



# **“Weighing the Problem”**

## **A BMI Screening Program**

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Roanoke County Public Schools  
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# Project Statement

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- Implement a BMI screening program in an effort to determine the prevalence of weight problems within our student population.
- Project was initiated by the SHAB



# Purpose

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- The initial outcome of this program was to establish baseline and comparative data to identify the existence of children who are overweight, at risk for being overweight, or underweight.
- An eventual outcome is to lower the number of students who have weight problems.



# Action Steps

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- Sub Committee formed from SHAB to develop plan
- Reviewed plans from other systems who have instituted similar screenings
- Presented plan to Superintendent for approval



## Action Steps - continued

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- Notified parents of upcoming screening
  - Done as part of existing vision and hearing screening at grades K, 3, 5, 7, 10
  - Notification letter already a part of yearly procedure



# Action Steps - continued

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- Acquired necessary equipment
  - Physician Scales with height measures
  - PDAs for recording data – Tungsten E
  - STAT Growth-BP™ - free software to calculate BMI and %BMI- <http://statcoder.com/>
  - Lap tops for processing data (Excel)
  
- Student data entered from county-wide data management system (Starbase)



## Action Steps - continued

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- Screenings are conducted in ...
  - 17 Elementary Schools – K, 3<sup>rd</sup>, 5<sup>th</sup>
  - 5 Middle schools – 7<sup>th</sup>
  - 5 High school – 10<sup>th</sup>



# Procedures for Screening

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- Done within 60 days of beginning of school year
- 2 teams of nurses
  - 1 team per school, 2 schools per day
- Screening included 3 separate stations
  - vision
  - hearing
  - height and weight
- Early retirees calculate BMI and BMI %





# Action Steps - continued

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- Results mailed to parents of all students screened.
- Mailings included...
  - Student's individual results  
height, weight, BMI and BMI %
  - Frequently Asked Questions
  - Resources
  - County-wide results of previous year's screening.

# Height and Weight Screening Report

Date:\_\_\_\_\_ School:\_\_\_\_\_ Teacher:\_\_\_\_\_

Student's Name:\_\_\_\_\_ Male / Female Grade:\_\_\_\_\_ Age:\_\_\_\_\_

Parent's Name:\_\_\_\_\_ Home Telephone:\_\_\_\_\_

Parent's Address:\_\_\_\_\_

## Screening Results:

Height:\_\_\_\_\_ (inches)

Weight:\_\_\_\_\_ (pounds)

Body Mass Index (BMI)\_\_\_\_\_

## Body Mass Index Percentile (BMI %):

\_\_\_ 95% and Above - Overweight

\_\_\_ 85% to 94% - At Risk of Overweight

\_\_\_ 6% to 84% - Healthy Weight

\_\_\_ 0% to 5% - Underweight

# HEIGHT AND WEIGHT SCREENING PROGRAM

## Frequently Asked Questions

### **What is Body Mass Index (BMI)?**

Body Mass Index (BMI) is a calculation based on height and weight that can be useful in screening persons for being underweight or overweight. Its use is recommended for both adults and children. For children and adolescents, the significance and interpretation of a Body Mass Index result depends on their age and gender.

### **What does a BMI that is over the 85<sup>th</sup> percentile mean?**

This means that your child's height/weight ratio is more or greater than 85% of children the same age and gender. This does not necessarily mean that your child is overweight. It does mean that for his or her given height, your child is in the range where, over time, he or she might become overweight.

If your child is heavily muscled, a high BMI might not be significant. However, children in a high percentile for body mass index are much more likely to be overweight adults. It is becoming increasingly clear that overweight adults are at greatly increased risk for high blood pressure, heart disease, diabetes and stroke. Children and adolescents may also be at risk for diseases before adulthood such as type II diabetes and asthma.

### **What does a BMI that is less than 5<sup>th</sup> percentile mean?**

This means that your child's height/weight ratio is lower or less than 95% of children the same age and gender. This does not necessarily mean that your child is underweight. Although it is possible for healthy children to be underweight, underweight status may be an indicator for an underlying health condition, such as inadequate nutrition, iron deficiency anemia, a growth abnormality or an eating disorder.

### **Why is the school nurse notifying me of this?**

We feel that this information may be useful to you. This BMI is just a screening tool, but it may be useful to your health care provider, since children with a high or low BMI may be at risk for medical problems.

### **What should I do if my child has a BMI of greater than 85% or less than 5%?**

If your child has a BMI greater than 85% or less than 5% we suggest that you discuss this with your health care provider. Your child's provider is the best person to determine whether there is a problem based on your child's medical history and previous growth patterns.

We have provided this information to you strictly for your family's benefit. We encourage you to discuss this information with your child's health care provider.

Additional information can be found:

[www.cdc.gov](http://www.cdc.gov) (do a search on BMI)

[www.healthierus.gov/dietaryguidelines/](http://www.healthierus.gov/dietaryguidelines/)

[www.mypyramid.com](http://www.mypyramid.com)



## Action Steps - continued

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- Analyze Data
- Presentation to Superintendent
- Presentation to School Board



# Things to consider...

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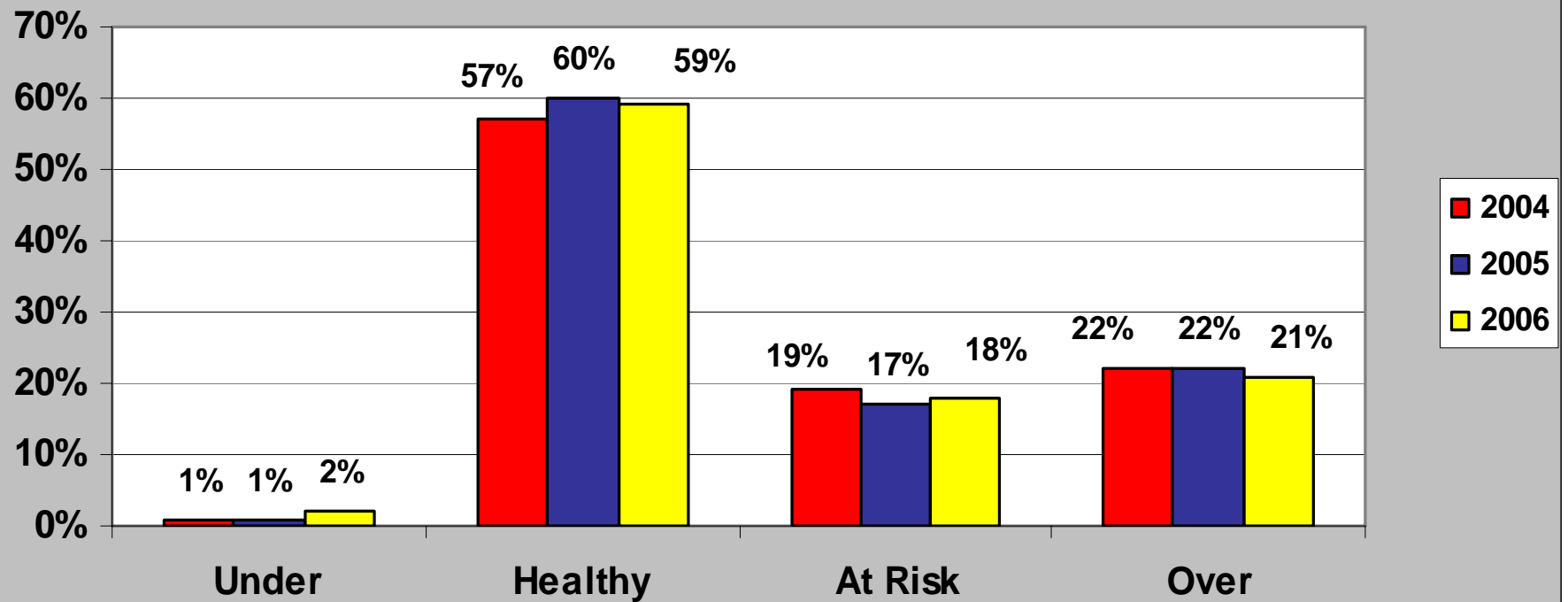
- 2006 first year to retest students from a previous grade level
- Implementation of the Wellness Policy in 2006-07



# Comparison of Data 2004-2006

Year	Category	Under		Healthy		At Risk		Over		Total
<b>2004</b>	Total M	2%	49	54%	1436	19%	509	25%	665	2659
	Total F	1%	20	60%	1596	19%	498	20%	514	2629
	Total- All	1%	69	57%	3032	19%	1007	22%	1179	5288
<b>2005</b>	Total M	1%	33	57%	1576	18%	480	24%	658	2747
	Total F	1%	23	62%	1697	17%	463	20%	550	2733
	Total- All	1%	56	60%	3273	17%	943	22%	1208	5480
<b>2006</b>	Total M	2%	58	57%	1512	18%	479	23%	603	2652
	Total F	2%	54	62%	1577	18%	457	19%	474	2562
	Total- All	2%	112	59%	3089	18%	936	21%	1077	5214

# Comparison of Data 2004-2006



Totals from all students screened



# Advocacy

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- School Health Advisory Board
- School Nurses
- Superintendent
- School Board
- Principals/teachers
- Local Pediatricians (yes and no)
- Parents





# Where Now?

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- Continue to gather and interpret data
- Consider using EZ BMI software
- Revise and refine resources sent to parents
- Tie future results to the implementation of the County Wellness Policy