

BALTIMORE COUNTY PUBLIC SCHOOLS

DATE: February 24, 2009

TO: **BOARD OF EDUCATION**

FROM: Dr. Joe A. Hairston, Superintendent

SUBJECT: **REPORT ON STUDENT HEALTH ISSUES**

ORIGINATOR: Patricia Abernethy, Chief Academic Officer

RESOURCE
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INFORMATION

That the Board of Education receives an update on Baltimore County Public Schools' health education program.

Overview of Student Health Issues

Programs promoting student wellness and the prevention of obesity occur through coordinated school health initiatives involving health education, physical education, and nutrition services. On July 11, 2006, the School Board adopted the BCPS Wellness Policy (Policy/Rule 5470). This policy continues to strengthen the collaboration among the offices that provide health-related programs for students. Coordination of efforts occurs formally through regular meetings of the BCPS Wellness Policy Committee and the BCPS School Health Council, whose members include health department and community representatives. The Offices of Health Education and Physical Education, along with Food and Nutrition Services provide products and services to schools to promote student wellness.

The BCPS health education program provides a PreK-12 curriculum that is sequential and comprehensive, addressing the physical, intellectual, emotional, and social dimensions of wellness. The health education curriculum is designed to motivate and assist students to maintain and improve their health and the health of others; prevent diseases; and reduce health-related risk behaviors. It allows students to develop and demonstrate increasingly sophisticated health-related knowledge, attitudes, skills, and practices. The health education curriculum addresses personal, family, and community health topics, including mental and emotional health; personal health and wellness; healthy eating; physical activity; safety; violence and injury prevention; consumer literacy; environmental health, sexual, and reproductive health; substance use and abuse; and disease prevention and control.

The BCPS physical education K-12 program provides a sequential curriculum offering cognitive content and learning experiences in a variety of activity areas such as basic movement skills; physical fitness; rhythms and dance; games; team, dual, and individual sports; tumbling and gymnastics. Through a variety of planned physical activities, quality physical education promotes each student's optimum physical, mental, emotional, and social development, and promotes activities and sports that all students enjoy and can pursue throughout their lives.

Food and Nutrition Services provides access to a variety of nutritious and appealing meals that accommodate the health and nutrition needs of all students. While providing students with a variety of healthy food choices, these services encourage the practice of good eating habits and the importance of good nutrition.

The following pages include more detailed information regarding health education, physical education, and food and nutrition services.

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Baltimore County Public Schools Elementary Health Education

In accordance with the MSDE Voluntary State Curriculum for health education, there are seven general topics covered throughout grades PreK – Grade 5: Mental and Emotional Health, Alcohol, Tobacco, and Other Drugs, Personal and Consumer Health, Family Life and Human Sexuality, Safety and Injury Prevention, Nutrition and Fitness, and Disease Prevention and Control. The following content is addressed at each grade level:

Pre-K: Self-esteem; family roles; friendships; community health; safety; the senses; nutrition; and growth.

Kindergarten: Feelings and behavior; accepting differences; how health professionals keep people safe and healthy; traffic and general safety rules; poisons and other unsafe substances; nutrition and exercise.

Grade 1: Feelings and emotions; effective communication; working together and following rules; the senses; dental hygiene; healthy food choices; skin care; good posture; preventing and treating illness; rest and exercise; family roles and responsibilities; growth and change.

Grade 2: The need for exercise, sleep and proper nutrition; care of the skin and senses; disease prevention; expressing emotions; managing stress; learning from mistakes; how people are alike and different; decision making and solving problems; medicine safety; safety in the home and community; steps to take in emergency situations.

Grade 3: Feelings and self-control; relationships; teasing and bullying; conflict resolution; healthy habits and disease prevention; nutrition and exercise; advertising and the media; effects of medicines, caffeine, tobacco, alcohol, and other drugs on the body.

Grade 4: Self-concept and goal setting; managing stress and resolving conflicts; harassment; family roles; nutrition, food labeling, and food safety; rest and exercise; dental care, advertising influences; environmental safety; health careers.

Grade 5: Communication skills; feelings and conflicts, substance use and abuse; human growth and development; disease transmission and prevention; elementary concepts of HIV/AIDS infection; impact of tobacco, alcohol, and other drug use/abuse; peer and media influences on health and behavior.

Baltimore County Public Schools Middle School Health Education

In accordance with the MSDE Voluntary State Curriculum for health education, there are seven general topics covered throughout Grades 6-8: Mental and Emotional Health, Alcohol, Tobacco, and Other Drugs, Personal and Consumer Health, Family Life and Human Sexuality, Safety and Injury Prevention, Nutrition and Fitness, and Disease Prevention and Control. The following content is addressed at each grade level:

Grade 6: Goal setting for wellness; values; tobacco use prevention; second-hand smoke; media influences on tobacco use; tobacco research; disease prevention; communicable and non-communicable diseases; vaccinations; heart disease; violence prevention; bullying prevention; media influences on health; alternatives to violence; human development; puberty; the beginning of life; male and female reproductive systems; taking responsibility; student service learning project.

Grade 7: Growing with family and friends; life stages; roles and responsibilities; peer pressure; decision making; effective communication; dealing with conflict; stress and life changes; self-esteem; health habits and grooming; healthy eating and fitness; care of the eyes and ears; consumer health issues; reading product labels; first aid and injury prevention; risk taking and avoiding injury; safety in the home; responding to emergencies; physical effects of alcohol and marijuana; problem drinking; the impact of drug abuse on the family; addiction and recovery.

Grade 8: Taking responsibility for personal health; values, goals, and decisions; mental health support systems, stress in relationships, developing health skills; heroin and other drugs of abuse; drug abuse research; professional support for drug abuse; relationships and sexuality; character and responsible relationships; sexual harassment; male and female reproductive systems; pregnancy and birth; teen pregnancy; practicing abstinence; contraception, causes of communicable diseases, common communicable diseases; disease prevention; disease research; sexually transmitted infections; diseases from tattoos and piercings; HIV/AIDS; student service learning project.

Baltimore County Public Schools High School Health Education

In accordance with the MSDE Voluntary State Curriculum for health education, there are five general topics covered throughout Grades 9-12. The program will emphasize personal responsibility; self-management; identification and avoidance of risk behaviors and situations; interpersonal communication; decision making and goal setting. In high school, students will expand on the knowledge and skills they acquired in middle school health education. The following content is addressed in the required high school course titled Health Grades 9/10 or Health Grades 11/12.

Wellness: Controllable versus uncontrollable health risk factors; and the impact of lifestyle choices on physical, social, emotional, intellectual, spiritual, and environmental well-being.

Mental Well-Being: Meeting personal needs; building and maintaining self esteem and relationships; dealing with emotions, stress, loss, conflict, and violence; and understanding mental disorders.

Tobacco, Alcohol, and Other Drugs (TAOD): Safe, therapeutic drug and supplement use; illegal substances; the impact of chemicals on the body and mind; stages of chemical dependency and recovery; community resources for TAOD issues; avoiding involvement with TAOD.

Nutrition and Fitness: Guidelines for dietary planning, product selection, and exercise; food values; nutrients and their purpose; fitness and weight control; external influences on body image, fitness, physical activity, and eating behaviors; eating and nutritional disorders impacting the TAOD decisions of others and the laws and policies concerning TAOD use.

Human Sexuality: Factors involved in sexual identity and human development; reproduction and birth; influences on sexual activity; healthful versus harmful relationships; abstinence; pregnancy prevention and family planning; myths and misconceptions concerning sexuality and sexual behaviors.

Disease and Disability: Disease processes, immunity and the immune system; prevention, diagnosis, and treatment of diseases including sexually transmitted infections, hepatitis, and HIV/AIDS; behaviors and settings that increase the risk of illness; violence, injury, and premature death; assessing and responding to threatening or emergency situations.

Baltimore County Public Schools Physical Education – Fitness and Obesity

The Baltimore County Public Schools' is committed to implementing programs to educate children about the importance of a healthy lifestyle. They are dedicated to improving the health and well-being of the next generation. Obesity is one key area in which education may demonstrate a positive impact. Significant factors which influence obesity in children are poor nutrition and lack of physical activity.

All students in Grades K-8 in the Baltimore County Public Schools participate in physical education every year. The instructional program provides physical activities which promote aerobic fitness at each grade level. Physical activities to promote cardiovascular fitness include, but are not limited to aerobic games, aerobic dance, step aerobics, team activities, rope jumping, circuit training, track and field, and cross country. Students use various forms of technology to measure performance using pedometers, heart rate monitors, and instapulses to record heart rate. All schools have the books, Physical Education for Lifelong Fitness and the Physical Best Activity Guides to integrate fitness knowledge in games and activities

In Grade 9, the course required for high school graduation, *Fitness Foundations/Fitness Mastery* is taught with a fitness focus. *Fitness Foundations/Fitness Mastery* is the course needed to fulfill the one credit state and county graduation requirement. The course is designed to be given in Grade 9 as a precursor to any physical education electives. *Fitness Foundations/Fitness Mastery* emphasizes the concepts of personal fitness, personal assessment, and the knowledge to achieve and maintain a lifetime of a healthy level of physical fitness. Understanding fitness concepts, achieving fitness levels, and increasing motor skills are individualized and students within a class will be performing at varying levels of competency. All students will have a personal fitness plan by the end of this course. They will also have the knowledge to assist them in adjusting this plan as their interests and abilities change during their lives.

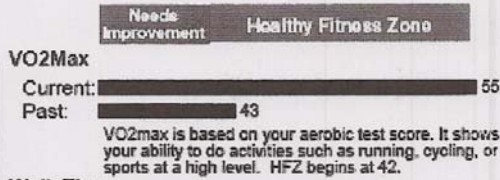
Assessment of Personal Fitness

All students in Grades 4, 5, 6, 7, 8, and 9 participate in the *Fitnessgram* testing program. Students with disabilities participate in the testing with modifications using the *Brockport Fitness Test*. *Fitnessgram* is the assessment tool that all schools in Baltimore County are using to assess the health related components of fitness. It is a criterion-referenced test, in that student scores are compared to standards of health-related fitness that indicate levels of fitness necessary for health, regardless of others' scores. The goal is to score in the Healthy Fitness Zone. *Fitnessgram* tests aerobic capacity, muscular strength, endurance, flexibility and body composition. The test for aerobic capacity is the PACER (Progressive Aerobic Cardiovascular Endurance Run) test. The tests for muscular strength and endurance are curl-ups, trunk lift, and push-ups. The tests for flexibility are the shoulder stretch and the sit and reach test. The purpose of fitness testing is to point out areas of strength and areas that need improvement. Body size and build will certainly affect scores as well as motivation. *Fitnessgram* is not intended to compare one child with another, but rather with the national norms for each age group. These fitness scores are entered into a computer program. A student report is generated. Students then use their scores to set personal goals to improve or maintain fitness.

FITNESSGRAM®

Your scores on 5 of 6 tests were in or above the Healthy Fitness Zone. In addition to doing strength and flexibility exercises, you should play active games, sports, or other activities most every day.

AEROBIC CAPACITY



Walk Time
Current: 14:45

MUSCLE STRENGTH, ENDURANCE, & FLEXIBILITY

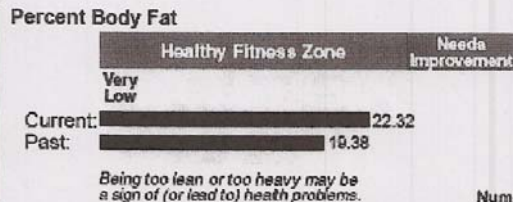
(Abdominal) Curl-Up
Current:

(Trunk Extension) Trunk Lift
Current:

(Upper Body) Push-Up
Current:

(Flexibility) Back-Saver Sit and Reach R, L
Current:

BODY COMPOSITION



ACTIVITY

On how many of the past 7 days did you participate in physical activity for a total of 30-60 minutes, or more, over the course of the day?
On how many of the past 7 days did you do exercises to strengthen or tone your muscles?
On how many of the past 7 days did you do exercises to loosen up or relax your muscles?

Number of Days

4
2
3

To be healthy and fit it is important to do some physical activity almost every day. Aerobic exercise is good for your heart and body composition. Strength and flexibility exercises are good for your muscles and joints.
Good job! You are doing some aerobic activity and strength and flexibility exercises. Additional vigorous aerobic activity would help to promote higher levels of fitness.
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Joe Jogger
Grade: 6 Age: 13
Cooper Institute Elementary School

Instructor: Karla Tripp

Date	Height	Weight
Current: 06/22/2006	5' 8"	140 lbs
Past: 08/18/2005	5' 6"	135 lbs

MESSAGES

Although your aerobic capacity score is very good now, you are not doing enough physical activity. You should try to play very actively at least 60 minutes at least 6 days each week to look and feel good.

To improve your upper-body strength, be sure that your strength activities include modified push-ups, push-ups, and climbing activities. You may need to do more arm exercises.

Your abdominal and trunk strength are both in the Healthy Fitness Zone. To maintain your fitness, be sure that your strength-training activities include exercises for each of these areas. Abdominal and trunk exercises should be done at least 3 to 6 days each week.

Your flexibility is in the Healthy Fitness Zone. To maintain your fitness, stretch slowly 3 or 4 days each week, holding the stretch 20-30 seconds. Don't forget that you need to stretch all areas of the body.

Joe, your body composition is in the Healthy Fitness Zone. If you will be active most days each week, it may help to maintain your level of body composition. You should also eat a healthy diet including more fruits and vegetables and fewer fats and sugars.

Healthy Fitness Zone for 13 year-old boys
Walk Test = 42 - 52 ml/kg/min
Curl-Up = 21 - 40 repetitions
Trunk Lift = 9 - 12 inches
Push-Up = 12 - 25 repetitions
Back-Saver Sit and Reach =
At least 8 inches on R & L
Percent Body Fat = 7.00 - 25.00 %

How Do You Spend Your Time?

The Physical Activity Pyramid gives you an easy way to group the different physical activities that help you maintain good health. To be your best, you should try to do the following:

- Get at least 60 minutes of physical activity on most days of the week.
- Do activities from each level of the Physical Activity Pyramid each week.
- Limit your TV time, computer time, and Internet surfing to no more than 2 hours each day.

During the week . . .

- In the box for each day, record the number of minutes that you are physically active.
- In the box for each day, record the number of minutes that you watch TV or work on the computer.

At the end of each week . . .

- Add up and record your total minutes of activity and minutes of TV or computer time.
- Put a check in the "minutes of activity" box for each day that you were active for at least 60 minutes.
- Put a check in the "minutes of TV or computer time" box for each day that you spent less than 2 hours (120 minutes) in front of the TV or computer.



	Sample Day	SUN	MON	TUES	WED	THURS	FRI	SAT	TOTALS for WEEK
Total minutes of physical activity	✓ 75								
Total minutes of TV or computer time	✓ 103								

Look at the Physical Activity Pyramid and write down the activities that you did during this week in each of these areas:

Lifestyle activities _____

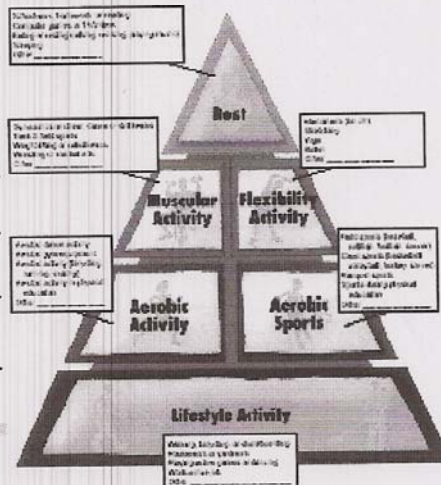
Aerobic activities or sports _____

Muscular activities _____

Flexibility activities _____

Signature of student _____

Signature of parent _____



Other Ways to Learn About Activity

The FITNESSGRAM software package has several programs that can help you learn about your level of physical activity.

➤ **ACTIVITYGRAM** is a computerized measure of physical activity that can help you determine whether you are getting enough physical activity each day.

➤ The **Activity Log** is a computerized log of your daily activity levels. You can code steps on a pedometer or the minutes of activity you get each day.

For other information, visit www.fitnessgram.net.

FITNESSGRAM was developed by The Cooper Institute and is endorsed by the National Association for Sport and Physical Education. For information, go to www.fitnessgram.net.

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Links



- www.bcps.org/offices/physed
- www.bcps.org/offices/physed/curriculum/adapted_physed
- www.mahpercd.org
- www.aahpercd.org
- www.cdc.gov/nccdphp/dnpa/physical
- www.PE4life.org
- www.cdc.gov/nccdphp/dnpa/obesity/trend/maps/index.htm
- www.obesity.org
- win.niddk.nih.gov/statistics/index.htm
- www.acsm.org
- www.presidentschallenge.com
- exercise.about.com

Community Resources

Contact local health departments or other community agencies, such as schools, recreation councils, or family physicians for additional information.



Office of Physical Education

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Physical Education in Baltimore County Public Schools

Physical education is an important and unique part of the daily instructional program. Physical education contributes to the overall educational goals and to the development and maintenance of fitness. Physical activity is the method by which learning takes place.

The purpose of the physical education program is to contribute to each student's growth and development in the physical, cognitive, and affective domains through a movement-based curriculum.

The Baltimore County Public Schools Office of Physical Education is committed to implementing programs to educate its students about the importance of a healthy lifestyle. It is dedicated to improving the health and well-being of the next generation.

Elementary physical education in BCPS focuses on fundamental movement. Students participate in adventure; rhythms and dance; tumbling and gymnastics; manipulatives (hoops, wands, jump ropes, beanbags); individual, partner, and team games.

The **middle school** program emphasizes skill development in adventure; rhythms and dance; tumbling and gymnastics; and individual, team, and recreational sports. Intramurals are provided for students to enhance their skills and game play.

The required course at the **high school** level is Fitness Foundations/Fitness Mastery, a comprehensive fitness-based curriculum that provides participation in various activities and knowledge to enhance and maintain a healthy level of fitness. Students are encouraged to take electives based on their interests.

Students at all levels are given the opportunity to use pedometers, heart rate monitors, and other forms of technology to enhance their learning and to understand how exercise affects their bodies and helps maintain lifelong health.



The Challenge of Obesity



Office of Physical Education

Baltimore County Public Schools

"Mens Sana in Corpore Sano" "A Sound Mind in a Sound Body"

Quality instruction in education involves the whole child by providing psychomotor, cognitive, and affective benefits.

The Centers for Disease Control and Prevention (CDC)

In July 1994, the Office of the Surgeon General authorized the Centers for Disease Control and Prevention (CDC) to serve as lead agency for preparing the first Surgeon General's report on physical activity and health. The purpose of the report was to summarize the role of physical activity in preventing disease. The report concluded:

- People of all ages benefit from physical activity.
- Significant health benefits are obtained by moderate physical activity. Greater health benefits can be gained through greater amounts of physical activity.

Facts

The Surgeon General reports that after smoking, physical inactivity is the single largest health risk in the country today.

61% percent of overweight 5 to 10 year-olds already have at least one risk factor for heart disease and 26% have two or more risk factors.

Improper diet and/or inactivity kill 400,000 people per year.

97 million Americans are overweight or obese. The CDC estimates 64% of Americans are overweight. (17.1% ages 2-19)

In the last 20 years, the number of overweight children has doubled and the number of overweight adolescents has tripled.

Overweight and obesity result from energy imbalance. This involves eating too many calories and not getting enough physical activity.

Overweight adolescents have an 80% chance of becoming obese adults.

Physical activity improves academic performance.

Definitions

Obesity is defined as an excessively high amount of body fat in relation to lean body mass.

Overweight refers to increased body weight in relation to height.

Negative Effects of Obesity

Emotional and Social Harm

- Overweight children experience feelings of inadequacy, poor body image, and low self-esteem.
- Obese children suffer discrimination from peers, teachers, and family members.
- Overweight children cannot wear clothes identified as popular, nor can they move as flexibly or sustain the same energy levels as their peers.
- Overweight children and adolescents report negative assumptions made about them by others, including being inactive or lazy, being strong and tougher than others, not having feelings, and being unclean.
- Negative biases continue into adult life, as shown in college selection, job hiring, and future promotion.

Physical Harm

- As overweight children become adults, they face a high risk of cardiovascular diseases, diabetes, and other chronic diseases.
- Childhood obesity contributes to high blood pressure and cholesterol, arthritis, increased blood clotting tendency, clogging of the arteries, insulin resistance, and an increased risk of musculoskeletal injuries.

Solution

Increase physical activity and exercise in the daily lives of people at all ages.

Brain Research

Brain research clearly suggests the importance of physical activity and its relationship to improved academic performance.

Positive Effects of Physical Activity

- Helps build healthy bones and muscles.
- Improves muscular strength and muscular endurance.
- Helps control weight.
- Reduces anxiety and stress and increases self-esteem.
- Helps improve blood pressure and cholesterol levels.
- Reduces chance of colon cancer.
- Increases blood flow to the brain which improves academic focus.

Physical Activity and Youth

- All school-aged children (PreK-12) should be active on all or most days of the week.
- An accumulation of more than 60 minutes of activity per day is encouraged.
- Some of a child's daily physical activity should be in periods lasting 10-15 minutes or more and include moderate to vigorous activity.

The CDC recommends that parents:

- Encourage regular exercise.
- Be an active family-60 minutes or more each day (ie: walk, hike, bike, dance, skate, backpack, climb, kayak, etc.).
- Advocate for daily physical education.
- Promote after-school activities.
- Encourage sport participation.
- Provide a healthy diet.
- Limit TV, video games, and computer time to 1-2 hours a day combined.
- Encourage new activities.
- Give gifts that promote fitness (ie: heart rate monitors, pedometers, scooters, skates, jump ropes, etc.).
- Plan parties with active themes.

**Baltimore County Public Schools
Office of Food and Nutrition Services**

In accordance with Superintendent's Rule 3310, meals served by the Office of Food and Nutrition Services to students in all grade levels comply with the most recent dietary guidelines for Americans as published by the United States Department of Agriculture.

Snack Program:

Packaged snacks sold to students in the cafeteria at all grade levels are offered in a single-serving portion. The nutritional content of the snacks contain:

- No more than nine (9) grams total fat.
- No more than two (2) grams saturated fat.
- No more than fifteen (15) grams sugar, excluding dried fruit with no added sugar.

The sale of beverages is limited to:

- Bottled water.
- Non-carbonated flavored water with fewer than twenty (20) calories per serving.
- Unflavored milk.
- Flavored milk containing no more than thirty (30) grams of total sugar per eight (8) ounce serving.
- Fifty (50%) percent fruit juice providing one hundred (100%) percent vitamin C, not to exceed twelve (12) ounces.
- Isotonic beverages, not to exceed twelve (12) ounces.