Effective Collaboration between a UCEDD and a Local Health Department: Assessing BMI Among Children in Special Education in Missouri, Montana

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Abstract

The **Health Fundango Program**, conducted by the local health department (LHD) in Missoula County, MT, was developed to assess the BMI of students throughout the county, and NACCHO provided support to extend healthy weight supports to special education students.

This presentation describes an effective partnership between a UCEDD and a local health department, and provide some insight on the functions of local health departments more broadly.

Background

- Obesity rates for children with disabilities are 38% higher than for children without disabilities (2008 BRFSS)
- Health research for children with developmental disabilities shows progressive decrease in quality of life scores as BMI's rise.
- 50.8% of children receiving special education services were overweight or obese (1999-2002 NHANES)

Program Focus

- Assess: How do rates of underweight, healthy weight, overweight and obesity for students in special education compare with students not in special education?
- Assurance: How can environments where students live, learn, work and play support healthy lifestyles?
- Policy Development: How can laws, local ordinances and institutional policies support healthy lifestyles of students?

Program Design

- Two cross-sectional convenience samples of public school students: 1) 2010-2011 (n=1,889); 2) 2013-2014 (n=1,789)
- Recruitment: Standard components and variable components tailored to school and school district preferences
- Phase 1 Student Descriptions: age, gender, grade level, special education status, and school type (elementary, middle school, high school, K-8).
- Phase II Student Descriptions: free and reduced-lunch status, race and ethnicity status (82% white; 9.4% AI/AN; 3.5% Hispanic/Latino; 3% African American; 2% Asian; 1% PI/HN), special education status, and school type (elementary, middle school, high school).

Program Methods

- LHD trained staff developed inclusive methods for assessing BMI data with all students. Trained staff and approximately 20 nursing and health and human performance students on methods and to be involved in assessments.
- BMI Percentiles were calculated using CDC guidelines. Participants were classified by healthy weight categories as follows:
  - **Underweight**: Less than 5th percentile
  - **Healthy Weight**: 5th percentile to less than the 85th percentile
  - **Overweight**: 85th to less than the 95th percentile
  - **Obese**: Equal or greater than the 95th percentile
- Data collected resulted in information referrals, sample descriptions (targeted surveillance as proxy for population descriptions), and program improvements.

Results: Phase 1

At some schools, only students with IEPs participated; at other schools all students participated.

Figure 1a. IEP and non-IEP Student Mean BMI Percentile

Percentage of respondents (%)

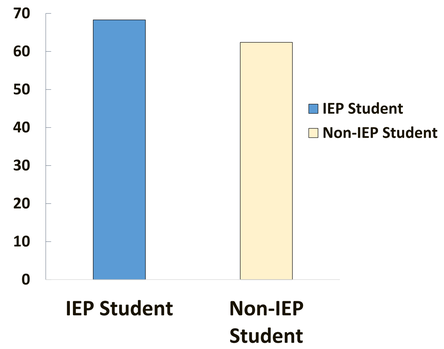
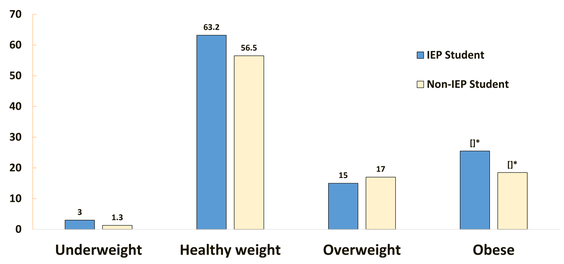


Figure 1b. IEP and non-IEP Student Weight Status

Percentage of respondents (%)



(* Indicates a significant difference at the $p<0.05$)

Preliminary Results: Phase 2

Participants represented:

53.2% of elementary school students with IEPs

76.7 % of middle school students with IEPs

37.3 % of high school students with IEPs

(*Do not have total student census for each school yet.*)

Figure 2a.

For elementary, middle, and high school, percentage of respondents eligible for Free and Reduced Lunch, American Indian/Alaskan Native, and Male by IEP status (%)

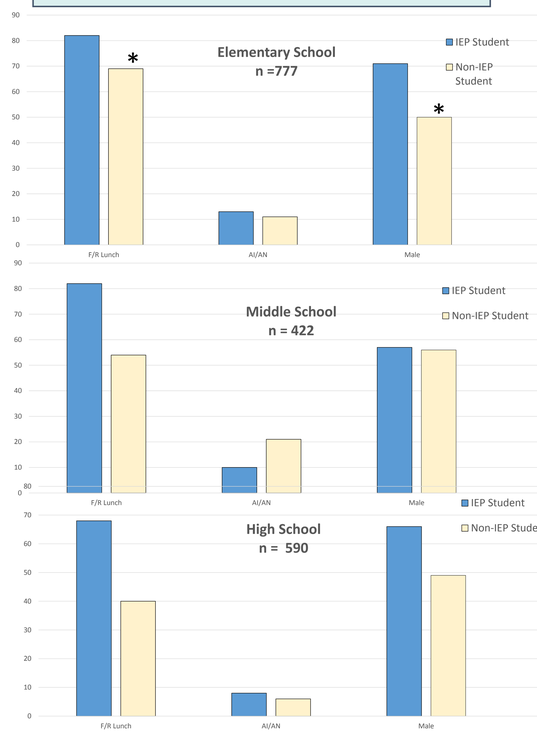


Figure 2b.

For elementary, middle, and high school, percentage of respondents who are a healthy weight, are overweight, and are obese by IEP status (%)

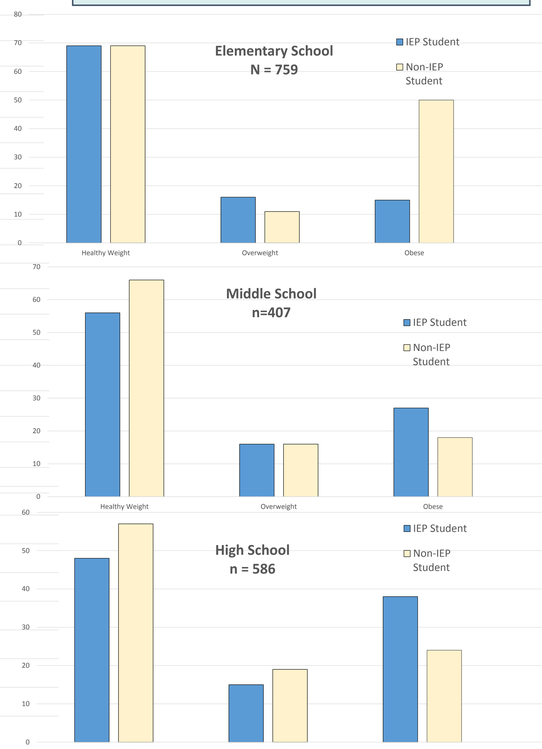


Figure 2c.

For elementary, middle, and high school, percentage of respondents who are a healthy weight, are overweight, and are obese by Free/Reduced Meal Eligibility (%)

Recommendations

- Get signed agreements with community partners and top administrators before starting projects.
- While screening have age appropriate nutrition education available.
- Educate the physician community in advance.
- Obtain parent opt out permissions not opt in permissions.
- Design "Parent BMI Results" letter with input from school and families.
- Have an epidemiologist on team.
- Train and involve college students in inclusive BMI assessments.
- Recruit from all settings within the school during assessment events to involve students with disabilities.
- Work with Wellness Councils and school officials to implement inclusive school wellness policies that distinguish between USDA Meals Programs and competitive foods
- PE curriculum and other physical activity opportunities during all school days.
- Use population strategies that involve environmental and policy change; environmental change is more effective than promoting personal choice.
- Identify your local Special Olympics program and adaptive sports programs, as a physical activity and social intervention.

Discussion

New relationships, tools (e.g., training protocols), and data have built capacity among partners to evaluate interventions with populations in special education (e.g., USDA Smart Snacks in Schools Standards); to conduct public health surveillance of 3rd, 7th and 10th graders' BMI; and to research improved inclusive methods for monitoring healthy weights with individuals and populations. More work is needed to recruit a more representative or universal sample of students with and without disability to understand any weight-related disparity that may be experienced by student subpopulations

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