Body mass index measurement in schools: partnering with oral health

Reena Oza-Frank, PhD, RD[1]; Mark D. Siegal, DDS, MPH[2]

1 State Epidemiology Office, Ohio Department of Health, Columbus, OH
2 Bureau of Community Health Services, Ohio Department of Health, Columbus, OH

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Correspondence
Dr. Reena Oza-Frank, Ohio Department of Health, 246 North High Street, Columbus, OH 43215. Tel.: 614-995-5085; Fax: 614-644-8526; e-mail: reena.oza-frank@nationwidechildrens.org. At the time of this study, Reena Oza-Frank was with the State Epidemiology Office, Ohio Department of Health, and Mark D. Siegal was with the Bureau of Community Health Services, Ohio Department of Health.

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Abstract

Objectives: The purpose of this review was to examine methodological similarities and differences in states that have implemented joint school-based oral health/body mass index (BMI) surveillance.
Methods: Individuals in states with joint oral health/BMI surveillance were interviewed by e-mail and phone on the following: how the collaboration came about, survey methodology, rewards for participation, BMI data collection methods, data forms, BMI results, how BMI data were utilized, lessons learned, and challenges.
Results: Nine states were represented in this review (Colorado, Georgia, Illinois, Maine, New Hampshire, North Dakota, Ohio, Wisconsin, and Wyoming). All states collected surveillance data among third-grade children through selecting a random, stratified sample of elementary schools. These states also used state-specific BMI protocols, including use of standardized, calibrated equipment to measure height/weight. Many states also used local support to implement the surveillance program and used external sources for statistical support. Differences among these states included types of rewards used, mode of consent, and parties involved in the collaboration. The most common uses of the BMI data include: assessing the magnitude of the problem, informing programs, allocation of resources, identification of priority areas for prevention research, support for grant applications, and program evaluation.
Conclusions: Although there are some minor differences among states that have implemented joint school-based oral health/BMI surveillance, there are overarching similarities such as survey design and standardization of BMI measures. States considering implementing BMI surveillance efforts can use this review as a starting point to consider attributes such as program effectiveness and methods to improve or enhance surveillance systems already in place.

Introduction

Dental disease and obesity are two distinct and important child health concerns. Healthy People 2020 recognizes the significance of these health issues by including six dental disease-related and two obesity-related objectives for school-aged populations (1). Although distinct, both outcomes share contributing factors. Surveillance of both dental disease and obesity can identify populations at highest risk for both conditions, as well as strategies for joint prevention efforts.

At this time, 38 state oral health programs participate in the National Oral Health Surveillance System (NOHSS) (2), a collaborative effort between the Centers for Disease Control and Prevention (CDC) and the Association of State and Territorial Dental Directors (ASTDD) (3). The survey's purpose is to monitor the burden of oral disease, use of the oral health care delivery system, and the status of community water fluoridation on both a national and state level (4). The survey has nine oral health indicators, three of which are specific to third-grade children, measured through state-level, standardized, cross-sectional, descriptive open-mouth oral health assessments conducted in elementary school settings (5).

Although the NOHSS has a long history, the implementation of body mass index (BMI) surveillance in schools is

relatively new because of recent increasing concern with childhood obesity. National data indicate that, based on BMI measurements, 31.7 percent of US 2-year-old children and 19-year-old adolescents are currently overweight or obese (≥85th BMI-for-age percentile) (6). During childhood, high BMI may lead to elevated lipid concentration, blood pressure (7), and glucose (8). Obesity often tracks into adulthood, increasing risk of many chronic conditions including diabetes, cardiovascular disease, and certain cancers (9). Although most states collect BMI data on adolescents through the Youth Risk Behavior Surveillance System (10) and on children from low-income families through the Pediatric Nutrition Surveillance System (11), BMI of school-aged children has historically been lacking. Some states have sought to bridge this gap by collecting BMI surveillance data in conjunction with school-based oral health surveys. This approach may control costs and minimize school disruption while at the same time allow states to assess the extent of the problems, trends, and the impact of public health interventions.

Partnerships between BMI and oral health have been identified as hybrid BMI surveillance models (12), which can serve as a substitute for school- or registry-based BMI surveillance systems (13). Despite recognition of this as a BMI surveillance model, there has been no review examining methodological similarities and differences in states that have implemented joint school-based oral health/BMI surveys. This review can assist state-level planners in determining how to implement a joint survey and maximize the use of state resources.

Methods

In order to identify states conducting combined oral health/BMI surveillance, an inquiry was sent to the ASTDD listserv ("We are interested in learning what states are collecting height/weight/BMI information from schools in conjunction with oral health surveys."). The ASTDD is a national nonprofit organization, with membership consisting of the chief dental public health officer (state dental director) of the state health department or equivalent agency (14). This individual is in charge of all oral health surveillance activities within their state and would be the most reliable source of such an inquiry.

Responding states conducting combined surveillance within the past 5 years (during any academic school year between 2004-05 and 2009-10) and without state-legislated school-based BMI measurement programs (as of 2009) were included in the review. States with legislation to collect BMI were excluded because these are often screening-based programs, rather than surveillance-based programs.

Responses were voluntary, and individuals in states meeting inclusion criteria were interviewed by e-mail and phone. The interview included information on the following: how the collaboration came about, survey methodology, rewards for participation, BMI data collection methods, data forms, BMI results, how BMI data were utilized, lessons learned, and challenges. Each state received approval from their individual institutional review boards (IRBs) unless the project was determined to be surveillance, not research, in which case exemption status was determined.

Results

Nine states were represented in this review [Colorado (CO), Georgia (GA), Illinois (IL), Maine (ME), New Hampshire (NH), North Dakota (ND), Ohio (OH), Wisconsin (WI), and Wyoming (WY)].

How the collaboration came about

In two states, the collaboration was initiated by the state's oral health program (GA, WI), and in one state (CO), it was initiated by the state's nutrition program. In the other states, the collaboration was a mutual effort between some combination of maternal and child health, oral health, and/or nutrition/physical activity programs (IL, ND, WY), or by higher level leadership (ME, NH, OH).

Surveillance methodology

All states conducted combined oral health/BMI surveillance among third-grade children (Table 1). The Basic Screening Survey (BSS) for oral health surveillance served as the basis for the survey design for each state. Specifically, each state selected a random, stratified sample of elementary schools in their states (Table 1). All states selected a replacement school if participation was declined; in ME and WY, no replacement was chosen. All states except one (ME) stratified by the free and reduced price meal program enrolment (FRPM). Six states (IL, NH, ND, OH, WI, WY) additionally stratified by a geographical unit (i.e., region, county type), and one (IL) additionally stratified by race/ethnicity (Table 1).

The most common method of gaining permission from schools was sending a letter from the state health department to a combination of the superintendent, principal, and/or school nurse. IL was the exception and used community health partners to contact schools. This was in addition to a letter of support from the state's department of education. WY also sent a letter on behalf of the state dental director (data not shown).

Rewards for surveillance participation

Rewards were offered depending on level of participation. To increase participation at the school level, ME offered $50 to

Table 1 Oral Health/BMI Surveillance Methods by State

State*	Years data collected	Grade(s)	Survey sample	Stratification	Rewards ever provided	Consent type	Number of schools participating	Sample size	Student participation rate	BMI results	Data sharing
CO	2006-07	K and third	Representative, random sample of elementary schools with a third-grade classroom	FRPM eligibility	Student level: toothbrush, sticker, coloring pages	Passive, unless active requested	49	3,023	84% in K; 79% in third grade	Overweight/obese† = 25%	School level
GA	2004-05	Third	Representative, random sample of elementary schools with a third-grade classroom of at least 25 students	FRPM eligibility	Classroom level: pizza parties for most consent forms; Student level: oral health promotional packets	Active	57	2,961	51%	Obese‡ = 24%	State level
IL	2003-04; 2008-09	Third	Representative, random sample of elementary schools with a third-grade classroom	FRPM eligibility; county level, city of Chicago, county type rest of state (urban, metro, rural, collar); race/ethnicity	Student level: toothbrush, toothpaste, dental floss	Active	99§	6,630§	72%§	Overweight¶ = 18% male and 18% female; obese‡ = 24% male and 17% female§	School level
ME	2004-05; 2009-10	2004: K and third; 2009: K, third, fifth	Representative statewide cluster sample	Grade	School level: $50	Active for K and third, passive for fifth	109•	2,833•	46%•∞	Overweight/obese† = 37% male and 35% female•	School provides BMI data to student; data aggregated and provided to Maine Center for Disease Control and Prevention
NH	2008-09	Third	Representative statewide cluster sample of elementary schools with 15 or more students enrolled in third grade	FRPM eligibility and region	School level: regional-level report	Passive or active, at school's discretion	81	3,082	Passive: median 89%; active: median 57%; overall: 65%	Overweight¶ = 15%; obese‡ = 18%	State level
ND	2004-05; 2009-10	Third	Random sample of elementary schools with five or more third grade students; 11 American Indian schools with 15 or more third graders	FRPM eligibility; urban/rural region	None	Passive	50•	1,015•	73%•	Overweight¶ = 18%; obese‡ = 19%•	School level
OH	2004-05; 2006-07; 2007-08; 2008-09; 2009-10#	Third	Cluster, stratified sample of elementary schools with a third grade	FRPM eligibility; county type	Student level: toothbrush, sticker; classroom level: nutrition education curriculum to each teacher	Active	387•	14,450•	Dental only: 53%; BMI only: 55%; overall: 56%•	Overweight¶ = 17%; obese‡ = 19%•	State/county level
WI	2007-08	Third	Random, representative sample of public schools with at least 10 third-grade students	FRPM eligibility; public health region	None	Passive, unless active requested	93	4,413	90%	Overweight¶ = 15%; obese‡ = 13%	State level
WY	2008-09; 2009-10	Third	Representative, random sample of elementary schools with a third-grade classroom	FRPM eligibility; three regions; school size	Student level: toothbrush	Active in 2008-09; passive in 2009-10	42**	1,548**	78%**	Overweight¶ = 16%; obese‡ = 16%**	State level

* Table information provided by individual state programs.
† Overweight/obese = ≥85th BMI percentile.
‡ Obese = ≥95th BMI percentile.
¶ Overweight = 85th-<95th BMI percentile.
§ Based on 2003-04 data.
• Based on 2004-05 data.
∞ Rate includes kindergarten and third grade together.
Ohio collected county- and state-level data in 2004-05 and 2009-10; between 2006 and 2009 state-level data were collected (19).
** Based on 2009-10 data.
K, kindergarten; BMI, body mass index; FRPM, free and reduced price meal program.

the school. NH offered regional-level reports to all schools that participated. OH offered a school-level report if ≥75 percent of consent forms were returned and, at the classroom level, offered a nutrition education curriculum to each teacher whose classroom participated. In GA, a few survey districts offered pizza parties to the classrooms with the most returned consent forms. At the student level, five states (CO, GA, IL, OH, WY) offered toothbrushes, dental floss, stickers, coloring pages, and/or oral health educational packets for the children to take home (Table 1). ME also entered all responding parents into a drawing for two $100 grocery gift certificates.

BMI data collection methods

Individuals designated by the state to collect the height/weight measures were trained on state-specific protocols. In four states (CO, GA, IL, NH), public health or volunteer dentists and/or dental hygienists collected the height/weight data. All other states used staff and health professionals (e.g., nurses, registered dietitians, nutritionists) from schools or state/local health departments to measure the children. The equipment used by each state was standardized and calibrated to enhance data quality (data not shown).

Data forms

Data forms for each state were adapted from the BSS. Several states used scannable forms (GA, IL, ME, OH, WI). Five states employed an active consent process (GA, IL, ME, OH, WY), which requires the parent or guardian to signify in writing their permission for the minor to participate in the study (Table 1). Three states (CO, NH, WI) employed a passive consent process, which assumes that the parent or guardian has consented unless some action is taken, such as a signed letter retracting permission. Regardless of consent type, three states (CO, OH, WY) provided parents with the option of participating in oral health and BMI separately. The most common type of data collected on the form was demographics (date of birth, sex, race/ethnicity) from parents (active consent) or school roster (passive consent). For those schools with active consent, parents were also asked about the FRPM program participation and dental care/history. Four states (NH, ND, ME, OH) additionally asked about physical activity and/or nutrition behaviors such as television viewing or milk/sugar-sweetened beverage consumption. Data analyses were typically conducted by epidemiologists at the state health department (CO, GA, IL, ND, OH, WY), but universities (CO, IL, ME), the ASTDD (GA, IL, ME, NH, ND), local coalition members (IL), and fellows (NH, OH, WY) also assisted.

BMI surveillance results

The number of schools surveyed in each state ranged from 30 to 387 (sample size of children ranging from 1,198 to 14,450). The range of student participation among states with active consent was 46-72 percent, whereas the range for passive consent was 73-90 percent. For those states with passive consent, active consent was used if preferred by an individual school. Across states, overweight prevalence ranged from 15 percent to 18 percent; obesity prevalence ranged from 13 percent to 24 percent; and the combined overweight/obesity prevalence ranged from 25 percent to 37 percent (Table 1).

How BMI data were utilized

The most common uses of the BMI data include: assessing the magnitude of the problem and changes over time, informing programs, allocation of resources, identification of priority areas for prevention research, support for grant applications, and program evaluation. The BMI data were also used for data sharing at the individual, school, and state/county level (Table 1).

Lessons learned

The main lessons learned by the state programs in implementing the height/weight data collection included: start planning in the spring/summer before the school year data collection is to begin, use school registration in the spring to get consent of parents for the following school year, offer better rewards (i.e., spin brushes used in IL) to increase response rate, involve more community partners (i.e., dental associations), improve coordination efforts with local health departments, use passive consent instead of active to increase participation, consider state size relative to survey size as a planning component for workload, conduct periodic trainings on data collection procedures throughout the data collection period, and develop better contingency plans for competing public health issues.

Challenges

The commonly cited challenge was that school schedules (e.g., standardized testing, holidays) interfered with survey scheduling. Communication with schools was also reported to be challenging, specifically with regard to identifying the correct contact at the school (e.g., principal versus school nurse). Lack of local health department support or participation created challenges to administering the survey effectively. If using personnel other than dentists/hygienists to measure height/weight, coordinating staff/local schedules was difficult. Finally, the survey consumes a lot of time, yet

staff workloads remain the same, resulting in periods of low productivity on work outside of survey.

Discussion

This review summarized the methodological similarities and differences among states that have implemented joint school-based oral health/BMI surveys. We found several similarities across states, namely, in use of BMI protocols to train height/weight measurers, use of standardized and calibrated equipment to measure height/weight, use of local support, and use of external partners for statistical support. However, there were also a few differences, specifically in terms of rewards used and type of consent used.

The CDC has previously reviewed state-legislated school-based BMI measurement programs, for either screening or surveillance purposes (15). Another recent publication listed states collecting BMI data (16); however, this publication did not include six states identified in this review (CO, NH, ND, OH, WI, WY). Although the present review was not meant to be a comprehensive list of states with joint oral health/BMI surveys, it does highlight additional states that are currently collecting BMI data for surveillance purposes but not represented in the literature. This review provides such programs with visibility beyond individual state-level reporting, and allows state agencies and policy makers to consider attributes such as program effectiveness and methods to improve or enhance surveillance systems already in place.

The state programs included in this review highlight that state school-based legislation is not required to implement ongoing BMI surveillance among school-aged children. Despite this, the role of legislation in the collection of oral health and BMI data may be of interest to policy makers in states considering such approaches. There is currently no evidence on whether the quality of BMI data collected from states with school-based legislation is better than the quality of BMI data collected from states without legislation. Three states included in this review (IL, ME, OH) have state school-based legislation related to the collection of BMI data. Neither ME nor OH statutes with BMI language actually mandate BMI data collection because they did not include funding. IL has state legislation to collect BMI data in schools (passed in 2004); however, those data are separate from the data collected through the joint oral health/BMI survey.

Overall strengths to the combined surveillance effort include the minimization of costs and the reduction of the number of intrusions on schools. Additionally, previous work has shown that third-grade BMI is representative of elementary school-aged children, allowing accurate state-level estimates of childhood obesity using smaller sample sizes (17). Additionally, parents typically underestimate their child's weight status, and measuring children directly eliminates potential recall bias (18). There are, however, limitations to the combined surveillance efforts. Not every state conducts an oral health survey, and thus, this may not be a viable option for such states. Oral health surveys do not occur every year, and each state will need to determine if frequency of surveillance meets their individual needs.

With regard to the state-level survey methodology, there are additional limitations that need to be considered. Student participation varies greatly depending on consent type. States with active consent have lower student participation rates; however, active consent procedures allow additional information to be asked of parents on nutrition and/or physical activity, allowing more thorough analyses on determinants of BMI. States with passive consent may have higher participation but must rely on the school or state departments of education to provide basic demographic information necessary to accurately calculate BMI percentile (date of birth, sex). States should consider the grades they are interested in and which consent process would be more appropriate. States should also consider that consent procedures rely on IRB approval, especially if there are academic partners, and state and local standards influence IRB acceptance of surveillance rationale.

Aside from transitioning from active to passive consent, another way to increase participation is to offer better rewards. States with passive consent may focus more on school-level rewards, to avoid schools declining participation. States with active consent may focus more on rewards across levels (school, classroom, and student) to increase participation. Although ME offered $50 to schools that participated, it is important to note that their state survey is much more comprehensive than other states, resulting in a larger pool of resources from which to draw from to offer rewards. An interesting finding regarding rewards is that in ND and WI, where no rewards were offered at any level, passive consent still resulted in $\geq$70 percent participation. Thus, participation may still be more dependent on consent type rather than rewards offered.

Limitations and strengths

The main limitation of this study is that we may not have captured all states engaging in combined oral health/ BMI surveillance because responses to our listserv inquiry were voluntary. However, state dental directors are the main contact for information on oral health surveys and would be aware of what activities related to their state's own surveillance activities. A related limitation is that states may not have the capacity to publish in peer-reviewed journals, limiting our ability to identify states outside the listserv.

Such biases in reporting limits not only researchers in their work, but also state employees from identifying new, low-cost mechanisms through which to enhance their current programs. Thus, there are two main strengths of this study. First,

we identified states conducting joint oral health/BMI surveillance. Other states interested in pursuing this method for BMI surveillance now have further information. Second, we summarized methodologies used by the nine states included in this review. Interested states can use specific examples from this review to initiate discussions at their own agencies on methods to employ and partners to engage. More importantly, interested states can learn how to avoid, address, and anticipate challenges previously faced by the states included in this review. No other resource with this type of information currently exists in the literature.

There is potential for future research on data collected through such combined surveillance efforts. Specifically, data collected by states using such similar methodologies could be aggregated, supplementing and enhancing ongoing national surveillance (i.e., the National Health and Nutrition Examination Survey). As more states consider and implement common methods to conduct BMI surveillance, state programs have the potential to expand and enhance sustainability through improved interstate communication.

Conclusion

Although there are some minor differences among states that have implemented joint school-based oral health/BMI surveillance, there are overarching similarities such as survey design and standardization of BMI measures. States considering implementing BMI surveillance efforts can use this review as a starting point to consider attributes such as program effectiveness and methods to improve or enhance surveillance systems already in place. Resources may not be available for initiating new, comprehensive, ongoing surveillance systems. Thus, systematic sampling methods to select schools and grade levels, such as those already employed in oral health surveys, can be used to incorporate data collection of other health measures, such as BMI. Such data are essential for making comparisons across and within the state, and to determine the need for public health action.

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References

1. US Department of Health and Human Services. Healthypeople.gov. 2010 [cited 2010 Mar 18]. Available from: http://www.healthypeople.gov/2020/default.aspx.
2. Centers for Disease Control and Prevention. States with programs for oral health surveys. 2010 [cited 2010 Mar 18]. Available from: http://apps.nccd.cdc.gov/synopses/ProgramDataV.asp?ProgramID=20.
3. Association of State and Territorial Dental Directors. Data collection, assessment and surveillance committee. 2011 [cited 2010 Mar 18]. Available from: http://www.astdd.org/data-collection-assessment-and-surveillance-committee/.
4. Centers for Disease Control and Prevention. National Oral Health Surveillance System: about NOHSS. 2008 [cited 2010 Aug 17]. Available from: http://www.cdc.gov/NOHSS/about.htm.
5. Centers for Disease Control and Prevention. National Oral Health Surveillance System: data sources. 2010 [cited 2010 Aug 17]. Available from: http://www.cdc.gov/nohss/DSMain.htm.
6. Ogden CL, Carroll MD, Curtin LR, Lamb MM, Flegal KM. Prevalence of high body mass index in US children and adolescents, 2007-2008. *JAMA.* 2010;**303**:242-9.
7. Freedman DS, Mei Z, Srinivasan SR, Berenson GS, Dietz WH. Cardiovascular risk factors and excess adiposity among overweight children and adolescents: the Bogalusa Heart Study. *J Pediatr.* 2007;**150**:12-7.
8. Weiss R, Taksali SE, Tamborlane WV, Burgert TS, Savoye M, Caprio S. Predictors of changes in glucose tolerance status in obese youth. *Diabetes Care.* 2005;**28**:902-9.
9. National Institutes of Health. Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults: the evidence report. *Obes Res.* 1998;**6**(Suppl 2):51-209S.
10. Centers for Disease Control and Prevention. Healthy youth! 2011 [cited 2010 Aug 17]. Available from: http://www.cdc.gov/HealthyYouth/yrbs/brief.htm.

11. Centers for Disease Control and Prevention. Who participates in PedNSS? 2010 [cited 2010 Aug 17]. Available from: http://www.cdc.gov/pednss/what_is/pednss/who_participates.htm.
12. Longjohn M, Sheon AR, Card-Higginson P, Nader PR, Mason M. Learning from state surveillance of childhood obesity. *Health Aff.* 2010;**29**:463-72.
13. Margellos-Anast H, Shah AM, Whitman S. Prevalence of obesity among children in six Chicago communities: findings from a health survey. *Public Health Rep.* 2008;**123**(2):117-25.
14. Association of State and Territorial Dental Directors. About ASTDD. 2010 [cited 2010 Mar 18]. Available from: http://www.astdd.org/about-us/.
15. Nihiser AJ, Lee SM, Wechsler H, McKenna M, Odom E, Reinold C, Thompson D, Grummer-Strawn L. BMI measurement in schools. *Pediatrics.* 2009;**124**:S89-97.
16. Trust for America's Health, Robert Wood Johnson Foundation. F as in fat: how obesity threatens America's future. 2010 [cited 2010 Aug 31]. Available from: http://healthyamericans.org/reports/obesity2010/Obesity2010Report.pdf.
17. Nellist K, Coats K, Friedrichs M. Using a representative sample of elementary school students to determine the statewide prevalence of childhood overweight and obesity in Utah. *Prev Chronic Dis.* 2009;**6**:A132.
18. De La OA, Jordan KC, Ortiz K, Moyer-Mileur LJ, Stoddard G, Friedrichs M, Cox R, Carlson EC, Heap E, Mihalopoulos NL. Do parents accurately perceive their child's weight status? *J Pediatr Health Care.* 2009;**23**:216-21.
19. Conrey EJ, Hade EM, Norton A, Scarpitti H. Methods for a survey of overweight and obesity coordinated with oral health surveillance among Ohio third-grade students. *Prev Chronic Dis.* 2009;**6**:A08.