County
Raymond	Rockingham County
Richmond	Cheshire County
Rindge	Cheshire County
Rochester	Strafford County
Rollinsford	Strafford County
Roxbury	Cheshire County
Rumney	Grafton County
Rye Beach	Rockingham County
Rye	Rockingham County
Salem	Rockingham County
Salisbury	Merrimack County
Sanbornton	Belknap County
Sanbornville	Carroll County
Sandown	Rockingham County
Sandwich	Carroll County
Sargents Purchase	Coos County
Seabrook	Rockingham County
Second College Grant	Coos County
Sharon	Hillsborough County
Shelburne	Coos County
Silver Lake	Carroll County
Somersworth	Strafford County
South Acworth	Sullivan County
South Newbury	Merrimack County
South Sutton	Merrimack County
South Tamworth	Carroll County
Spofford	Cheshire County
Springfield	Sullivan County
Stark	Coos County
Stewartstown	Coos County
Stinson Lake	Grafton County
Stoddard	Cheshire County
Strafford	Strafford County
Stratford	Coos County
Stratham	Rockingham County
Success Township	Coos County
Sugar Hill	Grafton County
Sullivan	Cheshire County
Sunapee	Sullivan County
Suncook	Merrimack County
Surry	Cheshire County
Sutton	Merrimack County
Swanzy	Cheshire County
Tamworth	Carroll County
Temple	Hillsborough County

Thompson and Meserves Purchase	Coos County
Thornton	Grafton County
Tilton	Belknap County
Troy	Cheshire County
Tuftonboro	Carroll County
Twin Mountain	Coos County
Union	Strafford County
Unity	Sullivan County
Wakefield	Carroll County
Walpole	Cheshire County
Warner	Merrimack County
Warren	Grafton County
Washington	Sullivan County
Waterville Valley	Grafton County
Weare	Hillsborough County
Webster	Merrimack County
Wentworth Location	Coos County
Wentworth	Grafton County
West Chesterfield	Cheshire County
West Lebanon	Grafton County
West Nottingham	Rockingham County
Westmoreland	Cheshire County
Whitefield	Coos County
Wilmot	Merrimack County
Wilton	Hillsborough County
Winchester	Cheshire County
Windham	Rockingham County
Windsor	Hillsborough County
Winnisquam	Belknap County
Wolfeboro Falls	Carroll County
Wolfeboro	Carroll County
Wonalancet	Carroll County
Woodstock	Grafton County
Woodsville	Grafton County

Maine Counties

Abbot	Piscataquis County
Acton	York County
Addison	Washington County
Albion	Kennebec County
Alexander	Washington County
Alfred	York County
Allagash	Aroostook County
Alna	Lincoln County
Alton	Penobscot County
Amherst	Hancock County
Amity	Aroostook County
Andover	Oxford County
Anson	Somerset County
Appleton	Knox County
Argyle	Penobscot County
Arrowsic	Sagadahoc County
Arundel	York County
Ashland	Aroostook County
Athens	Somerset County
Atkinson	Piscataquis County
Auburn	Androscoggin County
Augusta	Kennebec County
Aurora	Hancock County
Avon	Franklin County
Bailey Island	Cumberland County
Baileyville	Washington County
Baldwin	Cumberland County
Bancroft	Aroostook County
Bangor	Penobscot County
Bar Harbor	Hancock County
Bar Mills	York County
Baring	Washington County
Bass Harbor	Hancock County
Bath	Sagadahoc County
Bayville	Lincoln County
Beals	Washington County
Beaver Cove	Piscataquis County
Beddington	Washington County
Belfast	Waldo County
Belgrade Lakes	Kennebec County
Belgrade	Kennebec County
Belmont	Waldo County
Benedicta	Aroostook County
Benton	Kennebec County
Bernard	Hancock County
Berwick	York County
Bethel	Oxford County
Biddeford	York County

Biddeford Pool	York County
Bingham	Somerset County
Birch Harbor	Hancock County
Birch Island	Cumberland County
Blaine	Aroostook County
Blanchard	Piscataquis County
Blue Hill Falls	Hancock County
Blue Hill	Hancock County
Boothbay Harbor	Lincoln County
Boothbay	Lincoln County
Bowdoin	Sagadahoc County
Bowdoinham	Sagadahoc County
Bowerbank	Piscataquis County
Bradford	Penobscot County
Bradley	Penobscot County
Bremen	Lincoln County
Brewer	Penobscot County
Bridgewater	Aroostook County
Bridgton	Cumberland County
Brighton Plantation	Somerset County
Bristol	Lincoln County
Brooklin	Hancock County
Brooks	Waldo County
Brooksville	Hancock County
Brookton	Washington County
Brownfield	Oxford County
Brownville Junction	Piscataquis County
Brownville	Piscataquis County
Brunswick	Cumberland County
Bryant Pond	Oxford County
Buckfield	Oxford County
Bucks Harbor	Washington County
Bucksport	Hancock County
Burlington	Penobscot County
Burnham	Waldo County
Bustins Island	Cumberland County
Buxton	York County
Byron	Oxford County
Calais	Washington County
Cambridge	Somerset County
Camden	Knox County
Canaan	Somerset County
Canton	Oxford County
Cape Cottage	Cumberland County
Cape Elizabeth	Cumberland County
Cape Neddick	York County
Cape Porpoise	York County
Capitol Island	Lincoln County
Caratunk	Somerset County

Caribou	Aroostook County
Carmel	Penobscot County
Carrabassett Valley	Franklin County
Carroll Plantation	Penobscot County
Carthage	Franklin County
Cary Plantation	Aroostook County
Casco	Cumberland County
Castine	Hancock County
Castle Hill	Aroostook County
Caswell	Aroostook County
Center Lovell	Oxford County
Centerville	Washington County
Central Aroostook	Aroostook County
Central Hancock	Hancock County
Central Somerset	Somerset County
Chamberlain	Lincoln County
Chapman	Aroostook County
Charleston	Penobscot County
Charlotte	Washington County
Chebeague Island	Cumberland County
Chelsea	Kennebec County
Cherryfield	Washington County
Chester	Penobscot County
Chesterville	Franklin County
China	Kennebec County
Clayton Lake	Aroostook County
Cliff Island	Cumberland County
Clifton	Penobscot County
Clinton	Kennebec County
Codyville Plantation	Washington County
Columbia Falls	Washington County
Columbia	Washington County
Connor Township	Aroostook County
Connor	Aroostook County
Cooper	Washington County
Coopers Mills	Lincoln County
Coplin Plantation	Franklin County
Corea	Hancock County
Corinna	Penobscot County
Corinth	Penobscot County
Cornish	York County
Cornville	Somerset County
Costigan	Penobscot County
Cranberry Isles	Hancock County
Crawford	Washington County
Criehaven	Knox County
Crouseville	Aroostook County
Crystal	Aroostook County
Cumberland Center	Cumberland County

Cumberland Foreside	Cumberland County
Cumberland	Cumberland County
Cundys Harbor	Cumberland County
Cushing Island	Cumberland County
Cushing	Knox County
Cutler	Washington County
Cyr Plantation	Aroostook County
Dallas Plantation	Franklin County
Damariscotta	Lincoln County
Danforth	Washington County
Danville	Androscoggin County
Dayton	York County
Deblois	Washington County
Dedham	Hancock County
Deer Isle	Hancock County
Denmark	Oxford County
Dennistown	Somerset County
Dennistown Plantation	Somerset County
Dennysville	Washington County
Derby	Piscataquis County
Detroit	Somerset County
Dexter	Penobscot County
Diamond Cove	Cumberland County
Diamond Island	Cumberland County
Dixfield	Oxford County
Dixmont	Penobscot County
Dover-Foxcroft	Piscataquis County
Dresden	Lincoln County
Drew Plantation	Penobscot County
Dryden	Franklin County
Durham	Androscoggin County
Dyer Brook	Aroostook County
Eagle Lake	Aroostook County
East Andover	Oxford County
East Baldwin	Cumberland County
East Blue Hill	Hancock County
East Boothbay	Lincoln County
East Central Franklin	Franklin County
East Central Penobscot	Penobscot County
East Central Washington	Washington County
East Dixfield	Franklin County
East Hancock	Hancock County
East Holden	Penobscot County
East Livermore	Androscoggin County
East Machias	Washington County
East Millinocket	Penobscot County
East Newport	Penobscot County
East Orland	Hancock County
East Parsonfield	York County

East Poland	Androscoggin County
East Stoneham	Oxford County
East Vassalboro	Kennebec County
East Waterboro	York County
East Wilton	Franklin County
East Winthrop	Kennebec County
Eastbrook	Hancock County
Easton	Aroostook County
Eastport	Washington County
Eddington	Penobscot County
Edgecomb	Lincoln County
Edinburg	Penobscot County
Eliot	York County
Ellsworth	Hancock County
Embden	Somerset County
Enfield	Penobscot County
Estcourt Station	Aroostook County
Etna	Penobscot County
Bustis	Franklin County
Exeter	Penobscot County
Fairfield	Somerset County
Falmouth	Cumberland County
Farmingdale	Kennebec County
Farmington Falls	Franklin County
Farmington	Franklin County
Fayette	Kennebec County
Fort Fairfield	Aroostook County
Fort Kent Mills	Aroostook County
Fort Kent	Aroostook County
Frankfort	Waldo County
Franklin	Hancock County
Freedom	Waldo County
Freeport	Cumberland County
Frenchboro	Hancock County
Frenchville	Aroostook County
Friendship	Knox County
Fryeburg	Oxford County
Gardiner	Kennebec County
Garfield Plantation	Aroostook County
Garfield Plt	Aroostook County
Garland	Penobscot County
Georgetown	Sagadahoc County
Gilead	Oxford County
Glen Cove	Knox County
Glenburn	Penobscot County
Glenwood Plantation	Aroostook County
Gorham	Cumberland County
Gouldsboro	Hancock County
Grand Isle	Aroostook County

Grand Lake Stream	Washington County
Grand Lake Stream Plantation	Washington County
Gray	Cumberland County
Great Diamond Island	Cumberland County
Great Pond	Hancock County
Greenbush	Penobscot County
Greene	Androscoggin County
Greenville Junction	Piscataquis County
Greenville	Piscataquis County
Greenwood	Oxford County
Guilford	Piscataquis County
Hallowell	Kennebec County
Hamlin	Aroostook County
Hammond	Aroostook County
Hampden	Penobscot County
Hancock	Hancock County
Hanover	Oxford County
Harborside	Hancock County
Harmony	Somerset County
Harpswell	Cumberland County
Harrington	Washington County
Harrison	Cumberland County
Hartford	Oxford County
Hartland	Somerset County
Haynesville	Aroostook County
Hebron	Oxford County
Hermon	Penobscot County
Hersey	Aroostook County
Hibberts gore	Lincoln County
Highland Plantation	Somerset County
Hinckley	Somerset County
Hiram	Oxford County
Hodgdon	Aroostook County
Holden	Penobscot County
Hollis Center	York County
Hollis	York County
Hope	Knox County
Houlton	Aroostook County
Howland	Penobscot County
Hudson	Penobscot County
Hulls Cove	Hancock County
Industry	Franklin County
Island Falls	Aroostook County
Isle au Haut	Knox County
Isle of Springs	Lincoln County
Islesboro	Waldo County
Islesford	Hancock County
Jackman	Somerset County
Jackson	Waldo County

Jay	Franklin County
Jefferson	Lincoln County
Jonesboro	Washington County
Jonesport	Washington County
Kenduskeag	Penobscot County
Kennebunk	York County
Kennebunkport	York County
Kents Hill	Kennebec County
Kezar Falls	York County
Kingfield	Franklin County
Kingman	Penobscot County
Kingsbury Plantation	Piscataquis County
Kittery Point	York County
Kittery	York County
Knox	Waldo County
Lagrange	Penobscot County
Lake View Plantation	Piscataquis County
Lakeville	Penobscot County
Lambert Lake	Washington County
Lamoine	Hancock County
Lebanon	York County
Lee	Penobscot County
Leeds	Androscoggin County
Levant	Penobscot County
Lewiston	Androscoggin County
Liberty	Waldo County
Lille	Aroostook County
Limerick	York County
Limestone	Aroostook County
Limington	York County
Lincoln Center	Penobscot County
Lincoln Plantation	Oxford County
Lincoln	Penobscot County
Lincolnvile Center	Waldo County
Lincolnvile	Waldo County
Linneus	Aroostook County
Lisbon Falls	Androscoggin County
Lisbon	Androscoggin County
Litchfield	Kennebec County
Little Deer Isle	Hancock County
Little Diamond Island	Cumberland County
Littleton	Aroostook County
Livermore Falls	Androscoggin County
Livermore	Androscoggin County
Long Island	Cumberland County
Lovell	Oxford County
Lowell	Penobscot County
Lubec	Washington County
Ludlow	Aroostook County

Lyman	York County
Mac Mahan	Sagadahoc County
Machias	Washington County
Machiasport	Washington County
Macwahoc Plantation	Aroostook County
Madawaska	Aroostook County
Madison	Somerset County
Madrid	Franklin County
Magalloway Plantation	Oxford County
Manchester	Kennebec County
Manset	Hancock County
Mapleton	Aroostook County
Mariaville	Hancock County
Mars Hill	Aroostook County
Marshfield	Washington County
Masardis	Aroostook County
Matinicus	Knox County
Matinicus Isle Plantation	Knox County
Mattawamkeag	Penobscot County
Maxfield	Penobscot County
Mechanic Falls	Androscoggin County
Meddybemps	Washington County
Medford	Piscataquis County
Medomak	Lincoln County
Medway	Penobscot County
Mercer	Somerset County
Merepoint	Cumberland County
Merrill	Aroostook County
Mexico	Oxford County
Milbridge	Washington County
Milford	Penobscot County
Millinocket	Penobscot County
Milo	Piscataquis County
Milton	Oxford County
Minot	Androscoggin County
Mintum	Hancock County
Monhegan	Lincoln County
Monhegan Plantation	Lincoln County
Monmouth	Kennebec County
Monroe	Waldo County
Monson	Piscataquis County
Monticello	Aroostook County
Montville	Waldo County
Moody	York County
Moose River	Somerset County
Moro Plantation	Aroostook County
Morrill	Waldo County
Moscow	Somerset County
Mount Chase	Penobscot County

Mount Desert	Hancock County
Mount Vernon	Kennebec County
Naples	Cumberland County
Nashville Plantation	Aroostook County
Nashville Pt	Aroostook County
New Canada	Aroostook County
New Gloucester	Cumberland County
New Harbor	Lincoln County
New Limerick	Aroostook County
New Portland	Somerset County
New Sharon	Franklin County
New Sweden	Aroostook County
New Vineyard	Franklin County
Newagen	Lincoln County
Newburgh	Penobscot County
Newcastle	Lincoln County
Newfield	York County
Newport	Penobscot County
Newry	Oxford County
Nobleboro	Lincoln County
Norridgewock	Somerset County
North Amity	Aroostook County
North Anson	Somerset County
North Berwick	York County
North Bridgton	Cumberland County
North Franklin	Franklin County
North Fryeburg	Oxford County
North Haven	Knox County
North Jay	Franklin County
North Monmouth	Kennebec County
North New Portland	Somerset County
North Oxford	Oxford County
North Penobscot	Penobscot County
North Shapleigh	York County
North Sullivan	Hancock County
North Turner	Androscoggin County
North Vassalboro	Kennebec County
North Washington	Washington County
North Waterboro	York County
North Waterford	Oxford County
North Yarmouth	Cumberland County
Northeast Harbor	Hancock County
Northeast Piscataquis	Piscataquis County
Northeast Somerset	Somerset County
Northfield	Washington County
Northport	Waldo County
Northwest Aroostook	Aroostook County
Northwest Hancock	Hancock County
Northwest Piscataquis	Piscataquis County

Northwest Somerset	Somerset County
Norway	Oxford County
Oakfield	Aroostook County
Oakland	Kennebec County
Ocean Park	York County
Ogunquit	York County
Olamon	Penobscot County
Old Orchard Beach	York County
Old Town	Penobscot County
Oquossoc	Franklin County
Orient	Aroostook County
Orland	Hancock County
Orono	Penobscot County
Orrington	Penobscot County
Orrs Island	Cumberland County
Osborn	Hancock County
Otis	Hancock County
Otisfield	Oxford County
Otter Creek	Hancock County
Owls Head	Knox County
Oxbow	Aroostook County
Oxbow Plantation	Aroostook County
Oxford	Oxford County
Palermo	Waldo County
Palmyra	Somerset County
Paris	Oxford County
Parkman	Piscataquis County
Parsonsfield	York County
Passadumkeag	Penobscot County
Passamaquoddy Indian Township	Washington County
Passamaquoddy Pleasant Point	Washington County
Patten	Penobscot County
Peaks Island	Cumberland County
Pejepscot	Sagadahoc County
Pemaquid	Lincoln County
Pembroke	Washington County
Penobscot Indian Island Reservation	Penobscot County
Penobscot	Hancock County
Perham	Aroostook County
Perkins	Sagadahoc County
Perry	Washington County
Peru	Oxford County
Phillips	Franklin County
Phippsburg	Sagadahoc County
Pine Point	Cumberland County
Pittsfield	Somerset County
Pittston	Kennebec County
Pleasant Ridge Plantation	Somerset County
Plymouth	Penobscot County

Poland Spring	Androscoggin County
Poland	Androscoggin County
Pond Cove	Cumberland County
Port Clyde	Knox County
Portage	Aroostook County
Portage Lake	Aroostook County
Porter	Oxford County
Portland	Cumberland County
Pownal	Cumberland County
Prentiss	Penobscot County
Presque Isle	Aroostook County
Princeton	Washington County
Prospect Harbor	Hancock County
Prospect	Waldo County
Quimby	Aroostook County
Randolph	Kennebec County
Rangeley Plantation	Franklin County
Rangeley	Franklin County
Raymond	Cumberland County
Readfield	Kennebec County
Reed Plantation	Aroostook County
Richmond	Sagadahoc County
Ripley	Somerset County
Robbinston	Washington County
Rockland	Knox County
Rockport	Knox County
Rockwood	Somerset County
Rome	Kennebec County
Roque Bluffs	Washington County
Round Pond	Lincoln County
Roxbury	Oxford County
Rumford Center	Oxford County
Rumford Point	Oxford County
Rumford	Oxford County
Sabattus	Androscoggin County
Saco	York County
Saint Agatha	Aroostook County
Saint Albans	Somerset County
Saint David	Aroostook County
Saint Francis	Aroostook County
Saint George	Knox County
Saint John Plantation	Aroostook County
Salsbury Cove	Hancock County
Sandy Point	Waldo County
Sandy River Plantation	Franklin County
Sanford	York County
Sangerville	Piscataquis County
Sargentville	Hancock County
Scarborough	Cumberland County

Seal Cove	Hancock County
Seal Harbor	Hancock County
Searsmont	Waldo County
Searsport	Waldo County
Sebago Lake	Cumberland County
Sebago	Cumberland County
Sebasco Estates	Sagadahoc County
Sebec Lake	Piscataquis County
Sebec	Piscataquis County
Seboeis	Penobscot County
Seboeis Plantation	Penobscot County
Seboomook Lake	Somerset County
Sedgwick	Hancock County
Shapleigh	York County
Shawmut	Somerset County
Sheridan	Aroostook County
Sherman Mills	Aroostook County
Sherman Station	Penobscot County
Sherman	Aroostook County
Shirley Mills	Piscataquis County
Shirley	Piscataquis County
Sidney	Kennebec County
Sinclair	Aroostook County
Skowhegan	Somerset County
Small Point	Sagadahoc County
Smithfield	Somerset County
Smyrna Mills	Aroostook County
Smyrna	Aroostook County
Soldier Pond	Aroostook County
Solon	Somerset County
Somerville	Lincoln County
Sorrento	Hancock County
South Aroostook	Aroostook County
South Berwick	York County
South Bristol	Lincoln County
South Casco	Cumberland County
South China	Kennebec County
South Franklin	Franklin County
South Freeport	Cumberland County
South Gardiner	Kennebec County
South Gouldsboro	Hancock County
South Harpswell	Cumberland County
South Oxford	Oxford County
South Paris	Oxford County
South Portland	Cumberland County
South Thomaston	Knox County
South Waterford	Oxford County
South Windham	Cumberland County
Southeast Piscataquis	Piscataquis County

Southport	Lincoln County
Southwest Harbor	Hancock County
Springfield	Penobscot County
Springvale	York County
Spruce Head	Knox County
Square Lake	Aroostook County
Squirrel Island	Lincoln County
Stacyville	Penobscot County
Standish	Cumberland County
Starks	Somerset County
Steep Falls	Cumberland County
Stetson	Penobscot County
Steuben	Washington County
Stillwater	Penobscot County
Stockholm	Aroostook County
Stockton Springs	Waldo County
Stoneham	Oxford County
Stonington	Hancock County
Stow	Oxford County
Straitton	Franklin County
Strong	Franklin County
Sullivan	Hancock County
Sumner	Oxford County
Sunset	Hancock County
Surry	Hancock County
Swans Island	Hancock County
Swanville	Waldo County
Sweden	Oxford County
Talmadge	Washington County
Temple	Franklin County
Tenants Harbor	Knox County
The Forks Plantation	Somerset County
Thomaston	Knox County
Thorndike	Waldo County
Topsfield	Washington County
Topsham	Sagadahoc County
Tremont	Hancock County
Trenton	Hancock County
Trevett	Lincoln County
Troy	Waldo County
Turner Center	Androscoggin County
Turner	Androscoggin County
Twombly	Penobscot County
Union	Knox County
Unity	Waldo County
Unity	Kennebec County
Upper Frenchville	Aroostook County
Upton	Oxford County
Van Buren	Aroostook County

Vanceboro	Washington County
Vassalboro	Kennebec County
Veazie	Penobscot County
Verona	Hancock County
Vienna	Kennebec County
Vinalhaven	Knox County
Wade	Aroostook County
Waite	Washington County
Waldo	Waldo County
Waldoboro	Lincoln County
Wales	Androscoggin County
Wallagrass Plantation	Aroostook County
Walpole	Lincoln County
Waltham	Hancock County
Warren	Knox County
Washburn	Aroostook County
Washington	Knox County
Waterboro	York County
Waterford	Oxford County
Waterville	Kennebec County
Wayne	Kennebec County
Webster Plantation	Penobscot County
Weeks Mills	Kennebec County
Weld	Franklin County
Wellington	Somerset County
Wellington	Piscataquis County
Wells	York County
Wesley	Washington County
West Baldwin	Cumberland County
West Bath	Sagadahoc County
West Bethel	Oxford County
West Boothbay Harbor	Lincoln County
West Central Franklin	Franklin County
West Enfield	Penobscot County
West Farmington	Franklin County
West Forks	Somerset County
West Forks Plantation	Somerset County
West Gardiner	Kennebec County
West Kennebunk	York County
West Minot	Androscoggin County
West Newfield	York County
West Paris	Oxford County
West Poland	Androscoggin County
West Rockport	Knox County
West Scarborough	Cumberland County
West Tremont	Hancock County
Westbrook	Cumberland County
Westfield	Aroostook County
Westmanland	Aroostook County

Weston	Aroostook County
Westport	Lincoln County
Whitefield	Lincoln County
Whiting	Washington County
Whitney	Penobscot County
Whitneyville	Washington County
Willimantic	Piscataquis County
Wilton	Franklin County
Windham	Cumberland County
Windsor	Kennebec County
Winn	Penobscot County
Winslow	Kennebec County
Winter Harbor	Hancock County
Winterport	Waldo County
Winterville	Aroostook County
Winterville Plantation	Aroostook County
Winthrop	Kennebec County
Wiscasset	Lincoln County
Woodland	Aroostook County
Woodland Washington County	Washington County
Woodstock	Oxford County
Woodville	Penobscot County
Woolwich	Sagadahoc County
Wyman	Franklin County
Wytotitlock	Aroostook County
Yarmouth	Cumberland County
York Beach	York County
York Harbor	York County
York	York County

Rhode Island Counties

Albion	Providence County
Ashaway	Washington County
Barrington	Bristol County
Block Island	Washington County
Bradford	Washington County
Bristol	Bristol County
Brown Station	Providence County
Burrillville	Providence County
Carolina	Washington County
Central Falls	Providence County
Charlestown	Washington County
Chepachet	Providence County
Clayville	Providence County
Coventry	Kent County
Cranston	Providence County
Cumberland	Providence County
East Greenwich	Kent County
East Providence	Providence County
Escoheag	Washington County
Exeter	Washington County
Fiskeville	Providence County
Forestdale	Providence County
Foster	Providence County
Friar Station	Providence County
Glendale	Providence County
Glocester	Providence County
Greene	Kent County
Greenville	Providence County
Harmony	Providence County
Harrisville	Providence County
Hope	Providence County
Hope Valley	Washington County
Hopkinton	Washington County
Jamestown	Newport County
Johnston	Providence County
Kenyon	Washington County
Kingston	Washington County
Lincoln	Providence County
Little Compton	Newport County
Manville	Providence County
Mapleville	Providence County
Middletown	Newport County
Narragansett	Washington County
New Shoreham	Washington County
Newport	Newport County
North Kingstown	Washington County
North Providence	Providence County
North Scituate	Providence County

North Smithfield	Providence County
Oakland	Providence County
Pascoag	Providence County
Pawtucket	Providence County
Peace Dale	Washington County
Point Judith	Washington County
Portsmouth	Newport County
Providence	Providence County
Prudence Island	Bristol County
Richmond	Washington County
Riverside	Providence County
Rockville	Washington County
Rumford	Providence County
Saunderstown	Washington County
Scituate	Providence County
Shannock	Washington County
Slatersville	Providence County
Slocum	Washington County
Smithfield	Providence County
South Kingstown	Washington County
Tiverton	Newport County
Valley Falls	Providence County
Warren	Bristol County
Warwick	Kent County
West Greenwich	Kent County
West Kingston	Washington County
West Warwick	Kent County
Westerly	Washington County
Wood River Junction	Washington County
Woonsocket	Providence County
Wyoming	Washington County

Connecticut Counties

Abington	Windham County
Allingtown	New Haven County
Amston	Tolland County
Andover	Tolland County
Ansonia	New Haven County
Ashford	Windham County
Avon	Hartford County
Ballouville	Windham County
Baltic	New London County
Bantam	Litchfield County
Barkhamsted	Litchfield County
Beacon Falls	New Haven County
Berlin	Hartford County
Bethany	New Haven County
Bethel	Fairfield County
Bethlehem	Litchfield County
Bishops Corner	Hartford County
Bloomfield	Hartford County
Bolton	Tolland County
Botsford	Fairfield County
Bozrah	New London County
Branford	New Haven County
Bridgeport	Fairfield County
Bridgewater	Litchfield County
Bristol	Hartford County
Broad Brook	Hartford County
Brookfield	Fairfield County
Brooklyn	Windham County
Burlington	Hartford County
Canaan	Litchfield County
Canterbury	Windham County
Canton Center	Hartford County
Canton	Hartford County
Centerbrook	Middlesex County
Central Village	Windham County
Chaplin	Windham County
Cheshire	New Haven County
Chester	Middlesex County
Clinton	Middlesex County
Cobalt	Middlesex County
Colchester	New London County
Colebrook	Litchfield County
Collinsville	Hartford County
Columbia	Tolland County
Cornwall Bridge	Litchfield County
Cornwall	Litchfield County
Cos Cob	Fairfield County
Coventry	Tolland County

Cromwell	Middlesex County
Danbury	Fairfield County
Danielson	Windham County
Darien	Fairfield County
Dayville	Windham County
Deep River	Middlesex County
Derby	New Haven County
Durham	Middlesex County
East Berlin	Hartford County
East Canaan	Litchfield County
East Glastonbury	Hartford County
East Granby	Hartford County
East Haddam	Middlesex County
East Hampton	Hartford County
East Hampton	Middlesex County
East Hartford	Hartford County
East Hartland	Hartford County
East Haven	New Haven County
East Killingly	Windham County
East Lyme	New London County
East Windsor Hill	Hartford County
East Windsor Hl	Hartford County
East Windsor	Hartford County
East Woodstock	Windham County
Eastford	Windham County
Easton	Fairfield County
Ellington	Tolland County
Enfield	Hartford County
Essex	Middlesex County
Fairfield	Fairfield County
Falls Village	Litchfield County
Farmington	Hartford County
Franklin	New London County
Gales Ferry	New London County
Gaylordsville	Litchfield County
Georgetown	Fairfield County
Gilman	New London County
Glasgo	New London County
Glastonbury	Hartford County
Goshen	Litchfield County
Granby	Hartford County
Greens Farms	Fairfield County
Greenwich	Fairfield County
Griswold	New London County
Grosvenor Dale	Windham County
Groton	New London County
Guilford	New Haven County
Haddam Neck	Middlesex County
Haddam	Middlesex County

Hadlyme	New London County
Hamden	New Haven County
Hampton	Windham County
Hanover	New London County
Hartford	Hartford County
Hartland	Hartford County
Harwinton	Litchfield County
Hawleyville	Fairfield County
Hebron	Tolland County
Higganum	Middlesex County
Ivoryton	Middlesex County
Jewett City	New London County
Kensington	Hartford County
Kent	Litchfield County
Killingly	Windham County
Killingworth	Middlesex County
Lakeside	Litchfield County
Lakeville	Litchfield County
Lebanon	New London County
Ledyard	New London County
Lisbon	New London County
Litchfield	Litchfield County
Lyme	New London County
Madison	New Haven County
Manchester	Tolland County
Manchester	Hartford County
Mansfield Center	Tolland County
Mansfield Depot	Tolland County
Mansfield	Tolland County
Maple Hill	Hartford County
Marion	Hartford County
Marlborough	Hartford County
Mashantucket	New London County
Melrose	Hartford County
Meriden	New Haven County
Middle Haddam	Middlesex County
Middlebury	New Haven County
Middlefield	Middlesex County
Middletown	Middlesex County
Milford (remainder)	New Haven County
Milford	New Haven County
Milldale	Hartford County
Monroe	Fairfield County
Montville	New London County
Moodus	Middlesex County
Moosup	Windham County
Morris	Litchfield County
Mystic	New London County
Naugatuck	New Haven County

New Britain	Hartford County
New Canaan	Fairfield County
New Fairfield	Fairfield County
New Hartford	Litchfield County
New Haven	New Haven County
New London	New London County
New Milford	Litchfield County
New Preston	Litchfield County
New Preston Marble Dale	Litchfield County
Newington	Hartford County
Newtown	Fairfield County
Niantic	New London County
Norfolk	Litchfield County
North Branford	New Haven County
North Canaan	Litchfield County
North Canton	Hartford County
North Franklin	New London County
North Granby	Hartford County
North Grosvenordale	Windham County
North Haven	New Haven County
North Stonington	New London County
North Westchester	New London County
North Windham	Windham County
Northford	New Haven County
Norwalk	Fairfield County
Norwich	New London County
Oakdale	New London County
Old Greenwich	Fairfield County
Old Lyme	New London County
Old Mystic	New London County
Old Saybrook	Middlesex County
Oneco	Windham County
Orange	New Haven County
Oxford	New Haven County
Pawcatuck	New London County
Pequabuck	Litchfield County
Pine Meadow	Litchfield County
Plainfield	Windham County
Plainville	Hartford County
Plantsville	Hartford County
Pleasant Valley	Litchfield County
Plymouth	Litchfield County
Pomfret Center	Windham County
Pomfret	Windham County
Poquonock	Hartford County
Portland	Middlesex County
Preston	New London County
Prospect	New Haven County
Putnam	Windham County

Quaker Hill	New London County
Quinebaug	Windham County
Redding Center	Fairfield County
Redding Ridge	Fairfield County
Redding	Fairfield County
Ridgefield	Fairfield County
Ridgeway	Fairfield County
Riverside	Fairfield County
Riverton	Litchfield County
Rockfall	Middlesex County
Rocky Hill	Hartford County
Rogers	Windham County
Roxbury	Litchfield County
Salem	New London County
Salisbury	Litchfield County
Sandy Hook	Fairfield County
Scotland	Windham County
Seymour	New Haven County
Sharon	Litchfield County
Shelton	Fairfield County
Sherman	Fairfield County
Silver Lane	Hartford County
Simsbury	Hartford County
Somers	Tolland County
Somersville	Tolland County
South Britain	New Haven County
South Glastonbury	Hartford County
South Kent	Litchfield County
South Lyme	New London County
South Willington	Tolland County
South Windham	Windham County
South Windsor	Hartford County
South Woodstock	Windham County
Southbury	New Haven County
Southington	Hartford County
Southport	Fairfield County
Sprague	New London County
Stafford Springs	Tolland County
Stafford	Tolland County
Staffordville	Tolland County
Stamford	Fairfield County
Sterling	Windham County
Stevenson	Fairfield County
Stonington	New London County
Storrs Mansfield	Tolland County
Stratford	Fairfield County
Suffield	Hartford County
Taconic	Litchfield County
Taftville	New London County

Tariffville	Hartford County
Terryville	Litchfield County
Thomaston	Litchfield County
Thompson	Windham County
Tolland	Tolland County
Torrington	Litchfield County
Trumbull	Fairfield County
Uncasville	New London County
Union	Tolland County
Unionville	Hartford County
Vernon Rockville	Tolland County
Vernon	Tolland County
Versailles	New London County
Voluntown	New London County
Wallingford	New Haven County
Warren	Litchfield County
Warrenville	Windham County
Washington Depot	Litchfield County
Washington	Litchfield County
Waterbury	New Haven County
Waterford	New London County
Watertown	Litchfield County
Wauregan	Windham County
Weatogue	Hartford County
West Cornwall	Litchfield County
West Granby	Hartford County
West Hartford	Hartford County
West Hartland	Hartford County
West Haven	New Haven County
West Mystic	New London County
West Redding	Fairfield County
West Simsbury	Hartford County
Westbrook	Middlesex County
Weston	Fairfield County
Westport	Fairfield County
Wethersfield	Hartford County
Whitneyville	New Haven County
Willimantic	Windham County
Willington	Tolland County
Wilton	Fairfield County
Winchester Center	Litchfield County
Winchester	Litchfield County
Windham	Windham County
Windsor Locks	Hartford County
Windsor	Hartford County
Windsorville	Hartford County
Winsted	Litchfield County
Wolcott	New Haven County
Woodbridge	New Haven County

Woodbury	Litchfield County
Woodmont	New Haven County
Woodstock	Windham County
Woodstock Valley	Windham County
Yalesville	New Haven County
Yantic	New London County

Vermont Counties

Adamant	Washington County
Addison	Addison County
Albany	Orleans County
Alburg	Grand Isle County
Andover	Windsor County
Arlington	Bennington County
Ascutney	Windsor County
Athens	Windsor County
Athens	Windham County
Averill	Essex County
Avery's Gore	Essex County
Bakersfield	Franklin County
Baltimore	Windsor County
Barnard	Windsor County
Barnet	Caledonia County
Barre	Washington County
Barton	Orleans County
Beebe Plain	Orleans County
Beecher Falls	Essex County
Bellows Falls	Windham County
Belmont	Rutland County
Belvidere	Lamoille County
Bennington	Bennington County
Benson	Rutland County
Berkshire	Franklin County
Berlin	Washington County
Bethel	Windsor County
Bloomfield	Essex County
Bolton	Chittenden County
Bolton Valley	Chittenden County
Bomoseen	Rutland County
Bondville	Bennington County
Bradford	Orange County
Braintree	Orange County
Brandon	Rutland County
Brattleboro	Windham County
Bread Loaf	Addison County
Bridgewater Corners	Windsor County
Bridgewater	Windsor County
Bridport	Addison County
Brighton	Essex County
Bristol	Addison County
Brookfield	Orange County
Brookline	Windham County
Brownington	Orleans County
Brownsville	Windsor County
Brunswick	Essex County
Buels gore	Chittenden County

Burke	Caledonia County
Burlington	Chittenden County
Cabot	Washington County
Calais	Washington County
Cambridge	Lamoille County
Cambridgeport	Windham County
Canaan	Essex County
Castleton	Rutland County
Cavendish	Windsor County
Center Rutland	Rutland County
Charleston	Orleans County
Charlotte	Chittenden County
Chelsea	Orange County
Chester Depot	Windsor County
Chester	Windsor County
Chittenden	Rutland County
Clarendon	Rutland County
Colchester	Chittenden County
Concord	Essex County
Corinth	Orange County
Cornwall	Addison County
Coventry	Orleans County
Craftsbury Common	Orleans County
Craftsbury	Orleans County
Cuttingsville	Rutland County
Danby	Rutland County
Danville	Caledonia County
Derby Center	Orleans County
Derby Line	Orleans County
Derby	Orleans County
Dorset	Bennington County
Dover	Windham County
Dummerston	Windham County
Duxbury	Washington County
East Arlington	Bennington County
East Barre	Washington County
East Berkshire	Franklin County
East Burke	Caledonia County
East Calais	Washington County
East Charleston	Orleans County
East Corinth	Orange County
East Dover	Windham County
East Dummerston	Windham County
East Fairfield	Franklin County
East Hardwick	Caledonia County
East Haven	Essex County
East Middlebury	Addison County
East Montpelier	Washington County
East Orange	Orange County

East Poulney	Rutland County
East Randolph	Orange County
East Ryegate	Caledonia County
East Saint Johnsbury	Caledonia County
East St Johnsbury	Caledonia County
East Thetford	Orange County
East Wallingford	Rutland County
Eden Mills	Lamoille County
Eden	Lamoille County
Elmore	Lamoille County
Ely	Orange County
Enosburg Falls	Franklin County
Enosburg	Franklin County
Essex Junction	Chittenden County
Essex	Chittenden County
Fair Haven	Rutland County
Fairfax	Franklin County
Fairfield	Franklin County
Fairlee	Orange County
Fayston	Washington County
Ferdinand	Essex County
Ferrisburg	Addison County
Fletcher	Franklin County
Florence	Rutland County
Forest Dale	Rutland County
Franklin	Franklin County
Gaysville	Windsor County
Georgia	Franklin County
Gilman	Essex County
Glastenbury	Bennington County
Glover	Orleans County
Goshen	Addison County
Grafton	Windham County
Granby	Essex County
Grand Isle	Grand Isle County
Graniteville	Washington County
Granville	Addison County
Greensboro Bend	Orleans County
Greensboro	Orleans County
Groton	Caledonia County
Guildhall	Essex County
Guilford	Windham County
Halifax	Windham County
Hancock	Addison County
Hardwick	Caledonia County
Hartford	Windsor County
Hartland Four Corners	Windsor County
Hartland	Windsor County
Highgate Center	Franklin County

Highgate Springs	Franklin County
Highgate	Franklin County
Hinesburg	Chittenden County
Holland	Orleans County
Hubbardton	Rutland County
Huntington	Chittenden County
Hyde Park	Lamoille County
Hydeville	Rutland County
Ira	Rutland County
Irasburg	Orleans County
Island Pond	Essex County
Isle La Motte	Grand Isle County
Jacksonville	Windham County
Jamaica	Windham County
Jay Peak	Orleans County
Jay	Orleans County
Jeffersonville	Lamoille County
Jericho	Chittenden County
Johnson	Lamoille County
Jonesville	Chittenden County
Killington	Rutland County
Kirby	Caledonia County
Lake Elmore	Lamoille County
Landgrove	Bennington County
Leicester	Addison County
Lemington	Essex County
Lewis	Essex County
Lincoln	Addison County
Londonderry	Windham County
Lowell	Orleans County
Lower Waterford	Caledonia County
Ludlow	Windsor County
Lunenburg	Essex County
Lyndon Center	Caledonia County
Lyndon	Caledonia County
Lyndonville	Caledonia County
Maidstone	Essex County
Manchester Center	Bennington County
Manchester	Bennington County
Marlboro	Windham County
Marshfield	Washington County
McIndoe Falls	Caledonia County
Mendon	Rutland County
Middlebury	Addison County
Middlesex Center	Washington County
Middlesex	Washington County
Middletown Springs	Rutland County
Milton	Chittenden County
Monkton	Addison County

Montgomery Center	Franklin County
Montgomery	Franklin County
Montpelier	Washington County
Moretown	Washington County
Morgan Center	Orleans County
Morgan	Orleans County
Morristown	Lamoille County
Morrisville	Lamoille County
Moscow	Lamoille County
Mount Holly	Rutland County
Mount Snow	Windham County
Mount Tabor	Rutland County
New Haven	Addison County
Newark	Caledonia County
Newbury	Orange County
Newfane	Windham County
Newport Center	Orleans County
Newport	Orleans County
North Bennington	Bennington County
North Chittenden	Rutland County
North Clarendon	Rutland County
North Concord	Essex County
North Hartland	Windsor County
North Hero	Grand Isle County
North Hyde Park	Lamoille County
North Middlesex	Washington County
North Montpelier	Washington County
North Pomfret	Windsor County
North Springfield	Windsor County
North Thetford	Orange County
North Troy	Orleans County
North Westminster	Windham County
Northfield Falls	Washington County
Northfield	Washington County
Norton	Essex County
Norwich	Windsor County
Old Bennington	Bennington County
Orange	Washington County
Orange	Orange County
Orleans	Orleans County
Orwell	Addison County
Panton	Addison County
Passumpsic	Caledonia County
Pawlet	Rutland County
Peacham	Caledonia County
Perkinsville	Windsor County
Peru	Bennington County
Pittsfield	Rutland County
Pittsford	Rutland County

Plainfield	Washington County
Plymouth	Windsor County
Pomfret	Windsor County
Post Mills	Orange County
Poultney	Rutland County
Pownal	Bennington County
Proctor	Rutland County
Proctorsville	Windsor County
Putney	Windham County
Quechee	Windsor County
Randolph Center	Orange County
Randolph	Orange County
Reading	Windsor County
Readsboro	Bennington County
Richford	Franklin County
Richmond	Chittenden County
Ripton	Addison County
Riverton	Washington County
Rochester	Windsor County
Rockingham	Windham County
Roxbury	Addison County
Roxbury	Washington County
Royalton	Windsor County
Rupert	Bennington County
Rutland	Rutland County
Ryegate	Caledonia County
Saint Albans Bay	Franklin County
Saint Albans	Franklin County
Saint George	Chittenden County
Saint Johnsbury Center	Caledonia County
Saint Johnsbury	Caledonia County
Salisbury	Addison County
Sandgate	Bennington County
Saxtons River	Windham County
Searsburg	Bennington County
Shaftsbury	Bennington County
Sharon	Windsor County
Sheffield	Caledonia County
Shelburne	Chittenden County
Sheldon Springs	Franklin County
Sheldon	Franklin County
Sherburne	Rutland County
Shoreham	Addison County
Shrewsbury	Rutland County
Smugglers Notch	Lamoille County
Somerset	Windham County
South Barre	Washington County
South Burlington	Chittenden County
South Duxbury	Washington County

South Hero	Grand Isle County
South Londonderry	Windham County
South Newfane	Windham County
South Pomfret	Windsor County
South Reading	Windsor County
South Royalton	Windsor County
South Ryegate	Caledonia County
South Strafford	Orange County
South Woodstock	Windsor County
Springfield	Windsor County
Stamford	Bennington County
Stannard	Caledonia County
Starksboro	Addison County
Stockbridge	Windsor County
Stowe	Lamoille County
Strafford	Orange County
Stratton	Windham County
Sudbury	Rutland County
Sugarbush Valley	Washington County
Sunderland	Bennington County
Sutton	Caledonia County
Swanton	Franklin County
Taftsville	Windsor County
Thetford Center	Orange County
Thetford	Orange County
Tinmouth	Rutland County
Topsham	Orange County
Townshend	Windham County
Troy	Orleans County
Tunbridge	Orange County
Underhill Center	Chittenden County
Underhill	Chittenden County
Vergennes	Addison County
Vernon	Windham County
Vershire	Orange County
Victory	Essex County
Waitsfield	Washington County
Walden	Caledonia County
Wallingford	Rutland County
Waltham	Addison County
Wardsboro	Windham County
Warner's Grant	Essex County
Warren	Washington County
Warren's Gore	Essex County
Washington	Orange County
Waterbury Center	Washington County
Waterbury	Washington County
Waterford	Caledonia County
Waterville	Lamoille County

Weathersfield	Windsor County
Websterville	Washington County
Wells River	Orange County
Wells	Rutland County
West Braintree	Addison County
West Brookfield	Orange County
West Burke	Caledonia County
West Charleston	Orleans County
West Danville	Caledonia County
West Dover	Windham County
West Dummerston	Windham County
West Fairlee	Orange County
West Glover	Orleans County
West Halifax	Windham County
West Hartford	Windsor County
West Haven	Rutland County
West Newbury	Orange County
West Pawlet	Rutland County
West Rupert	Bennington County
West Rutland	Rutland County
West Topsham	Orange County
West Townshend	Windham County
West Windsor	Windsor County
Westfield	Orleans County
Westford	Chittenden County
Westminster Station	Windham County
Westminster	Windham County
Westmore	Orleans County
Weston	Windsor County
Weybridge	Addison County
Wheelock	Caledonia County
White River Junction	Windsor County
Whiting	Addison County
Whitingham	Windham County
Wilder	Windsor County
Williamstown	Orange County
Williamsville	Windham County
Williston	Chittenden County
Wilmington	Windham County
Windham	Windham County
Windsor	Windsor County
Winhall	Bennington County
Winooski	Chittenden County
Wolcott	Lamville County
Woodbury	Washington County
Woodford	Bennington County
Woodstock	Windsor County
Worcester	Washington County

See MMSE data set

Cognitive Function: MMSE WORLD Scoring Protocol

- A. The official total score for the MMSE (i.e. the scores used for statistical analyses) are computer generated. Examiners record individual test item scores on the MMSE test form. The one exception is "WORLD" where examiners record the response of subjects in the exact order that it is given by the subject.
- B. If a participant has an evident cognitive impairment and the MMSE must be scored to determine if the participants consent should be waived, then "WORLD" will need a score.
- C. In order to score world, a staff member must use the master sheet listing all of the possible word combinations with the points for each spelling.

See MMSE data set

```
/*PROGRAM CREATED BY [REDACTED] AND [REDACTED] MODIFIED 05/21/04
   modified version of the program from [REDACTED] it is for examCYCLE#*/

/*program masterworld.sas*/
/*purpose: for scoring "WORLD" at a particular exam cycle "CYCLE#"*/
/*to use this program - copy this program, replace CYCLE# = exam cycle number*/
/*you must create a data set from the minimal exam (either clean from
/fram/data or unclean from exam tables, prior to running this program*/
/*call the incoming exam data set examCYCLE#*/

/*DO NOT MAKE CHANGES TO THIS MASTER PROGRAM
   COPY THIS PROGRAM TO A PROGRAM CALLED WORLDCYCLE#.sas,
   where the cycle# is the number of the exam cycle you are working with*/

libname in '.';
libname out '.';
libname fram '/fram/data';

options nocenter ls = 80 ps=59;

/*take in world variable from examCYCLE# data*/
/*pad spaces with # to make data fit program*/
/*replace g485 with appropriate variable for cycle*/

data change; set fram.examCYCLE#;
if g485 = "-1" then g485 = " "; *update;
if g485 = "0" then g485 = " ";
if g485 = "6" then g485 = " ";
if g485 = "66666" then g485 = " ";
if g485 = "9" then g485 = " ";
if g485 = "99999" then g485 = " ";
if g485 = "blank" then g485 = " ";

data pad; length g485 $5; set change;
keep id g485;
g485=translate(g485,"#"," ","#####", "####.");

data name; set pad;
rw_worCYCLE# = lowercase(g485); *update;

/*FROM MASTER PROGRAM FOR SCORING WORLD*/
data scoreCYCLE#; set name; *update;

   /*****5 points*****/

if rw_worCYCLE# in ('dlrow', 'd;rpw') then worldCYCLE#=5; *update;

   /*****4 points*****/

else if rw_worCYCLE# in
('d#row', 'dl#ow', 'dlow#', 'dlowr', 'dlr#w', 'dlro#', 'dlrod',
'dlroe', 'dlrof', 'dlrol', 'dlrw#', 'dlrwo', 'dluow', 'dorow', 'drow#',
'lrow#', 'dldow', 'dloow', 'dlror', 'dlros', 'drrow', 'dwrow', 'dllow',
'dlrou', 'dltow', 'drowl', 'lrowd', 'dlrdw', 'dlowf', 'dloww', 'dlrlw',
'dllro', 'dlraw', 'dliow', 'slrow', 'dlaow', 'dlowa', 'dlowd',
'rlrow', 'dlvow', 'dlroo', 'dlowo', 'dlowl', 'dl-ow', 'tlrow')
then worldCYCLE#=4; *update;
```

see MMSE data set

```

/*****3 points*****/
else if rw_worCYCLE# in
  ('#dlow', '#dlrw', '#lrow', '#rowl', 'dl##w', 'dl#ol', 'dlaw#', 'dld#w',
  'dlerw', 'dlo##', 'dlo#w', 'dloa#', 'dloaw', 'dlolo', 'dlorw', 'dlot#',
  'dlouw', 'dlr##', 'dlw##', 'dlwo#', 'dlwod', 'dlwor', 'dlwro', 'dolow',
  'dorod', 'dow##', 'dowl#', 'dowr#', 'dr#ow', 'dr#w#', 'drlow', 'dro##',
  'drol', 'drolw', 'drorl', 'drorw', 'dros#', 'drwro',
  'dulrw', 'ldrow', 'llow#', 'lrw##', 'dlarw', 'dldr', 'dldw#', 'dleiw',
  'dloh', 'dlold', 'dloiw', 'dloro', 'dlral', 'dlrdl', 'dlwao',
  'dlwol', 'dlwow', 'drdw#', 'dro#d', 'dro#w', 'drol#', 'low##',
  'lro##', 'dlodw', 'dlol#', 'dlrld', 'dluo#', 'dluod', 'dlwo', 'dlwoo',
  'drlw#', 'drouw', 'drw##', 'lrorw', 'dl0#w', 'dla#w', 'delro', 'dlod#',
  'dlod', 'dlore', 'dlurw', 'dlwr', 'drohw', 'ldraw', 'clowr', 'elor#',
  'lrod#', 'dl-lw', 'dlbob', 'doroy', 'drawr', 'elow#', 'lrdwr', 'lrouo',
  'alrod', 'dldou', 'dlrd#', 'dlrf#', 'dluw#', 'dlwr#', 'dowlo', 'drod#',
  'dow#', 'drew#', 'dowld', 'douw#', 'droiw', 'dlrlo', 'dloy#', 'dro-w',
  'olrw#', 'lowrd', 'lowld', 'lorow', 'dulow', 'dlour', 'ddrw#', 'darw#',
  'dlolr', 'dlo-w', 'druow', 'lrolw')
  then worldCYCLE#=3;
  *update;

/*****2 points *****/
else if rw_worCYCLE# in
  ('#lord', 'd#old', 'der##', 'dlord', 'dluro', 'do###', 'dol#w',
  'dolfw', 'dolw#', 'dor##', 'dor#w', 'dorld', 'dorlw', 'dorw#', 'dr##',
  'drl#w', 'dwl##', 'dwo##', 'dwold', 'dworl', 'jrood', 'ldow#', 'ldowr',
  'ldwor', 'llaw#', 'lod##', 'lr###', 'lword', 'lwr##', 'soaow', 'd-o-#',
  'd-o-l', 'd-r-l', 'd-r-o', 'd-w-o', 'dl###', 'dlaro', 'dlorg', 'do##w',
  'do#w#', 'dol##', 'dold#', 'dolro', 'dolwd', 'dor#l', 'dord#', 'dorl#',
  'drl##', 'duorw', 'dwrld', 'lerod', 'lo#w#', 'now_i', 'oww##', 'rod##',
  'd###w', 'dly##', 'drlld#', 'dw###', 'dwrol', 'elw##', 'ldrol', 'ldrw#',
  'lw###', 'd-l-r', 'd-lr-', 'd_l_r', 'lro#w', 'd#r##', 'd#w##',
  'dla##', 'dldr#', 'dolor', 'dolor#', 'dwlro', 'dwor#', 'dworw', 'dwow#',
  'rolow', 'darlw', 'dlorh', 'draof', 'drlod', 'dwolw', 'dwr##', 'dwro#',
  'elhw#', 'dlld#', 'doold', 'doldo', 'dwlor', 'ealow', 'iow##', 'lorw#',
  'dlor#', 'dlorl', 'dolrw', 'dolod', 'dool#', 'doul#', 'drlrw', 'dwol#',
  'elorw', 'ldro#', 'lold#', 'lorwd', 'dlndr', 'dalw#', 'daw##', 'dplw#',
  'dldlo', 'driow', 'docb#', 'dwrld', 'edrol', 'wlrd', 'rolw#', 'roldw',
  'owold', 'lduow', 'duolw', 'dolrl', 'dolhw', 'doldw', 'dluor', 'dllor',
  'dle##', 'dlc##', 'dbla', 'loaw#', 'dlorb', 'drd##')
  then worldCYCLE#=2;
  *update;

/*****1 point*****/
else if rw_worCYCLE# in
  ('d###', 'daeni', 'dole#', 'dolm#', 'dolrd', 'ldo#w', 'ldorw', 'lordw',
  'odo#w', 'orldw', 'wod##', 'world', 'wrold', 'odnom', 'wlo#w', 'd#-r-',
  'd-l-o', 'l####', 'ldouw', 'lno#w', 'lord#', 'rdo##', 'sro#w', 'wlrod',
  'htor#', 'norlw', 'wol##', 'word#', 'wlrow', 'd_l_o', 'dna##', 'ld###',
  'ler##', 'old##', 'rdl##', 'wload', 'worl#', 'wsic#', 'dile#', 'ldolo',
  'rld##', 'warld', 'dolwr', 'w####', 'wlord', 'dorli', 'dylor', 'ldw##',
  'odw##', 'wl###', 'worar', 'odn##', 'drlor', 'drlro', 'ldok#', 'to###',
  'dlon#', 'dwal#', 'wlor#', 'rdld#', 'wyde#', 'wld##', 'wrroc', 'wr###',
  'wlrol', 'rldwo', 'dwld#', 'dalyo')
  then worldCYCLE#=1;
  *update;

/*****0 points*****/
else if rw_worCYCLE# in ('ldorl', 'ldor#', 'wold#', 'smmp#', 'ord##', '#####',
  'gorl#', '24ing', 'worlc', 'wolmd', 'worlt', 'wolc#', 'ole##')
  *update;
```

see MMSE data set

```
        then worldCYCLE#=0;                                *update;

else worldCYCLE#=. ;                                     *update;

/*    removed so no unscored fall through
if rw_worCYCLE# in ('""###', '#-#-#', 'no_tr') then worldCYCLE# = . ; *update;
*/

data score0 score1 score2 score3 score4 score5 unscored problem;
  set scoreCYCLE#;
if worldCYCLE#=0 then output score0;                    *update;
else if worldCYCLE#=1 then output score1;                *update;
else if worldCYCLE#=2 then output score2;                *update;
else if worldCYCLE#=3 then output score3;                *update;
else if worldCYCLE#=4 then output score4;                *update;
else if worldCYCLE#=5 then output score5;                *update;
else if worldCYCLE#=. then output unscored;              *update;
else output problem;

title2 'worldCYCLE# score from karens modified program, score=5'; *update;
proc freq data=score5; table rw_worCYCLE#; run;          *update;

title2 'worldCYCLE# score from karens modified program, score=4'; *update;
proc freq data=score4; table rw_worCYCLE#; run;          *update;

title2 'worldCYCLE# score from karens modified program, score=3'; *update;
proc freq data=score3; table rw_worCYCLE#; run;          *update;

title2 'worldCYCLE# score from karens modified program, score=2'; *update;
proc freq data=score2; table rw_worCYCLE#; run;          *update;

title2 'worldCYCLE# score from karens modified program, score=1'; *update;
proc freq data=score1; table rw_worCYCLE#; run;          *update;

title2 'worldCYCLE# score from karens modified program, score=0'; *update;
proc freq data=score0; table rw_worCYCLE#; run;          *update;

                                                                    *update;
title2 'worldCYCLE# score form karens modified program, not scored or missing';
proc freq data=unscored; table rw_worCYCLE#; run;
*update;
title 'CK FREQS AND RERUN 04/13/04 ALL ARE NOW SCORED - NO PRINTOUT EXPECTED';

data chcase; set scoreCYCLE#;                            *update;
rw_worCYCLE#=upcase(rw_worCYCLE#);                       *update;

data out.worldCYCLE#; set chcase;                         *update;
keep id worldCYCLE# rw_worCYCLE#;                        *update;
proc sort; by id;
```