



Common Measures for AHA Health Care x Food Funded Studies

Intended Audience*: Funded Studies through the American Heart Association's Health Care x Food initiative.

Goal of these measures*: To enable comparing results across studies that are funded through the American Heart Association's Health Care x Food initiative, by encouraging a shared set of measures that facilitate comparison between studies and support of equity frameworks. We also encourage FIM researchers more widely to consider the use of these measures.

Definition of Categorization:

- 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, with the specified measures **optional** for your use.

**Unless a rationale is provided.*

Overview of Common Measures (details on following pages):

Core Measures	Preferred Measures	Optional Measures
Intervention Characteristics including cost	Additional Sociodemographic	Household Resilience
Satisfaction	Fidelity and Acceptability	Employment
Engagement	Deprivation	Engagement (Additional Measures)
Sociodemographic	Biomarkers	Food Insecurity – Children
Food Insecurity	Health Care Utilization	Clinical Satisfaction
Financial Strain	Nutrition Security	
General Health Status	Social Isolation and Loneliness	
Diet Quality	Co-Morbidities	

CORE MEASURES: Required for all teams to collect using specified measurement tool

Dimension	Measurement Tool and/or Elements to be collected	Time Point Collected	Collection Method
Intervention Characteristics	<ul style="list-style-type: none"> • Type of FIM program • Study setting/locations, target population and eligibility (inclusion/exclusion) • Recruitment method, target number of participants • Study timeframe, duration and follow up period (if any) • Intervention methods (during active intervention and post-intervention if any) and randomization schema • primary and secondary outcomes with main hypothesis • Details of Intervention that is provided to participants <ul style="list-style-type: none"> ○ Food Provision <ul style="list-style-type: none"> Details: ▪ Dose ▪ Duration ▪ Frequency ▪ Delivery or Pick Up ▪ Timing ○ Food provided, including nutrition information. ○ Ancillary offerings 	Baseline, and please document any deviations at the end of the intervention	To be completed by study staff, not participants

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	<p>(including but not limited to training and education)</p> <ul style="list-style-type: none"> ○ Communication Details (frequency, type, mode) ○ Technical Assistance availability ● Nutrition Education Components (access, type, frequency of availability, credentials of provider) ● Projected study cost breakdown (recruitment, food cost, delivery, education, measurement, incentives etc.) <ul style="list-style-type: none"> ○ Refer to cost effectiveness analysis guidelines provided as an appendix 		
Satisfaction	<p><u>Net Promoter Score</u></p> <p>“How likely is it that you would recommend [insert intervention] to a friend or colleague?”</p> <p>Scored via 0-10 Likert Scale subtracting % who rate program at 6 or below from those who rate the program with a 9 or a 10.</p>	Post-Intervention	Patient Self Report
Engagement	<ul style="list-style-type: none"> ● Number Screened ● Number Contacted 	Post-Intervention	*Collected and calculated by study staff; please be transparent in the collection and calculation methods.

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	<ul style="list-style-type: none"> • Number that completed IRB consent and randomized into intervention • Number that received intervention • Number that withdrew and discontinued intervention • Number that did not withdraw but stopped engaging (lost to follow up) • Number that had the completed main outcome measures of intervention • Redemption Rate (for produce prescriptions, e.g., number of meals or prescriptions redeemed out of total available) for all components of intervention • Adherence Rate (e.g., shared medical appointments, nutritional counseling, coaching etc.) for all components of intervention 		<p>Redemption rate and adherence rate refer to all components of an intervention and may be reported out separately (e.g. x% redeemed at least one voucher and y% attended all of the group education classes).</p>
<p>Sociodemographics</p>	<p>Collect from electronic health record as feasible, with exception of Race/Ethnicity, which should be collected via self-report. If there is no access to an EHR, items should be collected via self-report. For wording for Sociodemographics Questions see GusNIP List of Participant-level core metrics page 9</p>	<p>Baseline</p>	<p>Collect from EHR (with exception of race/ethnicity) if possible to minimize respondent burden. If not possible, use self-report.</p>

	<ul style="list-style-type: none"> • Age (Specific age at enrollment) • Gender (Male / Female / Female to Male (FTM), Transgender Male, Trans Man / Male to Female (MTF), Transgender Female, Trans Woman / Genderqueer, neither exclusively male nor female / Additional gender category or other. / Did not disclose) • Sex (Male / Female / Unknown) • What is your race and/or ethnicity? Select all that apply. (American Indian or Alaska Native; Asian; Black or African American; Hispanic or Latino; Middle Eastern or North African; Native Hawaiian or Pacific Islander; White) • Insurance Type • Household Size 		
<p>Food Insecurity</p>	<ul style="list-style-type: none"> • USDA FSSM 6-Item • All teams should use versions with a 30-day lookback period. <p>OPTIONAL ENHANCEMENT: Note that teams may choose to use the longer form tools (10 item or 18 item)</p>	<p>Baseline, post-intervention</p>	<p>Patient self-report</p>

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	as well, at the same link. These longer forms include the 6 item in the core measure.		
Financial Strain	<ul style="list-style-type: none"> • Food Assistance enrollment (SNAP / WIC) in last 30 days • <i>For food assistance use recommend asking “Have you received federal food assistance through either SNAP or WIC in the past 30 days”</i> • Financial Strain • For Financial Strain, recommend using: How often does this describe you? I don’t have money to pay my bills (including food, housing, medical care or heating). Never / Rarely / Sometimes / Often / Always 	Baseline, post-intervention	Patient self-report
General Health Status	<ul style="list-style-type: none"> • Single General Health Status Question: Would you say that in general your health is excellent, very good, good, fair, or poor? <p>OPTIONAL ENHANCEMENT, EQ-5D-5L is an optional measure that is often used in cost-effectiveness analyses.</p>	Baseline, post-intervention	Patient self-report

<p>Diet Quality</p>	<ul style="list-style-type: none"> • We welcome the use of any measurement tool that can convert to cup-equivalents per day. • For the core measure, we ask that at a minimum, studies collect fruit and vegetable intake (for instance, 10-Item DSQ). Please note that the self-report version of this tool should be used. <p>PREFERRED ENHANCEMENT: For those who are well-positioned to collect additional information, DSQ-26 or multiple 24 Hour Recalls are well-validated tools.</p>	<p>Baseline, Post-Intervention, Optional at points mid-intervention</p>	<p>Patient self-report</p>
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PREFERRED MEASURES: These dimensions are **NOT** required; but if you collect these dimensions, we ask that you use the specified measurement tool

Dimension	Measurement Tool and/or Elements to be collected	Time Point Collected	Collection Method
Additional Sociodemographic	<ul style="list-style-type: none"> • Annual Household Income • Ranges: <ul style="list-style-type: none"> ○ Less than \$10,000 ○ \$10,000 - \$24,999 ○ \$25,000 - \$34,999 ○ \$35,000 - \$49,999 ○ \$50,000 - \$74,999 ○ \$75,000 - \$99,999 ○ \$100,000 - \$149,999 ○ \$150,000 - \$199,999 ○ \$200,000 or more ○ Prefer not to answer 	Baseline	Collect from EHR as feasible; self-report otherwise.
Fidelity and Acceptability	<ul style="list-style-type: none"> • Acceptability of Intervention • Intervention Appropriateness • Feasibility of Intervention 	Post-Intervention	Questions asked to clinicians, non-patient stakeholders or patient participants depending on intervention and study focus.
Deprivation	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	Baseline	EHR or patient self-report
Biomarkers	Biomarker measurement is recommended, but the specific biomarker will be dependent on the population.	Baseline, post-intervention; optional for during intervention	Biomarkers should be collected by a health professional and/or from an EHR system, and not based on recall or self-report.

	<p>For example:</p> <ul style="list-style-type: none"> • DM - HbA1c; • HTN - SBP and DBP 		
Health Care Utilization	<p>Appropriate measures depend on the study objectives.</p> <p>Examples include:</p> <ul style="list-style-type: none"> • Acute care visits • Hospitalization days • ER visits • No-show rates (if there is an accepted algorithm within the health system to calculate this) <p>An alternative single-item satisfaction measure could be from the National Cancer Institute Health Information National Trends Survey (HINTS): “During the past 12 months, not counting times you went to an emergency room, how many times did you go to a doctor, nurse, or other health professional to get care for yourself?”</p>	Baseline, post-intervention	<p>Derived from EHR or health claims; with alternative self-report question option as needed.</p> <p>NOTE: We have made this a preferred and not required measure for this stage of AHA HCXF. In the future as our study objectives evolve to focus more on influencing health care utilization this will likely become a core measure.</p>
Nutrition Security	One-item Gretchen Swanson Nutrition Screener	Baseline, post-intervention	Patient self-report

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Social Isolation or Loneliness	De Jong Gierveld Loneliness Scale	Baseline, post-intervention; optional during intervention	Patient Self Report
Co-Morbidities	<p>ICD10 Codes</p> <p>If self-report is used, the relevant questions from National Health Interview Surveys is acceptable.</p> <p>For self-reported data, conditions should be converted to the corresponding ICD-10 codes for reporting.</p>	Baseline	Preference is for these to be collected via ICD10 codes pulling from EHR. Options for patient self-report provided as needed.

OPTIONAL MEASURES: These are for consideration.

Dimension	Measurement Tool Identified	Suggested Time Points	Collection Method
Household Resilience	<p>\$400 Question: “Suppose that you have an emergency room expense that costs \$400. Based on your current financial situation, how would you pay for this expense? (If you would use more than one method to cover, please check all that apply)</p> <ul style="list-style-type: none"> • Put on my credit card and pay it off in full at the next statement. • Put it on my credit card and pay it off over time. • With the money currently in my checking/saving account or with cash • Using money from a bank loan or line of credit • By borrowing from a friend or family member • Using a payday loan, deposit advance, or overdraft • By selling something • I wouldn't be able to pay for the expense right now. • Prefer not to say. • Other, Specify: 	Baseline, post-intervention	Patient self-report
Additional Sociodemographic	<ul style="list-style-type: none"> • Employment Status <ul style="list-style-type: none"> ○ Employed for wages (part-time or full-time) ○ Self-employed ○ Out of work for 1 year or more ○ Out of work for less than 1 year ○ A homemaker ○ A student ○ Retired ○ Unable to work (disabled) ○ Prefer not to answer 	Baseline	Patient self-report

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Engagement	<ul style="list-style-type: none"> • If you had to pay for this program [insert name] would you choose to participate? • Of the provided food, how much was consumed? 	Post-intervention: optional during intervention as needed for consumption data	Patient self-report
Food Insecurity - Children	<p>Self-Administered Food Security Survey Module for Youth Ages 12 and Older</p> <p>All teams should use versions that ask for a 30-day lookback period.</p>	Baseline, post-intervention	Patient self-report
Clinical Impact and Satisfaction	<ul style="list-style-type: none"> • We recommend using a HEDIS measure that is appropriately aligned with your population and/or context. • HEDIS Measures and Technical Resources - NCQA • Examples Include, but are not limited to: <ul style="list-style-type: none"> ○ For pregnant population: Postpartum Care (% of deliveries in which women had a postpartum visit on or between 7 and 84 days after delivery. ○ For those who might provide an intervention to people at time of discharge from a skilled nursing facility: Hospitalization following discharge from a skilled nursing facility. • An alternative single-item satisfaction measure could be from the National Cancer Institute Health Information National Trends Survey (HINTS): “Overall, how would you rate the quality of health care you received in the past 12 months?” 	Post-Intervention	<p>Health care organizations; option for single-item patient self-report question</p> <p>NOTE: this is listed as an optional measure for now but as the stages of HCXF evolve may become a preferred or core measure.</p>