

Common Measures Overview

Version 2.2 – 2026-10-07

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For questions about the common measures, please contact:

Sven Halvorson
HCXF Clinical Data Manager
sven.halvorson@heart.org

Note that this is a living document and will continue to be updated.

Introduction

Intended Audience:

- Studies funded through the American Heart Association's Health Care by Food™ (HCXF) initiative
- Researchers studying "Food is Medicine" (FIM)

Goal:

- To enable comparison of results across studies that are funded through HCXF.
- Offer recommendations of high quality instruments for FIM research.

Codebooks:

- Detailed descriptions of the measures, items and data formatting are available in excel workbooks. Note that there are minor differences between the codebooks and source materials (links) – please default to the codebook.

Level of measurement:

- *Participant-level* measures record data about study participants. They are generally collected through surveys or an electronic health record (EHR). Note that a few of the measures listed here are appropriate for the family members of participants or clinicians.
- *Study-level* measures describe elements of the study design and execution. These are compiled primarily by the HCXF data manager and supplemented by study teams.

Participant-level measure priority:

- *Core* measures are required by all study teams, with the use of the specified measurement tool*
- *Preferred* measures are not required, but if the dimension is measured, we request that it is done using the specified measurement tool*
- *Optional* measures are for consideration by your team.

*Unless a rationale is provided.

Table 1: Measures by Priority and Category

	Core	Preferred	Optional
Sociodemographics	Age Sex Race and Ethnicity (short form) Household Size Insurance	Area Deprivation Index Social Vulnerability Index Income	Gender Race and Ethnicity Education Employment
Financial strain and food security	Food Assistance Financial Strain Nutrition Security Scale Food Security Survey		\$400 Question Youth Food Security Food Pantry Use
Health and healthcare	Self-rated Health	Clinical Comorbidities Hospitalization Healthcare Utilization (self-report) Loneliness Work Productivity	Health Status Healthcare Quality
Diet		Dietary Screener (10-item) Dietary Screener (26-item) 24-hour Dietary Assessment	
Implementation	Net Promotor Score	Acceptability Appropriateness Feasibility	Engagement

Participant-level Measures

Core

Required for all teams to collect using specified measurement tool.

Preferred data collection methods are listed in **bold**. Mid-intervention data collection is listed for some measures but this is optional.

Table 2: Core Measures

Measure	Collection Method(s)	Time Points Collected	Links	Notes
Age	EHR self-report	baseline		Alternatively, collect date of birth and calculate age at enrollment
Sex	EHR self-report	baseline		
Race and Ethnicity (short form)	EHR self-report	baseline	Link 1 Link 2	Either the long or short race and ethnicity form can be utilized
Household Size	EHR self-report	baseline	Link 1 Link 2	Includes total number of people and number of individuals under 18 years
Insurance Type	EHR self-report	baseline	Link	

Table 2: Core Measures (*continued*)

Measure	Collection Method(s)	Time Points Collected	Links	Notes
Federal Food Assistance	self-report	baseline post-intervention	Link	• We recommend modifying the question text to include local SNAP program names • Derived from the American Community Survey
Financial Strain	self-report	baseline post-intervention	Link	• Single item on difficulty of paying bills
Nutrition Security Scale	self-report	baseline post-intervention	Link 1 Link 2	• Please use the entire four-item instrument
U.S. Household Food Security Survey Module: Six-item Short Form	self-report	baseline post-intervention	Link 1 Link 2	• Use versions that ask about a 30-day lookback period • OPTIONAL ENHANCEMENT: Studies may use the longer form tools (10 item or 18 item) which include the 6 item in the core measure.
Self-rated Health	self-report	baseline post-intervention	Link	• Single item general health status question • OPTIONAL ENHANCEMENT: EQ-5D-5L is often used in cost-effectiveness analyses

Table 2: Core Measures *(continued)*

Measure	Collection Method(s)	Time Points Collected	Links	Notes
Intervention satisfaction - Net Promotor Score	self-report	post-intervention	Link 1 Link 2 Link 3	Scored via 0-10 Likert scale by subtracting the percent who rate program at 6 or below from those who rate the program with a 9 or a 10.

Preferred

These measures are *not* required, but if you collect these dimensions, we ask that you use the specified instrument.

Table 3: Preferred Measures

Measure	Collection Method(s)	Time Points Collected	Links	Notes
Area Deprivation Index	EHR self-report	baseline	Link	• 2020 version recommended. • Use Exact Address either from EHR or self-report to generate a 9-digit zip code that can be attached to a Social Vulnerability Index / Area Deprivation Index
Social Vulnerability Index	EHR self-report	baseline	Link	• 2020 version recommended. • Use Exact Address either from EHR or self-report to generate a 9-digit zip code that can be attached to a Social Vulnerability Index
Household Income	EHR self-report	baseline	Link	

Table 3: Preferred Measures (*continued*)

Measure	Collection Method(s)	Time Points Collected	Links	Notes
Clinical Measurements	EHR self-report staff/clinician	baseline post-intervention mid-intervention		- Clinical measurement is recommended, but the specific types will be dependent on the population. Possible types: BMI, waist-hip, blood pressure, lipid panel, HbA1C. Other clinical measurements should be selected based on the appropriateness of the study, with coding convention noted - Clinical data should be collected by a health professional and/or from an EHR system, not self-report.
Comorbidity Categories	EHR self-report	baseline	Link 1 Link 2	- When possible, collect via ICD10 codes from an EHR. - ICD10 groupings are available in the common measure codebook. These were principally derived from the Elixhauser Comorbidity Index. - The common measures codebook provides a checkbox item for self-report.

Table 3: Preferred Measures (*continued*)

Measure	Collection Method(s)	Time Points Collected	Links	Notes
Recent Hospitalizations	EHR self-report	baseline post-intervention mid-intervention		- Recent hospitalization is one measure of healthcare utilization. - When possible, collect through EHR or claims data
Healthcare Utilization - Self Reported Single Item	self-report	baseline	Link	- Single item recalling the number of healthcare visits over the last year - Derived from the Health Information National Trends Survey (HINTS)
De Jong Gierveld Loneliness Scale	self-report	baseline post-intervention mid-intervention	Link	
Work Productivity and Activity Impairment Questionnaire: General Health V2.0	self-report	baseline post-intervention mid-intervention	Link	

Table 3: Preferred Measures (*continued*)

Measure	Collection Method(s)	Time Points Collected	Links	Notes
Dietary Screener Questionnaire (10-item)	self-report	baseline post-intervention mid-intervention	Link 1 Link 2 Link 3	• We suggest the DSQ10 or DSQ26 as “low touch” options – easier to administer but more limited than recalls. • Please note that the self-report version of this tool should be used. • NCI developed scoring algorithms to convert screener responses to estimates of individual dietary intake for fruits and vegetables (cup equivalents) and more.
Dietary Screener Questionnaire (26-item)	self-report	baseline post-intervention mid-intervention	Link 1 Link 2 Link 3	• We suggest the DSQ10 or DSQ26 as “low touch” options – easier to administer but more limited than recalls. • Please note that the self-report version of this tool should be used. • NCI developed scoring algorithms to convert screener responses to estimates of individual dietary intake for fruits and vegetables (cup equivalents) and more.

Table 3: Preferred Measures (*continued*)

Measure	Collection Method(s)	Time Points Collected	Links	Notes
Automated Self-administered 24-hour Dietary Assessment tool	self-report	baseline post-intervention mid-intervention	Link 1 Link 2	We suggest the ASA24 as a “high touch” option – this measure provides more detailed data but takes longer to administer. Most respondents complete their 24-hour recall (ASA24) within a range of 17 to 34 minutes.
Acceptability	self-report staff/clinician	post-intervention	Link 1 Link 2	Questions can be asked to clinicians, non-patient stakeholders, or patient participants depending on intervention and study focus.
Appropriateness	self-report staff/clinician	post-intervention	Link 1 Link 2	Questions can be asked to clinicians, non-patient stakeholders, or patient participants depending on intervention and study focus.
Feasibility	self-report staff/clinician	post-intervention	Link 1 Link 2	Questions can be asked to clinicians, non-patient stakeholders, or patient participants depending on intervention and study focus.

Optional

These measures are for your consideration.

Table 4: Optional Measures

Measure	Collection Method(s)	Time Points Collected	Links	Notes
Self-identified Gender	EHR self-report	baseline		
Race and Ethnicity	EHR self-report	baseline	Link 1 Link 2	• Preferred enhancement to the short form
Education Level	self-report	baseline	Link	• Adapted from NHANES • Prior common measures used a longer radio button.
Employment	self-report	baseline		
Hypothetical \$400 Emergency Bill	self-report	baseline post-intervention		• Ability to pay for an emergency expense
Self-Administered Food Security Survey Module for Children Ages 12 Years and Older	self-report	baseline post-intervention	Link	• Administered to youth ages 12 and up • Use versions that ask about a 30-day lookback period
Food Pantry Use	self-report	baseline post-intervention		

Table 4: Optional Measures (*continued*)

Measure	Collection Method(s)	Time Points Collected	Links	Notes
EuroQol 5-item 5-point Health Status	self-report	baseline post-intervention	Link	• Measure is often used in cost-effectiveness analyses
Healthcare Quality	self-report	post-intervention	Link	• Single item satisfaction measure • Derived from the Health Information National Trends Survey (HINTS)
Program Engagement	self-report	post-intervention mid-intervention		• Includes willingness to pay for intervention and FIM intervention consumption

Study-level Measures

Study-level measures describe the design and execution of a scientific study. For HCXF funded studies, the data manager will compile a draft of this data and present it to studies for revision.

The high-level study information describe the study as whole. Others components describe one “instance” of that idea and can be repeated multiple times. For example, the data on interventions can be repeated for a single study because a study may apply more than one intervention to their participants.

The entire list of study level measurements is given in the [version 2.2 codebook](#).

Table 5: Study-level Components

Component	Notes
High level study information	• Example fields: title, study setting, allocation methods • Required from studies: overall FIM, education, and/or service redemption rates. Recruitment and enrollment counts.
Arms participants were allocated to	• Includes counts of participants allocated to arms, withdrawals, loss to follow-up, and analyzed
Cost break-down	• Examples include intervention costs per participant, administrative costs, scaling
Planned data collection events	• Baseline, follow-up 1, follow-up 2 etc.
Inclusion and exclusion criteria	
Interventions applied	• Each intervention is categorized as education, enhanced communication, food provision/subsidy, service, or other. • Example fields: FIM type (MTM, MTG, produce prescription), dosing, communication procedures, and type of education.
Outcomes measured	• Derived from clincialtrials.gov registration
Publications produced	• Scholarly publications resulting from this study

Changelog

Table 6: APPENDIX: Change Control Table

Date of Change	Version	Location	Description of Change(s)
12/17/2024	1.1	Page 13 – Appendix 1	Added a change control table to document changes going forward
12/17/2024	1.1	Header/Footer	Changed from version number to 1.1 and removed “Beta” (header/footer); added last updated date and page numbers (footer)
12/17/2024	1.1	Overview table (pg 1), Core measures table (pg7), and Preferred measures table (pg 9).	Based on a unanimous vote from the Health Equity and Common Measures Task Force on December 13, 2024, the Nutrition Security was removed from the Preferred Measures list to the Core Measures list. This change is reflected in the three respective tables.
01/03/2025	1.11	Core Measures Table: General Health Status Dimension, page 6 Preferred Measures Table: Fidelity and Acceptability Dimension, Deprivation Dimension, page 8; and Co-Morbidities Dimension, page 10	Reviewed all links in the document. Four links were no longer valid/found. All four of these links were updated.
01/03/2025	1.11	Header/Footer	Changed from version number to 1.11 to reflect the relatively minor update to the document (header/footer); changed last updated date (footer)

Table 6: APPENDIX: Change Control Table (*continued*)

Date of Change	Version	Location	Description of Change(s)
03/10/2025	1.11	Codebook	• Several corrections were made to the codebook • Net Promoter Score range changed from 1-10 to 0-10 (already correct in PDF version) • Removed the response options "A homemaker", "A student", "Retired", "Unable to work (disabled)" from InsuranceType • Removed the options "Some months but not every month", "Only 1 or 2 months", and "DK" from FSSM6_AD1a (food insecurity) • Merged the second and third categories for HH_income into "\$10,000 to \$24,999" to match the PDF version. • Resiliency_400Q and Employment now are listed as checkbox questions (Multiple Entries Allowed? = Yes) • HouseholdSize_under18 should have a minimum value of 0 instead of 1
03/21/2025	2	food_assistance	• Federal food security can now be given as two questions to disambiguate SNAP and WIC use

Table 6: APPENDIX: Change Control Table (*continued*)

Date of Change	Version	Location	Description of Change(s)
04/21/2025	2	Codebook	• A major restructuring of the codebook formatting and naming was conducted. These changes generally do not impact the content of the participant-level common measures, only the appearance. • Study-level measures are more well developed and organized • Measures now have an ID listed in the codebook. They are more finely partitioned but placed in one of five categories. (ex: age and sex are separate measures under the sociodemographics category) • Columns in the codebook were renamed to have a more uniform style. They are prefixed with the measure_id, converted to snake case, use noun-adjective ordering, have padded question numbers, and checkbox questions use a suffixes like _b### for each option. • Value label schemas were restructured. Preference was given to the source materials if prescribed. Yes/no, dichotomous, and checkbox questions now have binary value schemas. Standardized missing codes were applied(96 = Not asked 97 = Not applicable 98 = Don't know 99 = Prefer not to respond). Choice order was retained. • Dead links were removed

Table 6: APPENDIX: Change Control Table (*continued*)

Date of Change	Version	Location	Description of Change(s)
04/21/2025	2	Codebook	• DSQ was split into 10-item and 26-item versions. DSQ10 is listed as a core measure although alternative diet assessments can be used instead. • Healthcare visits (utilization) split into two measures: self-report and EHR collected • Financial strain and food assistance split into separate measures • Area deprivation index and social vulnerability index now listed as separate measures
05/16/2025	2	resiliency	• Removed reference to "emergency room" from question wording
05/16/2025	2	institution_quality	• Renamed from "clinical impact" to "quality of institutional care"
05/16/2025	2	food_assistance	• Added option to use state SNAP program in question wording
05/16/2025	2	comorbidity	• Changed preferred method of reporting to be the Elixhauser comorbidity index
6/05/2025	2	dsq26	• The item dsq26_230 was incorrectly labeled as pertaining to red meat when it should have been donuts
06/19/2025	2	fssm6	• Added time qualifier (30 days) to fssm6_hh3 and fssm6_hh4

Table 6: APPENDIX: Change Control Table (*continued*)

Date of Change	Version	Location	Description of Change(s)
04/23/2026	2.1	food_assistance	Removed food_assistance_01 – we recommend asking SNAP and WIC separately. Recommend using local SNAP partner name
04/23/2026	2.1	nss	We now recommend the four item instrument be used instead of the GSS one-item
04/23/2027	2.1	gender	Reclassified as “optional”, offers marginal benefit on top of sex alone
04/23/2027	2.1	race	Reclassified as “preferred” if studies want additional detail beyond the race_short measure
04/23/2027	2.1	insurance	Added the prompt “What kinds of health insurance or health care coverage do you have? Select all that apply.” for use within a survey
04/23/2027	2.1	institution_quality	Removed – highly varied and not all studies are conducted at medical institutions
04/23/2027	2.1	education	Replaced with education_nhanes – unweildy to administer
04/23/2027	2.1	education_nhanes	Added – one item radio button with three levels
10/07/2026	2.2	dsq10	Reclassified as “preferred”
10/07/2026	2.2	dsq26	Reclassified as “preferred”
10/07/2026	2.2	asa24	Reclassified as “preferred”

Table 6: APPENDIX: Change Control Table (*continued*)

Date of Change	Version	Location	Description of Change(s)
10/07/2026	2.2	dietid	• Removed – mixed reviews by early grantees
10/07/2026	2.2	hospital	• Added – three items for recording recent hospitalizations (30, 90, and 180 days)
10/07/2026	2.2	hcu_nhis	• Replaced by hospital measure
10/07/2026	2.2	comorbidity	• Replaced Elixhauser comorbidity index with six-item checklist
10/07/2026	2.2	wpai_gh2	• Added Work Productivity and Activity Impairment Questionnaire: General Health V2.0 as a preferred measure