Western Region's SNAP-Ed Evaluation Framework: Nutrition, Physical Activity, and Obesity Prevention Outcomes

Indicator Definitions and Data Sources Priority Indicators – Federal Fiscal Year (FFY) 2016 March 31, 2015

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ST=short-term; MT=medium-term

Individual-Level Indicators
multilual-bever multators
<i>Scope of Interventions:</i> Individual, family, or group based nutrition
education, physical activity promotion, and intervention strategies
Overarching Evaluation Question: To what extent does SNAP-Ed
programming improve participants' diet, physical activity, and health?
Priority Indicators: MT1, MT2, MT3
MT=Medium-Term

Individual-Level. The base level of the *Framework* represents the foundation of SNAP-Ed: individual, group, and family nutrition education and physical activity promotion and related interventions. All State SNAP-Ed Plans must include individual-level activities (identified as "Approach 1" within the FFY 2016 SNAP-Ed Guidance). Individual and group based activities are designed to change knowledge, goals, intentions, and skills that create pathways to behavioral changes among low-income SNAP-Ed participants. The outcomes in this level are measured through validated and reliable questionnaires, such as the Food Behavior Checklist or the International Physical Activity Questionnaire, designed for low-income and low-literacy populations to self-report their behaviors. The indicators in this level focus on improving nutrition, stretching food dollars, and increasing physical activity through free or low-cost exercise or leisure-time sports.

At the individual-level, the three priority indicators for FFY 2016 are selected from the Medium-Term outcomes in the *Framework*; Medium-Term (MT) outcomes are behavioral changes resulting immediately upon completion of a series of evidence-based direct nutrition education and physical activity lessons. Medium-term outcomes represent changes in actions or behaviors as measured by pre- and post-questionnaires before and after individual, group, and family based education and health promotion programs. Additionally, there are two options for 24-hour dietary recalls using images and visual cues to estimate portion sizes in low-literacy populations. Certain physical activity behaviors can also be directly measured using pedometers, for instance.

Each indicator has multiple outcome measures. An outcome measure is the "desired benefit, improvement, or achievement of a specific program or goal" (Posavac & Carey, 1997). Program evaluators can choose one or more outcome measures for each indicator based upon state or local evaluation objectives and learning goals. The medium-term indicators are actionable for on-going program evaluation and continuous program improvement. Participants who begin and complete a SNAP-Ed program should have their targeted behaviors assessed at baseline and again at program completion. For each indicator, a list of preferred questionnaires, sample questions, and data collection methodologies are suggested. Some questionnaires may be

proprietary, have specific requirements for utilization, or items of cost; please contact the survey developer prior to initial implementation.

Evaluators should measure, analyze, and report changes in either mean (average) scores, where appropriate, or the distribution of participant responses or self-reported behaviors before and after the series. These summary statistics should be based on the number of participants who complete both the baseline and the program completion questionnaire. The reporting of means and/or the distribution of responses or behaviors should include the number of participants from which the findings were calculated. Statistical testing is encouraged to rule out that the observed changes are due to chance. Step-by-step guidance for SNAP-Ed Program Evaluation is available in: <u>Addressing the Challenges of Conducting Effective Supplemental</u> <u>Nutrition Assistance Program Education (SNAP-Ed) Evaluations.</u>

While there is no time period or required number of program sessions for tracking Medium-Term indicators, States are expected to use principles from *Best Practices for Nutrition Education for Low-Income Audiences*. These principles include delivering a program fully and as intended, based upon behavioral theory, and with an appropriate number of educational sessions and educational contacts (Baker et al., 2014).

Indicator MT1 MyPlate Behaviors		
Logic Model Component	Medium-Term Outcome – Nutrition Changes in individual and group behaviors that reflect <i>MyPlate</i> principles and are on the pathway to achieving the current <i>Dietary Guidelines for Americans</i> recommendations	What to measure: SNAP-Ed participants who increased* one or more of the targeted dietary outcome behaviors during the period assessed. Choose at least one outcome measure from the list provided, and select a measurement approach based upon the type of survey question and responses:
Outcome Measures	 MyPlate Dietary Behaviors. Improvements in dietary behaviors during the period assessed: MT1. Use of MyPlate to make food choices. During main meals: MT1a. Protein foods prepared without solid fats (e.g., saturated and/or trans fats) MT1b. Ate a serving size of protein less than the palm of a hand or a deck of cards Throughout the day: MT1c. Ate more than one kind of fruit MT1e. Drank more plain water MT1f. Drank fewer sugary beverages (e.g., regular soda or sports drinks) MT1g. Drank more low-fat or fat-free milk (including with cereal), milk products (e.g., yogurt or cheese), or fortified soymilk 	Interval - Interval measures are standard units, such as cups of milk. When the survey responses include standard units (e.g., ¼ cup, ¼, cup, 1 cup), it is preferred to use paired or matched statistical tests to determine whether there are changes in mean (average) scores before and after the program. Use paired or match statistical tests, such as a <i>t</i> - test, to determine whether the changes are statistically significant. <i>Ordinal</i> - Assessments of attitudes or agreement with statements using a Likert-type rating scale use <i>ordinal</i> measures. For ordinal levels of measurement, the simplest approach is to collect and analyze percentage distributions of responses before and after the program. For instance, before the program, a certain percentage of participants may strongly agree with a statement; at follow-up, a different percentage may strongly agree. Calculate the percentage change from before, to after the program. Unlike interval data, calculating means is not appropriate for ordinal responses. However, comparing the median (middle) or mode (most frequent) response before and after the program can be appropriate. The Wilcoxon Signed-Rank statistical test will identify the level of statistical significance.
	MT1i. Ate less refined grains (e.g., spaghetti, white rice) MT1j. Ate less desserts or sweets (e.g., cookies or cake)	answers to "yes or no" questions), these are categorical responses. For nominal data, the simplest approach is to collect and analyze percentage distributions of responses before and after the program. For instance,
Population	Youth (grades 3 and up) and Adults	 before the program, a certain percentage of participants may drink low-fat milk; at follow-up, a different percentage may drink low-fat milk. Calculate the percentage change from before to after the program. The McNemar's statistical test will identify the level of statistical significance. (*Note, for certain outcome measures, a reduction in the behavior is desired. An example is drinking sugary beverages, such as regular soda or sports drinks).

that corresponds to the question is identified in brackets.	
Adults <u>Children and Youth</u>	
1. Visually-Enhanced Food Behavior Checklist (13 items)9. Beverage and Snack Questionnaire (19 items)	
Available at: http://townsendlab.ucdavis.edu/ 10 - 18 year olds	
Do you eat more than one kind of fruit each day? [MT1c] Available at:	
Do you eat more than one kind of vegetable each day? [MT1d] <u>http://sharedresources.fhcrc.org/documents/beverage-and-snace</u>	<u>ck-</u>
Responses: no; yes, sometimes; yes, often; yes, always <u>questionnaire</u>	
 How often did you drink these beverages in the past week? 	
2. Starting the Conversation (8 items) [MT1e-g]	
Available at: http://evaluationpse.org/dietary.do • How often did you eat these foods in the past week? [MT1h-j]	
How much margarine, butter, or meat fat do you use to season Responses: never or less than 1 per week, 1 per week; 1	12-
vegetables or put on potatoes, bread, or corn? [MT1a] 4 per week, 5-6 per week, 1 per day, 2-3 per day, 4+ pe	er
Responses: very little, some, a lot day	
 How many times a week did you eat desserts or sweets (not the low- 	
fat kind)? [MT1j] 10. California Youth Nutrition and Physical Activity Survey	
Responses: 1 time or less, 2 - 3 times, 4 or more times [condensed version of the School and Physical Activity Nutrition]	
project (SPAN) survey]	
3. University of California Cooperative Extension - Plan, Shop, Save, and 4 th – 8 th graders	
Cook Survey (7 items) Available at:	
Available at: <u>http://www.cdph.ca.gov/programs/cpns/Pages/Chapter1Requir</u>	<u>'ed</u>
http://uccalfresh.org/	
 How often do you use MyPlate to make food choices? [MT1] Yesterday, did you eat any corn tortillas or bread, tortillas, bun 	1S,
Responses: never, seldom, sometimes, usually, always bagels or rolls that were brown (not white)? [MT11]	
Yesterday, did you eat sweet rolls, doughnuts, cookies, brownie	es,
4. EFNEP Food Behavior Checklist (15 items) pies, or cake? [M11]]	
Available at: http://townsendlab.ucdavis.edu/ Responses: no, I didn't eat any of these foods yesterday;	;
• I choose healthy foods for my family. [MT1] yes, I ale one of these foods 1 time yesterday; yes, I ale	
Responses: no, sometimes, often, very often, almost always one of these foods 2 times yesterday; yes, 1 ate one of these foods 2 times yesterday; yes, 1 ate one of these foods 2 times yesterday;	
E Share our Strength Cooling Matters for Adults Surgers (20 items)	
5. Share our Strength Cooking Matters for Adults Survey (39 Items)	
Available at: https://foodshuttlesatellites.wordpross.com/forms/cooking.matters	
Grades 3-5	
How often do you twnically out franch fries or other fried notatoos I eat vegetables every day) [MT1d]	
• How origin to you typicarly eat mencin mes of other med polatoes, like home fries hash browns or tater tots? [MT1a]	
Responses: ever or almost never, some days, most days,	,
tan hottled and narking water) [MT1e]	

 When you eat grain products like bread, pasta, rice, etc., how often do you choose whole grain products? [MT1i] <i>Responses:</i> not at all, once a week or less, more than once a week, once a day, more than once a day 6. National Cancer Institute Automated Self-Administered (ASA) 24-hour Dietary Recall 	 EFNEP Nutrition Education Survey Graders Grades 6 - 8, 9 - 12 Yesterday, how many times did you drink nonfat or 1% low-fat milk? Include low-fat chocolate or flavored milk, and low-fat milk on cereal. [MT1g]
Available at: <u>http://appliedresearch.cancer.gov/asa24/</u>	 Yesterday, how many times did you drink sweetened drinks like
7. University of California Cooperative Extension EFNEP Food Tracker: 5-step Multiple Pass 24-hour Dietary Recall Available at: <u>http://townsendlab.ucdavis.edu/</u>	soda, fruit-flavored drinks, sports drinks, energy drinks and vitamin water? Do not include 100% fruit juice. [MT1f] <i>Responses:</i> none, 1 time, 2 times, 3 times
8. Rethink Your Drink (RYD) Survey [originally known as the Beverage Intake Questionnaire (BEVQ-15)] (15 items) Available at:	
http://www.cdph.ca.gov/programs/cpns/Pages/Chapter4SurveysforA dults.aspx	
• Indicate how often you drank the following beverages. [MT1e-g] <i>Responses:</i> Never or less than 1 time per week, 1 time per week, 2-3 times per week, 4-6 times per week, 1 time per day, 2+ times per day, 3+ times per day	

Comments:

Indicator MT1 measures changes reported by participants before and after participation in a series of nutrition education classes. The number of classes and contacts varies by program model, ranging from four to eight sessions. Differences in reportable outcomes may be explained by the intensity of nutrition education programming received by participants. Results may be limited due to self-report biases (e.g., recall and social desirability). Using multiple measures of related behavioral changes strengthens the likelihood of determining that participants are improving their dietary patterns across food groups. At present, there is no standardized survey instrument or composite score used in SNAP-Ed programming due to the variety of curricula and population sub-groups served. Evaluators are encouraged to measure the degree of correlation among the individual measures listed in this indicator.

Indicator MT2 Shopping Behaviors		
Logic Model Component	Medium-Term Outcome – Nutrition Changes in individual and family behaviors that reflect smarter shopping and food resource management strategies, enabling participants to stretch their food resource dollars to support a healthier diet.	What to measure: SNAP-Ed participants who increased* one or more of the targeted shopping and food resource management outcome behaviors during the period assessed. Choose at least one outcome measure from the list provided, and select a measurement approach based upon the type of survey question and responses:
Outcome Measures	 Healthy Purchases: Increase in the following targeted shopping behaviors during the period assessed: MT2a. Choose healthy foods for my family MT2b. Read nutrition facts or nutrition ingredients lists MT2c. Buy 100% whole grain products MT2d. Buy low-fat dairy products MT2e. Buy foods with lower added: 2e1. Solid fats (saturated and/or trans) 2e2. Sugar 2e3. Salt Stretch Food Dollars Increase in the following food resource management behaviors during the period assessed: MT2f. Not run out of food before month's end MT2g. Compare prices before buying foods MT2h. Identify foods on sale or use coupons MT2i. Shop with a list MT2j. Use safe food preparation skills MT2k. Batch cook (cook once; eat many times) MT2l. Refrigerate or freeze leftovers Adults (ages 18+), high school or transitional aged youth who are the primary shoppers/meal preparers 	Interval - Interval measures are standard units, such as volume of milk. When the survey responses include standard units (e.g., 1 quart, ½ gallon, 1 gallon), it is preferred to use paired or matched statistical tests to determine whether there are changes in mean (average) scores before and after the program. Use paired or match statistical tests, such as a t-test, to determine whether the changes are statistically significant. Ordinal - Assessments of attitudes or agreement with statements using a Likert-type rating scale use ordinal measures. For ordinal levels of measurement, the simplest approach is to collect and analyze percentage distributions of responses before and after the program. For instance, before the program, a certain percentage of participants may strongly agree. Calculate the percentage change from before, to after the program. Unlike interval data, calculating means is not appropriate for ordinal responses. However, comparing the median (middle) or mode (most frequent) response before and after the program can be appropriate. The Wilcoxon Signed-Rank statistical test will identify the level of statistical significance. Nominal - When an outcome measure is nominal (e.g., types of whole grain foods or answers to "yes or no" questions), these are categorical responses. For nominal data, the simplest approach is to collect and analyze percentage distributions of responses before and after the program. For instance, before the program, a certain percentage of participants may drink low-fat milk; at follow-up, a different percentage of participants may drink low-fat milk; at follow-up, a different percentage of participants may drink low-fat milk; at follow-up, a different percentage may drink low-fat milk. Calculate the percentage change from before to after the program. The McNemar's statistical test will identify the level of statistical significance. (*Note, for certain outcome measures, a reduction in the behavior is desired.
		An example is running out of food before the end of the month).

How to Measure: The following is a list of preferred surveys and sample questions for MT2 outcome measures for adults/heads of household only.			
Each outcome measure that corresponds to the question is identified in brack	ets.		
<u>Adults/Head of Households</u>	3. EFNEP Food Behavior Checklist (15 items)		
	Available at: http://townsendlab.ucdavis.edu/		
1. Visually-Enhanced Food Behavior Checklist (13 items)	 I choose healthy foods for my family. [MT2a] 		
Available at: <u>http://townsendlab.ucdavis.edu/</u>	Responses: no, sometimes, often, very often, almost always		
 Do you run out of food before the end of the <u>month [MT2f]</u> 	• I shop with a list. [MT2i]		
<i>Responses</i> : no; yes, sometimes; yes, often; yes, always	Responses: no, sometimes, often, very often, almost always		
• Do you use this label when food shopping? [image of Nutrition Facts	• I compare prices. [MT2g]		
panel] [MT2b]	Responses: no, sometimes, often, very often, almost always		
<i>Responses</i> : no; yes, sometimes; yes, often; yes, always	• I run out of food before the end of the <u>month</u> . [MT2f]		
	Responses: no, sometimes, often, very often, almost always		
2. University of California Cooperative Extension - Plan, Shop, Save, and	• I use this food label [image of Nutrition Facts panel] [MT2b]		
Cook Survey (7 items)	Responses: no, sometimes, often, very often, almost always		
Available at: <u>http://uccalfresh.org/</u>	 I thaw frozen foods at room temperature. [MT2j] 		
 How often do you compare unit prices before you buy food? [MT2g] 	Responses: no, sometimes, often, very often, almost always		
<i>Responses:</i> never, seldom, sometimes, most of the time,			
almost always	4. Share our Strength Cooking Matters for Adults Survey (39 items)		
• How often do you shop with a grocery list? [MT2i]	Available at:		
<i>Responses:</i> never, seldom, sometimes, most of the time,	https://foodshuttlesatellites.wordpress.com/forms/cooking-		
almost always	<u>matters-resources/surveys/</u>		
• How often do you use the "Nutrition Facts" on the food label to make	 How often do you compare prices before you buy food? [MT2g] 		
food choices? [MT2b]	<i>Responses:</i> never, rarely, sometimes, often, always, does		
Responses: never, seldom, sometimes, most of the time,	not apply		
almost always	 How often do you use a grocery list when you go grocery 		
	shopping? [MT2i]		
	<i>Responses:</i> never, rarely, sometimes, often, always, does		
	not apply		
	How often do you adjust meals to include specific ingredients that		
	are more "budget-friendly," like on sale or in your refrigerator or		
	pantry: [M12h]		
	<i>Responses:</i> never, rarely, sometimes, often, always, does		
	not apply		

Comments:

Indicator MT2 measures behavioral changes resulting from smarter shopping and food resource management strategies in the home. Indeed, this indicator measures changes reported by participants before and after participation in a series of nutrition education classes. The number of classes and contacts varies by program model, ranging from four to eight sessions. Differences in reportable outcomes may be explained by the intensity of nutrition education programming received by participants. Two common survey questions for this indicator are using nutrition facts on food labels or shopping with a grocery list. A more sophisticated interpretation of this measure entails multiple survey questions using a Likert-type scale. Using multiple measures of related behavioral changes strengthens the likelihood of determining that participants are improving their shopping and food resource management practices. At present, there is no standardized survey instrument or composite score used in SNAP-Ed programming due to the variety of curricula and population sub-groups served. Evaluators are encouraged to measure the degree of correlation among the individual measures presented in this indicator. Results may be limited due to self-report biases (e.g., recall and social desirability).

Indicator MT3 Physical Activity Behaviors			
Logic	Medium-Term Outcome – Physical Activity	What to measure:	
Model	Two-part indicator measuring increases in	SNAP-Ed participants who increased* one or more physical activity or muscle	
Component	duration, intensity and frequency or physical	strengthening behaviors. This can include any sport or behavior or the average	
component	activity behaviors and/or reductions in time	number of days or minutes engaging in the behavior. For programs that have an	
	spent in sedentary behaviors. The indicator	individual or group walking component, additional emphasis is placed on tracking	
	reflects progression toward the Physical	and measuring walking steps using a pedometer. Choose at least one outcome	
	Activity Guidelines for Americans.	measure from the list provided, and select a measurement approach based upon the	
Outcome	Increased Physical Activity. Increases in	type of survey question and responses:	
Measures	exercise, physical activities or leisure-sport		
incubul ob	appropriate for the population of interest,	<i>Interval</i> - Interval measures are standard units, such as hours of the day. When the	
	and types of activities.	survey responses include standard units (e.g., 1 hour, 2 hours, 3 hours), it is preferred	
	MT3a. Physical activity when you	to use paired or matched statistical tests to determine whether there are changes in	
	breathed harder than normal	mean (average) scores before and after the program. This approach would also be	
	MT3b. Physical activity to make your	appropriate for direct measures, such as steps per day using a pedometer or number	
	muscles stronger	of sit-ups completed in a physical fitness test. Use a paired or match statistical tests,	
	MT3c. Physical education or gym	such as a <i>t</i> -test, to determine whether the changes are statistically significant.	
	class activities		
	M I 30. Lunchtime physical activities	<i>Orainal</i> - Assessments of attitudes of agreement with statements using a Likert-type	
	M I Se. Average number of days with	rating scale use <i>orainal</i> measures. For orainal levels of measurement, the simplest	
	MT2f Average number of minutes	approach is to confect and analyze percentage distributions of responses before and	
	misi. Average number of minutes	arter the program. For instance, before the program, a certain percentage of	
	MT2g Average number walking stone	may strongly agree Calculate the percentage change from before to after the	
	during period assessed (e.g.	program Unlike interval data calculating means is not appropriate for ordinal	
	increasing daily goal by > 2000 steps)	responses. However, comparing the median (middle) or mode (most frequent)	
	MT3h Average number of days with	responses hefore and after the program can be appropriate. The Wilcoxon Signed-	
	walking for at least 10 minutes at a	Rank statistical test will identify the level of statistical significance.	
	time		
		<i>Nominal</i> - When an outcome measure is <i>nominal</i> (e.g., types of sports played or	
	Reduced Sedentary Behavior. Decreases in	answers to "ves or no" questions), these are categorical responses. For nominal data,	
	sedentary behavior (computers, desk sitting,	the simplest approach is to collect and analyze percentage distributions of responses	
	television watching) during the period	before and after the program. For instance, before the program, a certain percentage	
	assessed	of participants may drink low-fat milk; at follow-up, a different percentage may drink	
	MT3i. Television viewing	low-fat milk. Calculate the percentage change from before to after the program. The	
	MT3j. Computer and video games	McNemar's statistical test will identify the level of statistical significance.	
	MT3k. Sitting on weekdays while at		
	work, at home, while doing course	(*Note, for certain outcome measures, a reduction in the behavior is desired. An	
	work and during leisure time	example is amount of time watching television).	

How to Measure: There are two ways to measure MT3: physical activity questionnaires or direct measurements. Each outcome measure that corresponds to the question is identified in parentheses. **Physical Activity Questionnaires** Following is a list of preferred surveys and sample questions for MT3 outcome measures by age group. **Children and Youth** Adults 6. EFNEP Nutrition Education Survey (1 item) **1.** International Physical Activity Questionnaire (IPAQ) Available at: Grades 3 – 5 • I do physical activities... https://sites.google.com/site/theipag/guestionnaire links Young and middle-aged adults (15-64 years) *Responses:* never or almost never, most days, some days • During the last 7 days, on how many days did you do vigorous physical activities like heavy lifting, digging, aerobics, or fast 7. Michigan Fitness Foundation/Altarum Institute Physical Activity bicycling? [MT3a, b, e] **Screener for Youth (10 items)** • During the last 7 days, on how many days did you walk for at least **Grades 4 - 12** 10 minutes at a time? [MT3h] • In the last 7 days, during your physical education (PE) or gym classes, how often were you active (playing hard, running, 2. On the Go (20 items) jumping, throwing)? [MT3c] Available at: http://townsendlab.ucdavis.edu/ Responses: hardly ever, sometimes, quite often, always, I don't do PE or gym • Think about the last 7 days at work, at home, and in your spare time. How many hours did you spend sitting on a weekday? [MT3k] In the last 7 days, what did you normally do *at lunch* (besides eating lunch)? [MT3d] *Responses:* 0, 1, 2, 3, 4, 5, 6+ hours Think about the last 7 days. On how many days did you breathe a Responses: sat down (talking, reading, doing schoolwork), stood around or walked around, ran or played a little bit, little harder than normal on one of those days? [MT3a, e] ran around and played quite a bit, ran and played hard Responses: 0, 1, 2, 3, 4, 5, 6, 7 days most of the time, his does not apply to me; I am only able 3. Michigan Fitness Foundation/Altarum Institute Physical Activity to eat during lunch On an average school day, how many hours do you watch TV? **Screener for Adults (4 items)** • During the last 7 days, how much time in total did you usually spend [MT3i] Responses: I do not watch TV on an average school day, sitting on a week day? [MT3k] less than 1 hour per day, 1 hour per day, 2 hours per day, *Responses:* # hours, # minutes 3 hours per day, 4 hours per day, 5 or more hours per day During the last 7 days, on how many days did you do vigorous physical activities like jogging or running, fast bicycling, heavy shoveling or digging, or heavy lifting? Think about *only* those physical activities that you did for at least 10 minutes at a time. [MT3e]

Responses: # days per week: hours and minutes	
• Again think only about those physical activities that you did for at	8. Physical Activity Questionnaire for Children (10 items)
least 10 minutes at a time. During the last 7 days, on how many days	Grades 4 - 8
did you do moderate physical activities like bicycling active play	Available at: http://www.performwell.org/index.nhn/find-
with children, and light work or housework (for example	surveyassessments /outcomes /health-a-safety/good-health-
ardoning reling weshing windows vestiging or certain light	habits /nhysical-activity-questionnaire-for-children
gal defining, raking, washing windows, vacuunning, or carrying light	<u>habits/physical-activity-questionnane-ior-clinuren</u>
Double the formation of	• Physical activity in your spare time: have you dolle any of the
Responses: # days per week; nours and minutes	Ionowing activities in the past 7 days (last week)? If yes, now
• During the last / days, on how many days did you walk for at least	many times? [M13a]
10 minutes at a time? This includes walking at work and at home,	<i>Responses:</i> No, 1, 2, 3, 4, 5, 6, 7 times or more
walking to travel from place to place, and any other walking that you	• In the last 7 days, during your physical education (PE) classes,
did solely for recreation, sport, exercise or leisure. [MT3h]	how often were you very active (playing hard, running, jumping,
<i>Responses:</i> # days per week; hours and minute	throwing)? [MT3c]
	<i>Responses:</i> I don't do PE, hardly ever, sometimes, quite
4. Physical Activity Questions Recommended by Multistate Cooperative	often, always
Extension Workgroup	 In the last 7 days, what did you do most of the time at recess?
 In the past week, how many days did you exercise when you 	[MT3d]
breathed harder than normal for at least 30 minutes? [MT3b, e]	Responses: Sat down (talking, reading, doing schoolwork),
• In the past week, how many days did you exercise to make your	stood around or walked around, ran or played a little bit,
muscles stronger, such as lifting weights, working with elastic bands,	ran around and played quite a bit , ran and played hard
doing push-ups, sit ups, etc.? [MT3a, e]	most of the time
Responses: 0, 1, 2, 3, 4, 5, 6, 7 days	
	9. California Youth Nutrition and Physical Activity Survey
<u>Older Adults</u>	[condensed version of the School and Physical Activity Nutrition
(Ages 60+)	project (SPAN) survey]
5. Rapid Assessment of Physical Activity (9 items)	Grades 4 - 8
Available at: http://depts.washington.edu/hprc/rapa	Available at:
• I do activities to increase muscle strength, such as lifting weights or	http://www.cdph.ca.gov/programs/cpns/Pages/Chapter1Required
calisthenics, once a week or more. [MT3b]	SurveysforImpactOutcomeEvaluation.aspx
Responses: yes, no	• During the week days, about how much time do you spend on a
	typical or usual school day sitting and watching TV, playing video
	games, or on a computer? Examples are: playing on a PSP or
	other handheld game, using an iPad or tablet, using the internet
	(not for school), or watching movies or TV shows on a TV,
	computer, or phone. [MT3i-j]

 Responses: Less than 1 hour per day, 1 hour per day, 2 hours per day, 3 hours per day, 4 hours per day, 5 or more hours per day, I do not watch TV, play video games, or use a computer for something that is not for school work on school days Below, check <u>all</u> the days you exercised or took part in physical activity that made your heart beat fast and made you breathe hard for <i>at least 60 minutes</i>? Examples are: basketball, soccer, running or jogging, fast dancing, swimming, bicycling, jumping rope, trampoline, hockey, fast skating, or rollerblading. [MT3a, e] <i>Responses:</i> Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, I didn't do any exercise last week that made my heart beat fast for 60 minutes
10. EFNEP Nutrition Education Survey (3 items) Grades 6- 8; Grades 9 - 12
 During the past 7 days, now many days were you physically active for at least 1 hour? [MT3e] Responses: 0 days, 1 day, 2 days, 3 days, 4 days, 5 days, 6 days, 7 days
 During the past 7 days, how often were you so active that your heart beat fast and you breathed hard most of the time? [MT3a, e] <i>Responses:</i> 2 times last week, 3 times last week, 4 times last week. 5 or more times last week
 How many hours a day do you spend watching TV or movies, playing electronic games, or using a computer for something that is not school work? [MT3i-j]
<i>Responses:</i> never, 1 hour or less, 2 hours, 3 hours, 4 hours, 5 or more hours
11. Previous Day Physical Activity Recall (PDPAR) (recall log) Grades 7 -12
http://www.sph.sc.edu/USC CPARG/pdpar.html
• On the next page is a scale which records the main activities you
did yesterday. Please be certain to write on the scale the day of

	 the week that "yesterday" was. For each time period write in the number(s) of the main activities you actually did in the boxes on the time scale. [MT3a, e] Then rate how physically hard these activities were. Place an "X" on the rating scale to indicate if the activities for each time period were: <i>Responses:</i> Very Light = Slow breathing, little or no movement, Light = Normal breathing, regular movement, Medium = Increased breathing, moving quickly for short periods of time, Hard = Hard breathing, moving quickly for 20 minutes or more.
Direct measurements	

Following are three options for direct measurement of MT3 outcome measures.

12. Parental Report of Outdoor Playtime: Parent observation

Preschool aged children

Available at: http://archpedi.jamanetwork.com/article.aspx?articleid=485682

- How much time did your child spend playing in the yard or street around your house? [MT3a]
- How much time did your child spend playing at a park, playground, or outdoor recreation area? [MT3f] ٠

13. Pedometers (Guide to Help Step it Up, University of Nevada Cooperative Extension) Adults or children

Available at: http://www.unce.unr.edu/publications/files/hn/2008/fs0832.pdf

Pedometers are a cost-effective approach for measuring steps taken by SNAP-Ed participants. Lindsay et al. (2014) recommend a time frame of 1 – 7 days of pedometer use to establish a baseline average of daily total steps. After being trained on proper pedometer placement, participants are encouraged to wear a pedometer for weeks to calculate new daily averages and measure increases in daily number of steps. [MT3g, h]

14. Pushup, Sit-up, or Curl-Up Test

Adults or children (ages 5 – 17)

Push-ups or sit-ups are an example of a physical fitness test that measures muscular strength and muscular endurance, respectively. For children, curlups are an alternative to sit-ups. Participants complete as many repetitions until failure in a brief period (from 1 to 3 minutes). Lindsay et al. (2014) [MT3b]

Popu	lation	Preschool aged children and older
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Comments: Indicator MT3 measures the duration, intensity, and frequency of physical activity behaviors, including activities where heart rate increases and/or activities designed to strengthen muscles. The indicator also measures reduction in sedentary behaviors (e.g., watching television or other entertainment screen time). Evaluators may choose among data collection methods, including self-reported questionnaires and direct measurement using parent observation, pedometers, or fitness tests. There are tradeoffs for each data collection tool in terms of cost, time, and participant burden. While evaluators are encouraged to triangulate outcomes using multiple data sources, at a minimum, this indicator can be satisfied through self-administered participant questionnaires.

Similarly, this indicator measures changes reported by participants before and after participation in a series of nutrition education classes. The number of classes and contacts varies by program model, ranging from four to eight sessions. Differences in reportable outcomes may be explained by the intensity of nutrition education programming received by participants. Results may be limited due to self-report biases (e.g., recall and social desirability).

Environmental-Level Indicators

Scope of Interventions: Organizational changes, policies, rules, marketing, and access to make healthier choices easier

Overarching Evaluation Question: To what extent does SNAP-Ed programming facilitate access and create appeal for improved dietary and physical activity choices in the settings where nutrition education is provided?

Priority Indicators: ST4, ST6, MT4, MT5 ST = short-term, MT = medium-term

Environmental. At this level, the focus of evaluation is measuring changes in policies, organizations and environmental conditions in SNAP-Ed qualified settings and low-income areas. Eventually, evaluators could also measure changes in individuals that eat, live, learn, work, shop, or play in these settings, but, the initial goal of the evaluation is to assess whether healthier choices are available and appealing. This level of the *Framework* corresponds to SNAP-Ed Approach 2: comprehensive, multi-level interventions at multiple complementary organizational and institutional levels. The next level of the *Framework* (Sectors of Influence) covers SNAP-Ed Approach 3: Community and public health approaches to improve nutrition which includes interventions in which multiple sectors work together. At the *Sectors of Influence* level of the *Framework*, activities may address interventions at broad geographic areas such as a state, tribe, region, county, city, or town, or another organizational division such as a school district, company 'district' or 'region', or a 'chapter' or 'affiliate' of a voluntary organization that have the potential for broader reach and societal impact (Ammerman et. al, 2010).

Changes in written policies, organizational practices, and the observable (physical or 'built'), social, economic and communications environments may include the adoption and implementation of a new or enhanced organizational practice, rules, or procedures that make healthy choices easier and more desirable. Within a social-ecological framework, organizational practice changes and environmental approaches include multiple, complementary activities within the organization or system. Often referred to as 'whole setting' or 'multi-level' interventions, multi-component activities may include nutrition education classes, marketing and promotion, food service policies, wellness councils, point-of-choice prompts to action, access to recreational facilities, and financial incentives that make healthy choices more affordable. Layering different types of complementary activities within a single organization will help to maximize impact (Riley et al., 2010). Facilitating changes across organizations—that is, similar changes across multiple schools within a school district and

pre-school or afterschool programs, or complementary changes with reinforcing nutrition messages among food retailers and worksites—are examples of more comprehensive approaches that are known to amplify results through their collective impact.

To be effective and sustained, organizational, environmental, and policy-level interventions should be combined with other activities. Organizational changes are not intended to replace direct nutrition education or marketing initiatives, but rather to maximize overall reach and effectiveness. Other components to layer on nutrition education programs include: consumer awareness or marketing, parent or community involvement, organizational partnerships, and staff training on implementation, maintenance, and -- where appropriate -- enforcement. The primary role of SNAP-Ed Implementing Agencies (IAs) is to provide initial assistance, consultation, technical assistance and a supportive interorganizational infrastructure to help create appropriate organizational or environmental changes that benefit low-income households and communities. It is ultimately the responsibility of the organization that serves the SNAP-Ed audience and partners with SNAP-Ed to adopt, maintain, and enforce the change.

Indicators in the environmental level of the *Framework* reflect a modified version of the RE-AIM (**R**each, **E**ffectiveness, **A**doption, **I**mplementation, and **M**aintenance) model, a program planning and evaluation tool. For SNAP-Ed purposes, agencies would measure Reach and Adoption of the people and organizations/sites that could and do offer evidence-based interventions, then Implementation of the essential components, Effectiveness in terms of periodic checks on progress, and lastly Maintenance using the definitions on the following page.

The priority indicators for FFY 2016 focus on the Reach and Adoption measures of RE-AIM.

RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance)

Reach: We define reach by the "number of people who encounter the improved environment on a regular basis and are assumed to be influenced by it" (Cheadle et al., 2012). For SNAP-Ed purposes, we calculate two different, but related, reach measures:

- 1. the total number and proportion of <u>SNAP-Ed eligibles</u> (e.g., number of persons < 185% of Federal Poverty Level) who benefit from the change(s) during the period assessed and
- 2. the total population benefitting from the change.

Adoption: Aggregate number of SNAP-Ed sites or settings within a system, where an organization adopts an evidence-based policy, systems, or environmental change, such as those appearing in the *SNAP-Ed Interventions: A Toolkit for States.*

Implementation: Aggregate number of SNAP-Ed settings, or complementary venues within a system/channel, that report completing essential steps needed to implement an evidence-based, multi-component initiative with one or more changes in written policies, organizational practices or environmental conditions adopted AND at least one of the following: 1) evidence-based education, 2) marketing or promotional strategies, 3) partner, intermediary, parent, and other community engagement, and 4) training/TA of staff, intermediaries and partners on continuous program and policy implementation.

Effectiveness: Number of settings/sites with improved food or physical activity assessment scores using a reliable tool [e.g., Nutrition and Physical Activity Self-Assessment for Child care (NAP SACC), Communities of Excellence in Nutrition, Physical Activity, and Obesity Prevention (CX3), School Health Index, Nutrition Environment Measures Survey (NEMS)]. (report actual scores). Effectiveness may include results of periodic spot checks on continued results as planned with clients, intermediaries, and partners, needed course corrections/lessons learned, and improvements.

Maintenance: Number and average percentage increase of SNAP-Ed eligible sites/systems with a plan in place for staff, training, procedures, diversified funding, human and facility resources, and other maintenance-of-effort essentials. May include metrics such as institutional resources invested in nutrition and physical activity supports or standards in terms of paid and volunteered/redirected staff (number of full time equivalents), cash, or in-kind supports, as well as spin-off projects, co-benefits, and Return on Investment (ROI).

Categories of Organizational Environments and Policies

To maintain consistency across states in reporting changes in organizational environments and policies, the *Framework* categorizes SNAP-Ed strategies and services into six domains or buckets. These domains are groupings of organizational settings or channels that span different age groups or geographies (rural, urban, exurban, suburban, or frontier). Because of the vast number of settings and the flexibility offered in SNAP-Ed programming, these buckets will help to aggregate activities across venues in a meaningful way. Furthermore, these buckets drive the importance of tracking and reporting outcomes *across* multiple venues rather than in a single setting.

Based on the results of a survey of the membership of the Association of SNAP-Ed Nutrition Networks and other Implementing (ASNNA), settings suggested as 'high-impact' for SNAP-Ed have an asterisk.¹

1. Restaurants, fast food chains*, mobile vending/food trucks, congregate meal sites and other senior nutrition centers (or, other places where people primarily go to "**eat**")

2. Public housing, shelters, Faith/places of worship*, community organizations*, residential treatment centers, SNAP offices*, low-income health clinics, Indian tribal organizations* (or, other community or neighborhood settings where people "**live**" or live nearby)

3. Early care and education*; Schools*; afterschool, summer, and community youth organizations*; Boys and Girls Clubs*, YMCA*, Cooperative Extension offices; (or, other places where people go to "**learn**")

4. Worksites with low-wage workers*, job training programs/TANF worksites (or, other places where people go to "work")

5. Parks and recreation*, bicycle and walking paths, school gymnasiums and fields, county fairgrounds (or, other places where people go to "**play**")

6. Large food stores (4+ registers)*, Small food stores (≤ 3 registers)*, Food Banks and Pantries*, and Farmers' Markets (or, other places where people **"shop"** for or otherwise access food**)**

¹ http://extension.missouri.edu/hes/ConferenceDocs.htm

	Indicator ST4 Identifica	tion of Opportunities
Logic Model ComponentShort-Ter Settings v organizat	m Outcome – vhere there is identified need for changes in ional environments and policies	How to Measure: There are reliable tools for needs assessments and environmental scans; some of these tools are identified in the <u>SNAP-Ed Interventions: A Toolkit</u> <u>for States.</u> Trained community members, employees, or participants
Outcome MeasuresNumber a an identif appeal for	and percentage of organizational settings with ied need for improving access or creating r nutrition and physical activity supports.	should conduct assessments using a consistent process to ensure results across jurisdictions are comparable. EAT Strategies
Numerator Number of or located needs for policies	of organizations/sites that are means-tested I in low-income areas that have documented changes in organizational environments and	 Communities of Excenence in Nutrition, Physical Activity, and Obesity Prevention (CX3) <u>http://www.cdph.ca.gov/programs/cpns/Pages/CX3 Main Navg</u> <u>ation.aspx</u> Nutrition Environment Measure Survey – Restaurant (NEMS-R)
Denominator Number of or located participat	of organizations/sites that are means-tested I in low-income areas and were contacted for ion in a SNAP-Ed needs assessments	LIVE Strategies
StrategiesEach orga aggregatieWhat to MeasureOrganizat districts, I recreation environm areas, the changes in Factors to tool or en institution communi plans for consisten environm be replica Ed local p empower learn, woi needs ass	nization should be assigned a category for on purposes: Eat, live, learn, work, play, shop ions or organizational systems (e.g., school Head Start, SNAP offices, parks and n) that have conducted a needs assessment or ental scan focused on SNAP-Ed priority results of which have documented needs for n organizational environments and policies. o consider in selecting a needs assessment vironmental scan process include nal resources and capacity, trained staff or ty residents, prior needs assessments, and how the results will be used or shared. A t process for needs assessments or ental scans is one that is documented and can ted across jurisdictions and over time. SNAP- roject staff is encouraged to engage and children, youth, and families who eat, live, rk, play, or shop in local settings to conduct essments or environmental scans and	 USDA's Community Food Assessment Toolkit http://ers.usda.gov/publications/efan-electronic-publications- from-the-food-assistance-nutrition-research- program/efan02013.aspx Communities of Excellence in Nutrition, Physical Activity, and Obesity Prevention (CX3) http://www.cdph.ca.gov/programs/cpns/Pages/CX3 Main Navg ation.aspx Youth PhotoVoice http://depts.washington.edu/ccph/photovoice/photovoice guid e.pdf Healthy Eating Active Living: Mapping Attributes Using Participatory Photographic Surveys HEAL MAPPS™ http://extension.oregonstate.edu/growhkc/tools/heal-mapps North Carolina Faith-Based Facility Assessment Tool http://www.eatsmartmovemorenc.com/SharedUseAgreementsA ndAssesments/Texts/FaithBasedReport0514%20FINAL.pdf Community Health Needs Assessments (through non-profit hospitals http://www.communitycommons.org/chna/

LEARN Strategies

- 9. Smarter Lunchrooms Self-Assessment Scorecard http://smarterlunchrooms.org/sites/default/files/lunchroo m_self-assessmt_score_card.final_.4-3-14.pdf
- 10. School Physical Activity and Nutrition Environment Tool (SPAN-ET) http://extension.oregonstate.edu/growhkc/tools/span-et
- 11. Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC)
 - https://gonapsacc.org/
- 12. Contra Costa County's C.H.O.I.C.E. Toolkit and Self-Assessment Questionnaire <u>http://www.cocokids.org/child-healt</u>h-nutrition/c-h-o-i-c-e
 - toolkit-self-assessment-questionnnaire/
- 13. San Francisco Healthy Apple Awards http://www.healthyappleaward.com/
- 14. UConn Rudd Center's Wellness Child Care Assessment Tool (WellCCAT)

http://www.uconnruddcenter.org/resources/upload/docs/w hat/communities/WellnessChildCareAssessmentToolForRese arch.pdf

15. Wellness School Assessment Tool (WellSAT) – The Rudd Center

http://wellsat.org/

16. School Health Index – Centers for Disease Control and Prevention/Alliance for a Healthier Generation – Healthy Schools Program Framework of Best Practices Assessment Tool

https://schools.healthiergeneration.org/dashboard/about as sessment/

- 17. School Physical Activity Policy Assessment (S-PAPA) http://activelivingresearch.org/files/S-PAPA_Instrument.pdf
- 18. Local Wellness Policy: How to Get Started Arizona Department of Education <u>http://www.azed.gov/health-nutrition/wellness-policy/</u>
- 19. Promoting Health in Minnesota Schools: School Wellness

WORK Strategies

21. California Fit Business Kit/Check for Health http://www.cdph.ca.gov/programs/cpns/pages/worksite fitbusinesskit.aspx

PLAY Strategies

- 22. Physical Activity Resource Assessment (PARA) http://activelivingresearch.org/physical-activityresource-assessment-para-instrument
- 23. Community Park Audit Tool (CPAT) http://activelivingresearch.org/community-park-audittool-cpat
- 24. Walkability Checklist Safe Routes to School http://www.saferoutesinfo.org/programtools/education-walkability-checklist
- 25. October Walk to School Month Walkability Checklist http://www.caactivecommunities.org/wpcontent/uploads/2011/09/Walkability-Checklist-for-Students-and-Adults.pdf
- 26. Bikeability Checklist Safe Routes to School http://www.saferoutesinfo.org/programtools/education-bikeability-checklist
- 27. Pedestrian Environmental Data Scan (PEDS) <u>http://activelivingresearch.org/pedestrian-environment-</u> <u>data-scan-peds-tool</u>
- 28. California Youth Participatory Action Research http://www.cdph.ca.gov/programs/cpns/Pages/YouthEn gagement.aspx

SHOP Strategies

- 29. Communities of Excellence in Nutrition, Physical Activity, and Obesity Prevention (CX3) <u>http://www.cdph.ca.gov/programs/cpns/Pages/CX3 Mai</u> <u>n Navgation.aspx</u>
- 30. Michigan's Nutrition Environment Assessment Tool (NEAT)

Policies	http://mihealthtools.org/peat/	
http://publichealthlawcenter.org/resources/promoting	31 Nutrition Environment Measure Survey - Store (NEMS S)	
health minnesets schools school wellness policies	bttp://www.mod.upopp.edu/poms/moscures.shtml	
<u>Inearth an Swangan Cantar Form to School Taallit</u>	22 Nutrition Environment Macaures Survey Corner Store	
20. Gretchen Swanson Center Farm to School Toolkit	32. Nutrition Environment Measures Survey – Corner Store	
<u>nttp://tooikit.centerfornutrition.org/</u>	(NEMS-US)	
	http://www.med.upenn.edu/nems/measures.shtml	
	33. Oregon Food Bank's Healthy Pantry Options Scorecard	
	http://oregonfoodbank.org/?c=13071816191603903	
	34. Oregon State University Rapid Farmers Markets	
	Assessments	
	http://ir.library.oregonstate.edu/xmlui/bitstream/handl	
	<u>e/1957/8665/SR no.1088 ocr.pdf</u>	
	35. ChangeLab Solutions: Health on the Shelf	
	http://changelabsolutions.org/publications/health-on-	
	the-shelf	
Comments: This indicator measures the results of needs assessments i	in organizations, settings, or systems that serve low-income	
audiences. This indicator is an appropriate place to start for SNAP-Ed in	mplementers beginning their efforts to identify changes in	
organizational environments and policies. While the needs assessment	itself is not a program outcome, it is the first step in	
Implementation and thus a key program output for SNAP-Ed. For the p	urpose of the <i>Evaluation Framework</i> , this indicator becomes the	
denominator for the medium and long-term outcomes of Adoption. Imp	plementation. Effectiveness and Maintenance for PSE changes.	
The unit of analysis is the organization with a completed needs assess	nent. In some instances, the SNAP-Ed local project staff will conduct	
a valid and reliable assessment in which partner and community involv	rement is expected. In other instances, a needs assessment may	
nre-date SNAP-Ed involvement or the intervention may involve an org	anizational self-assessment SNAP-Fd local project staff can work	
with partners and the organization's staff to use the results from prior	needs assessments and fill in any observable gaps. Because of the	
rand th of SNAD-Ed settings the categorization of strategies is useful to	a more appropriately track organizations and to also identify	
complementary organizations within a broader system. For instance, there may be multiple Head Start and other early series and education.		
complementary organizations within a broader system. For instance, u	a some sottings such as schools may lie within multiple sots sources	
sites within a local child and Adult care Feeding Program system. Whil	e some settings, such as schools, may lie within multiple categories	

(EAT, PLAY, and LEARN) categories. For the purposes of the Framework, the primary intent of the setting should be considered. Thus, the

primary purpose of school is to learn, so a school-based assessment and strategy would be categorized in the LEARN bucket.

	Indicator ST6	Partnerships
Logic Model Component	Short-Term Outcome – Partnerships with service providers, community or organizational leaders, and SNAP-Ed representatives in SNAP-Ed qualified venues	How to Measure: Evaluating partnerships using a mixture of qualitative and quantitative methods is encouraged. The Centers for Disease Control and Prevention (CDC) developed a Guide to Evaluating Partnerships, a useful tool for identifying success factors in partnerships and how to measure them.
Outcome Measures	The number of organizational partnerships, councils, or collaboratives that organize themselves around a common agenda, mission, or strategic plan to adopt nutrition or physical activity practices or standards in settings where nutrition education is provided.	http://www.cdc.gov/dhdsp/programs/spha/evaluation_guides/evaluation_ ng_partnerships.htm Qualitative Approach Qualitative approaches through direct observation, content analysis and documentation review can include one or more of the following methods
Strategies	Each organizational partnership should be assigned a category for aggregation purposes: eat, live, learn, work, play, shop	 to identify: Key Informant Interviews with partnership members to identify activities, barriers and success factors, and outcomes Key Informant Interviews with nonparticipating members participants to identify partnership activities and outcomes
What to Measure	Number of organizational partnerships, councils, or collaboratives with representation by SNAP-Ed (e.g., county extension staff, public health directors, food bank managers), who commit to making changes in organizational environments or policies in a single organization (e.g., school) or a system (e.g., school district). The partnership is expected to display multiple success factors, including organizing itself to adopt a shared vision, develop a specific plan, then commit to coordinate activities, share metrics, and maintain continuous 'communications'. These reflect some of the key principles of <i>Collective Impact</i> (see: http://www.fsg.org/OurApproach/CollectiveImpact.as px)	 Content analysis of partnership meeting minutes d partnership plans Review of organizational plans, Partnership agreements, or Strategic plans Quantitative Approach Wilder Collaboration Factors Inventory (20 items) A free on-line inventory that identifies partnership performance across 20 success factors. http://www.wilder.org/Wilder-Research/Research-Services/Pages/Wilder-Collaboration-Factors-Inventory.aspx
Comments	The partnership itself is not the outcome. This indicator organizational, or systems-wide, commitment to advance assumed to positively access and appeal for nutrition and partnership. RE-AIM suggests that the partners should b contributing in-kind or out-of-pocket resources, and bein funding is over, including how to maintain or diversify the	measures active partnerships that are successful in creating an ing one or more organizational practice changes or policies that are d physical activity. The unit of analysis is the setting or site with an active e helping to implement new interventions by redirecting activities or staff, ng part of a plan to maintain/sustain the intervention once original grant ne funding base for the project of interest.

	Indicator MT4 Nutritio	on Supports Adop	ted
Logic Model Component	Medium-Term Outcome – Reach and adoption of nutrition environmental changes, procurement changes, or food preparation changes	Denominators	ADOPTION (MT4a) Number of settings reported in Indicator ST4 SNAP-Ed REACH (MT4e)
Outcome Measures See ST4 for baseline numerators and denominators	AdoptionMT4a. Number and proportion of organizationalsettings, or organizational systems, where at least onechange is made in writing or practice to expand accessor improve appeal for healthy eating.MT4b. Total number of environmental changes madeMT4c. Total number of procurement changes madeMT4d. Total number of food preparation changesmadeReachMT4e. SNAP-Ed Reach: Number and proportion of theSNAP-Ed eligible audience who encounter theimproved environment on a regular (typical) basis andare assumed to be influenced by itMT4f. Total Reach: Total audience who encounter theimproved environment on a regular (typical) basis andare assumed to be influenced by it	Number of SNAP-Ed eligibles in the State, jurisdiction, or strategy of focusWhat to MeasureThe documentation of change(s) adopted in the SNAP-Ed qualifying organizational setting and associated reach. Changes can include one or more of the following environmental, procurement, or meal preparation activities:Environmental changesa. Improvements in hours of operations/time allotted for meals or food service Improvements in layout or display of foodb. Change in menus (variety, quality, offering lighter fares) c. Point-of-purchase/distribution prompts d. Menu labeling/calorie/fat/sodium/sugar e counts e. Edible gardens (establish, reinvigorate or maintain food gardens) f. Lactation supports, or policies for working mothers g. Improvements in free water taste, quality, smell, or temperature h. Rules on use of food as rewards or during celebrations i. Rules on foods served in meetings or in classrooms	
Strategies	Each setting should be assigned a category for aggregation purposes: eat, live, learn, work, play, shop	k. Healthier vending foods and beverag Procurement changes	g machine initiatives (e.g., access to healthier ges with labeling)
Numerators	ADOPTION (MT4a) Number of organizational settings, or organizational systems, where at least one change is made in writing or practice to expand access or improve appeal for healthy eating SNAP-Ed REACH (MT4e) Number of SNAP-Ed eligibles who encounter the improved environment on a regular (typical) basis and are assumed to be influenced by it	 I. Change in food pu m. Change in vendor n. Farm-to-table o. Increase in fruits a p. Increase in 100% q. Increase in low-fa r. Increase in lean p s. Lower sodium lev t. Lower sugar level u. Lower solid fats (agreement(s) agreement(s) and vegetables whole grains it dairy roteins yels s e.g., saturated or trans fats)

How to	Adoption	Food preparation changes
Measure	Documentation (direct observation, photographic	a. Enhanced training on menu design and healthy cooking
measure	evidence, repeated self-assessments or surveys) or	techniques
	interviews with key informants to confirm the uptake	b. Reduced portion sizes
	of the policy or environmental change in the low-	c. Use of standardized recipes
	income setting, learn of unexpected benefits or	
	spinoffs, or course-correct and improve the	
	intervention if needed.	
	Peach	
	Means-tested setting - Reach	
	The number of SNAP-Ed eligibles based on	
	qualification for free or reduced price meals or federal	
	poverty level (within 185%) who encounter the	
	improved environment on a regular (typical) basis and	
	are assumed to benefit from the change(s). For	
	example, if the school cafeteria adopts changes in meal	
	service, and there are 1,150 students, and 750 students	
	who qualify for free or reduced price meals, then the	
	SNAP-Ed reach numerator is 750 and the total reach is	
	1,150 students. Then, divide 750 by the total number	
	of SNAP-Ed school aged children in the jurisdiction to	
	calculate a proportion of the SNAP-Ed population	
	reached.	
	Census tract, or census designated place - Reach	
	The number of SNAP-Ed eligibles, based on census data	
	and direct observation, who benefit from the	
	change(s). For example, if there are 6,000 (out of	
	10,000) individuals within 185 % of federal poverty	
	level in a given census tract where a new farmers	
	market opens, and on average in the past month, there have been 250 sustemans at the market part of environment	
	day multiply 250 y 60 which cauge 210 (SNAD Ed	
	uay, multiply 550 x .00, which equals 210 (SNAP-Ed	
	reach. Then, divide 210 by the total number of SNAP-	
	Eu engibles in the census tract.	

Comments: Measuring reach and adoption are the first two components of the RE-AIM model. Reach is often based on estimation when actual counts are unavailable; we consider the audience that is potentially exposed to the intervention (UNC, 2013). SNAP-Ed reach should be expressed as a percentage by dividing the total number of SNAP-Ed eligibles who are touched by the intervention by the total number of SNAP-Ed eligibles in the SNAP-Ed area of focus (an organization, a system, a jurisdiction). We also calculate total reach (including SNAP-Ed and non-SNAP eligibles) to demonstrate the broader impact on the entire organizational environment.

Evaluators should also consider ways to maximize measures of reach by monitoring a policy or environmental change that can spread across settings or a system. For instance, the reach of a local school wellness policy will be greater when the policy is adopted district-wide rather than one school at a time.

For adoption, it is important to document each change that occurs within a setting. One change alone may not have enough magnitude to produce an impact. Thus, evaluators can document multiple changes that occur (e.g., signage, changes in layout, etc). Measuring adoption may be labor-intensive; thus, it can be appropriate to choose a sample of settings (e.g., 10 percent) for evaluation purposes.

	Indicator MT5 Physical Ac	tivity Supports A	dopted
Logic Model Component	Medium-Term Outcome – Reach and adoption of physical activity environmental changes, program changes, or organizational practice changes	Denominators	ADOPTION (MT5a) Number of settings reported in Indicator ST4 SNAP-Ed REACH (MT5e)
Outcome Measures See ST4 for baseline numerators and denominators	Adoption MT5a. Number and proportion of organizational settings, or organizational systems, where at least one change is made in writing or practice to expand access or improve appeal for physical activity MT5b. Total number of environmental changes made MT5c. Total number of program or practice changes Reach MT5e. <i>SNAP-Ed Reach</i> : Number and proportion of the SNAP-Ed eligible audience who encounter the improved environment on a regular (typical) basis and are assumed to be influenced by it MT5f. <i>Total Reach</i> : Total audience who encounter the improved environment on a regular (typical) basis and are assumed to be influenced by it	Number of SNAP-Ed eligibles in the State, jurisdiction, or strategy of focus What to Measure The documentation of change(s) adopted in the SNAP-Ed qualifying organizational setting and associated reach. Changes can include one or more of the following environmental, procurement, or meal preparation activities: Environmental changes a. Improvements in hours of operations of recreation facilities b. Improvements in access to safe walking or bicycling paths, or Safe Routes to School or work c. Signage and prompts for use of walking and bicycling paths d. New or improved stairwell prompts e. Improvements in access to stairwells Program or practice changes f. New or increased use of school facilities during non-school hours for recreation, or joint use policies g. New or stronger limits on entertainment screen time h. Increase in school days spent in physical education i. Improvements in time spent in daily recess j. New or improved access to structured physical activity programs k. Physical activity breaks	
Strategies	Each setting should be assigned a category for aggregation purposes: eat, live, learn, work, play, shop		
Numerators	 ADOPTION (MT5a) Number of organizational settings, or organizational systems, where at least one change is made in writing or practice to expand access or improve appeal for physical activity SNAP-Ed REACH (MT5e) Number of SNAP-Ed eligibles who encounter the improved environment on a regular (typical) basis and are assumed to be influenced by it 		

How to	Adoption	
Measure	Documentation (direct observation, photographic evidence, repeated self-assessments or surveys) or	
	interviews with key informants to confirm the uptake	
	of the policy or environmental change in the low-	
	income setting, learn of unexpected benefits or	
	spinoffs, or course-correct and improve the	
	intervention if needed.	
	SNAP-Ed Reach	
	Means-tested setting – Reach	
	The number of SNAP-Ed eligibles, based on	
	qualification for free or reduced price meals or federal	
	poverty level (within 185%) who encounter the	
	improved environment and are assumed to benefit	
	notice to expand the length of time for school recess	
	and there are 1 150 students and 750 students who	
	qualify for free or reduced price meals, then the SNAP-	
	Ed reach numerator is 750 and the total reach is 1.150	
	students. Then, divide 750 by the total number of	
	SNAP-Ed school aged children in the jurisdiction to	
	calculate a proportion of the SNAP-Ed population	
	reached.	
	Census tract, or census designated place – Reach	
	The number of SNAP-Ed eligibles, based on census data	
	and direct observation, who are assumed to have	
	benefitted from the change(s). For example, if there	
	are 6,000 (out of 10,000) individuals within 185	
	percent of FPL in a given census tract where a new	
	waiking path opens, and on average in the past month,	
	multiply 350 x 60 which equals 210 (SNAD-Ed reach)	
	Then divide 210 by the total number of SNAP-Ed	
	eligibles in the census tract.	

Comments	Measuring reach and adoption are the first two components of the RE-AIM model. Reach is often based on estimation when actual counts are unavailable; we consider the audience that is potentially exposed to the intervention (UNC, 2013). SNAP-Ed reach should be expressed as a percentage by dividing the total number of SNAP-Ed eligibles who are assumed to be touched by the intervention by the total number of SNAP-Ed eligibles in the SNAP-Ed area of focus (an organization, a system, a jurisdiction). Evaluators should also consider ways to maximize measures of reach by monitoring a policy or environmental change that can spread across settings or a system. For instance, the reach of a local school wellness policy will be greater when the policy is adopted district-wide rather than one school at a time. We also calculate total reach (including SNAP-Ed and non-SNAP eligibles) to demonstrate the broader impact on the entire organizational environment.
	For adoption, it is important to document each change that occurs within a setting. One change alone may not have enough magnitude to produce an impact. Thus, evaluators can document multiple changes that occur (e.g., signage, changes in layout, etc). Measuring adoption may be labor-intensive; thus, it can be appropriate to choose a sample of settings (e.g., 10 percent) for evaluation purposes.

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