

FLASHE Diet Survey: Constructs and Source / Reference Guide					
Construct	Definition	Parent / Adolescent Survey	Item Numbers - Adolescent	Item Numbers - Parent	FLASHE items were modified or drawn from the following sources ¹
Self-efficacy for eating fruits and vegetables	The measure of one's belief in their own ability to eat fruit and vegetables.	Both	1a	1	Self-Determination Theory Perceived Competence Scales: http://selfdeterminationtheory.org/perceived-competence-scales/
Perceived norms for fruit and vegetable consumption	The belief that friends eat fruits and vegetables most days of the week.	Adolescent Only	1b		Patient-centered Assessment & Counseling for Exercise (PACE) Project: Patrick, K., Sallis, J. F., Calfas, K. J., Norman, G. J., & Raab, F. (2007). <i>PACE Measures</i> . Retrieved from http://www.paceproject.org/Measures.html . <i>Example Reference:</i> Hagler, A., Norman, G. J., Radick, L. R., Calfas, K. J., and Sallis, J. F. (2005). Comparability and reliability of paper- and computer-based measures of psychosocial constructs for adolescent fruit and vegetable and dietary fat intake. <i>Journal of the American Dietetics Association</i> , 105, 1758-1764. doi: 10.1016/j.jada.2005.08.010
Motivation for eating fruits and vegetables	A potential reason or reasons for eating fruit and vegetables.	Both	2a, 2b, 2c, 2d	2a, 2b, 2c, 2d	Self-Determination Theory Self-Regulation Questionnaires: http://selfdeterminationtheory.org/self-regulation-questionnaires/ <i>Example Reference:</i> Levesque, C. S., Williams, G. C., Elliot, D., Pickering, M. A., Bodenhamer, B., & Finley, P. J. (2007). Validating the theoretical structure of the Treatment Self-Regulation Questionnaire (TSRQ) across three different health behaviors. <i>Health Education Research</i> , 22(5), 691-702. doi: 10.1093/her/cyl148

Construct	Definition	Parent / Adolescent Survey	Item Numbers - Adolescent	Item Numbers - Parent	FLASHE items were modified or drawn from the following sources ¹
Knowledge of FV recommendations	Awareness of the number of servings the government recommends for each day.	Both	3	3	<p>Food Attitudes and Behaviors Survey (FAB): Behavioral Research Program, National Cancer Institute. (2013). <i>Food Attitudes and Behaviors</i>. Retrieved from http://cancercontrol.cancer.gov/brp/hbrb/fab/</p> <p><i>Example Reference:</i> Erinosho, T. O., Pinard, C. A., Nebeling, L. C., Moser, R. P., Shaikh, A. R., Resnicow, K., Oh, A. Y., & Yaroch, A. L. (2015). Development and implementation of the National Cancer Institute's Food Attitudes and Behaviors Survey to assess correlates of fruit and vegetable intake in adults. <i>PLoS One</i>, 10(2), e0115017. doi: 10.1371/journal.pone.0115017</p>
Barriers to eating fruits and vegetables	Obstacles that make eating fruits and vegetables difficult.	Both	4a, 4b, 4c, 4d, 4e	4a, 4b, 4c, 4d, 43e, 4f, 4g	<p>FAB: Behavioral Research Program, National Cancer Institute. (2013). <i>Food Attitudes and Behaviors</i>. Retrieved from http://cancercontrol.cancer.gov/brp/hbrb/fab/</p> <p><i>Example Reference:</i> Erinosho, T. O., Pinard, C. A., Nebeling, L. C., Moser, R. P., Shaikh, A. R., Resnicow, K., Oh, A. Y., & Yaroch, A. L. (2015). Development and implementation of the National Cancer Institute's Food Attitudes and Behaviors Survey to assess correlates of fruit and vegetable intake in adults. <i>PLoS One</i>, 10(2), e0115017. doi: 10.1371/journal.pone.0115017</p> <p>+ 2 new items</p>

Construct	Definition	Parent / Adolescent Survey	Item Numbers - Adolescent	Item Numbers - Parent	FLASHE items were modified or drawn from the following sources ¹
Self-efficacy for limiting junk food and sugary drinks	The measure of one's belief in their own ability to limit junk food and sugary drinks.	Both	5a	5	Self-Determination Theory Perceived Competence Scales: http://selfdeterminationtheory.org/perceived-competence-scales/
Perceived norms for eating junk food/sugary drinks	The belief that friends eat junk food and sugary drinks most days of the week.	Adolescent Only	5b		PACE Project: Patrick, K., Sallis, J. F., Calfas, K. J., Norman, G. J., & Raab, F. (2007). <i>PACE Measures</i> . Retrieved from http://www.paceproject.org/Measures.html . <i>Example Reference:</i> Hagler, A., Norman, G. J., Radick, L. R., Calfas, K. J., and Sallis, J. F. (2005). Comparability and reliability of paper- and computer-based measures of psychosocial constructs for adolescent fruit and vegetable and dietary fat intake. <i>Journal of the American Dietetics Association</i> , 105, 1758-1764. doi: 10.1016/j.jada.2005.08.010
Motivation for limiting junk food and sugary drinks	A potential reason or reasons for limiting junk food and sugary drinks.	Both	6a, 6b, 6c, 6d	6a, 6b, 6c, 6d	Self-Determination Theory Self-Regulation Questionnaires: http://selfdeterminationtheory.org/self-regulation-questionnaires/ <i>Example Reference:</i> Levesque, C. S., Williams, G. C., Elliot, D., Pickering, M. A., Bodenhamer, B., & Finley, P. J. (2007). Validating the theoretical structure of the Treatment Self-Regulation Questionnaire (TSRQ) across three different health behaviors. <i>Health Education Research</i> , 22(5), 691-702. doi: 10.1093/her/cyl148

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Eating in the Absence of Hunger	Starting or continuing to eat when physiological hunger is not present.	Both	7a, 7b	7a, 7b	Eating in the Absence of Hunger Questionnaire (EAH-C): Tanofsky-Kraff, M., Ranzenhofer, L. M., Yanovski, S. Z., Schvey, N. A., Faith, M., Gustafson, J., & Yanovski, J. A. (2008). Psychometric properties of a new questionnaire to assess eating in the absence of hunger in children and adolescents. <i>Appetite</i> , 51(1), 148-155. doi: 10.1016/j.appet.2008.01.001
Emotion regulation	The various conscious skills and unconscious processes a person uses, and the competences a person engages, to monitor and manage their experience and expression of, and responses to, emotion.	Both	8a, 8b, 8c, 8d	8a, 8b, 8c, 8d	Emotion Regulation Questionnaire: Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. <i>Journal of Personality and Social Psychology</i> , 85:348-362. doi: 10.1037/0022-3514.85.2.348
Advertising / Media perception	The influence that advertisements for foods and drinks make on behavior; whether advertisements for foods and drinks are believed to be true.	Both	9a, 9b, 9c	12a, 12b, 12c	New items

Construct	Definition	Parent / Adolescent Survey	Item Numbers - Adolescent	Item Numbers - Parent	FLASHE items were modified or drawn from the following sources ¹
Dietary Screener for Drinks	Reported consumption of drinks. The measures attempts to capture “usual” consumption with a recall of the past week.	Both	10, 11, 12, 13, 14, 15, 16	13, 14, 15, 16, 17, 18, 19	<p>Dietary Screener Questionnaire (DSQ): Epidemiology and Genomics Research Program, National Cancer Institute. (2015). <i>Dietary Screener Questionnaire in the NHANES 2009-2010: Background</i>. Retrieved from: http://epi.grants.cancer.gov/nhanes/dietscreen/</p> <p>National Youth Physical Activity and Nutrition Study (NYPANS): Centers for Disease Control and Prevention. (2010). <i>2010 National Youth Physical Activity and Nutrition Survey</i>. Retrieved from: ftp://ftp.cdc.gov/pub/data/yrbs/nypans/2010nypans_questionnaire.pdf.</p>
Dietary Screener for foods	Reported consumption of healthy foods and foods that are high in calories and usually have added sugars and fat. This measure captures “usual” consumption with a recall of the past 7 days.	Both	17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39	<p>Dietary Screener Questionnaire (DSQ): Epidemiology and Genomics Research Program, National Cancer Institute. (2015). <i>Dietary Screener Questionnaire in the NHANES 2009-2010: Background</i>. Retrieved from: http://epi.grants.cancer.gov/nhanes/dietscreen/</p> <p>National Youth Physical Activity and Nutrition Study (NYPANS): Centers for Disease Control and Prevention. (2010). <i>2010 National Youth Physical Activity and Nutrition Survey</i>. Retrieved from: ftp://ftp.cdc.gov/pub/data/yrbs/nypans/2010nypans_questionnaire.pdf.</p> <p>+ New Items: Items on tacos, heat/serve, burgers, fried chicken, and potato chips were not modified from the sources noted above.</p>

Construct	Definition	Parent / Adolescent Survey	Item Numbers - Adolescent	Item Numbers - Parent	FLASHE items were modified or drawn from the following sources ¹
Organic food	Frequency of eating organic fruits and vegetables.	Parent Only		40	New item
Vending machine accessibility	Whether a vending machine is in the school and the type of foods/drinks it sells.	Adolescent Only	37, 38		Active Where? Study: Kerr, J., Sallis, J., Rosenberg, D. E., Norman, G., Saelens, B., & Durant, N. (2008). <i>Tools and Measures: Active Where? Surveys</i> . Retrieved from: http://activelivingresearch.org/active-where-surveys
Water in school	Accessibility of a water fountain in school	Adolescent Only	39		HealthStyles Survey: Centers for Disease Control and Prevention (2011). <i>Healthstyles Survey</i> . Retrieved from http://www.cdc.gov/healthcommunication/toolstemplates/entertained/healthstyles_survey.html
Neighborhood Accessibility	Ease of reaching specific food stores.	Both	40a, 40b, 40c, 40d, 40e, 41a, 41b, 41c, 41d, 41e 41a-41e are follow-up questions assessing the food stores that adolescents visit	42a, 42b, 42c, 42d, 42e	Neighborhood Environment Walkability Scale for Youth (NEWS-Y): Saelens, B. (2009). <i>Tools and Measures – Neighborhood Environment Walkability Scale for Youth (NEWS-Y)</i> . Retrieved from http://activelivingresearch.org/neighborhood-environment-walkability-scale-%E2%80%93-youth-news-y <i>Example Reference:</i> Rosenberg D., Ding D., Sallis J. F., Kerr J., Norman G. J., Durant N., Harris S. K., & Saelens B. E. (2009). Neighborhood Environment Walkability Scale for Youth (NEWS-Y): reliability and relationship with physical activity. <i>Preventive Medicine</i> , 49(2-3):213-8. doi: 10.1016/j.ypmed.2009.07.011.

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Food Purchasing	Actual type of food stores visited to buy food	Parent Only		41a, 41b, 41c, 41d	<p>FAB: Behavioral Research Program, National Cancer Institute. (2013). <i>Food Attitudes and Behaviors</i>. Retrieved from http://cancercontrol.cancer.gov/brp/hbrb/fab/</p> <p><i>Example Reference:</i> Erinosho, T. O., Pinard, C. A., Nebeling, L. C., Moser, R. P., Shaikh, A. R., Resnicow, K., Oh, A. Y., & Yaroch, A. L. (2015). Development and implementation of the National Cancer Institute's Food Attitudes and Behaviors Survey to assess correlates of fruit and vegetable intake in adults. <i>PLoS One</i>, 10(2), e0115017. doi: 10.1371/journal.pone.0115017</p>
Eating away from home	Types/frequency of meals and snacks eaten outside of the home (e.g. fast food, pizza restaurant,) in the past 7 days.	Both	42a, 42b, 42c, 42d	43a, 43b, 43c, 43d	<p>TREC Idea Study: Lytle, L. A. (2009). Examining the etiology of childhood obesity: The IDEA Study. <i>American Journal of Community Psychology</i>, 44(3-4):338-349. doi: 10.1007/s10464-009-9269-1</p>
Eating in the home	Type of evening meals eaten in the home (e.g. fast food, pizza, ready-made meal) and the frequency with which it is eaten in the past 7 days.	Both	43a, 43b, 43c, 43d	44a, 44b, 44c, 44d	New items

Construct	Definition	Parent / Adolescent Survey	Item Numbers - Adolescent	Item Numbers - Parent	FLASHE items were modified or drawn from the following sources ¹
Availability of foods in the home (fruits/vegetables, sweets, sugary drinks, chips)		Both	44a, 44b, 44c, 44d	45a, 45b, 45c, 45d	<p>NYPANS: Centers for Disease Control and Prevention. (2010). <i>2010 National Youth Physical Activity and Nutrition Survey</i>. Retrieved from ftp://ftp.cdc.gov/pub/data/yrbs/nypans/2010nypans_questionnaire.pdf.</p> <p>Project Eat-II Survey: Project EAT (2016). Retrieved from: http://www.sphresearch.umn.edu/epi/project-eat/</p> <p><i>Example Reference:</i> Newmark-Sztainer, D. R., Wall, M. M., Haines, J. I., Story, M. T., Sherwood, N. E., & van den Berg, P. A. (2007). Shared risk and protective factors for overweight and disordered eating in adolescents. <i>American Journal of Preventive Medicine</i>, 33(5), 359-369. doi: 10.1016/j.amepre.2007.07.031</p>
Context of family meals	The environment around meal time, including meal structure and social eating.	Both	45a, 45b, 45c	48, 49	<p>Project Eat-II Survey: Project EAT (2016). Retrieved from: http://www.sphresearch.umn.edu/epi/project-eat/</p> <p><i>Example Reference:</i> Newmark-Sztainer, D. R., Wall, M. M., Haines, J. I., Story, M. T., Sherwood, N. E., & van den Berg, P. A. (2007). Shared risk and protective factors for overweight and disordered eating in adolescents. <i>American Journal of Preventive Medicine</i>, 33(5), 359-369. doi: 10.1016/j.amepre.2007.07.031</p>

Construct	Definition	Parent / Adolescent Survey	Item Numbers - Adolescent	Item Numbers - Parent	FLASHE items were modified or drawn from the following sources ¹
Drink preferences	The selection of one drink over another	Both	46a, 46b, 46c	51a, 51b, 51c	New items
Food preferences	The selection of one food over another	Both	46d, 46e	51d, 51e	New items
Healthy diet	Whether a healthy diet is consumed.	Adolescent Only	47		Go Girls! 2: Resnicow, K., Taylor, R., Baskin, M., & McCarty, F. (2005). Results of Go Girls: A weight control program for overweight African-American adolescent females. <i>Obesity Research</i> , 13(10), 1739-1748. doi:10.1038/oby.2005.212
Food security	The availability and affordability of food in the home in the past 12 months.	Parent Only		46, 47	Hager, E. R., Quigg, A. M., Black, M. M., Coleman, S. M., Heeren, T., Rose-Jacobs, R., ... Frank, D. A. (2010). Development and validity of a 2-item screen to identify families at risk for food insecurity. <i>Pediatrics</i> , 126(1), e26-e32. doi:10.1542/peds.2009-3146
Knowledge of food labels		Parent Only		50	Cooking Matters for Child Care Professionals: Cooking Matters for Child Care Professionals 2013 Participant survey. (2013). Retrieved from https://foodshuttlesatellites.files.wordpress.com/2014/05/survey-cmccp-english.pdf
Food Stamp Assistance		Parent Only		52	Demographic item
Free / Reduced Price Lunch		Parent Only		53	Demographic item

Construct	Definition	Parent / Adolescent Survey	Item Numbers - Adolescent	Item Numbers - Parent	FLASHE items were modified or drawn from the following sources ¹
Parenting Practices around fruits and vegetables	Specific behaviors that parents use to socialize their children	Both	48a, 48b, 48c, 48d, 48e, 48f, 48g	54a, 54b, 54c, 54d, 54e, 54f, 54g	<p>Child Feeding Questionnaire (CFQ): Birch, L.L., Fisher, J. O., Grimm-Thomas, K., Markey, C. N., Sawyer, R., Johnson, S. L. (2001). Confirmatory factor analysis of the Child Feeding Questionnaire: A measure of parental attitudes, beliefs, and practices about child feeding and obesity proneness. <i>Appetite</i>, 36, 201-210. doi: 10.1006/appe.2001.0398</p> <p>Comprehensive Feeding Practices Questionnaire (CFPQ): Musher-Eizenman, D., & Holub, S. (2007). Comprehensive Feeding Practices Questionnaire: Validation of a new measure of parental feeding practices. <i>Journal of Pediatric Psychology</i>, 32(8), 960-972. doi:10.1093/jpepsy/jsm037</p> <p>Parental Feeding Style Questionnaire (PFSQ): Wardle, J., Sanderson, S., Guthrie, C. A., Rapoport, L., & Plomin, R. (2002). Parental feeding style and the inter-generational transmission of obesity risk. <i>Obesity Research</i>, 10(6), 453-462. doi: 10.1038/oby.2002.63</p> <p>Legitimacy of Parental Authority: Darling, N. Cumsille, P., Martinez, M. L. (2008). Individual differences in adolescent's beliefs about the legitimacy of parental authority and their own obligation to obey: A longitudinal investigation. <i>Child Development</i>, 79(4), 1103-1118. doi: 10.1111/j.1467-8624.2008.01178.x</p> <p>+ 1 New Item</p>

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Parenting practices around junk food and sugary drinks	Specific behaviors that parents use to socialize their children	Both	49a, 49b, 49c, 49d, 49e, 49f, 49g	55a, 55b, 55c, 55d, 55e, 55f, 55g	<p>CFPQ: Musher-Eizenman, D., & Holub, S. (2007). Comprehensive Feeding Practices Questionnaire: Validation of a new measure of parental feeding practices. <i>Journal of Pediatric Psychology</i>. 32(8), 960-972. doi:10.1093/jpepsy/jsm037</p> <p>PFSQ: Wardle, J., Sanderson, S., Guthrie, C. A., Rapoport, L., & Plomin, R. (2002). Parental feeding style and the inter-generational transmission of obesity risk. <i>Obesity Research</i>, 10(6), 453-462. doi: 10.1038/oby.2002.63</p> <p>CFQ: Birch, L.L., Fisher, J. O., Grimm-Thomas, K., Markey, C. N., Sawyer, R., Johnson, S. L. (2001). Confirmatory factor analysis of the Child Feeding Questionnaire: A measure of parental attitudes, beliefs, and practices about child feeding and obesity proneness. <i>Appetite</i>, 36, 201-210. doi: 10.1006/appe.2001.0398</p> <p>Legitimacy of Parental Authority: Darling, N. Cumsille, P., Martinez, M. L. (2008). Individual differences in adolescent's beliefs about the legitimacy of parental authority and their own obligation to obey: A longitudinal investigation. <i>Child Development</i>, 79(4), 1103-1118. doi: 10.1111/j.1467-8624.2008.01178.x</p>

¹ Many FLASHE survey items were modified from the original source(s) through cognitive testing.