



School Administrator Evaluations of a Statewide BMI Screening Program

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BACKGROUND

Numerous states and school systems throughout the country have adopted policies requiring body mass index (BMI) assessments of students. School based BMI assessment can serve many functions. At a population level, these assessments help to track childhood obesity trends and monitor the outcomes associated with interventions. At an individual level, these assessments provide the opportunity to identify at-risk students and to educate families so appropriate actions can be taken. School-based BMI assessments have been recommended by the Institute of Medicine (IOM) as an important obesity prevention strategy.¹ However, as noted in the CDC's Executive Summary on BMI Measurement in Schools, these programs are not without controversy and there is concern that school resources could be better spent.²

West Virginia (WV) is a state at the forefront of the obesity epidemic, with the fifth highest rates of adult and youth obesity in the nation.^{3,4} In response to this health crisis, the legislature passed the West Virginia Healthy Lifestyles Act (HB 2816), which established:

- (1) requirements for time spent in physical education,
- (2) limits on the types of beverages sold in schools,
- (3) fitness assessments,
- (4) health education and assessment requirements, and
- (5) BMI measurements for a sample of the student population to serve as an indicator of progress.

As is the case in many states where similar legislative mandates have occurred, school funding did not increase to accommodate the new requirements.

In WV, statewide BMI measurements are conducted through an active consent process for children in kindergarten, second, and fifth grades. Written informed consent is required from all parents, and written assent is required for fifth grade students, who received a fasting lipid profile, blood pressure assessment, and screening for insulin resistance in addition to the BMI measurement. Parents receive written reports of the screening that include recommendations for appropriate nutrition and physical activity.

OBJECTIVES

This paper provides information on school leaders' (superintendents and principals) perceptions of the BMI measurement and reporting process and on contacts they received from parents. These data were collected during the 2007–08 school year in conjunction with a broad, statewide, multi-component evaluation of the Healthy Lifestyles Act that was supported by the Robert Wood Johnson Foundation.

METHODS

We conducted a statewide electronic survey of all WV public school superintendents (N=56) and principals (N=698). When school leaders did not respond to electronic contacts and/or could not complete electronic surveys, paper copies were mailed. All superintendents and principals received an initial request to complete the survey followed by two reminders, if needed.

Survey questions addressed:

- (1) the impact of the legislation on school functioning,
- (2) policies related to child nutrition and physical activity,
- (3) perceptions of legislation implementation, and
- (4) community reactions to legislation components.

Surveys were received from 53 of 56 (95%) superintendents and 586 of 696 (84%) principals. The demographic characteristics of the superintendents and principals surveyed are provided in Table 1.

Administrator Impressions of BMI Assessments: WV school superintendents overwhelming endorsed the importance of measuring children's BMI in the schools. As shown in Figure 1, 94% of superintendents thought it was important for schools to assess BMI.

Notifying parents of children's weight status is the distinguishing feature between surveillance and screening programs, and one of the key decisions school systems must make when establishing a BMI measurement program. In WV, 90% of the school principals at all levels (elementary, middle, and high) believed parents should be told their child's weight status, which is consistent with the implementation of BMI assessment in the state. Although 25% of these principals indicated they did not have all of the necessary resources to conduct the measurements, only 8% viewed this component of the legislation unfavorably.

Administrator Reports of Parent and Community Impressions: The majority of superintendents (60%) indicated their communities had no reaction to the BMI measurement, whereas 26% reported a positive community response and 13% reported a negative community response. Among the superintendents, 21% reported being contacted by parents about the BMI measurement. As indicated in Figure 2, the largest proportion of superintendents characterized the contact from parents as generally positive but with specific concerns, and equal proportions characterized the contact as primarily positive or primarily negative; none characterized the contact as neutral.

Principal reports of parent contact about BMI assessment differed significantly from reports by superintendents ($p < .001$), although the proportions of principals and superintendents who had been contacted were similar. Of the 306 elementary principals whose students participated in the state-mandated BMI measurements (with parental permission), only 29% indicated they had been contacted by parents. As illustrated in Figure 2, principals reported significantly fewer negative contacts than superintendents.

RESULTS

Table 1. Demographic Characteristics of the Superintendent and Principal Survey Respondents.

	Superintendents		Principals	
Gender	64% male		54% male	
Race	98% White 2% Black		97% White 2% Black 1% Other	
Ethnicity	0% Latino		1% Hispanic	
Age	<i>M</i> age = 55 years Range = 40–65 years <i>SD</i> = 5 years		<i>M</i> Age = 50 years Range = 29–76 years <i>SD</i> = 8 years	
Education	77% master's degree 23% doctoral degree		97% master's degree 3% doctoral degree	
Experience in position	25%	< 1 year	6%	< 1 year
	36%	1–5 years	36%	1–5 years
	25%	6–10 years	23%	6–10 years
	15%	> 10 years	36%	> 10 years

Figure 1. Superintendent Ratings of the Importance of BMI Assessments in Schools.

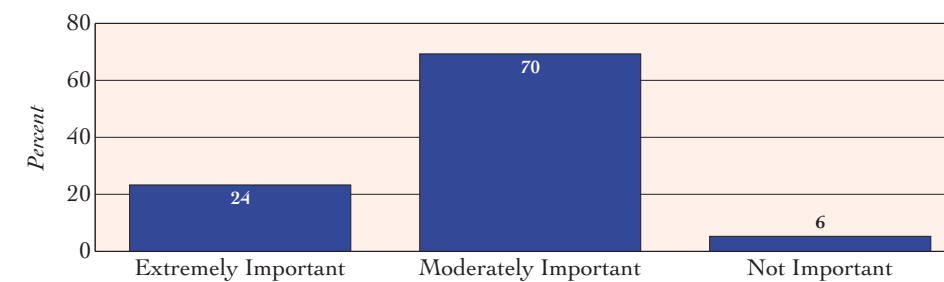
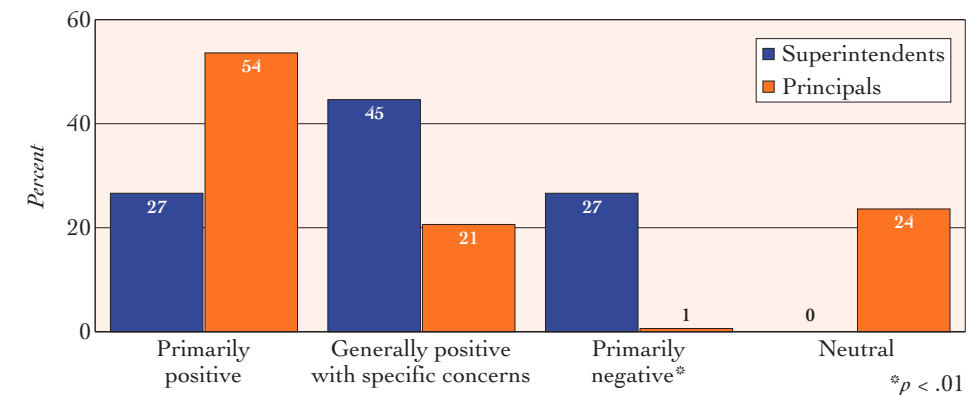


Figure 2. Superintendent and Principal Reports of Parent Contact About BMI Assessments in Schools.



CONCLUSIONS

Although school-based BMI assessments are one of the more controversial components of a public health response to childhood obesity, the experience in WV schools as reported by superintendents and principals has been generally positive. Factors that undoubtedly contribute to this appraisal are the use of limited, rather than universal, student BMI measurements and the active consent process. A disadvantage of the active consent method for school systems is the potential for bias among the students sampled, leading to uncertainty about whether the BMI findings accurately represent state (or district) levels of overweight and obesity. An additional disadvantage is that limited screening precludes the ability to educate all parents regarding the weight status of their children, as recommended by the IOM. When active consent is required for measurement, families with the greatest need may elect to not participate.

Other elements of the multi-component evaluation of the Healthy Lifestyles Act will address the representativeness of the BMI sample in West Virginia and the impact of providing weight status information to parents.

SUPPORT

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REFERENCES

- (1) Institute of Medicine. *Preventing childhood obesity: Health in the balance*. Washington, DC: The National Academies Press; 2005.
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