

HRS 2022 Production
SECTION I: PHYSICAL MEASURES AND BIOMARKERS

[List of changes ...](#)

Changes made in previous waves please see relevant specs.

6/28/2022	GH	Initial 2022 version
8/19/2021	JF	Dropped unused questions
8/19/2021	GH	Saliva instructions. Order of walking speed and H/W/W
12/7/2021	GH/JF	Post-pretest edits, breathing video
2/24/2022	GH	Updated saliva barcode character limits
3/29/2022	KAD	Updated saliva barcode questions to match last minute production changes.

TABLE OF CONTENTS

List of changes	1
TABLE OF CONTENTS.....	2
PREFACING NOTES TO THIS SPECIFICATION	34
KNOWN ISSUES WITH SPECIFICATION [WILL BE REMOVED AS RESOLVED]	34
EXISTING SECTION I BUGLOG.....	34
PARAMETERS FOR SECTIONS I AND I2 (Provided by Rhonda Ash)	34
GLOBAL LEGEND	45
SECTION I FLOW	56
SECTION I SPECIFICATION	67
INTRODUCTION.....	67
CONSENT-ADMINISTRATION (PHYSICAL MEASURES)	67
SECTION I ELIGIBILITY RULES.....	89
BLOOD PRESSURE INTRODUCTION	910
HEARING TEST INTRODUCTION	2021
BREATHING INTRODUCTION	2728
HAND-STRENGTH INTRODUCTION.....	3233
SEMI-TANDEM INTRODUCTION	4243
SIDE-BY-SIDE INTRODUCTION	4647
FULL-TANDEM INTRODUCTION	4950
HEIGHT/WEIGHT/WAIST/WALK PREFACE.....	5253
HEIGHT INTRODUCTION.....	5253
WEIGHT INTRODUCTION.....	5354
WAIST INTRODUCTION	5354
WALKING SPEED INTRODUCTION	5657
SALIVA INTRODUCTION.....	5960
H/W/W DATA-ENTRY MODULE.....	7071
HEIGHT DATA-ENTRY	7172
WEIGHT DATA-ENTRY	7374
WAIST DATA-ENTRY	7576

PREFACING NOTES TO THIS SPECIFICATION

- New screens (for example, interviewer instructions split into multiple screens) will be given placeholder variable names, to be updated once this document is complete and a full count of new variables is known.
 - Example placeholder: I[XXX]_SalInstScr3
- Current media (images and video) will be placed in the following folder:
 - L:\projects\HRS2014\8 - CAI programming and systems\Technical initiatives for 2014\PM and Bio data collection\Specification\Blaise Media\Final_(Copies)

KNOWN ISSUES WITH SPECIFICATION [WILL BE REMOVED AS RESOLVED]

- Ian did NOT use HRS 2012 field descriptors in the specification document. The field descriptor for each existing (post-V800/I800) variable will need to be corrected.
 - As of 10/01/2013, these incorrect descriptors have been struck through; however, they have not been replaced with the actual existing descriptors.
- (12/23/2013) – New progress-headers have not been added to spec

EXISTING SECTION I BUGLOG

\\SRC-Douvan\SRO\projects\HRS2016\08_CAI Programming and Questionnaire Development\PMBio_Section_I\SecI-Specific_Buglog_2016.xlsx

This documents all known bugs with Section I, and includes each item's priority, date-entered, status, etc.

PARAMETERS FOR SECTIONS I AND I2 (Provided by Rhonda Ash)

I

SecI (RTab[1].X090_PrefMode_V ,
SecA.Relations.A028_RlnNHome,
SecA.ContinulInterview.A019_RAge,
SecC.Weigh.C139_
Rvars.Z258_PWSalivaValid)

I2

SecI2 (RTab[1].X090_PrefMode_V ,
SecA.ContinulInterview.A019_RAge,
SecC.Weigh.C139_
SecI.V800_FTF,
SecI.V802_Pmconsent,
SecI.V913_SalivaConsent,
)

Other Parameters

SecC.Weigh.C141_
SecC.Weigh.C142_
C102_

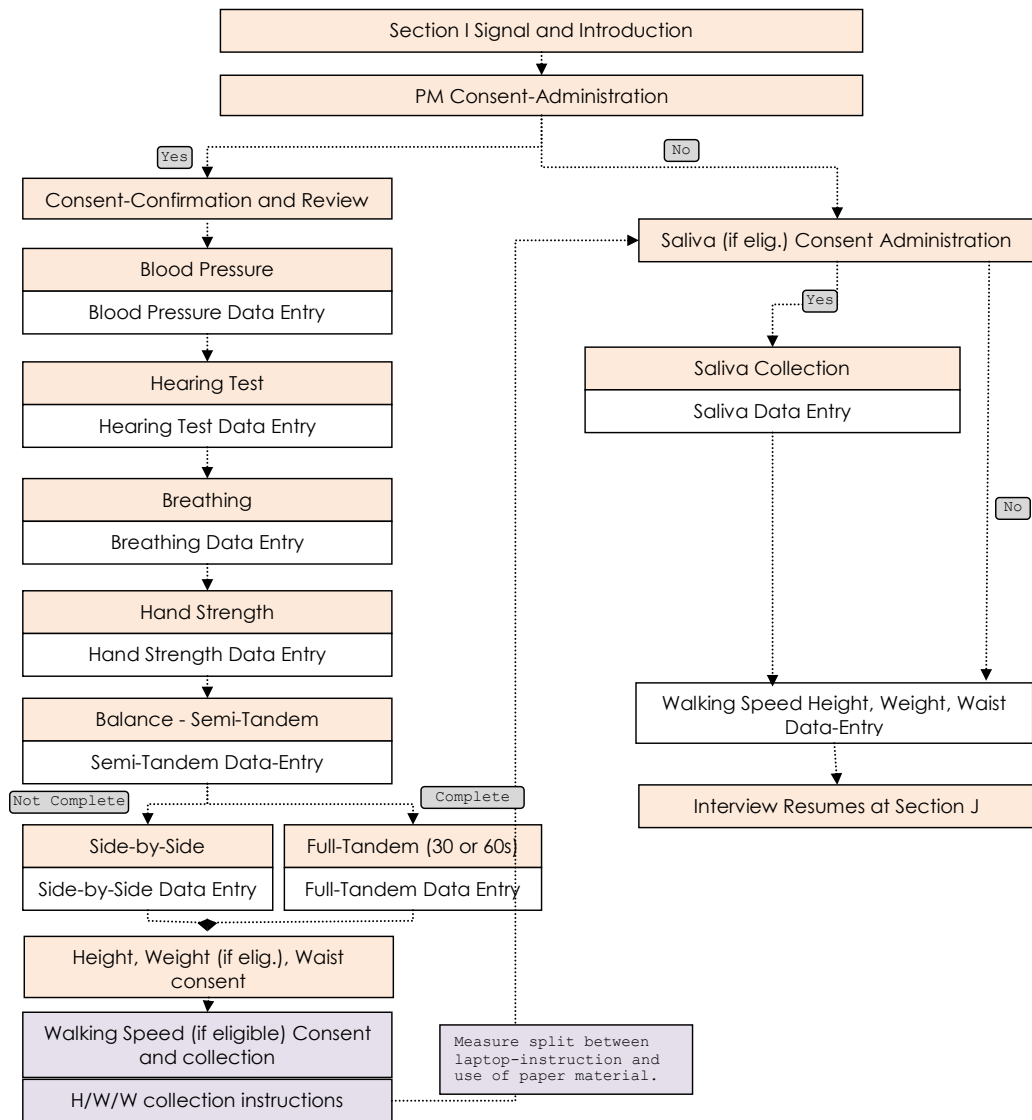
Updated ~~03/31/2022~~~~03/31/2022~~~~03/29/2022~~

3/78

GLOBAL LEGEND

Burgundy Text	Notes to programmer
Blue Text	Interviewer instructions
Black Text, Left Justified	Interviewer script
Black Text, Indented	Response options and skip patterns

SECTION I FLOW



SECTION I SPECIFICATION

INTRODUCTION

SecI.V800_FTF
I800_FTF

ENTER CURRENT MODE OF INTERVIEW
TELEPHONE.....1
FACE-TO-FACE.....2

PROGRAMMING: V800 skip logic

IF
 V800=2 AND
 X090 PrefMode_V=3(ENHANCED-FTF) AND
 A007T=1 (R is living) AND
 A009=1 (self-R) AND
 A028 != 1,
THEN
 1 -> V846_testnumber
ELSE
 5 -> Go to V845.

SecI.V846_testnumber

I846_testnumber

Now I am going to ask you to do a few simple activities for me. Researchers are interested in how performance on these activities relates to some of the other ~~factors~~-things I have asked you about in the interview.

I will ask you to do these activities: a hearing test, a breathing test, a test of hand strength, [piSecAContinutInterviewA019_RAge >= 65: a walking test, / [empty]], a balance test, and blood pressure, height, [SecC.Weigh.C139_ < 300: weight/ [empty]], and waist measurements.

My primary concern is for your safety, so I will ask you if you feel it would be safe for you to complete each activity. If you have any concerns about the activity, please let me know and we will skip it.

Please do not eat, drink, smoke, or brush your teeth while we are conducting the measurements. I will also be asking you to remove bulky clothing and to take off your shoes during some of the measurements.

Continue.....1

CONSENT-ADMINISTRATION (PHYSICAL MEASURES)

SecI.I600_PmconsentIntro

I600_PmconsentIntro

Before we begin, I'd like to have you read and sign a form explaining your rights as a participant in this part of the study.

- If R refuses to view or sign the consent form, enter [Ctrl]+[R].
- Otherwise, select the [Launch consent form] button below to administer the consent form.

Updated ~~03/31/2022~~03/31/202203/29/2022

6/78

- While the R is reviewing the form, sign a paper copy which can be left with them for their records.
- Once the consent process is completed, enter [1] to continue.

/*PM Consent Introduction*

Ready to continue – consent process has been completed.....1 [PROGRAMMING: Launch consent form]

REF → Go to V954_WhyNoConsentPhysMeas

CONSENT-ADMINISTRATION DETAIL

As described in the “Summary of Areas Needing Substantial Programming/Innovation” section, we need to develop an on-the-spot QC protocol to ensure that the physical measures consent form has been:

1. Opened
2. Saved
3. Completed correctly

All of these steps must be completed before the interviewer is able to proceed. A technical impasse should be created if items 1 and 2 are not completed. Item 3 may be handled by a technical check (Option 1 below) or by interviewer review (Option 2 below).

Option 1 – Required Fields in Form (Machine-Check)

Some type of PDF or form document which requires completion of the following fields:

1. Print Name
2. R Sign
3. R Date
4. Iwer Sign
5. Iwer Date

Option 1 would not require any additional screens – the technical-check would take place in the background. If missing fields are found, the interviewer should see a prompt such as “[FIELD] is empty” in form; press [1] to re-open” (or similar). Once no errors are found, the interviewer should be asked V802_Pmconsent as usual.

However, if Option 1 is accepted, we would need a way to override the required fields if an R is not willing to consent.

Sec1.V802_Pmconsent

I802_PmconsentIntro

Did R sign the physical measures consent form?

If no, please return to the previous question by selecting [Ctrl] + [Up] and re-launch the consent form.

Yes.....1 → Go to BP_Intro

No.....5 → Go to I954_WhyNoConsentPhysMeas

Attributes: NO DK, NO RF

Note KAD has added three constructed variables to the instrument here:

I690_AskPMConsent

/ "Flag determining when to Ask Physical Measures Consent": 0..1, NODK, NORF

Updated ~~03/31/2022~~03/31/202203/29/2022

7/78

I691_PMConsentComplete

/ "Physical Measures Consent Complete": 0..9, NODK, NORF

I692_PMConsentFormName

/ "Physical Measures Consent Form Name": STRING[30], NODK, NORF

V954_WhyNoConsentPhysMeas

I954_WhyNoConsentPhysMeas¹

Why didn't R sign the physical measures consent form? (Enter all that apply)

R felt it would not be safe.....1 → Go to Salcsnt
Iwer felt it would not be safe.....2 → Go to Salcsnt
R refused or was not willing to complete the measurements.....3 → Go to Salcsnt
R could not complete the measurement due to health reasons.....6 → Go to Salcsnt
No suitable space.....7 → Go to Salcsnt
Other97 →

SECTION I ELIGIBILITY RULES

Secl.V803_eligible

I803_eligible

PHYSICAL MEASURES AND BIOMARKERS ELIGIBILITY

This respondent is eligible for these measurements unless noted otherwise:

@/ blood pressure
@/ hearing test
@/ breathing
@/ hand strength
@/ balance tests (with ^FLV803TanStand second full-tandem)
@/ walking test ^flv803
@/ height
@/ weight ^FLweight
@/ waist
@/ saliva ^FLsaliva

On the front cover of the Walking-Height-Weight-Waist-Administration Booklet, mark whether the respondent is eligible to complete the walking test and weight measurement.

The booklet may then be set aside until needed during the walking speed test.

Continue.....1

PROGRAMMING: ELIGIBILITY-LOGICS (as provided by Rhonda Ash; see Parameters section for parameters)

Balance Tests FLV803TanStand

¹ This variable is at the end of the PhysMeas section and before the Saliva section in the Blaise instrument.

based on age:

```
IF piSecAContinuInterviewA019_RAge >= 70 THEN
  FLV803TanStand := '30'
ELSEIF piSecAContinuInterviewA019_RAge < 70 THEN
  FLV803TanStand := '60'
ENDIF
```

Walking Test ^flv803

is eligible IF piSecAContinuInterviewA019_RAge >= 65

Weight ^FLweight

is eligible IF piSecCWeighC139_ < 300

Saliva ^FLsaliva

is eligible IF piRvarsZ258_PWSalivaValid = no OR piRvarsZ258_PWSalivaValid = EMPTY

BLOOD PRESSURE INTRODUCTION

(5/16/2014) Revised Emergency blood pressure protocol (in English): If any 2 of the 3 systolic blood pressure readings are >=210 OR if any 2 of the 3 diastolic blood pressure readings are >=120, a new question will display (after the appropriate pulse entry) which prompts the interviewer to notify the R, asking whether the R feels well enough to continue.

Regardless of whether the interview will be suspended or continued, the interviewer will be prompted to record the R's results for them, then complete the two observations questions. If the R has opted to suspend, a new question will appear following the obs to direct the interviewer to suspend at the appropriate point.

SecI.V[XXX]_BPIntro

I601_BP_Intro

Equipment needed: [Omron BP 760N Monitor](#), [Batteries or AC Adapter](#), [Health Assessment Pamphlet](#), [Stopwatch](#)

I'd like to measure your blood pressure using a monitor and cuff which I will secure around your left arm. I will ask you to relax and remain seated and quiet during the measurements.

/*Blood Pressure Introduction*

Continue.....1

SecI.V[XXX]_BPDemo

I602_BP_Demo

BLOOD PRESSURE MEASUREMENT

Demonstration: [Use your left arm to demonstrate](#)

First, I will place the cuff on your left arm approximately one half inch above the elbow.

I will ask you to:

- Sit comfortably with your feet flat on the floor

Updated [03/31/202203/31/202203/29/2022](#)

9/78

- Lay your arm on a flat surface
- Palm facing up
- With the center of your upper arm at the same height as your heart.

I will then press the Start button. The cuff will inflate and deflate.

After we have completed three measures, I will give you your results.

/*Blood Pressure Demonstration*

Continue.....1

SecI.V[XXX]_BPRashL

I662_BP_Rash_L [PROGRAMMING: Please assign a new variable name from 600-series]

Do you have a rash, a cast, edema (swelling) in the arm, open sores or wounds, or a significant bruise where the blood pressure cuff will be in contact on your left arm?

/*BP Screening Question, Left Arm*

YES.....1 -> Go to BPRashR

NO.....5 -> Go to BPDIR

Attributes: NO DK, NO RF

SecI.V[XXX]_BPRashR

I663_BP_Rash_R [PROGRAMMING: Please assign a new variable name from 600-series]

Do you have a rash, a cast, edema (swelling) in the arm, open sores or wounds, or a significant bruise where the blood pressure cuff will be in contact on your right arm?

/*BP Screening Question, Right Arm*

YES.....1 -> Go to V855

NO.....5 -> Go to BPDIR

Attributes: NO DK, NO RF

PROGRAMMING: BP_Rash_L and BP_Rash_R are new variables. Please create a temporary variable which will pass a value to I960 (the previous variable which covered this eligibility question) –

If

BP_Rash_L = 1 OR BP_Rash_R = 1, I960 = 1

ELSE

I960 = 5

SecI.V[XXX]_BPDIR

I961_BP_DIR

Do you understand these directions and feel it would be safe for you to do this measurement?

Updated [03/31/202203/31/202203/29/2022](#)

10/78

/*Blood Pressure Safety Question*

YES.....1 -> Go to I603_BP_Instruct

NO.....5 -> Go to V855

Attributes: NO DK, NO RF

SecI.V[XXX]_BPISTRCT
I603_BP_Instruct

BLOOD PRESSURE MEASUREMENT

Setup Checklist:

- 1) Bulky clothing removed from upper arm.
 - 2) R sitting, feet flat on the floor. Legs not crossed, arm on surface.
 - 3) Cuff placed ½ inch above the elbow with pneumatic tube centered in middle of arm (as shown in diagram printed on cuff).
 - 4) Palm facing upward; cuff at the level of the heart.
 - 5) Cuff secured (Sewn hook material pressed firmly against the cuff; cuff makes direct contact with the R's skin if possible. You can fit your index and middle fingers between the cuff and the arm).
 - 6) R instructed to rest their arm comfortably in position.
 - 7) Monitor body positioned so that readings are not visible to the respondent.
- ◆ Enter [1] to continue

/*BP Setup Instructions to Interviewer

Continue.....1

PROGRAMMING: Display bp_triptych.jpg (250 x 585 px) **[Updated 11/12/2015]** to the right of these instructions.

\\SRC-Douvan\SRO\projects\HRS2016\08_CAI Programming and Questionnaire Development\PMBio_Section_I\Blaise Media\bp_triptych.jpg



Sec12.V857_BloodPressure1_Time
I857_BloodPressure1_time

BLOOD PRESSURE MEASUREMENT

- ◆ Instruct the R to remain still.
- ◆ Press the START/STOP button and record measurements

First Reading – TIME of reading

□□:□□ AM/PM

Attributes: Time should not auto-fill (to prevent inaccurate times-of-measurement for interviewers on travel-status).
Standard 12-hour time-entry; hours 01-12, minutes 00-59.

Sec12.V859_BloodPressure1_Systolic
I859_BloodPressure1_Systolic

BLOOD PRESSURE MEASUREMENT

First Reading – SYSTOLIC

- ◆ Enter 993 if R tried but was unable to do it or if an unresolvable equipment problem occurs.
- ◆ Enter 999 if R chose not to do it.

Programming: If V859 = {993 or 999}, skip to V854.

Attributes: Integer with 3 column width. Acceptable values 50-250, 993, 999. Soft Check:

If interviewer enters value outside of this range--

"You have entered a value that is outside of the acceptable range. Please check your entry before proceeding."

SecI2.V860_BloodPressure1_DIASTOLIC

I860_BloodPressure1_Diastolic

BLOOD PRESSURE MEASUREMENT

First Reading – DIASTOLIC

Attributes: Integer with 3 column width. Acceptable values 30-140. Soft Check: If interviewer enters value outside of this range--

"You have entered a value that is outside of the acceptable range. Please check your entry before proceeding."

SecI2.V861_BloodPressure1_Pulse

I861_BloodPressure1_Pulse

BLOOD PRESSURE MEASUREMENT

First Reading – PULSE

Attributes: Integer with 3 column width. Acceptable values 30-200. Soft Check: If interviewer enters value outside of this range--

"You have entered a value that is outside of the acceptable range. Please check your entry before proceeding."

PROGRAMMING: Per HRS on 9/18, we are clear to begin a 30-second timer after entry of pulse measurement in lieu of ensuring 45-seconds elapse between blood pressure measurements. This presumes that entry of time, systolic, diastolic and pulse data will take approximately 15 seconds.

SecI.V[XXX]_BPTimer1-2

I604_BP_Timer_2

BLOOD PRESSURE MEASUREMENT

Enter [1] to continue upon completion of countdown.

Before proceeding, check the Respondent's position to ensure:
they are sitting comfortably with their feet flat on the floor
their palm is facing up

Updated ~~03/31/2022~~03/31/202203/29/2022

13/78

the center of their upper arm is at the same height as their heart

Please do not comment on the respondent's results between measurements. You may let the R know that you will share their readings once all three have been taken.

/*Timer Pacing Second Blood Pressure Measure*

Continue.....1

PROGRAMMING: This is a new variable/new screen.

Display *Timer.wmv*. Interviewer should, by default, be unable to proceed until this timer video has completed. If possible, the interviewer should be able to bypass this impasse, if needed.

Sec12.V862_BloodPressure2_Time
I862_BloodPressure2_Time

BLOOD PRESSURE MEASUREMENT

Ensure that you've allowed 3045 seconds to elapse since first measurement.

Second Reading – TIME of reading

□□:□□ AM/PM

Attributes: Time should not auto-fill. Standard 12-hour time-entry; hours 01-12, minutes 00-59

Sec12.V864_BloodPressure2_Systolic
I864_BloodPressure2_Systolic

BLOOD PRESSURE MEASUREMENT

Second Reading – SYSTOLIC

- ◆ Enter 993 if R tried but was unable to do it or if an unresolvable equipment problem occurs.
- ◆ Enter 999 if R chose not to do it.

Programming: If V864= {993 or 999}, skip to I963.

Attributes: Integer with 3 column width. Acceptable values 50-250, 993, 999. Soft Check:
If interviewer enters value outside of this range--
"You have entered a value that is outside of the acceptable range. Please check your entry before proceeding."

Sec12.V865_BloodPressure2_DIASTOLIC
I865_BloodPressure2_Diastolic

BLOOD PRESSURE MEASUREMENT

Updated 03/31/202203/31/202203/29/2022

14/78

Second Reading – DIASTOLIC

Attributes: Integer with 3 column width. Acceptable values 0-140. Soft Check: If interviewer enters value outside of this range--

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

Sec12.V866_BloodPressure2_Pulse
I866_BloodPressure2_Pulse

BLOOD PRESSURE

Second Reading – PULSE

Attributes: Integer with 3 column width. Acceptable values 30-200. Soft Check: If interviewer enters value outside of this range--

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

Emergency BP Protocol Checkpoint:

After I866 has been completed -

If

I859 >= 210 AND I864 >= 210
OR
I860 >= 120 AND I865 >= 120

Then

Skip to **I668_BP_HypCrS**

Else

Go to **I605**

Sec1.V[XXX]_BPTimer2-3
I605_BP_Timer_3

BLOOD PRESSURE MEASUREMENT

Enter [1] to continue upon completion of countdown.

Before proceeding, check the Respondent's position to ensure:

- ♦ they are sitting comfortably with their feet flat on the floor
- ♦ their palm is facing up
- ♦ the center of their upper arm is at the same height as their heart

Please do not comment on the respondent's results between measurements. You may let the R know that you will share their readings once all three have been taken.

/*Timer Pacing Third Blood Pressure Measure*

Updated ~~03/31/2022~~03/31/2022~~03/29/2022~~

15/78

Continue.....1

PROGRAMMING: This is a new variable/new screen.

Display *Timer.wmv*. Interviewer should, by default, be unable to proceed until this timer video has completed. If possible, the interviewer should be able to bypass this impasse, if needed.

Sec12.V867_BloodPressure3_Time
I867_BloodPressure3_Time

BLOOD PRESSURE MEASUREMENT

Third Reading – TIME of reading

□□:□□ AM/PM

Attributes: Time should not auto-fill. Standard 12-hour time-entry; hours 01-12, minutes 00-59

Sec12.V869_BloodPressure3_Systolic
I869_BloodPressure3_Systolic
BLOOD PRESSURE MEASUREMENT

Third Reading – SYSTOLIC

- ◆ Enter 993 if R tried but was unable to do it or if an unresolvable equipment problem occurs.
- ◆ Enter 999 if R chose not to do it.

Programming: If V869= {993 or 999}, skip to I963.

Attributes: Integer with 3 column width. Acceptable values 50-250, 993, 999. Soft Check:
If interviewer enters value outside of this range--
"You have entered a value that is outside of the acceptable range. Please check your entry before proceeding."

Sec12.V870_BloodPressure3_DIASTOLIC
I870_BloodPressure3_Diastolic
BLOOD PRESSURE MEASUREMENT

Third Reading – DIASTOLIC

Attributes: Integer with 3 column width. Acceptable values 0-140. Soft Check: If interviewer enters value outside of this range--
"You have entered a value that is outside of the acceptable range. Please check your entry before proceeding."

Sec12.V871_BloodPressure3_Pulse
I871_BloodPressure3_Pulse
BLOOD PRESSURE MEASUREMENT

Updated [03/31/2022](#)~~03/31/2022~~~~03/29/2022~~

16/78

Third Reading –PULSE

Attributes: Integer with 3 column width. Acceptable values 30-200. Soft Check: If interviewer enters value outside of this range--

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

Emergency BP Protocol Checkpoint:

After I871 has been completed -

If

I859 >= 210 AND I869 >= 210
OR
I864 >= 210 AND I869 >= 210
OR
I860 >= 120 AND I870 >= 120
OR
I865 >= 120 AND I870 >= 120

Then

Skip to I668_BP_HypCrS

Else

Skip to I963_BP_Card

SecI.I668_BP_HypCrS

This respondent's blood pressure is severely high. Please read the following to determine whether the respondent feels comfortable continuing the interview.

According to our measurements, your blood pressure today is severely high.

If you are not feeling well, a doctor might recommend that you seek medical care to evaluate your high blood pressure.

Do you feel well enough to continue the interview or would you like to stop and continue at a later date?

- ♦ ~~Note:~~ Even if the R prefers to stop the interview, you must answer this question. You will be prompted to provide the R's results and complete the BP observations before suspending.

/*Emergency Blood Pressure Protocol*/

R feels well enough to continue.....1

R prefers to stop the interview.....5

All skip to I963

SecI.V[XXX]_BPResCard

I963_BP_Card

Record the respondent's measurements on the inside cover of the Health Assessment Pamphlet.

Updated [03/31/202203/31/202203/29/2022](#)

17/78

Give the pamphlet to the respondent.

Measure	Time	Systolic	Diastolic	Pulse
1	I857	I859	I860	I861
2	I862	I864	I865	I866
3	I867	I869	I870	I871

[Because these readings fall outside what national organizations consider normal, refer the respondent to the recommendation in the pamphlet about seeing a physician to have their blood pressure checked again]

/*Provide Blood Pressure Results to R*

Continue.....1

PROGRAMMING: This is a new variable/screen. Display all of the respondent's recorded blood pressure measures in a simple table for the interviewer's reference:

If **all 12 data-entry fields for blood-pressure** do not contain what appears to be valid, measured data (that is, all 12 fields contain either 993, 999, DK or RF), this prompt should be skipped.

Any "993", DK, RF or "999" values should appear on this table as missing (blank).

The bracketed text above should be displayed if:

1. Lowest measurement among V859, V864 and V869 (Systolic) is greater than 160 OR
2. Lowest measurement among V860, V865 and V870 (Diastolic) is greater than 100.

Sec12.V854_BloodPressureComplete

I854_BloodPressureComplete

BLOOD PRESSURE MEASUREMENT

Did R complete at least one blood pressure measurement?

YES.....1 -> Go to **V872**

NO.....5 -> Go to V855

Programming: We are clear to auto-fill this question, if possible:

Auto-Fill as 1 and Do Not Display to Iwer

If any one set of four BP fields (for example, V857, V859, V860 and V861) has a non-993/999/DK/RF value within each field's acceptable range.

Auto-Fill as 5 and Do Not Display to Iwer

If I859= (993 or 999) and no other BP fields contain valid, measured data (I860, I861, I864, I865, I866, I869, I870, I871 are all empty).

Display to Interviewer for Completion as Usual

If one of the above two conditions are not specifically met

Updated 03/31/2022~~03/31/2022~~03/29/2022

18/78

Sec12.V872_BloodPressureArm
I872_BloodPressureArm
BLOOD PRESSURE MEASUREMENT

Which arm was used to conduct the measurements?

Left arm.....1
Right arm.....2

Sec12.V874_BloodPressurePosition
I874_BloodPressurePosition
BLOOD PRESSURE MEASUREMENT

What was R's position for this test?

Standing.....1
Sitting.....2
Lying down.....3

PROGRAMMING:

If
 I668 = 5
Then
 Go to **I669**
Else
 Skip to **BRIntro**

I669_BP_HypCrS_Susp

Please suspend the interview at this time.

PROGRAMMING: All skip to **BRIntro**

Sec12.V855_BloodPressureWhyNotComplete_
I855_BPWhyNotComplete
BLOOD PRESSURE MEASUREMENT

Why didn't R complete the blood pressure measurement? (Enter all that apply)

R felt it would not be safe.....1 -> Go to BRIntro
IWER felt it would not be safe.....2 -> Go to BRIntro
R refused or was not willing to complete the test.....3 -> Go to BRIntro
R tried but was unable to complete test.....4 -> Go to BRIntro
R did not understand the instructions.....5 -> Go to BRIntro
R had a rash, a cast, edema, open sores or wounds, or significant bruise where the blood cuff would contact R's arm.....6 -> Go to BRIntro
No suitable space.....7 -> Go to BRIntro

Updated [03/31/2022](#)~~03/31/2022~~~~03/29/2022~~

Problem with equipment or supplies.....8-> Go to BRIntro
Other97

HEARING TEST INTRODUCTION

Questions to discuss with Piotr/Jessica:

Screening criteria (as implemented by ELSA) to be confirmed with Piotr/Jessica:

- Cochlear implant = SKIP TEST
- Ear infection in either ear = SKIP TEST
- R unwilling to remove hearing aid(s) = SKIP TEST
- R unwilling to remove obstructions to HearCheck instrument (earrings, headwear, glasses, etc.) = INTERVIEWER DISCRETION (expanded instructions to explain correct setup)
- R unwilling/unable to ensure a quiet environment = INTERVIEWER DISCRETION (added an observation question (yes/no))

Other Questions:

1. Siemens - HearCheck instrument should not be cleaned with alcohol
[PD: ADD TO THE MANUAL FOR "CARE AND MAINTENANCE"]
2. Siemens - Factory calibration recommended every three years
[PD: ADD TO THE EQUIPMENT SPECS FOR THE CALIBRATION PERIOD]
3. Siemens - "To determine proper functionality and adequate calibration, an operator with normal hearing (or a person who can hear all six signals) should perform a hearing test on his own ear at least once a day or before the device is used on another person."
 - a. Ask iwer to check this device weekly or every 10 respondents?
 - b. What if interviewer has diminished hearing and cannot hear all six tones?[PD: CAN IWERS TRY THIS AT TRAINING WITH DIFFERENT DEVICES (THEIRS AND THEIR PARTNERS AT TRAINING) TO SEE HOW MANY SOUNDS THEY HEAR – THAT WILL BECOME THEIR PERSONAL BASELINE TO USE FOR CHECKING THE DEVICE DURING THE FIELD PERIOD.
ADD TO THE MANUAL FOR "CARE AND MAINTENANCE"]
4. Siemens - "Do not use the HearCheck Screener near mobile phones or equipment emitting radio waves."
[PD: ADD THIS TO THE INSTRUCTIONS? PD/ITO (8/14): No, we will not include this in the instructions]

Sec1.I670_HrIntro

Equipment needed: HearCheck Device, Disposable Ear Cup

We would like to conduct a brief hearing test.

If necessary: On its own this test can't tell me if there are any problems with your hearing. If you have any concerns about your hearing, please consult your doctor.

/*Hearing Test Introduction*

Continue.....1

SecI.I671_HrDemo

Demonstrate using the HearCheck device:

I will place this device over each of your ears. The device will play a series of tones, and I will ask you to raise your finger each time you hear a sound. Like this:

- ◆ Remove any obstructions from your ears (long hair, glasses, jewelry, etc.)
- ◆ Press device against your ear
- ◆ Explain that you will say “Ready, begin” to begin the test
- ◆ You will ask the R to raise their finger when they hear each sound; demonstrate by lifting your finger 2-3 times

Continue.....1

SecI.I672_HrImplant

Do you have a cochlear implant?

YES.....1 → Go to I685_HrWhyNoComplete

NO.....5 → Go to I673_HrInfection

/*Hearing Test – Cochlear Implant*

Continue.....1

Attributes: No DK, No RF

SecI.I673_HrInfection

Do you have an ear infection in either ear at the moment?

YES.....1 → Go to I685_HrWhyNoComplete

NO.....5 → Go to I946_HrHrAid_Ask

/*Hearing Test – Ear Infection*

Continue.....1

Attributes: No DK, No RF

SecI.I946_HrHrAid_Ask

Programmer: If C102 = 1, then display the following bracketed text:

[In Section C, the respondent reported that they may sometimes wear a hearing aid.]

If necessary: Are you currently wearing a hearing aid in one or both ears?

Updated ~~03/31/2022~~03/31/2022~~03/29/2022~~

21/78

YES.....1 → Go to I674_HrHrAid
NO.....5 → Go to I675_HrDir

/*Hearing Test – Hearing Aid Ask*

Attributes: No DK, No RF

Sec1.I674_HrHrAid

Would you be willing to remove your hearing aid(s) for the purposes of this test?

Respondent should not remove hearing aid(s) until directed in a few moments.

YES.....1 → Go to I675_HrDir
NO.....5 → Go to I685_HrWhyNoComplete

/*Hearing Test – Hearing Aid*

Attributes: No DK, No RF

Sec1.I675_HrDir

Do you understand these directions and feel it would be safe for you to do this measurement?

/*Hearing Safety Question*

YES.....1 → Go to Sec1.I676_HrLInstruct1
NO.....5 → Go to Sec1.I685_HrWhyNoComplete

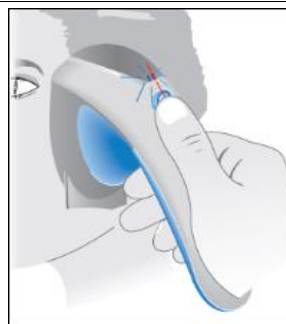
Attributes: NO DK, NO RF

Sec1.I676_HrLInstruct1

- 1) Ask the respondent to ensure both of their ears are free of obstructions that would prevent the ear-cup from fully enclosing the ear (R should remove glasses, earrings, headwear, etc. and pull hair away from ear)
- 2) Ensure the hearing test is being conducted in a quiet environment (no noise from radio, television, pets or other sources)
- 3) Insert a new disposable ear-cup into the HearCheck device

/*Hearing Test Left, Instructions 1*

Continue.....1



PROGRAMMING: Display hr_position.png (274 x 306 px) [Updated 11/13/2015] to the right of these instructions.

\\SRC-Douvan\SRO\projects\HRS2016\08_CAI Programming and Questionnaire Development\PMBio_Section_I\Blaise Media\hr_position.png

SecI.I947_HrInitiate

We will begin the test on your left ear. I will say “Ready, begin” and you will listen for the tones played by the device, raising your finger when you hear a sound.

Please let me know at any point if you feel uncomfortable.

Continue.....1

Programmer: When updating the progress header, please consider this to be “Setup (2 of 2)”

/*Initiation of Hearing Tests*

SecI.I677_HrLInstruct2

LEFT EAR –TESTS 1 AND 2

[F1 – Help]

- 1) Ask the respondent to remove any hearing aid(s) they are currently wearing. Make sure they will be able to see or hear you signaling the start and end of the tests.
- 2) Gently place the cup of the device over the respondent’s left ear
- 3) Say “**Ready, begin.**”
- 4) Press the Start button to initiate test 1 (1000 Hz).
- 5) Count the number of times the respondent raises their finger during test 1.
- 6) Press Start button within 20 seconds to continue with test 2 (3000 Hz).
- 7) Count the number of times the respondent raises their finger during test 2.

Press [F1] if the device turns off between test 1 and test 2.

Programmer: F1 Help Text below

If the device turns off between test 1 and test 2, you will need to remove it from the respondent’s ear, let the first test play, then return the device to the respondent’s ear to begin the second test.

/*Hearing Test Left, Instructions 2*

Continue.....1

SecI.I678_HrLTest1

LEFT EAR – TEST 1, 1000 Hz

Enter the number of times the R raised their finger during test 1 (1000 Hz)

Enter 993 if you were unable to complete this test

Updated ~~03/31/2022~~~~03/31/2022~~~~03/29/2022~~

23/78

Enter 999 if R chose not to do it

Attributes: No DK, No RF, [0-3], 993, 999

Out-of-range signal text should read:

"You have entered a value outside of the range accepted (0-3). If the respondent indicated hearing more than three tones, please record "3" and note this in the hearing test observations."

IF

HrLTest1 = 993 or 999, skip to **I682_HearingTest**

ELSE

Continue

/*Hearing Test Left, Count 1*

SecI.I679_HrLTest2

LEFT EAR – TEST 2, 3000 Hz

Enter the number of times the R raised their finger during test 2 (3000 Hz)

Enter 993 if you were unable to complete this test

Enter 999 if R chose not to do it

Attributes: No DK, No RF, [0-3], 993, 999

Out-of-range signal text should read:

"You have entered a value outside of the range accepted (0-3). If the respondent indicated hearing more than three tones, please record "3" and note this in the hearing test observations."

IF

HrLTest1 = 993 or 999, skip to **I682_HearingTest**

ELSE

Continue

/*Hearing Test Left, Count 2*

SecI.I948_HrRInstruct1

RIGHT EAR – TESTS 1 AND 2

[F1 – Help]

- 1) Move the device to the R's right ear
- 2) Press Start button to start test 1 (1000 Hz) on the right ear
- 3) Count the number of times the respondent raises their finger during test 1
- 4) Press Start button within 20 seconds to continue with test 2 (3000 Hz)
- 5) Count the number of times the respondent raises their finger during test 2

Press [F1] if the device turns off between test 1 and test 2.

Updated 03/31/2022~~03/31/2022~~03/29/2022

24/78

Programmer: F1 Help Text below

If the device turns off between test 1 and test 2, you will need to remove it from the respondent's ear, let the first test play, then return the device to the respondent's ear to begin the second test.

Continue.....1

/*Hearing Test Right, Instructions 1*

Sec1.I680_HrRTest1

RIGHT EAR – TEST 1, 1000 Hz

Enter the number of times the R raised their finger during test 1 (1000 Hz)

Enter 993 if you were unable to complete this test

Enter 999 if R chose not to do it

Attributes: No DK, No RF, [0-3], 993, 999

Out-of-range signal text should read:

"You have entered a value outside of the range accepted (0-3). If the respondent indicated hearing more than three tones, please record "3" and note this in the hearing test observations."

IF

HrLTest1 = 993 or 999, skip to **I682_HearingTest**

ELSE

Continue

/*Hearing Test Left, Count 1*

Sec1.I681_HrRTest2

RIGHT EAR – TEST 2, 3000 Hz

- 1) Enter the number of times the respondent raised their finger during test 2 (3000 Hz)
- 2) Remove the disposable ear cup

Enter 993 if you were unable to complete this test

Enter 999 if R chose not to do it

Attributes: No DK, No RF, [0-3], 993, 999

Out-of-range signal text should read:

"You have entered a value outside of the range accepted (0-3). If the respondent indicated hearing more than three tones, please record "3" and note this in the hearing test observations."

IF

HrLTest1 = 993 or 999, skip to **I682_HearingTest**

Updated [03/31/2022](#)~~03/31/2022~~~~03/29/2022~~

25/78

ELSE

Continue

/*Hearing Test Left, Count 2*

SecI.I682_HearingTest

Did R complete at least one of the four hearing tests?

YES.....1 -> Go to I683_HrProblems

NO.....5 -> Go to I685_HrWhyNoComplete

PROGRAMMING: Auto-fill according to the following criteria:

Auto-Fill as 1 and Do Not Display to Iwer

If

I[XXX]_HrLTest1 = [0-9] OR

I[XXX]_HrLTest2 = [0-9] OR

I[XXX]_HrRTest1 = [0-9] OR

I[XXX]_HrRTest2 = [0-9] then I[XXX]_HearingTest = 1

Auto-Fill as 5 and Do Not Display to Iwer

If

I[XXX]_HrLTest1 = (<blank> or 993 or 999) AND

I[XXX]_HrLTest2 = (<blank> or 993 or 999) AND

I[XXX]_HrRTest1 = (<blank> or 993 or 999) AND

I[XXX]_HrRTest2 = (<blank> or 993 or 999) AND then I[XXX]_HearingTest = 5

Display to Interviewer for Completion

If the above two conditions are not specifically met

SecI.I683_HrProblems

Which of the following occurred during the hearing test?

Select all that apply

None.....1

Background noise interfered with the hearing test.....2

Problem with equipment or supplies.....3

Had to restart the test.....4

Respondent removed obstructions (glasses, earrings, etc.)5

Respondent removed hearing aid.....6

Respondent took action to reduce background noise (turned down television, asked HH members for quiet, etc.)7

Respondent raised their finger more than three times for a single test.....8

Other97 →

Unless otherwise specified, all skip to I606_BrIntro

Updated ~~03/31/2022~~~~03/31/2022~~~~03/29/2022~~

26/78

SecI.I685_HrWhyNoComplete

Why didn't R complete the hearing tests? (Enter all that apply)

R felt it would not be safe.....1→ Go to I606_BR_Intro
IWER felt it would not be safe.....2→ Go to I606_BR_Intro
R refused or was not willing to complete the test.....3→ Go to I606_BR_Intro
R tried but was unable to complete test.....4→ Go to I606_BR_Intro
R did not understand the instructions.....5→ Go to I606_BR_Intro
Background noise prevented execution of the hearing test.....6→ Go to I606_BR_Intro
Problem with equipment or supplies.....8→ Go to I606_BR_Intro
R unwilling to remove glasses, earrings, headwear, etc.....9→ Go to I606_BR_Intro
Other97→

Continue.....1 → Go to I606_BrIntro

BREATHING INTRODUCTION

SecI.V[XXX]_BRIntro
I606_BR_Intro

Equipment needed: Peak flow meter, Disposable mouthpiece packaged in plastic bag, stopwatch

Next I'm going to ask you to perform a test that will measure how fast you can expel air from your lungs. It is important that you blow as hard and as fast as you can. I will ask you to do ~~to do~~ this three times.

/*Breathing Test Introduction*

Continue.....1

SecI.V[XXX]_BRDemo
I607_BR_Demo
Demonstration

In a moment I'll ask you to stand up. Take as deep a breath as possible. Open your mouth and close your lips firmly around the outside of the mouthpiece, and then blow as hard and as fast as you can into the mouthpiece. Like this..."

PROGRAMMING: Please insert a media-player (with controls (inc. full-screen), if possible) which will play the breathing demo video.

Turn screen towards respondent and show demonstration video

- ~~Stand up, holding the meter in both hands~~
- ~~Do not obstruct the sliding gauge~~
- ~~Take a deep breath and then place lips around the outside of the plastic mouthpiece.~~

Updated ~~03/31/2022~~03/31/2022~~03/29/2022~~

27/78

- ~~Blow as hard and as fast as you can.~~
- ~~Remove plastic mouthpiece.~~

/*Breathing Test Demonstration*

Continue.....1

PROGRAMMING: New variable/screen to keep introduction and demonstration distinct.

Show *br_hand-position2.jpg* (400 x 601) at right



SecI.I964_BR_Dir
I964_BR_DIR

Do you understand these directions and feel it would be safe for you to do this measurement?

/*Breathing Test Safety Question*

YES.....1 → Go to BRInstrct_2
NO.....5 → Go to V805

Attributes: NO DK, NO RF

SecI.I608_BR_Instruct2

BREATHING TEST

Updated [03/31/202203/31/202203/29/2022](#)

28/78

Setup Checklist:

- 1) R given the disposable mouthpiece
- 2) R firmly inserted the disposable mouthpiece
- 3) Gauge facing away from R's hand
- 4) R's hands do not obstruct the gauge
- 5) Stopwatch to time 30 seconds between each measurement

Instructions to R

When you are ready please stand up and take a deep breath. Place your lips firmly around the outside of the mouthpiece. Remember to blow as hard and fast as you can.

- ◆ Enter [1] to continue

/*Breathing Test Setup Instructions*

Continue.....1

Sec12.V807_Puff1
I807_Puff1

BREATHING TEST

Measurement

First Reading - Record to the nearest 10 L/min

- Enter 30 if reading is less than 60.
- Enter 890 if reading is past last tick mark.
- Enter 993 if R tried but was unable to do it.
- Enter 999 if R chose not to do it.

Programming: If I807 = {993 or 999}, skip to I804.

PROGRAMMING: Add range check. Acceptable values include 30-890, 993, 999. Soft check: If IWER selects a value outside of this range—

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

Values other than 993 and 999 should round to the nearest 10. If IWER records an improperly-rounded value, display the following soft check:

“Please record data to the nearest 10 L/min”.

Sec1.I609_BR_Instruct3

BREATHING TEST

- ◆ Reset the gauge
- ◆ After 30 seconds, ask R to complete a second reading, blowing as hard and as fast as he/she can

Updated [03/31/202203/31/202203/29/2022](#)

- ◆ Enter [1] to continue upon completion of countdown.

/*Breathing Test 1-2, Pause and Reset*

Continue.....1 → Go to **V808** after 30 second timer

PROGRAMMING: Display *Timer.wmv*. Interviewer should, by default, be unable to proceed until this timer video has completed. If possible, the interviewer should be able to bypass this impasse, if needed.

SecI.V808_Puff2
I808_Puff2

BREATHING TEST

Measurement

Second Reading - Record to the nearest 10 L/min

- Enter 30 if reading is less than 60.
- Enter 890 if reading is past last tick mark.
- Enter 993 if R tried but was unable to do it.
- Enter 999 if R chose not to do it.

Programming: If I808 = {993 or 999}, skip to I804.

PROGRAMMING: Add range check. Acceptable values include 30-890, 993, 999. Soft check: If IWER selects a value outside of this range—

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

Values other than 993 and 999 should round to the nearest 10. If IWER records an improperly-rounded value, display the following soft check:

“Please record data to the nearest 10 L/min”.

SecI.I610_BR_Instruct4

BREATHING TEST

- ◆ Reset the gauge
- ◆ After 30 seconds, ask R to complete a third reading, blowing as hard and as fast as he/she can
- ◆ Enter [1] to continue upon completion of countdown.

/*Breathing Test 2-3, Pause and Reset*

Continue.....1 → Go to **V809** after 30 second timer

PROGRAMMING: Display *Timer.wmv*. Interviewer should, by default, be unable to proceed until this timer video has completed. If possible, the interviewer should be able to bypass this impasse, if needed.

Updated [03/31/2022](#)~~03/31/2022~~~~03/29/2022~~

Sec12.V809_Puff3
I809_Puff3

BREATHING TEST

Measurement

Third Reading - Record to the nearest 10 L/min

Enter 30 if reading is less than 60.
Enter 890 if reading is past last tick mark.
Enter 993 if R tried but was unable to do it.
Enter 999 if R chose not to do it.

Programming: If I809 = {993 or 999}, skip to I804.

PROGRAMMING: Add range check. Acceptable values include 30-890, 993, 999. Soft check: If IWER selects a value outside of this range—

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

Values other than 993 and 999 should be rounded to the nearest 10. If IWER records an improperly-rounded value, display the following soft check:

“Please record data to the nearest 10 L/min”.

→ Go to V810

Sec12.V804_BreathTest
I804_BreathTest

BREATHING TEST

Did R complete at least one trial of the breathing test?

YES.....1 -> Go to V810

NO.....5 -> Go to V805

PROGRAMMING: Auto-fill (if possible) according to the following criteria:

Auto-Fill as 1 and Do Not Display to Iwer

If any one breathing data-entry field (V807, V808 OR V809) has a non-993/999 value within the field's acceptable range.

Auto-Fill as 5 and Do Not Display to Iwer

If all 3 data-entry fields for breathing do not contain what appears to be valid, measured data (that is, all 3 fields contain either 993, 999, DK OR RF).

Display to Interviewer for Completion as Usual

If the above two conditions are not specifically met.

Sec12.V805_
I805_

BREATHING TEST

WHY DIDN'T R COMPLETE THE BREATHING TEST? (Enter all that apply)

- R felt it would not be safe.....1 → Go to HSIntro
- IWER felt it would not be safe.....2 → Go to HSIntro
- R refused or was not willing to complete the test.....3 → Go to HSIntro
- R tried but was unable to complete test.....4 → Go to HSIntro
- R did not understand the instructions.....5 → Go to HSIntro
- Other97 →

Sec12.V810_Reffort
I810_Reffort

BREATHING TEST

HOW MUCH EFFORT DID R GIVE TO THIS TEST?

- R gave full effort.....1
- R was prevented from giving full effort by illness, pain, or other symptoms or discomforts.....2
- R did not appear to give full effort, but no obvious reason for this.....3

Sec12.V811_Rposition
I811_Rposition

BREATHING TEST

WHAT WAS R'S POSITION FOR THIS TEST?

- Standing1
- Sitting2
- Lying down3
- Go to WSIntro

HAND-STRENGTH INTRODUCTION

PROGRAMMING: Hand-Strength Routing

The progression through this test may unfold in four different ways, dependent upon reported injuries/pain in the R's hand (I967_HSHand) and which of the R's hands is dominant (I815_gripdominanthand). These four possible progressions are detailed in this legend:

Progression #	Order/Routing	Variable Asked	Hand tested	Notes
---------------	---------------	----------------	-------------	-------

1	(1) R practices with RIGHT;	I613_HS_Instrct_Adjust	R	Practice/Adjustment hand = R
	(2) LEFT measurement 1;	I816_LeftFirst	L	
	(3) RIGHT measurement 1;	I851_RightFirst	R	
	(4) LEFT measurement 2;	I852_LeftSecond	L	
	(5) RIGHT measurement 2.	I853_RightSecond	R	
2	(1) R practices with LEFT;	I613_HS_Instrct_Adjust	L	Practice/Adjustment hand = L
	(2) RIGHT measurement 1;	I851_RightFirst	R	
	(3) LEFT measurement 1;	I816_LeftFirst	L	
	(4) RIGHT measurement 2;	I853_RightSecond	R	
	(5) LEFT measurement 2.	I852_LeftSecond	L	
3	(1) R practices with RIGHT;	I613_HS_Instrct_Adjust	R	Practice/Adjustment hand = R
	(2) 30-second timer;	Break for Timer Question	NA	I816_LeftFirst = 993
	(3) RIGHT measurement 1;	I851_RightFirst	R	
	(4) 30-second timer;	Break for Timer Question	NA	I852_LeftSecond = 993
	(5) RIGHT measurement 2	I853_RightSecond	R	
4	(1) R practices with LEFT;	I613_HS_Instrct_Adjust	L	Practice/Adjustment hand = L
	(2) 30-second timer;	Break for Timer Question	NA	I851_RightFirst = 993
	(3) LEFT measurement 1;	I816_LeftFirst	L	
	(4) 30-second timer;	Break for Timer Question	NA	I853_RightSecond = 993
	(5) LEFT measurement 2	I852_LeftSecond	L	

The results of the combination of an R's reported injuries/pain and which of their hands is dominant are detailed in the following matrix:

		Reported Injuries/Pain (I966_HSPain)			
		I966_HSPain = No	I966_HSPain = Yes & I967_HSHand = [Value from Below]		
		No Injuries/Pain, Both Hands Testable	= 1 (Both hands untestable)	= 2 (LEFT hand untestable; will test RIGHT hand only)	= 3 (RIGHT hand untestable; will test LEFT hand only)
Dominant Hand (I815_gripdominant hand)	= 1 (RIGHT hand is dominant)	Progression 1	N/A	Progression 3	Progression 4
	= 2 (LEFT hand is dominant)	Progression 2	N/A	Progression 3	Progression 4
	= 3 (Equal dominance; effectively the same as though the RIGHT hand is dominant)	Progression 1	N/A	Progression 3	Progression 4

Scenarios 3 and 4:

If one hand will not be tested, the measurements for this hand should be auto-filled with "993".

Updated ~~03/31/2022~~03/31/202203/29/2022

33/78

Secondly, if possible, we would like to use a CAI-driven pacing timer similar to that in the Blood Pressure and Breathing tests in progressions 3 and 4.

Progress Header Experiment: Three rudimentary, text-based progress headers/progress bars have been specified for this measure. This measure was selected because I613 has a large image which requires a large amount of horizontal real-estate in the question pane.

The top row will specify a less-abbreviated version of the header
The second row will specify an abbreviated option.
The third row will specify a minimalistic option.

In the first option (no abbreviation), the interviewer's place in the progression (that is, the active word in the six-word sequence) should be bold and, if possible, size 12 Arial.
In second and third option, all text should be size 11 Arial with the active word bold.

Secl.I612_HS_Intro

Equipment needed: Dynamometer

[Introduction]---[Demonstration]---[Safety]---[Setup]---[Measure]---[Observations]
[Introduction]---[Demo]---[Sfty]---[Stp]---[Msr]---[Obs]
[Introduction]---[D]---[E]---[S]---[M]---[O]

Now I would like to assess the strength of your hand in a gripping action.

/*Hand-Strength Introduction*

Continue.....1

Secl.I611_HS_Demo

[Introduction]---[**Demonstration**]---[Safety]---[Setup]---[Measure]---[Observations]
[Intro]---[**Demonstration**]---[Sfty]---[Stp]---[Msr]---[Obs]
[I]---[**Demonstration**]---[E]---[S]---[M]---[O]

I will ask you to squeeze this handle as hard as you can, just for a couple of seconds and then let go. I will take alternately two measurements from your right and your left hands.

- ◆ Stand, holding the dynamometer with the gauge facing outward
- ◆ Hold your forearm parallel to the floor (elbow at a right angle; see image above)
- ◆ Squeeze the handle for a few seconds
- ◆ Enter [1] to continue

/*Hand Strength Demonstration*

Continue.....1

PROGRAMMING: New variable/screen to keep hand-strength intro and demo distinct.

Display *hs_posture.jpg*



SecI.V[XXX]_HSPain

I966_HSPain

[Introduction]---[Demonstration]---[Safety (1 of 2)]---[Setup]---[Measure]---[Observations]
[Intro]---[Demo]---[Safety (1 of 2)]---[Stp]---[Msr]---[Obs]
[I]---[D]---[Eligibility (1 of 2)]---[S]---[M]---[O]

Before we begin, I'd like to make sure it is safe for you to do this measurement. Have you experienced any severe swelling, inflammation, pain, or injury in one or both hands within the last month or had surgery on your hands or wrists in the last 6 months?

/*Injury, pain or surgery on hand(s)*

- YES.....1 → Go to HSHand
- NO.....5 → Go to HSDir

Attributes: NO DK, NO RF

SecI.V[XXX]_HSHand
I967_HSHand

[Introduction]---[Demonstration]---[**Safety**]---[Setup]---[Measure]---[Observations]
[Intro]---[Demo]---[**Safety**]---[Stp]---[Msr]---[Obs]
[I]---[D]---[**Eligibility**]---[S]---[M]---[O]

In which hand (have you experienced severe swelling, inflammation, pain or injury in the last month or had surgery in the last six months)?

If the R has had surgery or experienced any swelling, inflammation, pain or injury in either hand, do not conduct the measurement on that hand.

/*Affected hand(s)*

BOTH HANDS.....1 → Go to V813

LEFT HAND ONLY.....2 → Go to HSDir

RIGHT HAND ONLY.....3 → Go to HSDir

Attributes: NO DK, NO RF

SecI.V[XXX]_HSDir
I968_HS_DIR

[Introduction]---[Demonstration]---[**Safety (2 of 2)**]---[Setup]---[Measure]---[Observations]
[Intro]---[Demo]---[**Safety (2 of 2)**]---[Stp]---[Msr]---[Obs]
[I]---[D]---[**Eligibility (2 of 2)**]---[S]---[M]---[O]

Do you understand these directions and feel it would be safe for you to do this measurement?

/*Hand-Strength Safety Question*

YES.....1 → Go to V815

NO.....5 → Go to V813

Attributes: NO DK, NO RF

SecI2.V815_gripdominanthand
I815_gripdominanthand

[Introduction]---[Demonstration]---[Safety]---[**Setup (1 of 2)**]---[Measure]---[Observations]
[Intro]---[Demo]---[Sfty]---[**Setup (1 of 2)**]---[Msr]---[Obs]
[I]---[D]---[E]---[**Setup (1 of 2)**]---[M]---[O]

Which is your dominant hand?

Right hand.....1

Left hand.....2

Updated [03/31/202203/31/202203/29/2022](#)

36/78

Both hands equally dominant.....3

Attributes: NO DK, NO RF

Secl.V[XXX]_HSInstrct_Adjust
I613_HS_Instrct_Adjust

HAND STRENGTH TEST

[Introduction]---[Demonstration]---[Safety]---[Setup (2 of 2)]---[Measure]---[Observations]
[Intro]---[Demo]---[Sfty]---[Setup (2 of 2)]---[Msr]---[Obs]
[I]---[D]---[E]---[Setup (2 of 2)]---[M]---[O]

Setup Checklist:

- 1) Rings or hand jewelry removed
- 2) Dynamometer adjusted to the [right/left] hand (see image)
- 3) R standing up, forearm parallel to the floor (elbow held at a right angle)
- 4) Gauge facing away from R's body
- 5) Arrow set at "0"

Note: Conduct one practice with R's [right/left] hand:

We can practice with your [right/left] hand

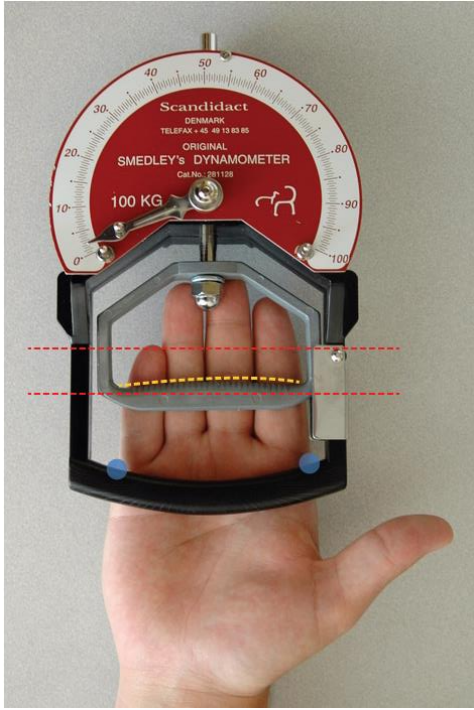
Squeeze the handle as hard as you can for a couple of seconds then let go.

◆ Enter [1] to continue

PROGRAMMING: Point 2) above should fill with the R's dominant hand (unless R's dominant hand is not testable, in which case point 2) should fill with the opposite hand).

"We can practice..." statement should fill with the R's "practice" hand as specified in the progression matrix at the beginning of this section.

Display image *hs_dyn-adjdiag.jpg*



Continue.....1

As detailed in the matrix at the beginning of this section, the hand the R uses to practice, as well as the ordering/skipping of the measurements will take place according to one of four different scenarios. Specified below is SCENARIO 1, which will be the most common.

Sec12.V816_leftfirst
I816_LeftFirst
HAND STRENGTH TEST

[Introduction]---[Demonstration]---[Safety]---[Setup]---[Measure (1 of X)]---[Observations]
[Intro]---[Demo]---[Sfty]---[Stp]---[Measure (1 of X)]---[Obs]
[I]---[D]---[E]---[S]---[Measure (1 of X)]---[O]

Remember: Reset the gauge between measures.

Left Hand, First Measure:

Enter the result to the nearest 0.5 kilogram.

Enter 993 if R was unable to perform this measurement

Enter 999 if R chose not to do it

Attributes: One decimal point. Add range check, acceptable values: 0.0-100.0, 993, 999. If IWER selects a value outside of this range, display the following soft check:

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

If IWER enters a value not rounded to the nearest 0.5 kg, display the following soft check:

“Please record data to the nearest 0.5 kg.”

Sec12.V851_RIGHTfirst

I851_RightFirst

HAND STRENGTH TEST

[Introduction]---[Demonstration]---[Safety]---[Setup]---[Measure (2 of X)]---[Observations]

[Intro]---[Demo]---[Sfty]---[Stp]---[Measure (2 of X)]---[Obs]

[I]---[D]---[E]---[S]---[Measure (2 of X)]---[O]

Remember: Reset the gauge between measures.

Right Hand, First Measure:

Enter the result to the nearest 0.5 kilogram.

Enter 993 if R was unable to perform this measurement

Enter 999 if R chose not to do it

Attributes: One decimal point. Add range check, acceptable values: 0.0-100.0, 993, 999. If IWER selects a value outside of this range, display the following soft check:

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

If IWER enters a value not rounded to the nearest 0.5 kg, display the following soft check:

“Please record data to the nearest 0.5 kg.”

Sec12.V852_leftsecond

I852_LeftSecond

HAND STRENGTH TEST

[Introduction]---[Demonstration]---[Safety]---[Setup]---[Measure (3 of 4)]---[Observations]

[Intro]---[Demo]---[Sfty]---[Stp]---[Measure (3 of 4)]---[Obs]

[I]---[D]---[E]---[S]---[Measure (3 of 4)]---[O]

Remember: Reset the gauge between measures.

Left Hand, Second Measure:

Enter the result to the nearest 0.5 kilogram.

Enter 993 if R was unable to perform this measurement

Enter 999 if R chose not to do it

Attributes: One decimal point. Add range check, acceptable values: 0.0-100.0, 993, 999. If IWER selects a value outside of this range, display the following soft check:

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

If IWER enters a value not rounded to the nearest 0.5 kg, display the following soft check:

“Please record data to the nearest 0.5 kg.”

Sec12.V853_RIGHTSecond

I853_RightSecond

HAND STRENGTH TEST

[Introduction]---[Demonstration]---[Safety]---[Setup]---[Measure (4 of 4)]---[Observations]

[Intro]---[Demo]---[Sfty]---[Stp]---[Measure (4 of 4)]---[Obs]

[I]---[D]---[E]---[S]---[Measure (4 of 4)]---[O]

Remember: Reset the gauge between measures.

Right Hand, Second Measure:

Enter the result to the nearest 0.5 kilogram.

Enter 993 if R was unable to perform this measurement

Enter 999 if R chose not to do it

Attributes: One decimal point. Add range check, acceptable values: 0.0-100.0, 993, 999. If IWER selects a value outside of this range, display the following soft check:

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

If IWER enters a value not rounded to the nearest 0.5 kg, display the following soft check:

“Please record data to the nearest 0.5 kg.”

Sec1.V813_

I813_

HAND STRENGTH TEST

[Introduction]---[Demonstration]---[Safety]---[Setup]---[Measure]---[Observations (1 of 5)]

[Intro]---[Demo]---[Sfty]---[Stp]---[Msr]---[Observations (1 of 5)]

[I]---[D]---[E]---[S]---[Measure (4 of 4)]---[Observations (1 of 5)]

WHY DIDN'T R COMPLETE THE HAND STRENGTH TEST? (Enter all that apply)

R felt it would not be safe.....1→ Go to STIntro

IWER felt it would not be safe.....2→ Go to STIntro

R refused or was not willing to complete the test.....3→ Go to STIntro

R tried but was unable to complete test.....4→ Go to STIntro

R did not understand the instructions.....5→ Go to STIntro

R had surgery, injury, swelling, etc. on both hands.....6→ Go to STIntro

Other97→

Continue.....1 → Go to STIntro

Updated [03/31/2022](#)~~03/31/2022~~~~03/29/2022~~

40/78

Sec12.V812_

I812_

HAND STRENGTH TEST

[Introduction]---[Demonstration]---[Safety]---[Setup]---[Measure]---[**Observations (2 of 5)**]

[Intro]---[Demo]---[Sfty]---[Stp]---[Msr]---[**Observations (2 of 5)**]

[I]---[D]---[E]---[S]---[Measure (4 of 4)]---[**Observations (2 of 5)**]

Did R complete at least one trial of the hand strength test?

YES.....1 -> Go to V817

NO.....5 -> Go to V813

PROGRAMMING: Auto-fill (if possible) according to the following criteria:

Auto-Fill as 1 and Do Not Display to Iwer

If any one hand strength data-entry field (V815, V851, V852 or V853) has a non-993/999 value within the field's acceptable range.

Auto-Fill as 5 and Do Not Display to Iwer

If **all 4 data-entry fields for hand-strength** do not contain what appears to be valid, measured data (that is, all 4 fields contain either 993, 999, DK OR RF),

OR

If I612 = 5 (Iwer does not have a dynamometer)

Display to Interviewer for Completion as Usual

If the above two conditions are not specifically met

Sec12.V817_gripReffort

I817_GripREffort

HAND STRENGTH TEST

[Introduction]---[Demonstration]---[Safety]---[Setup]---[Measure]---[**Observations (3 of 5)**]

[Intro]---[Demo]---[Sfty]---[Stp]---[Msr]---[**Observations (3 of 5)**]

[I]---[D]---[E]---[S]---[Measure (4 of 4)]---[**Observations (3 of 5)**]

How much effort did the R give to this test?

R gave full effort1

R was prevented from giving full effort by illness, pain, or other symptoms or discomforts2

R did not appear to give full effort, but no obvious reason for this3

Sec12.V818_Rposition

I818_Rposition

HAND STRENGTH TEST

Updated ~~03/31/2022~~~~03/31/2022~~~~03/29/2022~~

41/78

[Introduction]---[Demonstration]---[Safety]---[Setup]---[Measure]---[Observations (4 of 5)]
[Intro]---[Demo]---[Sfty]---[Stp]---[Msr]---[Observations (4 of 5)]
[I]---[D]---[E]---[S]---[Measure (4 of 4)]---[Observations (4 of 5)]

What was the R's position for this test?

Standing1
Sitting2
Lying down3

SecI2.V819_
I819_
HAND STRENGTH TEST

[Introduction]---[Demonstration]---[Safety]---[Setup]---[Measure]---[Observations (5 of 5)]
[Intro]---[Demo]---[Sfty]---[Stp]---[Msr]---[Observations (5 of 5)]
[I]---[D]---[E]---[S]---[Measure (4 of 4)]---[Observations (5 of 5)]

Did the R rest their arm on a support while performing this test?

Both hands – 1
Left hand only – 2
Right hand only – 3
No – 5

Go to I614_ST_Intro

SEMI-TANDEM INTRODUCTION

SecI.V[XXX]_STIntro
I614_ST_Intro

Equipment needed: Stopwatch, Show Card

The next measure involves standing in different positions. I will first describe and show each position to you. Then I'd like you to try to do it. If you cannot do a particular position, or if you feel it would be unsafe to try to do it, tell me and we'll move on to the next one. Let me emphasize that I do not want you to try to do any activity that you feel might be unsafe.

/*Semi-Tandem Balance Test Introduction*

Continue.....1

SecI.V[XXX]_STIntro_2
I615_ST_Intro2

For the first one, I want you to try to stand with the side of the heel of one foot touching the big toe of the other foot for about 10 seconds. You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. You may put either foot in front, whichever is more comfortable for you. Like this...



Demonstrate the semi-tandem balance test

- ◆ Stand and place the heel of one foot touching the big toe of the other foot
- ◆ Show Balance Test Card to the Respondent

PROGRAMMING: Display *bal_semi-tan-feet.png* to the right of introductory text.

/*Semi-Tandem Demonstration Instructions*

Continue.....1

SecI.V[XXX]_STNoBa
I970_STNoBa

Before we begin, do you have any problems from recent surgery, injury or other health conditions that might prevent you from standing up from a chair and balancing?

YES.....1 → Go to I616_STDisc

No.....5 → Go to I971_ST_DIR

/*Semi-Tandem Screening Question*

SecI.V[XXX]_STDisc
I616_STDisc

Discuss with him/her whether s/he should attempt each measurement given his/her physical problems after describing each measurement. Do not assume a respondent is too physically limited to attempt a measurement without discussing it with him/her.

Would the respondent like to proceed with this balance measurement?

/*R Injury/Discomfort Discussion*

YES1 → Go to I971_ST_DIR

NO5 → Go to V877

SecI.V[XXX]_STDir
I971_ST_DIR

Do you understand these directions and feel it would be safe for you to do this measurement?

/*Semi-Tandem Safety Question*

Updated [03/31/202203/31/202203/29/2022](#)

43/78

YES1 → Go to I617_ST_Instruct1

NO5 → Go to V877

Attributes: NO DK, NO RF

PROGRAMMING: Per HRS on 9/18/2013, we are clear to combine these two questions into one.

SecI.V[XXX]_STIstrct_1
I617_ST_Instruct1

BALANCE TEST – SEMI-TANDEM STAND

- 1) Ensure R is wearing appropriate footwear (shoes with very low or no heel).
- 2) Ensure floor is level, preferably has no carpet or low-pile carpet.
- 3) Ask the R to stand up.

/*Semi-Tandem, Instructions 1*

Continue.....1

SecI.V[XXX]_STIstrct_2
I618_ST_Instruct2

BALANCE TEST – SEMI-TANDEM STAND

- 4) Stand to the side of the respondent.
- 5) Instruct the R to try to stand with the side of the heel of one foot touching the big toe of the other foot for about 10 seconds.
- 6) Instruct the R that they may put either foot in front, whichever is more comfortable for them.
- 7) Instruct the R that they may use their arms, bend their knees or move their body to maintain balance, but they should try not to move their feet.
- 8) If necessary, provide gentle support to the respondent's arm to help them get into the semi-tandem position.
- 9) Instruct the R to try to hold this position until you tell them to stop.
- 10) Let go of R's arm. Say ***“Ready, begin.”*** and start the stopwatch immediately.
- 11) Stop the stopwatch and say ***“Stop”*** after **10** seconds or when the participant steps out of position or grabs your arm.

/*Semi-Tandem, Instructions 1*

Continue.....1

SecI2.V879_SemiTandemHoldFullTime
I879_SemiTandemHoldFullTime

BALANCE TEST – SEMI-TANDEM STAND

Updated ~~03/31/2022~~~~03/31/2022~~~~03/29/2022~~

44/78

Did R hold semi-tandem stand for full 10 seconds without stepping out of place or grabbing hold of anything?

Yes1 → Go to V881

No5 → Go to **V876**

Attributes: NO DK, NO RF

PROGRAMMING: If V879 = 1, assign “10.00” in V880 and skip to V881 as specified above.

BALANCE TEST PROGRESSION LOGIC

IF V879 = 1

The R will be asked questions V893-V902 (full-tandem)

ELSE

The R will be asked questions V883-V891 (side-by-side)

Sec12.V876_STSTAND

I876_STSTAND

BALANCE TEST – SEMI-TANDEM STAND

Did R attempt to complete the semi-tandem stand?

Yes.....1 → Go to V880

No.....5 → Go to V877

PROGRAMMING: Do not allow DK or RF in V876.

Sec12.V880_SemiTandemTime

I880_SemiTandemTime

BALANCE TEST – SEMI-TANDEM STAND

Record time in seconds to two decimal places

□□.□□

PROGRAMMING: Add range check. Acceptable values include 0.00-10.00. Soft check: If IWER selects a value outside of this range—

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

Sec12.V877_STSTAND_WhyNotComplete

I877_STSTAND_WhyNotComplete

BALANCE TEST – SEMI-TANDEM STAND

Why didn't R attempt to complete the semi-tandem stand? (Enter all that apply)

Updated [03/31/2022](#)~~03/31/2022~~~~03/29/2022~~

45/78

R felt it would not be safe.....1 → Go to SBSIntro
IWER felt it would not be safe.....2 → Go to SBSIntro
R refused or was not willing to complete the test.....3 → Go to SBSIntro
R did not understand the instructions.....5 → Go to SBSIntro
R had surgery, injury, or other health condition that prevented R from standing.....6 → Go to SBSIntro
Other97 →

SIDE-BY-SIDE INTRODUCTION

SecI.V[XXX]_SBSIntro
I620_SBS_Intro

Equipment needed: Stopwatch, Show Card

Next, I want you to try to stand with your feet together, side-by-side for about 10 seconds. 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 tell you to stop. Like this...



Demonstrate the measurement

- ◆ Stand with feet together

Enter [1] to continue

/*Side-by-Side Demonstration*

Continue.....1

PROGRAMMING: Display *bal_sidebyside-feet.png* to the right of introductory text.

SecI.V[XXX]_SBSDir
I973_SBS_DIR

Do you understand these directions and feel it would be safe for you to do this measurement?

/*Side-by-Side Safety Question*

YES.....1 → Go to SBSIstrct_1

NO.....5 → Go to V884

Attributes: NO DK, NO RF

SecI.V[XXX]_SBSIstrct_1

I621_SBS_Instruct1

BALANCE TEST – SIDE-BY-SIDE STAND

Updated [03/31/202203/31/202203/29/2022](#)

46/78

- 1) Ensure R is wearing appropriate footwear (shoes with very low or no heel).
- 2) Ensure floor is level, preferably has no carpet or low-pile carpet.
- 3) Ask the R to stand up.

Enter [1] to continue

/*Side-by-Side Measurement Setup Instructions*

Continue.....1

Sec1.V[XXX]_SBSInstrct_2

I622_SBS_Instruct2

BALANCE TEST – SIDE-BY-SIDE STAND

- 4) Stand to the side of the respondent.
- 5) Instruct the R to try to stand with feet together, side-by-side for about 10 seconds.
- 6) Instruct the R that they may use their arms, bend their knees or move their body to maintain balance, but they should try not to move their feet.
- 7) If necessary, provide gentle support to the respondent's arm to help them get into the side-by-side position.
- 8) Instruct the R to try to hold this position until you tell them to stop.
- 9) Let go of R's arm. Say ***“Ready, begin.”*** and start the stopwatch immediately.
- 10) Stop the stopwatch and say ***“Stop”*** after **10** seconds or when the participant steps out of position or grabs your arm.

Enter [1] to continue

/*Side-by-Side Measurement Instructions*

Continue.....1

Sec12.V886_SideBySideHoldFullTime

I886_SideBySideHoldFullTime

BALANCE TEST – SIDE-BY-SIDE STAND

Did R hold side-by-side stand for full 10 seconds without stepping out of place or grabbing hold of anything?

Yes1 → Go to V888

No5 → Go to **V883**

PROGRAMMING: If V886 = 1, assign “10.00” in V887 and skip to V888 as specified above.

Attributes: NO DK, NO RF

Sec12.V883_SideBySideComplete

I883_SideBySideComplete

Updated 03/31/2022~~03/31/2022~~03/29/2022

47/78

BALANCE TEST – SIDE-BY-SIDE STAND

Did R attempt to complete the side-by-side stand?

Yes.....1 → Go to **V887**

No.....5 → Go to V884

PROGRAMMING: Do not allow DK or RF in V883.

Sec12.V887_SideBySideTime

I887_SideBySideTime

BALANCE TEST – SIDE-BY-SIDE STAND

Record time in seconds to two decimal places

□□.□□

Programming: Add range check. Acceptable values include 0.00-10.00. Soft check: If IWER selects a value outside of this range—

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

Sec12.V884_SideBySideWhyNotComplete

I884_SideBySideWhyNotComplete

BALANCE TEST – SIDE-BY-SIDE STAND

Why didn't R attempt to complete the side-by-side stand? (Enter all that apply)

R felt it would not be safe.....1

IWER felt it would not be safe.....2

R refused or was not willing to complete the test.....3

R did not understand the instructions.....5

R had surgery, injury, or other health condition that prevented R from standing.....6

Other97 →

PROGRAMMING: Unless otherwise specified, all skip to WSIntro, if eligible; else skip to HWWPreface.

PROGRAMMING: All skip to **WSIntro if eligible; else skip to **HWWPreface**.**

FULL-TANDEM INTRODUCTION

SecI.V[XXX]_FTIntro
I619_FT_Intro

Equipment needed: Stopwatch, Show Card

Now 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 about [piSecAContinuInterviewA019_RAge >= 70: 30, piSecAContinuInterviewA019_RAge < 70: 60] seconds. You may put either foot in front, whichever is more comfortable for you. 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 tell you to stop. Like this...



Demonstrate the measurement

- ◆ Stand and place the heel of one foot touching the toes of the other foot.

/*Full-Tandem Balance Test Introduction and Demonstration*

Continue.....1

PROGRAMMING: Display *bal_fulltandem-feet.png* to the right of introductory text.

SecI.V[XXX]_FTDir
I975_FT_DIR

Do you understand these directions and feel it would be safe for you to do this measurement?

/*Full-Tandem Safety Question*

YES1 → Go to FTIstrct1

NO5 → Go to V894

Attributes: NO DK, NO RF

SecI.V[XXX]_FTIstrct1
I623_FT_Instruct1

BALANCE TEST – FULL TANDEM STAND

- 1) Ensure R is wearing appropriate footwear (shoes with very low or no heel).
- 2) Ensure floor is level, preferably has no carpet or low-pile carpet.
- 3) Ask the R to stand up

/*Full-Tandem Balance Test Instructions 1*

Continue.....1

Sec1.V[XXX]_FTIstrct2
I624_FT_Instruct2

BALANCE TEST – FULL TANDEM STAND

- 4) Stand to the side of the respondent.
- 5) Instruct the R to try to stand with the heel of one foot in front of and touching the toes of the other foot for about [30/60] seconds.
- 6) Instruct the R that they may use their arms, bend their knees or move their body to maintain balance, but they should try not to move their feet.
- 7) If necessary, provide gentle support to the respondent's arm to help them get into the full-tandem position.
- 8) Instruct the R to try to hold this position until you tell them to stop.
- 9) Let go of R's arm. Say *"Ready, begin."* and start the stopwatch immediately.
- 10) Stop the stopwatch and say *"Stop"* after [30/60] seconds or when the participant steps out of position or grabs your arm.

/*Full-Tandem Balance Test Instructions 2*

Continue.....1

Sec12.V896_FullTandemHoldFullTime
I896_FullTandemHoldFullTime

BALANCE TEST – FULL TANDEM STAND

Did R hold full tandem stand for full [30/60] seconds without stepping out of place or grabbing hold of anything?

Yes.....1 → Go to V898

No.....5 → Go to V893

Attributes: NO DK, NO RF

PROGRAMMING: Assign ["30.00" if R >= 70 years of age (SecA.ContinuiInterview.A019_Rage)/"60.00" if R < 70 years of age] in fill above.

IF V896 = 1 AND R >= 70 years of age, assign "30.00" in V897 and skip to V898 as specified above.

IF V896 = 1 AND R < 70 years of age, assign "60.00" in V897 and skip to V898 as specified above.

Sec12.V893_FullTandemComplete
I893_FullTandemComplete

BALANCE TEST – FULL TANDEM STAND

Did R attempt to complete the full tandem stand?

Yes.....1 → Go to 897

No.....5 → Go to 894

Updated [03/31/202203/31/202203/29/2022](#)

50/78

Attributes: NO DK, NO RF

Sec12.V897_FullTandemTime
I897_FullTandemTime

BALANCE TEST – FULL TANDEM STAND

Record time in seconds to two decimal places

□□.□□

PROGRAMMING: Add range check. Acceptable values include 0.00-60.00. Soft Check: If IWER selects a value outside of this range—

“You have entered a value that is outside of the acceptable range. Please check your entry before proceeding.”

Sec12.V894_FullTandemWhyNotComplete
I894_FullTandemWhyNotComplete

BALANCE TEST – FULL TANDEM STAND

Why didn't R attempt to complete the full -tandem stand? (Enter all that apply)

R felt it would not be safe.....1

IWER felt it would not be safe.....2

R refused or was not willing to complete the test.....3

R did not understand the instructions.....5

R had surgery, injury, or other health condition that prevented R from standing.....6

Other97 →

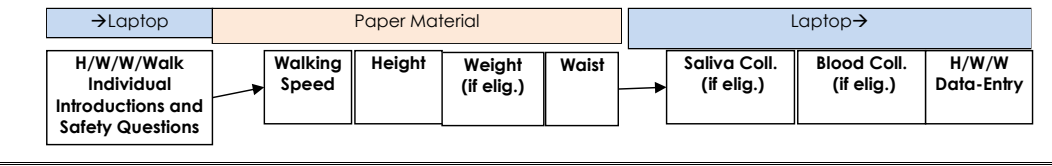
→ Go to HWWPreface

Updated [03/31/2022](#)~~03/31/2022~~[03/29/2022](#)

51/78

HEIGHT/WEIGHT/WAIST/WALK PREFACE

PROGRAMMING: Transition to Paper Material Detail



HEIGHT INTRODUCTION

SecI.V[XXX]_HWWPreface
I630_HWW_Preface

In a moment, I would like to measure your height, [weight] and waist..

PROGRAMMING:

If

SecC.Weigh.C139_ >= 300 (and thus, the R is ineligible to complete the weight measurement):
Do not display “weight” in the question text AND
Display “two”, rather than “three” in the question text

Else

Display “weight” in the question text AND
Display “three” in the question text

/*Prefacing Statement to Height-Weight-Waist Introductions*

Continue.....1

SecI.V[XXX]_HTIntro
I631_HT_Intro

To complete the height measurement, I’ll ask you to take off your shoes and stand up against a wall. I will then place a rafter square on top of your head and mark your height on a post-it note.

On the next screen is an image demonstrating how this measurement will be conducted. Please turn your screen/laptop so the respondent is able to see this image.

/*Height Measurement Introduction*

Continue.....1

SecI.V[XXX]_HTImg
I629_HT_Img
Height Measurement Demonstration

PROGRAMMING: Display *ht_demoimgb.jpg* at center of screen.



CONTINUE → Go to **WTIntro** if elig., ELSE go to **WAIIntro**

I980_HT_Dir

Question removed per successful pretest. This field should be retained to maintain cross-wave concordance.

WEIGHT INTRODUCTION

SecI.V[XXX]_WTIntro
I632_WT_Intro

Then I would like to measure your weight. To measure your weight, I will ask you to stand on a scale, with your shoes off, while I read the display.

/*Weight Measurement Introduction*

Continue.....1

I982_WT_Dir

Question removed per successful pretest. This field should be retained to maintain cross-wave concordance.

WAIST INTRODUCTION

SecI.V[XXX]_WAIIntro
I633_WA_Intro

Then I will measure your waist circumference. I will ask you to place a soft measuring tape around your waist, holding it securely at the level of your navel.

I will then ask you to take a normal breath and exhale, holding your breath at the end of the exhale. I will then record the measurement.

On the next screen is an image demonstrating how this measurement will be conducted. Please turn your screen/laptop so the respondent is able to see this image.

/*Waist Measurement Introduction*
Continue.....1

SecI.V[XXX]_WADemoVid
I635_WA_DemoVid

Waist Measurement

/*Waist Measurement Image*
Continue.....1

PROGRAMMING: Display wst_tape-position.jpg (800 x 533 px) [Updated 11/12/2015] in the center of this screen

\\SRC-Douvan\SRO\projects\HRS2016\08_CAI Programming and Questionnaire Development\PMBio_Section_I\Blaise Media\wst_tape-position.jpg



I636_WA_Stnd

Question removed per successful pretest. This field should be retained to maintain cross-wave concordance.

I985_WA_Dir

Question removed per successful pretest. This field should be retained to maintain cross-wave concordance.

SecI.I687_HWWDir

Height[, Weight] and Waist Circumference Measurements
Intro – Demo – **Safety** – Setup – Measure – Obs

Do you understand these directions and feel it would be safe for you to do the height[, weight] and waist-circumference measurements?

Select all that apply

Height	1
Weight	2
Waist-Circumference	3 All 4
None	5

Attributes: Check-all-that-apply, No DK, No RF, All/None should be exclusive options

Note to Programmer:

```
If
    SecC.Weigh.C139_ >= 300 (and thus, the R is ineligible to complete the weight measurement):
        Do not display "weight" in the header text AND
        Do not display "weight" in the question text AND
        Do not display "weight" in the list of answer options (though the codeframe above should be
        maintained)

Else
    Display "weight" in the header text AND
    Display "weight" in the question text
    Display "weight" as answer option 2
```

Selections should map to the following values for the following variables:

If I687_HWWDir includes 1, then I980 = 1
If I687_HWWDir does not include 1, then I980 = 5

If I687_HWWDir includes 2, then I982 = 1
If I687_HWWDir does not include 2, then I982 = 5

If I687_HWWDir includes 3, then I985 = 1
If I687_HWWDir does not include 3, then I985 = 5

If I687_HWWDir = 4, then
I980 = 1
I982 = 1 (only if eligible, otherwise, blank) and
I985 = 1

If I687_HWWDir = 5, then
I980 = 5
I982 = 5 and
I985 = 5

Soft Check: If IWER does not select "All", "None", or "Height", "Weight" (if eligible), and "Waist-Circumference" together-

"You have recorded that this respondent has declined to participate in one or more of these measures.

Is this correct?"

WSIntro if eligible; else go to HWWPaperBk

Updated ~~03/31/2022~~03/31/202203/29/2022

55/78

WALKING SPEED INTRODUCTION

SecI.V[XXX]_WSIntro
I977_WS_Intro

Equipment Needed: [Tape measure](#), [Stopwatch](#), [Masking Tape](#), [Administration Booklet](#)

(After those measurments)I would also like to assess whether you can walk a very short distance comfortably (using a walking stick or other aid if necessary). Do you have any problems from recent surgery, injury, or other health conditions that might prevent you from walking?

/*Walking Speed Screening Question*

No apparent restriction.....1 → Go to **WSDemoIntro**

Yes, recent surgery.....2 → I637_HWW_PaperBk

Yes, injury.....3 → I637_HWW_PaperBk

Yes, other health condition.....4 → I637_HWW_PaperBk

Attributes: NO DK, NO RF

SecI.V[XXX]_WSDemoIntro
I625_WS_DemoIntro

[On the next screen is a demonstration video to be shared with the respondent. Once you reach the next screen, please turn your screen/laptop so the respondent is able to see this video.](#)

Please review this brief video which demonstrates how this measure will be conducted.

[Press \[1\] to play demonstration video.](#)

/*Introduction to Demonstration Video*

SecI.V[XXX]_WSDemoVideo
I626_WS_DemoVideo

PROGRAMMING: Please insert a media-player (with controls (inc. full-screen), if possible) which will automatically play the walking-speed demo video.

Please replace "[XX]" below with any available function key which can be used to replay the demonstration video.

I will set up a short course with masking tape. I will then ask you to walk the course at your normal pace. We will conduct this measurement once in each direction.

[Enter \[1\] to continue](#)
[Press \[F10\] to replay video](#)

/*Walking Speed Demonstration Video*

Updated [03/31/202203/31/202203/29/2022](#)

56/78

Video file: *Walking-Speed_v.3.wmv*

Continue.....1

SecI.V[XXX]_WSDir
I978_WS_DIR

Do you understand these directions and feel it would be safe for you to do this measurement?

/*Walking Speed Safety Question*

YES.....1 → Go to I627_WS_Instruct1

NO.....5 → Go to I637_HWW_PaperBk

Attributes: NO DK, NO RF

SecI.V[XXX]_WSIstrct_1
I627_WS_Instruct1

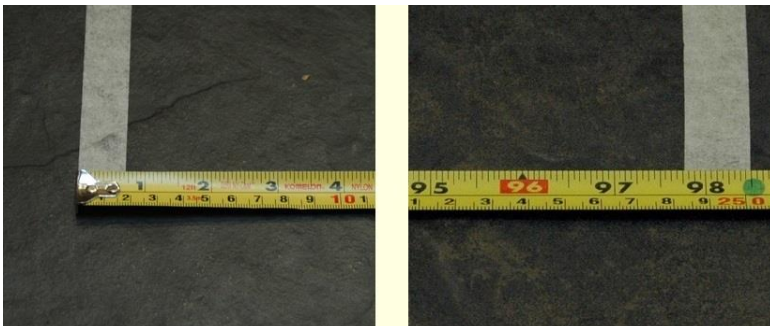
Now let's find a place where we can conduct these measurements. For the walking course we will need a clear space about 12 feet long in a non-carpeted area, if possible. I will set up a short course with masking tape..

- ♦ Ask the respondent if you may place several pieces of masking tape on their floor.
- ♦ Set up the course (98.5 Inches)
- ♦ ENTER [1] to continue.

/*Walking Speed Set Up*

Continue.....1

PROGRAMMING: Display *ws_tape-diptych.jpg* below "Set up the course..." text.



Updated [03/31/2022](#)~~03/31/2022~~[03/29/2022](#)

57/78

Secl.V[XXX]_HWWPaperBk
I637_HWW_PaperBk

This respondent will be completing:

- ♦ HEIGHT[will not be conducted]
- ♦ WEIGHT[will not be conducted]
- ♦ WAIST[will not be conducted]
- ♦ WALKING SPEED[will not be conducted]

PROGRAMMING: Please display which of the HEIGHT, WEIGHT, WAIST and WALKING SPEED measurements the interviewer should conduct below according to the following criteria:

Measure	Criteria
WALKING	IF piSecAContinuInterviewA019_RAge >= 65 & I978_WS_DIR=1 and I977_WS_Intro=1
HEIGHT	IF I980 = 5, display “ will <u>not</u> be conducted” next to “HEIGHT”
WEIGHT	IF R is ineligible OR IF I982 = 5, display “ will <u>not</u> be conducted” next to “WEIGHT”
WAIST	IF WASTnd = 5 OR IF I985 = 5, display “ will <u>not</u> be conducted” next to “WAIST”
WALKING	IF piSecAContinuInterviewA019_RAge >= 65 & I978_WS_DIR=1 and I977_WS_Intro=1

Please note in the administration booklet any of these three measures which the R has not understood or has felt would be unsafe. These measures should not be conducted.

The collection of the appropriate measures should be done using the administration booklet. [Remain on this screen](#) until you have recorded all necessary measurements and observations.

Once all data and observations have been recorded in the booklet, please set it aside. You will be prompted to enter the data at the end of the Physical Measures and Biomarkers section.

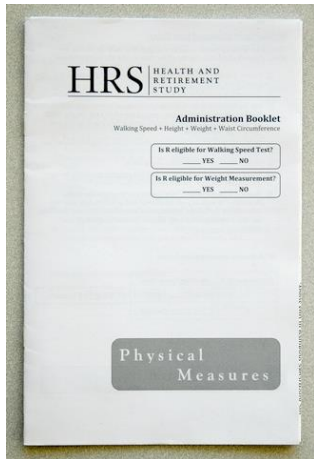
Continue.....1

PROGRAMMING: Display admin_booklet.jpg (328 x 480 px) [Updated 11/12/2015] to the right of these instructions.

\\SRC-Douvan\SRO\projects\HRS2016\08_CAI Programming and Questionnaire Development\PMBio_Section_I\Blaise Media\admin_booklet.jpg

Updated ~~03/31/2022~~~~03/31/2022~~~~03/29/2022~~

58/78



SALIVA INTRODUCTION

SALIVA CONSENT-ADMINISTRATION DETAIL

As specified for Physical Measures consent, this consent form will require either machine or human verification before the interviewer proceeds with the saliva collection.

Whether this is deployed as Option 1 (Machine-testing) or Option 2 (Human-review) is an open technical question. See “CONSENT ADMINISTRATION (PHYSICAL MEASURES)” heading for full details.

Secl.V[XXX]_Salcnsnt I638_Salcnsnt

The next measure involves collecting a saliva sample. This simply involves depositing a small amount of saliva into a collection container. Before we begin, I would like to have you read and sign this consent form.

- If R refuses to view or sign the consent form, enter [Ctrl]+[R].
- Otherwise, select the [Launch consent form] button below to administer the consent form.
- While the R is reviewing the form, sign a paper copy which can be left with them for their records.
- Once the consent process is completed, enter [1] to continue.

/*Saliva-Consent Introduction and Launch*

Ready to continue – consent process has been completed.....1 [PROGRAMMING: Launch saliva consent form]

Note KAD has added three constructed variables to the instrument here:

I693_AskSalivaConsent

/ "Flag determining when to Ask Saliva Consent" : 0..1, NODK, NORF

I694_SalivaConsentComplete

/ "Saliva Consent Complete" : 0..9, NODK, NORF

Updated [03/31/202203/31/202203/29/2022](#)

59/78

I695_SalivaConsentFormName
/ "Saliva Consent Form Name" : STRING[30], NODK, NORF

SecI.V913_SalivaConsent
I913_SalivaConsent

[SALIVA SAMPLE](#)

Did R sign the saliva consent form?

If no, please return to the previous question by selecting [Ctrl] + [Up] and re-launch the consent form.

Yes.....1 → Go to I667_SalDemo
No.....5 → Go to I941_WhyNoConsentSaliva

Attributes: NO DK, NO RF

SecI.V941_WhyNoConsentSaliva
I941_WhyNoConsentSaliva
[SALIVA SAMPLE](#)

Why didn't R sign the saliva consent form? (Enter all that apply)

R felt it would not be safe.....1 → Go to I658_PMThank
Iwer felt it would not be safe.....2 → Go to I658_PMThank
R refused or was not willing to complete the measurement.....3 → Go to I658_PMThank
R did not understand the instructions.....5 → Go to I658_PMThank
R could not complete the measurement due to health reasons.....6 → Go to I658_PMThank o
No suitable space.....7 → Go to I658_PMThank
R ate, drank, smoked, or brushed teeth in last 30 minutes.....8 → Go to I658_PMThank
Problem with equipment or supplies.....9-> Go to I658_PMThank
Other97 →

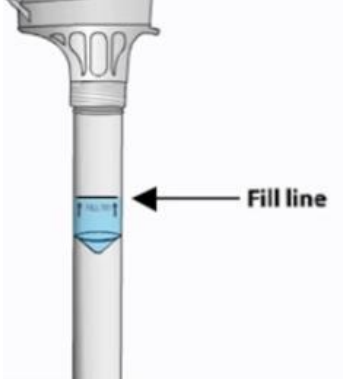
SecI.I667_SalDemo

Saliva Sample

Intro -- **Demo** -- Safety -- Setup -- Measure -- Obs

Equipment Needed: "Sample" Container, Administration Booklet, Small Placemat, Complete Saliva Collection Kit,
Barcode Scanner, Gloves, Tissues

- 1....Share the "Sample" saliva kit with the respondent
- 2....Point out the marked line to which the respondent should fill the container



/*Saliva Demo*

Continue.....1

PROGRAMMING: New progress header for this screen specified above. No changes to headers on adjacent screens are needed.

Display sample_sal_diptych.jpg (364 x 500 px) [Updated 11/12/2015] to the right of these instructions.

\\SRC-Douvan\SRO\projects\HRS2016\08_CAI Programming and Questionnaire Development\PMBio_Section_I\Blaise Media\sample_sal_diptych.jpg

SecI.V[XXX]_SalDir
I987_Sal_DIR

Do you understand these directions and feel it would be safe for you to do this measurement?

/*Saliva Safety Question*

Yes1 → Go to I914_SalivaEatDrankEtc
No5 → Go to V916_SalivaWhyNotComplete

Attributes: NO DK, NO RF

SecI2.V914_SalivaEatDrankEtc.
I914_SalivaEatDrankEtc

SALIVA SAMPLE

Did the R eat, drink, smoke or brush his/her teeth after starting the physical measures?

Yes.....1

No.....5

SecI.V[XXX]_SalIstrct1
I640_Sal_Instruct1

SALIVA SAMPLE

- 1) ..Ask the respondent to begin preparing to fill the saliva container (rubbing cheeks, etc.)
- 2) Put on a pair of vinyl gloves.
- 3) ..Place the small placemat on the surface where you will be collecting the saliva. Open the saliva collection kit.
- 4) ..Remove the Oragene collection case and the plastic bag with the absorbent sheet
- 5) ..Open the Oragene collection case and place a saliva barcode label on the side of the collection tube.
- ~~5)6)~~ Place the small blue cap on the placemat
- ~~6)7)~~ Confirm that the barcode label matches the ID printed on the saliva lab authorization form
- ~~7)8)~~ Tear the perforated portion from the Saliva Authorization Form ~~from the booklet, setting the booklet aside, and~~
set them aside

/*Saliva Setup Instructions (Instructions 1)*

Continue.....1

SecI.V[XXX]_SalIstrct_2
I644_Sal_Instruct2

SALIVA SAMPLE

- ~~9)9)~~ Hand the collection container to the Respondent.
- ~~9)10)~~ Instruct them to spit into the container until the fill line has been reached with saliva, not bubbles..
- ~~10)11)~~ Allow about 3 minutes for the R to fill the vial.

Enter [1] to scan the Respondent's saliva barcode ID.

/*Saliva Collection Instructions 2*

Continue.....1

SecI.V933_SalivaBarCodeID
I933_SalivaBarCodeID

SALIVA BARCODE ID ENTRY

Updated ~~03/31/2022~~~~03/31/2022~~~~03/29/2022~~

62/78

Equipment Needed: Barcode Scanner

Using barcode scanner, scan ID from the Saliva barcode label in this field. Press [ENTER] to continue to the saliva collection tips, which may be shared with the respondent.

- Enter 999 if a saliva sample will not be collected
- Enter 993 if barcode scanner is unavailable

PROGRAMMING: See document linked in "SUMMARY OF AREAS NEEDING SUBSTANTIAL PROGRAMMING" section for structure of new barcode.

V933 Field Attributes: Should accept entry of full ~~943~~-character barcode if scanned: Three digits, followed by dash, followed by five letters, followed by dash, followed by three digits, OR either of two three-digit strings – 993 or 999.

~~#####-AAAA-###~~ Should accept entry of ~~943~~ or fewer characters.

Hard Edit Check: If ID is fewer than 9 characters display:

"The ID you have entered is outside of the acceptable range. It should contain 9-character and look like #####-AA. Please correct the entry."

If 993 is entered, go to SalBarCodeIDMan1

If 999 is entered, go to Go to V916_SalivaWhyNotComplete

BARCODE ID – SCANNER VERSUS MANUAL-ENTRY:

If barcode is recorded via three separate fields specified below, these three fields should ultimately be combined into the Saliva ID (SalivaBarcodeID).

<SalBarCodeIDMan1> + ~~<SalBarCodeIDMan2> + <SalBarCodeIDMan3>~~ = <SalivaBarcodeID>

Formatted: Spanish (Puerto Rico), Strikethrough

SecI.V[XXX]_SalBarCodeIDMan1

I641_SalBarCodeIDMan1

SALIVA BARCODE ID MANUAL ENTRY

Barcode ID Manual Entry: #####-AA

Record first three digits of Saliva ID without dashes (or no spaces).

Press [ENTER] to continue to the saliva collection tips, which may be shared with the respondent.

/*Saliva Barcode Entry, Manual Entry 1*

Attributes: ~~93~~-digits; No DK, No RF.

[Note: I642_SalBarCodeIDMan2 was removed as part of Prod DM1; however, it variable was kept in the event we want to do double data entry of the ide at some point.]

SecI.V[XXX]_SalBarCodeIDMan2

I642_SalBarCodeIDMan2

Updated ~~03/31/2022~~03/31/202203/29/2022

63/78

SALIVA BARCODE ID MANUAL ENTRY

Barcode ID Manual Entry: #####-AA

Record the five letters in the Saliva ID without dashes (or no spaces).

/*Saliva Barcode Entry, Manual Entry 2*

Attributes: 5 letters; No DK, No RF.

[Note: I642_SalBarCodeIDMan3 is no longer asked in Prod DM1. It's in the instrument but taken off route.]

Sec1.V[XXX]_SalBarCodeIDMan3

I643_SalBarCodeIDMan3

SALIVA BARCODE ID MANUAL ENTRY

Record last three digits of Saliva ID without dashes or spaces

Press [ENTER] to continue to the saliva collection tips, which may be shared with the respondent.

/*Saliva Barcode Entry, Manual Entry 3*

Attributes: 3-digits; No DK, No RF.

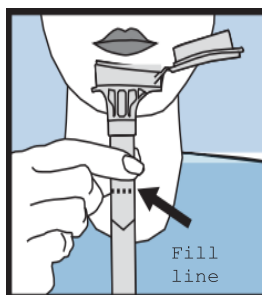
Sec1.V[XXX]_SalTips

I645_SalTips

SALIVA COLLECTION

Fill Collection Container to Desired Level

-Close your mouth and wiggle your tongue or rub your cheeks
-Place a few grains of sugar/artificial sweetener on the tip of your tongue
-Think of your favorite foods



Gently tap the tube on a hard surface, like a table, to help the bubbles settle and increase the volume of saliva

/*Saliva Tips for Respondent*

Continue.....1

PROGRAMMING: Display *sal_container-diagram_edit.png* to the right of these tips.

Updated ~~03/31/2022~~03/31/202203/29/2022

64/78

Sec1.I639_SalDefer

Saliva Sample – Completion Checkpoint

Would you like to allow additional time for the respondent to fill the saliva collection vial?

If no, enter [1] to finish the saliva collection

If yes, enter [5] to allow more time. You will finish the saliva collection (shipping and observations) [After you have completed the data entry for Height, Weight and Waist.](#)

1 - Continue 5 - Skip to **I658_DeferSaliva**

PROGRAMMING: No DK, No RF

If I[XXX]_SalDefer = 5:

Please create a block containing the following questions (in order):

I646_Sal_Instruct3
I647_Sal-Instruct4
I918_SalivaFill Vial
I915_SalivaComplete
I919_SalivaProblems
I920_SalivaProblem_Specify
I916_SalivaWhyNotComplete
I917_SalivaNotComplete_Specify

This block will appear between **Sec12.V906_WaistNotComplete_Specify**
I906_WaistNotComplete_Specify AND **Sec12.V845_**
I845_

Sec1.V[XXX]_SalInstrct_3
I646_Sal_Instruct3

SALIVA SAMPLE

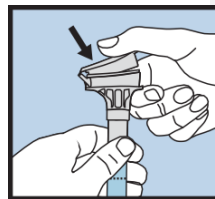
Be sure that you are wearing gloves before proceeding with these steps.

~~11~~12) When the Respondent has reached the level necessary, ask the respondent to please hand over the container.

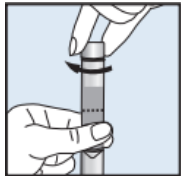
~~12~~13) Hold the tube upright with one hand. Close the funnel lid with the other hand by firmly pushing the lid until you hear a loud click. The liquid in the lid will be released into the tube to mix with the saliva. Make sure that the lid is closed tightly.

~~13~~14) Wipe the tube with an alcohol wipe.

~~14~~15) Hold the tube upright. Unscrew the funnel from the tube. Discard the funnel.



~~15~~16) _____Screw the cap onto the container. Make sure the cap is closed securely. Once the cap is on tightly,



gently shake the tube for 5 seconds.

~~16~~17) _____Place collection container in the plastic bag with the absorbent material and
seal it.

~~17~~18) _____ Dispose of any saliva materials, then Rremove gloves.

/*Saliva Collection Instructions 3*

Continue.....1

Sec1.V[XXX]_SalIstrct_4

I647_Sal_Instruct4

SALIVA SAMPLE

~~18~~19) _____Record the date and time the saliva collection was finished on the Saliva Authorization Form.

~~19~~20) _____Place the bag containing the collection container and the completed Authorization Form in the padded envelope.

~~20~~21) _____Mail the specimen to the lab as soon as possible (if not the same day as the collection, store sample at room temperature).

/*Saliva Collection Instructions 4*

Continue.....1

Sec12.V918_SalivaFillVial

I918_SalivaFillVial

SALIVA SAMPLE

Did R fill the vial to the desired level?

Yes1 → Go to **V919**

No5 → Go to **V915**

Attributes: No DK, No RF

PROGRAMMING: If **V918**=1, assign "1" to **V915** and skip to **V919** as specified above.

Sec12.V915_SalivaComplete

I915_SalivaComplete

Updated ~~03/31/2022~~~~03/31/2022~~~~03/29/2022~~

66/78

SALIVA SAMPLE

Did R attempt to complete the saliva sample?

Yes1 → Go to **I919_SalivaProblems**

No5 → Go to **I916_SalivaWhyNotComplete**

PROGRAMMING: Do not allow DK or RF in V915.

SecI2.V919_SalivaProblems

I919_SalivaProblems

SALIVA SAMPLE

What, if any, problems occurred? (Enter all that apply)

None1

Solution in cover leaked before vial was sealed2

Saliva spilled3

R was unable to produce enough saliva4

Other97 →

PROGRAMMING: Unless otherwise specified above, all skip to

I658_PMThank

SecI2.V916_SalivaWhyNotComplete

I916_SalivaWhyNotComplete

SALIVA SAMPLE

Why didn't R complete the saliva sample? (Enter all that apply)

R felt it would not be safe.....1 → Go to **I658_PMThank** IWER felt it would not be safe2 → Go to **I658_PMThank**

R refused or was not willing to complete the measurement3 → Go to **I658_PMThank** R did not understand the instructions5 → Go to **I658_PMThank**

Problem with equipment or supplies.....8-> Go to **I658_PMThank**

Other97

PROGRAMMING: All skip to **I658_PMThank**

PROGRAMMING:

If I[XXX]_SalDefer = 1, all skip to **I658_PMThank**.

Updated [03/31/202203/31/202203/29/2022](#)

67/78

If I[XXX]_SalDefer = 5, parallel block containing saliva packaging instructions and observations should appear after the data entry is complete (Sec12.V906_WaistNotComplete_Specify
I906_WaistNotComplete_Specify)

Sec1.V[XXX]_PMThank
I658_PMThank

Thank you for your cooperation. This concludes the physical measures and biomarkers portion.

[Provide respondent with a supplemental document to review.](#)

[Please review this pamphlet which details the measures we've just collected. I have a few things I need to enter into the computer and we'll continue the interview in about one minute.]

/*Section I Pre-Data-Entry Thank You Script*/

PROGRAMMING:

IF
 I802=5 (R did not consent to Physical Measures), OR
 I980_HT_Dir = 5 AND
 I981_WT_Dir = 5 AND
 (I636_WA_Stnd = 5 OR WADir = 5)

THEN
 do not display the bracketed text above.

Continue.....1

I700_DeferSaliva

I have a few things I need to enter into the computer and we'll continue the interview once I have finished.
Please continue to fill the sample collection container.

Continue 1

Sec12.V823_Twalk1sttrialtime
I823_Twalk1sttrialtime

WALKING SPEED TEST

[Time from first trial](#)

[Record time in seconds to two decimal places](#)

[Enter 993 if R tried but was unable to do it.](#)

[Enter 999 if R chose not to do it.](#)

Updated [03/31/202203/31/202203/29/2022](#)

68/78

Attributes: Integer with two decimal places. Acceptable values - 0.00-30.00, 993,999. Soft Check: If interviewer enters value outside of this range--

"You have entered a time over 30 seconds. Please check your entry before proceeding."

SecI2.V824_Twalk2ndtrialtime
I824_Twalk2ndtrialtime

WALKING SPEED TEST

Time from second trial

Record time in seconds to two decimal places

Enter 993 if R tried but was unable to do it.

Enter 999 if R chose not to do it.

Attributes: Integer with two decimal places. Acceptable values - 0.00-30.00, 993,999. Soft Check: If interviewer enters value outside of this range--

"You have entered a time over 30 seconds. Please check your entry before proceeding."

If both I823 AND I824 contain either a 993 or 999 value, auto-fill I820 as "5" and skip to I821.

SecI2.V820_
I820_

WALKING SPEED TEST

Did R complete at least one trial of the walking test?

YES.....1 -> Go to **V828**

NO.....5 -> Go to V821

PROGRAMMING: Auto-fill (if possible) according to the following criteria:

Auto-Fill as 1 and Do Not Display to Iwer

If any one walking-speed data-entry field (V823 OR V824) has a non-993/999 value within the field's acceptable range.

Auto-Fill as 5 and Do Not Display to Iwer

If all **2 data-entry fields for walking-speed** do not contain what appears to be valid, measured data (that is, both fields contain either 993, 999, DK OR RF).

Display to Interviewer for Completion as Usual

If the above two conditions are not specifically met.

SecI2.V828_Twalktypeofaid
I828_Twalktypeofaid

WALKING SPEED TEST

Updated ~~03/31/2022~~~~03/31/2022~~~~03/29/2022~~

69/78

What type of aid was used?

None.....1
Walking stick or cane.....2
Elbow crutches.....3
Walking frame.....4
Other7 →

PROGRAMMING: Unless otherwise specified above, all skip to V[XXX]_TwalkRdirect

→ Go to V[XXX]_TwalkRdirect

SecI2.V[XXX]_TwalkRdirect
I660_TwalkRdirect
WALKING SPEED TEST

Did the respondent complete this measurement according to the stated directions?

R followed directions.....1 → Go to I659_I660_DataEntryIntro
R did not appear to walk at their normal pace.....2 → Go to I659_I660_DataEntryIntro
R did not continue walking beyond the end of the course.....3 → Go to I659_I660_DataEntryIntro
Other →

→ Go to I659_I660_DataEntryIntro

SecI2.V821_
I821_
WALKING SPEED TEST

Why didn't R complete the walking test? (Enter All that apply)

R felt it would not be safe.....1 → Go to I659_I660_DataEntryIntro
IWER felt it would not be safe.....2 → Go to I659_I660_DataEntryIntro
R refused or was not willing to complete the test.....3 → Go to I659_I660_DataEntryIntro
R tried but was unable to complete test.....4 → Go to I659_I660_DataEntryIntro
R did not understand the instructions.....5 → Go to I659_I660_DataEntryIntro
R had surgery, injury, or other health condition that prevented R from walking.....6 → Go to I659_I660_DataEntryIntro
No suitable space available.....7 → Go to I659_I660_DataEntryIntro
Other97 → Go to I659_I660_DataEntryIntro

H/W/W DATA-ENTRY MODULE

SecI.V[XXX]_DataEntryIntro

Updated 03/31/202203/31/202203/29/2022

70/78

I659_I660_DataEntryIntro

HEIGHT/WEIGHT/WAIST DATA ENTRY

After recording Height, Weight (if eligible) and Waist measurements and observations in the administration booklet, you will now be prompted to enter these data.

/*H/W/W Data-Entry Module Introduction Screen*

Continue.....1

NOTE: Height data entry questions transplanted from after HTIstrct1 in “HEIGHT INTRODUCTION” section.

HEIGHT DATA-ENTRY

SecI2.V831_

I831_

HEIGHT MEASUREMENT

WERE YOU ABLE TO MEASURE R’S HEIGHT?

Yes1 → Go to V834

No.....5 → Go to V832

PROGRAMMING: Do not allow DK or RF in V831

If

1980 = 5 (as filled by new logic at I687_HWWDir)

Then

auto-fill as “5” and do not display to interviewer.

Else

Display to user for entry as usual with no pre-filled value

PROGRAMMING: On 4/14, Ian moved I832 and I833 to after I837 for legibility within this document.

Ian also noted in this spec that the height and weight validation checks should not be conducted if one enters a DK, RF, 993 or 999 value in I834 or I841.

SecI2.V834_Heightinches

I834_Heightinches

HEIGHT MEASUREMENT

Enter respondent’s height in inches. Round to the nearest quarter inch.

□□.□□

PROGRAMMING: Add range check. Likely values include 40.00-90.00. Soft Check: If IWER selects a value outside of this range—

“You have entered a value outside of the normal range. Please check your entry before proceeding.”

Add rounding check. Entry should be recorded to the nearest quarter inch (XXX.00, XXX.25, XXX.50, XXX.75). Soft Check: If IWER enters a value outside of this range—

“Please record data to the nearest quarter inch.”

Add a validation check: R self-reports height in **SecC.Weigh.C141_** (reported in feet) and **SecC.Weigh.C142_** (reported in inches, rounded to nearest quarter). If I834 is not (DK or RF) and is +/- 2.00” (or greater) from the self-reported height**, display the following signal:

“You have entered a height that is higher/lower than reported by the Respondent in Section C. Please check your data-entry (make sure data was correctly recorded in inches and correctly entered in Blaise).

If your entry appears to be correct, suppress this message. Otherwise, re-take the measurement.”

Notes on Validation Check:

1. The self-reported height in section C will need to be converted to straight inches from feet-and-inches.
2. If self-reported height is undefined (either C141 or C142 = DK or RF or empty), this comparison should not take place.

All skip to **V837**

SecI2.V837_

I837_

HEIGHT MEASUREMENT

Was R wearing shoes during measurement?

Yes1

No5

Skip to **I838**, if eligible for weight; otherwise skip to **I904**.

SecI2.V832_

I832_

HEIGHT MEASUREMENT

WHY WEREN'T YOU ABLE TO MEASURE R'S HEIGHT? (ENTER ALL THAT APPLY)

R felt it would not be safe1

IWER felt it would not be safe2

R refused or was not willing to complete the measurement3

R tried but was unable to complete the measurement4

R did not understand the instructions5

Respondent too tall, interviewer could not reach6

No suitable space available7

Other97 →

PROGRAMMING: Unless otherwise specified above, if V832 = 1, 2, 3, 4, 5, 6 or 7 go to **V838** if eligible; ELSE go to **V904**

Updated [03/31/2022](#)~~03/31/2022~~~~03/29/2022~~

72/78

V838_ Branchpoint:

NOTE: "V838_ Branchpoint" is not a variable name.

If R reported weight >= 300 lbs (SecC.Weigh.C139_), skip to v904 (waist measurement).

WEIGHT DATA-ENTRY

Sec12.V838_

I838_

WEIGHT MEASUREMENT

WERE YOU ABLE TO MEASURE R'S WEIGHT?

Yes1 → Go to V841

No.....5 → Go to V839

PROGRAMMING: Do not allow DK or RF in V838.

If
I982 = 5 (as filled by new logic at I687_HWWDI or
R is ineligible for the Weight measurement (see "Section I Eligibility Rules" section)
THEN
auto-fill as "5" and do not display to interviewer.
ELSE
Display to the user as usual with no prefilled value.

Sec12.V841_Weightpounds

I841_Weightpounds

WEIGHT MEASUREMENT

Enter respondent's weight in pounds as recorded on scale (to the nearest 0.5 pound).

- ◆ ENTER [993] if R tried but received an error message
- ◆ ENTER [999] if R chose not to do it

□□□.□

PROGRAMMING: Add range check. Likely values include 0.50-500.00, 993, 999. Soft Check: If IWER selects a value outside of this range—

"You have entered a value outside of the normal range. Please check your entry before proceeding."

Add rounding check. Entry should be recorded to the nearest half-pound (XXX.0, XXX.5). Soft Check: If IWER enters a value outside of this range—

"Please record data to the nearest half-pound."

Updated ~~03/31/2022~~03/31/202203/29/2022

73/78

Add a validation check: R self-reports height in **SecC.Weigh.C139_**. If I841 is not (993 or 999 or DK or RF) and is +/- 20 lb (or greater) from the self-reported weight, display the following signal:

“You entered a weight that is higher/lower than self-reported by the Respondent in section C. Please check your data entry (make sure data was correctly recorded in pounds and correctly entered in Blaise).

If your entry seems correct then suppress this message. Otherwise re-take the measurement.”

Notes on Validation Check:

1. If self-reported weight is undefined (C139 = DK or RF or empty), this comparison should not take place.

If **V841** = 993 or 999, skip to **V839**

I666_SupportTile

WEIGHT MEASUREMENT

Did you use the scale-support tile?

Yes1

No5

PROGRAMMING: This is a new question which will be asked according to the skip logic specified in questions I842 and I843.

SecI2.V844_

I844_

WEIGHT MEASUREMENT

Was R wearing shoes during measurement?

Yes1

No5

PROGRAMMING: All skip to V904

SecI2.V839_

I839_

WEIGHT MEASUREMENT

WHY WEREN'T YOU ABLE TO MEASURE R'S WEIGHT? (ENTER ALL THAT APPLY)

R felt it would not be safe1

IWER felt it would not be safe2

R refused or was not willing to complete the measurement3

R tried but was unable to complete the measurement4

R did not understand the instructions5

Updated [03/31/202203/31/202203/29/2022](#)

74/78

Respondent was too heavy; did not attempt6
No suitable space available7
Scale did not work8
Other97

PROGRAMMING: If V839 = 1, 2, 3, 4, 5, 6, 7 or 8, go to **V904**

WAIST DATA-ENTRY

Sec12.V904_WaistComplete
I904_WaistComplete

WAIST CIRCUMFERENCE

Were you able to measure R's waist circumference?

Yes1 → Go to **I907_WaistMeasurement**
No5 → Go to **I905_WaistWhyNotComplete**

PROGRAMMING: Do not allow DK or RF in V904.

If
 I985 = 5 (as filled by new logic at I687_HWWDir)
Then
 auto-fill as "5" and do not display to interviewer.
Else
 Display to user for entry as usual with no prefilled value.

Sec12.V907_WaistMeasurement
I907_WaistMeasurement
WAIST CIRCUMFERENCE

Enter respondent's waist measurement to the nearest quarter inch.

- ◆ ENTER [993] if R tried but was unable to do it
- ◆ ENTER [999] if R chose not to do it

□□□.□□

PROGRAMMING:

1. If V907 = 993 OR 999, skip to **I905_WaistWhyNotComplete**
2. Add range check. Likely values include 0.50-200.00, 993, 999. Soft Check: If IWER selects a value outside of this range—

- a. "You have entered a value that is outside of the normal range. Please check your entry before proceeding."

- 3. Add rounding check. Entry should be recorded to the nearest quarter-inch (XXX.00, XXX.25, XXX.50, XXX.75). Soft Check: If IWER enters a value outside of this range—
 - a. "Please record data to the nearest quarter-inch."

Sec12.V908_WaistDifficulties

I908_WaistDifficulties

WAIST CIRCUMFERENCE

What difficulties occurred during this measurement?

None1
R had breathing difficulties2
R was unable to hold breath at end of exhale3
R was prevented from giving full effort by illness, pain, or other symptoms or discomforts.....4
R did not appear to give full effort, but no obvious reason for this.....5
Other97

PROGRAMMING: Unless otherwise specified above, all skip to V911.

PROGRAMMING: All skip to V911

PROGRAMMING: All skip to V845 except IF SalDefer=5 THEN go to saliva packaging and obs. **** For Rs who needed more time for saliva collection.

Sec12.V905_WaistWhyNotComplete

I905_WaistWhyNotComplete

WAIST CIRCUMFERENCE

Why weren't you able to measure R's waist? (Enter all that apply)

R felt it would not be safe.....1
IWER felt it would not be safe.....2
R refused or was not willing to complete the measurement.....3
R tried but was unable to complete the measurement.....4
R did not understand the instructions.....5
R is not able to stand.....6
Other97 →

PROGRAMMING: If V905 = 1, 2, 3, 4, 5 or 6, go to V845 except IF SalDefer=5 THEN go to saliva packaging and obs. **** For Rs who needed more time for saliva collection.

→ Go to V845

IF SalDefer = 5 then go to block specified below **** - saliva packaging and obs. Questions for those Rs who needed more time for saliva collection.

If R needed more time for saliva collection -

PROGRAMMING: If I[XXX]_SalDefer = 5, the block containing the saliva packaging instructions and observations should appear here.

I646_Sal_Instruct3
I647_Sal-Instruct4
I918_SalivaFill Vial
I915_SalivaComplete
I919_SalivaProblems
I920_SalivaProblem_Specify
I916_SalivaWhyNotComplete
I917_SalivaNotComplete_Specify

SecI.V[XXX]_PMThank

I658_PMThankDeferSaliva

Thank you for your cooperation. This concludes the physical measures and biomarkers portion.

[Provide respondent with a supplemental document to review.](#)

[Please review this pamphlet which details the measures we've just collected. I have a few things I need to enter into the computer and we'll continue the interview in about one minute.]

/*Section I Pre-Data-Entry Thank You Script for Rs who need more time for Saliva sample collection*/

PROGRAMMING:

IF

I802=5 (R did not consent to Physical Measures), OR
I980_HT_Dir = 5 AND
I981_WT_Dir = 5 AND
(I636_WA_Stnd = 5 OR WADir = 5)

THEN

do not display the bracketed text above.

Continue.....1

SecI2.V845_
I845_

PROGRAMMING: If V802 = 1 display this text:

You have completed entering the physical measurements and biomarkers.
Enter [1] to continue and complete this interview.

ELSE:
This respondent will not be asked to complete physical measures.
Enter [1] to continue with the interview.

Continue.....1

SecI.V936_PhysMeasBio_CompletionFlag
I936_PhysMeasBio_CompletionFlag

- 1 = Completed at least one measurements
- 5 = Did not complete any measurements
- . = Not in enhanced FTF sample or not asked to complete any measures