

Connecting Primary Care Practices to Cooperative Extension Community Nutrition Education Programs to Manage Obesity

Friday, June 17th, 2011
Madrid III ~ 10:55am - 11:40am

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Objectives

- Define adult and child obesity
- Outline advantages for PCPs linking to community resources to manage obesity
- Identify benefits of Cooperative Extension Community Nutrition Education Programs
- Summarize bases obesity data from initial studies

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**CONNECTING PRIMARY CARE
PRACTICES TO COOPERATIVE
EXTENSION COMMUNITY
NUTRITION EDUCATION PROGRAMS
TO MANAGE OBESITY**

Toney Welborn, MD, MS
Presented 06/17/2011 at OAFP 63rd Annual
Scientific Assembly - Primary Care Update

Disclosures

I have no financial disclosures or conflicts of interests.

Objectives

1. Define adult and childhood obesity.
2. Outline advantages for primary care practices (PCPs) linking to community resources to manage obesity.
3. Identify benefits of Cooperative Extension Community Nutrition Education Programs (CNEPs).
4. Summarize baseline obesity data from initial study sites.

Adult Obesity

- Adult Body Mass Index (BMI) = kg/m^2
 - ≥ 25.0 – 29.9 = Overweight
 - ≥ 30.0 – 39.9 = Obese
 - ≥ 40 = Morbidly Obese
- Waist to Hip Ratio (WHR)

Male	Female	Health Risk based on WHR
0.95	<0.80	Low risk
0.96 – 1.0	0.81 – 0.85	Moderate risk
>1.0	>0.85	High risk

Screening for obesity in adults: a systematic review and rationale. *Annals of Internal Medicine*. Dec 2 2001;136(11):833-842

Adult BMI Chart

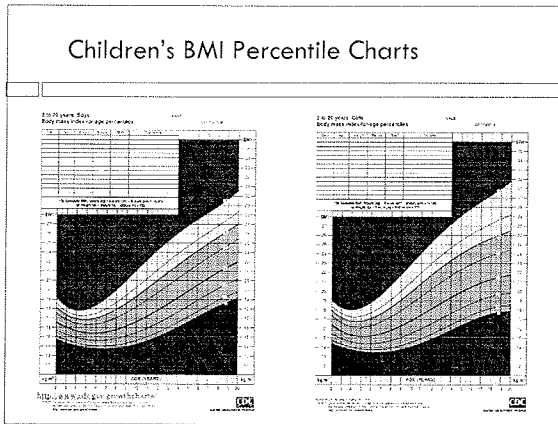
The chart plots weight in pounds (50 to 300) against height in feet (4' 8" to 6' 4"). It features three curves: 'Healthy Weight' (solid line), 'Overweight' (dashed line), and 'Obese' (dotted line). A BMI scale at the top shows values 18.5, 25, and 30. A silhouette of a person is shown in the lower right corner.

<http://aahp.kaiser.gov/kaizer/wellness/for/overweight/obesity.htm>

Childhood Obesity

- USPSTF recommends screening children aged 6-18
- AAP recommends screening starting at age 2
- BMI Percentile
 - ≤ 84th = Normal Weight
 - 85th – 94th = Overweight
 - ≥ 95th = Obese

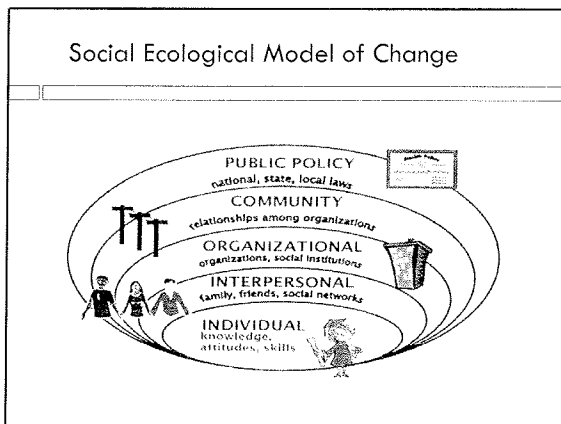
US Preventive Task Force. Screening for obesity in children and adolescents: US Preventive Services Task Force recommendation statement. *Pediatrics*. Feb 2010;125(2):391-397



Obesity Statistics

- The World, WHO predicts by 2015:
 - 2.3 billion adults = Overweight
 - >700 million = Obese.
- United States 1999 – 2008:
 - 2/3 of adults = Overweight
 - 1/3 of adults = Obese
- Oklahoma
 - Ranked #6 Adult Obesity, 2006-2008
 - 33% of children aged 10-17 = Overweight or Obese in 2007.

*Obesity and overweight: World Health Organization, Sept 2009
*Physical Activity: WHO, Geneva, 2010. <http://www.who.int/dietphysicalactivity>
*State Data: Oklahoma State Department of Health, <http://www.okstate.gov/health/>
*National Data: <http://www.cdc.gov/nchs/data/press/2009/s090901.htm>



Clinician Barriers to Obesity Management

- Lack of training in treating obesity
- Low outcome expectations
- Lack of time


*Alexandre SO, Orles T, Poirier L, Gagnon M, Hamon LA, Bouchard BF. Physicians' beliefs about treating obesity: results from Focus groups. *Am J Health Promot*. Jul-Aug 2007;21(5):158-169.
*Grunstein DR, Wadden EA, Malina RP, et al. Primary care physicians' attitudes about obesity and its treatment. *Clin Diab*. Oct 2003;21(4):192-197.

Connecting to Community Based Resources to Manage Obesity

- Forming a referral link with a non-clinical resource
- Getting patient acceptance
- Closing the loop

Examples of Community Based Obesity Resources

- Weight Watchers
- YMCA
- Gyms
- Community Centers
- Community Pools
- Walking Trails
- Nutrition Education through Cooperative Extension



Community Nutrition
Education Programs
(CNEP)




Fresh Start
NUTRITION & YOU

Oklahoma Cooperative Extension Service

Community Nutrition
Education Programs


Enroll today in this FREE nutrition education program to learn how you can:

- Plan more nutritious meals
- Prepare, eat and enjoy delicious foods that are good for you
- Manage your grocery money more efficiently
- Develop job and life skills



Ask your clinician for more information

Community Nutrition Education Programs of the Oklahoma Cooperative Extension Service receive support from the Oklahoma Department of Human Services and the United States Department of Agriculture



Who Qualifies

- o Medicaid
- o Child nutrition: free or reduced lunch
- o TANF: Temporary Assistance for Needy Families
- o WIC: Women, Infants and Children
- o Head Start
- o CSFP: Commodity Supplemental Food Program
- o FPDIR: Commodities on Indian Reservations Program
- o TEFAP: The Emergency Food Assistance Program

Community Nutrition Education Programs

- o Personalized
 - Long & Short Term
 - Group or In-Home
 - Family Needs
- o Nutrition Education Assistants
 - Community Based
 - Paraprofessionals
 - Experience with Public Assistance

Coach For Positive Behavior Change

- o Peer Teaching
- o Hands-on Learning
- o Relevant to Needs of Participant
- o Weekly Lessons
- o Mini-Goals

Examples of Lesson Topics

- My Pyramid
- Shopping for Value
- Meal Planning
- Food Safety
- Reading Food Labels
- Fruits and Vegetables
- Breakfast
- Eating Out and Fast Food

Evaluation Tools

- 24 Hour Food Recall
- CNEP Survey

24-Hour Food Recall - SAMPLE QUESTIONS

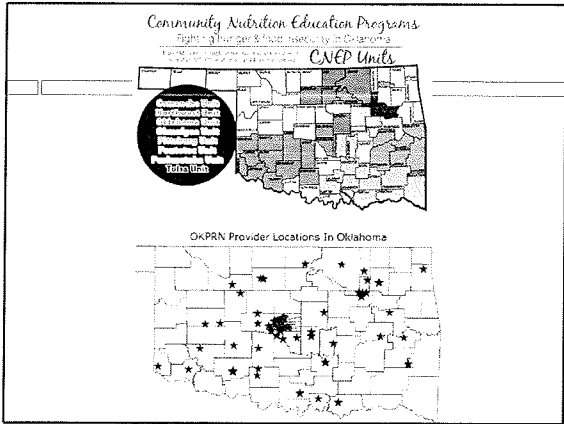
- 4) Taking Nutritional Supplements: Yes No
- 5) Amount Spent on Food Last Month: (Include value of food stamps & WIC vouchers.
 - Include drinks, snacks, and meals eaten away from home.) \$_____
- 7) Activity Level: (such as walking, running, biking, dancing, or yard work) you do in addition to your normal daily routine, most days (check one).
 - Less than 30 minutes
 - 30-60 minutes
 - More than 60 minutes
- 8) MEAL OR SNACK TYPE
Provide as many details as possible about the food or beverage and how it was prepared.
- 9) What did you eat and drink yesterday from midnight to midnight? List all foods and beverages. Describe in detail. List one food per line.

CNEP Survey – SAMPLE QUESTIONS

- How often do you plan meals ahead of time?
- How often do you run out of food before the end of the month?
- How often do you shop with a grocery list?
- When deciding what to feed your family, how often do you think about healthy food choices?
- How often do you use the "Nutrition Facts" on the food label to make food choices?
- How often do your children* eat something in the morning within 2 hours of waking up?
- When you eat bread, do you eat whole wheat bread?
- Do you use reduced fat (2%), low fat (1%), or skim/fat free milk (0%)?

As a Result...

- 96% demonstrate a positive change towards a healthy diet.
- Documented Increase:
 - Fruits
 - Vegetables
 - Calcium/Dairy Foods
- 39% less often ran out of food before the end of the month.
- 38% reported their children ate breakfast more often.



Integrating PCPs & Community Based Programs To Manage Obesity

- Funding: Agency for Healthcare Quality (AHRQ)
- Time Frame: September 2010 – August 2012
- Community Organization: Oklahoma Cooperative Extension Food and Consumer Sciences Community Nutrition Education Programs (CNEP)
- Partners
 - OKPRN
 - Oklahoma Health Care Authority
 - Oklahoma Primary Care Association

The Project - Year One

- Link 24 PCPs throughout Oklahoma with community-based nutrition education programs (CNEPs)
- Programs offered by the Oklahoma Cooperative Extension Service Family and Consumer Sciences (OCES-FCS) Division
- No cost programs
- Available to low-income clients and families
- Affect healthy behavior changes
- Practice Enhancement Assistants (PEAs) in practices

24 Practices: Year One

- 12 Community Health Centers
- 10 Residency Programs
- 2 Private Practices

Practice Characteristics	
<input type="checkbox"/>	Records
<input type="checkbox"/>	Referral Management
<input type="checkbox"/>	Obesity Screening
<input type="checkbox"/>	Obesity Referrals 6 months prior to enrollment in study



Records	
<input type="checkbox"/>	3 - paper based
<input type="checkbox"/>	1 - paper + electronic
<input type="checkbox"/>	20 - EHRs
<input type="checkbox"/>	12 - eClinical Works
<input type="checkbox"/>	4 - Centricity
<input type="checkbox"/>	4 - other

Referral Management	
<input type="checkbox"/>	13 - EHR
<input type="checkbox"/>	3 - paper based
<input type="checkbox"/>	2 - other electronic system
<input type="checkbox"/>	6 - none

Obesity Screening	
Adults <input type="checkbox"/> 23 - BMI <input type="checkbox"/> 1 - Waist Circumference	Children <input type="checkbox"/> 20 - BMI percentile <input type="checkbox"/> 23 - BMI

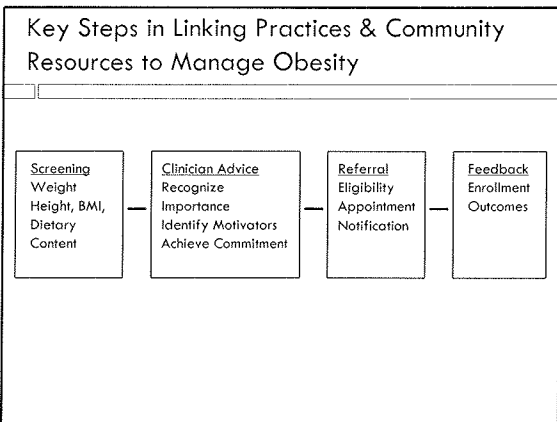
Obesity Referrals 6 Months Prior To Enrollment In Study
<input type="checkbox"/> 9 - Registered Dietician <input type="checkbox"/> 4 - Nutritionist <input type="checkbox"/> 6 - Community Nutrition Resource <input type="checkbox"/> CNEP/Fresh Start <input type="checkbox"/> Not Specified <input type="checkbox"/> 2 - Community Based Physical Activity <input type="checkbox"/> YMCA <input type="checkbox"/> Police Athletic Leagues <input type="checkbox"/> Dance Classes <input type="checkbox"/> 1 - Shape Down <input type="checkbox"/> 1 - On-site Wellness Center <input type="checkbox"/> 8 - None <input type="checkbox"/> 3 - Unable to generate obesity specific list

<http://www.shapedown.com/index.htm>



Welcome!
Thank you for considering SHAPEDOWN, the nation's leading weight management program for children and adolescents for over 30 years.

- 1. Order Now** - SHAPEDOWN materials for your family in English or Spanish.
- 2. About SHAPEDOWN** - describes how the program works.
- 3. For Families** - helps parents find the nearest SHAPEDOWN Program or order program materials, or have us contact your hospital to start SHAPEDOWN for you.
- 4. For Health Professionals** - allows health care providers to receive a free information kit, find the nearest SHAPEDOWN provider for networking, or order program materials.



Children Screening 24 Practices

BMI percentile	<5 th	5 th -85 th	85.1 - 95 th	>95 th	>99.9 th	Missing data	Total children
	underweight	normal	overweight	obese	obese	unknown	
Children	20	493	108	118	293	133	1165
Percent of measurable children	1.94%	47.8%	10.5%	11.4%	28.4%		Measurable children 1032

Missing data could be height, weight, gender or age.

- ### Children's Data Screening
- Ages 2 - 20 years
 - 24 PCPs with 1165 charts
 - 1032 records, documented height, weight, gender, and age
 - 88.6% (1032/1165) of charts with enough information to calculate BMI percentile.
 - Combining overweight and obese children in this sample results in a rate of **50.2%** (519/1032).
 - Compare this with the 2007 rates for childhood overweight and obesity in 10 -17 year olds in Oklahoma of **33%**.
- *State Data Oklahoma: *Plan for America's Health: Preventing Epidemics, Protecting People*, 2010
http://oklahomahealth.org/media/3744/0208_09.pdf Accessed January 29, 2010

Diagnosing Obesity & Referrals In Children In 24 Practices

- 83.91% (866/1032) had a documented BMI.
- 47.92% (415/866) with documented BMI also documented BMI percentile.
- 15.22% (79/519) had documented diagnosis of overweight/obesity.
- 7.32% (38/519) of overweight/obese children had referral for nutrition/exercise
- 86.84% (33/38) of those referrals were for children with BMI at >99.9th percentile.

Category	Count
Total Measureable	1032
Overweight/Obese	519
Diagnosis Documented	79
Referred for Nutrition/Exercise	38
>99.9th Percentile Referred	33

Adult Screening 24 Practices

BMI	<18.5	18-24.9	25.0 -29.9	30.0 - 39.9	>40.0	Total adult charts
	underweight	normal	overweight	obese	morbidly obese	903
Totals	9	162	238	270	124	Total measureable adults
Percent	1.1%	20.1%	29.6%	33.6%	15.4%	803

Missing data could be weight or height

Adult Data

- Ages 21 – 64
- 24 PCPs with 903 charts.
- 88.9% (803/903) of charts had documentation available to calculate BMI.
- 49.1% (294/803) of adults had obesity/morbid obesity
- Compare the rate in our clinics to the 2009 CDC Behavioral Risk Factor Surveillance System² data for Oklahoma with an obesity rate of 31.4%.
- 78.7% (632/803) of adults were overweight/obese/morbidly obese

Centers for Disease Control Behavioral Risk Factor Surveillance System, U.S. Obesity Trends, March 3, 2011. Retrieved from <http://www.cdc.gov/obesity/data/trends.html>

Diagnosing Obesity & Referrals in Adults In 24 Practices

- 68.6% (619/803) with data for BMI had a documented BMI.
- 15.7 % (99/632) adults had a documented diagnosis of overweight/obesity.
- 3.6% (23/632) of overweight/obese/morbidly obese adults were referred for nutrition/exercise.

Category	Count
Total Measurable	803
Overweight/Obese/Morbidly Obese	632
Diagnosis Documented	99
Referred for Nutrition/Physical Activity	23

What's Happening Now?

- Improved Screening
- Improved Documentation
- Patients Difficult to Contact for Referral
- Differences Between Community Resource Providers and Clinical Providers
- Closing the Feedback Loop

The Project - Year Two

- Link 24 different PCPs throughout Oklahoma with CNEP
- Using Implementation Guide developed based on experience in year one.

Summary

- Obesity is at pandemic proportions.
- Clinicians alone are unlikely to eradicate this disease.
- The social ecological model is our best weapon against obesity.
- Many community resources exist to encourage healthy eating and physical activity.
- Linking to community resources should enable clinicians to better serve their patients.
