

**Mississippi School Nutrition
Environment Evaluation Data System
(MS NEEDS)**

**Technical Report Year Two
(2010-2011)
Outcomes**



The University of Mississippi

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Note: This is a preliminary draft of research outcomes which is for review and discussion and not intended for broad distribution, as some data measures may be added or modified prior to official distribution.

Mississippi School Nutrition Environment Evaluation Data System (MS NEEDS)

**A school's nutrition environment is known to play a critical role with consumption patterns of the children they serve. To gain an independent assessment of statewide progress in implementation of school nutrition policies, staff at the University of Mississippi conducted onsite assessments of the school nutrition environments in 150 schools in the first year, and 180 schools starting the second year, which functioned as a statewide representative sample, to evaluate the stage of implementation and level of compliance with Mississippi's established policies.

***Study Design.* A statewide sample of schools, 150 for the first year and 180 per year for the next three years, was obtained using selection probability proportional to school enrollment size to assure representation of schools with demographic mix and regional placement. The Mississippi School Nutrition Environment Evaluation Data System (MS NEEDS) instrument was designed to assess the level of nutrition policy implementation at each school, provide a comparison between schools with different demographics, and through repeated measures, show nutrition-related environmental changes over time. A statewide report, presenting cross-sectional analyses assessing statewide trends, is generated each year to provide updates for key stakeholders. The final report will include a comprehensive report of statewide progress by public health region.

The MS NEEDS instrument was used to collect data through (1) observation of school lunches (Observation Form), (2) interviewing the Child Nutrition Program (CNP) manager (Interview Form), and (3) reviewing school and district written documentation of food policies and procedures (Written Documentation Form). In addition, (4) detailed information was collected about the food and beverage items available at school stores, vending machines, a la

carte (Competitive Food Venues Forms). Please note that although the Healthy Student Act addresses school breakfast meals as well as lunch, only the lunch meals were observed. Where possible, data was collected about breakfast meals through the interview and written documents.

METHODS

Evaluation Design

An evaluation protocol was developed to assess the adoption of the Mississippi Health Students Act (MHS Act) in the schools' nutrition environment. The MHS Act's criteria were divided into "Policy Points" that were used to measure schools' compliance with the MHS Act. The evaluation was conducted through interviews, observations, and the manual gathering of information for the food and beverage venues within each school's child nutrition program and school grounds.

The mission of MS NEEDS was to help organize and better understand through meaningful indicators:

- The implementation status of the MHS Act throughout schools in Mississippi
- Ways the MHS Act has impacted changes in the MS school nutrition environment. .
- Barriers/challenges and successes to implementation of the MHS Act.

Subjects & Sampling

**One hundred eighty schools, 60 per school level, were randomly selected to participate in year 2 of this study. Of those, 147 agreed to participate for interview (participation rate 82%), of which there are 3 elementary/middle combined schools and 3 middle/high school combined schools. According to the simple random sampling design, the 3 elementary/middle schools are used both in elementary school category and middle school category. Likewise the 3 middle/high schools are used in both middle and high school categories. For calculation of all-schools statistics, however, each school was counted only once, regardless of their multi-level status. This resulted in a final breakdown of 54 elementary schools, 48 middle schools, and 51 high schools for analyses.

Table 1. Demographics of sample

Demographic Indicator	All Schools (n=147)		Elementary (n=54)		Middle (n=48)		High (n=51)	
	Mean	Range	Mean	Range	Mean	Range	Mean	Range
Sex: % females per school	49.1	42.6-56.3	48.9	43.7-54.8	48.8	42.6-53.5	49.6	43.2-56.3
Race: % students per school								
Asian	0.9	0.0-19.0	1.0	0.0-19.0	1.1	0.0-13.5	0.6	0.0-4.3
Black	51.3	0.0-100.0	54.1	1.6-100.0	46.9	1.6-100	50.0	0.0-100
Latino(a)	2.3	0.0-25.9	3.1	0.0-25.9	1.6	0.0-7.3	2.1	0.0-13.8
Native American	0.2	0.0-8.0	0.2	0.0-5.1	0.3	0.0-8.0	0.1	0.0-2.4
White	45.3	0.0-98.6	41.6	0.0-96.7	50.1	0.0-95.9	46.6	0.0-98.6
SES: % students per school in poverty ^a	61.9	17.5-100.0	64.8	17.5-100.0	64.5	19.8-100.0	56.6	22.3-100.0

Table 2. Distribution of Schools per Mississippi Health Districts

Health District	All Schools % (n=147)	Elementary % (n=54)	Middle % (n=48)	High % (n=51)
Northwest MS	9.5	7.4	8.3	11.8
Northeast MS	19.1	16.7	18.8	21.6
Delta Counties	12.9	13.0	12.5	11.8
Tombigbee Area	6.8	5.6	10.4	5.9
West Central MS	12.2	18.5	8.3	9.8
East Central MS	10.9	7.4	8.3	19.6
Southwest MS	4.8	3.7	4.2	5.9
Southeast MS	12.9	16.7	12.5	9.8
Gulf Coast	10.9	11.1	16.7	3.9

Instruments

Interview Form. Each school’s Child Nutrition Program (CNP) Manager provided information about nutrition-related policies adopted by the school and how those policies had been implemented to date. Verbal responses to both quantitative and open-ended qualitative questions, as well as data pulled from written documentation was recorded on the Interview Form. Written documentation provided by the CNP manager included the following: production records and lunch and breakfast menus from the first 4 full weeks after Labor Day, the school Wellness Policy, food safety policies, other school nutrition-related policy documents, and kitchen staff training records. Most policy points of the MHS Act were covered on the Interview Form.

Observation Form. Data about schools’ implementation of the MHS Act was collected on a single day through observation. Data recorded on the Observation Form primarily documented evidence of a school’s compliance within the kitchen and cafeteria settings as observed during the lunch periods. Example indicators include the following: the types of fruits, vegetables, and beverages served at lunches; whether whole grain and “0 trans fat” foods were sold; if and how competitive foods were sold; evidence of kitchen staff using written documentation for HACCP food safety plans; and ratings of the general atmosphere in terms of promoting healthier food options. Detailed information about specific food items sold were recorded on accompanying forms, the Reimbursable Meal, Vending, and A La Carte Foods forms, all of which were incorporated into the Observation protocol.

Reimbursable Meal Form. Data collectors documented the specific food and beverage items sold as part of the reimbursable lunch meal on the observation day. For each item they recorded a brief description, whether it was available only with the meal or if extra portions were for sale, whether the item was part of the original menu or was a substitution, and whether substitutions were reanalyzed for nutrients. In addition, if extra servings of the item were available after purchasing the meal, data collectors noted the price of the extra serving and its size in comparison to the portion served with the meal.

A La Carte Foods Form. Data were also collected on foods and beverages sold a la carte during lunch periods. Data collectors recorded a description of each item, whether an item was available for sale without having purchased a meal, the item's price, and either the number of calories or enough information to determine caloric content at a later date.

Vending/School Store Form. A form was completed for each vending machine and/or school store in the school. First, data collectors documented general information about the machine or store itself including hours of operation, location, group responsible for the machine or store, and if a machine was in the faculty lounge, and whether or not students had access. Then item specific details were noted, such as manufacturer, product name, flavor, size, number of slots (vending machines only), and price.

Procedures for Data Collection

The evaluation tool was pilot tested for clarity and validity in a local elementary and high school (who were omitted from the study) resulting in some revisions. Data collection began in February 2009. Ten consultants (data collectors) with nutrition and/or educational background were recruited to collect data in the schools using the evaluation tool. Each of the data collectors were trained by the same researcher in two schools before evaluating a school on their own.

The program coordinator was responsible for arranging school visits through communication with the CNP district director and the data collector assigned to the school. Once arrangements were made to visit the school, a document with all the requested written documentation was faxed or emailed to the CNP district director. The written documents were requested to be at the school when the data collector met with the CNP manager.

Upon arrival at the school, data collectors began the evaluation process by meeting with and interviewing the CNP manager. The interview took approximately 60-90 minutes. Once the interview was completed data collectors used their time to gather data on the competitive food venues such as vending machines and/or school stores. The observation evaluation was conducted during the lunch time to observe the reimbursable meal and a la carte item sales.

The evaluation took an estimated time of five to six hours. Upon completion of the evaluation, data collectors mailed or delivered the evaluation document to the program coordinator. Once the evaluation tool was received it was reviewed for quality assurance. Any missing data or data that was unclear was investigated by the program coordinator with assistance from the data collector who evaluated the school. Once data was reviewed and validated it was ready to be entered into the MS NEEDS database program.

***Upon completion of data entry for all 147 participating schools, the data was forwarded to biostatistician collaborator for data analysis.

Analyses

***Basic descriptive statistics are presented in this report. Proportions and frequencies are presented for all schools and by school level – elementary, middle, and high school. One-way analysis of variance (ANOVA) or Pearson Chi Square were used, as appropriate, to determine if any significant differences existed between school levels on the various outcomes.

RESULTS

The results are presented by sections which correspond to the main policy points from the MS Health Students Act as described above.

Section A: Healthy Food and Beverage Choices

Policy Point A.1: A minimum of one fresh fruit or vegetable choice should be offered to students each day.

Table 3. Percent of schools that served at least one fresh fruit or vegetable at lunch.

Source and Indicator	All Schools %	Elementary Schools %	Middle/Jr High Schools %	High Schools %
<i>Production Records</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools that served at least one fresh fruit <i>or</i> vegetable all 5 days of the week for:				
Week 1	58.5	55.6	58.3	62.8
Week 2	54.4	50.0	52.1	62.8
Week 3	62.3	68.5	60.4	58.8
Week 4	62.3	63.0	60.4	66.7
All 4 Weeks	34.7	38.9	33.3	31.4
<i>Observation</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=45)</i>	<i>(n=48)</i>
Percent of schools that served at least one fresh fruit or vegetable at any time on the day of observation	84.3	87.0	79.2	86.3
Percent of schools that served at least one fresh fruit <i>or</i> vegetable for the entire lunch period on the day of observation	59.2	66.7	53.3	56.3

***NOTE: The data collector reviewed production records for four weeks with the CNP manager. All fresh fruits and vegetables identified by the CNP manager were highlighted by the data collector. The above table reflects that while in any given week, >50% of schools offered a fresh fruit or vegetable on the menu, only 34.7% of schools offered at least one fresh fruit or vegetable for four consecutive weeks.

*** Notice the results from observed data closely match that of the interview data.

***During observation, when fruit was offered, the percentage of offering only one kind of fresh fruit was 40.0%; when vegetable was offered, the percentage of only one kind of fresh vegetables was offered was 79.0%.

Table 4. Percent of schools that served fresh fruit and fresh vegetables at lunch.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Production Records</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools that served fresh <i>fruit</i> every day for:				
Week 1	40.8	38.9	41.7	43.2
Week 2	36.7	35.2	29.2	47.1
Week 3	38.1	46.3	31.3	35.3
Week 4	39.5	38.9	39.6	39.2
All 4 Weeks	20.4	25.9	16.7	19.6
Percent of schools that served fresh <i>vegetables</i> every day for:				
Week 1	15.6	14.8	12.5	21.6
Week 2	19.1	20.4	14.6	21.6
Week 3	19.1	18.5	14.6	23.5
Week 4	21.8	25.9	14.6	23.5
All 4 Weeks	8.8	11.1	6.3	9.8
<i>Observation</i>				
Percent of schools that served at least one fresh <i>fruit</i> at any time on the day of observation	80.2	77.8	72.2	91.4
Percent of schools that served at least one fresh <i>fruit</i> for the entire lunch period on the day of observation	50.9	54.8	50.0	48.6
<i>Observation</i>				
Percent of schools that served at least one fresh <i>vegetable</i> at any time on the day of observation	73.0	75.6	66.8	77.1
Percent of schools that served at least one fresh <i>vegetable</i> for the entire lunch period on the day of observation	40.7	42.9	41.7	37.1

***NOTE: A higher percentage of schools were able to serve fresh fruits when compared to fresh vegetables, and this statement is true for schools in general, or by elementary, middle and high school categories. There may be several factors contributing to the higher percentage of fresh fruit offerings. Through discussions with CNP managers, it appears that fresh fruit was more often provided through commodities than fresh vegetables. It also appears that there are more fresh fruit options than fresh vegetables that students will eat.

***However, according to the observed data, the percentages of schools serving fresh vegetables vs. that of fresh fruits are comparable (32.4% vs. 31.5%).

Policy Point A.2a: School menus shall offer a minimum of three different fruits weekly.

***Over 95% of all schools, regardless of level, were able to comply with the policy to offer at least 3 different types of fruit each week (see Table 5) as indicated in 4 full weeks of production records. In fact, on average, schools offered more than double the required number of fruit types at lunch. Few schools reported experiencing barriers to meeting this policy (Not shown).

Table 5. Variety of fruit types served weekly at lunch.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Production Records</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools that served a minimum of 3 different fruits per week for:				
Week 1	98.6	98.2	100.0	98.0
Week 2	99.3	98.2	100.0	100.0
Week 3	99.3	98.2	100.0	100.0
Week 4	100.0	100	100.0	100.0
All 4 Weeks	98.0	96.3	100.0	98.0
Average number of fruit types served per week (over the 4 week period)	x = 7.1 std =2.2	x = 7.2 std =2.5	x =7.0 std =2.1	x =7.1 std = 2.2

NOTE: Types of fruits included were canned, frozen, pre-prepared, and dried. CNP had no barriers and were able to fully comply.

Policy Point A.2b: School menus shall offer a minimum of five different vegetables weekly.

***As indicated in Table 4 below, the four weeks of production records indicated that approximately 86% of all schools complied with the policy to serve a minimum 5 different vegetable types each week. On average, schools served approximately 8 types of vegetables weekly. Few schools reported experiencing barriers to meeting this policy (not shown).

Table 6. Variety of vegetable types served weekly at lunch.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Production Records</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools that met the policy each week for:				
Week 1	94.6	94.4	97.9	92.2
Week 2	91.8	87.0	93.8	96.1
Week 3	95.9	96.3	95.8	96.1
Week 4	93.2	90.7	91.7	98.0
All 4 Weeks	86.4	83.3	89.6	88.2
Average number of vegetable types served per week	x = 7.9 std = 2.1	x =7.8 std =2.3	x =7.9 std =2.1	x =7.9 std =1.9

Note: Types of vegetable included were canned, frozen, and pre-prepared. CNP had no barriers and were able to fully comply. It would be interesting to investigate the contribution of potatoes to the number of vegetable offerings.

Policy Point A2.3: Schools should try to serve dark green vegetable and/or orange fruits three times per week.

**Lunch productions records indicated a greater variation in schools' compliance with the policy of serving dark green and/or orange vegetables or fruits at least 3 times a week. Approximately 18% of all schools met the criteria for all 4 weeks according to the production records submitted, ranging from 13.7% of high schools to 22.9% of middle schools (Table 7). Of particular notice is that 45% or more schools did not meet this policy for any week, suggesting that this policy poses more challenges for schools than the previous policy.

Table 7. Percent of schools that served three or more dark green and/or orange fruit and vegetable types.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Production Records</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=45)</i>	<i>(n=48)</i>
Percent of schools that met the policy each week for:				
Week 1	48.3	46.3	47.9	54.9
Week 2	50.3	51.9	54.2	47.1
Week 3	40.1	38.9	43.8	43.1
Week 4	46.9	48.2	47.9	49.0
All 4 Weeks	17.7	20.4	22.9	13.7
Percent of schools serving the 5 most common types				
Carrots	92.5	98.2	91.7	88.2
Sweet Potatoes	45.6	42.3	50.0	
Turnip Greens	57.8	51.9	56.3	47.1
Broccoli	89.1	88.9	95.8	60.9
Cantaloupe	44.2	51.8	43.8	82.4
				39.2

NOTE: The MHS Act does not identify what comprises dark green and/or orange vegetables and fruits. For Year 2, the list used was based on the Institute of Medicine’s recommendations and obtained from the Mississippi Department of Education, Office of Child Nutrition. It should be noted that CNPs following the MS Cycles II menus may find it difficult to incorporate the fruits and vegetables if they are not included three times per week.

Policy Point A.3: Flavored nonfat, low-fat, or reduced-fat milk shall contain no more than 160 calories per 8-ounce serving.

Table 8. Types of milk served at lunch.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
Observation	(n=147)	(n=54)	(n=48)	(n=51)
Percent of schools met the criteria for all milk items served at all lunches.	99.3	100.0	97.9	100
Percent of schools that served a type of <i>white</i> milk				
Non-fat	18.7	33.3	8.3	13.7
1% fat	7.5	11.1	4.2	5.9
2% fat	87.8	79.6	85.4	96.1
Percent of schools that served a type of <i>flavored</i> milk				
Non-fat	15.7	13.0	22.9	9.8
1% fat	94.6	90.7	95.8	98.0
2% fat	2.7	5.6	2.1	100.0

***NOTE: Only one school served flavored whole milk. All non-fat or reduced fat milk reviewed are compliant to the calorie policy. It is suggested that evaluation of this policy point may not be needed.

Policy Point A.4: Schools shall only offer 100% fruit and vegetable juice with no added sugar.

Table 9. Types of juice served at lunch.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
Observation	(n=147)^a	(n=54)	(n=48)	(n=51)
Percentage of schools served juice	75.5	70.4	70.8	88.2
Of the schools served juice, percent that met the criteria for all juice items served at all lunches	96.7	96.2	97.6	96.5

***Over 96% schools that served juices met the criteria. However, approximately 25% schools sampled did not serve juice. Juice served either in reimbursable meal or as a la carte item.

Section B: Healthy Food Preparation

Policy Point B.1: Schools shall comply with the existing NSLP/SBP meal pattern requirements.

Table 10. Use of meal patterns complying with NSLP.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools that reported using a valid meal pattern	98.0	96.3	100.0	98.0
Percent of schools using listed meal pattern ^a				
MS Cycles II Menu and Recipes	76.2	70.4	81.3	78.4
MS Cycles II Recipes Only	20.4	22.2	18.8	19.6
MS Cycles Recipes and <u>any other meal pattern (Trad, Enhanced, Nutrikids, etc.)</u>	38.8	38.9	43.8	35.3
None, no meal patterns used	0.7	0.0	0.0	2.0

***NOTE: Percent of schools that combined two or more meal patterns is as follows:

All = 33.3.0%

Elementary = 31.5%

Middle = 39.6%

High = 31.4%

Table 11. Percent of schools confirming that food substitutions met NSLP meal patterns.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Observation – Reimbursable Meal Form</i>	<i>(n=37)^a</i>	<i>(n=16)^a</i>	<i>(n=10)^a</i>	<i>(n=11)^a</i>
Percent of schools serving meal item substitutions that re-analyzed <i>all</i> substitutions for nutrient content	32.4%	31.3%	20%	45.5%

NOTE: CNP managers used the “Red book” or the reference guide used to substitute food items to maintain nutrient integrity. Data collectors observed that substitutions tended to be foods leftover from a previous lunch meal. It is uncertain if the leftover item had been verified as meeting the nutrient requirement.

Policy Point B.2a: Schools develop and implement a food safety program by July 1, 2005.

Table 12. Percent of schools that developed and implemented a food safety program.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools that developed and implemented a program by date of interview ^a	91.8	92.6	91.7	92.2
<i>Interview</i>	<i>(n=145)</i>	<i>(n=53)</i>	<i>(n=47)</i>	<i>(n=51)</i>
Percent of schools in which the manager was only aware of a verbal food safety/HACCP program, not a written document	0.0	0.0	0.0	0.0

^a MS NEEDS interviews were conducted between February and May of 2010.

Policy Point B.2b. Every school shall develop a Hazard Analysis and Critical Control Point (HACCP) system plan as required by the Child Nutrition and WIC Reauthorization Act of 2004.

Table 13. HACCP plan and compliance with individual appliance types.

Indicator	All Schools		Elementary Schools		Middle/Jr High Schools		High Schools	
	n ^a	%	n ^a	%	n ^a	%	n ^a	%
Observation								
Percent of schools that documented the temperature in the preceding 24 hours for all “back of house”:								
Kitchen refrigerators	147	91.8	54	94.4	48	85.4	51	92.2
Kitchen freezers	146	95.2	54	96.3	47	91.5	51	94.1
Food warmers	109	47.7	40	60.0	36	38.9	38	44.7
Kitchen storerooms	146	82.9	53	84.9	48	77.1	51	80.4
Kitchen dishwashing	126	56.4	50	68.0	38	31.6	44	59.1
Percent of schools that documented the temperature in the preceding 24 hours for all “front of house”:								
Service tray lines	147	81.0	54	79.6	48	77.1	51	80.4
Service refrigerators	145	75.2	53	86.8	46	63.0	51	72.6
Service freezers	96	46.9	35	62.9	29	31.0	35	42.9
Food warmers	62	62.9	25	72.0	18	55.6	21	57.1

***^aSample n’s vary across individual appliances because not all schools had each type of appliance. Data are presented only for those schools that had such an appliance in their kitchens.

Policy Point B.2c: Schools shall include in their School Wellness Policy (SWP) a food safety assurance program for all food offered to students through sale or service.

Table 14. Percent of schools that included a food safety assurance program in their SWP.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
Interview	(n=147)	(n=54)	(n=48)	(n=51)
Percent yes	55.8	57.4	56.2	54.9
Percent no	2.7	3.7	4.2	0.0
Percent not sure	41.5	38.9	39.6	45.1
Percent of schools with no Wellness Policy document	0.0	0.0	0.0	0.0

NOTE: CNP managers not always aware of the inclusion of food safety in the SWP. Percents were arrived at through interview and confirmation through SWP documents.

Policy Point B.3: Schools shall secure a Food Service Operational Permit through the Mississippi State Department of Health for approval to operate under NSLP/SBP.

Table 15. Percent of schools that had a valid operational permit on display in kitchen.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Observation</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent Yes	98.0	98.2	95.8	100.0
Schools with A permit	82.3	87.0	75.0	80.4
Schools with B permit	15.7	11.1	20.8	19.6

Policy Point B.4: Mississippi Department of Health conducts two School Food Facility Inspections per site each school year.

Table 16. Percent of schools that had two or more facility inspections in past year.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools with inspections in the past year:				
0 inspections	1.4	3.7	0.0	0.0
1 inspection	4.1	1.9	2.1	7.8
2 or more inspections	94.6	94.4	97.9	92.2

Policy Point B.5a: Schools shall implement healthy school food preparation techniques using training materials developed through sources such as USDA, National Food Service Management Institute or Mississippi Department of Education.

Table 17. Materials schools used for healthy food preparation training.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools that used valid ^a training materials	88.4	89.0	85.4	90.2
Percent of schools using the following training materials:				
USDA	46.3	55.6	35.4	47.1
NFSMI	33.3	33.3	31.3	37.3
MDE	61.2	59.3	62.5	62.8
Other ^b	29.3	25.9	27.1	33.3
No sources used	10.2	9.3	14.6	7.8

^a Valid training materials include USDA, NFSMI, and MDE materials.

^b ***Other included: Serve Safe (39.6%), Chartwell (9.3%).

NOTE: A wide variety of training materials have been used. Schools appear to use materials that are provided to them free and are not budgeting for these activities.

Policy Point B.6a: Schools should limit fried foods whenever possible and practical.

Table 18. Number of fried food items per week served with reimbursable lunch.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools serving, on average, this number of fried items per week with the reimbursable lunch meal				
3 or more items/week	12.9	7.4	8.3	23.5
2 items/week	17.7	11.1	14.6	27.5
1 item/week	23.8	20.4	25.0	27.5
Less than 1 item/week	13.6	18.5	14.6	7.8
No fried food items	32.0	42.6	37.5	13.7
Percent of schools where fried items with reimbursable meal:				
Stayed the same	51.0	59.3	47.9	39.2
Decreased in the last year	47.6	40.7	52.1	56.9
Increased in the last year	1.4	0.0	0.0	3.9

**Of the schools whose number of fried food items served with reimbursable meals stayed the same during the past year, 50.7% reported already serving no fried foods with the meal.

Table 19. Number of fried food items per day served on a la carte lines.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=143)</i>	<i>(n=51)</i>	<i>(n=47)</i>	<i>(n=50)</i>
Percent of schools serving, on average, this number of fried items per day on a la carte				
3 or more items/week	5.6	5.9	0.0	10.0
2 items/week	7.7	7.8	2.1	12.0
1 item/week	7.7	2.0	12.8	8.0
Less than 1 item/week	7.7	9.8	10.6	4.0
No fried food items	71.3	74.5	74.5	66.0
Percent of schools where fried items on a la carte:				
Stayed the same	79.0	86.3	72.3	78.0
Decreased in the last year	20.3	13.7	25.5	22.0
Increased in the last year	0.7	0.0	2.1	0.0

**Of the schools whose number of fried food items on a la carte stayed the same during the past year, 85.0% reported already serving no fried foods on a la carte.

Policy Point B.6b: Schools shall develop a long range plan for reducing and/or eliminating fried products in their lunch and breakfast menus.

Table 20. Percent of schools that have developed a long range plan to reduce fried foods.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=108)</i>	<i>(n=35)</i>	<i>(n=34)</i>	<i>(n=44)</i>
Percent of schools with Plan	44.8	38.5	41.7	58.8
Percent of schools who do not serve fried foods	25.5	32.7	29.2	13.7
Percent of schools with no plan or CNP manager unaware of a plan	29.7	28.9	29.2	27.5

NOTE: The term “Long range plan” was not defined for the CNP managers. Long range plans varied from a non-verbal understanding that the school CNP plans to reduce fried foods, a sentence or two on reducing to fried foods, and inclusion of plans to reduce fried foods in school board meeting minutes.

Policy Point B.6c: The long range plan should include preparation methods using existing equipment and/or goals to replace fryers with combi-oven/steamers as budgets allow.

Table 21. Schools with plans to replace fryers.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=143)</i>	<i>(n=53)</i>	<i>(n=47)</i>	<i>(n=49)</i>
Percent of schools whose long range plan replaces fryers with steamers and/or combi-ovens	46.2	43.4	51.1	46.9
Percent of schools whose long range plan replaces fryers with:				
Combi-ovens only	37.6	34.0	38.3	36.7
Steamers only	2.8	1.9	2.1	6.1
Combi-ovens and steamers	6.3	7.6	10.6	4.1
Neither	19.6	15.1	19.2	24.5
Unclear	15.4	17.0	8.5	18.4
Not applicable	18.9	24.5	21.3	10.2
<i>Observation</i>	<i>(n=146)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=50)</i>
Percent of schools with a minimum of one working:				
Fryer	65.7	55.6	54.2	88.0
Combi-oven	35.0	38.9	33.3	30.0
Steamer	63.9	62.3	64.6	67.4

NOTE: Not applicable may refer to fryers have already been replaced. It appears that efforts are being made to decrease the use of fryers and replace fryers with combi-ovens and steamers.

Section C: Marketing of Healthy Food Choices to Students and Staff

Policy Point C.1: Train School Foodservice Administrators, Kitchen Managers, and Cooks in Marketing, New Cooking Techniques, and Garnishing using available or newly developed training tools, such as Marketing Sense – Mississippi Department of Education, Office of Child Nutrition.

Table 22. Percent of schools whose food service staff attended trainings in last 12 months.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=145)</i>	<i>(n=52)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools that reported having the CNP manager attend at least one training in the last 12 months	66.9	71.2	56.3	68.6
<i>Interview</i>	<i>(n=141)</i>	<i>(n=50)</i>	<i>(n=48)</i>	<i>(n=49)</i>
Percent of schools that reported having at least one kitchen staff member attend at least one training in the last 12 months	53.2	68.0	37.5	49.0

Table 23. Types of trainings attended by school food service staff.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools whose CNP Manager attended a training on:				
Marketing	21.8	24.1	16.7	24.1
New cooking techniques	15.7	18.5	14.6	13.7
Garnishing	17.0	22.2	14.6	13.7
Other ^a	49.7	57.4	41.7	47.1
Percent of schools whose kitchen staff attended a training on:				
Marketing	11.6	20.8	4.2	9.8
New cooking techniques	14.4	20.8	12.5	9.8
Garnishing	12.3	18.8	8.3	9.8
Other ^b	38.4	45.3	27.1	39.2

^a Other included: ServSafe & other food safety trainings, manager recertification training, other MDE trainings, school orientation at start of year, school nutrition conference, wellness, etc.

^b Other included: ServSafe & other food safety trainings, in-service trainings by food service director, MDE nutrition, stress management, Chef Cindie, promoting fruits and vegetables, etc.

Policy Point C.2: Use the Whole School Approach in Marketing the Local Wellness Policy. Administration, faculty, staff, students, and parents need to be solicited to be a part of the implementation of the Local Wellness Policy.

Table 24. Members of school district wellness committees.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=143)</i>	<i>(n=52)</i>	<i>(n=47)</i>	<i>(n=50)</i>
Percent of schools <i>without</i> a wellness committee	2.8	3.9	2.1	2.0
Percent of schools whose wellness committees include administration, faculty, staff, students, <i>and</i> parents.	20.3	19.2	14.9	26.0
Percent of schools with the following types wellness committee members:				
School board members	7.0	5.8	6.4	8.0
Superintendent	11.2	11.5	8.5	12.0
School principals	72.7	78.9	74.5	66.0
Teachers	74.8	69.2	76.6	78.0
PE Teacher	46.2	46.2	51.1	42.0
School nurses	49.7	50.0	55.3	48.0
Other school staff	46.2	42.3	48.9	46.0
Child Nutrition director	42.0	51.9	38.3	34.0
School foodservice staff	41.3	25.0	48.9	48.0
Parents	51.8	51.9	53.2	52.0
Other community members	31.5	32.7	29.8	30.0
Health professionals	21.0	21.2	19.2	24.0
Students	30.8	26.9	23.4	40.0

***NOTE: School foodservice staff was identified as members in 41.3% of schools that had school wellness committees. Since a significant part of school wellness policies revolve around the school nutrition environment and the CNP programs it is important that CNP representatives have a voice regarding school wellness directives.

Section D: Food Preparation Ingredients and Products

Policy Point D.1: School districts shall adopt the Dietary Guideline recommendation that trans fatty acids will be kept “as low as possible”.

Table 25. School Emphasis on reduction of trans fatty acids.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
Interview	(n=145)	(n=54)	(n=48)	(n=49)
Percent of schools reporting that nutrient analyses address trans-fat in:				
Lunch menus only	62.8	57.4	56.3	73.5
Breakfast menus only	37.2	33.3	47.9	30.6
Lunch and breakfast menus	17.9	22.2	22.9	10.2
Neither menu	11.7	13.0	10.4	12.4
Respondent unsure for lunch	36.6	33.3	45.8	30.6
Respondent unsure for breakfast	41.4	38.9	39.6	44.9

NOTE: It was identified that the nutrient analysis included with the MS Cycles II menus does not include trans fat. An alternative means of nutrient analyses would need to be conducted to identify the trans fat in the school lunch menu.

Policy Point D.2: Wherever possible and practical, school lunch and breakfast programs shall include products that are labeled “0” grams trans fat.

Table 26. Percent of schools incorporating “0 trans fat” products into meal program foods.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
Interview	(n=128)	(n=46)	(n=47)	(n=41)
Of the schools made attempts to include “0 trans fat” products, percent that incorporated at least one “0 trans fat” product into:				
Lunch menus only	17.2	19.6	10.6	22.0
Breakfast menus only ^a	7.3	6.5	8.5	7.3
Lunch and breakfast menus	25.8	30.4	25.5	24.4
Neither menu	50.0	43.5	55.3	46.3
Observation	(n=147)	(n=54)	(n=48)	(n=51)
Percent of schools at which a product labeled “0 trans fat” was observed at reimbursable lunch	45.6	51.9	45.8	41.2

***Percent of schools that learned which state bid products are “0 trans fat” from the State Child Nutrition Program office.

- All = 32.6% out of 141 schools
- Elem = 29.4% out of 51 schools

- Middle = 36.2% out of 47 schools
- High = 30.6% out of 49 schools

NOTE: CNP managers are not fully aware of the nutritional significance of incorporating foods with “0 trans fat” into the school lunch menus. Increases in training regarding the nutritional benefits of decreasing the amount of trans fats in the diet and increased awareness of 0 trans fat foods offered through the state bid may support an increase in 0 trans fat foods offered in the CNP.

Policy Point D.3: Schools shall incorporate whole grain products into daily and weekly lunch and breakfast menus based on product availability and student acceptability.

Table 27. Percent of schools incorporating whole grain products into meal program foods.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
Interview	(n=146)	(n=54)	(n=48)	(n=50)
Percent of schools that incorporated at least one whole grain product into:				
Lunch menus only	20.6	13.0	16.7	32.0
Breakfast menus only	2.1	3.7	0.0	2.0
Lunch and breakfast menus	73.3	81.5	77.1	62.0
Neither menu	4.1	1.9	6.3	4.0
Observation	(n=146)	(n=53)	(n=48)	(n=51)
Percent of schools that served a minimum of one whole grain product in <i>at least one</i> lunch	38.4	37.7	43.8	37.3
Percent of schools that served a minimum of one whole grain product at <i>all</i> lunches	26.7	30.2	33.3	19.6
Percent of schools at which a whole grain product was labeled as whole grain	28.1	24.5	29.2	31.4

*****Interview:** Percent of schools that learned which state bid products are whole grain from the State Child Nutrition Program office.

- All =58.3% out of 144 schools
- Elem =55.8% out of 52 schools
- Middle =58.3% out of 48 schools
- High =62% out of 50 schools

Section E: Minimum and Maximum Time Allotment for Students and Staff at Breakfast and Lunch Periods

Policy Point E.1: Schools shall schedule at least a minimum of 24 minutes to ensure an adequate eating time for school lunch.

Table 28. Percent of schools at which students have enough time to eat lunch.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Frequency with which students have adequate time to eat their school lunch meal (% schools):				
None of the time	2.7	1.9	4.2	2.0
Some of the time	4.1	5.6	0.0	5.9
Most of the time	26.5	25.9	22.9	27.4
Always	66.7	66.7	72.9	64.7
<i>Observation^a</i>	<i>(n=100)</i>	<i>(n=44)</i>	<i>(n=33)</i>	<i>(n=29)</i>
Percent of schools providing at least 24 minutes for all observed lunches ^a	47.0	54.6	39.4	44.8
<i>Observation</i>	<i>(n=104)</i>	<i>(n=46)</i>	<i>(n=33)</i>	<i>(n=30)</i>
Percent of schools at which all students finished eating during all observed lunches	79.8	76.1	81.8	83.3

*** ^a Only 100 schools have **all 4** observations. See note above

*** Observed lunches for each school range from 1 to 4.

NOTE: Some uncertainty as to the required number of minutes required for lunch times. Some schools identified 18 minutes as the minimum time allowed. **Policy Point E.2: Schools should take into consideration the recommend time of 10 minutes for a child to eat school breakfast after they have received the meal.**

Table 29. Percent of schools at which students have enough time to eat breakfast.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Frequency with which students have adequate time to eat their breakfast meal (% schools):				
None of the time	4.1	0.0	6.3	5.9
Some of the time	2.7	3.7	0.0	3.9
Most of the time	12.9	18.5	10.4	9.8
Always	76.9	75.9	83.3	72.6
No breakfast program	3.4	1.9	0.0	7.8

Section F: The Availability of Food Items during the Lunch and Breakfast Periods of the Child Nutrition Breakfast and Lunch Programs

Policy Point F.1: Schools districts shall comply with the Mississippi Board of Education Policy of Competitive Food Sales as outlined in Mississippi Board of Education Policies.

The four MDE competitive food sales policies are the following:

1. No food items will be sold on the school campus for one (1) hour before the start of any meal services period.
2. The school food service staff shall serve only those foods which are components of the approved federal meal patterns being service (or milk products) and such additional foods as necessary to meet the caloric requirement of the age group being served.
3. With the exception of milk products, a student may purchase individual components of the meal only if the full meal unit also is being purchased.
4. Students who bring their lunch from home may purchase water and milk products.

This preliminary baseline report will address policies #1 and #4. Policies #2 and #3 will be addressed in future years once the reimbursable meal data can be analyzed in more detail. Data will be presented, however, which describe Child Nutrition Managers' experiences with barriers to complying with all four competitive food sales policies, and whether these policies are incorporated into any school or district level policy documents.

Table 30. Percent of schools complying with Competitive Food Sales Policy #1.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=145)</i>	<i>(n=52)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools reporting that no competitive food sales are made within 1 hour of any meal	77.9	78.9	85.4	70.6
Percent of schools at which competitive food sales were observed within the hour prior to lunch via vending machines and/or school stores (includes all schools in sample).	7.6	5.8	2.1	13.7

*** 131 of 145 schools (90.3 %) schools do not sale to students one hour prior to any meal via vending machines or school stores ; This includes 48 elementary schools 46 middle schools, and 43 high schools.

****Interview** Percent of schools that have this policy written up in a document

- All: 64.0% out of 147 schools
- Elem: 74.1% out of 54 schools
- Middle: 54.2% out of 48 schools
- High: 62.8% out of 51 schools

NOTE: CNP managers are aware of competitive food policies.

Table 31. Venues for food sales at schools in violation of Competitive Food Sales Policy #1.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=146)^a</i>	<i>(n=53)</i>	<i>(n=48)</i>	<i>(n=51)</i>
<i>Number of schools selling foods in the hour before breakfast via:</i>				
Vending machines	4	1	1	2
School stores	2	1	0	1
Fundraisers	1	0	0	1
Teacher sales	1	0	0	1
Other	6	2	1	3
<i>Number of schools selling foods in the hour before lunch via:</i>				
Vending machines	1	0	0	1
School stores	10	3	1	6
Fundraisers	0	0	0	0
Teacher sales	2	1	0	1
Other	4	2	0	2
<i>Observation – Vending Form</i>	<i>(n=63)</i>	<i>(n=21)</i>	<i>(n=21)</i>	<i>(n=24)</i>
<i>Number of schools observed having competitive foods available for purchase within 1 hour before/after lunch in these locations:</i>				
Hallway	23	5	8	10
Outside on school grounds	8	3	1	4
Faculty lounge	46	19	14	13
Gym/locker room vending	6	2	2	2
Multi-purpose room	2	2	0	0
Cafeteria	2	0	0	2
Other	5	1	3	1
<i>Observation – Vending Form</i>	<i>(n=113)</i>	<i>(n=40)</i>	<i>(n=34)</i>	<i>(n=45)</i>
<i>Number of schools with the following groups in charge of machine/store:</i>				
Food services	4	2	1	2
Principle/administrator	101	35	29	42
School club	2	0	1	1
Other	7	2	3	2

Table 32. Percent of schools complying with Competitive Food Sales Policy #4.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Observation</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools <i>observed</i> where a student purchased a milk or water product without a meal	49.0	42.6	54.2	48.0

NOTE: These percentages only reflect direct observation by the data collector.

Policy Point F.2: School districts shall update the wellness policy to address limiting the number of extra sale items that may be purchased with a reimbursable meal. This policy will exclude extra beverage purchases of milk, juice and/or water.

Table 33. Percent of schools incorporating this policy into the School Wellness Policy.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=146)</i>	<i>(n=53)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Percent of schools that incorporated this policy into their School Wellness Policy*	28.8	41.5	25.0	19.6

*** Approximately 48% schools answered “not sure” about whether or not Wellness Policy address limiting the number of extra sale items that may be purchased with a reimbursable meal.

NOTE: While this policy was identified as being included in the school wellness policy there was no endeavor to investigate implementation of the policy.

Policy Point F.3: Schools may sell extra items in individual packages not to exceed 200 calories.

Table 34. Percent of schools meeting calorie limit on a la carte food items.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Observation – A La Carte Form</i>	<i>(n=91)</i>	<i>(n=30)</i>	<i>(n=27)</i>	<i>(n=34)</i>
Percent of schools that were fully compliant – 100% of a la carte items sold were 200 calories or less	91.2 %	90.0%	96.3%	88.2%

NOTE; While most schools are trying to comply with meeting the calorie limit, several schools still offer 1 or 2 items that do not meet the 200 calorie requirement. Non-compliant items included items such as:

- Juice in a can, usually grape 11.5 oz
- Chef salad
- Moon pies
- Sun chips (though it looks like some Sun Chips did meet the calorie limit; I'm guessing due to serving size)
- Munchies
- Rice Krispie Treats

Policy Point F.4: Schools may sell extra (menu) items in portions not to exceed the menu portion serving size.

Table 35. Percent of schools meeting portion size for extra meal item

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Observation – Reimbursable Meal Form^a</i>	<i>(n=64)</i>	<i>(n=22)</i>	<i>(n= 22)</i>	<i>(n=20)</i>
Percent of schools where the serving size of an extra portion item from the reimbursable meal was observed as smaller or the same size as the portion size in the meal Access note: Reimbursable Meal field c = 1 or 2	99.3%	98.3%	100.0%	100.0%
Percent of schools where the serving size of an extra portion item from the reimbursable meal was observed as larger than the portion size in the meal Access note: Reimbursable Meal field c = 3	0.7%	1.7%	0.0%	0.0%

****^a Extra meal item in 70% schools were not observed.

Policy Point F.5: Schools will use marketing, pricing, and nutrition education strategies to encourage healthy extra sale selections.

Table 36. Percent of schools using various strategies to encourage healthy food item sales.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=146)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=50)</i>
Percent of schools that reported discussing the following strategies to promote healthy food sales:				
Marketing	65.1	68.5	62.5	66.0
Pricing	4.8	0.0	12.5	4.0
Education	52.7	64.8	45.8	46.0
<i>Observation</i>	<i>(n=145)</i>	<i>(n=54)</i>	<i>(n=44)</i>	<i>(n=47)</i>
Percent of schools observed discussing the following strategies:				
Daily healthy specials are advertised	9.7	14.8	6.8	6.4
Healthy marketing in cafeteria	37.2	37.0	40.9	34.0
Nutrition information available for foods items without packaging	9.0	9.3	9.1	8.5
USDA meal food looks appealing	69.4	75.9	70.5	60.9
<i>Observation</i>	<i>(n=145)</i>	<i>(n=52)</i>	<i>(n=45)</i>	<i>(n=48)</i>
Average number of health promotion posters (per school) in the cafeteria	8.0 (0-51)	8.3 (0-51)	8.5 (0-46)	7.3 (0-46)
Percent of schools with posters in the cafeteria for:				
Health promotion	67.6	71.2	71.1	60.4
Milk promotion	75.3	77.4	77.8	70.8

NOTE: There is no definition for “Marketing” identified in the policy. Marketing could be viewed as a poster on the wall. In documenting number and types of posters in the cafeteria it was identified that the most frequently seen posters (i.e. milk) were free and mailed to the CNP manager.

Section G: Methods to Increase Participation in the Child Nutrition School Breakfast and Lunch Programs

This section addresses the following policies as outlined in the MS Healthy Students Act:

Policy Point G.1: Since school food service operates like a business with income and expenses, adequate marketing ensures a successful program operation. When devising a plan, remember the following: 1) Define your business, 2) Define your customer, evaluate your plan and budget, define your objectives.

Policy Point G.2: Family education will be the key to building a healthy future for all Mississippians. Mississippi public schools offer the best resources, facilities and structure to promote family nutrition education.

Policy Point G.3a: Schools are strongly encouraged to develop academic partnerships with appropriate governmental agencies to offer family nutrition education programs.

Policy Point G.3b: Family education should be incorporated into each school's Wellness Policy.

Policy Point G.6: Schools will promote healthful eating and healthy lifestyles to students, parents, teachers, administrators and the community at school events.

Table 36. Percent of schools promoting healthy eating via meal programs, family nutrition, etc.

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Interview</i>	<i>(n=145)</i>	<i>(n=53)</i>	<i>(n=48)</i>	<i>(n=50)</i>
Policy Point G.1 Percent of schools with a plan to promote these programs:				
Lunch meal only	4.8	7.6	4.2	2.0
Breakfast meal only	4.8	7.6	4.2	2.0
Lunch & breakfast meals	14.5	20.8	14.6	8.0
No plans for either meal	72.4	62.3	77.1	80.0
<i>Interview</i>	<i>(n=145)</i>	<i>(n=53)</i>	<i>(n=48)</i>	<i>(n=50)</i>
Policy G.2 Percent of schools that offered resources to promote family nutrition education in last year	33.8	35.9	37.5	30.0
<i>Interview</i>	<i>(n=145)</i>	<i>(n=53)</i>	<i>(n=48)</i>	<i>(n=50)</i>
Policy G.3a Percent of schools with partnerships to promote family nutrition	15.2	24.5	12.5	8.0
<i>Interview</i>	<i>(n=147)</i>	<i>(n=54)</i>	<i>(n=48)</i>	<i>(n=51)</i>
Policy G.3b Percent of schools whose Wellness Policy incorporate family education	36.7	50.0	37.5	23.5
<i>Interview</i>	<i>(n=127)</i>	<i>(n=48)</i>	<i>(n=36)</i>	<i>(n=43)</i>
Policy G.6 Percent of schools that had activities in last 12 month specifically promoting healthy eating and/or healthy lifestyles	56.7	60.4	52.8	55.8

Vending policy guidelines

Table 37. Percent of schools in compliance with vending regulations

Source and Indicator	All Schools	Elementary Schools	Middle/Jr High Schools	High Schools
<i>Observation – Vending form</i>	<i>(n=119)</i>	<i>(n=40)</i>	<i>(n=34)</i>	<i>(n=45)</i>
Number of schools with ALL snack and beverage items meeting guidelines	33	14	7	12
Number of schools with non-compliant vending items	76	26	27	33

NOTE: Some items were on neither the approved vending list nor the not approved vending list from MDE. These items are currently being analyzed to determine whether or not they meet the guidelines.