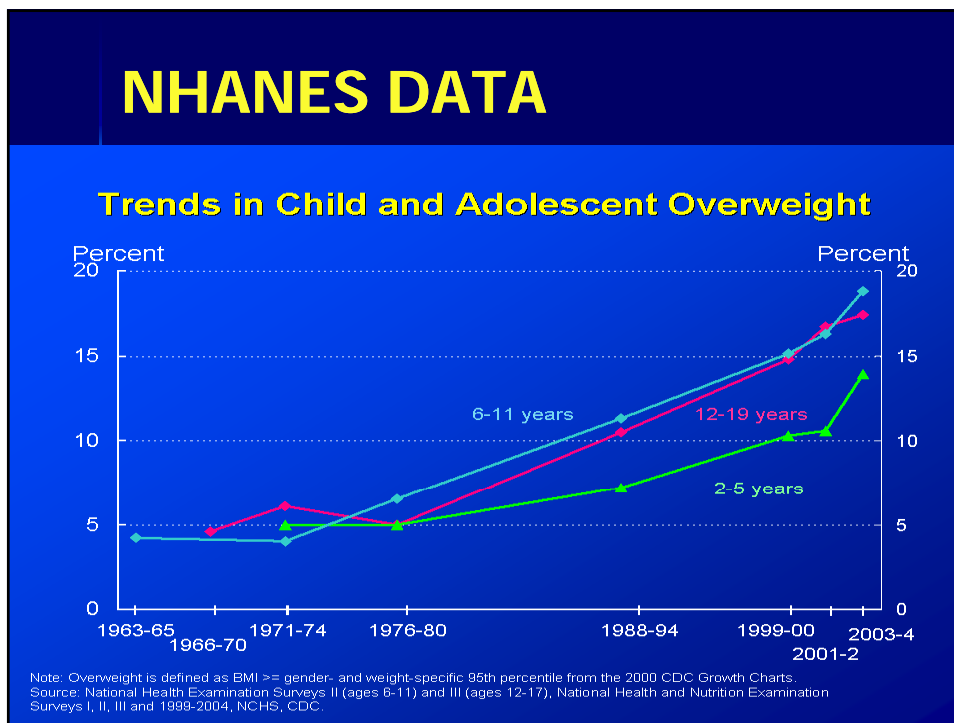
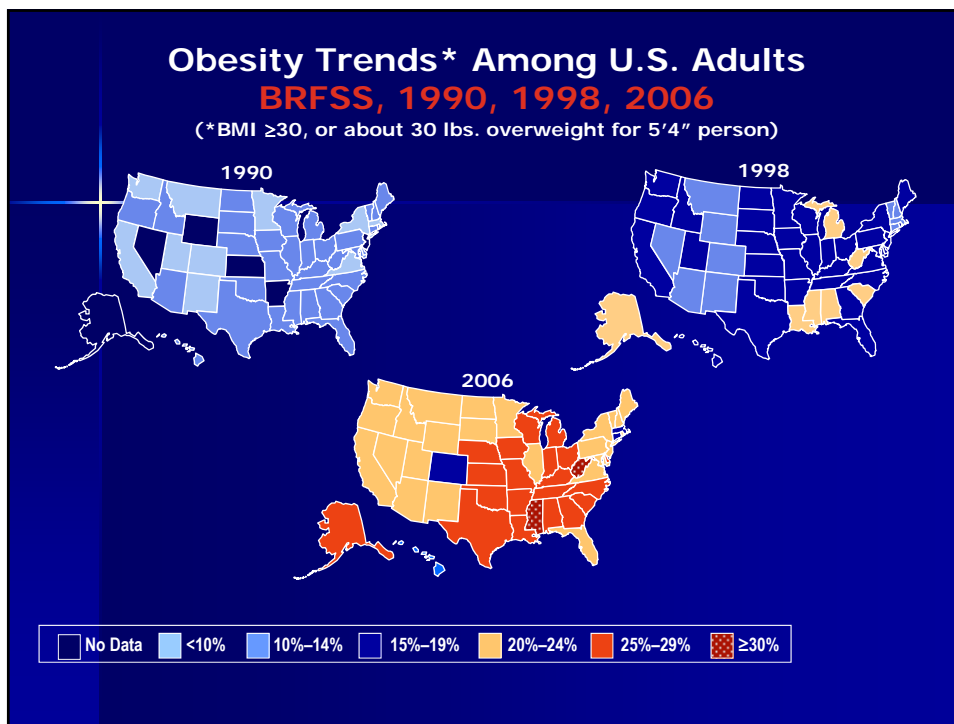


Frustrated with Obesity Management? 5210 Toolkit to the Rescue!

Jamie Jeffrey, MD, FAAP
Medical Director, Children's Medicine Center &
HealthyKids Pediatric Weight Management Program
Clinical Associate Professor, WVU-Charleston
Project Director, KEYS 4 HealthyKids

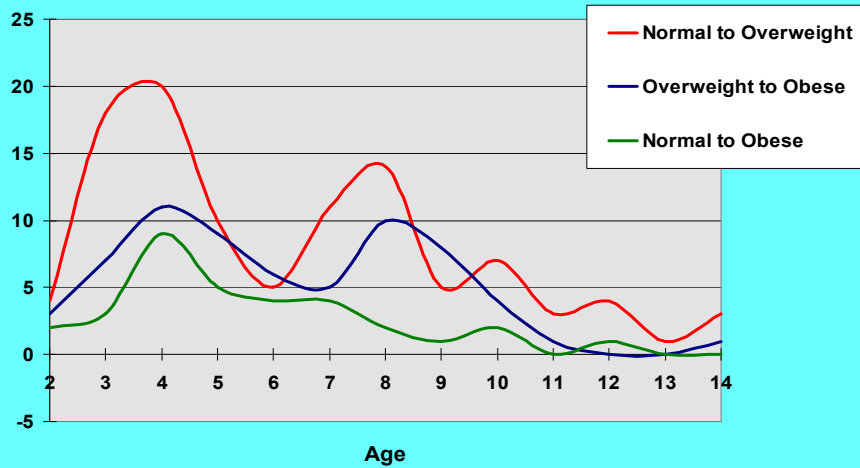
Objectives

1. Pediatric Policy Guidelines for Prevention and Treatment of Pediatric Overweight/Obesity
2. 5210 Toolkit
3. Introduction to Motivational Interviewing



Age of Onset of Pediatric Overweight and Obesity in CMC

Age of Onset of Pediatric BMI Shifting

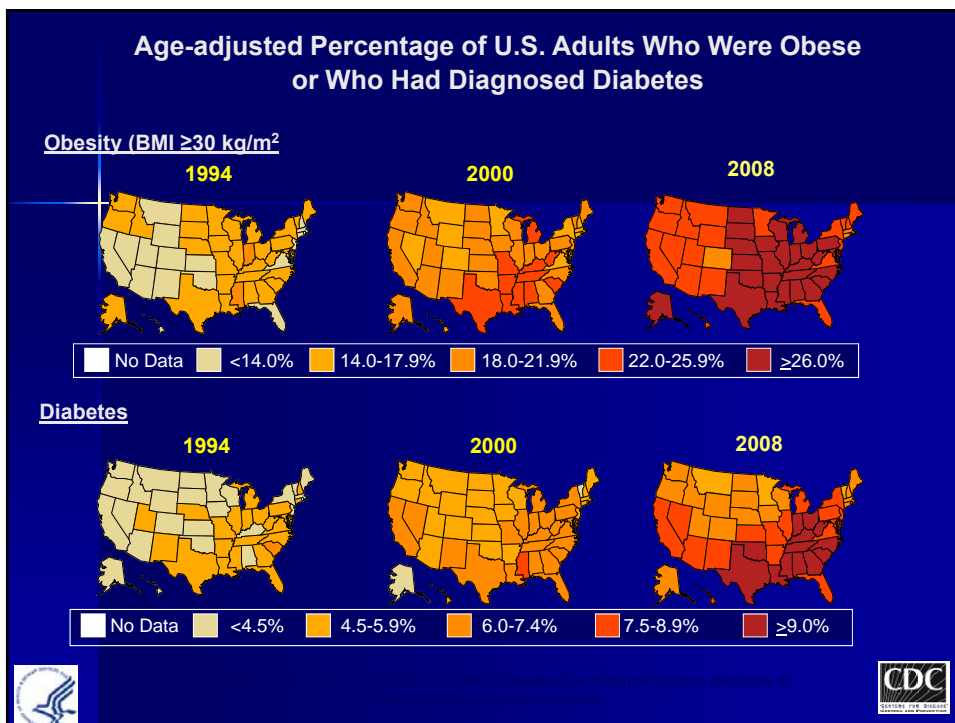
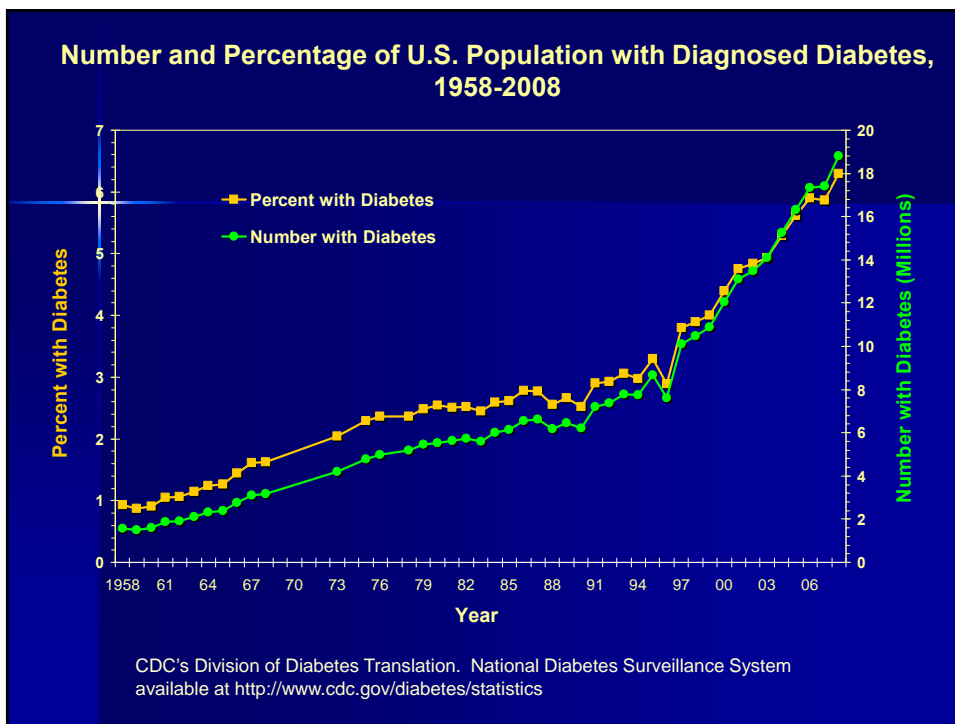


Etiologies

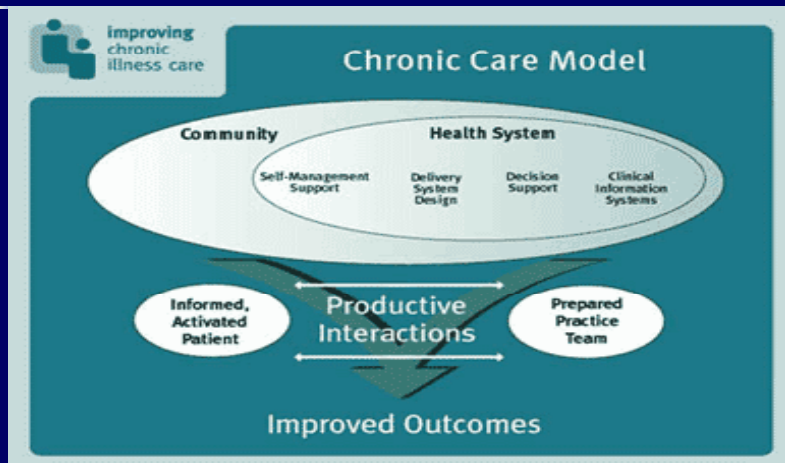
Nature Vs

Nuture





Chronic Care Model



Wegner, 1998

Pediatric Obesity.....



American Feast's Sustainable Food Blog

....is a chronic health disease

- Diabetes
- Hypertension
- Dyslipidemia
- Coronary Heart Disease
- Stroke
- Sleep Apnea
- Gallbladder Disease
- Osteoarthritis

Expert Committee Guidelines (June, 2007)



Maine "Keep ME Healthy"



Pediatric Obesity Clinical Decision Support Chart

keep ME healthy

5210

- 5 Eat fruits and vegetables at least 5 portions throughout the day
- 2 Limit recreational screen time to 2 hours or less per day
- 1 Get 1 hour or more of moderate to vigorous physical activity every day
- 0 Drink 100% sugar-free beverages to stay hydrated

Treatment Interventions for the Overweight Child (Practice Guide for Children aged 6-12)

Tip: For Best Outcomes (Resources used)

Obesity Assessment

Medical Assessment by BMI Category (Reference Values below)

15-Minute Severity Prescription Protocol

Universal Assessment of Obesity Risk

Hypertension in Children (Hypertension Management Algorithm used)

Blood Pressure Levels—Boys (6-11 years)

Coding for Obesity and Related Comorbidities

Body Mass Index (BMI)—Girls (6-11 years)

Body Mass Index 95th Percentile Cut-Points/Weight Loss Targets

keep ME healthy

What can YOU do everyday?

- 5 or more servings of fruits & vegetables. Limit 100% juice.
- 2 hours or less of recreational screen time.
- 1 hour or more of moderate to vigorous physical activity.
- 0 sugary drinks! Restrict soda, sugar-sweetened sports & fruit drinks.



Keep ME Healthy is a joint initiative of the Maine Center for Public Health, the Maine Harvard Prevention Research Center and the Maine Chapter of the American Academy of Pediatrics.

5210


5

or more
fruits &
vegetables




2

hours or less
recreational
screen time*



1

hour or more of
physical
activity



0

sugary
drinks,
more water
& low fat
milk



*Keep TV/Computer out of the bedroom. No screen time under the age of 2.

keep ME healthy

POWER UP

EVERY DAY

5

Eat fruits & vegetables at least 5 times

- ✓ Eat a fruit or vegetable at every meal.
- ✓ Eat a healthy breakfast & include fruit on your cereal.
- ✓ Wash & chop them ahead of time so they are ready to eat.

2

Limit TV & other screen time to 2 hours or less

- ✓ Keep the TV out of your bedroom.
- ✓ Turn off the TV and enjoy a family meal together.
- ✓ Plan what you want to watch.

1

Enjoy 1 hour or more of active play

- ✓ Play outside and have fun with your friends.
- ✓ Take a family walk after dinner.
- ✓ Walk while talking on your cell phone.

0

Restrict soda & sugar-sweetened drinks

- ✓ Instead, encourage water & 2–4 servings of fat free milk.
- ✓ Limit fruit juice to half cup or less.
- ✓ Read drink labels before you buy them.

This office is a proud participant in
 Keep ME Healthy a joint initiative of
 the Maine Chapter of American Academy of Pediatrics,
 the Maine Harvard Prevention Research Center,
 and the Maine Center for Public Health.



MAINE CENTER
for Public Health

5 2 1 0

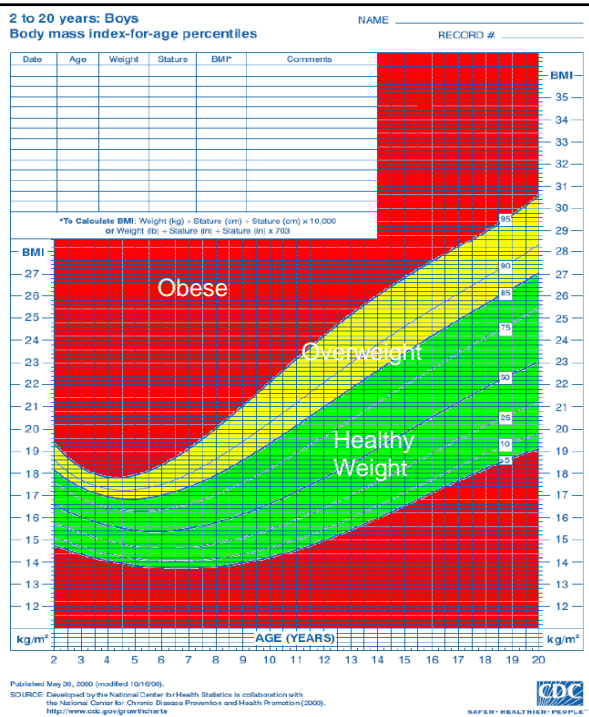
- **5** Eat at least 5 servings of fruits and vegetables daily
- **2** Limit screen time to <2 hours/day
- **1** Get 1 hour or more of physical activity daily
- **0** "Zero" sugar sweetened drinks

UNIVERSAL ASSESSMENT OF OBESITY RISK

- **Identification:** Calculate and plot BMI at every well child visit
- **Assessment:** Identify medical risk, problem behaviors, and attitudes about healthy lifestyle
- **Prevention:** Make a plan based on patients motivation, BMI category and risk factors

BMI

Preventing obesity starts with a calculator & growth chart.

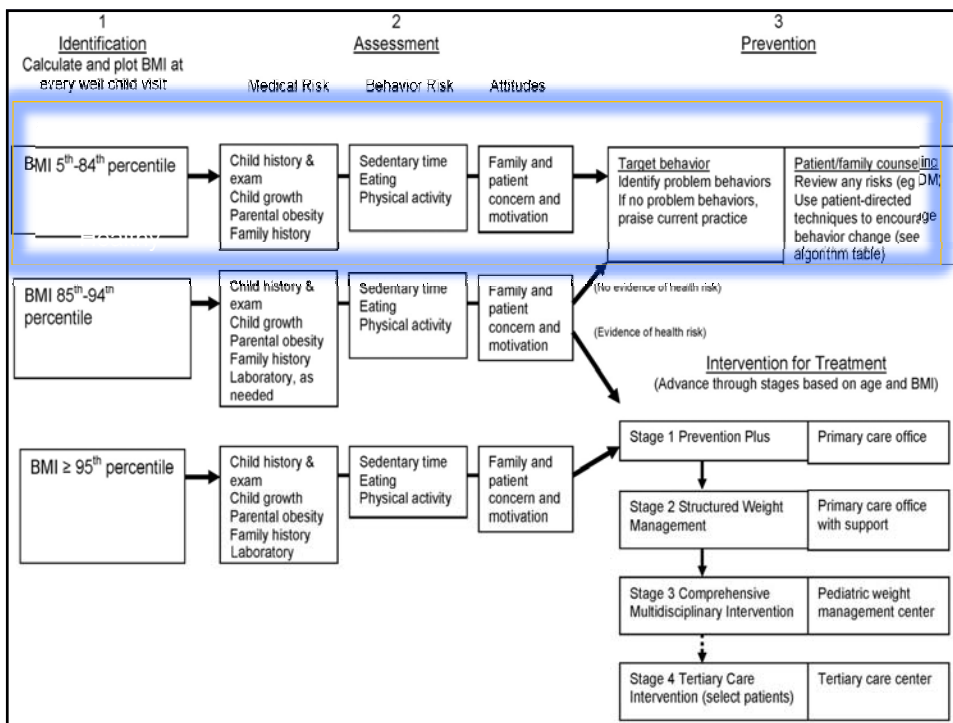
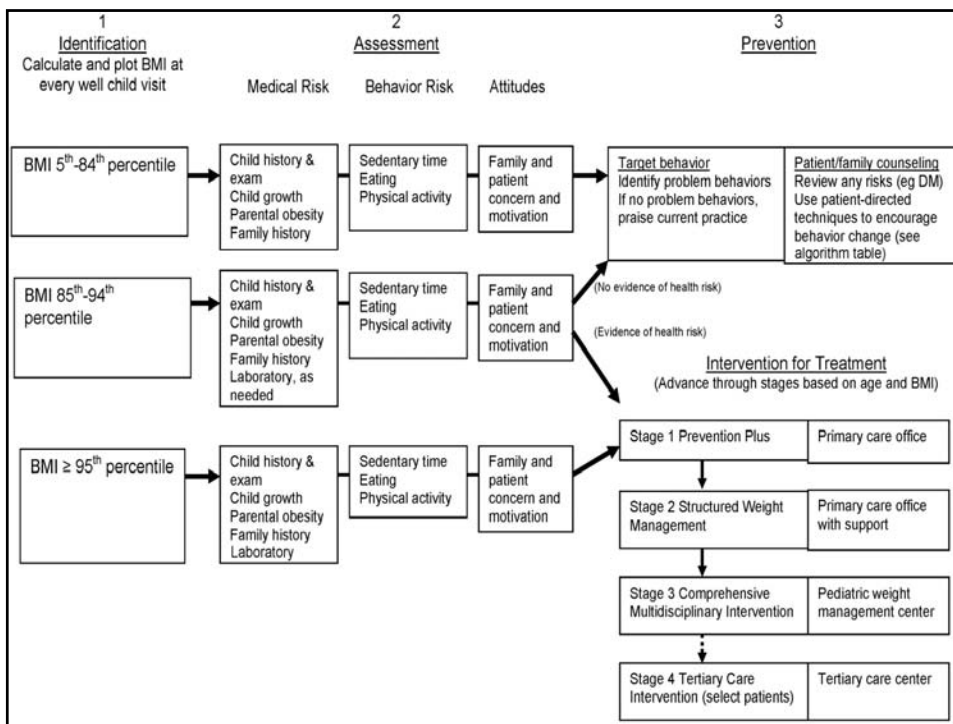


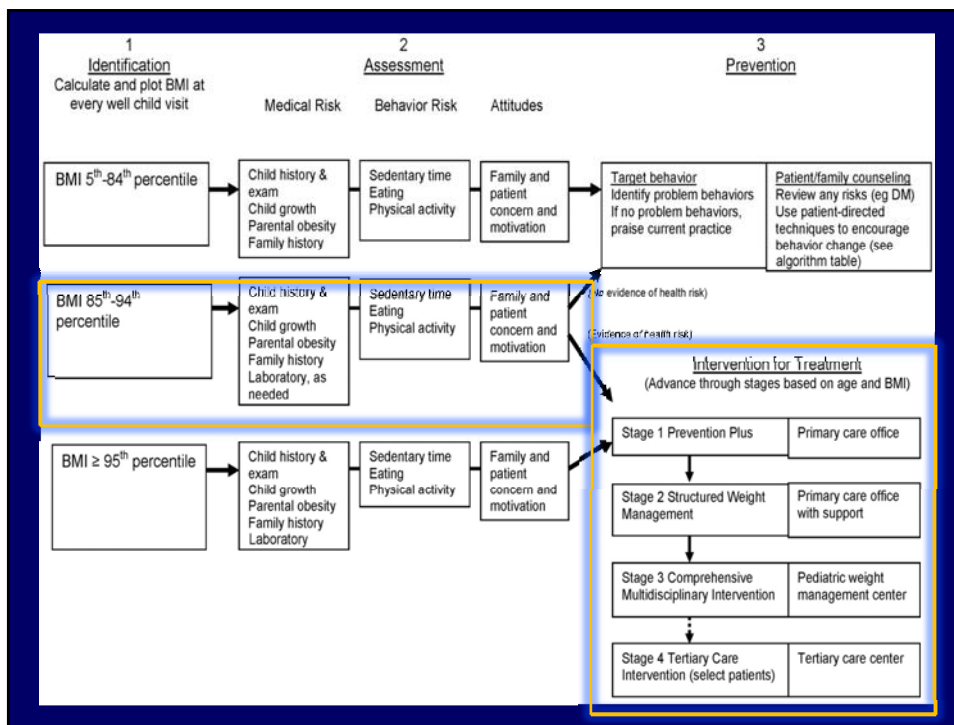
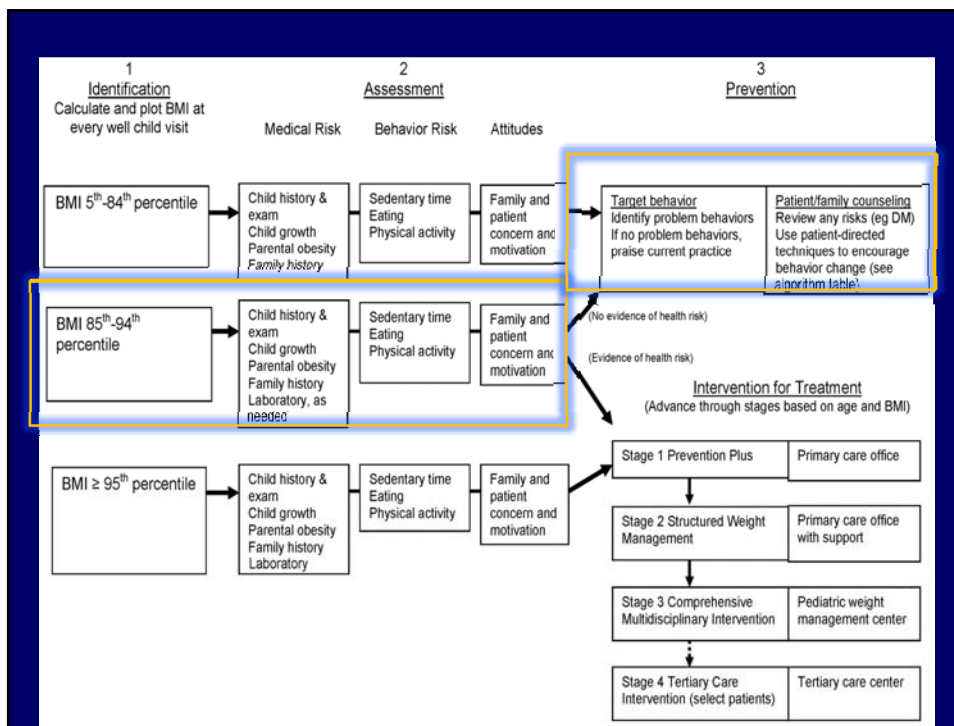
BASIC DEFINITIONS

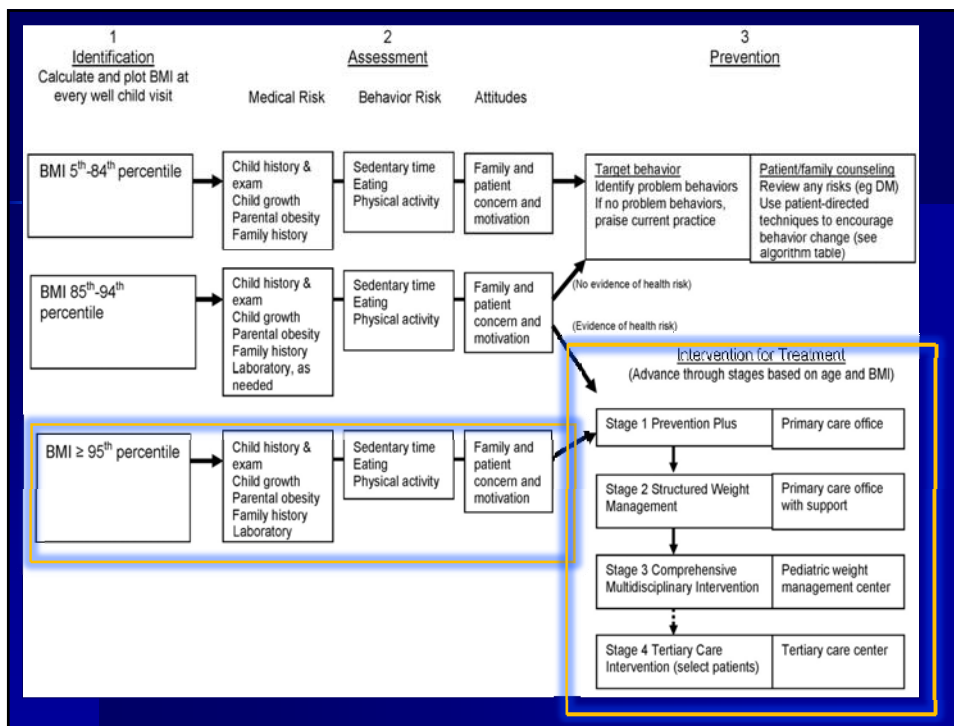
- Body Mass Index (BMI)=
$$\text{Weight (kg)}/\text{Height (m)}^2$$
- BMI <5th %ile - **Underweight**
- BMI 5-84th %ile - **Healthy Weight**
- BMI 85-95th %ile, **Overweight**
- BMI >95th %ile or older adolescents with BMI > 30 kg/m², **Obese**

NEW BMI CATEGORY

- **Severe obesity**
 - BMI >99th percentile
 - BMI 30-32 kg/m² in 10 -12 year olds
 - BMI \geq 34 kg/m² in 14 - 16 year olds
- Marked increase prevalence of co-morbidities in this group justifies it as an additional cutoff point.







MEDICAL SCREENING BY BMI				
BMI Percentile	Review of Systems	Family History	Physical Examination	Laboratory Tests
5 th -84 th Normal Weight		Obesity, DM-2, HTN, Lipids, CAD	BP (correct cuff)	
85 th - 94 th Overweight	Snoring/sleep abdominal pain; menstrual irregularities; hip, knee, leg pain; polyuria; thirst; depression	Same as above	BP, acanthosis nigricans, tonsils, goiter, tender abdomen, liver, bowing of legs, limited hip ROM, optic discs, acne, hirsutism	Fasting Lipid Profile (FLP) If other risk factors fasting glucose, ALT, AST every 2 years
95 th - 99 th Obese	Same as above	Same as above	Same as above	FLP, Fasting glucose, ALT, AST every 2 years

Blood Pressure

- Correct Cuff Size
 - Cuff width cover $\frac{3}{4}$ between acromion & olecranon
 - Cuff bladder length 80-100% of arm circumference

- Manual vs Dynamap



Blood Pressure-4th Report

- | | |
|------------|------------|
| ■ Pre-HTN | ■ 90%-<95% |
| ■ Stage I | ■ 95%- 99% |
| ■ Stage II | ■ >99% + 5 |

Acanthosis Nigricans



Acanthosis Nigricans



Acanthosis Nigricans



LABORATORY WORK-UP

1. FLP
2. CMP (FBS, ALT/AST)

STAGE 1-PREVENTION PLUS

- **Dietary Habits & Physical Activity**

- Review 5 2 1 0

- **Behavioral Counseling**

- Eating breakfast daily
- Limiting meals outside the home
- Family meals 5-6 times a week
- Allow child to self regulate at meals without overly restrictive behavior

STAGE 1-PREVENTION PLUS

- **Goal**

- Weight maintenance with growth resulting in decreased BMI
- Monthly Follow-up
- After 3-6 months, no BMI change, advance to stage 2 Tx

STAGE 2 STRUCTURED WEIGHT MANAGEMENT

- **Dietary Habits and Physical Activity**
 - Plan for balanced diet, emphasizing low amounts of energy dense foods.
 - Increased structured daily meals and snacks
 - Supervised active play at least 60 min/day
 - Screen time 1 hour or less a day
 - Increased monitoring by provider, patient and/or family

STAGE 2 STRUCTURED WEIGHT MANAGEMENT

- **Goal:**
 - Weight Maintenance with decreasing BMI
 - Weight loss not to exceed 1 lb/mo in ages 2-12
 - Average weight loss of 2 lb/week in older children and adolescents
 - Monthly Follow-up
 - If no BMI improvement, advance Stage 3

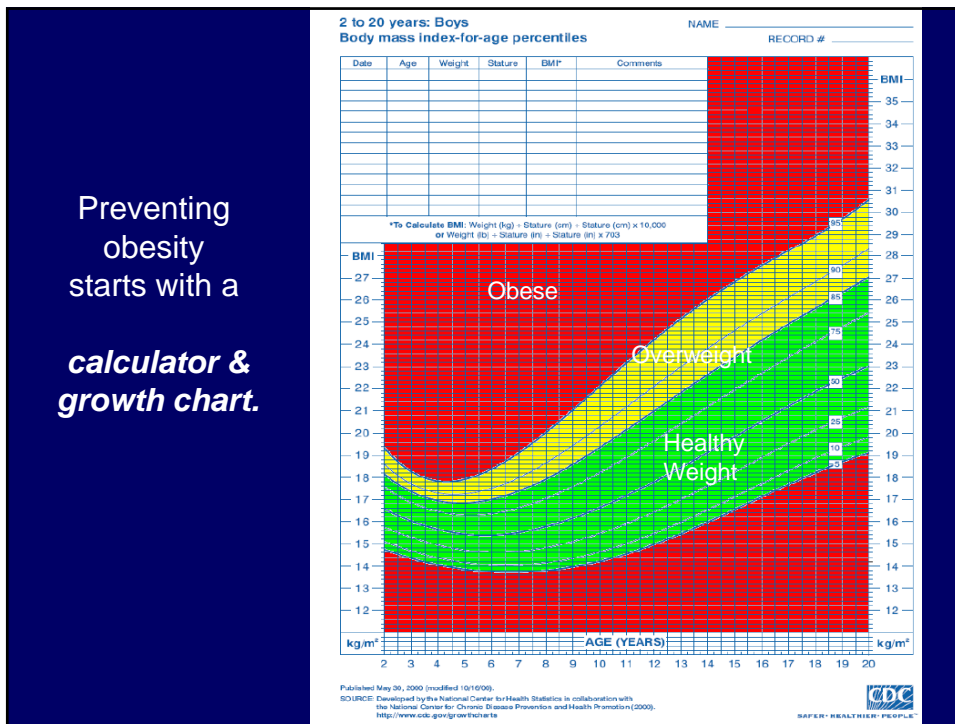
STAGE 3 MULTIDISCIPLINARY INTERVENTION

- **Dietary habits and physical activity**
 - Same as stage 2.
- **Behavioral Counseling**
 - Structured behavioral modification program with food and activity monitoring. Short term diet and activity goals.
 - Involvement of families for behavioral modification in children < 12 years and training of families for all children.
- **Goals**
 - Weight maintenance or gradual weight loss until BMI < 85th %
 - Not to exceed 1lb/month in 2-5 year olds
 - 2 lbs/week children >5 years old.

STAGE 4 TERTIARY CARE INTERVENTION

- Hospital setting with expertise in childhood obesity
- Multidisciplinary team under designated protocol
 - Includes meal replacement, VLCD, meds & surgery
- Recommended for BMI > 95% & significant comorbidities unsuccessful with stages 1-3 and BMI > 99% who have shown no

Preventing obesity starts with a *calculator & growth chart.*



The 15 minute Obesity Prevention Protocol

- Step 1-Assessment
 - BMI
 - Ask permission to discuss weight
 - Elicit parents concern
 - Reflect/Probe
 - 5210 Questionnaire (Short vs Long)
 - Reflect/Probe Cycle

The 15 minute Obesity Prevention Protocol

- Step 2- Agenda Setting
 - Target behavior willing to change
 - 5210 with Goal
 - Goal Trackers

The 15 minute Obesity Prevention Protocol

- Step 3-Assess Motivation & Confidence
 - Ruler
 - Pocket Guide

The 15 minute Obesity Prevention Protocol

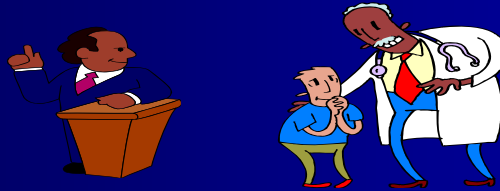
- Step 4-Summarize and Clarify Goal

The 15 minute Obesity Prevention Protocol

- Schedule Follow-up Office Visit
 - F/U 1-3 months depending on level of commitment
 - Remember Chronic Care Model

Shift in Treatment Paradigm

- Educate, Educate, Educate



- Pick issues important to patient-→
Educate, Educate, Educate

Shift in Treatment Paradigm

- COLLABORATE!!



- Patients Make agenda when ready to change

MOTIVATIONAL INTERVIEWING

- Patient centered care approach
- Nonjudgmental, empathetic and encouraging
- Behavior change influenced more by motivation than by information.
- Core principle: People are more likely to accept and act on opinions that they voice themselves.

MOTIVATIONAL INTERVIEWING-"OARS"

- **O** = Open ended questions (start with asking permission)
- **A** = Affirmation
- **R** = Reflective Listening (Repeat and summarize)
- **S** = Summarize

MI.....Step 1

ASK
Permission



MI: OPEN THE ENCOUNTER

- Ask permission: Would you be willing to spend a few minutes talking about Suzy's weight? Are you interested in ways to stay healthy and energized?
- Ask open ended question – Listen – Summarize
 - What do you think? How do you feel about your lifestyle? What have you tried so far to work towards a healthier lifestyle?

MI Continued

- Share BMI/Weight Information
 - Your current weight puts you at risk for developing heart disease and diabetes. Your BMI is 95nd percentile, the recommended level for your age <85th.
 - Ask for patient's interpretation, what do you make of this?
 - Add your own interpretation/advice as needed after eliciting the response of the patient/parent.

MI: NEGOTIATE THE AGENDA

- Some ideas for staying healthy include...
- What are your ideas for working toward a healthy weight?
- Introduce 5 2 1 0 and ask if the patient is interested in discussing one of these further, ask if they have other

Importance/Confidence Ruler

Willingness/ Importance ?

On a scale of 0—10, how willing/important is it to *you* to make a change toward a healthier lifestyle?

0—1—2—3—4—5—6—7—8—9—10

Not Important *Somewhat* *Very Important*

Confidence?

On a scale of 0—10, how confident are you that you can succeed?

0—1—2—3—4—5—6—7—8—9—10

Not Confident *Somewhat* *Very Confident*

MI: ASSESS READINESS & TAILOR THE INTERVENTION

Stage of Readiness	Key Questions
Not ready 0—3 *Raise awareness *Elicit "change talk" *Advise and Encourage	-Would you be interested in knowing more about ways to stay healthy? -How can I help? -What might need to be different for you to consider a change in the future?
Unsure 4—6 *Evaluate Ambivalence *Elicit "change talk" *Build readiness	-Where does that leave you now? -What do you see as your next step? -What are you thinking/feeling at this point? -Where does _____ fit into your future?
Ready 7—10 *Strengthen commitment *Elicit "change talk"	-Why is this important to you now? -What are your ideas for making this work? -What might get in the way? How might you work around these barriers?

EXPLORE AMBIVALENCE

- Step 1: Ask a pair of questions to help patient explore the pros and cons.
 - What are the advantages of keeping things the same? AND What are the advantages of making a change?

EXPLORE AMBIVALENCE

- Step 2: Summarize ambivalence
 - Let me see if I understand what you've told me so far... (start with reasons for maintaining status quo end with reasons to make a change)

CLOSE THE ENCOUNTER

- Summarize: Our time is almost up, let's review what you have worked on today.
- Show appreciation for willingness to discuss change.
- Offer advise, emphasize choices, express confidence

Resources

- www.aap.org
- www.mcph.org/Major_Activities/keep_mehealthy.htm
- www.letsgo.org
- www.nichq.org
- www.letsmove.gov

HealthyKids Team



Pediatrician



Dietician



Psychologist



Nurse Educator



Exercise Physiologist



PAC