
Measuring Childhood Obesity:

Public Health Surveillance OR School-based
Screening and Parent Notification?

Minnesota Department of Health

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March 24, 2008, 10:00 - 11:30 AM
University of Minnesota Coffman Memorial
Union

Measuring Childhood Obesity in Minnesota:

What data sources does Minnesota
currently have to measure
childhood overweight and obesity?

Measuring Childhood Obesity in Minnesota: Limited Data Sources

- **Minnesota Student Survey (MSS)** – Given every three years to public school 6, 9 and 12th grade students statewide
- **New Height/Weight Question for 9th and 12th Grades Only** – In 2007:
 - 9th grade males and females: 27 percent and 18 percent, reported being overweight or obese
 - 12th grade males and females: 26 percent and 17 percent, reported being overweight or obese
- **Gaps:** Self-Report (under estimates) and only covers adolescents over age 13

Measuring Childhood Obesity in Minnesota: Limited Data Sources

- **Pediatric Nutrition Surveillance System** -- Children Enrolled in WIC Supplemental Nutrition Program for Women, Infants, and Children – In 2004:
 - 13.8 percent of pre-school WIC population (age 2-5) was overweight and 16.9 percent were obese
 - About half of all babies born in Minnesota are enrolled in WIC
- **Gaps:** Only WIC enrollees (low-income, not representative of population) and only ages 2-5

Measuring Childhood Obesity in Minnesota: Limited Data Sources

- Minnesota lacks scientifically sound data representative of the entire child population
- No data for children ages 6-13
- Children need to be measured
- Self-report is unreliable

Growing Interest in Childhood Obesity in Minnesota: 2006 - 2008

- *Minnesota Task Force on Childhood Obesity (2006)*
- Governor's Call to Action: Reduce Childhood Obesity by 50% by 2012 (in five years)
- Minnesota state legislative interest in topic
 - 2008 State Childhood Obesity Surveillance System Legislation
 - Driver = growing and unsustainable health care costs
- January 2008: CDC and RWJF convened Expert Panel in Washington DC (National)
- Minnesota Childhood Obesity Steering Committee (2007)
 - Prioritize Minnesota Task Force Childhood Obesity Recommendations
 - Develop 5-year Action Plan to Reduce Childhood Obesity
 - Goal to work towards achieving Governor's reduction goal

Minnesota Childhood Obesity Five-Year Action Plan

- Three Key Focus Areas :
 - School Wellness Environment
 - Establish policies to ensure adequate time in the school setting for physical activity, physical education and recess
 - Create school environments that support and encourage healthy food choices
 - Community Partnerships
 - Establish and support community-based partnerships and programs to address social, economic, and environmental barriers that increase childhood obesity prevalence
 - **Statewide Measurement**
 - **Create a state childhood obesity measurement system**

Childhood Obesity Measurement Action Plan – Key Questions

- What is the goal of collecting this data and how will we use the data?
 - to identify the scope of the problem in Minnesota and monitor trends over time?
 - to identify and treat overweight children?
- Each option offers its own set of advantages, disadvantages, and issues to consider
- One strategy may not address all possible goals

Action Plan: Childhood Obesity Measurement System

- What is the goal of collecting the data and how will we use the data?
 - Need for a baseline measure
 - Need to measure trends and progress in reducing childhood obesity over time

Childhood Obesity Measurement Action Plan -- Definitions

- **Definition of Public Health Surveillance**
 - Involves collecting BMI on a representative sample of Minnesota children to determine baseline and track obesity population trends over time
 - Data provide important information about the status of children as a whole in Minnesota
 - Over time data help us assess if policies, environmental change strategies and programs are reducing childhood overweight and obesity.

Childhood Obesity Measurement Action Plan -- Definitions

■ **Definition of Screening System**

- Measure and assess the health status of individual children, identify those at high-risk
- Allow follow-up and referral to medical care and community services to help overweight or obese children
- Screening and follow-up systems cost more than public health surveillance systems
 - measure all children
 - require tracking systems, follow-up/referral to services.

Childhood Obesity Measurement Action Plan – Cross Cutting Issues

- **Sensitivity:** child obesity, private data collection, adverse family relations, teasing, labeling, self-esteem, unhealthy dieting behaviors, eating disorders
- **Data collection issues:** training staff, data protocol, data accuracy, equipment calibration
- **Use of surveillance data:** identifying ways to analyze and disseminate data on childhood obesity
- **Privacy and security:** data privacy laws for personal health information (Health Insurance Portability and Accountability Act, HIPPA, and Family Educational Rights and Privacy Act, FERPA)

Childhood Obesity Measurement Action Plan – Cross Cutting Issues

- **Use of screening data:** identifying youth at-risk, methods for conveying health information to parents, staff training, follow-up provided to youth, database management
- **Identifying which organizations are responsible:** to collect data, conduct surveillance/screening, provide follow-up to youth at-risk
- **Estimating cost and securing funding:** for collecting data, conducting surveillance/screening, providing youth follow-up
- **Developing and maintaining infrastructure:** to implement activities including cost for staff time, equipment, data management, systems for referring youth at-risk

Childhood Obesity Measurement Action Plan – Data Source Options

- Range of BMI Measuring Options and Setting
 - Surveillance Data Sources
 - Screening Data Sources
- Advantages
- Disadvantages
- Key Partners
- Cost Considerations

Childhood Obesity Measurement Action Plan – Overview Data Options

- Sample Children in School--Representative sample to provide population trends over time (Texas model)
 - **Surveillance data collected in schools**
- Universal BMI screening conducted in schools (Arkansas model)
 - **Universal screening data collected in schools**
- Electronic health records (EHRs) collect data through annual physicals and well child screenings
 - **Surveillance or universal screening data collected in clinics**
- Self-Report Height and Weight Surveys
 - Behavioral Risk Factor Surveillance System (BRFSS)
 - **Surveillance data collected via phone survey of MN adults**
 - Minnesota Student Survey (MSS)
 - **Surveillance (MN student population data) collected in schools**

Childhood Obesity Steering Committee Conclusions: Measurement System

- **Start with Surveillance, Not Screening**
 - Aligns with public health framework
 - Less costly and resource intensive
 - Start with scientifically sound state representative data that tracks trends
 - Build public support for BMI as a vital health sign
 - Future: Minnesota's 2015 Legislated Mandate for Interoperable Electronic Health Records (EHR) System will expand access to clinical system obesity data
- **Convene State Work Group to Review Best Practices and Make Recommendations for a Surveillance System**

Childhood Obesity Steering Committee Conclusions: Measurement System

- Developing a statewide system to measure childhood overweight will require:
 - state financial support
 - investment and support from the systems assigned to collect the data
 - collaboration across sectors and organizations
 - sensitivity to data privacy concerns

Barriers to School-based Childhood Obesity Measurement Systems

- Minnesota Association of School Administrators (MASA)
- Surveyed Administrators Regarding BMI Collection in Schools:
 - Schools lack basic financial resources and are overloaded with many tasks
 - “Leaders in a system drained of required resources have great difficulty in facilitating very basic programming”
 - Current education funding structure is insufficient
 - Unfunded mandates take away from an already suffering core curriculum
 - Burden of federal and state mandates including, but not limited to, No Child Left Behind

Barriers to School-based Childhood Obesity Measurement Systems

- MASA Survey of School Administrators:
 - Lack of support from the community
 - Parents/families often oppose having their children measured due to cultural and personal sensitivity
 - School staff become targets of disgruntled parents and communities who do not value measuring children
 - Delegitimizing parental responsibility for health and wellness of their children
 - Schools have escalated responsibility “to fulfill other various roles required to create the whole child,” beyond their primary role to teach core academic subjects
 - BMI measurement should be left to medical professionals
 - “Resistance to BMI measurement system is not due to an opinion that it is a petty affair, but a reflection of the current overload of tasks within schools”

Suggestions for Addressing Childhood Obesity and Obesity Measurement in Schools

- MASA Survey of School Administrators:
 - Formulate innovative programs that have the power to benefit the system and the community as a whole
 - Build on existing programs
 - Make core health curriculum accommodate learning about and encouraging BMI measurement
 - Make BMI measurement a requirement for current student physicals upon entering certain grade levels
 - Use Early Childhood Family Education as a tool in teaching about healthy lifestyles and providing life skills to parents and young children

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