Evaluation of a Pilot Project:

Adding Yogurt to the WIC Food Package for Women

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Children's Hospital & Research Center, Oakland (CHRCO). CHRCO supports over 200 researchers and clinicians in state-of-the-art laboratory space. CHRCO investigators probe all aspects of health and wellness, including asthma, birth defects, cancer, cardiac disease prevention, childhood obesity and diabetes, iron metabolism, HIV/AIDS, sickle cell anemia, and mechanisms of immunity and bacterial proliferation. Dr. Ellen Fung, Assistant Research Scientist, served as Co-PI of the study and undertook the overall direction and management of the study. Other CHORI staff included: Barbara Green, our study coordinator who managed the project at the local level including training of staff, communication with local staff regarding data collection, provided in-person study assistance multiple times throughout the study, and gathered site specific data for cost analysis; Ginny Gildengorin served as our bio-statistician for the project; Rikki Ray our programmer, developed the database for the project; Marion Roan served as our dietitian for the project, and assisted in the development of the tools for dietary intake and analyzed and entered all the dietary records; and Lisa Calvelli assisted with data entry, checking and management.

The Dr. Robert C. and Veronica Atkins Center for Weight and Health (CWH). The CWH at UC Berkeley has a 10-year history of promoting the development of interdisciplinary, science-based and culturally relevant solutions to the obesity epidemic in children and families, with an emphasis on low-income populations. The CWH also maintains a comprehensive website (http://cwh.berkeley.edu) including research and resources from CWH and others. This website is routinely accessed by researchers, policy-makers, and others interested in health promotion, and obesity and type 2 diabetes prevention in youth and families. On this study, Dr. Lorrene Ritchie, Director of Research and study Co-PI, focused primarily on study evaluation. Dr. Patricia Crawford, Center Director, consulted on study design and execution and contributed to interpretation, presentation and reporting of study findings.

General Mills. General Mills manufactures Yoplait yogurt and has its Western region manufacturing plant based in Carson, California. Their selection as the yogurt manufacturer was based on the 30+ year history with the WIC Program, starting with the reformulation of Cheerios to meet the federal iron requirements. General Mills is the largest food manufacturer in terms of the number of WIC-eligible food categories and brings important expertise in understanding the yogurt category and how it might impact the WIC Program from a nutritional and implementation perspective. Tammy Seitel, WIC Director at General Mills, oversaw the design and manufacture of the coupon to be used in this yogurt pilot and for tracking their usage. General Mills generously provided the conference line for all study related conference calls.

National Dairy Council® (NDC). NDC is the nutrition research, education and communications arm of Dairy Management Inc™. On behalf of U.S. dairy farmers, NDC provides science-based

nutrition information to, and in collaboration with, a variety of stakeholders committed to fostering a healthier society, including health professionals, educators, school nutrition directors, academia, industry, consumers and media. Established in 1915, NDC is dedicated to educating the public on the health benefits of consuming milk and milk products throughout a person's lifespan. The National Dairy Council is a long time sustaining member of the National WIC Association. Lisa Spence, formerly Vice President of Nutrition Research and Karen Kafer, Vice President of Health Partnerships, Nutrition Affairs, Doug DiRienzo, Sr. Vice President, Nutrition & Research Transfer, funded this research project as well as provided guidance on weekly calls on study design and implementation.

Dairy Council of California. Dairy Council of California provides a range of nutrition education programs for children and adults that result in positive behavior changes in food and physical activity choices. For several years they have provided resources to many local WIC agencies throughout the state. Mary Anne Burkman, Director of Program Services, designed and printed the yogurt educational materials, participated in the WIC staff training, and provided guidance on weekly calls on study design and implementation. At the initiation of the project, the Dairy Council worked with the California Department of Food and Agriculture to obtain approval for the distribution of free yogurt product as part of the research study.

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Local WIC Agenices. San Luis Obispo WIC Program: Linda McClure, WIC Director; Celena Crawford, Wendy Fertschneider, Margo Medina; Del Norte Clinics WIC Program: Rose McIsaac, WIC Director; Marisol Chavez were instrumental in conducting all field study procedures: participant recruitment, coupon distribution, yogurt education, participant tracking, ensuring high rates of follow-up by making reminder calls and sending reminder post cards, conducting study evaluations, and distributing study incentives.

Finally, the study participants, without whom this study would not have been possible, are gratefully acknowledged for their enthusiastic response to volunteering to participate and completing study forms.

A. EXECUTIVE SUMMARY

Little is known about the dairy preferences of WIC participants. To our knowledge, this is the first study to document the outcome of providing yogurt as a milk substitute to low-income women in WIC.

This study was a pilot involving relatively few participants over a short time period of time with some restrictions on the kind of yogurt provided (only one size, one brand, and a few flavors). However, this pilot study was rigorously designed enabling data to be collected from intervention and control groups that were nearly identical demographically and with similar attitudes and behaviors at baseline. Further, those who completed the study and those who did not had essentially the same study characteristics, thus eliminating bias that could compromise study findings.

The full report presents a wealth of information on dietary attitudes, beliefs and behaviors that can be used to better understand dairy consumption patterns of WIC participants.

Below are key findings related to the participants' receptivity to the yogurt program, the feasibility of providing yogurt vouchers in WIC, the dietary contribution of yogurt in WIC, and the dietary contribution of yogurt to those at greatest risk for low dairy consumption.

- WIC participants were overwhelmingly eager (86%) to substitute yogurt vouchers for some of their milk vouchers. More women reported strong agreement with liking the taste of yogurt as compared to those reporting strong agreement with liking the taste of milk (31% vs. 18% respectively).

- During this short intervention, most women (90%) used at least one of the coupons for a 32-fl oz container of yogurt, despite limited flavor and container size choices.

- Cost analyses, while demonstrating that yogurt was more expensive than milk, found that yogurt may be less expensive than various milk substitutes such as tofu, particularly when evaluated by the calcium contribution of the alternatives.

- WIC participants who used the WIC yogurt coupons, in contrast to the controls who did not receive WIC yogurt coupons, reported a trend of increasing their yogurt intake on average of 1.0 fl oz per day ($p= 0.09$). There was no significant decrease in their consumption of other dairy products during this period, indicating that the nutrients from the addition of yogurt may be considered additive, rather than compensatory.

- Low yogurt consumers (less than 1 fl oz per day at baseline) were most likely to benefit from the provision of yogurt coupons, i.e., participants with the lowest yogurt consumption at baseline showed greater increases in yogurt consumption as a result of the intervention. Low yogurt consumers in the intervention group increased their daily yogurt consumption during the study period by 2.8 fl oz per day relative to the low yogurt consumers in the control group ($p=0.003$).

B. INTRODUCTION

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) is a federal program that provides nutrition education, breastfeeding support, referrals for health care, and vouchers for nutritious foods to low-income pregnant, breastfeeding and postpartum women, infants, and children up to age 5 who are at nutritional risk. WIC is the nation's third largest nutrition assistance program, serving over 8.5 million participants nationally.

California has the nation's largest WIC Program serving one in five (21.4%) of the nation's total WIC participants at over 600 sites operated by 82 local WIC agencies (USDA, 2006). The California WIC Program serves an extremely diverse ethnic population averaging 1.44 million participants per month. The majority of participants are Latino (78%), followed by Caucasian (8%), African American (5.5%), Asian (5%), and Native American (0.9%) (CWA, 2009).

In December 2007 the U.S. Department of Agriculture (USDA) published the Interim Final WIC Food Package Rule for the WIC Program, making substantial changes to the foods allowed under this supplemental food program. The National Academies' Institute of Medicine (IOM) researched the current WIC food packages extensively and made significant recommendations to the USDA in order to make the WIC food package consistent with the *Dietary Guidelines for Americans* (Institute of Medicine, 2005). One of the IOM recommendations was to add yogurt as a substitute for part of the milk allowance. However, the USDA requirement is that any change be cost neutral to the WIC Program. The USDA is concerned that the addition of yogurt cannot be made while achieving cost neutrality and has asked states for assistance in exploring how yogurt could be provided.

The WIC Program can measure only what is offered to the intended beneficiaries, not what is eaten, so rigorous evaluation of food policy reforms is the only way to document whether the changes are truly improving the diets of millions of low-income women. The California WIC Program would like to better understand how yogurt might work within their program. In addition, a yogurt pilot would provide important information on the popularity of yogurt and what WIC participants select/consume and, ultimately, the potential dietary impact of the addition to yogurt to the WIC food provisions.

Calcium intakes of women, particularly low-income women, are far below recommendations (Fulgoni, 2007). Adequate intakes of dairy and calcium appear to be important to obesity prevention efforts. We recently completed a CDC-commissioned review of the literature on the dietary determinants of overweight (Woodward-Lopez, 2006). Based on the cumulative evidence, which included secular trend data, mechanistic investigations, observational studies, and prevention trials, we concluded that increasing dairy and calcium intake was a key strategy for preventing obesity. Since the new WIC package promises to impact obesity over time, research is needed on the response of individuals to receiving yogurt.

C. STUDY AIMS AND HYPOTHESES

The specific aims (numbered) and related hypotheses (lettered) of the California WIC Yogurt Study are as follows:

1. To document changes in **preference** for yogurt and **perceived barriers** to yogurt consumption by a sample of 300 women approximately 1 month following the provision of yogurt coupons and educational materials on yogurt uses (intervention group), compared to a sample of over 300 women not receiving yogurt coupons (control group).
Compared to the control group, in the intervention group:

a. Preference for yogurt will increase.
b. Perceived barriers to yogurt consumption will decrease.

2. To document changes in **use of yogurt in snacks and meals** by the intervention group compared to the control group.
Compared to the control group, in the intervention group:

a. Use of yogurt at meals will increase.
b. Consumption of yogurt as a snack will increase.

3. To document changes in the **amount of dairy servings** consumed by the intervention group compared to the control group.

a. Provision of yogurt coupons will not result in a compensatory decrease in intake of other dairy and calcium-rich foods.
b. Consumption of total dairy will increase by approximately 0.4 servings per day (3.2 fl oz) in the intervention group compared to the control group.

4. To examine the rates of **willingness/preference to substitute** yogurt for milk vouchers and **redemption** of yogurt coupons compared to milk vouchers.

a. A significant segment of participating WIC women will prefer to substitute yogurt for some of their milk vouchers.
b. For those so choosing, yogurt coupons will be redeemed at a rate similar to milk vouchers.

5. To conduct an **analysis of cost** to document if there is an expense of substituting vouchers for yogurt in place of milk.

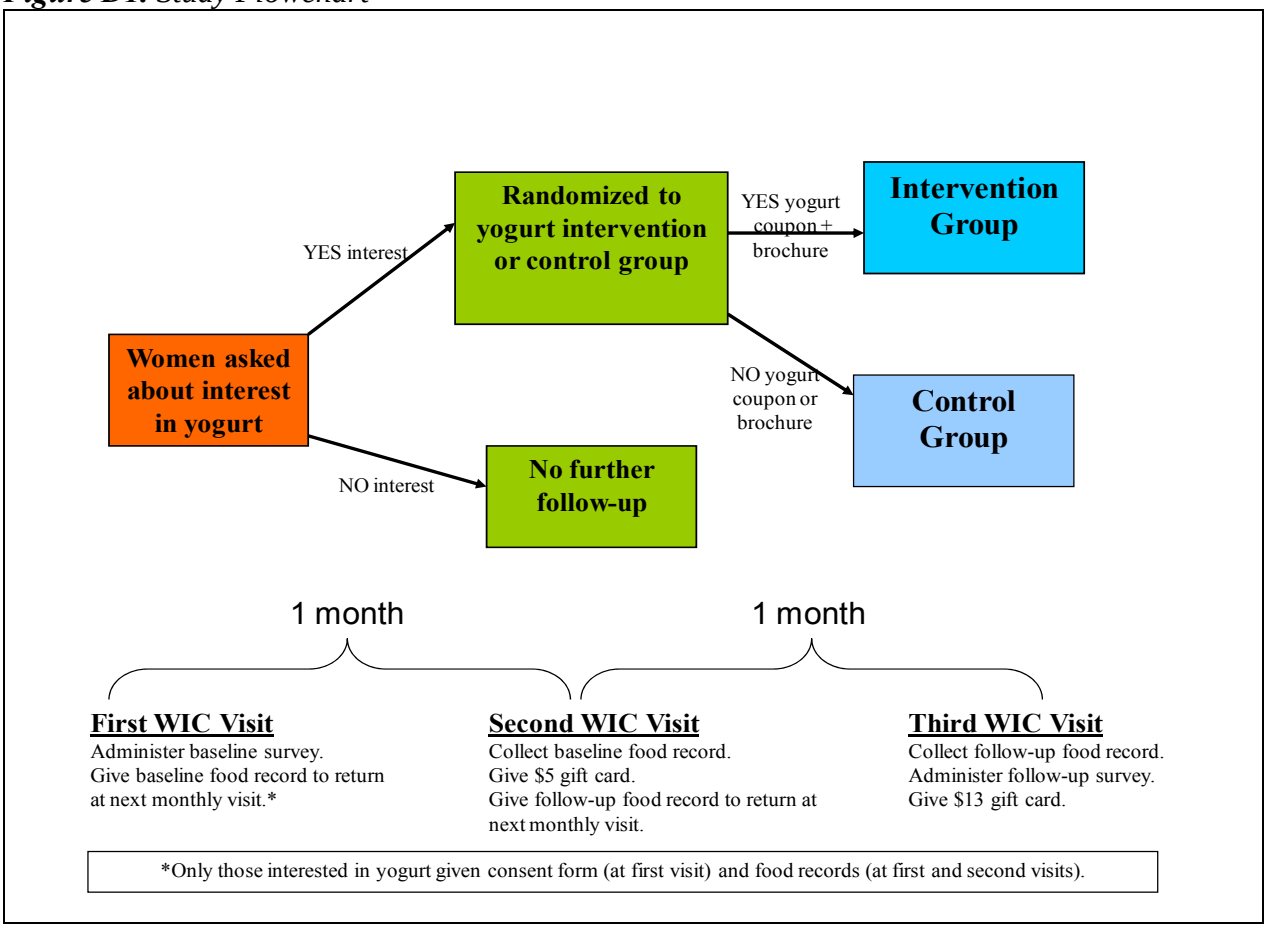
6. To prepare and distribute a **peer-reviewed journal article** on the benefits of adding yogurt to the WIC food package.

D. METHODS

Study Design

A randomized, controlled pilot was conducted with pregnant, breastfeeding and postpartum women at two local WIC agencies in California from early March 2009 through the end of September 2009. This 7-month time period was selected in an effort to obtain data from a sufficient sample size to document significant changes in total dairy intake, while accommodating the need to complete data collection prior to implementation of the new WIC food package on October 1. Each study participant was randomized to either an intervention or control group and followed for approximately 2 months (**Figure D1**). The study protocol was reviewed and approved by the Children's Hospital & Research Center, Oakland (CHRCO) institutional review board.

Figure D1. *Study Flowchart*



Study Sites

Two remotely-located WIC local agencies were identified for inclusion in the yogurt pilot project based on having: 1) collective participant demographics similar to the statewide WIC population, and 2) agency director and staff interested in participating. The two local WIC

agencies and associated sites were: County of San Luis Obispo WIC Program, Paso Robles site; and Del Norte Clinics, Inc. WIC Program, Colusa site (**Table D1**).

Table D1. *Sites Involved in the Pilot Study.*

WIC Agency	*County of San Luis Obispo*	*Del Norte Clinics, Inc.*
Director	Linda McClure, MS, RD	Rose McIsaac, RD, CLE
Location	Paso Robles Health Department; 723 Walnut Street; Paso Robles, CA 93406	515 Fremont Street; Colusa, CA 95932
Participants/mo[a]	409	313
Participant ethnicity		
Hispanic/Latino	75.1%	61.6%
Non-Hispanic White	18.2%	25.8%
Black/African American	0.6%	2.2%
Asian	0.6%	6.6%
Other	5.5%	3.8%

[a] Based on 2008 ISIS data on pregnant, breastfeeding and postpartum women provided prior to implementation of study protocol.

WIC Staff Training

Prior to participant recruitment, two half-day trainings, one at each participating local WIC site, were conducted with WIC staff to review study protocols, timeline, data collection tools, as well as participant recruitment, random assignment to groups and retention strategies. WIC staff were informed about the distribution of the yogurt coupons and education brochure, and provided a brief staff education on yogurt and how to administer the education to participants in the intervention group. Each site and each staff member involved in the study was provided a study Manual of Operations to refer to during the study. In addition, regular conference calls (~ biweekly) occurred to facilitate study progress, problem solve, and coordinate efforts. Conference calls included representation from researchers, state WIC, the two local WIC sites, the National Dairy Council, Dairy Council of California, and General Mills. Finally, the study coordinator provided in-person study assistance at the two local WIC sites at critical junctures of the study (i.e., initial recruitment, first subjects' return visits, final data collection), in addition to ongoing technical assistance by phone and email.

Participant Recruitment and Selection

To maximize enrollment, at monthly WIC visits all pregnant, breastfeeding and postpartum women (as long as not previously enrolled in the study) were invited to participate with the following exclusions: 1) less than 18 years of age (as would need parental consent for study involvement); 2) not planning to continue visits to the same WIC clinic for the 2 months following recruitment (which would preclude study completion); and 3) inability to read English or Spanish (as would not be able to complete written surveys).

Using a standard protocol, eligible participants at each WIC site were informed about the study by trained WIC staff at a regular WIC appointment and asked to complete a baseline survey. The survey included a question about interest, if it were an option, in substituting yogurt vouchers for part of the milk vouchers. Women not interested in making this substitution were not followed further. However, those interested in receiving yogurt were asked to sign a study consent form

and were given instructions on completing a 3-day dairy food record the following week after use of their WIC vouchers.

Prior to each participant's next regularly scheduled monthly WIC appointment, phone calls were made as a reminder to bring the completed food record to the appointment. A reminder pre-addressed postcard was also mailed to each participant.

Women returning to their next monthly WIC appointment with a baseline food record received a small incentive ($5 gift card) and then were randomly assigned to either the intervention (receiving yogurt coupon and educational yogurt brochure) or control group (not receiving yogurt coupon or brochure). Group assignment was based on participants' WIC family identification number (ID). WIC IDs are unique to each participant and assigned on the basis of initial enrollment in WIC and are therefore ideal for random assignment in the field. Participants with IDs ending in an even number were included in the intervention group; the IDs of participants in the control group ended in an odd number.

At the subsequent monthly appointment (2 months after the baseline visit) and following another reminder phone call if feasible and/or reminder post card, completed follow-up 3-day food records were collected and a follow-up survey administered to both the control and intervention groups. An incentive ($13 gift card) was provided to all participants who completed the study. In this way, baseline and follow-up survey and food record data were collected on both intervention and control women interested in receiving yogurt coupons. Only survey data were collected from women not interested in receiving yogurt coupons. This data was used to characterize those not interested in yogurt.

Intervention

Yogurt Provision. The yogurt provided to WIC participants reflected the nutritional requirements recommended by the IOM (Institute of Medicine, 2005):

- Plain or flavored,
- $\leq$ 17g of total sugar per 100g yogurt,
- Yogurt for those age 2 years and older may not contain more than 2% milk fat,
- Yogurts that are fortified with vitamin D, vitamin A, and other nutrients may be allowed at the state agency's option.

While the IOM recommended adding yogurt for women *and* children, this pilot provided yogurt only for packages V, VI, and VII for women (i.e., pregnant, breastfeeding and postpartum). The rationale for the focus on women was twofold: first, women are most at risk for calcium deficiency (Fulgoni, 2007) and second, offering yogurt only to women is most likely to be cost feasible. The issue with adding yogurt to the new federal food package is its cost compared to milk which jeopardizes cost neutrality.

Under the guidance of staff at state WIC and General Mills, manufacturer's coupons for yogurt were designed (**Appendix 1**). Each coupon could be used for one free 32-fl oz container of Yoplait yogurt with a maximum value ("Must Not Exceed") of $3.63. Any of the following flavors were allowed, provided they were available at the store where the coupons were redeemed: plain, vanilla, peach, strawberry, or strawberry/banana. Two coupons (for a total of 64 fl oz) were provided to

each intervention participant. Oral instructions were provided by WIC staff on how to use the coupons including which local vendors were stocking the yogurt and directions to redeem them along with their usual WIC vouchers in the following month. The 32-fl oz containers were only available as low-fat yogurt.

Yogurt Education. Under the direction of the Dairy Council of California, educational materials on the use of yogurt were developed for WIC staff (**Appendix II**) and intervention participants (**Appendix III**). The purpose of the education materials was to provide information on yogurt's nutritional quality, uses in meals and snacks, purchasing and handling, and several yogurt recipes. The content for the staff guide was skewed more to the nutritional profile of low-fat yogurt and its potential health benefits as well as the nutritional composition compared to fluid milk. The participant trifold brochure, available in both English and Spanish, focused more on recipes as well as ways to include yogurt in family meals and snacks. The draft materials were initially reviewed internally within Dairy Council, then reviewed by all members of the research team. Finally, staff in the two local WIC agencies shared the draft materials with their own staff for suggested edits. WIC staff received the educational materials at the staff training; intervention participants (but not controls) received the brochure along with their yogurt coupons at the time of their second WIC appointment (as early as April).

In response to interest by women in the intervention group for additional yogurt recipes, General Mills provided a brochure with additional recipes using yogurt (**Appendix IV**). The recipes were developed by the Betty Crocker Kitchens (some of which can be found on General Mills-affiliated websites: www.EatBetterEarly.com and www.Yoplait.com). This bilingual brochure (English and Spanish) was provided 2 months after initiation of the study (early May). Therefore not all participants in the intervention group received a copy. Based on the number of copies distributed (n=100 at each site), it is estimated that 82% of the intervention group received the additional recipes.

In anticipation of the new WIC food package, in June and July of 2009, WIC agencies across the state provided education to WIC families on the importance of consuming low-fat dairy products. While emphasis was primarily on fluid milk, yogurt was also mentioned. However, all women in the study were excluded from this dairy education and instead were provided information on breastfeeding, general healthy eating guidelines, or wellness.

WIC Vendors. Prior to the commencement of the intervention, vendors in the vicinity of the designated WIC pilot sites were sent several letters that included detailed information about the purpose and nature of the study. Each was invited to participate by agreeing to stock 32-fl oz containers of Yoplait yogurt in the flavors allowable with the yogurt coupons. Vendors were offered several opportunities for training on use of the yogurt coupons (via teleconference, phone calls, written communication, or in-person visits). WIC local vendor liaisons made several contacts with vendors throughout the study to facilitate continued provision of the yogurt.

Essentially the yogurt coupons were treated just like any other manufacturer coupon for a free product: a shopper presented the specified product along with the coupon and was not charged for the product; the store clerk scanned the coupon barcode, recording the flavor and store's current retail price (which would include any sales price that might be valid at the time of the

transaction), and submitted the coupons to the manufacturer via an intermediary (a coupon clearinghouse such as NCH). The store was then reimbursed by the clearinghouse for the retail price recorded. If the cashier did not write in the price, the retailer was reimbursed the maximum value amount (in this case, $3.63). The study coupons included a "save" indication on the barcode to ensure that all coupons redeemed were returned to General Mills to count.

Of the 8 authorized WIC vendors in the Paso Robles site community, 6 participated in the yogurt pilot. Of the 6 authorized WIC vendors in the Colusa site community, 5 participated. Vendors included large chain stores as well as independent and neighborhood stores. Neighborhood stores are privately owned "mom and pop" establishments; independent stores have between 2-6 locations; and chain stores have more than 6 locations.

Participating vendors in San Luis Obispo Clinic community:

1. Albertsons #6314; 189 Niblick Road; Paso Robles, CA 93447
2. Food 4 Less #12; 1465 Creston Road; Paso Robles, CA 93446
3. Scolari's Food & Drug; 2121 Spring Street; Paso Robles, CA 93446
4. Albertsons #6390; 8200 El Camino Real; Atascadero, CA 93422
5. Food 4 Less #10; 8360 El Camino Real; Atascadero, CA 93422
6. Spencer's Fresh Market; 8665 El Camino Real; Atascadero, CA 93422

Participating vendors in Del Norte Clinic Community:

1. Chung Sun Market; 110 6th Street; Colusa, CA 95932
2. Savmor Foods #31; 1017 Bridge Street; Colusa, CA 95932
3. El Toro Loco #2; 757 E Street; Williams, CA 95987
4. Roy's Super Market; 933 E Street; Williams, CA 95987
5. Shop & Save Market; 421 7th Street; Williams, CA 95987

It should be noted that El Toro Loco did not stock product from the distributor but wanted to participate in the pilot. The owner volunteered to purchase Yoplait from Food Maxx; however, store visits later in study showed they did not have any Yoplait in stock. Roy's Super Market did participate in the study, but it took several weeks before product could be stocked.

Tool Development

Study consent forms and surveys were developed which included participant surveys for the initial and final visits of the study. The primary focus of the surveys was to capture WIC participants' stage of change, preferences, perceptions and barriers related to yogurt consumption. Food frequency questions (FFQs) were also asked on yogurt, milk and cheese as well as fruits, vegetables, and whole grains. The FFQs were based in part on the Block's Fruit-Vegetable-Fiber Screener (http://www.nutritionquest.com/). Baseline and follow-up surveys were designed to take approximately 5-10 minutes to complete (**Appendix V, VI, VII**). A dairy food record for participants to complete (3 days of records at baseline and again at follow-up entitled: "Dairy Foods I Eat") was also designed to capture and quantify dairy dietary intake in women with low literacy (e.g., included line drawings of standard portion sizes to facilitate ease of record-keeping). It was estimated to take a total of 15 minutes to complete (**Appendix VIII**). All tools were vetted with the study team as well as a group of 10 women who participated in WIC at local sites in Alameda

county. Tools were revised accordingly based on feedback, and Spanish translations of each form generated and certified.

Data Collection

WIC Participants: Dairy Intake. Surveys were completed by participants at their WIC appointment after receiving oral directions from WIC staff. Women were also provided the 3-day dairy food record ("Dairy Foods I Eat") to take home and bring back completed to their next monthly WIC appointment. Participants were instructed to collect dietary data the week after shopping for food using their WIC vouchers (and for the intervention group, yogurt coupons). The rationale for requiring completion of the food record the week after voucher (and coupon) receipt is that many women utilize WIC vouchers shortly after receiving them and since yogurt is perishable, we might miss an increase in dairy consumption if intake was assessed further out in the month. Participants were instructed to collect intake data on 2 weekdays and 1 weekend day. Participants in the control and intervention group were asked to complete identical surveys and 3-day dairy food records at both baseline and follow-up (1-2 months after baseline). A follow-up survey for the intervention group included additional questions on use of the yogurt coupons and education materials

WIC Vendors: Cost Analysis. The analysis of cost was performed to document if there is an expense associated with substituting yogurt in place of milk. Retail costs of milk and yogurt were collected by visiting participating vendors in the communities of the designated WIC sites. Costs of other brands were collected to inform the feasibility of including other yogurt types. The study coordinator visited each of the local food vendors who agreed to participate in the study three times (June, August and October 2009). Data on the availability and cost were collected for 32-fl oz containers of yogurt (Yoplait as well as any other brands) and ½-gallon cartons of milk at each of the three time points. In October, analogous data was collected for 1-lb containers of tofu and ½-gallon cartons of soy beverage.

Yogurt Coupons: Redemption Rate. Intervention participants were asked on their follow-up survey about use of one, both or none of the yogurt coupons. In addition, General Mills also quantified the number of coupons redeemed from stores (through the clearinghouse system).

Milk Vouchers: Redemption Rate. The state WIC program utilizes a mainframe computer system (ISIS - Integrated Statewide Information System) for purposes of determining participant eligibility and issuing food vouchers. ISIS was queried in order to determine the statewide number of WIC milk coupons issued and redeemed during the same time period as the study, February - September, 2009. Vouchers issued for milk only were counted; combination vouchers with milk and other foods (e.g., cheese, eggs) were not included. Milk vouchers included those issued to women as well as to children.

Data Analysis

Data Entry and Quality Control. A Microsoft Access database and data entry protocol was developed for entry of study data. For consistency, all participant surveys were entered by one of two research staff members and all 3-day dairy food records were entered by one trained dietitian on the project. Approximately 15% of all study forms were double entered to check for data entry errors and further data queries were conducted to test for other errors and outliers.

Outcome Variables. Data were examined for each study objective as described below.

Objective 1. Changes in survey items related to participant **preference** for yogurt and **perceived barriers** to yogurt consumption at baseline and follow-up for the intervention group receiving yogurt coupons were compared to the control group (**Table D2**).

Table D2. *Sources of Objective 1 Data.*

Tool	Question #	Question Description	Response Options
Preference for Yogurt			
Baseline & follow-up surveys	B4	Participant liking plain yogurt	Likert scale – degree of liking
	B5	Participant liking flavored yogurt	
	D6	Purchase of small (4-8 oz) yogurt containers	Likert scale – agreement with statement
	D9	Participant liking yogurt more than milk	
	D10	Family liking yogurt	
	C1	Participant eating more yogurt at meals or snacks	Stage of change
	C2	Participant buying more yogurt	
Barriers to Yogurt Consumption			
Baseline & follow-up surveys	D1	Participant liking taste of milk more than yogurt	Likert scale – agreement with statement
	D2	Participant lactose intolerant	
	D3	Yogurt cost	
	D4	Yogurt spoils easily	
	D5	Yogurt nutritious	
	D7	Knowing how to include yogurt in recipes	

Objective 2. Survey items were used to document **use of yogurt in snacks and meals** by the intervention group compared to the control group (**Table D3**).

Table D3. *Sources of Objective 2 Data.*

Tool	Question #	Question Description	Response Options
Follow-up survey (intervention only)	F2	Used yogurt from coupons for self	Likert scale – agreement with statement
	F3	Used yogurt from coupons for family	
	F4	Yogurt brochure helpful	
	F5	Used brochure to include yogurt in meals	
	F6	Used brochure to include yogurt in snacks	
	F7	Like taste of yogurt from coupons	
	F8	Too much yogurt from coupons	
	F9	Not enough yogurt from coupons	
	F10	Yogurt spoiled before could use all	
	F11	Had trouble finding yogurt at store	
	F12	Prefer different flavors	
	F13	Prefer different brands	
	F14	Prefer different carton sizes	
	F15	If offered from WIC, would take yogurt in place of some of milk vouchers	
Baseline and follow-up 3-day dairy record	Section 3 Question 1	Usual milk type consumed by participant	Non-fat, lower-fat, whole, soy, other
	Section 3 Question 2	Usual yogurt type consumed by participant	Non-fat, lower-fat, whole, soy, other
	Section 3 Question 3	Usual yogurt flavor consumed by participant	Plain, vanilla, lemon/ lime, fruit/berry, other

Objective 3. Changes in the **amount of dairy servings** consumed by the intervention group compared to the control group was assessed using the 3-day dairy food record. A limited number of relevant other foods postulated to be linked to dairy, e.g. other food groups to encourage as fruits, vegetables, and whole grains (**Table D4**).

Table D4. *Sources of Objective 3 Data.*

Tool	Question #	Question Description	Response Options
Baseline & follow-up surveys	E1-E3	FFQs for yogurt, milk, cheese	Never or <1/week, 1/week, 2-3/week, 4-6/week, 1/day, 2-3/day, 4+/day
	E4-E12	FFQs for fruit drinks, 100% fruit juice, other fruit, vegetable juice, green salad, potatoes, vegetable soup, other vegetables, beans	
	E13-E14	FFQs for whole grain cereals, whole grain breads	
Baseline and follow-up 3-day dairy record	--	Record for 3 days of amount consumed of: yogurt, milk, drinks with milk, soft cheese, other cheese, dairy desserts	Ranged from 1 tbsp to 1 cup

Objective 4. The rates of **willingness/preference to substitute** yogurt for milk vouchers was determined by responses of WIC women to the question on the baseline survey of interest in substituting part of their milk vouchers for yogurt vouchers (**Table D5**). Survey data (at baseline) collected from both women interested and not interested in yogurt vouchers was compared in an effort to identify important differences between these groups of women (e.g., preference for milk, yogurt and other dairy products). This was done in order to anticipate willingness rates in WIC clinics with other demographics. To examine rates of **redemption** of yogurt coupons compared to milk vouchers, data on the issuance and redemption of WIC vouchers for milk was collected from ISIS and data on the redemption of manufacturer coupons for yogurt was collected from General Mills during the 7-month study period.

Table D5. *Sources of Objective 4 Data.*

Tool	Question #	Question Description	Response Options
Baseline	A11	If offered from WIC, would take yogurt in place of some of milk vouchers	Yes, No

Objective 5. The analysis of cost was performed to document if there is an expense associated with substituting vouchers for yogurt in place of milk. Retail costs of milk and yogurt were collected by visiting vendors in the communities of the designated WIC sites. Costs of other brands were collected to inform the feasibility of including other yogurt types. This is described under 'cost analysis' on page 13.

Statistical Analysis. Data were analyzed using SAS version 9.2 (SAS Institute, 2007). Descriptive statistics including means, standard deviations and percentages were computed for each group separately. To compare pre- vs. post-intervention responses for intervention and control groups we used chi-square or Fisher's exact tests for categorical variables and Student's t-test for continuous variables. Non-parametric Wilcoxon tests were used to compare the intervention and control groups for ordinal data. Changes in response in intervention vs. control groups were also compared using chi-square, t-tests or Wilcoxon tests. To assess the changes in preferences for milk and yogurt between the two visits, a -1, 0 and +1 score was created for the

pre- and post-intervention visits. In this scoring system, +1 represented an increase in the consumption of yogurt; 0 represented no change from pre to post-intervention; and -1 represented a decrease. We used a 2-sample Wilcoxon test to compare the changes between groups. In addition, a linear model with a binary outcome was used to compare the changes in the type of yogurt or milk usually consumed for the control and intervention groups. In some cases, analysis of covariance models were used to explore the change in daily servings of total dairy intake between groups. A significance level of 0.05 (two-tailed) was used for all statistical tests.

Power calculations. Based on the number of women typically coming in for WIC vouchers each month at the two WIC sites (~725), the number of new enrolled women (~60 per month) and anticipated attrition based on past studies, we estimated that a total of 600 women could be reasonably expected to participate in the study. With 250-300 women in each group (intervention and control) and assuming a standard deviation of 2 (based on values obtained for a nationally representative sample of women (Fulgoni, 2007)) and a time 1 x time 2 correlation of 0.6, we could reasonably detect a statistically significant ($p<0.05$) difference in change in intake of ~0.4 servings/day between the intervention and control groups. This amount is roughly equivalent to 3.2 fl oz of yogurt or milk. This represents the smallest increase we would be able to differentiate between the intervention and control group based upon 250-300 subjects per arm.

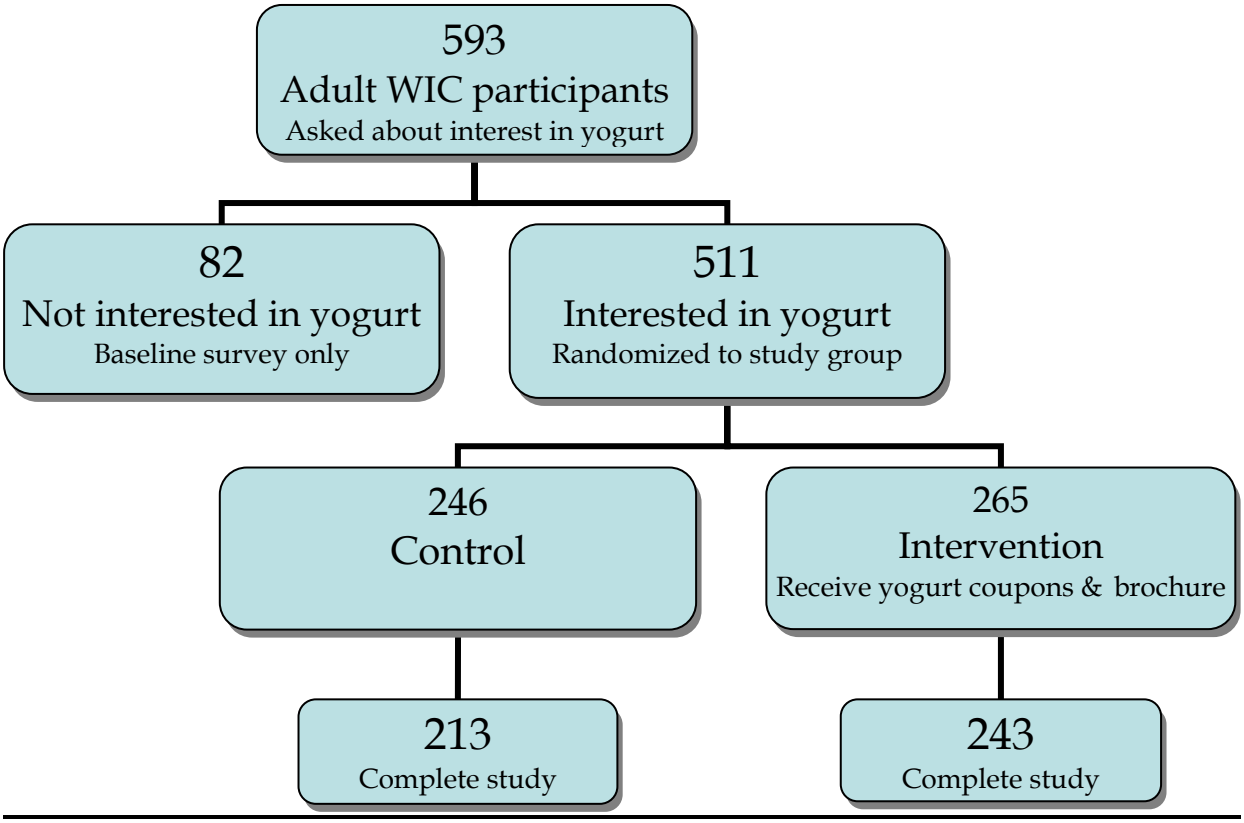
E. RESULTS

Study Participants

A total of 599 women completed the pre-intervention survey, of whom 6 were less than 18 years of age and therefore excluded (**Figure E1**). Therefore, 593 were initially queried and 511 were enrolled into the study based on indicating an interest in substituting yogurt for some of their milk vouchers. We exceeded our response rate for the study (86.2%) as we expected only 75% would agree to participate in the study (anticipated 750 would agree out of 1000 approached). Additionally, we had a much higher retention rate; we expected only 500 to complete the study out of 750 enrolled for a 67% retention rate. We found 89.2% of enrolled participants completed the study. As a result, although we approached 400 fewer women than anticipated during the 7-month trial, we nearly achieved our initial goal of having approximately 500 women complete the study.

A query from ISIS was obtained to determine the number of potentially eligible participants for inclusion in the yogurt study. The query provided the total number of participants from March 1 - July 31, 2009, by category (pregnant, breastfeeding and postpartum) for WIC sites in the study (Paso Robles and Colusa). To be included in the count, participants must have been at least 18 years old by March 1, have English or Spanish in their preferred language field, and have at least three months left in their certification period as a WIC participant (since participation in the study would last 3 months). The results indicated that nearly 100% of WIC participants eligible to participate in the yogurt study were recruited.

Figure E1. *Summary of Subject Enrollment & Retention*



Fifty five participants of the 511 initially agreed to participate in the project but subsequently discontinued for various reasons: 18 were not interested in participating after completing the baseline survey, 14 moved, 13 did not complete the follow-up survey and/or diet record collection; 3 were no longer involved with WIC, 2 transferred to another WIC site, 3 felt it would take too much time, 1 could not come in for monthly appointments and 1 was lost to follow-up. For most socioeconomic characteristics, there were no differences between those who completed the study (n=456) and those who did not (n=55) (**Table E1**). However, compared to those who did not complete the study, completers were more likely to communicate in Spanish and to have been on WIC for a longer duration.

Table E1. *Sample Characteristics at Baseline for Subjects Who Completed vs. Did Not Complete the Study.*

Characteristic	**Non-Completers (n=55)**	**Completers (n=456)**	***P*[a]**
Age (years)	25.1 ± 5.5	26.2 ± 5.7	NS
Pregnant currently	60.0%	61.2%	NS
Breastfeeding currently	27.3%	29.6%	NS
Main food shopper in household	94.4%	95.1%	NS
Number of total people in household	3.4 ± 1.5	3.5 ± 1.4	NS
Duration (years) of family on WIC	1.8 ± 2.2	2.3 ± 2.4	0.03
Spanish language preference [b]	36.4%	54.8%	0.01
Race/Ethnicity			NS
Hispanic	67.3%	78.2%	
Non-Hispanic White	25.5%	18.2%	
Other race/ethnicity	7.3%	3.5%	
Highest level of education			NS
Not high school graduate	29.1%	32.2%	
High school graduate	43.6%	37.5%	
Some college or more	27.3%	30.2%	

Note: When mean is provided, standard deviation is also included. Values in columns may not sum to 100% because of rounding.

[a] P-values based on T-test or Wilcoxon Two-Sample Test for means, χ^2 or Fisher's exact test for percentages; NS, not statistically significant.

[b] According to language selected for completion of surveys.

For the 456 subjects who completed the study protocol, the control group had a higher percentage of women currently breastfeeding compared to the intervention group. There were no other significant differences in baseline socioeconomic characteristics between the two groups (**Table E2**).

Table E2. *Sample Characteristics at Baseline for Control vs. Intervention Groups.*

Characteristic	Control (n=213)	Intervention (n=243)	*P*[a]
Age (years)	25.8 ± 5.4	26.6 ± 6.0	NS
Pregnant currently	59.6%	62.6%	NS
Breastfeeding currently	34.6%	25.2%	0.03
Main food shopper in household	93.8%	96.2%	NS
Number of total people in household	3.6 ± 1.4	3.5 ± 1.4	NS
Duration (years) of family on WIC	2.5 ± 2.5	2.2 ± 2.2	NS
Spanish language preference [b]	56.3%	53.5%	NS
Race/Ethnicity			NS
Hispanic	81.7%	75.2%	
Non-Hispanic White	16.0%	20.3%	
Other race/ethnicity	2.4%	4.6%	
Highest level of education			NS
Not high school graduate	35.2%	29.6%	
High school graduate	39.1%	36.2%	
Some college or more	25.7%	34.2%	

Note: When mean is provided, standard deviation is also included. Values in columns may not sum to 100% because of rounding.

[a] P-values based on T-test or Wilcoxon Two-Sample Test for means, χ^2 or Fisher's exact test for percentages; NS, not statistically significant.

[b] According to language selected for completion of surveys.

Objective 1. Participant preference for yogurt and perceived barriers to yogurt consumption

One way to predict an individual's likeliness to achieve a proposed behavior change is to assess their 'stage of change'. The stages of change range from not currently considering change to having already made and maintained the change. We used a simplified 4-stage of change model to assess stage of change in participants: not thinking about, thinking about doing in the next 6 months, planning to do right away, and already doing. The percentage of control and intervention group participants in these 4 stages of change are shown in **Table E3a**. At baseline, the majority of study participants were already eating yogurt at meals or snacks (69%) and buying yogurt to eat (66%). Stage of change with respect to eating and buying more yogurt did not differ between control and intervention groups at baseline or follow-up and changes from baseline to follow-up in stage of change responses did not differ by group (**Table E3b**). In both intervention and control groups, there was an increase in the number of participants who reported already doing these behaviors.

***Table E3a**. Stage of Change for Yogurt at Baseline and Follow-up for Control vs. Intervention Groups.*

Measure	Control			Intervention			*P*[a]
	Baseline	**Follow-up**	**Δ**	**Baseline**	**Follow-up**	**Δ**	
Eating more yogurt at meals or snacks							NS
Not thinking about doing	6.2%	2.8%	-3.5%	7.0%	3.3%	-3.6%	
Thinking about doing in next 6 mo	11.5%	10.9%	-0.5%	10.3%	13.6%	+2.8%	
Planning to do now	13.4%	13.7%	+1.5%	14.1%	14.5%	-1.2%	
Already doing it	68.9%	72.6%	+2.5%	68.6%	68.6%	+2.0%	
Buying more yogurt to eat							NS
Not thinking about doing	8.6%	2.8%	-5.6%	6.6%	4.1%	-2.0%	
Thinking about doing in next 6 mo	10.5%	9.0%	-2.0%	10.0%	9.1%	-1.0%	
Planning to do now	14.4%	14.6%	-0.3%	17.0%	12.4%	-5.4%	
Already doing	66.5%	73.6%	+7.8%	66.4%	74.4%	+8.5%	

[a] P-values based on Wilcoxon Two-Sample Test for change in control vs. intervention; NS, not statistically significant.

***Table E3b.** Movement in Stage of Change in Yogurt Consumption and Purchasing from Baseline to Follow-up for Control vs. Intervention Groups.*[a]

Measure	Control (n=208)	Intervention (n=241)	*P*[b]
Eating more yogurt at meals or snacks			NS
Decline in stage of change	18.8%	20.8%	
No movement in stage of change	57.7%	57.7%	
Improvement in stage of change	23.6%	21.6%	
Buying more yogurt to eat			NS
Decline in stage of change	17.3%	15.8%	
No movement in stage of change	57.2%	61.7%	
Improvement in stage of change	25.5%	22.5%	

[a] **Improvement** in stage of change defined as pre- to post-intervention movement: 1) from '*not thinking about doing'* to '*thinking about doing in next 6 mo'* or '*planning to do now'*, or '*already doing it'*; or 2) from '*thinking about doing in next 6 mo'* to '*planning to do now'* or '*already doing'*; or 3) from '*planning to do now'* to '*already doing*'. **Decline** in stage of change defined as pre- to post-intervention movement: 1) from '*already doing it'* to '*planning to do now'* or '*thinking about doing in next 6 mo'* or '*not thinking about doing'*; or 2) from 'to '*planning to do now'* to '*thinking about doing in next 6 mo'* or *'not thinking about doing'*; or 3) from '*thinking about doing in next 6 months* to '*not thinking about doing'*.

[b] P-values based on Wilcoxon Two-Sample Test for control vs. intervention; NS, not statistically significant.

We used a 4-point Likert scale (ranging from likes a lot to dislikes a lot) to assess participant preferences for plain and flavored yogurt. Less than 20% of participants reported liking plain yogurt a lot at baseline while over 90% liked flavored yogurt a lot (**Table E4a**). Approximately a third of respondents reported not eating plain yogurt, while nearly all participants reported eating flavored yogurt. There were no significant differences between groups in change in yogurt preference from baseline to follow-up (**Table E4b**).

Table E4a*. Preferences for Yogurt Baseline and. Follow-up for Control vs. Intervention Groups.*

Measure	Control			Intervention			*P*[a]
	Baseline	Follow-up	Δ	Baseline	Follow-up	Δ	
Plain yogurt							NS
Like a lot	20.0%	16.2%	-3.8%	18.5%	15.6%	-2.9%	
Like a little	42.9%	41.0%	-1.9%	33.6%	34.9%	+1.3%	
Dislike a little	8.8%	10.0%	+1.2%	11.2%	12.2%	+1.0%	
Dislike a lot	3.9%	4.8%	+0.9%	5.2%	2.5%	-2.7%	
Don't eat	24.4%	28.1%	+3.7%	31.5%	34.9%	+3.4%	
Flavored yogurt							NS
Like a lot	92.9%	95.3%	+2.4%	92.5%	93.4%	+0.9%	
Like a little	6.1%	3.3%	-2.8%	6.6%	4.5%	-2.1%	
Dislike a little	0.5%	0.0%	-0.5%	0.8%	0.4%	-0.4%	
Dislike a lot	0.5%	0.5%	0.0%	0.0%	0.8%	+0.8%	
Don't eat	0.0%	0.9%	+0.9%	0.0%	0.8%	+0.8%	

[a] P-values based on Wilcoxon Two-Sample Test for change in control vs. intervention; NS, not statistically significant.

Table E4b*. Change in Preference for Yogurt from Baseline to Follow-up for Control vs. Intervention Groups.*[a]

Measure	Control	Intervention	*P*[b]
Plain yogurt			NS
Decrease preference	31.2%	30.0%	
No change in preference	42.1%	40.1%	
Increase preference	26.7%	30.0%	
Flavored yogurt			NS
Decrease preference	4.3%	4.6%	
No change in preference	89.2%	90.5%	
Increase preference	6.6%	5.0%	

[a] **Increase** preference defined as pre- to post-intervention movement: 1) from '*don't eat'* to '*dislike a lot'* or *'dislike a little'* or '*like a little*,' or '*like a lot'*; or 2) from '*dislike a lot'* to *'dislike a little'* or '*like a little*' or '*like a lot'*; or 3) from *'dislike a little'* to '*like a little*' or '*like a lot'*; or 4) from '*like a little'* to '*like a lot*'. **Decrease** preference defined as pre- to post-intervention movement: 1) from '*like a lot'* to '*like a little*' or '*dislike a little'* or '*dislike a lot'* or *' don't eat'*; or 2) from '*like a little'* to '*dislike a little'* or '*dislike a lot'* or '*don't eat'* ; or 3) from *'dislike a little'* to '*dislike a lot'* or '*don't eat'*; or 4) from '*dislike a lot'* to '*don't eat'*.

[b] P-values based on Wilcoxon Two-Sample Test control vs. intervention; NS, not statistically significant.

Barriers to yogurt consumption and purchasing were also assessed using a 4-point Likert scale (**Table E5a**). The intervention and control groups were similar on all variables at baseline except for the question on the size of yogurt container usually purchased. More participants in the control group disagreed strongly that they purchased small (4-8 oz) containers; however the percentages that agreed (a little and a lot combined) or disagreed (a little or a lot) on this question were similar between groups.

Regardless of group, participants were roughly split on the question of liking the taste of milk more than yogurt and on liking to eat yogurt more than drinking milk (**Table E5b**). Fewer than 1 in 5 participants thought that yogurt was not as healthy as milk and yogurt was popular with nearly all families.

Less than 20% reported that they had trouble digesting things made with milk. A minority of participants agreed that yogurt spoiled too quickly, while a majority thought that the cost of yogurt was too high. Nearly all participants found yogurt available where they shopped for food. More than half of participants agreed that they did not know how to include yogurt in recipes.

When asked the same questions about barriers to consuming and purchasing yogurt at follow-up, there were only slight changes in responses and no significant differences between control and intervention group, with the exception of the question on yogurt container size. As reported in this **Table E6** for 10 questions on thought about dairy foods, a smaller mean value (closer to 1) indicates more group agreement with the question, <u>while a larger mean value (closer to 4) indicates more group disagreement with the question</u>. After the intervention, fewer participants that received coupons for large containers of yogurt agreed that they usually purchased yogurt in large containers.

Table E5a. *Thoughts about Dairy Foods at Baseline for Control vs. Intervention Groups.*

Measure	Agree a lot	Agree a little	Disagree a little	Disagree a lot	P[a]
1. Like the taste of milk <u>more</u> than yogurt					NS
Control	17.5%	33.5%	26.4%	22.6%	
Intervention	18.2%	36.8%	31.4%	13.6%	
2. Have trouble digesting things made with milk					NS
Control	4.4%	14.5%	12.1%	69.1%	
Intervention	8.0%	11.7%	12.1%	67.8%	
3. Yogurt costs too much					NS
Control	14.7%	45.5%	17.5%	22.3%	
Intervention	17.2%	46.0%	17.6%	19.3%	
4. Yogurt spoils too quickly.					NS
Control	8.7%	16.9%	28.0%	46.4%	
Intervention	7.1%	23.1%	27.3%	42.4%	
5. Yogurt is <u>not</u> as nutritious as milk.					NS
Control	4.3%	12.4%	27.6%	55.7%	
Intervention	5.9%	13.0%	29.0%	52.1%	
6. When buy yogurt, usually buy small containers (4 or 6 or 8 oz)					0.01
Control	65.6%	18.4%	4.3%	11.8%	
Intervention	62.4%	20.3%	7.9%	9.5%	
7. Do <u>not</u> know how to include yogurt in recipes					NS
Control	37.5%	25.5%	16.8%	20.2%	
Intervention	36.6%	20.4%	23.4%	19.6%	
8. Yogurt is available where shop for food					NS
Control	93.8%	3.4%	0.5%	2.4%	
Intervention	89.9%	5.0%	2.1%	2.9%	
9. Like eating yogurt <u>more</u> than drinking milk					NS
Control	30.5%	31.9%	23.8%	13.8%	
Intervention	30.8%	30.0%	30.0%	9.3%	
10. Family likes to eat yogurt					NS
Control	79.3%	16.0%	3.3%	1.4%	
Intervention	80.3%	16.5%	2.5%	0.8%	

[a] P-values based on Wilcoxon Two Sample Test ; NS, not statistically significant.

Table E5b. *Thoughts about Dairy Foods at Baseline for Control and Intervention Groups Combined.*

Measure	Agree[a]
1. Like the taste of milk more than yogurt	53.1%
2. Have trouble digesting things made with milk	19.3%
3. Yogurt costs too much	61.8%
4. Yogurt spoils too quickly.	28.1%
5. Yogurt is not as nutritious as milk.	17.9%
6. When buy yogurt, usually buy small containers (4 or 6 or 8 oz)	83.3%
7. Do not know how to include yogurt in recipes	59.8%
8. Yogurt is available where shop for food	96.0%
9. Like eating yogurt more than drinking milk	61.5%
10. Family likes to eat yogurt	96.0%

[a] Percent that *agree a lot* and that *agree a little* were combined.

Table E6*. Change in Thoughts about Dairy Foods for Control vs. Intervention Groups.*[a]

Measure	Control (n=217)			Intervention (n=243)			*P*[b]
	Baseline	Follow-up	Δ	Baseline	Follow-up	Δ	
1. **Like taste of milk more than yogurt**	2.54±1.03	2.58±1.00	+0.04±1.17	2.40±0.94	2.58±0.97	+0.17±1.11	NS
2. **Have trouble digesting things made with milk**	3.46±0.90	3.55±0.86	+0.10±0.96	3.41±0.98	3.63±0.78	+0.21±0.97	NS
3. **Yogurt costs too much.**	2.47±1.00	2.66±0.98	+0.18±1.13	2.39±0.98	2.73±0.99	+0.33±0.98	NS
4. **Yogurt spoils too quickly.**	3.12±0.99	3.35±0.87	+0.22±1.07	3.05±0.97	3.35±0.82	+0.30±1.04	NS
5. **Yogurt is not as nutritious as milk**	3.35±0.86	3.50±0.80	+0.16±0.97	3.27±0.90	3.48±0.85	+0.21±0.97	NS
6. **When buy yogurt, usually buy small containers (4-8 oz)**	1.62±1.02	1.63±0.95	0.00±1.06	1.64±0.98	1.89±1.00	+0.25±1.20	0.01
7. **Do not know how to include yogurt in recipes**	2.20±1.15	2.15±1.14	-0.06±1.28	2.26±1.15	2.27±1.17	+0.05±1.28	NS
8. **Yogurt is available where shop for food.**	1.12±0.51	1.11±0.48	-0.0 ±0.66	1.18±0.61	1.15±0.56	-0.05±0.81	NS
9. **Like eating yogurt more than drinking milk**	2.21±1.03	2.16±1.02	-0.06±1.06	2.18±0.98	2.21±1.01	+0.03±1.02	NS
10. **Family likes to eat yogurt**	1.27±0.59	1.22±0.58	-0.05±0.73	1.24±0.53	1.20±0.56	-0.03±0.62	NS

[a] Mean ±SD computed as follows: agrees a lot = 1; agrees a little = 2; disagrees a little = 3; disagrees a lot = 4.
[b] P-value based on Wilcoxon t-test for change in control vs. intervention; NS, not statistically significant.

Objective 2. Use of yogurt in snacks and meals

In addition to yogurt, participants were asked how much they liked whole milk, lower-fat milk (1% or 2%) and non-fat milk. Preferences did not differ by group at baseline (**Table E7a**), nor did they change significantly between baseline and follow-up (**Table E7b**). Lower-fat milk was liked a lot by the most participants, followed by whole milk. There were increases in the percentage of respondents who reported not drinking each type of milk between baseline and follow-up (particularly for non-fat milk), but these changes were similar in both the intervention and control groups.

***Table E7a**. Preferences for Milk at Baseline for Control vs. Intervention Groups.*

Measure	Like it a lot	Like it a little	Dislike it a little	Dislike it a lot	Don't eat it	P[a]
1. Whole milk						NS
Control	45.6%	27.7%	3.4%	1.5%	21.8%	
Intervention	44.9%	27.4%	5.1%	2.1%	20.5%	
2. Lower-fat milk (1% or 2%)						NS
Control	56.6%	26.4%	4.3%	1.9%	10.9%	
Intervention	52.7%	29.7%	5.4%	2.1%	10.0%	
3. Nonfat milk						NS
Control	14.6%	20.9%	16.0%	5.8%	42.7%	
Intervention	14.0%	26.3%	13.6%	6.4%	39.8%	

[a] P-values based on Wilcoxon Two Sample Test; NS, not statistically significant.

***Table E7b**. Change in Preference for Milk from Baseline to Follow-up for Control vs. Intervention Groups.[a]*

Measure	Control	Intervention	*P*[b]
Whole milk			NS
Decrease preference	28.6%	21.8%	
No change in preference	56.8%	60.3%	
Increase preference	14.5%	18.0%	
Lower-fat milk (1% or 2%)			NS
Decrease preference	20.4%	16.0%	
No change in preference	59.2%	66.0%	
Increase preference	20.4%	18.1%	
Non-fat milk			NS
Decrease preference	28.2%	31.2%	
No change in preference	53.0%	54.3%	
Increase preference	18.8%	14.5%	

[a] **Increase** preference defined as pre- to post-intervention movement: 1) from '*don't eat'* to '*dislike a lot'* or *'dislike a little'* or '*like a little*,' or '*like a lot'*; or 2) from '*dislike a lot'* to *'dislike a little'* or '*like a little*' or '*like a lot'*; or 3) from *'dislike a little'* to '*like a little*' or '*like a lot'*; or 4) from '*like a little'* to '*like a lot*'. **Decrease** preference defined as pre- to post-intervention movement: 1) from '*like a lot'* to '*like a little*' or '*dislike a little'* or '*dislike a lot'* or *' don't eat'*; or 2) from '*like a little'* to '*dislike a little'* or '*dislike a lot'* or '*don't eat'* ; or 3) from *'dislike a little'* to '*dislike a lot'* or '*don't eat'*; or 4) from '*dislike a lot'* to '*don't eat'*.
[b] P-value based on Wilcoxon Two-Sample Test for control vs. intervention; NS, not statistically significant.

Approximately two-thirds of participants reported usually drinking lower-fat milk; nearly half reported usually drinking whole milk (**Table E8**). Relatively few participants consumed non-fat or soy milks. Changes from baseline to follow-up in milk preferences were not significant between groups.

Preferences for low-fat yogurt were similar to that for low-fat milk (**Table E8**). However, compared to milk types, fewer participants consumed whole fat yogurt (approximately one-third), and more participants (nearly one-quarter) consumed non-fat yogurt. Fruit and berry flavored yogurts were the most popular, followed by vanilla. There were no significant differences between groups in observed changes from baseline to follow-up in preferences for yogurt type or flavor.

Table E8*. Change in Type of Yogurt and Milk Usually Consumed at Baseline and Follow-up for Control vs. Intervention Groups.*

Measure	Control			Intervention			*P*[a]
	Baseline	Follow-up	Δ	Baseline	Follow-up	Δ	
Yogurt Type							
Whole	39.4%	37.5%	-1.9%	40.5%	31.2%	-9.3%	NS
Lower-fat (2% or 1%)	55.9%	66.0%	+10.1%	60.1%	63.6%	+3.5%	NS
Non-fat	23.0%	22.2%	-0.8%	18.6%	24.3%	+5.7%	NS
Yogurt Flavor							
Plain	14.8%	15.9%	+1.1%	17.6%	18.4%	+0.8%	NS
Vanilla	32.6%	36.0%	+3.4%	35.6%	44.2%	+8.6%	NS
Lemon/lime flavored	10.4%	10.4%	0.0%	10.6%	9.9%	-0.7%	NS
Fruit/berry flavored	95.3%	94.4%	-0.9%	94.1%	90.6%	-3.5%	NS
Milk Type							
Whole	43.9%	43.7%	-0.2%	50.0%	41.8%	-8.2%	NS
Lower-fat (2% or 1%)	66.0%	65.8%	+0.2%	59.2%	66.5%	+7.3%	NS
Non-fat	5.7%	11.9%	+6.2%	9.2%	11.5%	+2.3%	NS
Soy	7.4%	3.7%	-3.7%	5.5%	4.9%	-0.6%	NS

[a] P-value based on Wilcoxon Two-Sample Test for change in control vs. intervention; NS, not statistically significant. Columns do not add to 100% as questions were not exclusive, a participant could answer "yes" to consuming all types and flavors of yogurt and/or milk.

Objective 3. Consumption of dairy servings and foods postulated to be linked to dairy

Frequency of consumption of dairy and foods postulated to be linked to dairy are shown in **Table E9**. Food frequency questions such as used in this study cannot be used to quantify amounts consumed (this was done using the 3-day dairy food record discussed below). However, food frequency questions can be useful for estimating frequency of intake over longer periods of time than is usually feasible with diet records. For this study, food frequency questions also had the advantage of including questions about foods in addition to dairy foods. Since recipes were provided to participants on the use of yogurt which often included fruit and whole grain cereals as well, we wanted to examine whether providing yogurt also influenced intake of several other foods. There were no significant differences between groups in change of reported intake frequency for any food assessed except for vegetable juice. The intake of the intervention group decreased while the intake of the control group was unchanged. There was a trend (p=0.06) towards the change of intake of whole grain cereals; intake in the intervention group increased slightly while intake in the control group decreased.

Table E9*. Change in Frequency (times/day[a]) of Intake Over Past Month of Select Foods at Baseline and Follow-up for Control vs. Intervention Groups.*

Measure	Control			Intervention			*P*[b]
	Baseline	Follow-up	Δ	Baseline	Follow-up	Δ	
Yogurt	0.59 ± 0.63	0.82 ± 0.74	+0.22 ± 0.80	0.58 ± 0.59	0.71 ± 0.70	+0.14 ± 0.82	NS
Milk	1.45 ± 1.04	1.45 ± 1.01	+0.01 ± 1.28	1.44 ± 1.02	1.46± 0.99	+0.02 ± 1.10	NS
Cheese	0.95 ± 0.85	0.91 ± 0.82	-0.05 ± 0.98	0.97 ± 0.84	0.95 ± 0.83	-0.01 ± 0.93	NS
Fruit drinks	0.83 ± 1.05	0.75 ± 0.92	-0.09 ± 1.01	0.77± 0.94	0.66 ± 0.83	-0.11 ± 0.89	NS
100% fruit juice (***NOT*** soda)	1.25 ± 1.04	1.07± 0.95	-0.30 ± 1.76	1.24 ± 1.10	1.06 ± 1.03	-0.32 ± 1.68	NS
Other fruit (***NOT*** juice)	1.15 ± 0.99	1.07± 0.93	+0.07 ± 1.91	1.32 ± 1.10	1.07 ± 0.91	-0.18 ± 1.81	NS
Vegetable juice	0.24 ± 0.53	0.24 ± 0.52	+0.01 ± 1.66	0.28 ± 0.56	0.16 ± 0.39	-0.36 ± 1.61	0.016
Green salad	0.58 ± 0.66	0.57 ± 0.63	-0.02 ± 1.40	0.57± 0.70	0.52 ± 0.57	+0.02 ± 1.24	NS
Potatoes	0.45 ± 0.55	0.38± 0.53	-0.21 ± 1.31	0.40 ± 0.53	0.33 ± 0.36	-0.11 ± 1.36	NS
Vegetable soup	0.41 ± 0.52	0.38 ± 0.49	-0.07 ± 1.26	0.37 ± 0.52	0.32 ± 0.29	+0.02 ± 1.28	NS
Other vegetables	0.85 ± 0.90	0.74 ± 0.74	-0.12 ± 1.51	0.80 ± 0.79	0.69± 0.70	-0.17 ± 1.30	NS
Legumes	0.76 ± 0.77	0.68 ± 0.69	-0.09 ± 1.47	0.55 ± 0.50	0.58 ± 0.60	+0.05 ± 1.41	NS
Whole grain cereals	0.97 ± 0.76	0.84 ± 0.65	-0.21 ± 1.41	0.86 ± 0.68	0.86 ± 0.67	+0.03 ± 1.38	0.063
Whole grain bread	0.68 ± 0.72	0.56 ± 0.64	-0.31 ± 1.69	0.63 ± 0.65	0.62 ± 0.76	-0.17 ± 1.78	NS

[a] Mean ±SD (times/day) computed as follows: Never or less than once a week = 0; once a week = 0.14; 2-3 times a week = 0.36; 4-6 times a week = 0.71; once a day = 1; 2-3 times a day = 2.5; 4+ times a week = 4.
[b] P-value based on t test for change in control vs. intervention; NS, not statistically significant.

Three-day dairy-focused pictorial food records were completed at baseline and follow-up by all but one woman in the control group and all but 5 women in the intervention group. The majority of women (>98%) completed the records as instructed (2 weekdays and 2 weekends) at both the baseline and follow-up time points. Women in both the control and intervention group were high dairy consumers at baseline, consuming on average 4 to 5, 8 oz servings of total dairy per day. One 8 oz serving of yogurt was consumed per day in both groups at baseline (**Table E10a**).

In the intervention group, the only baseline to follow-up change that was significant, was the increase in yogurt intake (p=0.02). In the control group, the only significant change was the decrease in milk intake (p=0.01). There was a trend towards a small though positive increase in yogurt consumption in the intervention compared to the control group (p=0.09). The absolute difference observed calculated to a 1 fl oz increase in yogurt consumption per day. There were no significant differences observed in the intake of other dairy foods (milk, cheese, desserts) or in total dairy consumption.

Table E10a. *Change in Daily Amount of Intake (8 fl oz equivalents of milk[a]) of Dairy Foods at Baseline and Follow-up for Control vs. Intervention Groups.*

Measure	Control (n=212)			Intervention (n=238)			*P*[b]
	Baseline	Follow-up	Δ	Baseline	Follow-up	Δ	
Yogurt	1.10±0.75	1.12±0.74	+0.02±0.53	0.99±0.59	1.12±0.77	+0.12±0.70	0.09
Milk	1.85±1.06	1.71±0.94	-0.14±0.80	1.74±0.86	1.66±0.84	-0.09±0.73	NS
Cheese	1.31±0.95	1.29±0.95	-0.01±0.72	1.22±0.83	1.19±0.90	-0.03 ±0.81	NS
Dairy Desserts	0.35±0.32	0.35±0.97	0.00±0.26	0.33±0.29	0.31±0.26	-0.02±0.27	NS
Total Dairy[c]	4.61±2.35	4.47±2.35	-0.13±1.56	4.28±1.85	4.28±2.16	-0.01±1.77	NS

[a] Mean ±SD (8 fl oz milk equivalents) computed as follows: 1 fl oz yogurt = 1 fl oz milk equivalents; 1 fl oz milk = 1 fl oz milk equivalents; 1 oz soft cheese = 0.4 fl oz milk equivalents; 1 oz other cheese = 2 fl oz milk equivalents; 1 oz dairy desserts = 0.6 fl oz milk equivalents.
[b] P-value based on t-test for change in control vs. intervention; NS, not statistically significant.
[C] Total dairy was computed as the sum of 8 fl oz equivalent intakes of yogurt, milk, cheese and dairy desserts.

In a multivariate model of change in intake of yogurt including language and breastfeeding status, the interaction for language (but not breastfeeding status) was significant (p=0.03), meaning that change in yogurt intake differed between language subgroups. Change in yogurt intake was therefore examined by language preference. The increase in yogurt intake by the intervention group was slightly more significant when the Spanish-speaking participants were analyzed separately (p=0.075), though the increase in consumption pattern was similar, a 1 fl oz increase in yogurt intake per day. The change in the English sub-group, although in the same direction (a difference of +0.6 fl oz in the intervention vs. controls), was not significant (p=0.44).

Given that there were significant differences between the control and intervention group at entrance into the study based on breastfeeding status, we used a multivariate model of change in intake in dairy foods which included group (intervention or control), preferred language (English or Spanish), and breastfeeding status (breastfeeding currently or not). A significant effect of breastfeeding (but not intervention or language) was observed for milk intake (p=0.03), meaning

that the change in milk intake differed by breastfeeding status. However, breastfeeding status was not a factor in the consumption of any other dairy group, including yogurt.

A subgroup analysis was also performed in the 166 women in the intervention group who reported utilizing their coupons during the month of dietary reporting (**Table E10b**), and who used the yogurt primarily for themselves. We observed very similar findings to the group as a whole, a 1 fl oz increase in yogurt consumption per day.

Table E10b*. Change in Daily Amount of Intake (8 fl oz equivalents of milk[a]) of Dairy Foods at Baseline and Follow-up for Control vs. Intervention Groups, for the subgroup of participants in the intervention group who used the coupons for themselves.*

Measure	Control (n=212)			Intervention (n=166)			*P*[b]
	Baseline	Follow-up	Δ	Baseline	Follow-up	Δ	
Yogurt	1.10±0.75	1.12±0.74	+0.02±0.53	1.05±0.59	1.18±0.70	+0.12±0.66	0.085
Milk	1.85±1.06	1.71±0.94	-0.14±0.80	1.70±0.87	1.61±0.83	-0.10±0.72	NS
Cheese	1.31±0.95	1.29±0.95	-0.01±0.72	1.21±0.86	1.22±0.87	-0.01±0.79	NS
Dairy Desserts	0.35±0.32	0.35±0.97	0.00±0.26	0.35±0.31	0.33±0.28	-0.03±0.28	N S
Total Dairy	4.61±2.35	4.47±2.35	-0.13±1.56	4.31±1.95	4.34±2.12	-0.02±1.70	NS

[a] Mean ±SD (8 fl oz milk equivalents) computed as follows: 1 fl oz yogurt = 1 fl oz milk equivalents; 1 fl oz milk = 1 fl oz milk equivalents; 1 oz soft cheese = 0.4 fl oz milk equivalents; 1 oz other cheese = 2 fl oz milk equivalents; 1 oz dairy desserts = 0.6 fl oz milk equivalents.

[b] P-value based on t-test for change in control vs. intervention; NS, not statistically significant.

We also performed a sub-group analysis in those women who were the in the lowest tertile of yogurt consumption at the beginning of the study. There were 59 intervention women in this sub-group and they consumed on average less than 0.6 fl oz of yogurt per day at baseline. When these low yogurt consumers were compared to the entire control group, we observed a highly significant increase in consumption of yogurt following the provision of coupons of 2.4 fl oz per day (p=0.007). When this same group of low yogurt consumers were compared to those in the control group who were also low yogurt consumers (less than 1 fl oz per day), the relative increase in yogurt consumption was even greater, 2.8 fl oz per day (p=0.003).

Objective 4. Willingness to substitute yogurt for milk vouchers and redemption rates

We found that 511 out of 593 (86.2%) of pregnant, lactating or postpartum women at the two participating WIC centers were interested in substituting yogurt for milk. There were no significant differences in socio-demographic characteristics between those women who were vs. were not interested in yogurt (**Table E11**).

Table E11. *Sample Characteristics for WIC Participants by Preference for Yogurt Coupons.*

Characteristic	WOULD NOT substitute yogurt for milk vouchers (n=82)	WOULD substitute yogurt for milk vouchers (n=511)	*P*[a]
Age (years)	26.5 ± 5.0	26.1 ± 5.7	NS
Pregnant currently	62.2%	61.1%	NS
Breastfeeding currently	28.1%	29.3%	NS
Main food shopper in household	95.1%	95.1%	NS
Number of total people in household	3.6 ± 1.4	3.5 ± 1.4	NS
Duration (years) of family on WIC	2.8 ± 2.8	2.3 ± 2.3	NS
Spanish language preference	54.9%	52.8%	NS
Race/Ethnicity			NS
Hispanic	79.3%	77.0%	
Non-Hispanic White	15.9%	19.0%	
Other race/ethnicity	4.9%	3.9%	
Highest level of education			NS
Not high school graduate	34.2%	31.9%	
High school graduate	40.5%	38.2%	
Some college or more	25.3%	30.0%	

Note: When mean is provided, standard deviation is also included. Values in columns may not sum to 100% because of rounding.

[a] P-value based on t-test for means, χ^2 test for percentages and Wilcoxon used for total # in house and duration on WIC; NS, not statistically significant.

Of the group of women not interested in substituting milk vouchers for yogurt coupons at the beginning of the study (n=82), 37% responded that they did not regularly consume plain yogurt and 10% did not consume flavored yogurt. There were highly significant differences in yogurt preference between the women interested vs. not interested in yogurt, which did not seem to be explained by possible lactose intolerance as a similar number of women in both groups reported trouble digesting dairy products (**Table E12**).

Among those who received yogurt coupons (intervention group only), 90.3% used at least one coupon the month after receipt (16.6% used one, 73.7 % used both). Among the 10.0% who did not use the coupons after receipt, 1.8% were not able to find the coupon yogurt where they shopped, 7.4% could not find their coupons when they shopped, and 0.5% did not want the coupon yogurt. In California during the same time period as the yogurt pilot, an average of 88.0% of WIC vouchers issued for milk were redeemed (**Table E13**).

Table E12. *Comparison of Yogurt Preferences and Attitudes about Yogurt by Initial Preference for Yogurt Coupons.*

Measure	Agree or Like it a lot	Agree or Like it a little	Disagree or Dislike it a little	Disagree or Dislike it a lot	P[a]
1. Do you like plain yogurt?					0.015
NO would not substitute yogurt for milk vouchers	8.2%	27.4%	17.8%	9.6%	
YES, would substitute yogurt for milk vouchers	19.2%	37.2%	10.8%	5.2%	
2. Do you like flavored yogurt?					<0.001
NO would not substitute yogurt for milk vouchers	56.9%	27.9%	0.0%	5.1%	
YES, would substitute yogurt for milk vouchers	91.9%	7.1%	0.6%	0.4%	
4. Do you have trouble digesting things made with milk?					NS
NO would not substitute yogurt for milk vouchers	9.5%	13.5%	9.5%	67.6%	
YES, would substitute yogurt for milk vouchers	6.0%	13.7%	12.3%	67.9%	
5. Do you like the taste of yogurt more than milk?					<0.001
NO would not substitute yogurt for milk vouchers	9.0%	14.1%	37.2%	39.7%	
YES, would substitute yogurt for milk vouchers	31.3%	30.3%	26.9%	11.6%	

Note: Values in rows may not sum to 100% because of rounding and exclusion of "don't eat" category.
[a] P-values based on χ^2 test for percentages; NS, not statistically significant.

Table E13. *Statewide Redemption of Milk Vouchers.*

Month	Number Issued	Number Redeemed	% of Issued that were Redeemed
Feb 2009	1,784,055	1,586,661	88.9%
Mar 2009	1,805,360	1,584,289	87.8%
Apr 2009	1,807,524	1,586,020	87.7%
May 2009	1,787,031	1,566,334	87.7%
Jun 2009	1,807,393	1,594,652	88.2%
Jul 2009	1,825,863	1,605,237	87.9%
Aug 2009	1,821,590	1,600,398	87.9%
Sep 2009	1,791,514	1,581,653	88.3%
Total	14,430,330	12,705,244	88.0%

Most of the intervention participants who reported using the yogurt coupons were satisfied with the yogurt and education. A majority responded that they ate the yogurt themselves (95.4%), used the coupons for their family to eat (84.8%), found the yogurt brochure helpful (98.5%), used the brochure information to include yogurt in meals (84.0%) or snacks (85.0%), and liked the taste of the coupon yogurt (95.9%) (**Table E14**). Only a minority responded that the amount of yogurt they received was too much (15.8%) or too little (32.4%), that it spoiled before they could eat all of it (2.7%), and that they had trouble finding the coupon yogurt where they shopped for food (8.5%). Intervention participants who used the coupons were more evenly split on the questions regarding preferences for different yogurt: 68.6% would like different flavors, 45.3% would like different brands, and 61.5% would like different carton sizes.

Of those who used the yogurt coupons during the intervention period, 90.7% responded that they would be interested in substituting yogurt in place of some milk, if that were available as an option in their WIC food package. Nearly the same proportion (87.8%) of the entire intervention group, whether they used the coupons or not, continued to be interested in yogurt at the end of the pilot.

Table E14*. Response to Yogurt Coupons Post-Intervention by Intervention Group Participants who Used One or Both Coupons.*

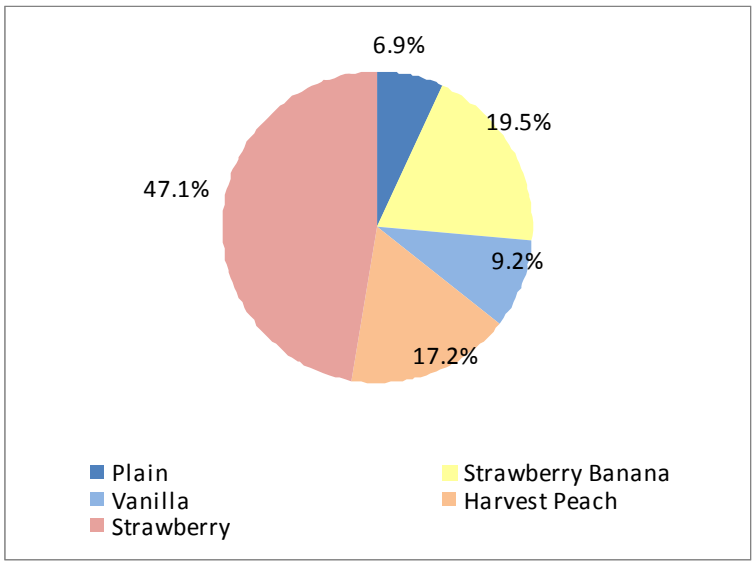
Measure	Agree a lot	Agree a little	Disagree a little	Disagree a lot
Used coupons for yogurt for **self** to eat	84.7%	10.7%	3.6%	0.5%
Used coupons for yogurt for **family** to eat	67.5%	17.3%	6.3%	6.3%
Brochure on yogurt was helpful	70.8%	27.7%	1.0%	0.0%
Used brochure information to include yogurt in **meals**	44.3%	39.7%	8.3%	6.7%
Used brochure information to include yogurt in **snacks**	45.1%	39.9%	7.3%	7.3 %
Like **taste** of yogurt from coupons	95.4%	0.5%	2.6%	1.5%
Amount of yogurt from coupons was **too much**	5.8%	10.0%	25.1%	59.2%
Amount of yogurt from coupons was **too little**	12.0%	20.4%	24.1%	42.4%
Yogurt **spoiled** before could eat all of it	1.6%	1.1%	6.9%	85.6%
Had **trouble finding** yogurt from coupons	5.8%	2.7%	8.5%	79.4%
Prefer different **flavors**	56.7%	11.9%	13.4%	17.0%
Prefer different **brands**	32.8%	12.5%	13.5%	39.6%
Prefer different **carton sizes**	41.4%	20.4%	7.9%	28.8%
Would take **vouchers for yogurt** in place of some of milk	70.1%	20.6%	5.7%	3.0%

Note: Values in rows may not sum to 100% because of rounding and participants checking 'does not apply'.

Using the information from the coupons that were redeemed at a vendor and returned to the manufacture, we were able to document yogurt flavor preferences and average price of yogurt

containers. A total of 361 coupons were collected at the manufacturer after redemption, which represents approximately 75% of the total issued and 92% of the total that participants reported using. Flavor preferences were similar to information documented by the subjects in the study questionnaires, the most common flavors were fruit flavors: strawberry, strawberrry/banana and peach, followed by vanilla. Plain yogurt was only purchased with the coupons for the study 6.9% of the time (**Figure E2**). These findings tend to mirror what we documented was available at 3 visits to WIC vendors over the course of the intervention: 7 sites stocked strawberry, 2 sites stocked strawberry/banana, 4 sites stocked peach, 8 sites stocked vanilla, and 1 site stocked plain.

Figure E2*. Yogurt Flavor Choices Noted on Redeemed Coupons by Women in the Intervention Group.*



Objective 5. Analysis of cost

The price of yogurt, milk and similar substitutions were collected at all participating vendors of the pilot study at three time points during the study, June, August and October 2009. Shelf price was documented for each brand, vendor and location. In order to compare various yogurt brands, a similar product was chosen, low-fat plain or vanilla, non-organic. Sale prices were noted but not included in the summary herein.

The average cost of 32-fl oz containers of Yoplait Yogurt varied slightly by site: in Paso Robles the median price was $2.86, in Colusa it was $2.99; as well as by vendor, from $2.58 to $3.53 depending on the location and size of the store. The overall median price of Yoplait Yogurt was estimated to be $2.99 during the time of this study. The average price of Yoplait Yogurt was slightly less when documented on the coupons redeemed during the study (mean of $2.67 or $0.083 per fl oz). This discrepancy could be related to sale prices being included in the redeemed coupon data. Also, the store level data was not weighted to reflect consumer shopping patterns as would the coupon redemption data. It is likely that WIC participants used more coupons at stores with cheaper prices. The average cost of 32-fl oz containers of yogurt also varied significantly by brand, from

$2.50 (Albertson's Store Brand) to $6.99 (Redwood Hill Farms). The median price of all brands of yogurt was $3.13 per 32-fl oz container (**Table E15**). The median price for a half gallon of milk varied by brand as well, $1.65 (Producer's Dairy) to $2.32 (Crystal). The median price of a half gallon of milk in Paso Robles was $2.04 and in Colusa $2.00, or for both sites $2.02. On average, yogurt prices were more volatile than milk prices during the course of the 7-month study, but there were no significant differences when averaged over the entire length by site and vendor; whereas the price of milk tended to decrease during this same time period (by $0.22).

Table E15*. Average Shelf Price of Major Brands of Yogurt (32-fl oz containers) compared to Fluid Cow's Milk (1/2 gallon cartons).*

Yogurt Brands (32-fl oz containers)	**Median Shelf Price^**	**Milk Brands (half gallon containers)**	**Median Shelf Price^**
Yoplait	$2.99	Crystal	$2.32
Mountain High	$3.26	Knudsen	$2.24
Producers Dairy	$2.71	Producers Dairy	$1.65
Crystal	$2.74	Albertson's	$2.04
Dannon	$3.22		
Albertson's	$2.50		
Redwood Hill Farms	$6.99		
Median Price All Brands	$3.13		$2.02

^Average shelf price documented at 3 time points from June to October, at all vendors in Paso Robles and Colusa.

When comparing calories, protein, calcium and vitamin D content, one 32-fl oz container of Yoplait yogurt is similar to one quart of milk. Therefore, if consumption patterns are similar between yogurt and milk, then on average, yogurt would cost nearly 3 times (2.96) that of low-fat (2%) milk within this time period and these geographic locations [yogurt: $2.99 / 32-fl oz, milk: $1.01/1 qt (based on $2.02 per half gallon)]. Data on the cost of soy beverages and tofu [Azumaya Tofu brand] was also collected at all participating vendors. The median price of fortified soy beverage during the time of this study was $3.37 per half gallon, which calculates to nearly 2 times (1.67) the price of low-fat cow's milk; the median price of tofu was $2.26 for a 1-pound container.

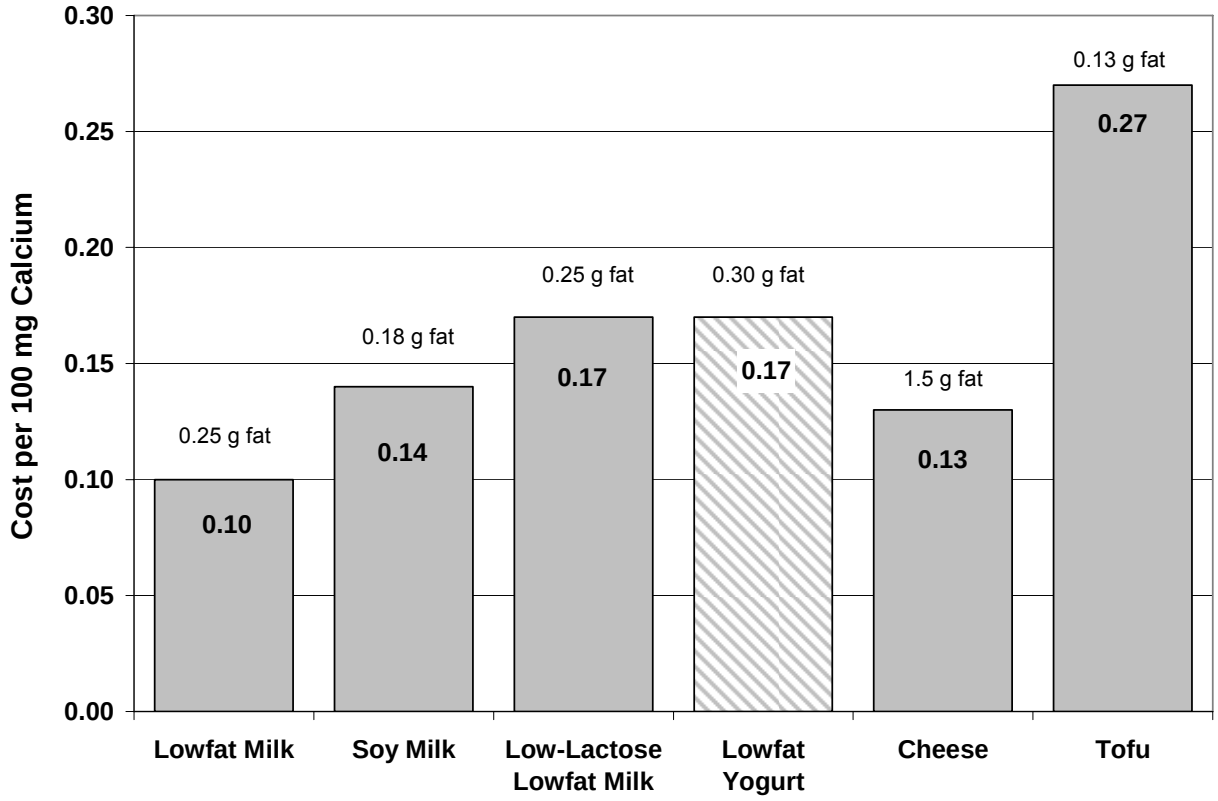
U.S. national average prices for some dairy products and their substitutions were also collected. (**Table E16)**. As expected, the national average prices for milk, yogurt, cheese and tofu were less than what was collected in California. From these data, it is clear that yogurt, though still more costly than milk, is less expensive than other foods currently available as substitutions for milk in some WIC food packages, e.g. cheese and tofu. When these products are compared based on calcium content, yogurt is only slightly more expensive than milk ($0.17 per 100 mg/calcium compared to $0.10 for milk) and is much less expensive than tofu (***Figure E3***). When considering fat content per 100 mg of calcium, low-fat yogurt has 5 fold less fat content than an alternative substitution, cheese; 0.3 g fat per 100 mg calcium for yogurt, compared to 1.5 g for cheese.

***Table E16**. 2009 National Average Prices of Half gallon cartons of Milk and Equivalent Dairy Substitutions.*

Other Dairy Substitutions	Avg Price per unit	Milk (half gallon containers)	Avg Price per unit
Yogurt, 32 oz container	$3.01	Lowfat or Fat Free Milk	$2.38
Cheese, 1 lb.	$4.12	Lactose Free, Lowfat or Fat Free Milk	$3.97
Frozen Yogurt / Tofu, 1 lb	$4.70	Soy Beverage	$3.25

Source: Information Resources Inc. Group of stores included food, drug and mass (excluding Walmart). Time period reflected was 52 weeks ending 11/29/09.

***Figure E3**. 2009 National Average Cost of Lowfat & Low-lactose Milk, Soy Milk, Yogurt, Cheese and Tofu, per 100 mg/calcium.*



Objective 6. A manuscript for a peer-reviewed journal

A manuscript is being drafted presently. We anticipate submission in March 2010.

F. DISCUSSION

Yogurt as a Substitution: Study Implications

Little is known about the dairy preferences of WIC participants and to our knowledge **this is the first study to document the outcome of providing yogurt as a milk substitute to low-income women in WIC.** Characterizing the women who opt to use yogurt coupons is important in extrapolating the findings to other WIC populations and ultimately, determining the likely impact of offering yogurt vouchers on nutrient intakes. We did not find any differences on the basis of socio-demographic characteristics between those women who said they were vs. were not amenable to substituting yogurt for milk. Not surprisingly, it was primarily the women who did not like yogurt who would not want yogurt coupons. However, in this sample, yogurt was very popular, and was also quite acceptable amongst the Hispanic women.

The results of the study very clearly illustrate WIC participants' enthusiasm for yogurt. Over 86% of the women approached at entrance to the study were interested in substituting yogurt for milk. Nearly 70% of the women in both the intervention and control groups responded that they were already eating yogurt as part of their usual consumption patterns. Flavored yogurt was particularly popular ('liked a lot' by over 90% of study participants compared to slightly over 50% who reported liking lower fat milk a lot).

We identified few barriers among the WIC women to including yogurt in their diet. Very few (4%) had trouble finding yogurt where they shopped for food, only 28% complained that yogurt spoiled too quickly, and only 19% reported any lactose intolerance when consuming dairy products. The only major barrier (reported by 62% of the study sample) to yogurt purchase and consumption was the cost, suggesting that **removing the cost barrier by provision of yogurt in the WIC food package would be beneficial for increasing intake**.

To be most economical, yogurt was provided in large (32-fl oz) containers as opposed to the more popular, smaller sizes. Even using the large containers, nutritionally equivalent amounts of milk were less costly than yogurt. However, **for equivalent amounts of calcium, low-fat yogurt costs slightly less than some popular milk substitutes currently allowed in WIC**, namely tofu (AC Nielsen, 2009). Further, low-fat yogurt has the additional benefit of providing 4-5 times less total fat and saturated fat than regular cheese. Given the popularity of low-fat yogurt compared to low-fat milk, it may be possible to lower fat intakes of WIC participants by allowing substitution of yogurt for some of the milk in addition to other popular substitutions, such as cheese, thereby providing additional low fat dairy options.

Similar to how cheese has been a popular substitution for milk in many WIC food packages, yogurt may provide an additional option for WIC participants who are either lactose intolerant, or are not regular milk consumers. This substitution has the additional benefit of providing a low-fat or non-fat option that is a rich source of calcium and vitamin D. **Yogurt represents an additional dairy option that may be more culturally acceptable** than milk for some WIC participants.

According to AC Nielsen grocery store data (2006), 84% of yogurt unit purchases are in 6- to 8-ounce cup sizes and 62% of households that purchase yogurt choose smaller size cups. Not

unexpectedly, WIC participants typically purchased yogurt in smaller size containers. However, spoilage and finding the 32-fl oz containers at stores were not often reported as a problem among participants. Further, there was a significant shift away from using the smaller yogurt sizes in the intervention group, suggesting that **women were able to relatively quickly adjust to using the larger container sizes.** Most women in the intervention group liked both the yogurt flavor and the amount provided, suggesting that large containers would be acceptable to WIC participants. After the intervention, **90% of WIC participants continued to say that they would want to substitute yogurt in place of some of their milk**.

Of interest, the amount of yogurt provided by the intervention, two 32-fl oz containers of yogurt would provide an additional 2 fl oz per day of yogurt to each participant if she were to use it entirely for herself over the period of one month, and if this amount of yogurt were simply added to current procurement and consumption patterns. We found a small (and nearly significant) increase in yogurt intake of approximately 1.0 fl oz/day, particularly among participants with Spanish language preference. Among women with the lowest yogurt intake at baseline, we found a significant increase in yogurt intake of nearly 3 fl oz/day, over those in the control group with similarly low intakes. The data suggest that **providing yogurt vouchers can result in increased yogurt consumption, particularly among low dairy consumers**. Provision of and education on yogurt are probably required for longer than 1 month for yogurt intake to increase more dramatically. It is noteworthy that **these increases in yogurt intake were achieved without any obvious impact on the intake of other dairy foods**, meaning that it did not appear that women compensated for an increase in yogurt by decreasing their intake of other dairy products.

The women in the intervention group were not explicitly instructed to use the yogurt only for their own intake. Given how popular yogurt appears to be with participant families (e.g., 96% said their family likes to eat yogurt a lot), it is likely that some of the yogurt received with the coupons was consumed by other family members.

Intake of dairy generally contributes to higher intakes of minerals such as calcium, phosphorus, magnesium, potassium and zinc and vitamins such as vitamins A, D, and B_{12} (Weinberg, 2004). Calcium is essential for attainment of optimal peak bone mass for the prevention of osteoporosis. Research also suggests that adequate dietary calcium is important for optimal blood pressure (Kris-Etherton, 2009) and maintenance of weight status (Woodward-Lopez, 2006). The Dietary Reference Intake for women of reproductive age is 1000 mg/day (IOM, 1997). Over 75% of women in the U.S. fail to meet the recommendations for calcium intake (Arab, 2003). If women who received yogurt in place of some of their milk averaged a daily increase of 1 fl oz per day in yogurt, and no other changes in dietary intake occurred, **on average calcium intakes would increase by 350 mg per week by adult WIC participants, representing a marked contribution to total calcium intakes**.

On average women of reproductive age consume 1.1 servings of dairy per day (Fulgoni, 2007), far below the 3 daily servings recommended (USDA, 2005). The dietary tools selected for this study were not designed for determination of point estimates of dairy intake. Rather, results from these tools were used to examine relative change in dairy consumption from baseline to study

endpoint. Even though the measured intakes likely overestimate actual dairy consumption**,** the data provide a systematic comparison of change over time.

The yogurt coupons and educational brochure were highly utilized. The yogurt coupons were redeemed at a rate similar to milk vouchers in WIC. The reported yogurt coupon redemption rate was 89%. From February-September 2009, the average redemption rate for WIC vouchers that included milk (with or without other foods) and were distributed to either women or children was 88%. The redemption rate for combination food vouchers (includes foods besides milk on the voucher) tends to be higher than for milk only vouchers, suggesting that yogurt on WIC vouchers would be redeemed highly (similar to milk).

Many intervention participants (nearly 70%) indicated that they would prefer more choices in terms of flavors of yogurt available. Not all WIC vendors appeared to stock all 5 flavors allowable by the coupons. Since this was a pilot involving a relatively small number of consumers, it is likely that stocking additional flavors of the 32-fl oz yogurts was not viable for most vendors. If yogurt were adopted by WIC, the increased demand for the 32-fl oz yogurts could make it more feasible for vendors to provide additional flavor options.

In **conclusion**, due to the overwhelmingly positive reception of yogurt by pregnant, breastfeeding and postpartum women participating in the WIC program and due to the positive nutrient contributions of yogurt which appear to add, rather than replace, nutrients in the diet, this pilot suggests that a future trial be employed to provide additional information on two topics outside the scope of the current pilot study, specifically, cost and sustained participant use of yogurt:

- Cost data should be obtained with some degree of periodicity to capture sales prices. Both small and large vendor prices should be examined. It is possible that if more 32-fl oz yogurt containers were sold, some WIC vendors could potentially achieve greater price breaks and offer a wider variety of yogurt flavors and brands.
- A longer term trial of a year or so could provide women with the opportunity to increase their yogurt intake over time through repeated offerings and repeated educational messaging.

Yogurt as a Substitution: Practical Applications

The potential cost to the WIC program of adding yogurt to the food package would depend on which authorized packages allow it as a substitution, the maximum substitution permitted and how State Agencies choose to implement the option.

If yogurt becomes an allowable substitution, states would need to consider several factors. The table below describes criteria used by California WIC to evaluate the potential inclusion of new foods as an example of how a state WIC program may evaluate the option, including consideration for cost.

Criterion	Application to Yogurt
Nutrient Content	Nutritional equivalent to milk; maximum sugar content set in IOM Report could limit varieties, flavors.
Price/Cost	Price per ounce at retail is significantly more expensive than milk; cost to the state program's food budget could be controlled based on several possible policy decisions: • Limit as an option to specific categories of participants; • Limit as an option based on documented lactose sensitivity; • Limit as an option based on infant feeding method, i.e. offer to women who are fully breastfeeding; • Limit containers to larger sizes (32-oz); no single servings • Limit brands to store brands or lower-cost name brands.
Appropriateness	Primary consideration for this criterion is to limit fat content for children over two years and for women, the same as for milk.
Popularity	Yogurt would clearly be a popular choice for California WIC participants, based on these study results, and therefore would likely be a significant cost to the program unless its use is targeted.
Package size and type	Single servings are in general not allowed due to cost and this principle would apply to yogurt; the 32-oz container and store brands are less expensive, widely available and easy to identify.
Variety of Offerings within Food Category	The milk category already includes several options for substitutions, including cheese, tofu and soy beverage. Yogurt would provide an additional option that is clearly popular.
Availability	Yogurt is widely available in California grocery outlets.
WIC Nutrition Education Messages	Low-fat yogurt as a WIC offering is consistent with the program's low-fat dairy messages. Limiting the amount of sugar would also conform to the program's support for lowering added sweeteners.
Grocer and Participant Training on Use	Would not anticipate difficulties, since the container size and flavors would be fairly simple. Participants would not require training on preparation or use of yogurt since many already consume it.
Special Considerations	Yogurt could be considered as a low-lactose substitute for women and children who are sensitive to lactose and at a cost that is lower than milk that includes lactase as an ingredient, (e.g., Lactaid).

In **conclusion,** if the WIC food package regulations allow State Agencies the flexibility to include yogurt as a substitute for milk, the nutritional intake—especially for participants with lactose intolerance—the variety of offerings and the educational messages accompanying the packages would be enhanced. Options for including yogurt as a substitute in the WIC regulations include:

- Allow yogurt to be included in food packages for all categories except infants and allow states to determine the best options for including yogurt in WIC food packages as a milk substitute;
- Include yogurt as a substitution option solely for specific participant categories, such as women only (Food Packages V-VII), or children only (Food Package IV), as a low-lactose alternative to milk.

- Allow yogurt as a substitution option for exclusively breastfeeding women (Package VII) as an incentive to fully breastfeed.

Flexibility is desirable, since, if yogurt is included as an option in WIC regulations, states would have several affordable options for including yogurt as a choice for at least some of their participants.

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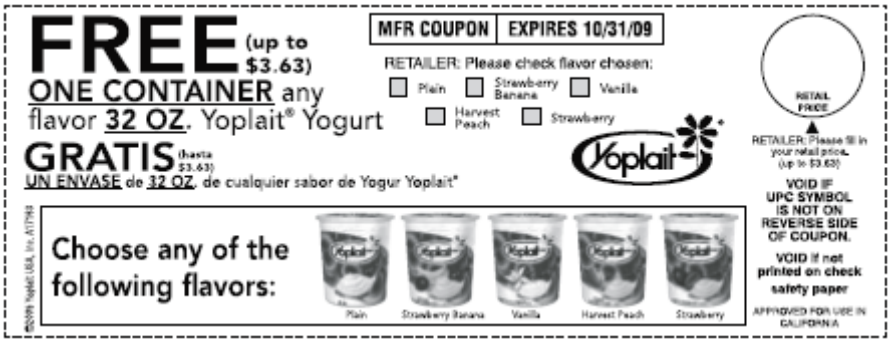
H. APPENDIX

Appendix I. Yogurt Coupons.



Appendix II. Staff Handout on Yogurt

What is in Yogurt?

Yogurt is a mixture of milk (whole, reduced-fat, low-fat or non-fat) and cream fermented by a culture of lactic acid-producing bacteria. Other components of yogurt may include:

- Sweeteners such as sugar and honey or non caloric sweeteners such as aspartame.
- Flavorings such as vanilla.
- Other ingredients like fruits and preserves.

Nutrient Benefits of Yogurt

The nutritional and caloric content of yogurt is similar to that of the fluid milks from which they are made. Each is an important source of many essential nutrients including calcium and protein.

Calcium: Yogurt is an excellent source of calcium, one of the key nutrients in building and maintaining strong bones and teeth. Other benefits include:

- Helps regulate blood pressure
- May play a role in weight management
- May decrease risk of certain cancers, for example, colon cancer
- May decrease risk of kidney stones
- Helps with several body functions, like blood clotting, muscle contractions, heart beat

A serving of low-fat or non-fat yogurt provides similar amounts of calcium as a serving of fluid milk. Consuming yogurt can help you meet your daily calcium requirement. This is important because many of us come up short on getting enough of this important mineral.

Protein: Protein is an essential nutrient required for energy, growth and repair and is an important component of our immune system. **A serving of low-fat or non-fat yogurt provides similar amounts of protein as a serving of fluid milk.**

Vitamins A & D: Vitamin D is important because it helps your body use calcium to build strong bones and teeth. Vitamin A supports many important functions in the body such as growth and eyesight. **Look at the nutrition facts label to ensure you are purchasing yogurt fortified with Vitamins A and D.**

Yogurt and Lactose Intolerance

People with lactose intolerance may still enjoy the taste and nutrition benefits of yogurt because:

- Many yogurts naturally have lower amounts of lactose than milk.
- The process by which yogurt is made makes it easier to tolerate than fluid milk for many with lactose intolerance.

Nutrition Information

The nutritional and calorie content of low-fat or non-fat yogurt is similar to that of low-fat fluid milks from which they are made.

	Yogurt (1 cup) Low-fat, plain	Milk (1 cup) 1% low-fat
Kilocalories	130	127
Carbohydrates	19 g	16 g
Protein	15 g	10 g
Fat	0 g	2 g
Calcium (mg)	400 mg	380 mg
Calcium % DV	40%	38%

It's Easy to Include Yogurt Every Day!

- Use yogurt for mayonnaise or sour cream in salad dressings and dips.
- Serve plain low-fat yogurt in place of sour cream on quesadillas, tacos and enchiladas.
- Blend yogurt, fruit pieces and ice to make a delicious smoothie.
- Top baked potatoes with yogurt and chives.
- Top chili, soups and stews with a heaping spoonful of plain low-fat yogurt.
- Whip low-fat plain yogurt and shredded Cheddar cheese into mashed potatoes.
- Use plain, low-fat yogurt as a "base" for cream sauces.
- Make a breakfast parfait by layering yogurt, dry cereal or granola, and top with your favorite fruit.
- Make a healthy snack by dipping raw vegetables (such as carrots, zucchini, jicama) in plain yogurt mixed with a little salt and lemon.
- Make a healthy dessert of low-fat vanilla yogurt drizzled with a small bit of honey or chocolate sauce.

Purchasing & Handling Tips

- Purchasing yogurts in large containers costs less per serving than purchasing single serve containers. Yogurts we will be using in this project come in 32 oz. tubs.
- Look at the nutrition facts label to be sure you are purchasing yogurt that is fortified with vitamins A and D.
- Store in the refrigerator in its original, sealed container. Do not let tub sit out on the counter for long periods of time.
- The product is good 7 days past the "sell by" date printed on the tub.
- For "on the go" convenience, spoon a serving of yogurt into a small, reusable container.
- Larger containers of yogurt are better for the environment because they use less packaging.

Cilantro Yogurt "Sour Cream"

Prep Time: 15 to 30 minutes
Servings: 4 (makes about 1 ½ cups)

Source: www.mealsmatter.org

Ingredients
2 cups Plain nonfat yogurt
1/4 cup Finely minced cilantro
1/2 teaspoon Salt

Preparation
Line a large strainer with a coffee filter or paper towel and place over a mixing bowl. Pour in yogurt and let sit until some of the liquid has drained away and the yogurt is the consistency of sour cream, about one hour. Transfer to small mixing bowl; stir in salt and cilantro.

Appendix III. Intervention Participant Educational Brochure on Yogurt

Yogurt has the same great nutrients as milk and can be a delicious part of a healthy diet!

A serving of low-fat or non-fat yogurt is:

- ☑ **Similar in calcium**
- ☑ **Similar in protein**
- ☑ **Similar in vitamins and minerals**
- ☑ **Low in fat**
- ☑ **Great tasting!**

Yogurt contains many important nutrients your body needs every day, such as:

Calcium: Calcium for strong bones and teeth

Protein: Protein for muscle growth

Vitamins D & A: Vitamin D helps your body use calcium for healthy bones and teeth. Vitamin A is important for growth and eyesight.

Light and Creamy Chicken Enchiladas

Prep Time: 15 min
Start to Finish: 50 min
Makes: 6 servings

Recipe adapted from Yoplait.com
Courtesy of General Mills.

1	Cup fat-free plain yogurt (from 2-lb container)
1	container (8 oz) reduced-fat sour cream
1	can (10 3/4 oz) condensed 98%-fat-free cream of chicken soup with 30% less sodium
1	can (4 oz) chopped green chiles, undrained
12	white corn or flour tortillas (6 or 7 inch)
1	cup shredded reduced-fat Cheddar cheese (4 oz)
1 1/2	cups chopped cooked chicken
4	medium green onions, sliced (1/4 cup)
	Shredded lettuce, if desired
	Chopped tomatoes, if desired

1. Heat oven to 350°F. Spray 13x9-inch (3-quart) baking dish with cooking spray. In medium bowl, mix sour cream, yogurt, soup and chiles.
2. Spoon about 3 tablespoons sour cream mixture down center of each tortilla. Reserve 1/4 cup of the cheese; sprinkle tortillas with remaining cheese, chicken and onions. Roll up; place in baking dish. Spoon remaining sour cream mixture over tortillas. Cover with foil.
3. Bake 25 to 30 minutes or until hot and bubbly. Sprinkle with reserved 1/4 cup cheese. Bake uncovered 5 minutes longer or until cheese is melted. Garnish with shredded lettuce and chopped tomatoes.

Yogurt is a Healthy Choice

It's Easy to Include Yogurt Every Day!

- Use yogurt for mayonnaise or sour cream in salad dressings and dips.
- Serve plain low-fat yogurt in place of sour cream on quesadillas, tacos and enchiladas.
- Top chili, soups and stews with a large spoonful of plain low-fat yogurt.
- Whip low-fat plain yogurt and shredded Cheddar cheese into mashed potatoes.
- Top baked potatoes with yogurt and chives.
- Use plain, low-fat yogurt as a base for "cream" sauces.




More Great Tasting Ways to Enjoy Yogurt!

- Make a breakfast parfait by layering yogurt, dry cereal or granola, and top with your favorite fruit.
- Enjoy a mid-day snack by blending yogurt, fruit pieces and ice to make a delicious smoothie.
- Make a healthy afternoon snack by dipping raw vegetables (such as carrots, zucchini, jicama) in plain low-fat yogurt mixed with a little salt and lemon.
- Treat yourself and your family to a healthy dessert of low-fat vanilla yogurt drizzled with a bit of honey.

Yogurt and Lactose Intolerance

People with lactose intolerance may still enjoy yogurt because:

- Many yogurts have less lactose than milk.
- The process of making yogurt makes it easier to digest for many people.

Purchasing and Handling Tips

- Purchasing yogurts in large containers costs less per serving than purchasing single serve containers.
- Look at the nutrition facts label to be sure you are purchasing yogurt fortified with Vitamins A and D.
- Store in the refrigerator in its original, sealed container. Do not let the tub sit out on the counter for long periods of time.
- The product is good 7 days past the "sell by" date printed on the tub
- For "on the go" convenience, spoon a serving of yogurt into a small, reusable container.
- Yogurts sold in tubs are better for the environment because they use less packaging.

Cilantro Yogurt "Sour Cream"

Prep Time: 15 to 30 minutes
Servings: 4 (makes about 1 ½ cups)

Source: www.mealsmatter.org

Ingredients
2 cups Plain nonfat yogurt
1/4 cup Finely minced cilantro
1/2 teaspoon Salt

Preparation
Line a large strainer with a coffee filter or paper towel and place over a mixing bowl. Pour in yogurt and let sit until some of the liquid has drained away and the yogurt is the consistency of sour cream, about one hour. Transfer to small mixing bowl; stir in salt and cilantro.

Appendix IV. Intervention Participant Yogurt Recipes

Yogurt Recipes

From: EatBetterEarly.com and General Mills Betty Crocker Kitchens

6/4/2009

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Parfaits estilo Ambrosia

Tiempo de Preparación: 10 Minutos
Tiempo de Principio a Fin: 10 Minutos

3 envases (de 6 oz cada uno) de Yogurt de fresa Yoplait Original 99% Fat Free o sabor vainilla (2 tazas)
1 taza de piña picada o 1 lata (8 oz) de piña picada en almibar, escurrida
2 tazas de Cheerios®
1 plátano mediano, en rebanadas o cualquier otra fruta
1 lata (11 oz) de segmentos de mandarina en almibar, escurridos o cualquier otra fruta (1 1/2 tazas)
1/4 taza de coco rayado y tostado
4 fresas frescas, en rebanadas

1. En un plato hondo mediano mezcla el yogurt y la piña. Coloca 1/4 de taza del cereal Cheerios® en el fondo de 4 copas largas o vasos para Parfaits o postre.
2. Vacía en el fondo de cada copa 2 cucharadas de la mezcla del yogurt arriba del cereal. Arriba del yogurt vuelve a poner 1/4 de taza de cereal Cheerios®, y luego el plátano o la fruta que desees.
3. Coloca otras 2 cucharadas de la mezcla de yogurt arriba de la fruta y pon hasta arriba los segmentos de mandarina u otra fruta. Espolvorea el coco y decora con fresas.

Sirve: 4 Parfaits

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Ambrosia Yogurt Parfaits

Prep Time: 10 Minutes
Start to Finish: 10 Minutes

3 containers (6 oz each) Yoplait® Original 99% Fat Free strawberry yogurt (2 cups)
1 can (8 oz) crushed pineapple in juice, drained
2 cups Cheerios® cereal
1 medium banana, sliced (1 cup)
1 can (11 oz) mandarin orange segments in light syrup, drained
1/4 cup flaked coconut, toasted
4 fresh strawberries, sliced

1. In medium bowl, mix yogurt and pineapple. Into each of 4 parfait glasses, place 1/4 cup of the cereal.
2. Spoon 2 tablespoons yogurt mixture on top of cereal in each glass. Top each with 1/4 cup cereal, then with 1/4 of the banana slices.
3. Spoon 2 tablespoons yogurt mixture onto banana in each; top each with orange segments. Spoon remaining yogurt mixture over orange segments. Sprinkle with coconut. Garnish with strawberries.

4 servings

High Altitude (3500-6500 ft): No change.

1 Serving: Calories 310 (Calories from Fat 35); Total Fat 4g (Saturated Fat 2g); Cholesterol 0mg; Sodium 200mg; Potassium 500mg; Total Carbohydrate 62g (Dietary Fiber 3g); Protein 6g
% Daily Value: Vitamin A 30%; Vitamin C 50%; Calcium 20%; Iron 20%; Vitamin D 20%; Folic Acid 35%
Exchanges: 1/2 Starch, 1 Fruit, 2 Other Carbohydrate, 1/2 Skim Milk, 1 Fat
Carbohydrate Choices: 4

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Licuados de Papaya–Colada

Tiempo de Preparación: 15 Minutos
Tiempo de Principio a Fin: 15 Minutos

1 papaya mediana, sin semillas y sin la cáscara.
1 lata (8 oz) de piña en jugo sin endulzar, sin escurrir
2 tazas de yogurt Yoplait® 99% Fat Free sabor vainilla (de un envase de 2 lb)
1 ½ tazas de hielo
½ taza de jugo de naranja
¾ cucharadita de extracto de coco

1. Agrega la papaya a la licuadora.
2. Agrega la piña con su jugo. Licua a que se incorpore. Agrega el yogurt y el hielo, el jugo de naranja y el extracto de coco. Procesa a que este con la consistencia de un licuado o batido.

Vacía en 4 vasos. Sirve inmediatamente.

Sirve: 4 porciones

Alta altitud (3500-6000 pies): Sin cambios.

1 Porción: calorías 190 ; calorías de la grasa:10; total de grasa: 1 g; grasa saturada: 0.5 g; colesterol:0 mg; sodio:60 mg; total de carbohidratos: 39 g; fibra alimenticia: 2 g; proteína: 4 g;
% Valor Diario: Vitamina A: 30%; Vitamina C: 110%; Calcio: 20%; Hierro: 0%; Vitamina D 0%;
Equivalente a: ½ Fruta, 2 Otros Carbohidratos, ½ Leche sin Grasa
Opciones de carbohidratos: 2 ½

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Papaya-Colada Smoothies

Prep Time: 15 Minutes
Start to Finish: 15 Minutes

1 medium papaya
1 can (8 oz) crushed pineapple in unsweetened juice, undrained
2 cups Yoplait® 99% Fat Free creamy vanilla yogurt (from 2-lb container)
1/2 cup orange juice
3/4 teaspoon coconut extract
1 1/2 cups crushed ice

1. Cut papaya in half; scoop out and discard seeds. Scoop flesh from skin into food processor bowl with metal blade.
2. Add pineapple with juice; process until smooth. Add yogurt, orange juice, extract and crushed ice; process until smooth.
3. Pour into 4 glasses. Serve immediately.

4 servings

1 Serving: Calories 190 (Calories from Fat 10); Total Fat 1g (Saturated Fat 0.5g, Trans Fat 0g); Cholesterol 0mg; Sodium 60mg; Total Carbohydrate 39g (Dietary Fiber 2g, Sugars 31g); Protein 4g
% Daily Value: Vitamin A 30%; Vitamin C 110%; Calcium 15%; Iron 0%
Exchanges: 1/2 Fruit, 2 Other Carbohydrate, 1/2 Skim Milk
Carbohydrate Choices: 2 1/2

The papaya, pineapple and coconut flavor give this amazing smoothie its tropical taste. For a refreshing change, try using Yoplait® 99% Fat Free Harvest Peach.

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Parfaits Angel con Frutas

Tiempo de Preparación: 20 Minutos
Tiempo de Principio a Fin: 20 Minutos

1 taza de pastel Angel cake cortado en cubos
1/2 taza de fresas frescas cortadas en cuatro partes
1/2 taza de mango pelado y cortado en cubos
1/2 taza de melón cantaloupe o honeydew cortado en cubos
1/2 banano (plátano) cortado en rebanadas
1 envase de yogur de vainilla Yoplait® Light sin grasa, de 170 g o 6 onzas
2 cucharadas de almendras tostadas, cortadas en rebanadas*

1. En dos vasos de parfait o platos de postre, alterna capas del pastel, las frutas, las almendras y el yogur.
2. Vierte las almendras encima de cada uno. Sirve inmediatamente.

*Para tostar las almendras, hornéalas sin tapar sobre un recipiente sin grasa, a 350°F aproximadamente durante 10 minutos, revolviéndolas ocasionalmente, hasta que estén café doradas. O cocínalas sobre una sartén a fuego medio-bajo, de 5 a 7 minutos, revolviéndolas constantemente, hasta que estén café doradas.

Sirve: 2 porciones

Alta altitud (3500-6000 pies): Sin cambio.

1 Porción: Calorías 240. Calorías de grasa: 30. Total de grasa: 3.5 g. Grasa saturada: 0 g. Colesterol: 0 mg. Sodio: 220 mg. Potasio: 550 mg. Total de carbohidratos: 46 g. Fibra alimenticia: 3 g. Proteína: 7 g.
% de Valor Diario: Vitamina A: 40%. Vitamina C: 90%. Calcio: 15%. Hierro: 6%.
Vitamina D: 10%. Acido fólico: 10%.
Equivalente a: 1 1/2 Fruta, 1/2 Otros carbohidratos, 1 Leche baja en Grasa
Opciones de carbohidratos: 3

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Angel-Fruit Parfaits

Prep Time: 20 Minutes
Start to Finish: 20 Minutes

1 cup cubed angel food cake
1/2 cup quartered fresh strawberries
1/2 cup cubed peeled mango
1/2 cup cubed cantaloupe or honeydew melon
1/2 medium banana, sliced
1 container (6 oz) Yoplait® Light Fat Free vanilla yogurt
2 tablespoons sliced almonds, toasted*

1. In 2 parfait glasses or dessert bowls, alternate layers of cake, fruit, almonds, and yogurt.
2. Top each serving with almonds. Serve immediately.

*To toast almonds, bake uncovered in ungreased shallow pan in 350°F oven about 10 minutes, stirring occasionally, until golden brown. Or cook in heavy skillet over medium-low heat 5 to 7 minutes, stirring frequently until browning begins, then stirring constantly until golden brown.

2 servings

High Altitude (3500-6500 ft): No change.

Serving Size: 1 Serving		
Calories: 240	Calories from Fat: 30	
		% DV
Total Fat	3.5g	
Saturated Fat	0g	
Cholesterol	0mg	
Sodium	220mg	
Potassium	550mg	
Total Carbohydrate	46g	
Dietary Fiber	3g	
Protein	7g	
Vitamin A		40%
Vitamin C		90%
Calcium		15%
Iron		6%
Vitamin D		10%
Folic Acid		10%
Exchanges: 1 1/2 Fruit, 1/2 Other Carbohydrate, 1 Low-Fat Milk		
Carbohydrate Choices: 3		

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Plátanos Congelados con Cheerios®

Tiempo de Preparación: 10 Minutos
Tiempo de Principio a Fin: 1 Hora y 10 Minutos

4 plátanos maduros y firmes
8 palillos de madera planos, con las terminaciones redondeadas
1 a 2 envases (6 onzas cada uno) de yogurt Yoplait® Thick & Creamy (cualquier sabor)
3 tazas de cereal Cheerios®

1. Cubre una lámina para hornear galletas con papel encerado. Pela las bananas y córtalas en mitades. Inserta los palillos de madera en cada mitad.
2. Pasa las mitades de banana en yogur, después en cereal para cubrirlas. Ponlas en una lámina de hacer galletas. Congélalas hasta que estén firmes, aproximadamente 1 hora.
3. Envuelve cada mitad de banana en plástico o papel de aluminio. Guárdalas en el congelador.

Sirve: 8 porciones

Alta altitud (3500-6000 pies): Sin cambio.

1 Porción: Calorías: 130. Calorías de grasa: 10. Total de grasa: 1 g. Grasa saturada: 0 g. Colesterol: 0 mg. Sodio: 80 mg. Potasio: 270 mg. Total de carbohidratos: 29 g. Fibra alimenticia: 2 g. Proteína: 2 g.
% de Valor Diario: Vitamina A: 8%. Vitamina C: 20%. Calcio: 10%. Hierro: 15%. Vitamina D: 8%. Acido Fólico: 30%.
Equivalente a: 1 Almidón, 1/2 Frutas, 1/2 Otros carbohidratos
Opciones de carbohidratos: 2

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Cheerios® Frozen Bananas

Prep Time: 10 Minutes
Start to Finish: 1 Hour 10 Minutes

4 firm ripe bananas
8 flat wooden sticks with round ends
1 to 2 containers (6 oz each) Yoplait® Thick & Creamy yogurt (any flavor)
3 cups Fruity Cheerios® or Honey Nut Cheerios® cereal

1. Cover cookie sheet with waxed paper. Peel bananas; cut bananas crosswise in half. Insert wooden stick into cut end of each banana half.
2. Roll banana halves in yogurt, then in cereal to coat. Place on cookie sheet. Freeze until firm, about 1 hour.
3. Wrap each banana half in plastic wrap or foil. Store in freezer.

8 servings

High Altitude (3500-6500 ft): No change.

1 Serving: Calories 130 (Calories from Fat 10); Total Fat 1g (Saturated Fat 0g); Cholesterol 0mg; Sodium 80mg; Potassium 270mg; Total Carbohydrate 29g (Dietary Fiber 2g); Protein 2g
% Daily Value: Vitamin A 8%; Vitamin C 20%; Calcium 10%; Iron 15%; Vitamin D 8%; Folic Acid 30%
Exchanges: 1 Starch, 1/2 Fruit, 1/2 Other Carbohydrate
Carbohydrate Choices: 2

Purchasing: Look for the wooden sticks in packages at the grocery store or at craftshops. Try colorful plastic straws instead of wooden sticks to hold these treats.

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Licuado de naranja y papaya

Tiempo de Preparación: 10 Minutos
Tiempo de Principio a Fin: 10 Minutos

2 envases (6 oz cada uno) de yogurt Yoplait® Light Very Vanilla sin grasa sabor vainilla de yogurt sabor vainilla Yoplait® Original 99% Fat Free
1 lata de jugo de naranja concentrado de 6 oz
1 papaya sin cáscara, sin semillas y cortada en rebanadas, o 1 durazno pelado, sin semilla y cortado en rebanadas
1 cucharadita de extracto de vainilla
30 cubos de hielo pequeños o 10 grandes (aprox. una taza de hielo)
1/4 taza de azúcar si lo deseas

1. En una licuadora pon todos los ingredientes. Tápala, mezcla o licúa a velocidad alta por 30 segundos o hasta que esté suave.
2. Vierte en vasos.

Sirve: 4 porciones

Alta altitud (3500-6500 pies): Sin cambio.

1 Porción: Calorías: 150. Calorías de grasa: 0. Total de grasa: 0 g. Grasa saturada: 0 g. Colesterol: 0 mg. Sodio: 45 mg. Potasio: 610 mg. Total de carbohidratos: 33 g. Fibra alimenticia: 1 g. Proteína: 4 g.
% de Valor Diario: Vitamina A: 25%. Vitamina C: 180%. Calcio: 15%. Hierro: 0%
Vitamina D: 10%. Acido fólico: 25%.
Equivalente a: 2 Frutas, 1/2 de Leche sin grasa
Opciones de carbohidratos: 2

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Orange-Papaya Coolers

Prep Time: 10 Minutes
Start to Finish: 10 Minutes

2 containers (6 oz each) Yoplait® Light Fat Free Very Vanilla Yogurt or Yoplait® Original 99% Fat Free vanilla yogurt
1 can (6 oz) frozen orange juice concentrate
1 papaya, peeled, seeded and sliced, or 1 peach, peeled, pitted and sliced
1 teaspoon vanilla
30 small or 10 large ice cubes (about 1 cup small)
1/4 cup sugar, if desired

1. In blender, place all ingredients. Cover; blend on high speed about 30 seconds or until smooth.
2. Pour into 4 glasses. Serve immediately.

4 servings

High Altitude (3500-6500 ft): No change.

Serving Size: 1 Serving		
Calories: 150	Calories from Fat: 0	
		% DV
Total Fat	0g	
Saturated Fat	0g	
Cholesterol	0mg	
Sodium	45mg	
Potassium	610mg	
Total Carbohydrate	33g	
Dietary Fiber	1g	
Protein	4g	
Vitamin A		25%
Vitamin C		180%
Calcium		15%
Iron		0%
Vitamin D		10%
Folic Acid		25%
Exchanges: 2 Fruit, 1/2 Skim Milk		
Carbohydrate Choices: 2		

Did You Know? Oranges and papayas are two of many fruits that are super sources of vitamin C. This health-promoting vitamin is thought to be protective against certain types of cancer and possibly protective against several other conditions, such as cataracts and allergies.
Tip: For a creamier beverage, use Yoplait® Thick & Creamy yogurt.

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Ensalada de Frutas con Yogurt de Limón

Tiempo de Preparación: 15 Minutos
Tiempo de Principio a Fin: 15 Minutos

1 envase (6 oz) de yogurt de limón Yoplait® Thick and Creamy Key Lime pie
2 cucharadas de Jugo de Naranja
2 tazas de piña, picada
1 taza de fresas en mitades
2 tazas de uvas verdes
1 taza de moras azules
2 tazas de melón, picado
1/4 taza de coco rayado y tostado

1. Mezcla el yogurt y el jugo de naranja. Deja a un lado.
2. En un platón de vidrio de 2 1/2 cuartos de galón aproximadamente coloca la fruta. Agrega y mezcla con el yogur y revuelve. Agrega el coco y sirve inmediatamente.

Sirve: 8 porciones.

Alta altitud (3500-6000 pies): Sin cambio.

1 porción: calorías: 120. Calorías de grasa: 15. Total de grasa: 1.5 g. Grasa saturada: 1 g. Colesterol: 0 mg. Sodio: 30 mg. Total de carbohidratos: 25 g. Fibra alimenticia: 2 g. Proteína: 2 g.
% de Valor Diario: Vitamina A: 30%. Vitamina C: 80%. Calcio: 6%. Hierro: 2%. Vitamina D: 2%. Acido Fólico: 6%.
Equivalente a: 1 frutas, 1 Otros Carbohidratos
Opciones de Carbohidratos: 1 1/2

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Key Lime Spring Fruit Salad

Prep Time: 15 Min
Start to Finish: 2 Hr 15 Min

2 containers (6 oz each) Yoplait® Original 99% Fat Free Key lime pie yogurt
2 tablespoons milk
1 tablespoon honey
2 cups quartered fresh strawberries
1 cup seedless green grapes
1 medium banana, sliced
2 cans (8 oz each) pineapple chunks, well drained
1 1/2 cups miniature marshmallows
2 tablespoons flaked coconut, toasted*

1. In medium bowl, mix yogurt, milk and honey. Stir in remaining ingredients except coconut.
2. Cover; refrigerate at least 2 hours or until chilled. Just before serving, stir salad and sprinkle with coconut.

6 servings (about 1 cup each)

High Altitude (3500-6500 ft): No change.

1 Serving: Calories 210 (Calories from Fat 15); Total Fat 1.5g (Saturated Fat 1g); Cholesterol 0mg; Sodium 45mg; Potassium 400mg; Total Carbohydrate 45g (Dietary Fiber 2g); Protein 3g
% Daily Value: Vitamin A 6%; Vitamin C 70%; Calcium 10%; Iron 4%; Vitamin D 8%; Folic Acid 6%
Exchanges: 1 Starch, 1 Fruit, 1 Other Carbohydrate
Carbohydrate Choices: 3

*To toast coconut, heat oven to 350°F. Spread coconut in ungreased shallow pan. Bake uncovered 5 to 7 minutes, stirring occasionally, until golden brown.
Substitution: 2 tablespoons soymilk can be substituted for the milk.

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Licuados con Frutas Tropicales

Tiempo de Preparación: 5 Minutos
Tiempo de Principio a Fin: 5 Minutos

1 envase (6 oz) de yogur Yoplait® Original 99% Fat Free sabor vainilla francesa
1 taza de durazno o mango picado
1 ¼ tazas de jugo de piña

En la licuadora, agrega todos los ingredientes. Cubre; licua a velocidad máxima durante 1 minuto o hasta que este suave e incorporado.
Sírvelos.

Sirve: 3 Porciones (1 taza cada una)

Alta altitud (3500-6500 pies): Sin cambio.

1 Porción: Calorías: 120; Calorías de Grasa: 15; Total de Grasa:2 g; Grasa Saturada:0.5 g; Colesterol: 0 mg; Sodio: 95 mg; Potasio: 210 mg; Total de Carbohidratos: 22g; Fibra Alimenticia: 0 g; Proteína: 4g
% de Valor Diario: Vitamina A: 15 %; Vitamina C: 10%; Calcio: 20%; Hierro: 2%; Vitamina D: 15%; Acido Fólico: 0%
Equivalente a: 1 Otros Carbohidratos; ½ Leche reducida en Grasa
Opciones de Carbohidratos: 1 1/2

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Tropical Smoothies

Prep Time: 5 Minutes
Start to Finish: 5 Minutes

A delicious blend of yogurt, soymilk, mango and a touch of pineapple can take you to the tropics in minutes.

1 container (6 oz) Yoplait® Original 99% Fat Free French vanilla yogurt
1 cup peach or mango chunks
1 1/4 cups soymilk
1/4 cup pineapple juice

1. In blender or food processor, place ingredients. Cover; blend on high speed about 1 minute or until smooth.
2. Pour into 3 glasses. Serve immediately.

3 servings (1 cup each)

High Altitude (3500-6500 ft): No change.

1 Serving: Calories 120 (Calories from Fat 15); Total Fat 2g (Saturated Fat 0.5g); Cholesterol 0mg; Sodium 95mg; Potassium 210mg; Total Carbohydrate 22g (Dietary Fiber 0g); Protein 4g
% Daily Value: Vitamin A 15%; Vitamin C 10%; Calcium 20%; Iron 2%; Vitamin D 15%; Folic Acid 0%
Exchanges: 1 Other Carbohydrate, 1/2 Low-Fat Milk
Carbohydrate Choices: 1 1/2

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Alambritos de Granola y Fruta

Tiempo de Preparación: 10 Minutos
Tiempo de Principio a Fin: 10 Minutos

10 barras (1.5 oz cada paquete con dos barras) de Granola Oats 'n Honey Nature Valley® Crunchy Granola bars, trituradas o en grumos o 2 tazas de granola
2 manzanas sin pelar, en pedazos
2 plátanos, pelados y en pedazos
1 taza de piña en pedacitos o cualquier fruta de la estación
2 envases (6 oz cada uno) yogur Yoplait® Original99% Fat Free sabor vainilla francesa o de cualquier sabor

1. Coloque la granola y el yogur en un platito hondo. Inserte el palillo de dientes en cada pedacito de fruta.
2. Para servir, cada pedacito de fruta se mete al yogur, luego a la granola a que se cubra la fruta completamente. Sirva si lo desea en un platón.

Sirve: 8 Porciones.

Tip:
Sin abrir la barra del paquete individual con un rodillo las puedes triturar.

Alta altitud (3500-6500 pies): Sin cambio.

1 Porción: Calorías: 210; Calorías de Grasa: 40; Total de Grasa: 4.5g; Grasa Saturada:0.5 g; Colesterol:0 mg; Sodio: 120mg; Potasio: 210mg; Total de Carbohidratos: 39 g; Fibra Alimenticia: 3 g; Proteína: 4g
% de Valor Diario: Vitamina A: 4 %; Vitamina C: 20%; Calcio: 6%; Hierro: 4%; Vitamina D: 6%; Acido Fólico: 2 %
Equivalente a: 1 Almidón; 1 Otros Carbohidratos; 1 Grasa
Opciones de Carbohidratos: 2 1/2

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Granola Fruit Kabobs

Prep Time: 15 Minutes
Start to Finish: 15 Minutes

Healthy snacking is just minutes away! Fresh fruit is coated in yogurt and rolled in crunchy granola.

2 containers (6 oz each) Yoplait® Original 99% Fat Free yogurt (any fruit flavor)
10 Nature Valley® crunchy oats 'n honey granola bars (5 pouches from 8.9-oz box), crushed*, or 2 cups low-fat granola cereal
2 medium unpeeled apples, cut into chunks
2 small bananas, cut into chunks
1 cup fresh pineapple chunks or other fruit, as desired

1. In shallow dish, place yogurt. In another shallow dish, place crushed granola bars. Insert toothpick into each piece of fruit.
2. To serve, dip fruit into yogurt, coating all sides. Roll in granola, coating completely.

8 servings

High Altitude (3500-6500 ft): No change.

*To easily crush granola bars, do not unwrap. Use rolling pin to crush bars.
Health Focus: Apples are loaded with fiber, the soluble kind that helps lower blood cholesterol. Start slowly so your body has time to get used to more fiber!

1 Serving: Calories 210 (Calories from Fat 40); Total Fat 4.5g (Saturated Fat 0.5g); Cholesterol 0mg; Sodium 120mg; Potassium 210mg; Total Carbohydrate 39g (Dietary Fiber 3g); Protein 4g
% Daily Value: Vitamin A 4%; Vitamin C 20%; Calcium 6%; Iron 4%; Vitamin D 6%; Folic Acid 2%
Exchanges: 1 Starch, 1/2 Fruit, 1 Other Carbohydrate, 1 Fat
Carbohydrate Choices: 2 1/2

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Margaritas sin licor

Preparación: 5 minutos
Tiempo de principio a fin: 5 minutos

Sal gruesa, si lo deseas
2 envases (6 oz cada uno) de yogur de limón supreme Yoplait® Thick & Creamy
1 taza (8 oz) de bebida carbonatada de limón
4 a 6 exprimidas de jugo de limón

1. Humedece el borde de dos vasos con jugo de limón o agua; sumérgelos en la sal. En una licuadora pon los ingredientes restantes. Tápala; licua a alta velocidad por 5 segundos o hasta que estén suaves. Vierte la mezcla en los vasos. Sirve inmediatamente. Si lo deseas, adorna con cuñas de limón.

Sirve: dos cocteles

1 porción: 200 calorías; calorías de la grasa: 20; total de grasa: 2 g; grasa saturada: 1,5 g; colesterol: 10 mg; sodio: 1300 mg; total de carbohidratos: 36 g; fibra alimenticia: 0 g; proteína: 8 g;

% de Valor Diario: vitamina A 15%; vitamina C 4%; calcio 30%; hierro 0%.

Equivalente a: 1½ de otros carbohidratos, 1 leche descremada.

Opciones de carbohidratos: 2½

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Mock Margaritas

Prep Time: 5 Minutes
Start to Finish: 5 Minutes

Coarse salt, if desired
2 containers (6 oz each) Yoplait® Thick & Creamy lemon supreme yogurt
1 cup lemon-lime carbonated beverage
1/4 cup fresh lime juice
1 to 1 1/2 cups ice cubes

1. Moisten rims of 2 glasses with lime juice or water; dip rims into salt.
2. In blender, place remaining ingredients. Cover; blend on high speed about 5 seconds or until smooth. Pour into glasses. Serve immediately. If desired, garnish with lime wedges.

2 servings

High Altitude (3500-6500 ft): No change.

1 Serving: Calories 250 (Calories from Fat 30); Total Fat 3.5g (Saturated Fat 2g, Trans Fat 0g); Cholesterol 15mg; Sodium 120mg; Potassium 340mg; Total Carbohydrate 46g (Dietary Fiber 0g); Protein 7g
% Daily Value: Vitamin A 15%; Vitamin C 15%; Calcium 30%; Iron 0%; Vitamin D 20%; Folic Acid 0%
Exchanges: 2 Other Carbohydrate, 1 Low-Fat Milk
Carbohydrate Choices: 3

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Waffles de granola de trigo integral con salsa de frambuesas y fresas

Preparación: 10 minutos

Tiempo de principio a fin: 35 minutos

1 1/2 taza de mezcla Original Bisquick®
½ taza de cereal de granola bajo en grasa
½ taza de harina de trigo integral Gold Medal® whole wheat flour
11/2 tazas de leche sin grasa (340 g o 12 oz)
3cucharadas de aceite de canola
2 huevos o 1/2 taza de sustituto de huevo libre de grasa
1 envase de yogur de fresa Yoplait® Original 99% sin grasa 6 oz

Salsa de frambuesas y fresas (ver receta a continuación) (Double-Berry Sauce)

1. Calienta un aparato de hierro para hacer *waffles*. En un recipiente grande, revuelve los ingredientes hasta que estén bien mezclados.
2. Vierte la mezcla en el centro y cierra la tapa. Cocina de 2 a 3 minutos hasta que el *waffle* esté ligeramente dorado. Con cuidado, quita el *waffle*. Repite esta operación con la mezcla restante. Acompaña los waffles con la salsa de frambuesas y fresas.

1 waffle: 140 calorías. Calorías de grasa: 140. Total de grasa: 4 g. Grasa saturada: 1 g. Colesterol: 20 mg. Sodio: 115 mg. Total de carbohidratos: 24 g. Fibra alimenticia: 0 g. Proteína: 3 g.
% de Valor Diario: Vitamina A:0%. Vitamina C: 4%. Calcio: 4%. Hierro: 2%.
Equivalente a: 1 de almidón, 1/2 de otros carbohidratos, 1/2 de grasa.
Opciones de carbohidratos: 1 ½

Sirve: 24 waffles de 4 pulgadas cada uno

Salsa de frambuesas y fresas

Preparación: 3 minutos

Tiempo de principio a fin: 7 minutos

1/3 taza de miel de maple
2/3 taza de un frasco de mermelada de frambuesa
1 taza de fresas cortadas en cuartos

1. En una olla de 1 1/2 litros, calienta el sirope y la mermelada a fuego medio- alto, revolviendo ocasionalmente, hasta hervir. Agrega las fresas. Quita la mezcla del calor y mantenla tibia.

Sirve: 1 porción

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Granola-Whole Wheat Waffles with Double-Berry Sauce

Prep Time: 10 Minutes
Start to Finish: 35 Minutes

Double-Berry Sauce
1/3 cup maple-flavored syrup
2/3 cup raspberry jam or preserves
1 cup strawberries, cut into fourths
Waffles
1 cup Original Bisquick® mix
3/4 cup ground flaxseed or flaxseed meal
1/2 cup Gold Medal® whole wheat flour
1/2 cup low-fat granola cereal
1 1/2 cups fat-free (skim) milk
3 tablespoons canola or soybean oil
2 eggs or 1/2 cup fat-free egg product
1 container (6 oz) Yoplait® Original 99% Fat Free strawberry yogurt (2/3 cup)

1. Make Double-Berry Sauce: In 1 1/2-quart saucepan, heat syrup and jam over medium-high heat, stirring occasionally, until boiling. Stir in strawberries. Remove from heat; keep warm.
2. Heat nonstick waffle iron. In large bowl, stir together waffle ingredients until blended.
3. Pour slightly less than 1 cup batter onto center of hot waffle iron; close lid. Bake 2 to 3 minutes or until steaming stops and waffle is golden brown. Carefully remove waffle. Repeat with remaining batter. Serve with sauce.

7 servings

High Altitude (3500-6500 ft): Increase Original Bisquick® mix to 1 1/2 cups.

1 Serving: Calories 460 (Calories from Fat 140); Total Fat 15g (Saturated Fat 2.5g); Cholesterol 65mg; Sodium 300mg; Potassium 360mg; Total Carbohydrate 68g (Dietary Fiber 6g); Protein 10g
% Daily Value: Vitamin A 8%; Vitamin C 15%; Calcium 15%; Iron 10%; Vitamin D 10%; Folic Acid 25%
Exchanges: 2 Starch, 2 1/2 Other Carbohydrate, 1/2 Lean Meat, 2 1/2 Fat
Carbohydrate Choices: 4 1/2

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Cheerios®-Yogurt-Fruit Parfaits

More than cereal. Turn Cheerios® cereal, fruit and Yoplait® yogurt into a tasty breakfast parfait that's loaded with nutrients to start the day.

Prep Time: 15 min
Start to Finish: 45 min
Makes: 4 servings

Topping

1 1/4 cups Cheerios® cereal (any flavor)

1/4 cup old-fashioned or quick-cooking oats

1/4 cup sweetened dried cranberries

1/4 cup sliced almonds

2 tablespoons frozen (thawed) apple juice concentrate

Parfaits

3 containers (6 oz each) Yoplait® Original 99% Fat Free strawberry yogurt

3/4 cup sliced fresh strawberries

3/4 cup fresh blueberries

1. Heat oven to 300°F. Spray 13x9-inch pan with cooking spray. In large bowl, mix topping ingredients. Spread evenly in pan.
2. Bake about 20 minutes or until almonds are lightly browned, stirring halfway through bake time. Cool 5 minutes.
3. For each parfait, in tall narrow glass, place 2 tablespoonfuls yogurt, 1 heaping tablespoon topping and about 2 tablespoons berries. Repeat layers twice. Serve immediately.

Nutritional Information:

1 Serving: Calories 300 (Calories from Fat 50); Total Fat 6g (Saturated Fat 1g, Trans Fat 0g); Cholesterol 10mg; Sodium 140mg; Total Carbohydrate 55g (Dietary Fiber 4g, Sugars 37g); Protein 7g % Daily Value*: Vitamin A 15%; Vitamin C 40%; Calcium 20%; Iron 15% Exchanges: 2 Starch; 1/2 Fruit; 1 Other Carbohydrate; 0 Vegetable; 1 Fat Carbohydrate Choices: 3 1/2 My Pyramid Servings: 1/2 c Fruits

*% Daily Values are based on a 2,000 calorie diet.

Parfaits de Cheerios®, yogurt y fruta
Tiempo de preparación: 15 minutos
De principio a fin: 30 minutos

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Acompañamiento
1 ¼ de tazas de cereal Cheerios® (cualquier sabor)
¼ de taza de avena clásica o de preparación rápida
¼ de taza de arándanos rojos secos y endulzados
¼ de taza de almendras rebanadas
2 cucharadas de concentrado de jugo de manzana congelado (descongelado)
Parfaits
3 envases (de 6 onzas cada uno) de yogurt de fresa original 99% libre de grasa Yoplait®
¾ de taza de fresas frescas rebanadas
¾ de taza de arándanos azules frescos
1. Calienta el horno a 300 °F. Rocía una bandeja de 13 ×9 pulgadas con aceite de cocina en aerosol. Mezcla en un bol grande los ingredientes de acompañamiento. Distribúyelos uniformemente en la bandeja.
2. Hornea unos 20 minutos o hasta que las almendras estén ligeramente doradas; remueve a la mitad del tiempo de horneado. Deja enfriar 5 minutos.
3. Para cada parfait, pon en un vaso estrecho y alto 2 cucharadas de yogurt, 1 cucharada colmada de acompañamiento y aproximadamente 2 cucharadas de frutas del bosque. Repite las capas dos veces. Sirve inmediatamente.

4 raciones

1 ración: calorías 300 (calorías de grasa 50); grasa total 6 g (grasa saturada 1 g, grasa trans 0 g); colesterol 10 mg; sodio 140 mg; total de carbohidratos 55 g (fibra dietética 4 g, azúcares 37 g); proteína 7 g
% de valores diarios: Vitamina A 15%; vitamina C 40%; calcio 20%; hierro 15%; ácido fólico 25%
Intercambios: 2 almidón, ½ fruta, 1 carbohidrato diferente, 1 grasa
Opciones de carbohidratos: 3 ½
Mi Pirámide: ½ taza de fruta
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Cómo hacerlo
Debido a que para esta receta se usan 2 cucharadas de concentrado de jugo de manzana de la lata de 12 onzas, al hacer jugo del concentrado sobrante, mézclalo sólo con 2 ½ latas de agua en lugar de las 3 latas que indican las instrucciones.
¿Sabías esto?
Un parfait (par-fé) es un postre en capas. Un vaso de parfait es un vaso alto y delgado con base en el cual normalmente se sirven estos postres. Este parfait se puede servir en un plato de postre o en un vaso normal: ¡es igual de delicioso!

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Breakfast Parfait for One

Here's a layered breakfast treat that combines sweet, smooth and crunchy in every bite!

Prep Time: 10 min
Start to Finish: 20 min
Makes: 1 serving

1/3 cup Whole Grain Total® cereal

1 container (6 oz) Yoplait® Light Fat Free yogurt (any fruit flavor)

1/2 cup blueberries, sliced strawberries and/or raspberries

1. Place cereal in food-storage plastic bag; slightly crush with bottom of heavy saucepan or can of soup.
2. In tall narrow glass, place 1/3 of the yogurt. Top with 1/3 of the cereal and 1/3 of the fruit. Repeat layers twice.

High Altitude (3500-6500 ft): No change.

Recipe Tips:

Did You Know?
You can make this breakfast any way you want. Use your favorite flavor of yogurt along with berries and fruits in season or on sale.

Nutritional Information:

1 Serving: Calories 220 (Calories from Fat 10); Total Fat 1g (Saturated Fat 0g, Trans Fat 0g); Cholesterol 0mg; Sodium 125mg; Total Carbohydrate 45g (Dietary Fiber 3g, Sugars 27g); Protein 7g % Daily Value*: Vitamin A 15%; Vitamin C 15%; Calcium 20%; Iron 10% Exchanges: 1 Starch; 1/2 Fruit; 1 Other Carbohydrate; 1/2 Skim Milk; 0 Vegetable Carbohydrate Choices: 3 My Pyramid Servings: 1/2 c Fruits

* Daily Values are based on a 2,000 calorie diet.

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Date este capricho para el desayuno que combina lo dulce, lo suave y lo crujiente en cada bocado.

Parfait de desayuno para uno
Tiempo de preparación: 10 minutos
De principio a fin: 10 minutos

1/3 taza de cereales Whole Grain Total®
1 recipiente (6 onzas) de yogurt Yoplait® ligero sin grasa (cualquier sabor de fruta)
½ taza de arándanos azules, fresas rebanadas o frambuesas

1. Pon los cereales en una bolsa de plástico para alimentos; tritúralos ligeramente con la base de una sartén pesada o una lata de sopa.
2. En un vaso alto y delgado, pon 1/3 del yogurt. Cubre con 1/3 de los cereales y 1/3 de la fruta. Repite las capas dos veces.

1 ración

Altitud elevada (de 3,500 a 6,500 pies): ningún cambio.

1 ración: calorías 220 (calorías de grasa 10); grasa total 1 g (grasa saturada 0 g, grasa trans 0 g);
colesterol 0 mg; sodio 125 mg; total de carbohidratos 45 g (fibra dietética 3 g, azúcares 27 g); proteínas 7 g
% de valores diarios: vitamina A 15%; vitamina C 15%; calcio 20%; hierro 10%; ácido fólico 10%
Intercambios: 1 almidón, ½ fruta, 1 carbohidrato diferente, ½ leche descremada
Opciones de carbohidratos: 3
Mi Pirámide: ½ taza de fruta

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¿Sabías esto?
Puedes preparar este desayuno en la forma que prefieras. Usa tu sabor favorito de yogurt junto con frutas del bosque y frutas de temporada o en oferta.

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Cheerios® Berry-Banana Smoothies

Fiber up this a.m.! Adding flaxseed to smoothies is a super smooth way to get more fiber in the day!

Prep Time: 10 min
Start to Finish: 20 min
Makes: 2 servings (about 1 cup each)

1 cup Yoplait® 99% Fat Free creamy vanilla or creamy strawberry yogurt, or Yoplait® Fat Free plain yogurt (from 2-lb container)

1/2 cup Cheerios® cereal

2 tablespoons ground flaxseed or flaxseed meal

1/2 cup fresh strawberry halves or raspberries, or frozen whole strawberries

1/2 cup fat-free (skim) milk

1/2 banana, sliced

1. In blender, place ingredients. Cover; blend on high speed about 30 seconds until smooth, stopping blender once to scrape sides.
2. Pour mixture into 2 glasses. Serve immediately.

Recipe Tips:

Did You Know?
Frozen berries will give your smoothie a tart taste. Try different yogurt flavors and fresh or frozen fruits—peach yogurt and frozen peaches make a great-tasting treat.

Nutritional Information:

1 Serving: Calories 230 (Calories from Fat 40); Total Fat 4g (Saturated Fat 1g, Trans Fat 0g); Cholesterol 0mg; Sodium 110mg; Total Carbohydrate 40g (Dietary Fiber 7g, Sugars 25g); Protein 8g % Daily Value*: Vitamin A 15%; Vitamin C 45%; Calcium 25%; Iron 10% Exchanges: 2 Fruit; 0 Other Carbohydrate; 1 Skim Milk; 0 Vegetable; 1/2 Fat Carbohydrate Choices: 2 1/2 My Pyramid Servings: 1/2 c Dairy, 1/2 c Fruits

*% Daily Values are based on a 2,000 calorie diet.

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¡Hazte con fibra por la mañana! Agregar linaza a los smoothies es una buena manera de hacerse con más fibra durante el día.

Smoothies de fresa, banana y Cheerios®
Tiempo de preparación: 10 minutos
De principio a fin: 10 minutos

1 taza de yogurt de vainilla o de fresa cremoso Yoplait® 99% sin grasa o de yogurt natural Yoplait® sin grasa (de un recipiente de 2 libras)
½ taza de cereales Cheerios®
2 cucharadas de linaza molida o de harina de linaza
½ taza de mitades de fresas o frambuesas frescas, o de fresas enteras congeladas
½ taza de leche sin grasa (descremada)
½ banana, rebanada

1. Pon los ingredientes en la batidora. Tapa, bate a alta velocidad unos 30 segundos hasta que esté suave; detén la batidora una vez para raspar los lados.
2. Vierte la mezcla en 2 vasos. Sirve inmediatamente.

2 raciones (aproximadamente 1 taza cada una)

1 ración: calorías 230 (calorías de grasa 40); grasa total 4 g (grasa saturada 1 g, grasa trans 0 g); colesterol 0 mg; sodio 110 mg; total de carbohidratos 40 g (fibra dietética 7 g, azúcares 25 g); proteínas 8 g
% de valores diarios: vitamina A 15%; vitamina C 45%; calcio 25%; hierro 10%; ácido fólico 6%
Intercambios: 2 frutas, 1 leche descremada, ½ grasa
Opciones de carbohidratos: 2 ½
Mi Pirámide: ½ taza de frutas, ½ taza de leche
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¿Sabías esto?
Las frutas del bosque congeladas te darán un sabor más helado. Prueba diferentes sabores de yogurt y frutas frescas o congeladas; con yogurt de durazno con duraznos congelados tienes una golosina deliciosa.

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Sunny Lemon-Raspberry Muffins

Let the sun in! Whole Grain Total® cereal, Yoplait® yogurt and raspberries bring sunshine into these nutrient-packed muffins.
Prep Time: 15 min
Start to Finish: 50 min
Makes: 10 muffins

1 1/2 cups Whole Grain Total® cereal

1 egg or 1/4 cup fat-free egg product

1 1/2 cups Gold Medal® all-purpose flour

1/3 cup sugar

1/4 cup fat-free (skim) milk

1/4 cup canola or soybean oil

1 tablespoon grated lemon peel

2 teaspoons baking powder

1/2 teaspoon baking soda

1/2 teaspoon salt

1 container (6 oz) Yoplait® Original 99% fat-free lemon burst yogurt (2/3 cup)

1/2 cup fresh raspberries or frozen raspberries

1. Heat oven to 400°F. Line 10 regular-size muffin cups with paper baking cups. Place cereal in food-storage plastic bag; slightly crush with bottom of heavy skillet or can of soup to make 1 cup.
2. In large bowl, beat egg slightly. Stir in cereal and all remaining ingredients except raspberries just until moistened; gently stir in raspberries. Divide batter evenly among muffin cups.
3. Bake 15 to 20 minutes or until golden brown. Immediately remove from pan.

Nutritional Information:

1 Muffin: Calories 190 (Calories from Fat 60); Total Fat 6g (Saturated Fat 1.2g, Trans Fat 0g); Cholesterol 20mg; Sodium 330mg; Total Carbohydrate 30g (Dietary Fiber 2g, Sugars 11g); Protein 4g % Daily Value*: Vitamin A 2%; Vitamin C 10%; Calcium 30%; Iron 25% Exchanges: 1 Starch; 1 Other Carbohydrate; 0 Vegetable; 1 Fat Carbohydrate Choices: 2 My Pyramid Serving: 1 tsp Fats & Oils, 1 oz-equivalent Grains
*% Daily Values are based on a 2,000 calorie diet.

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Muffins de limón y frambuesa soleados

Tiempo de preparación: 15 minutos
De principio a fin: 35 minutos

1 ½ taza de cereales Whole Grain Total®
1 huevo o ¼ taza de producto de huevo sin grasa
1 ½ taza de harina multiusos Gold Medal®
⅓ taza de azúcar
¼ taza de leche sin grasa (descremada)
¼ taza de aceite de canola o soya
1 cucharada de ralladura de limón
2 cucharaditas de polvo de hornear
½ cucharadita de bicarbonato de sodio
½ cucharadita de sal
1 recipiente (6 onzas) de yogurt de estallido de limón Yoplait® Original 99% sin grasa (⅔ taza)
½ taza de frambuesas frescas o congeladas

1. Calienta el horno a 400 °F. Cubre 10 moldes para muffin de tamaño normal con moldes de papel. Pon los cereales en una bolsa de plástico para alimentos; tritúralos ligeramente con la base de una sartén pesada o una lata de sopa para reducirlos a 1 taza.
2. En un bol grande bate un poco el huevo. Agrega removiendo los cereales y todos los ingredients restantes excepto las frambuesas hasta que la mezcla se humedezca apenas; agrega las frambuesas removiendo suavemente. Divide la masa uniformemente entre los moldes para muffin.
3. Hornea de 15 a 20 minutos o hasta que tomen un color café dorado. Retíralos inmediatamente de la bandeja.

10 muffins

Altitud elevada (de 3,500 a 6,500 pies): ningún cambio.
1 Muffin: calorías 190 (calorías de grasa 60); grasa total 6 g (grasa saturada 0.5 g, grasa trans 0 g); colesterol 20 mg; sodio 330 mg; total de carbohidratos 30 g (fibra dietética 2 g, azúcares 11 g); proteínas 4 g
% de valores diarios: vitamina A 2%; vitamina C 10%; calcio 30%; hierro 25%; ácido fólico 25%
Intercambios: 1 almidón, 1 carbohidrato diferente, 1 grasa
Opciones de carbohidratos: 2
MiPirámide: equivalente a 1 onza de cereales, 1 cucharadita de grasas y aceites

Éxito
Asegúrate de mezclar la masa hasta que apenas se humedezca (tendrá un aspecto un poco grumoso). Si se mezcla demasiado, los muffins pueden quedar correosos.

Variación
Los arándanos azules son un excelente reemplazo para las frambuesas.

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Banana Bread

Bone up with Banana Bread! Combine Whole Grain Total® cereal and Yoplait® yogurt for a super source of calcium for strong bones and teeth.

Prep Time: 15 min
Start to Finish: 2 hr 35 min
Makes: 2 loaves (12 slices each)

1 1/2 cups Whole Grain Total® cereal
1 1/4 cups sugar
2 tablespoons margarine, softened
3 egg whites
1 1/2 cups mashed ripe bananas (3 to 4 medium)
2/3 cup Yoplait® Fat Free plain yogurt (from 2-lb container)
1 teaspoon vanilla
1 cup Gold Medal® all-purpose flour
1 cup Gold Medal® whole wheat flour
1 teaspoon baking soda
1 teaspoon salt
1 teaspoon ground cinnamon

1. Move oven rack to low position so that tops of pans will be in center of oven; heat oven to 350°F. Grease bottoms only of two 8x4-inch loaf pans or one 9x5-inch loaf pan with shortening. Place cereal in food-storage plastic bag; slightly crush with bottom of heavy saucepan or can of soup. Set aside.
2. In large bowl, mix sugar and margarine. Stir in eggs whites until well blended. Add bananas, yogurt and vanilla; beat until smooth. Stir in all remaining ingredients except cereal just until moistened. Stir in cereal. Pour into pans.
3. Bake 8-inch loaves about 1 hour, 9-inch loaf about 1 hour 15 minutes, or until toothpick inserted in center comes out clean. Cool 5 minutes. Loosen sides of loaves from pans; remove from pans. Cool completely, about 1 hour.

Nutritional Information:

1 Slice: Calories 120 (Calories from Fat 10); Total Fat 1g (Saturated Fat 0g, Trans Fat 0g); Cholesterol 0mg; Sodium 190mg; Total Carbohydrate 24g (Dietary Fiber 1g, Sugars 13g); Protein 2g % Daily Value*: Vitamin A 2%; Vitamin C 6%; Calcium 10%; Iron 10% Exchanges: 1 Starch; 1/2 Other Carbohydrate; 0 Vegetable Carbohydrate Choices: 1 1/2 My Pyramid Servings: 1 oz-equivalents Grains

*% Daily Values are based on a 2,000 calorie diet.

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¡Fortalécete con pan de banana! Combina cereales Whole Grain Total® y yogurt Yoplait® para obtener una magnífica fuente de calcio que hará tus huesos y dientes fuertes.

Pan de banana

Tiempo de preparación: 15 minutos
De principio a fin: 2 horas y 20 minutos

1 ½ taza de cereales Whole Grain Total®
1 ¼ taza de azúcar
2 cucharadas de margarina, suavizada
3 claras de huevo
1 ½ taza de bananas maduras machacadas (3 ó 4 medianas)
⅔ taza de yogurt natural Yoplait® sin grasa (de un envase de 2 libras)
1 cucharadita de vainilla
1 taza de harina multiusos Gold Medal®
1 taza de harina de trigo integral Gold Medal®
1 cucharadita de bicarbonato de sodio
1 cucharadita de sal
1 cucharadita de canela molida

1. Mueve la rejilla del horno a la posición baja de manera que la parte superior de los moldes esté en el centro del horno; calienta el horno a 350 °F. Engrasa sólo el fondo de dos moldes para pan de 8 x 4 pulgadas o de un molde para pan de 9 x 5 pulgadas. Pon los cereales en una bolsa de plástico para alimentos; tritúralos ligeramente con la base de una sartén pesada o una lata de sopa. Reserva.
2. En un bol grande, mezcla el azúcar y la margarina. Agrega removiendo las claras de huevo hasta que estén bien mezcladas. Agrega las bananas, el yogurt y la vainilla; bate hasta que quede suave. Agrega removiendo todos los ingredientes restantes excepto los cereales hasta que se humedezca apenas. Agrega removiendo los cereales. Vierte en los moldes.
3. Hornea los panes de 8 pulgadas alrededor de 1 hora, los de 9 pulgadas alrededor de 1 hora 15 minutos, o hasta que al insertar un palillo de dientes en el centro salga limpio. Deja enfriar 5 minutos. Afloja los lados de los panes de los moldes y sácalos. Enfría por completo, alrededor de 1 hora.

2 panes (12 rebanadas cada uno)

1 rebanada: calorías 120 (calorías de grasa 10); grasa total 1 g (grasa saturada 0 g, grasa trans 0 g); colesterol 0 mg; sodio 190 mg; total de carbohidratos 24 g (fibra dietética 1 g, azúcares 13 g); proteínas 2 g
% de valores diarios: vitamina A 2 %; vitamina C 6 %; calcio 10 %; hierro 10 %; ácido fólico 10 %
Intercambios: 1 almidón, ½ carbohidrato diferente
Opciones de carbohidratos: 1 ½
MiPirámide: equivalente a 1 onza de cereales
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Éxito
Las bananas maduras se machacan fácilmente con un tenedor o con un batidor de alambre.
Toque especial
¡El pan de banana es un excelente regalo! Di gracias de una manera muy especial con un delicioso pan de banana horneado en casa.

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Cheerios® Frozen Bananas

Low-fat freezer banana pops. Healthy snacking doesn't get much simpler than bananas, Yoplait® yogurt and Cheerios® cereal on a stick.

Prep Time: 10 min
Start to Finish: 1 hr 20 min
Makes: 8 servings

4 firm ripe bananas

8 flat wooden sticks with round ends

1 container (6 oz) Yoplait® Thick & Creamy yogurt (any flavor)

3 cups Cheerios® cereal

1. Cover cookie sheet with waxed paper. Peel bananas; cut bananas crosswise in half. Insert wooden stick into cut end of each banana.
2. Roll bananas in yogurt, then in cereal to coat. Place on cookie sheet. Freeze until firm, about 1 hour.
3. Wrap each banana in plastic wrap or foil. Store in freezer.

High Altitude (3500-6500 ft): No change.

Recipe Tips:

Purchasing
Chill out with frosty homemade banana pops! Look for bags of wooden sticks, enough to make them often, in craft supply stores.
Success
If bananas are very firm, poking a knife into the cut end before adding the wooden stick will help prevent the banana from splitting.

Nutritional Information:

1 Serving: Calories 120 (Calories from Fat 10); Total Fat 1g (Saturated Fat 0g, Trans Fat 0g); Cholesterol 0mg; Sodium 90mg; Total Carbohydrate 26g (Dietary Fiber 3g, Sugars 11g); Protein 3g % Daily Value*: Vitamin A 6%; Vitamin C 15%; Calcium 8%; Iron 20% Exchanges: 1/2 Starch; 1 Other Carbohydrate; 0 Vegetable Carbohydrate Choices: 2 My Pyramid Servings: 1/4 c Fruits

*% Daily Values are based on a 2,000 calorie diet.

Bananas congeladas Cheerios®

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Tiempo de preparación: 10 minutos
De principio a fin: 1 hora y 10 minutos

4 bananas firmes y maduras
8 palitos de madera planos con extremos redondos
1 recipiente (6 onzas) de yogurt Thick & Creamy Yoplait® (cualquier sabor)
3 tazas de cereal Cheerios®

1. Cubre la bandeja para galletas con papel encerado. Pela las bananas y córtalas a lo ancho por la mitad. Inserta el palito de madera en la mitad cortada de cada plátano.
2. Rueda las bananas por el yogurt, y luego en cereal para cubrirlas. Ponlas en la bandeja para galletas. Congela hasta que estén firmes, alrededor de 1 hora.
3. Envuelve cada banana en plástico de cocina o papel de aluminio. Guarda en el congelador.

8 raciones

Altitud elevada (de 3,500 a 6,500 pies): Ningún cambio.
1 ración: Calorías 120 (calorías de grasa 10); grasa total 1g (grasa saturada 0 g, grasa trans 0 g); colesterol 0 mg; sodio 90 mg; total de carbohidratos 26 g (fibra dietética 3 g, azúcares 11g); proteína 3 g
% de valores diarios: Vitamina A 6 %; vitamina C 15 %; calcio 8 %; hierro 20 %; ácido fólico 4 %

Intercambios: ½ almidón, 1 carbohidrato diferente
Opciones de carbohidratos: 2
MiPirámide: ¼ de taza de fruta

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Compras

¡Refréscate con las paletas de banana congeladas hechas en casa! Busca las bolsas de palitos de madera, suficientes para hacerlas con frecuencia, en las tiendas de manualidades.

Éxito

Si las bananas son muy firmes, meter un cuchillo en el extremo cortado antes de agregar el palito de madera ayudará a impedir que se partan.

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Triple-Strawberry Dessert

Strawberry lover? Blend fresh strawberries with Yoplait® yogurt and cereal for a vitamin C-rich dessert.

Prep Time: 30 min
Start to Finish: 2 hr 45 min
Makes: 9 servings

1 cup boiling water

1 box (4-serving size) wild strawberry-flavored gelatin

1 container (6 oz) Yoplait® Original 99% Fat Free strawberry or French vanilla yogurt

3 cups Kix® cereal

1/4 cup margarine or butter, melted

1 1/2 cups fresh sliced strawberries

9 fresh strawberries, sliced into fans

1. In medium bowl, pour boiling water on gelatin; stir until gelatin is dissolved. Stir in yogurt until melted and smooth. Cover; refrigerate about 1 hour 30 minutes until thickened but not set.
2. Meanwhile, heat oven to 350°F. Place cereal in food-storage plastic bag; crush with rolling pin to make 1 cup. In small bowl, stir crushed cereal and margarine until well mixed. Press mixture firmly in bottom of ungreased 8-inch square pan. Bake 10 minutes or until crust is light golden brown. Set aside to cool.
3. Beat gelatin mixture with electric mixer on high speed 7 to 8 minutes or until doubled in volume. Fold in sliced strawberries; pour over crust.
4. Cover; refrigerate about 1 hour or until firm. To serve, cut into 3 rows by 3 rows; garnish each serving with strawberry fan. Store covered in refrigerator.

High Altitude (3500-6500 ft): Bake crust about 13 minutes.

Nutritional Information:

1 Serving: Calories 150 (Calories from Fat 50); Total Fat 6g (Saturated Fat 1g, Trans Fat 1 1/2g); Cholesterol 0mg; Sodium 170mg; Total Carbohydrate 22g (Dietary Fiber 1g, Sugars 14g); Protein 2g % Daily Value*: Vitamin A 8%; Vitamin C 40%; Calcium 8%; Iron 15% Exchanges: 1/2 Starch; 1 Other Carbohydrate; 0 Vegetable; 1 Fat Carbohydrate Choices: 1 1/2 My Pyramid Servings: 1 tsp Fats & Oils, 1/4 c Fruits

*% Daily Values are based on a 2,000 calorie diet.

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Postre de fresas triple

Tiempo de preparación: 30 minutos
De comienzo a fin: 2 horas 15 minutos

1 taza de agua hirviendo
1 caja de gelatina con sabor a fresas silvestres (tamaño de 4 porciones)
1 vaso de yogur (6 oz) Yoplait® Original de fresa o vainilla francesa 99% libre de grasa
3 tazas de cereal Kix®
1/4 taza de margarina o mantequilla, derretida
1 1/2 tazas de fresas frescas en rodajas
9 fresas frescas, partidas en forma de abanico

1. gelatina se disuelva. Agregue el yogur hasta que se derrita y esté sin grumos. Cubra; refrigere hasta que esté espeso pero no hasta que esté listo, aproximadamente 1 hora y 30 minutos. Mientras tanto, caliente el horno a 350°F. Coloque el cereal en una bolsa de plástico para
2. almacenar alimentos; tritúrelo con un rodillo para llenar una taza. En un recipiente pequeño, revuelva el cereal triturado y la margarina hasta que queden bien mezclados. Presione la mezcla firmemente en el fondo de un molde cuadrado de 8 pulgadas sin engrasar. Hornee 10 minutos o hasta que la corteza este ligeramente dorada. Apártelo y deje enfriar.
3. Bata la mezcla de la gelatina con un mezclador eléctrico a velocidad Alta (High) de 7 a 8 minutos o hasta que su volumen sea el doble. Incorpore las fresas en rodajas; vierta sobre la corteza. Cubra; refrigere aproximadamente por 1 hora o hasta que esté firme.
4. Para servir, corte el postre en cuadrados. Adorne cada porción con fresas en forma de abanico.

9 porciones

En zonas de gran altitud (3500-6500 pies): Hornee la corteza por 13 minutos aproximadamente.

1 Porción: Calorías 150 (Calorías de Grasa 50); Total de Grasa 6g (Grasa Saturada 1g, Ácidos Grasos Trans 1.5g); Colesterol 0mg; Sodio 170mg; Total Carbohidratos 22g (Fibra Dietética 1g, Azúcares 14g); Proteína 2g
% de Valores Diarios: Vitamina A 8%; Vitamina C 40%; Calcio 8%; Hierro 15%; Ácido Fólico 2%
Intercambios: Almidón 1/2, Otros Carbohidratos 1, Grasas 1
Opciones de Carbohidratos: 1 1/2
MiPirámide: 1/4 taza de frutas, 1 cucharadita de grasas y aceites
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Appendix V. Baseline Survey

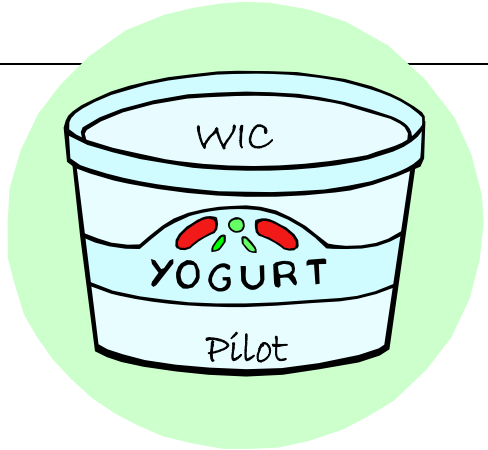
To Be Completed By WIC Personnel Only

Study ID # _____

Date _____ - _____ - _____

WIC Participant Yogurt Survey for Visit #1

Instructions (English Version)



Please **answer** the following questions.

Please note that:

- There are no right or wrong answers.
- **Your answers will be kept private - your name will not be on the survey.**
- Your answers will be used to improve WIC services**.**

Please mark answers by placing an X in the box next to your answer ☒.

- **Mark only 1 box for each question, unless directed otherwise**.
- **If you make a mistake, please erase or clearly scratch out your answer before marking a new answer**.

The survey should take about 10 minutes to complete.

- **Return your <u>completed</u> survey to a WIC staff person**.

If you have comments or questions about any part of this survey, please contact:

- Barbara Green, Study Coordinator (cell) (415) 889-3468.

Thank you very much for sharing this information with us!

Section A. For each question, mark the box next to the answer that best describes you or write on the blank line.

1. What is **your** age? _____Years

2. What language do **you** most often speak at home? ☐1 English ☐2 Spanish ☐3 Other (specify _____)

3. How many of **your children** are currently participating in WIC (***including stepchildren and foster children***)? _____

4. About how long have you participated in the WIC Program (***counting yourself and your children***)?

   ☐1 less than 1 year ☐2 1-2 years ☐3 3-4 years ☐4 5-6 years ☐5 7-8 years ☐8 9 or more years

5. Who does **most** of the food shopping in your home? ☐1 I do ☐2 Someone else does

6. How many people living in **your household** eat from the same household food supply (***including yourself***)?

   ☐1 1 ☐2 2 ☐3 3 ☐4 4 ☐5 5 ☐6 6 ☐7 7 ☐8 8 or more

7. Are you pregnant now? ☐1 Yes ☐2 No

8. Are you breastfeeding now? ☐1 Yes ☐2 No

9. What is your ethnic group? *(Please mark **ALL** that apply.)*

   ☐1 Asian/Pacific Islander ☐2 Black/African American ☐3 Hispanic ☐4 White/Caucasian ☐5 Other (*Please specify*_____)

10. What is the highest year of school you have completed? (*Please mark only one.)*

    ☐1 Grade 8 or less ☐2 Some high school ☐3 High school graduate or GED completed'
    ☐4 Some college ☐5 College graduate ☐6 Other (*Please specify* _____)

11. If you could get **yogurt** vouchers from WIC instead of **some** of your **milk** vouchers, would you want to?

    ☐1 Yes, I would want to ☐2 No, I would not want to

Section B. Please answer some questions about dairy foods. *Mark only one box ☒ for each question.*					
Do you like these dairy foods?	**I like it a lot**	**I like it a little**	**I dislike it a little**	**I dislike it a lot**	**I don't drink/eat it**
1. Whole (regular or "vitamin D") milk	☐1	☐2	☐3	☐4	☐5
2. Low-fat milk (1% or 2%)	☐1	☐2	☐3	☐4	☐5
3. Non-fat, fat-free or skim milk	☐1	☐2	☐3	☐4	☐5
4. Plain yogurt (no added flavors or sweeteners)	☐1	☐2	☐3	☐4	☐5
5. Flavored yogurt (vanilla, fruit, or flavored)	☐1	☐2	☐3	☐4	☐5

Section C. What are your plans? *Mark only one box ☒ for each question.*				
Are you thinking about or planning on…	**Not thinking about doing it**	**Thinking about starting in the next 6 months**	**Planning to do it right away**	**Already doing it**
1. Eating more yogurt at meals or snacks.	☐1	☐2	☐3	☐4
2. Buying more yogurt to eat.	☐1	☐2	☐3	☐4

Section D. What are your thoughts about dairy foods? *Mark only one box ☒ for each question.*				
	I agree a lot	**I agree a little**	**I disagree a little**	**I disagree a lot**
11. I like the taste of MILK more than YOGURT.	☐1	☐2	☐3	☐4
12. I have trouble digesting things made with milk.	☐1	☐2	☐3	☐4
13. Yogurt costs too much.	☐1	☐2	☐3	☐4
14. Yogurt spoils too quickly.	☐1	☐2	☐3	☐4
15. Yogurt is not as good for me as milk.	☐1	☐2	☐3	☐4
16. When I buy yogurt, I usually buy small containers (4 or 6 or 8 oz).	☐1	☐2	☐3	☐4
17. I do not know how to include yogurt in recipes.	☐1	☐2	☐3	☐4
18. Yogurt is available where I shop for food.	☐1	☐2	☐3	☐4
19. I like eating yogurt more than drinking milk.	☐1	☐2	☐3	☐4
20. My family likes to eat yogurt.	☐1	☐2	☐3	☐4

Section E. Think about what you ate this past month.

About how often did you eat each of the following foods in the ***past month***? Remember to consider everything you ate, such as ***breakfast, lunch, dinner, snacks, eating out, and eating at someone else's house or at school or work***.

Mark only *one* box ☒ for each question.	Never or less than 1/WEEK	Once a WEEK	2-3 times a WEEK	4-6 times a WEEK	Once a DAY	2-3 times a DAY	4+ times a DAY
1. **Yogurt**, any kind – by itself or added to other foods or drinks	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
2. **Milk**, any kind – by itself or added to other foods including cereal or coffee	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
3. **Cheese**, any kind – by itself or added to other foods	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
4. **Fruit drinks**, like Kool-aid, Sunny Delight, Capri Sun, Hi-C, Tang, Tampico, Gatorade, lemonade, horchata, atole, agua fresca, guava drinks	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
5. **100% fruit juice**, like orange, apple, grape – fresh, frozen, canned or as a juice box (***NOT*** sodas or other drinks)	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
6. **Any other fruit** – fresh, frozen, or canned (***NOT*** juice)	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
7. **Vegetable juice**, like tomato juice, V-8, carrot	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
8. **Green salad**	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
9. **Potatoes**, any kind, including baked, mashed, or french fried	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
10. **Vegetable soup,** or stew with vegetables	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
11. **Any other vegetables**, like string beans, peas, corn, carrots, broccoli, bok choy, ong choy, bamboo shoots, nopales, salsa, chile peppers, or any other kind – raw, cooked, fresh, frozen, or canned	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
12. **Beans** like baked beans, pinto, kidney, or lentils (***NOT*** green beans)	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
13. **Cereals** high in **whole grain,** like Cheerios, Mini-Wheats, Life, or oatmeal	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
14. **Dark bread** like whole wheat or rye	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7

Appendix VI. Follow-up Survey for CONTROLS

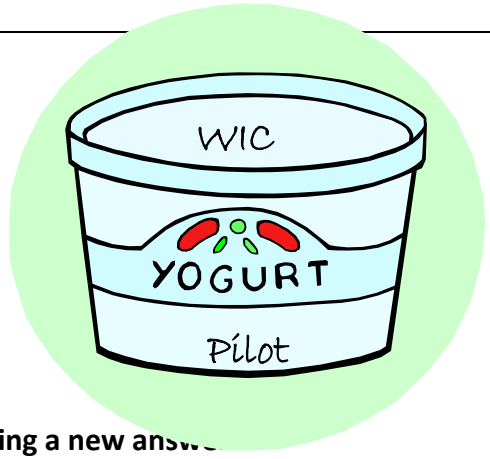
To Be Completed By WIC Personnel Only

Study ID # _____

Date _____ - _____ - _____

WIC Participant Yogurt Survey for Visit #3

Instructions (English Version)



Please **answer** the following questions.

Please note that:

- There are no right or wrong answers.
- **Your answers will be kept private - your name will not be on the survey.**
- Your answers will be used to improve WIC services**.**

Please mark answers by placing an X in the box next to your answer ☒.

- **Mark only 1 box for each question, unless directed otherwise**.
- **If you make a mistake, please erase or clearly scratch out your answer before marking a new answ**

The survey should take about 10 minutes to complete.

- **Return your <u>completed</u> survey to a WIC staff person**.

If you have comments or questions about any part of this survey, please contact:

- Barbara Green, Study Coordinator (cell) (415) 889-3468.

Thank you very much for sharing this information with us!

Section B. Please answer some questions about dairy foods. *Mark only one box ☒ for each question.*					
Do you like these dairy foods?	**I like it a lot**	**I like it a little**	**I dislike it a little**	**I dislike it a lot**	**I don't drink/eat it**
12. Whole (regular or "vitamin D") milk	☐1	☐2	☐3	☐4	☐5
13. Low-fat milk (1% or 2%)	☐1	☐2	☐3	☐4	☐5
14. Non-fat, fat-free or skim milk	☐1	☐2	☐3	☐4	☐5
15. Plain yogurt (no added flavors or sweeteners)	☐1	☐2	☐3	☐4	☐5
16. Flavored yogurt (vanilla, fruit, or flavored)	☐1	☐2	☐3	☐4	☐5

Section C. What are your plans? *Mark only one box ☒ for each question.*				
Are you thinking about or planning on…	**Not thinking about doing it**	**Thinking about starting in the next 6 months**	**Planning to do it right away**	**Already doing it**
1. Eating more yogurt at meals or snacks.	☐1	☐2	☐3	☐4
2. Buying more yogurt to eat.	☐1	☐2	☐3	☐4

Section D. What are your thoughts about dairy foods? *Mark only one box ☒ for each question.*				
	I agree a lot	**I agree a little**	**I disagree a little**	**I disagree a lot**
1. I like the taste of MILK more than YOGURT.	☐1	☐2	☐3	☐4
2. I have trouble digesting things made with milk.	☐1	☐2	☐3	☐4
3. Yogurt costs too much.	☐1	☐2	☐3	☐4
4. Yogurt spoils too quickly.	☐1	☐2	☐3	☐4
5. Yogurt is not as good for me as milk.	☐1	☐2	☐3	☐4
6. When I buy yogurt, I usually buy small containers (4 or 6 or 8 oz).	☐1	☐2	☐3	☐4
7. I do not know how to include yogurt in recipes.	☐1	☐2	☐3	☐4
8. Yogurt is available where I shop for food.	☐1	☐2	☐3	☐4
9. I like eating yogurt more than drinking milk.	☐1	☐2	☐3	☐4
10. My family likes to eat yogurt.	☐1	☐2	☐3	☐4

Section E. Think about what you ate this past month.

About how often did you eat each of the following foods in the ***past month***? Remember to consider everything you ate, such as ***breakfast, lunch, dinner, snacks, eating out, and eating at someone else's house or at school or work***.

Mark only *one* box ☒ for each question.	Never or less than 1/WEEK	Once a WEEK	2-3 times a WEEK	4-6 times a WEEK	Once a DAY	2-3 times a DAY	4+ times a DAY
15. **Yogurt**, any kind – by itself or added to other foods or drinks	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
16. **Milk**, any kind – by itself or added to other foods including cereal or coffee	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
17. **Cheese**, any kind – by itself or added to other foods	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
18. **Fruit drinks**, like Kool-aid, Sunny Delight, Capri Sun, Hi-C, Tang, Tampico, Gatorade, lemonade, horchata, atole, agua fresca, guava drinks	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
19. **100% fruit juice**, like orange, apple, grape – fresh, frozen, canned or as a juice box (***NOT*** sodas or other drinks)	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
20. **Any other fruit** – fresh, frozen, or canned (***NOT*** juice)	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
21. **Vegetable juice**, like tomato juice, V-8, carrot	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
22. **Green salad**	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
23. **Potatoes**, any kind, including baked, mashed, or french fried	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
24. **Vegetable soup,** or stew with vegetables	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
25. **Any other vegetables**, like string beans, peas, corn, carrots, broccoli, bok choy, ong choy, bamboo shoots, nopales, salsa, chile peppers, or any other kind – raw, cooked, fresh, frozen, or canned	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
26. **Beans** like baked beans, pinto, kidney, or lentils (***NOT*** green beans)	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
27. **Cereals** high in **whole grain,** like Cheerios, Mini-Wheats, Life, or oatmeal	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
28. **Dark bread** like whole wheat or rye	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7

Appendix VII. Follow-up Survey for INTERVENTION

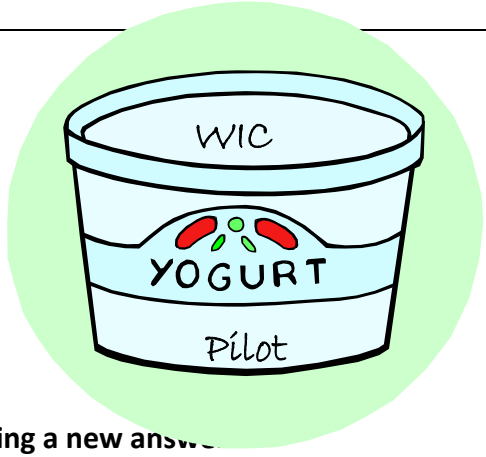
To Be Completed By WIC Personnel Only

Study ID # _____

Date _____ - _____ - _____

WIC Participant Yogurt Survey for Visit #3

Instructions (English Version)



Please **answer** the following questions.

Please note that:

- There are no right or wrong answers.
- **Your answers will be kept private - your name will not be on the survey.**
- Your answers will be used to improve WIC services**.**

Please mark answers by placing an X in the box next to your answer ☒.

- **Mark only 1 box for each question, unless directed otherwise**.
- **If you make a mistake, please erase or clearly scratch out your answer before marking a new answ**

The survey should take about 10 minutes to complete.

- **Return your <u>completed</u> survey to a WIC staff person**.

If you have comments or questions about any part of this survey, please contact:

- Barbara Green, Study Coordinator (cell) (415) 889-3468.

Thank you very much for sharing this information with us!

Section B. Please answer some questions about dairy foods. *Mark only one box ☒ for each question.*					
Do you like these dairy foods?	**I like it a lot**	**I like it a little**	**I dislike it a little**	**I dislike it a lot**	**I don't drink/eat it**
17. Whole (regular or "vitamin D") milk	☐1	☐2	☐3	☐4	☐5
18. Low-fat milk (1% or 2%)	☐1	☐2	☐3	☐4	☐5
19. Non-fat, fat-free or skim milk	☐1	☐2	☐3	☐4	☐5
20. Plain yogurt (no added flavors or sweeteners)	☐1	☐2	☐3	☐4	☐5
21. Flavored yogurt (vanilla, fruit, or flavored)	☐1	☐2	☐3	☐4	☐5

Section C. What are your plans? *Mark only one box ☒ for each question.*				
Are you thinking about or planning on…	**Not thinking about doing it**	**Thinking about starting in the next 6 months**	**Planning to do it right away**	**Already doing it**
3. Eating more yogurt at meals or snacks.	☐1	☐2	☐3	☐4
4. Buying more yogurt to eat.	☐1	☐2	☐3	☐4

Section D. What are your thoughts about dairy foods? *Mark only one box ☒ for each question.*				
	I agree a lot	**I agree a little**	**I disagree a little**	**I disagree a lot**
11. I like the taste of MILK more than YOGURT.	☐1	☐2	☐3	☐4
12. I have trouble digesting things made with milk.	☐1	☐2	☐3	☐4
13. Yogurt costs too much.	☐1	☐2	☐3	☐4
14. Yogurt spoils too quickly.	☐1	☐2	☐3	☐4
15. Yogurt is not as good for me as milk.	☐1	☐2	☐3	☐4
16. When I buy yogurt, I usually buy small containers (4 or 6 or 8 oz).	☐1	☐2	☐3	☐4
17. I do not know how to include yogurt in recipes.	☐1	☐2	☐3	☐4
18. Yogurt is available where I shop for food.	☐1	☐2	☐3	☐4
19. I like eating yogurt more than drinking milk.	☐1	☐2	☐3	☐4
20. My family likes to eat yogurt.	☐1	☐2	☐3	☐4

Section E. Think about what you ate this past month.

About how often did you eat each of the following foods in the ***past month***? Remember to consider everything you ate, such as ***breakfast, lunch, dinner, snacks, eating out, and eating at someone else's house or at school or work***.

Mark only *one* box ☒ for each question.	Never or less than 1/WEEK	Once a WEEK	2-3 times a WEEK	4-6 times a WEEK	Once a DAY	2-3 times a DAY	4+ times a DAY
29. **Yogurt**, any kind – by itself or added to other foods or drinks	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
30. **Milk**, any kind – by itself or added to other foods including cereal or coffee	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
31. **Cheese**, any kind – by itself or added to other foods	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
32. **Fruit drinks**, like Kool-aid, Sunny Delight, Capri Sun, Hi-C, Tang, Tampico, Gatorade, lemonade, horchata, atole, agua fresca, guava drinks	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
33. **100% fruit juice**, like orange, apple, grape – fresh, frozen, canned or as a juice box (***NOT*** sodas or other drinks)	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
34. **Any other fruit** – fresh, frozen, or canned (***NOT*** juice)	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
35. **Vegetable juice**, like tomato juice, V-8, carrot	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
36. **Green salad**	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
37. **Potatoes**, any kind, including baked, mashed, or french fried	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
38. **Vegetable soup,** or stew with vegetables	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
39. **Any other vegetables**, like string beans, peas, corn, carrots, broccoli, bok choy, ong choy, bamboo shoots, nopales, salsa, chile peppers, or any other kind – raw, cooked, fresh, frozen, or canned	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
40. **Beans** like baked beans, pinto, kidney, or lentils (***NOT*** green beans)	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
41. **Cereals** high in **whole grain,** like Cheerios, Mini-Wheats, Life, or oatmeal	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
42. **Dark bread** like whole wheat or rye	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7

This page to be completed only by participants who received Yogurt Coupons at Visit #2

Section F. What are your thoughts about the yogurt coupons you were given by WIC last month?					
1. Did you use the yogurt coupons to get free yogurt?	☐1 Yes, I used ONE of the coupons.	☐2 Yes, I used BOTH of the coupons.	☐3 No, I could not find the yogurt where I shop.	☐4 No, I could not find the coupons when I shopped.	☐5 No, I did not want the yogurt.
Mark only one box ☒ for each question.	**I agree a lot**	**I agree a little**	**I disagree a little**	**I disagree a lot**	**Does not apply**
2. I used the coupons for yogurt for **me** to eat.	☐1	☐2	☐3	☐4	☐5
3. I used the coupons for yogurt for **my family** to eat.	☐1	☐2	☐3	☐4	☐5
4. The **brochure** on yogurt from WIC was helpful.	☐1	☐2	☐3	☐4	☐5
5. I used the information in the WIC yogurt brochure to help me include yogurt in **meals**.	☐1	☐2	☐3	☐4	☐5
6. I used the information in the WIC yogurt brochure to help me include yogurt in **snacks**.	☐1	☐2	☐3	☐4	☐5
7. I like the **taste** of the yogurt I got with the coupons.	☐1	☐2	☐3	☐4	☐5
8. The **amount** of yogurt I got with coupons was **too much**.	☐1	☐2	☐3	☐4	☐5
9. The **amount** of yogurt I got with the coupons was **too little**.	☐1	☐2	☐3	☐4	☐5
10. The yogurt I got **spoiled** before I could eat all of it	☐1	☐2	☐3	☐4	☐5
11. Where I shop for food I had **trouble finding** the yogurt from the coupons.	☐1	☐2	☐3	☐4	☐5
11. I wish the yogurt from the coupons was available in **different flavors**.	☐1	☐2	☐3	☐4	☐5
12. I wish the yogurt from the coupons was available in **different brands**.	☐1	☐2	☐3	☐4	☐5
13. I wish the yogurt from the coupons was available in **different carton sizes**.	☐1	☐2	☐3	☐4	☐5
14. If offered by WIC, I would take **vouchers for yogurt in place of *some* of the milk vouchers**.	☐1	☐2	☐3	☐4	☐5

Appendix VIII. 3-Day Dairy Food Record

DAIRY FOODS I EAT

Instructions:

√ Please start this record **at least one day after you shop for food using your WIC vouchers**.

√ Complete one form for **3 separate days**; make sure to record **2 weekdays and 1 weekend** (Saturday or Sunday). The 3 days do not need to be consecutive, but should be all in the same week (e.g., Monday, Thursday and Sunday).

√ The form for each day is printed on a different color.

√ Think only about the **foods YOU eat and beverages YOU drink**, not what your family eats or drinks.

√ There are no right or wrong answers; we want to learn what ***you actually*** eat, not what you think you should eat.

√ Remember to include **all meals or snacks you eat** at home, in the car, in a restaurant or take-out, at someone else's house, at work or school, etc.

√ Bring the 3 completed forms with you when you return for your next WIC visit.

Example:

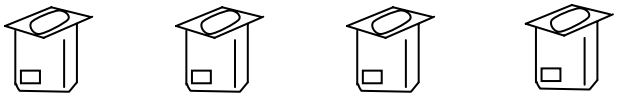
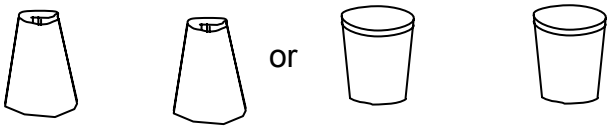
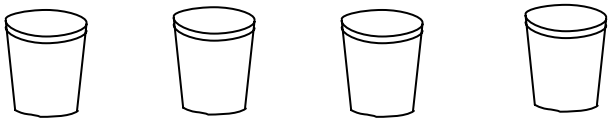
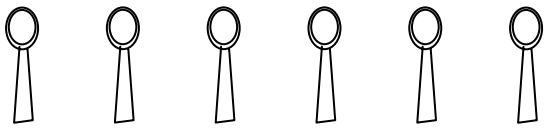
If you eat 1 4oz container or yogurt and 1 cup of yogurt from a large container on a Monday you would circle the following…

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Yogurt From small container	4 oz container					
From large container	1 cup					

DAY 1

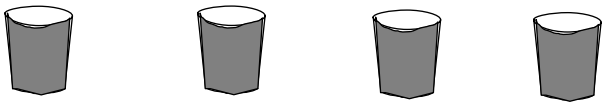
Step 1: Circle day of the week. **This should be at least one day after you shop for food using your WIC vouchers.**

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

Step 2:	**What dairy foods did you eat today?**
YOGURT **by itself or added to other foods or drinks**	**Circle how many times that you ate YOGURT today (morning, noon, evening – including all meals and snacks at home, in car, restaurant, etc.) or mark box ☒ to right.**
Yogurt from smaller containers	4 oz container 
	6 oz container  or
	8 oz container 
Yogurt from bigger containers	½ cup 
	1 cup 
Yogurt that is not included above	1 Tablespoon 

☐ I did NOT eat any yogurt today

DAY 1

MILK count all kinds of milk including soy milk	**Circle how many times that you had MILK today (morning, noon, evening – including all meals and snacks at home, in car, restaurant, etc) or mark box(es) ☒ to right.**					
Drinks with Milk (do NOT count cream or creamer)	**1 cup** Coffee with milk or Café Con Leche					☐ I did NOT have any drinks with milk today
	1 cup (8 oz) Milkshake or Licuado					
Milk as a beverage, on cereal, or in cooking (NOT counted above)	1 cup (8 oz)					☐ I did NOT have any milk today
	½ cup (4 oz)					

DAY 1

CHEESE Count dishes with cheese such as pizza quesadillas, sandwiches, macaroni & cheese as well as cheese eaten by itself	**Circle how many times that you ate CHEESE today (morning, noon, evening – including all meals and snacks at home, in car, restaurant, etc.) or mark box(es) ☒ to right.**	
Soft Cheese such as: cottage cheese, queso fresco, ricotta	¼ cup ½ cup 1 cup	☐ I did NOT eat any soft cheese today
Other Cheese such as: Cheddar, American, Jack, Mozzarella	**3 cubes** **1 string cheese stick** **¼ cup shredded cheese** **½ cup shredded cheese**	☐ I did NOT eat any other cheese today

DAY 1

DAIRY DESSERTS such as: flan, custard, ice cream, frozen yogurt, pudding	**Circle how many times that you ate a DAIRY DESSERT today (morning, noon, evening – including all meals and snacks at home, in car, restaurant, etc.) or check box ☒ to right.**	
	½ cup 	☐ I did NOT eat any dairy desserts today
	1 cup 	

(Note: Day 2 and Day 3 records were identical to Day 1)

Step 3: **Tell us more about the foods you usually eat. Circle your answers.**

1. When you eat YOGURT, circle ALL the types you usually eat:			
fat free or non-fat	low fat	whole milk	

2. When you eat YOGURT, circle ALL the flavors you usually eat:			
plain	vanilla	lemon / lime flavored	fruit / berry flavored
other flavor: (write in) _____			

3. When you drink MILK, circle ALL the types you usually drink:		
fat free, non-fat or skim	1% low fat or 2% reduced fat milk	whole milk "vitamin D milk"
soy milk	powdered milk	other: (write in) _____