

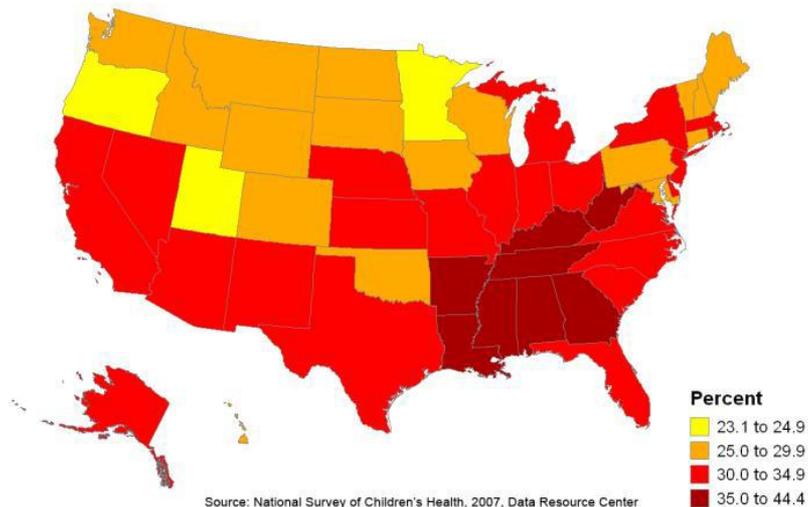
Implementation of Childhood Obesity Identification and Prevention Strategies in Primary Care: A Quality Improvement Project



Audra N. Rankin, DNP, APRN, CPNP
Jane Blood-Siegfried, RN, DNSc, CPN
Allison Vorderstrasse, DNSc, APRN, CNE
Diane Chlebowy, PhD, RN

Background

Percent of Children Ages 10-17 Classified as Overweight or Obese, by State: 2007



- Childhood obesity in the US is increasing at an alarming rate
 - Kentucky ranks third in the nation
 - Children with obesity in Kentucky
 - 35% of children 0-4 years
 - 38% of children 10-17 years
- (KYDPH, 2007)

Significance

- Cardiovascular risk
- Hypertension
- Diabetes
- Asthma
- Poor psychosocial health

(Oude Luttikhuis, et al., 2009)

-By 2018, Kentucky will spend over \$6 billion annually due to obesity related health care costs.

(NICHQ, 2007)

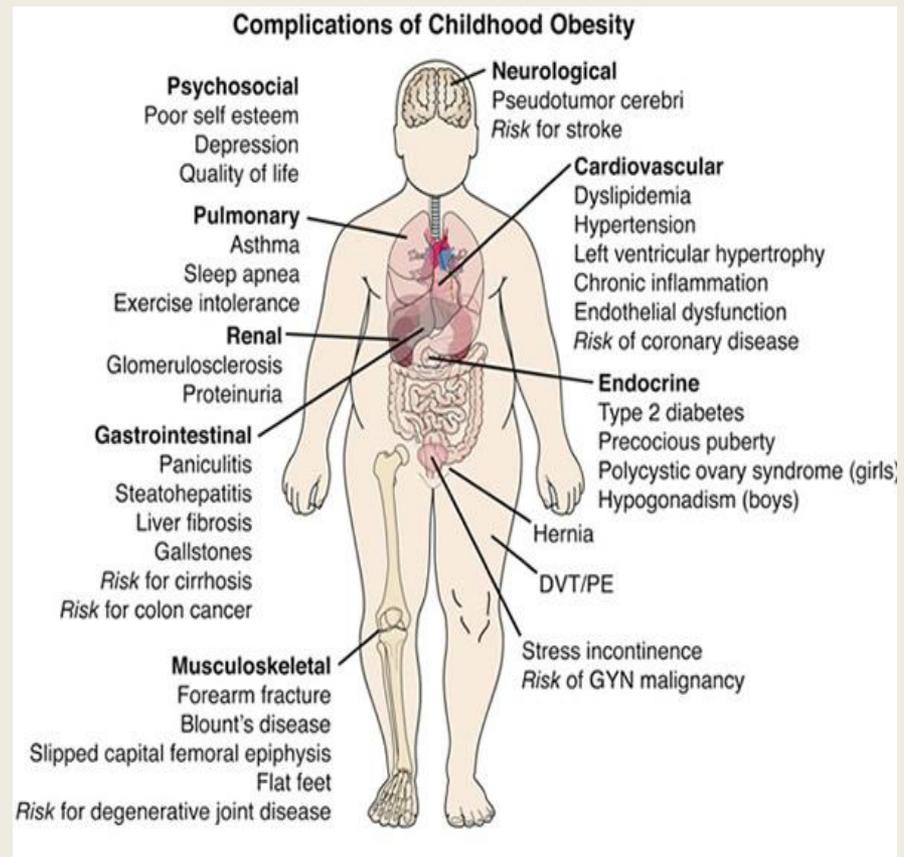


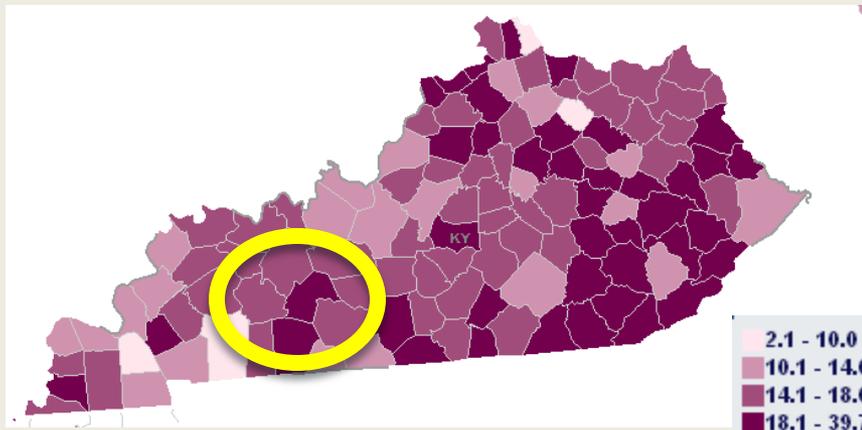
Image retrieved from
http://www.obesityhelp.com/forums/teen_wls/cmsID,11323/mode,content/a,cms/

Evidence

- The National Association of Pediatric Nurse Practitioners has developed Healthy Eating and Activity Together (HEAT), evidence-based clinical guidelines.
- Objectives include increasing provider effectiveness in obesity identification and education. (NAPNAP, 2006)
- Motivational Interviewing is at the cornerstone of the HEAT guidelines. This technique elicits intrinsic motivation for behavior change. (Schwartz, et al., 2007).

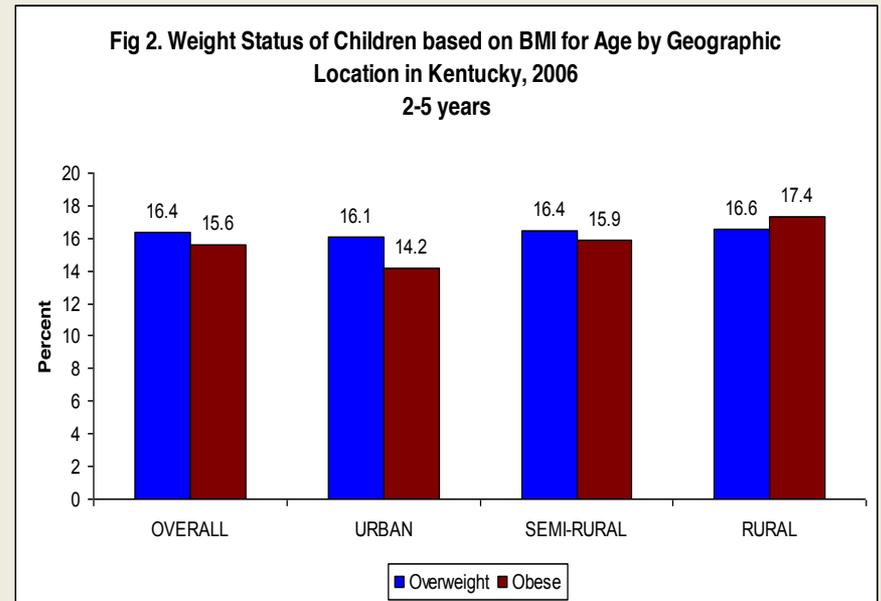
Local Problem

Current obesity identification and prevention strategies are often ineffective.



Obesity in low income children ages 2-4

Source: National Survey of Children's Health, 2007



Source: PedNSS data 2006

- Rural and Semi-rural communities
- Predominately underserved population

Setting



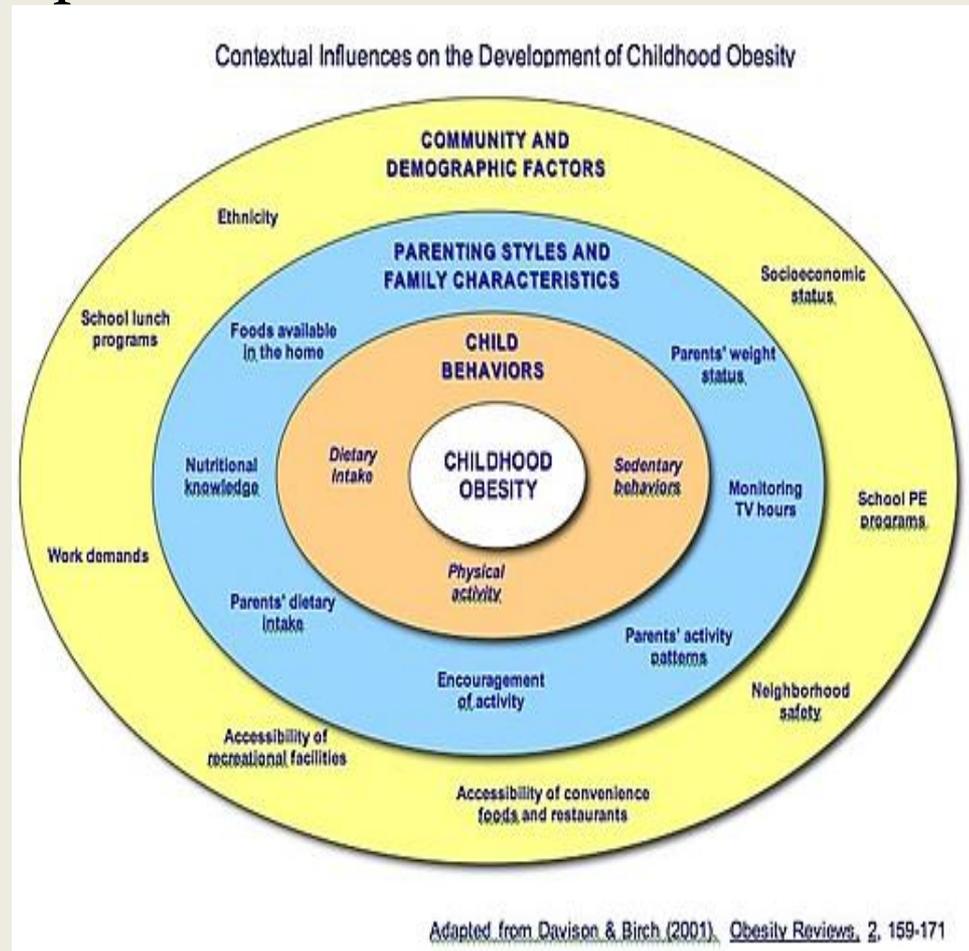
- Pediatric primary care
 - Semi-rural and rural communities in Kentucky
 - one pediatrician
 - one PNP
 - one PA
 - three medical assistants
 - three support staff
- Birth to young adulthood
 - Large percentage of patients represent underserved population

Intended Improvement

- Enhance the consistency of evidence-based childhood obesity identification and prevention

- ✓ By identification of obesity risk factors

- ✓ Increased education through the use of HEAT guidelines.



Timeline

- Spring/Summer 2011:
 - Communication & Planning
 - Practice Taskforce developed
- Fall 2011:
 - Informal Motivational Interviewing Education for practice staff
- October 2011:
 - Implementation of Tracking Tool begins

Intervention: Planning

- Stakeholders and change agents identified in practice
- Barriers included:
 - Lack of knowledge
 - Strategies for obesity treatment and prevention
- Encouraged multiple opportunities for education and increased communication

Intervention: Communication

- Routine communication with practice site
- Education on HEAT guidelines
- Staff acknowledged importance of practice change
- Staff verbally committed to the changes

Intervention:

Taskforce Development

- Providers and nurses developed
 - “HEAT Guidelines Tracking Tool”
- Tool used during physical examinations
- Utilized to document quality indicators

Intervention: Implementation

1. Nurses collected measurement and history data
2. Tracking Tool used if:
 - BMI at or above 85th%
 - History reflects poor lifestyle choices
3. Providers used Tracking Tool for:
 - Reference guide to education
 - MI strategies
 - Community resources
4. Data from Tracking Tool
 - guide future communication
 - prevention strategies



Examples of Motivational Interviewing Questions

- Can you think of healthy meals that you and your family can prepare together?
- What are healthy beverages that you would enjoy?
- What are a few ideas on ways that you would like to become more active?

Timeline

- December 2011:
 - Formal Motivational Interviewing Training for practice staff
 - Duke IRB approval

Data collection

- Data collected from
 - October 2011 to January 2012.
 - Historical comparison October 2010 to January 2011.
- Records collected by clinic staff from all patients that had a WCC visit
- Patient identifiers removed from a copy of the Tracking Tool and put in secure file

Timeline

- February 2012:
 - Evaluation complete.
 - Communication with staff to assess sustainability.

Evaluation

- Retrospective analysis of patient visits following implementation.
 - Data included history, physical and tracking tool
- Indicators compared with data from past well-child exams
- Fidelity of data collection, implementation and follow-up evaluated through quality indicators:
 - Weight, Height and BMI
 - Documentation of history and assessment
 - Documentation of education and MI
 - Evidence of community referral and follow-up as needed

Evaluation

Data was entered into Excel, cleaned and organized, and exported to SPSS.

Variables were recoded into binomial variables.

Fisher's Exact Test ($p < .05$) used to illustrate improvement in

1. consistency of obesity identification
2. documentation of prevention education.

Evaluation

- Shows significant improvement in documentation of obesity risk factors.

Why does this matter?

- A tracking tool that increases documentation:
 - Creates increased awareness of obesity prevention
 - Provides an evidenced based tool for identification and education
 - Enhances opportunities to effectively monitor at-risk children

Sustainability



Image retrieved from <http://howtolosebellyfatsoon.com/how-to-help-your-kid-to-lose-weight-avoid-childhood-obesity.html>

- Practice staff have had opportunity to become stakeholders and change agents.
- Planned method of implementation is detailed. Findings should be easily interpreted and reproduced.
- Opportunity for continued feedback, revision and improvement
- Emphasis on clinical gains

References

- Kentucky Department for Public Health (KYDPH) (2007). Title V Fact Sheet: Obesity in Children. Retrieved on September 17, 2011 from <http://chfs.ky.gov/nr/rdonlyres/70814c96-7ea2-470f-b5a275a1249a348f/o/101409obesitychildren.doc>
- National Initiative for Children's Healthcare Quality (NICHQ) (2007). Kentucky State Fact Sheet. Retrieved on September 17, 2011 from http://dl.dropbox.com/u/19550741/Kentucky/KY_State_Factsheet.pdf
- Oude Luttikhuis, H., Baur, L., Jansen, H., Shrewsbury Vanessa, A., O'Malley, C., Stolk Ronald, P., & Summerbell Carolyn, D. (2009). Interventions for treating obesity in children. Cochrane Database of Systematic Reviews (1). Retrieved from <http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD001872/frame.html>. doi:10.1002/14651858.CD001872.pub2
- Schwartz, R. P., Hamre, R., Dietz, W. H., Wasserman, R. C., Slora, E. J., Myers, E. F., ...Resnicow, K. A. (2007). Office-Based Motivational Interviewing to Prevent Childhood Obesity: A Feasibility Study. Archives of Pediatrics and Adolescent Medicine, 161(5), 495-501. doi: 10.1001/archpedi.161.5.495
- The National Association of Pediatric Nurse Practitioners (NAPNAP) (2006). Healthy Eating and Activity Together (HEAT) Clinical Practice Guideline: Identifying and Preventing Overweight in Childhood. Cherry Hill, NJ: NAPNAP.