

MONTGOMERY COUNTY BOARD OF EDUCATION
Rockville, Maryland

November 10, 2009

MEMORANDUM

To: Members of the Board of Education

From: Patricia O'Neill, Chair, Board of Education Policy Committee

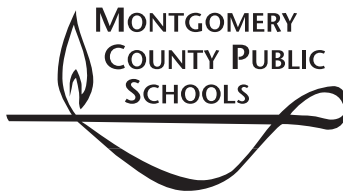
Subject: Evaluation of Policy JPG, *Wellness: Physical and Nutritional Health*

At the request of the Board of Education Policy Committee, the Department of Reporting and Regulatory Accountability (DRRA) reviewed and evaluated the implementation of Board of Education Policy JPG, *Wellness: Physical and Nutritional Health*, to determine if the Board's desired outcomes have been achieved. As you will see from the attached Policy Evaluation Report and Executive Summary, the review evaluated seven criterion and made recommendations based on the evaluation findings.

I hope you will take the opportunity to review the attached document concerning the evaluation of the implementation of Policy JPG and feel free to share any of your comments with me or Board staff assistant, Ms. Suzann King.

PO:gr

Attachment



Policy Evaluation Report
Implementation of Board of Education Policy JPG,
Wellness: Physical and Nutritional Health

Office of Shared Accountability
Department of Policy, Records, and Reporting

September 2009

Suzanne R. Merchlinsky, M.A.



OFFICE OF SHARED ACCOUNTABILITY

Dr. Stacy L. Scott, Associate Superintendent
850 Hungerford Drive
Rockville, Maryland 20850
301-279-3925

Dr. Jerry D. Weast
Superintendent of Schools

Dr. Frieda K. Lacey
*Deputy Superintendent
of Schools*

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Executive Summary

Background

The purpose of the evaluation was to determine the extent of implementation of Policy JPG, *Wellness: Physical and Nutritional Health*. This report discusses the findings and recommendations from multiple data collection activities related to the implementation of the Montgomery County Board of Education (BOE) Policy JPG in Montgomery County Public Schools (MCPS).

Evaluation Design

The evaluation utilized a multi-method design with input from key stakeholders to increase the validity of the evaluation findings. The following criteria for success guided the evaluation:

- The Pre-K–12 health and physical education curricula include nutrition education.
- The school environment fosters and encourages students to make healthy food choices.
- The Pre-K–12 physical education curriculum includes “fitness for life” skills.
- Physical activity is encouraged for students, staff, and community members before, during, and after the instructional day.
- The National School Lunch Program and the School Breakfast Program meet the nutritional standards and regulations as established by the United States Department of Agriculture (USDA) and the Maryland State Department of Education (MSDE).
- Foods and beverages outside the lunch program and the breakfast program meet the nutritional standards adopted by the BOE.
- Information that encourages and supports a healthy lifestyle is provided to students, staff, parents, and other stakeholders.

The data collection activities included the following:

- Surveys of students, teachers, parents, and principals
- Analysis of K–12 health and physical education curricula
- Analysis of School Meal Initiative and MSDE menu reviews
- Analysis of Division of Food and Nutrition Services (DFNS) website
- Analysis of information included in school menus

Summary of Findings

A summary of the findings for each criterion for success are reported below.

Criterion 1: The Pre-K–12 health and physical education curricula include nutrition education.

The MCPS Pre-K–12 Comprehensive Health Education Curriculum Framework and the MCPS Pre-K–12 Comprehensive Physical Education Curriculum Framework address Standard 6: *Nutrition and Fitness*, at all grade levels. Additionally, health education instructional guides at the secondary level provide assessments, instruction examples, and differentiation examples for lessons related to Standard 6.

Criterion 2: The school environment fosters and encourages students to make healthy food choices.

Regulation JPG-RA, *Wellness: Physical and Nutritional Health*, encourages schools to serve foods and beverages at school-sponsored activities that positively contribute to the students' diet and promote health. Additionally, Regulation JPG-RA stipulates that school staff should avoid using candy or other foods of minimal nutritional value as classroom rewards.

The data on birthday celebrations indicate that schools are attempting to limit the allergen contents of food brought to school. However, most schools that recognize students' birthdays still allow sweets to be served at celebrations.

Many schools utilize box top/label collection, gift wrap sales, and partnerships with local restaurants and other businesses as fundraising activities. Fewer schools sell baked goods and other sweets.

Criterion 3: The Pre-K–12 physical education curriculum includes “fitness for life” skills.

Curriculum analyses indicate that the MCPS Pre-K–12 physical education curriculum includes objectives related to each of the six standards at each grade level. The six standards include skills that promote fitness throughout students' lives.

Criterion 4: Physical activity is encouraged for students, staff, and community members before, during, and after the instructional day.

Physical activities appear to be more prevalent in elementary than secondary classrooms. Additionally, the availability of school-based wellness activities reported by principals exceeds teachers' reports of their participation. That is, more principals report offering school-based wellness activities than teachers report participation. Finally, most schools provide community access to their fitness facilities such as the track, fields, playgrounds, and courts.

Criterion 5: The National School Lunch Program and the School Breakfast Program meet the nutritional standards and regulations as established by USDA and MSDE.

Procedures are in place to monitor the nutritional content of MCPS lunch and breakfast menus in relation to the standards and regulations of USDA and MSDE. Elementary and secondary lunch menus have met the standards over the past three years of review.

Criterion 6: Foods and beverages outside the lunch program and the breakfast program meet the nutritional standards adopted by the Montgomery County BOE.

Procedures are in place to enforce compliance with the BOE nutritional standards for foods and beverages sold to students during the school day outside the lunch and breakfast programs. DFNS staff conducts audits of secondary school vending machines and school stores. Contracts are terminated when vending contractors remain out of compliance.

Criterion 7: Information that encourages and supports a healthy lifestyle is provided to students, staff, parents, and other stakeholders.

Schools share information about healthy nutrition and fitness through their school or Parent Teacher Association (PTA) newsletters, posters in the school, and during their morning announcements. Information from central offices is posted on the DFNS website and included on menus sent home with elementary students.

Key Recommendations

The following recommendations are made based on the evaluation findings:

- Promote awareness of Policy JPG and Regulation JPG-RA among school staff.
- Continue to monitor vending contractors' and school stores' compliance with the nutritional content of items available to students during the school day.
- Continue to support schools in expanding inclusion of community members in school-sponsored programs that encourage physical activity and wellness.
- Promote successful fund-raising practices and classroom celebrations that do not involve foods of low nutritional value.
- Encourage schools to utilize their websites to share information about healthy nutrition and physical activity.

Background

Goal of the Report

This report discusses the findings and recommendations from multiple data collection activities related to the implementation of the Montgomery County Board of Education (BOE) Policy JPG, *Wellness: Physical and Nutritional Health*, in Montgomery County Public Schools (MCPS).

Purpose of the Evaluation

The purpose of the evaluation was to determine the extent of implementation of Policy JPG. In January 2008, the Center for Science in the Public Interest presented findings from a survey of food marketing in MCPS. In response to the survey findings, the Montgomery County BOE Policy Committee requested an evaluation of the implementation of Policy JPG.

Organization of the Report

The remainder of this report is organized into the following sections:

- Policy description
- Evaluation design (including criteria for success, data sources, and methods)
- Findings (organized by each criterion for success)
- Conclusions
- Recommendations

Policy Description

Policy JPG was adopted in April 2006. At the same time, an accompanying regulation, JPG-RA, was developed to support the policy implementation. The desired outcome of Policy JPG is an educational environment that encourages lifelong healthy behaviors, supports personal well-being and fitness, and promotes academic success. The Division of Food and Nutrition Services (DFNS) and the Office of Curriculum and Instructional Programs are primarily responsible for implementation of Policy JPG.

Evaluation Design

This section presents an overview of the criteria for success, the data collection strategies, and the strengths and limitations of the methodology.

Criteria for Success

The following criteria for success, derived from Policy JPG, guided the evaluation:

- The Pre-K–12 health and physical education curricula include nutrition education.
- The school environment fosters and encourages students to make healthy food choices.
- The Pre-K–12 physical education curriculum includes “fitness for life” skills.
- Physical activity is encouraged for students, staff, and community members before, during, and after the instructional day.
- The National School Lunch Program and the School Breakfast Program meet the nutritional standards and regulations as established by the United States Department of Agriculture (USDA) and the Maryland State Department of Education (MSDE).
- Foods and beverages outside the lunch program and the breakfast program meet the nutritional standards adopted by the Montgomery County Board of Education (BOE).
- Information that encourages and supports a healthy lifestyle is provided to students, staff, parents, and other stakeholders.

Data Collection Strategies

Multiple data collection strategies were used to address the evaluation questions. The Program Evaluation Advisory Committee (PEAC) convened early in the evaluation process to provide insight on the types of stakeholders who should be targeted for data collection. Additionally, PEAC helped to develop “look-fors” based on the criteria for success. Each data collection strategy is described below.

Surveys of Students, Teachers, Parents, and Principals

The primary data collection activity for this evaluation was a series of surveys administered to students, parents, teachers, and principals to collect data on activities in schools to encourage health and wellness practices for students, staff, and the community. Prior to administration, each survey instrument was reviewed by members of the stakeholder groups who would provide the data. For example, parents reviewed the parent survey and principals reviewed the principal survey. The purpose of the review was to ensure the relevance and clarity of each survey item in relation to the targeted group of respondents.

Student surveys were administered at meetings of the Montgomery County Region (MCR) of the Maryland Association of Student Councils and the Montgomery County Junior Councils (MCJC) in December 2008. A total of 116 high school and 90 middle school students completed the survey. Parent surveys were administered to representatives of the Montgomery County Council of Parent Teacher Associations (MCCPTA) at the Board of Directors and Representative Assembly meetings in February 2009. A total of 98 elementary, middle, and high school parents completed the survey.

Principals and teachers in elementary, middle, and high schools completed surveys electronically, via Test Pilot, in May 2009. The sample of 97 schools represented approximately half of all MCPS schools and was based on the following criteria:

- Schools that were not included in previous policy evaluation
- Schools that were not included in the Middle School Reform program evaluation in 2008–2009
- A random sample of the remaining elementary schools

A total of 64 principals and 750 teachers completed the electronic survey. Appendix A contains a list of the schools included in the sample.

Document Reviews and Analyses

The following documents and other sources were analyzed for the evaluation:

- Curriculum frameworks and instructional guides for all grade levels in Health Education and Physical Education
- MCPS Regulation JPG-RA
- MSDE School Meal Initiative reviews
- MCPS breakfast menu nutrient analyses
- Procedures for auditing vending contractors
- Division of Food and Nutrition Services website

Strengths and Limitations of Methodology

This evaluation featured several strengths with regard to internal validity and reliability of the evaluation findings. First, since any single method has limitations, this study benefited from employing a multi-method approach. Second, the findings discussed in this report were based on input from multiple stakeholders who were asked many of the same questions in order to triangulate information. Finally, stakeholders were included in an evaluation advisory group to provide input on the evaluation questions and data collection instruments. These procedures improved the validity of the instruments used in the evaluation as well as the validity of the evaluation findings.

A limitation of this evaluation was the representativeness for the parent and student surveys. Parent survey respondents were members of the MCCPTA, and students were members of the MCR and MCJC. Therefore, they may not represent a random sample of parents and students across all schools.

Findings

The program evaluation was developed using a series of criteria for success. Findings in this section are organized by each criterion.

Criterion 1: The Pre-K–12 health and physical education curricula include nutrition education.

The MCPS Pre-K–12 Comprehensive Health Education and Physical Education Curriculum Frameworks are designed to empower students with skills and strategies that encourage lifelong wellness. In Health Education, Standard 6: *Nutrition and Fitness: Students will demonstrate the ability to use nutrition and fitness knowledge, skills, and strategies to promote a healthy lifestyle*, is addressed at all grade levels, with age-appropriate objectives and instructional strategies. Tables B-1 through B-3, in the appendix, outline the health education objectives related to Standard 6 at each grade level. Objectives indicate what students will know and be able to do in relation to the standard.

Additionally, Comprehensive Health Education instructional guides (IGs) have been developed for the secondary grades (Montgomery County Public Schools, 2007a and 2007b). The IGs provide teachers with the curriculum framework for each secondary grade level, as well as cross-references to approved instructional materials and textbooks, examples for assessments (pre-assessment and formative and summative assessments), instruction examples, and differentiation examples for each unit. Table 1 outlines the enduring understandings and lesson topics included in the secondary IGs related to Standard 6.

Table 1
Enduring Understandings and Lesson Topics
Related to Standard 6

Grade Level	Enduring Understandings	Lesson Topics
6	Healthy eating behaviors and fitness skills promote lifelong wellness.	<ul style="list-style-type: none"> • Nutrients • Dietary guidelines • Eating behaviors and food safety • Physical activity • Managing weight
7	A nutrient-rich diet and physical activity are vital for weight management and lifelong wellness.	<ul style="list-style-type: none"> • Nutrients • Dietary guidelines • Healthy eating plans • Eating disorders • Weight management and food safety • Physical fitness • Physical activity
8	Eating plans and exercise programs during adolescence impact the quality of life during the entire life cycle.	<ul style="list-style-type: none"> • Managing weight • Eating disorders
10	Identification and implementation of strategies to promote healthy eating behavior and fitness skills impact the quality of lifelong wellness.	<ul style="list-style-type: none"> • Body image • Weight management • Influences on eating and activity behaviors • Analyzing eating and activity behaviors • Nutrition for health promotion and disease prevention • Intake, physical activity, and weight management • Nutrition Facts Label

Criterion 2: The school environment fosters and encourages students to make healthy food choices.

Policy awareness

In order to implement Policy JPG, *Wellness: Physical and Nutritional Health*, at the school level, school staff members need to be aware of the policy's content. On the survey, teachers and principals indicated their level of awareness of Policy JPG. Approximately one half of elementary and secondary teachers are aware that a policy exists but are unfamiliar with its content, compared with more than three fourths of elementary and nearly two thirds of secondary principals (Table 2). Secondary principals are more likely than elementary principals to be aware of Policy JPG's content. No more than 10% of elementary or secondary teachers reported awareness of content. Finally, more than one third to nearly one half of teachers reported that they are unaware that a wellness policy exists, compared with fewer than 10% of principals (Table 2).

Table 2
Teachers' and Principals' Awareness of Policy JPG

Level of Awareness	Elementary		Secondary	
	% of Teachers (N=379)	% of Principals (N=35)	% of Teachers (N=371)	% of Principals (N=29)
I am aware that there is a policy, but I am unfamiliar with its content.	51.5	79.4	48.0	62.1
I am aware that there is a policy, and I am familiar with its content.	10.0	11.8	7.8	31.0
I am unaware that there is a policy.	38.5	8.8	43.4	6.9

Regulation JPG-RA encourages schools to serve foods and beverages at school-sponsored activities that positively contribute to the students' diet and promote health. Additionally, Regulation JPG-RA stipulates that school staff should avoid using candy or other foods of minimal nutritional value as a classroom reward.

One way that school staff can encourage healthy food choices for students is by setting an example with the types of foods served at classroom celebrations (e.g., Valentines, Fall Harvest). Teacher survey data indicate that baked goods are the most frequently served snack at classroom celebrations in both elementary and secondary schools (Table 3). A majority of elementary school classrooms serve baked goods, pretzels/chips, and candy. More than one half serve fruit, and approximately one half serve vegetables. At the secondary level, nearly two thirds serve baked goods, while nearly one half serve pretzels/chips and candy. Nearly one fourth of the secondary classrooms serve fruit and less than one fifth serve vegetables (Table 3).

Table 3
Snacks Served at Classroom Celebrations,
Reported by Teachers

Types of Snacks ^a	% of Elementary Teachers (N=337) ^b	% of Secondary Teachers (N=178) ^b
Baked goods (e.g., cookies, brownies, cupcakes)	84.9	65.7
Pretzels/chips	84.3	43.8
Candy	68.0	47.2
Fruit	59.3	22.5
Vegetables	49.0	15.7
Frozen treats (e.g., ice cream, popsicles)	40.4	16.3
Other	5.3	18.5

^a Multiple responses were allowed.

^b Respondents who indicated no classroom celebrations or "I don't know" were excluded.

Birthday celebrations are another occasion when students may receive snacks at school. Survey data from parents and principals indicate that students' birthdays are celebrated in the majority of elementary schools, but in only a few secondary schools (Table 4). In the majority of those elementary schools (more than 70%), parents may send store-bought sweet treats that have been approved by the school for allergens. Additionally, nearly one third of the elementary schools allow parents to send non-food items for birthday celebrations such as pencils or books. In less than 20% of elementary schools, parents may send homemade sweet treats, and a few reported that elementary parents may send healthy snacks. Additionally, more than one fourth of the principals reported that their schools recognize students' birthdays in the morning announcements and students receive a special pencil or other non-food treat (e.g., card, sticker, or magnet) in recognition of their birthdays.

Table 4
School Celebrations of Students' Birthdays

Celebrations of Students' Birthdays ^a	Elementary		Secondary	
	Parents (N=52) ^b	Principals (N=35)	Parents (N=37) ^b	Principals (N=29)
Parents may send store-bought sweet treats, approved by the school for allergens	73.1	71.4	5.4	6.9
Parents may send non-food items (e.g., pencils, books)	32.7	28.6	0.0	3.4
Parents may send homemade sweet treats	19.2	11.4	0.0	0.0
Classes consolidate birthdays and celebrate monthly	5.8	8.6	0.0	3.4
Parents may send healthy snacks, but not sweet treats	3.8	14.3	2.7	3.4
Birthdays are not recognized	3.8	5.7	89.2	69.0
Other	19.2	37.1	5.4	20.7

^a Multiple responses were allowed.

^b Respondents who indicated "I don't know" were excluded.

The data on birthday celebrations indicate that schools are attempting to limit the allergen contents of food brought to school. However, most schools that recognize students' birthdays still allow sweets to be served at celebrations.

Classroom incentives

Regulation JPG-RA discourages school staff from using candy or other foods of minimal nutritional value as classroom rewards. Elementary teachers reported on the survey that they were more likely to provide stickers, school supplies, extra time on desirable activities, toys/trinkets, lunch bunch, or certificates than candy or other food items. Still, more than two thirds of secondary students, more than half of secondary teachers, and more than one third of elementary teachers reported candy as classroom incentives (Table 4). Data from secondary respondents, however, indicated candy as the most common incentive, followed by school supplies (Table 5).

Table 5
Classroom Incentives

Types of Incentives ^a	Elementary	Secondary	
	% of Teachers (N=340) ^b	% of Students (N=206) ^b	% of Teachers (N=281) ^b
Stickers	76.5	28.2	35.6
School supplies	71.5	41.7	48.0
Extra time on desirable activities (e.g., reading, computer, games)	60.3	32.0	33.1
Toys/trinkets	52.1	9.2	16.0
Lunch bunch	49.1	6.3	13.9
Certificates	42.6	7.8	24.6
Candy	35.0	68.0	51.2
Other food items	18.8	22.8	24.9

^a Multiple responses were allowed.

^b Respondents who indicated no classroom incentives were excluded.

Members of the school community are consumers of fundraising activities. Therefore, schools' fundraising activities can send a message about expectations for healthy nutrition to students, staff, and other school community members. For example, sales of candy, cookie dough, and other items of low nutritional value, as well as partnerships with fast-food restaurants may encourage students, staff, and community members to consume those items. Conversely, sales of healthy foods (e.g., fruit) and non-food items (e.g., gift wrap, magazines) do not encourage consumption of unhealthy foods. Partnerships with restaurants and businesses (e.g., grocery stores) that offer incentives for purchasing their products may also impact families' choices of nutritious foods.

Survey data indicate that collection of labels and box tops, gift wrap sales, and partnerships with local restaurants and businesses are the most frequent fund-raising activities among elementary schools (Table 6). Local restaurants and businesses are also frequent fundraisers for secondary schools, followed by concessions sales at events. Data were mixed regarding the prevalence of bake sales and sales of sweets (e.g., candy and cookie dough). More than half of elementary parents but less than one fifth of elementary principals indicated that their schools hold bake sales. In secondary schools, the data on bake sales consistently show that they are held in less than one quarter of the schools. Similarly, more elementary parents than principals indicated sweets sales as a fund raiser, but at the secondary level many more principals than parents reported sweets sales (Table 6).

Table 6
Fund-raising Activities

Types of Fund-raising Activities ^a	Elementary		Secondary	
	Parents (N=53)	Principals (N=35)	Parents (N=45)	Principals (N=27) ^b
Labels/box tops	83.0	91.4	26.7	48.1
Gift wrap sales	77.3	80.0	28.9	29.6
Local restaurants ^c	71.7	68.6	57.8	51.9
Local businesses (e.g., Giant, Safeway receipts)	64.2	77.1	42.2	66.7
Bake sales	54.7	17.1	22.2	22.2
Concessions sales at events	47.2	25.7	35.6	44.4
Sweets sales (e.g., candy, cookie dough)	35.8	20.0	11.1	44.4
Pizza sales	30.2	22.9	8.9	25.9
Specialty gift sales	30.2	17.1	15.6	18.5
Toner cartridge/cell phone recycling	22.6	54.3	4.4	59.3
Magazine sales	13.2	5.7	20.0	33.3
Fruit sales ^d	0.0	0.0	20.0	11.1
Other	56.6	28.6	33.3	14.8

^a Multiple responses were allowed.

^b Respondents who indicated “I don’t know” were excluded.

^c Specific restaurants are listed in Table C-1 in the appendix.

^d All fruit sales were reported by high school respondents.

Criterion 3: The Pre-K–12 physical education curriculum includes “fitness for life” skills.

The MCPS Pre-K–12 physical education curriculum includes six standards that promote knowledge, skills, and attitudes for students to pursue “fitness for life.” The six standards are as follows:

- I. **Exercise Physiology:** Students will demonstrate the ability to use scientific principles to design and participate in a regular, moderate-to-vigorous physical activity program that contributes to personal health and enhances cognitive and physical performance in a variety of academic, recreational, and life tasks.
- II. **Biomechanical Principles:** Students will demonstrate an ability to use the principles of biomechanics to generate and control force to improve their movement effectiveness and safety.
- III. **Social Psychological Principles:** Students will demonstrate the ability to use skills essential for developing self-efficacy, fostering a sense of community, and working effectively with others in physical activity settings.

- IV. **Motor Learning Principles:** Students will demonstrate the ability to use motor skill principles to learn and develop proficiency through frequent practice opportunities in which skills are repeatedly performed correctly in a variety of situations.
- V. **Physical Activity:** Students will demonstrate the ability to use the principles of exercise physiology, social psychology, and biomechanics to design and adhere to a regular, personalized, purposeful program of physical activity consistent with their health, performance, and fitness goals in order to gain health and cognitive/academic benefits.
- VI. **Skillfulness:** Students will demonstrate the ability to enhance their performance of a variety of physical skills by developing fundamental movement skills, creating original skill combinations, combining skills effectively in skill themes, and applying skills.

The six standards are related to developmentally appropriate objectives at each grade level that align with skills promoting fitness for life. According to Policy JPG, “Fitness for Life” skills—

- provide moderate-to-vigorous physical activity;
- teach knowledge, motor skills, and positive attitudes; and
- promote physical activity and sports involvement for all students to enjoy and pursue throughout their lives.

Table D-1 in the appendix outlines the six standards and their relationship to the “Fitness for Life” skills. Tables D-2a and D-2b list the related objectives for each of the six standards by grade level. These analyses indicate that the MCPS Pre-K–12 physical education curriculum includes objectives related to each of the six standards at each grade level, and that the six standards include skills that promote fitness throughout students’ lives.

Criterion 4: Physical activity is encouraged for students, staff, and community members before, during, and after the instructional day.

Parents and students responded to survey items about students’ opportunities for physical activity at school. Nearly all of the elementary parents indicated that students have recess as an opportunity for physical activity during the school day (Table 7). Additionally, a majority of secondary parents (71%) and one third of elementary parents indicated that their schools sponsor fitness or sports activities after school for students. According to secondary students, approximately one third or more of their schools allow the use of the gym or fields before or after school or during lunch time (Table 7).

Table 7
Opportunities for Physical Activity at School

Opportunities for Physical Activity ^a	Elementary	Secondary	
	% of Parents (N=42) ^b	% of Students (N=206) ^b	% of Parents (N=42) ^b
Recess (elementary schools only)	98.1	N/A	N/A
School-sponsored after-school fitness or sports activities	33.3	N/A	71.4
Use of gym/fields during lunch time	23.8	39.3	16.7
Open gym before or after school	0.0	33.0	16.7
Classroom stretching or exercises	11.9	16.5	0.0
No opportunities for physical activity (not including physical education class)	7.1	26.2	16.7

^a Multiple responses were allowed.

^b Respondents who indicated “I don’t know” were excluded.

Teachers also responded to survey items regarding ways they incorporate physical activity into their classroom routines. Elementary teachers more frequently reported incorporating physical activity than secondary teachers. More than one half of elementary teachers indicated that they use movement and stretches during class time (Table 8). Conversely, more than one half of secondary teachers indicated no physical activity in their classrooms.

Table 8
Physical Activity Incorporated into the Classroom, Reported by Teachers

Types of Physical Activity ^a	% of Elementary Teachers (N=379)	% of Secondary Teachers (N=371)
Movement	57.0	29.9
Stretches	56.5	15.1
Dance	16.4	2.4
Calisthenics	7.1	2.2
None of the above	24.3	54.4
Other physical activity	7.7	7.3

^a Multiple responses were allowed.

Nearly all of the elementary (97%) and a majority of the secondary principals (78%) indicated that their schools provide fitness/exercise programs for students (Table 9). More than one half of secondary principals (52%) but just over one fourth of elementary principals (27%) also provide nutrition programs for students. A few secondary principals (13%) indicated that weight-management programs are available to their students.

Table 9
Health and Wellness Activities for Students, Reported by Principals

Types of Health and Wellness Activities ^a	% of Elementary Principals (N=33) ^b	% of Secondary Principals (N=23) ^b
Fitness/exercise programs (e.g., Field Day, sports or exercise clubs, NOT interscholastic athletics)	97.0	78.3
Nutrition programs	27.3	52.2
Weight-management programs (e.g., Weight Watchers, Biggest Loser/Winner competition)	0.0	13.0
Other health and wellness programs	24.2	17.4

^a Multiple responses were allowed.

^b Respondents who indicated “I don’t know” were excluded.

More than one half of secondary and nearly one third of elementary principals indicated on the survey that their school offers weight-management programs for staff (Table 10). Nearly one half of elementary and more than one half of the secondary principals reported that their school offers fitness/exercise programs for staff members. However, the majority of elementary and secondary teachers indicated on the survey that they do not participate in any school-based wellness activities (Table 11). Approximately 10% indicated their participation in an exercise program such as aerobics or yoga. Other listed activities had fewer than 10% indicating participation. Participation was generally lower for secondary teachers than elementary teachers (Table 11). The data in Tables 10 and 11 indicate that the availability of some wellness activities for staff members may be inconsistent with teachers’ participation in those activities.

Table 10
Health and Wellness Activities for Staff, Reported by Principals

Types of Health and Wellness Activities ^a	% of Elementary Principals (N=30) ^b	% of Secondary Principals (N=24) ^b
Weight management programs (e.g., Weight Watchers, Biggest Loser/Winner competition)	30.0	58.3
Fitness/exercise programs (e.g., Field Day, sports or exercise clubs, NOT interscholastic athletics)	46.7	58.3
Nutrition programs	6.7	12.5
Other health and wellness programs	30.0	33.3

^a Multiple responses were allowed.

^b Respondents who indicated “I don’t know” were excluded.

Table 11
Teachers' Participation in School-based Wellness Activities

Types of School-based Wellness Activities ^a	% of Elementary Teachers (N=379)	% of Secondary Teachers (N=371)
Exercise program (e.g., aerobics, yoga)	9.8	10.0
Weight-management program (e.g., Weight Watchers)	4.2	4.3
Advisor to a fitness/wellness-related club	2.4	0.8
Reduced fees for health club/YMCA membership	8.7	6.2
Employee Assistance Program (EAP)	4.0	1.9
Stress-reduction program	1.1	0.5
None of the above	72.0	72.2
Other	3.2	3.5

^a Multiple responses were allowed.

A majority of the principals responding to the survey (75%) indicated that their school's facilities such as the gym, fields, track, playground, basketball and tennis courts are available for community use. Additionally, MCPS collaborates with the Interagency Coordinating Board for Community Use of Public Facilities (ICB) to make schools available for public activities.

In summary, physical activities appear to be more prevalent in elementary than secondary classrooms. Additionally, teachers' participation is inconsistent with the availability of school-based wellness activities. That is, more schools reported offering those activities than teachers reported participation. Finally, most schools provide community access to their fitness facilities such as the track, fields, playgrounds, and courts.

Criterion 5: The National School Lunch Program and the School Breakfast Program meet the nutritional standards and regulations, as established by the United States Department of Agriculture and the Maryland State Department of Education.

Procedures are in place to monitor the nutritional content of MCPS lunch and breakfast menus in relation to the standards and regulations of USDA and MSDE. MSDE conducts the School Meal Initiative (SMI) review of the MCPS elementary and secondary lunch menus annually. Because menus are the same at a particular level (i.e., all elementary schools share a menu and all secondary schools share a menu) throughout MCPS, MSDE randomly selects and visits one elementary and one secondary school each school year. The reviews consist of an audit of the menus for a week, and comparison of calories, nutrients, and fat content to the Recommended Daily Allowance (RDA) established by USDA. For example, the MCPS lunch menu must provide one third of the RDA of calories, less than 30% of calories from fat, and less than 10% of calories from saturated fat. Just one of the elementary and secondary MSDE reviews conducted in 2007, 2008, and 2009 yielded a need for corrective action. In 2008, secondary lunch calories were 91% of the target, and a soda machine was found to be turned on during

restricted hours. In other areas, reviewers noted that targets for vitamins and minerals were met or exceeded, vegetarian options had increased, and production records were well-maintained.

DFNS staff conducts annual analyses of the elementary and secondary breakfast menus. The review for the 2008–2009 school year determined that the elementary and secondary breakfast menus met the target for calories, nutrients, and fat content.

Criterion 6: Foods and beverages outside the lunch program and the breakfast program meet the nutritional standards adopted by the Montgomery County Board of Education.

Regulation JPG-RA includes guidelines for foods and beverages available to students outside the lunch and breakfast programs, from midnight until the end of the instructional day. Items outside the lunch and breakfast programs include items sold in vending machines, school stores, fundraising activities, athletic departments, and the a la carte cafeteria program. Approved snack items contain 7 grams or less fat (except nuts and seed mix), 2 grams or less saturated fat, 15 grams or less sugar (except fresh or dried fruit) per single serving. Approved beverages are not to exceed 16 ounces (except for unflavored water), and include water; flavored, non-carbonated water; 100% fruit juice; fruit beverages containing a minimum of 50% fruit juice; and sports drinks (available only in the physical education area). Vending machines that contain items that do not meet the guidelines are required to be turned off from midnight until the end of the instructional day.

DFNS staff conducts audits of vending machines in secondary schools. During the 2008–2009 school year, more than 64 audits were completed in high schools and more than 17 in middle schools. A DFNS staff member visits multiple schools served by a vending contractor and audits the contents of vending machines and school stores that contain snacks and beverages for purchase by students. The DFNS staff member records the location and type of vending machines (e.g., snacks, beverages, carbonated beverages) and records whether the items available during the school day meet the nutritional standards adopted by the BOE. If the DFNS staff member is able to purchase items that are outside the nutritional standards, the vending machine or school store is considered out of compliance.

The vending contractor is responsible for only making items available during the school that meet the BOE's nutritional standards. Although other items are allowed, they must not be available for purchase by students until the school day has ended. When vending machines are determined to be out of compliance, they are reported to the MCPS Division of Procurement and DFNS. The Division of Procurement then notifies vendors that if they remain out of compliance their contract will be terminated. Audits are repeated for vending contractors that are notified of non-compliance, and contractors that remain out of compliance are discontinued. MCPS is currently transitioning to a systemwide contract, approved by the Board of Education, to assure consistent compliance with the nutritional standards. The transition should be complete in FY2010.

Additionally, DFNS staff observes the operation of school stores to monitor the food and beverage items sold to students during the school day. Any items that do not meet the nutritional

guidelines are reported to the principal and school business manager and are requested to be removed from the store.

Criterion 7: Information that encourages and supports a healthy lifestyle is provided to students, staff, parents, and other stakeholders.

Information from Schools

According to survey data, schools use a variety of methods to communicate information about healthy nutrition and fitness to students, staff, and parents (Table 12). In some cases, the data were inconsistent across respondents, with principals more likely than parents or students to indicate that communication methods are occurring. However, the data indicate that posters or other materials displayed at school are the most frequent method of communicating information about healthy nutrition.

One method of communication that may be underutilized is the inclusion of information on nutrition and wellness on schools' websites, which was consistently reported by only a small number of respondents.

Table 12
Communication of Information about Healthy Nutrition

Communication Methods ^a	Elementary			Secondary	
	% of Parents (N=51) ^b	% of Principals (N=35)	% of Students (N=206)	% of Parents (N=36) ^b	% of Principals (N=27) ^b
Morning announcements	N/A	57.1	23.3	N/A	51.9
Articles in the school newspaper or newsletter	47.1	54.3	33.0	33.3	51.9
Articles in the PTA newsletter	35.3	N/A	N/A	27.8	N/A
Posters or other materials displayed at school	N/A	74.3	56.8	N/A	55.6
Cafeteria staff encourage healthy eating	N/A	68.6	20.4	N/A	59.3
Nutrition/wellness information on school's Web page	5.9	11.4	12.6	11.1	11.1
Flyers or other materials sent home from school	43.1	N/A	N/A	22.2	N/A
No information from school about healthy nutrition	23.5	2.9	18.9	38.9	7.4
Other communication	11.8	17.1	13.1	25.0	11.1

^a Multiple responses were allowed.

^b Respondents who indicated "I don't know" were excluded.

Information from Central Offices

Lunch and breakfast menus for students and staff are located on the MCPS website and are sent home with elementary students. In addition to listing the daily breakfast and lunch offerings, the menus provide information on ingredients (e.g., poultry, pork, meatless) and tips for healthy nutrition practices. For example, the March/April 2009 elementary lunch menu included features on *Power Up on School Breakfast* and *March is National Nutrition Month*.

The May/June 2009 menu included information about the Summer Meal Service and ideas for incorporating fresh summer fruits and vegetables into meals. The menus also include a *Customer Service Comment Card* on which parents and students can rate their satisfaction with school meals. All menus distributed to students and posted on the MCPS website are translated into Spanish. In addition to information on the MCPS menus, the DFNS website provides information about food safety, wellness resources for families, specific nutritional and allergen information, and special nutrition programs sponsored by MCPS (www.montgomeryschoolsmd.org/departments/foodserv/index.shtm).

Additionally, DFNS staff has provided information and training to school staff, students, and community members throughout the 2008–2009 school year. Presentations about topics such as the Fresh Fruit and Vegetables program, planning healthy meals on limited funds, and how to read nutritional labels were attended by more than 8,000 individuals. Table E-1 in the appendix provides a summary of the presentation topics and audiences.

Conclusions

The following conclusions are based on the findings from multiple data collection activities. In general, the components of Policy JPG, *Wellness: Physical and Nutritional Health*, which are the responsibility of central offices (such as curriculum and nutritional standards) are more fully and consistently implemented than components that implemented by individual schools (e.g., opportunities for physical activities, avoiding classroom snacks of low nutritional value).

Criterion 1: The Pre-K–12 health and physical education curricula include nutrition education.

Analysis of the MCPS Pre-K–12 health and physical education curricula revealed objectives, enduring understandings, and lesson topics that support Standard 6, *Nutrition and Fitness: Students will demonstrate the ability to use nutrition and fitness knowledge, skills, and strategies to promote a healthy lifestyle*. Students at every grade level are taught concepts that link food, eating behaviors, and physical activity to good health.

Criterion 2: The school environment fosters and encourages students to make healthy food choices.

Several aspects of a school’s environment could influence students’ choices about food such as food served for classroom celebrations, fundraising activities, and classroom incentives. While schools appear to be making efforts to reduce risks of allergens and foods of low nutritional value, the traditional snacks of candy, sweets, and chips still appear to be popular in classrooms.

Criterion 3: The Pre-K–12 physical education curriculum includes “fitness for life” skills.

The MCPS Pre-K–12 physical education curriculum is based on six standards (Exercise Physiology, Biomechanical Principles, Social Psychological Principles, Motor Learning Principles, Physical Activity, and Skillfulness) that promote students lifelong learning and participation in physical fitness. At each grade level, students achieve objectives related to each of the six principles.

Criterion 4: Physical activity is encouraged for students, staff, and community members before, during, and after the instructional day.

In elementary schools, recess provides opportunities for physical activities on a daily basis. Additionally, most schools reported offering some type of fitness or exercise programs for students outside of interscholastic athletics or physical education classes. Opportunities for staff and community members appear to be less consistent. Many principals indicated that their schools offer fitness and nutrition activities for staff, but few teachers reported participating in such activities. Most principals reported that their schools’ facilities (e.g., playing fields, tracks, playgrounds) were available for community use.

Criterion 5: The National School Lunch Program and the School Breakfast Program meet the nutritional standards and regulations, as established by USDA and MSDE.

MSDE monitors lunch menus and the MCPS Division of Food and Nutrition Services (DFNS) monitors breakfast menus to assure compliance with nutritional standards. The MCPS menus were in compliance with the standards for calories, nutrients, and fat content.

Criterion 6: Foods and beverages outside the lunch program and the breakfast program meet the nutritional standards adopted by the Montgomery County BOE.

Procedures are in place for DFNS staff to audit vending machines and school stores that sell snacks and beverages to students during the school day. Based on the DFNS audits, the MCPS Office of Procurement monitors vending contractors' compliance and discontinues contracts with vendors that do not meet the standards.

Criterion 7: Information that encourages and supports a healthy lifestyle is provided to students, staff, parents, and other stakeholders.

Information about nutrition and health is communicated using a variety of methods, including posters at school, articles in school or PTA newsletters, and morning announcements. These methods vary across schools. MCPS central offices also provide nutrition and health information on school lunch menus, on the DFNS website, and in presentations by DFNS staff.

Recommendations

The following recommendations are based on the evaluation findings:

- Promote awareness of Policy JPG and Regulation JPG-RA among school staff.
- Continue to monitor vending contractors' and school stores' compliance with the nutritional content of items available to students during the school day.
- Continue to support schools in expanding inclusion of community members in school-sponsored programs that encourage physical activity and wellness.
- Promote successful fund-raising practices and classroom celebrations that do not involve foods of low nutritional value. Fundraising activities should support patronage of restaurants and purchase of other products that do not encourage consumption of "fast food" and other items lacking nutritional value.
- Encourage schools to utilize their websites to share information about healthy nutrition and physical activity.

References

- Montgomery County Public Schools. (2007a). *Comprehensive health education middle school program instructional guide*. Rockville, MD: Author.
- Montgomery County Public Schools. (2007b). *Comprehensive health education high school program instructional guide*. Rockville, MD: Author.

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Appendix A

Sample of Schools Included in the Principal and Teacher Surveys

Elementary Schools	Middle Schools	High Schools
Ashburton	John T. Baker	Bethesda-Chevy Chase
Beall	Cabin John	Montgomery Blair
Bel Pre	Forest Oak	Clarksburg
Beverly Farms	Martin Luther King	Damascus
Bradley Hills	Kingsview	Gaithersburg
Brookhaven	Lakelands Park	Walter Johnson
Burning Tree	Col. E. Brooke Lee	John F. Kennedy
Burtonsville	A. Mario Loiederman	Northwest
Cannon Road	Neelsville	Paint Branch
Cashell	Parkland	Poolesville
Cedar Grove	Rosa M. Parks	Rockville
Chevy Chase	Redland	Springbrook
Cloverly	Rocky Hill	Wheaton
Cold Spring	Shady Grove	
Cresthaven	Takoma Park	
Capt. James Daly	Tilden	
Damascus	Julius West	
Diamond	Westland	
Dr. Charles Drew	White Oak	
DuFief		
Fairland		
Farmland		
Fields Road		
Flower Hill		
Forest Knolls		
Fox Chapel		
Galway		
Garrett Park		
Germantown		
Glen Haven		
Glenallan		
Greencastle		
Highland View		

continued

continued

Elementary Schools	Middle Schools	High Schools
Jones Lane		
Lake Seneca		
Laytonsville		
Little Bennett		
Luxmanor		
S. Christa McAuliffe		
Mill Creek Towne		
Monocacy		
North Chevy Chase		
Oak View		
Oakland Terrace		
Olney		
Pine Crest		
Piney Branch		
Potomac		
Rock View		
Rolling Terrace		
Rosemary Hills		
Sequoyah		
Seven Locks		
Sherwood		
Sargent Shriver		
Somerset		
Strathmore		
Summit Hall		
Takoma Park		
Viers Mill		
Washington Grove		
Wayside		
Weller Road		
Wheaton Woods		
Whetstone		

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Appendix B
Pre-K–12 Health Curriculum Analysis

Table B-1
Health Education Objectives Related to Standard 6:
Grades Pre-K Through 2

Objectives	Pre-K	K	1	2
Define nutrient.				√
Define physical fitness.			√	
Explain the relationship between fitness and a healthy lifestyle.				√
Tell the source of different foods.			√	
Illustrate the sequence of food production.			√	
Define proper manners when eating.		√		
Identify the relationship between food and the senses.	√	√	√	
Recognize that foods are categorized into groups.		√	√	√
Identify the Nutrition Facts Label.				√
Tell the relationship between food and health.	√	√	√	

Table B-2
Health Education Objectives Related to Standard 6:
Grades 3 Through 5

Objectives	3	4	5
Identify and define functions of nutrients.	√	√	
Explain the relationship among food intake, physical activity, and weight management.	√	√	√
Identify and describe body image.	√	√	
Identify how body image affects eating habits.			√
Apply information using the Food Guide Pyramid to choose a healthy breakfast/ healthy snacks.	√		√
List and discuss the Dietary Guidelines for Americans.		√	
Describe and analyze the Nutritional Facts Label.	√	√	
Explain the relationship between nutrition and physical activity.		√	

Table B-3
Health Education Objectives Related to Standard 6:
Grades 6 Through 8 and High School (HS) Level

Objectives	6	7	8	HS
Identify and define the functions of nutrients.	√			
Explain the role of nutrients.		√		
Explain the role of nutrients and healthy eating in maintaining and restoring health.				√
Describe and analyze information from the Nutrition Facts Label.				√
Explain the relationship among food intake, physical activity, and weight management.	√	√	√	√
Describe various factors that influence body image.	√			
Examine the media for messages that impact body image.		√		
Demonstrate an understanding of body image, how it is developed, and how it is influenced.				√
Apply the Dietary Guideline for Americans in meal planning.	√	√		
Investigate the Physical Activity Pyramid.	√			
Explain the Physical Activity Pyramid as it relates to their own physical activity level.		√		
Discuss ways to prevent food-borne illness.	√			
Identify and describe the components of body composition.	√			
Identify and analyze the benefits of maintaining a healthy weight.				√
Analyze influences on eating and activity behaviors.				√
Analyze eating and activity behaviors that need improvement.				√
Identify and construct a personal weight management plan.		√		
Identify and define various kinds of eating disorders.		√	√	
Evaluate internal and external influences that may lead to eating disorders.		√		
Develop a personal healthy eating plan to meet recommended nutrient levels.		√		

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Appendix C
Restaurants Listed as Fund-raisers by Parents

Table C-1
Restaurants Listed as Fund-raisers,
Reported by Parents

Restaurants	% of Parents (N=55)
Ledo's Pizza	16.4
California Tortilla	12.7
McDonald's	9.1
Chick Filet	7.3
Armand's Pizza	5.5
Cici's Pizza	5.5
Domino's Pizza	5.5
Mama Lucia	5.5
Vocelli's	5.5
Baja Fresh	3.6
Café Mileto	3.6
CA Pizza Kitchen	3.6
Cheeburger Cheeburger	3.6
Chicken Out	3.6
El Golfo	3.6
Fudruckers	3.6
Green Turtle	3.6
Marble Slab	3.6
Potomac Pizza	3.6
Baskin Robbins	1.8
Chevys Fresh Mex	1.8
Chuckie Cheese	1.8
Cold Stone Creamery	1.8
Dine Out	1.8
El Gavilan	1.8
Five Guys	1.8
Gifford's Ice Cream	1.8
Hard Times Café	1.8
Jerry's Subs and Pizza	1.8
McGintey's Pub	1.8
Noodles & Company	1.8
Panera Bread	1.8

continued

Table C-1
Restaurants Listed as Fund-raisers,
Reported by Parents

continued

Restaurants	% of Parents (N=55)
Parkway Deli	1.8
Pizza (unspecified)	1.8
Quiznos	1.8
Roy Rogers	1.8
Silver Diner	1.8
Spanish Restaurant	1.8
Urban BBQ	1.8

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Appendix D

Alignment of Curricula with “Fitness for Life” Skills

**Table D-1
Alignment of Pre-K–12 Physical Education Standards with
“Fitness for Life” Skills**

Pre-K–12 Physical Education Standards	“Fitness for Life” Skills		
	Provide moderate-to-vigorous physical activity	Teach knowledge, motor skills, and positive attitudes	Promote physical activity and sports involvement for all students to enjoy and pursue throughout their lives
I. Exercise Physiology: Students will demonstrate the ability to use scientific principles to design and participate in a regular, moderate-to-vigorous physical activity program that contributes to personal health and enhances cognitive and physical performance in a variety of academic, recreational, and life tasks.	√	√	√
II. Biomechanical Principles: Students will demonstrate an ability to use the principles of biomechanics to generate and control force to improve their movement effectiveness and safety.		√	√
III. Social Psychological Principles: Students will demonstrate the ability to use skills essential for developing self-efficacy, fostering a sense of community, and working effectively with others in physical activity settings.		√	√
IV. Motor Learning Principles: Students will demonstrate the ability to use motor skill principles to learn and develop proficiency through frequent practice opportunities in which skills are repeatedly performed correctly in a variety of situations.	√	√	
V. Physical Activity: Students will demonstrate the ability to use the principles of exercise physiology, social psychology, and biomechanics to design and adhere to a regular, personalized, purposeful program of physical activity consistent with their health, performance, and fitness goals in order to gain health and cognitive/academic benefits.		√	√
VI. Skillfulness: Students will demonstrate the ability to enhance their performance of a variety of physical skills by developing fundamental movement skills, creating original skill combinations, combining skills effectively in skill themes, and applying skills.	√	√	

Table D-2a
Physical Education Standards and Objectives:
Grades Pre-K Through 3

Objectives and Related Standards	Pre-K	K	1	2	3
Objectives Related to Standard 1: Exercise Physiology					
Identify and demonstrate the effects of physical activity on the body systems.	√	√	√	√	
Explain and demonstrate the effects of physical activity on the body systems.					√
Explore and identify the components of the Frequency, Intensity, Type, and Time (FITT) using physical activity.	√	√	√	√	
Adapt the components of the FITT principle to adjust levels of physical activity.					√
Explore and identify (distinguish between) the components of fitness.	√	√	√	√	
Recognize and identify the components necessary to design a fitness plan.					√
Investigate the benefits of physical activity.	√	√	√	√	√
Recognize the relationship between nutrition and physical activity.		√	√	√	
Recognize the relationship between nutrition and physical activity through movement experiences.					√
Recognize and examine the factors influencing exercise adherence.		√	√	√	√
Objectives Related to Standard 2: Biomechanical Principles					
Experience movement through play.	√				
Participate in movement that demonstrates motion concepts.		√			
Explore the concepts of motion within Newton's Laws of Motion.			√		
Recognize the concepts associated with Newton's Laws of Motion in relation to physical activity.				√	
Identify target vocabulary within Newton's Laws of Motion.					√
Experience the concept of balance through play.	√				
Experience the concept of balance through movement.		√			
Explore static and dynamic balance concepts through movement.			√		
Identify static and dynamic balance concepts in relationship to movement.				√	
Identify the difference between <i>static</i> and <i>dynamic balance</i> .					√
Objectives Related to Standard 3: Social Psychological Principles					
Develop an understanding of effort and improvement.	√				
Identify the meaning of effort.		√			
Recognize the relationship between effort and improvement.			√	√	√
Work effectively with others in physical activity settings	√	√	√	√	√
Build relationships to develop a sense of community within the class/the school.	√	√			

continued

Table D-2a
Physical Education Standards and Objectives:
Grades Pre-K Through 3

continued

Objectives and Related Standards	Pre-K	K	1	2	3
Build and maintain relationships which develop a sense of community and a peaceful, healthy environment for all.			√	√	√
Establish and modify personal physical activity goals while monitoring progress toward achievement.			√	√	√
Apply effective time management strategies.				√	
Apply time management strategies wisely.					√
Objectives Related to Standard 4: Motor Learning Principles					
Experience a variety of play situations.	√				
Experience a variety of age appropriate activities.		√			
Recognize through participating in a variety of activities how individuals progress through stages of learning at various rates.			√	√	√
Demonstrate skill improvement.		√			
Recognize that a person's skill development results from prior experience, natural ability, and practice.			√	√	√
Recognize/show that skills will develop with practice over time.			√	√	√
Improve performance through positive feedback.	√	√			
Recognize the importance of positive feedback on performance.			√	√	
Recognize the importance of self evaluation and feedback in the improvement of motor skills.					√
Objectives Related to Standard 5: Physical Activity					
Experience/explore/examine/recognize individual aerobic capacity/cardio respiratory fitness.	√	√	√	√	√
Experience activities that involve muscular strength and endurance.	√	√	√		
Examine and compare individual muscular strength and muscular endurance.				√	√
Experience/examine/compare individual flexibility.	√	√	√	√	√
Objectives Related to Standard 6: Skillfulness					
Explore and experience/practice/demonstrate fundamental movement skills.	√	√	√	√	√
Develop creative movement skills.	√	√	√	√	√
Explore/practice/develop proficiency/demonstrate competency in skill themes.	√	√	√	√	√

Table D-2b
Physical Education Standards and Objectives:
Grades 4 Through 8 and High School (HS) Level

Objectives and Related Standards	4	5	6	7	8	HS
Objectives Related to Standard 1: Exercise Physiology						
Analyze and demonstrate the effects of physical activity on the body systems.	√	√	√	√	√	√
Analyze and adapt the components of the Frequency, Intensity, Time, and Type (FITT) principle to adjust levels of physical activity.	√	√	√	√	√	
Recognize/identify/analyze the components necessary to design a fitness plan.	√	√	√	√	√	√
Investigate the benefits of physical activity.	√	√	√	√	√	√
Analyze the relationship between nutrition and physical activity.			√	√	√	√
Recognize the relationship between nutrition and physical activity through movement experiences.	√	√				
Examine the factors influencing exercise adherence.	√	√	√	√	√	√
Investigate the impact of cultural and media perceptions on physical activity.			√	√	√	√
Objectives Related to Standard 2: Biomechanical Principles						
State and define Newton's Laws of Motion.	√					
Explain Newton's Laws of Motion as they relate to movement.		√				
Apply Newton's Laws of Motion to optimize movement and minimize injury.			√	√	√	√
Demonstrate static and dynamic movement patterns.	√	√				
Identify levers which increase the effect of a force exerted on a body or increase the distance a body moves by increasing speed.			√	√		
Analyze/apply how the use of levers increases the effect of a force exerted on a body or increases the distance a body moves by increasing speed.					√	√
Objectives Related to Standard 3: Social Psychological Principles						
Recognize the relationship between effort and improvement.	√	√	√	√	√	
Work effectively with others in physical activity settings	√	√	√	√	√	
Initiate responsible personal and social behavior.						√
Demonstrate leadership qualities.						√
Synthesize and evaluate knowledge regarding the role of physical activity in a culturally diverse society.						√
Build and maintain relationships which develop a sense of community and a peaceful, healthy environment for all.	√	√	√	√	√	√
Establish and modify personal physical activity goals while monitoring progress toward achievement.	√	√	√	√	√	
Apply effective time management strategies.	√	√	√	√	√	
Apply time management strategies wisely.	√					
Objectives Related to Standard 4: Motor Learning Principles						
Recognize how individuals progress through learning stages at various rates through participating in a variety of activities.	√	√				
Evaluate stages of learning.			√	√	√	
Recognize through participation in a variety of activities that personal skill development results from prior experiences, natural abilities, and practice.	√	√				
Develop and implement an appropriate practice plan for skill proficiency.			√	√	√	

continued

Table D-2b
Physical Education Standards and Objectives:
Grades 4 Through 8 and High School (HS) Level

continued

Objectives and Related Standards	4	5	6	7	8	HS
Show that skills will develop with practice over time.	√	√	√			
Master advanced skills.						√
Develop and implement an appropriate practice plan for skill proficiency.						√
Recognize the importance of self-evaluation and feedback in the improvement of motor skills.	√	√				
Objectives Related to Standard 5: Physical Activity						
Examine and compare individual cardiorespiratory fitness.	√	√				
Assess and analyze individual circulatory fitness.			√			
Assess and analyze individual aerobic capacity/cardio/respiratory fitness/endurance.				√	√	
Examine and compare individual muscular strength and muscular endurance.	√	√				
Assess and analyze individual muscular strength and muscular endurance.			√	√	√	
Examine and compare/ assess and analyze individual flexibility.	√	√	√	√	√	
Assess personal levels of health-related fitness components using a standardized tool such as Fitnessgram.						√
Develop personal goals to enhance health-related components of fitness.						√
Design and implement personal fitness plan based on assessment results and previously established personal goals.						√
Reassess personal fitness plan.						√
Objectives Related to Standard 6: Skillfulness						
Demonstrate fundamental movement skills.	√					
Demonstrate fundamental movement skills in daily movement experiences.		√				
Develop fundamental movement skills and apply them to a variety of recreational and daily life experiences.			√	√	√	
Demonstrate the mastery of fundamental movement skills while applying them in a variety of lifelong fitness activities.						√
Develop creative movement skills.	√	√				
Develop creative skills combinations and apply them to a variety of recreational and daily life experiences.			√	√	√	
Demonstrate the mastery of using creative skill combinations while applying them to a variety of lifelong fitness activities.						√
Demonstrate proficiency in skill themes.	√	√				
Record and evaluate skillful movements to maintain or improve personal motor ability and fitness levels.			√	√	√	
Develop the ability to solve tactical game problems (scoring and preventing scoring) using on-the-ball skills and off-the-ball skills.			√	√	√	
Record and evaluate movement skills to maintain or improve personal motor performance and/or fitness levels.						√

Appendix E

Presentations by Division of Food and Nutrition Services Staff: 2008–2009 School Year

Table E-1
Presentations by Division of Food and Nutrition Services (DFNS) Staff:
2008–2009 School Year

Date	Audience	Location	Topic	# of Attendees	Summary
August 2008	Head Start and Pre-K staff	Johns Hopkins University	New school year procedures	300	Reviewed menu, meal service, accountability
	MCPS community	MCPS Back-to-School Fair	Nutrition, school meals	800	Table display of school meals, discussion of program, WinSNAP (point-of-sale system used in the schools)
	MCPS community	Carver Educational Services Center (CESC)	School nutrition program	300	Information about school nutrition programs
September 2008	MCPS community	CESC	Back-to-School Fair	300	DFNS school meals program
	New MCPS substitute teachers	DFNS	New sub orientation	10	Expectations for MCPS substitutes
	Staff	Arcola Elementary School (ES)	Fresh Fruit and Vegetable Program (FFVP)	35	Explained FFVP
	Staff	Oakview ES	School meal planning	25	Menus, nutrient information
	Silver Spring community	City Place Mall Health & Fitness Expo	Nutrition, school meals	300	Table display of school meals, discussion of program, WinSNAP
	Silver Spring community	City Place Mall Health & Fitness Expo	School meal information	300	Sharing of information re: school meals, After School Snack Program (ASSP), etc.
	Silver Spring community	City Place Mall Health & Fitness Expo	School meals program	300	Shared info on school nutrition programs
	Staff	Newport Mill Middle School (MS)	FFVP	35	Explained FFVP
October 2008	DFNS staff	Rockville High School (HS)	Supervisor Session	150	DFNS policies and procedures
	City of Gaithersburg staff	Summit Hall ES	After-school snacks program	10	After-school snacks program policies and procedures
	Grade 3 students	Rachel Carson ES	Menu survey	130	Explained project and purpose of survey, provide instruction on completing the survey; survey students on menu/cafeteria operations
	Parents	Georgian Forrest ES	Healthy eating on a budget	100	Quick and healthy meals on a budget: nutrition information, cost-savings ideas, recipes; school meals program

continued

Table E-1
Presentations by Division of Food and Nutrition Services Staff:
2008–2009 School Year

continued

Date	Audience	Location	Topic	# of Attendees	Summary
	Students	Churchill HS	Nutrition	112	Macro and micro nutrients; healthy eating with portion control; label reading; obesity and increased risk for chronic disease
	Students (health classes)	Springbrook HS	Nutrition	150	Macro and micro nutrients; healthy eating with portion control; label reading; obesity and increased risk for chronic disease
November 2008	Parents of Grade 3 students	Little Bennett ES	Menu Survey	150	Survey guidelines and menu overview
	Parents and students	Maryvale ES	Meal surveys	45	Parent conference day: table at school entrance with surveys about school meals for parents and students to complete
	Parents	Rolling Terrace ES	School meals	150	Menus, nutrient information
	Parents	Rachel Carson ES	School meals program	150	Explained Six Sigma project and purpose of the parent survey; surveyed parents on menu and nutrition information
	Grade 3 students	Rolling Terrace ES	Meal survey	100	Surveyed students on meals/cafeteria operation
	Bel Pre ES community	Argyle MS	Summer meals	50	Discussed expansion of summer meals to meet students' needs during the summer
	Bel Pre ES staff	Central Production Facility	MCPS meals	10	Shared the meal-planning process with Bel Pre staff so that they could better understand our meal service to students.
	Parents	Harmony Hills ES	Healthy eating on a budget	50	Nutrition information, cost-saving ideas, recipes
	Parents	Harmony Hills ES	Healthy eating on a budget	50	Quick and healthy meals on a budget, nutrition information, cost-saving ideas, recipes; School meals program
	University of Maryland students	University of Maryland	School meals program	30	MCPS meal programs, policies

continued

Table E-1
Presentations by Division of Food and Nutrition Services Staff:
2008–2009 School Year

continued

Date	Audience	Location	Topic	# of Attendees	Summary
	Students (health classes)	Bethesda–Chevy Chase HS	Nutrition	110	Macro and micro nutrients; healthy eating with portion control; label reading; obesity and increased risk for chronic disease
December 2008	United States Department of Agriculture (USDA)	Virginia	Summer meals	150	Procedures that MCPS follows to expand the summer meals programs
	PTA	Oakland Terrace ES	Nutrition, meal planning	50	Shared information about MCPS programs, meal requirements, etc.
	Students and staff	Capt. James Daly ES	USDA Award	100	USDA award criteria, food service staff recognition
	New MCPS substitute teachers	DFNS	New sub orientation	10	Expectations for MCPS substitutes
January 2009	Parents	Wheaton Woods ES	Healthy eating on a budget	50	Nutrition information, cost-saving ideas, recipes
	Parents	Wheaton Woods ES	Nutrition	50	How to read the Nutrition Facts Label; healthy eating on a budget, cost-saving ideas, recipes
	Grade 3 students	Maryvale ES	Surveys		Six Sigma surveys
	Staff	Oakview ES	School meals information	25	Menus, nutrient information
	Parents	Harmony Hills ES	Sodium and diet	100	Importance of watching sodium intake in the diet: food high in sodium, use of other herbs and spices.
	MCPS staff	MCEA	Health and wellness	150	Shared information about health, wellness, sodium, labels, exercise
	MCPS staff	MCEA CTI	Health and wellness	150	4-hour workshop: shared info on health and wellness, low sodium meal prep, benefits of exercise; how to read the Nutrition Facts Label
February 2009	Staff	Silver Spring International MS	Review of cafeteria procedures	50	Reviewed information about Maryland Meals for Achievement (MMFA) requirements, lunch requirements, menu, etc.
	Staff	Arcola ES	Healthy Challenge presentation	50	Presented USDA award

continued

Table E-1
Presentations by Division of Food and Nutrition Services Staff:
2008–2009 School Year

continued

Date	Audience	Location	Topic	# of Attendees	Summary
	PTA	Sargent Shriver ES	Award presentation	25	Presented the Healthier US School Challenge Award to Principal at PTA meeting.
	Administration and staff	Clopper Mill ES	Award presentation	35	USDA Healthier US School Award
	Staff	Georgian Forest ES	Healthy Challenge presentation	50	Presented USDA award
	Staff	Oakview ES	Healthy Challenge presentation	40	Presented USDA award
	Leadership team	Harmony Hills ES	Award presentation	30	Presented the Healthier US School Challenge Award to principal during a team leadership meeting.
	Office staff and cafeteria staff	Twinbrook ES	USDA award	7	Presented USDA Silver award to café staff
	Students and staff	Watkins Mill HS	Nutrition and exercise	70	Celebration of Black History Month: Presentation on basic nutrition and exercise
	Staff	Bel Pre ES	Healthy Challenge presentation	40	Presented USDA award
	Staff	Greencastle ES	Healthier School Challenge	45	Brief summary of the Healthier School Challenge
	Students and staff	Fox Chapel ES	Award presentation	75	USDA Healthier US School Award
	Staff	Kemp Mill ES	Healthy Challenge presentation	50	Presented USDA award
	Grade 3 students	Rolling Terrace ES	Results of Six Sigma survey	12	Discussed results of previous survey and created a menu that students chose
March 2009	Grade 3 students	Rachel Carson ES	Six Sigma menu ranking	130	Students ranked main entrée and sides based on preference
	Students	Viers Mill ES	Award presentation	500	Presented the Healthier US School Challenge Award to principal and students during each lunch shift.
	University of Maryland students	University of Maryland	School meals program	30	MCPS meal programs, policies
	Staff	Maryvale ES	Menu surveys	10	Taste test and information about menus
	Grade 3 students	Cannon Road ES	Six Sigma	15	Student focus group
	Staff	Glenallan ES	Healthy Challenge presentation	40	Presented USDA award
	Page SGA students	William Tyler Page ES	Cafeteria lunch menu	6	Focus group regarding cafeteria lunch menu

continued

Table E-1
Presentations by Division of Food and Nutrition Services Staff:
2008–2009 School Year

continued

Date	Audience	Location	Topic	# of Attendees	Summary
	Grade 3 students	Rachel Carson ES	Six Sigma focus group	6	Discussed results of the ranking activity; follow-up questions for additional menu preference information.
	Latino community	Bohrer Park	Summer meals	50	Shared information about summer meals program
	Cafeteria managers	Quince Orchard HS	In-service awards	200	Door prizes raffle/employee recognition
	DFNS managers and cafeteria staff	In-service	Awards presentations	200	Helped present awards to staff for perfect attendance, clean health department inspections
	PTA	Cannon Road ES	Six Sigma	15	Explained Six Sigma project and purpose of the parent survey; presentation and food testing, surveyed parents on menu and nutrition information
	Students	Rosa Parks MS	Cafeteria lunch menu	10	Focus group regarding cafeteria lunch menu
April 2009	Staff	Wheaton Woods ES	Summer meals	10	Extended Learning Opportunities (ELO) program: information about summer meals
	Assistant principals	Up-county Government Center	Summer meals	25	Shared information about ELO meals
	Grade 3, 4, and 5 students	Great Seneca Creek ES	Basic nutrition	90	Basic nutrition : My Pyramid
	Latino community	Impact Silver Spring	Summer meals	25	Summer program outreach
	Parents	Little Bennett ES	Quick Facts School Meal	10	Food nutritional facts; food tasting
	Staff	Little Bennett ES	Quick Facts School Meal	10	Food nutritional facts; food tasting
	Takoma Park Jumpstart	Montgomery Blair HS	ASSP and summer meals	3	Provided information on the ASSP and summer meals
	Parents and principal	Rachel Carson ES	School Meals Program		Six Sigma project purpose and goals; nutritional facts about the menu; food sampling
	City of Gaithersburg	Bohrer Park	Summer meals	75	Summer program outreach
	Students and staff	S. Christa McAuliffe ES	Award Presentation	75	USDA Healthier US Schools Award
	PTA	Cannon Road ES	Six Sigma		Presentation to PTA with food tasting

continued

Table E-1
 Presentations by Division of Food and Nutrition Services Staff:
 2008–2009 School Year

continued

Date	Audience	Location	Topic	# of Attendees	Summary
	Staff	Rachel Carson ES	School Meals Program	60	Six Sigma project purpose and goals; nutritional facts about the menu; food sampling
	Students	North Bethesda MS	“What's a School Lunch?”	800	Basic nutrition information and how that relates to our school lunch menus. Explained what a reimbursable lunch consists of.
	Cafeteria staff	William Tyler Page ES	Cafeteria lunch menu	2	Focus group regarding lunch menu
	Cafeteria staff	Rosa Parks MS	Cafeteria lunch menu	5	Focus group regarding lunch menu