

The University of Mississippi

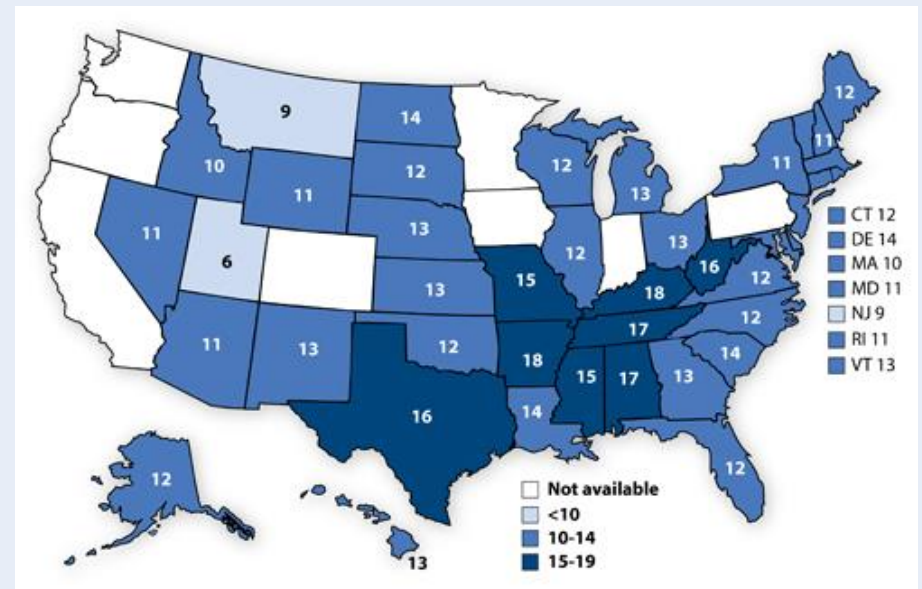


Eating Good...
and Moving 
Like We should

KATHY KNIGHT, PHD, RD; JANIE COLE, MS,
RDN; AND LACY DODD, MS
DEPARTMENT OF NUTRITION AND
HOSPITALITY MANAGEMENT

Childhood obesity statistics

- More than one third of children and adolescents in US are overweight or obese.¹
- Childhood obesity has more than doubled in children and quadrupled in adolescents in the past 30 years.^{1,2}
- Seeing improvement – but rates are still high.



1. Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of childhood and adult obesity in the United States, 2011-2012. *Journal of the American Medical Association* 2014;311(8):806-814.
2. National Center for Health Statistics. Health, United States, 2011: With Special Features on Socioeconomic Status and Health [pdf 9.4M]. Hyattsville, MD; U.S. Department of Health and Human Services; 2012.

And programs abound...



Childhood Obesity Prevention Program
Helping Kids Eat Healthy and Get Active



With many different components...

- Nutrition education
- Provision of healthy food
- Physical activity
- Physical activity education
- Teacher involvement
- Family involvement
- School gardens
- Family gardens
- Parent/caregiver education
- Afterschool programming
- Child nutrition program staff training
- Dietary counseling by registered dietitian
- Community involvement
- Peer/youth involvement
- Theory-based programming

What works?

The research says...

- Components of successful programs
 - Empower teachers, nurses, and child nutrition employees.
 - Improve food eaten at school.
 - Maintain relationships with the schools.
 - Incorporate program elements into existing curriculum.
 - Work with state agencies and local colleges and universities.
 - Foster relationships between partners.
 - Evaluation and improvement



What works?

Evidence Analysis Review of School Nutrition Intervention Components and Their Effect on Fruit and Vegetable Consumption

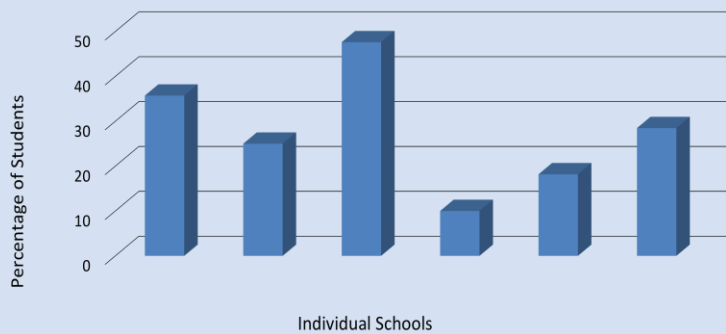
Multicomponent interventions (n=12)	7	5
Intervention components:		
<i>Teacher involvement (n=6)</i>	1	5
<i>Peer/youth involvement (n=4)</i>	1	3
<i>Food service staff involvement (n=2)</i>	2	0
<i>Parent/family involvement (n=7)</i>	3	4
<i>Garden-based (n=2)</i>	0	2
Theory-based (n=9)	4	5
Antecedent for increasing consumption e.g. knowledge, preference, self efficacy, attitudes? (n=7)	1	6

Eating Good...and Moving Like We Should

- Was in 9 schools in 16 counties in the Mississippi Delta-north Mississippi region from 2008-2014.
- Provided:
 - nutrition education
 - nutrition counseling by registered dietitian
 - school gardens
 - training for teachers and child nutrition program staff.
 - cooking classes



BMI's over three years



Percentage of Students with Decreased BMI Values by School

- Measurement of pre-and post-year heights and weights in six schools indicated that 27% of the students had some decrease in BMI from 2011 to 2014.
- Paired t-tests showed that 25.01% (n = 40) of students in school 1 had a significant decrease (p < .001).
- Other decreases seen were
 - 47.62% (n = 21) in school 2 (p < .05)
 - 10.02% (n=20) in school 3 (p < .001)
 - 108.9% (n=33) in school 4 (p < .001)
 - 28.5% (n=295) in school 5 (p < .001).
- Although 35.71% (n = 28) of students in school 6 showed decreased BMIs, the difference was not significant.

Thank you!

Questions?

References



1. Aloia, C. R., Shockey, T., & Knight, K. B. (2015). Evidence Analysis Review of School Nutrition Intervention Components and Their Effect on Fruit and Vegetable Consumption. *Journal of the Academy of Nutrition and Dietetics*, 115(9), A61.
2. Appel, Lawrence J., et al. "Comparative effectiveness of weight-loss interventions in clinical practice." *New England Journal of Medicine* 365.21 (2011): 1959-1968.
3. Knight, K. B., Cole, J. W., Dodd, L. M., Oakley, C. B., & Aloia, C. R. (2015). Increasing Access to Dietetic Services through a School-Based Nutrition Intervention Program. *Journal of the Academy of Nutrition and Dietetics*, 115(9), A99.
4. Robinson-O'Brien, R., Story, M., & Heim, S. (2009). Impact of garden-based youth nutrition intervention programs: a review. *Journal of the American Dietetic Association*, 109(2), 273-280.
5. Roseman, M. G., Riddell, M. C., & Haynes, J. N. (2011). A content analysis of kindergarten-12th grade school-based nutrition interventions: taking advantage of past learning. *Journal of nutrition education and behavior*, 43(1), 2-18.
6. Wang, Y., Wu, Y., Wilson, R. F., Bleich, S., Cheskin, L., Weston, C., ... & Segal, J. (2013). Childhood obesity prevention programs: comparative effectiveness review and meta-analysis.

