

GINGRICH'S BIG WEEK
VELTSIN'S BIG MESS

JANUARY 18, 1997 \$4.50



Girth Of a Nation

**Here's some news that's hard to swallow:
Despite the health craze, Americans are fatter than ever**

Pediatric Obesity: To Treat or Not To Treat?

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Objectives

- Overview Pediatric Obesity Epidemic
- Clinical Practice Guidelines for Pediatric Obesity
- Medical Co-Morbidities of Pediatric Obesity
- Treatment vs. Prevention



Obesity Trends Among U.S. Adults between 1985 and 2006

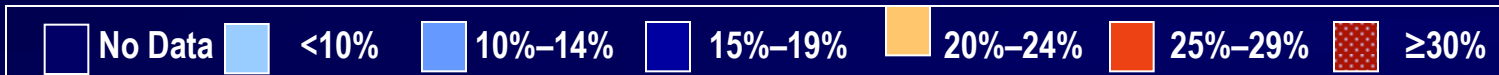
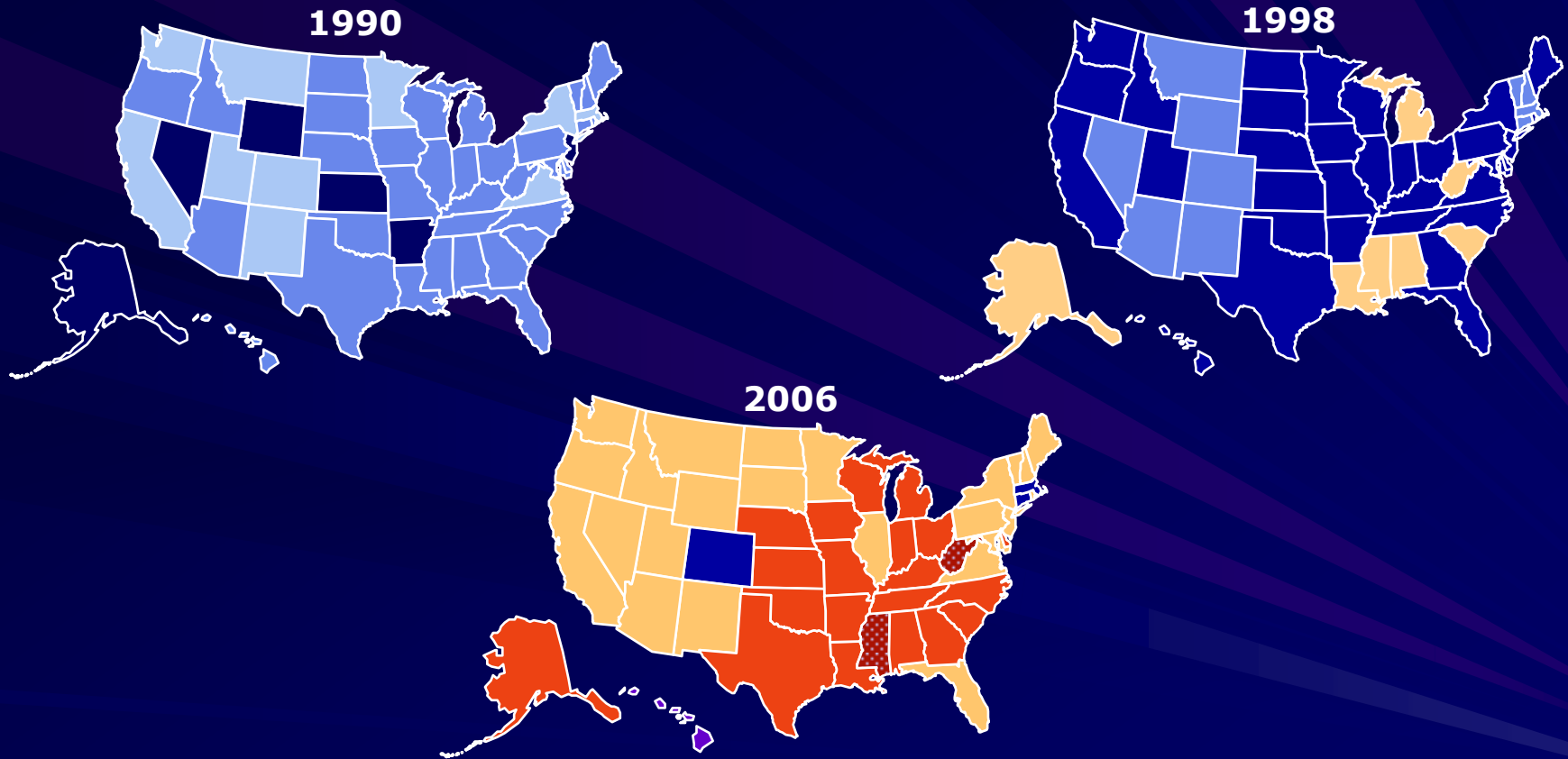
Definitions:

- **Obesity**: having a very high amount of body fat in relation to lean body mass or BMI ≥ 30
- Body Mass Index (**BMI**): a measure of an adult's weight in relation to height, specifically the adult's weight in kilograms divided by the square of his/her height in meters.
- **BMI = Wt / Ht²**

Obesity Trends* Among U.S. Adults

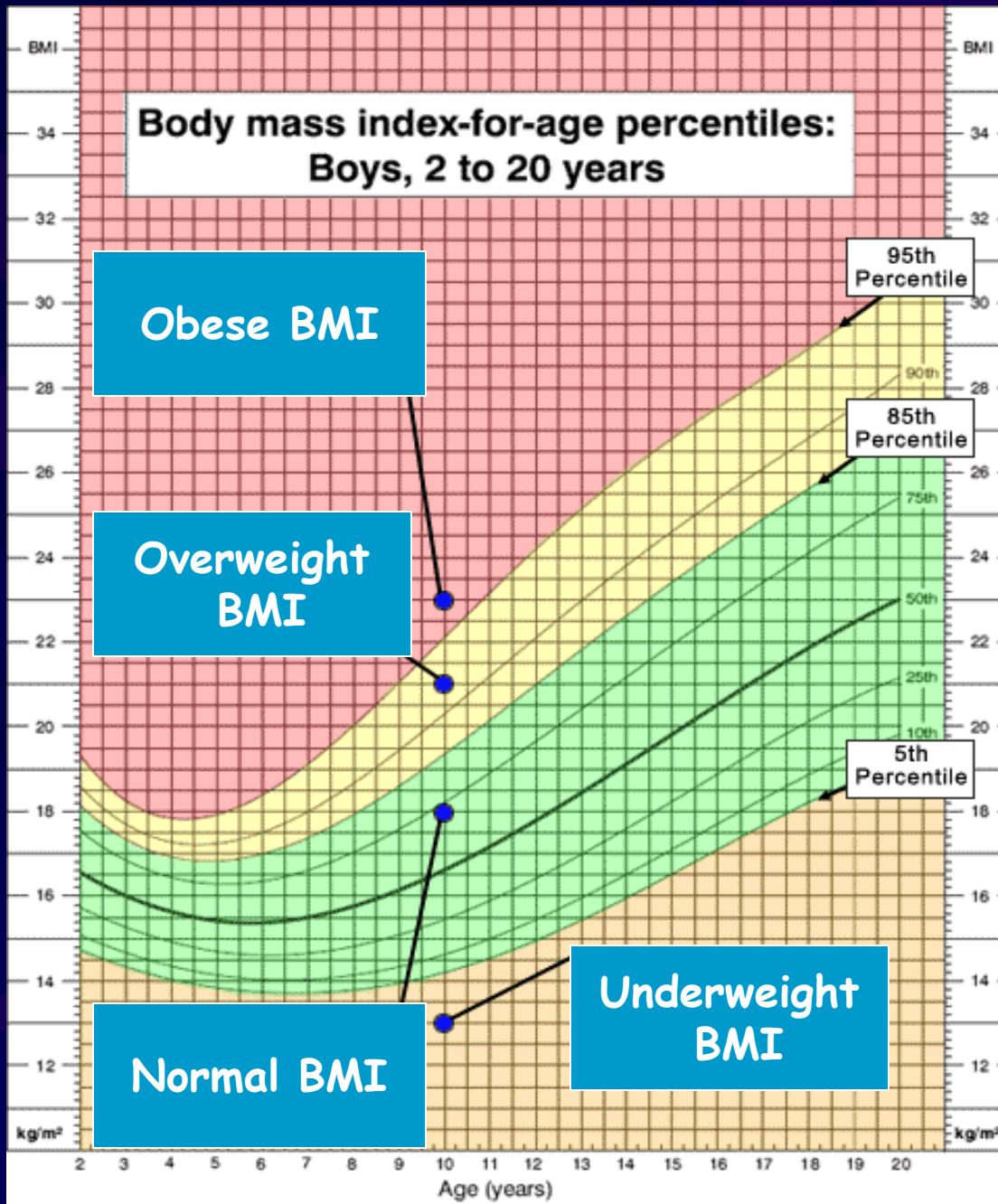
BRFSS, 1990, 1998, 2006

(*BMI ≥ 30 , or about 30 lbs. overweight for 5'4" person)



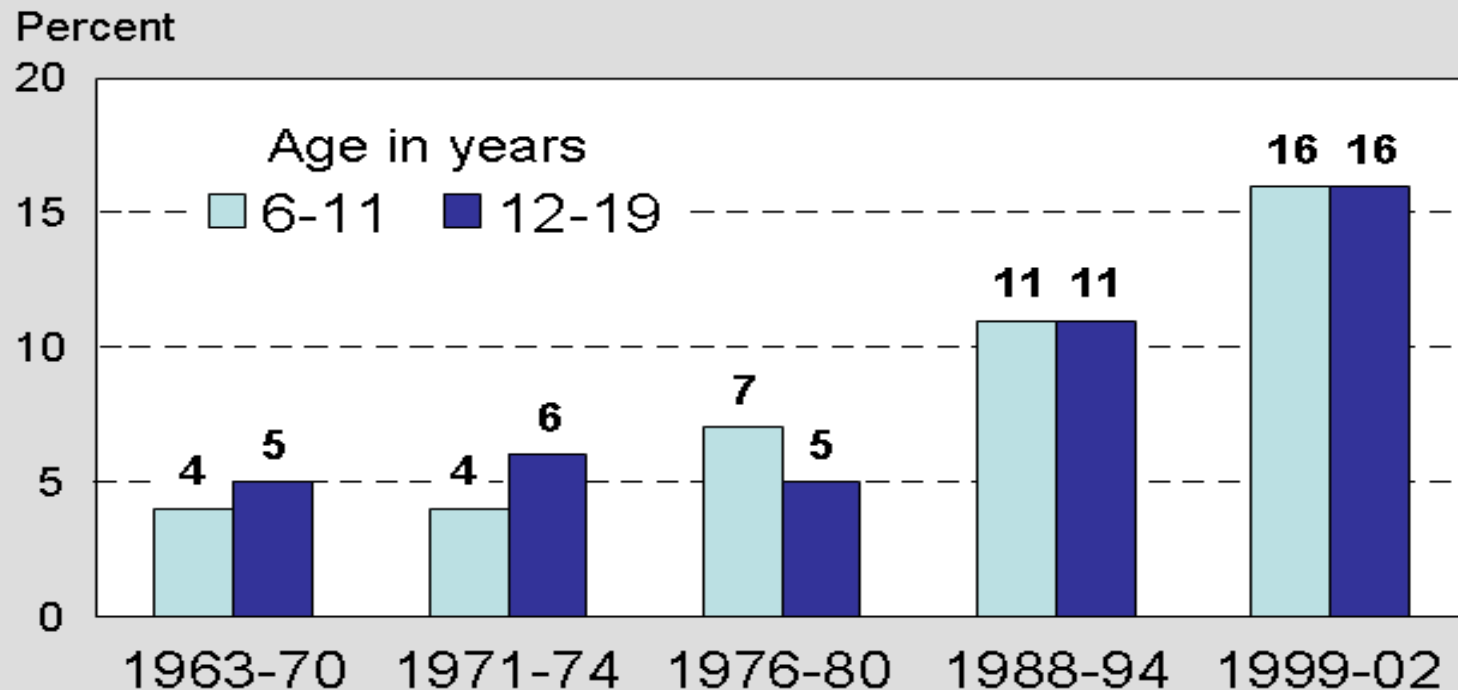
Obesity Trends-Pediatrics

- National Health & Nutrition Exam Survey (NHANES)
- BMI >95% on gender specific BMI-for-age growth charts



Obesity Trends-Pediatrics

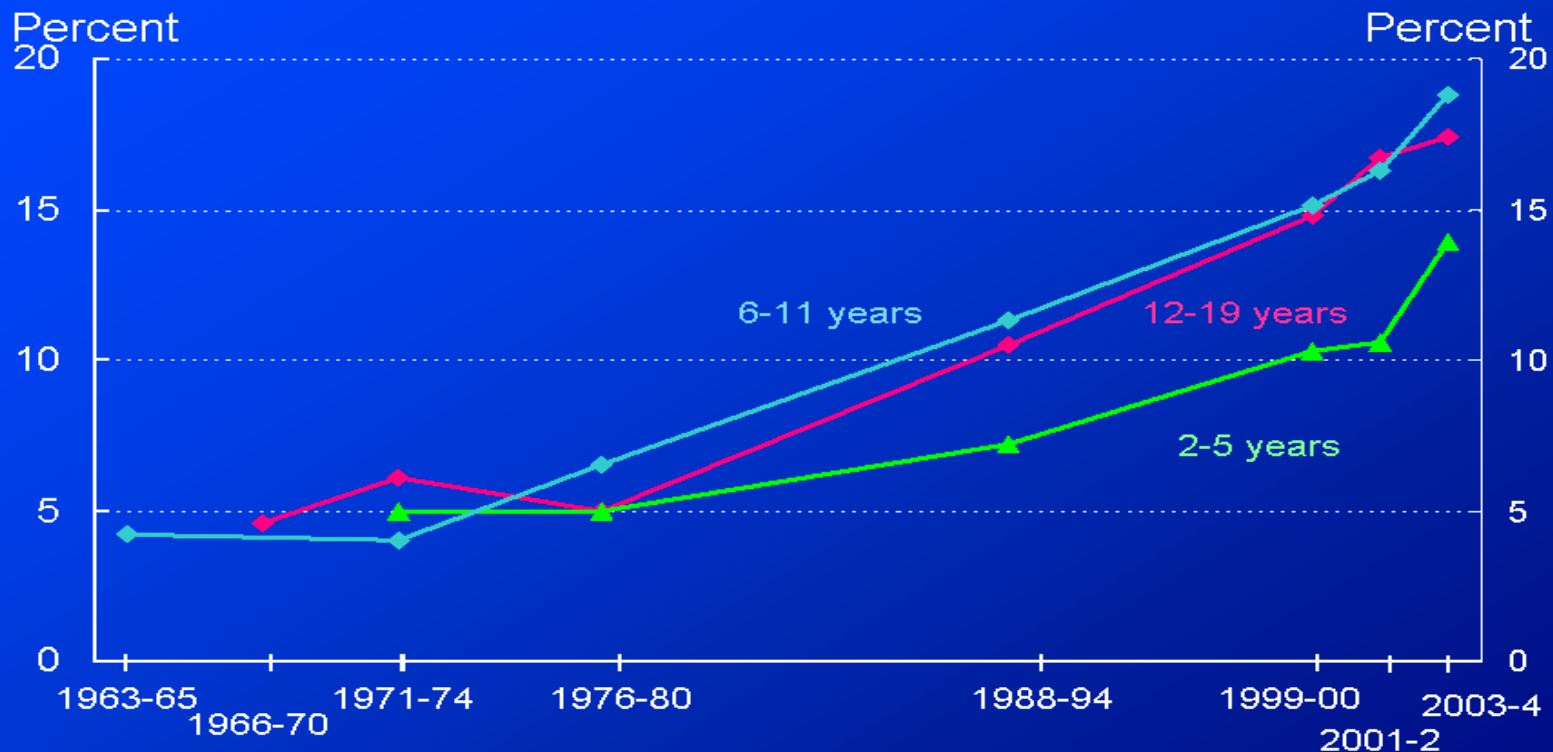
Figure 1. Prevalence of overweight among children and adolescents ages 6-19 years



NOTE: Excludes pregnant women starting with 1971-74. Pregnancy status not available for 1963-65 and 1966-70. Data for 1963-65 are for children 6-11 years of age; data for 1966-70 are for adolescents 12-17 years of age, not 12-19 years.
SOURCE: CDC/NCHS, NHES and NHANES

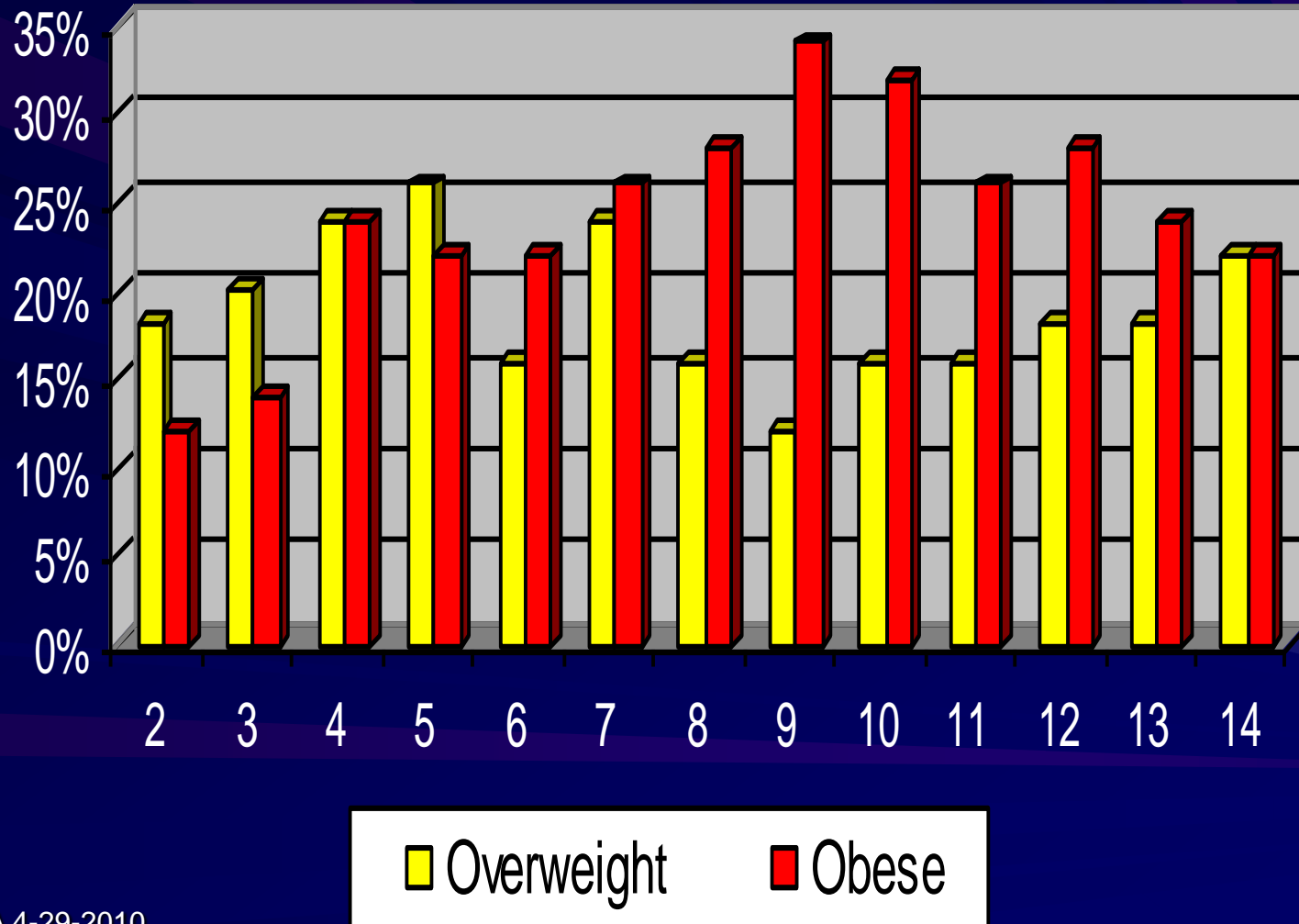
NHANES Prevalence Data

Trends in Child and Adolescent Overweight

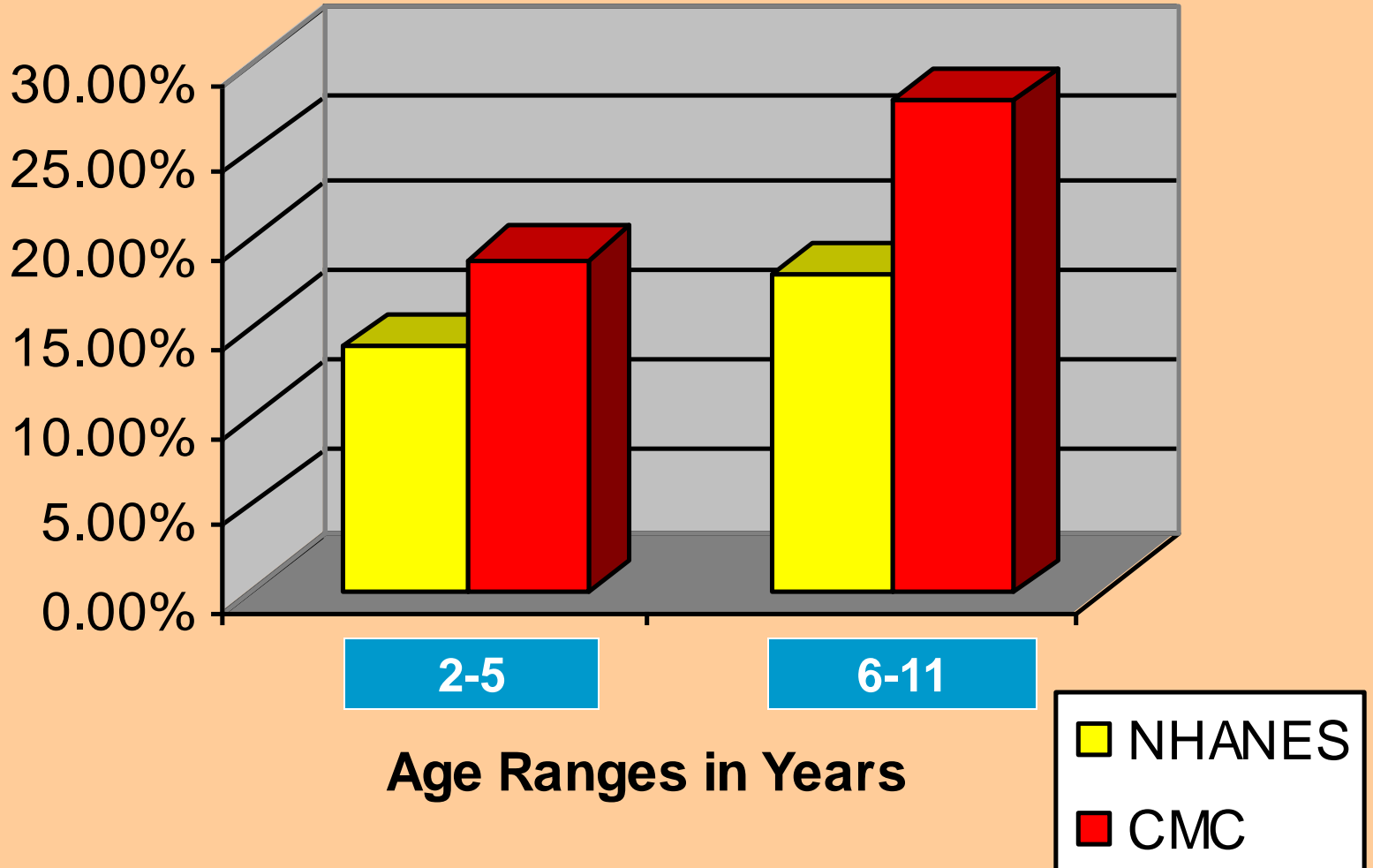


Note: Overweight is defined as BMI \geq gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts.
Source: National Health Examination Surveys II (ages 6-11) and III (ages 12-17), National Health and Nutrition Examination Surveys I, II, III and 1999-2004, NCHS, CDC.

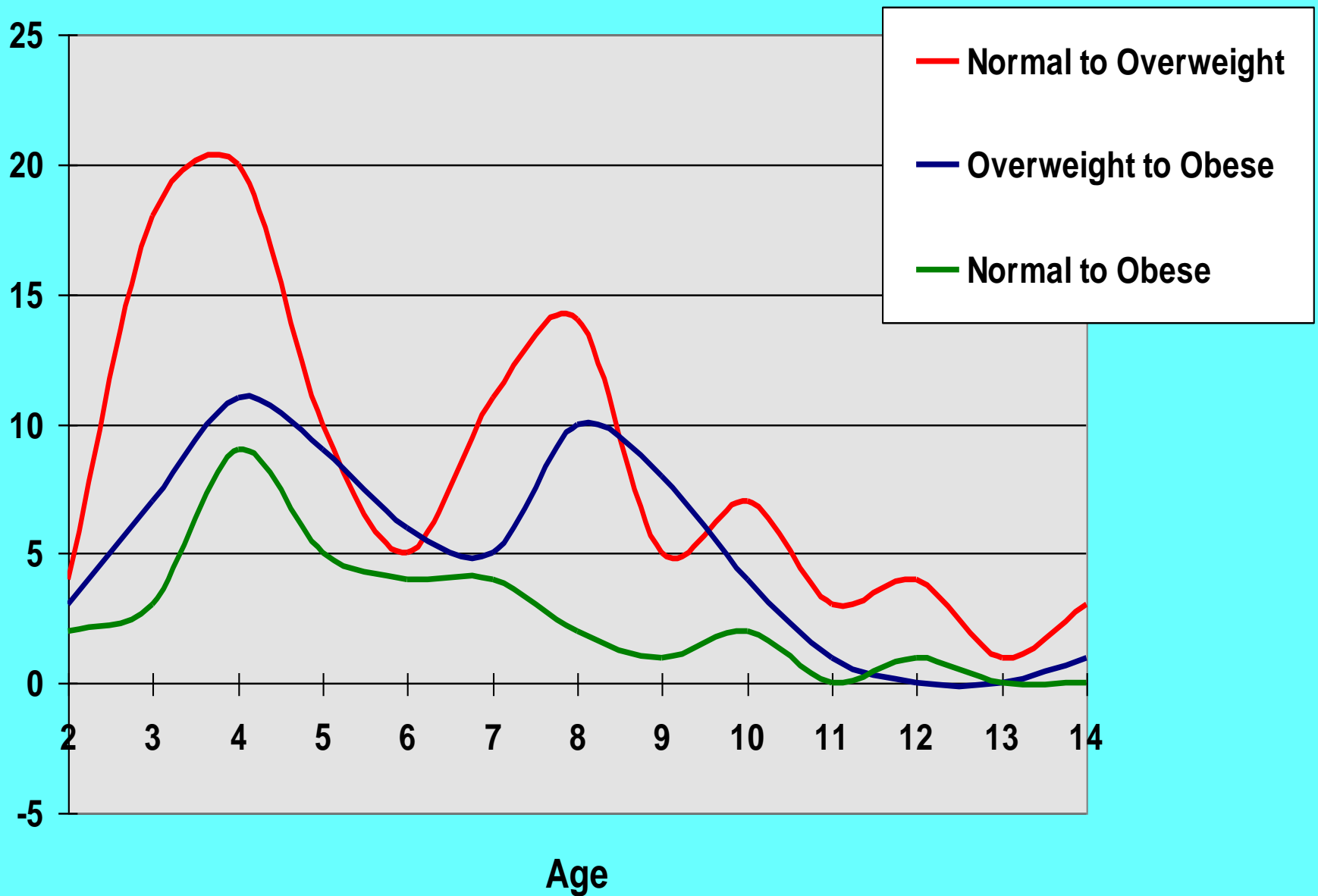
Overweight and Obesity BMI in CMC



Comparison Obesity Prevalence CMC to NHANES



Age of Onset of Pediatric BMI Shifting

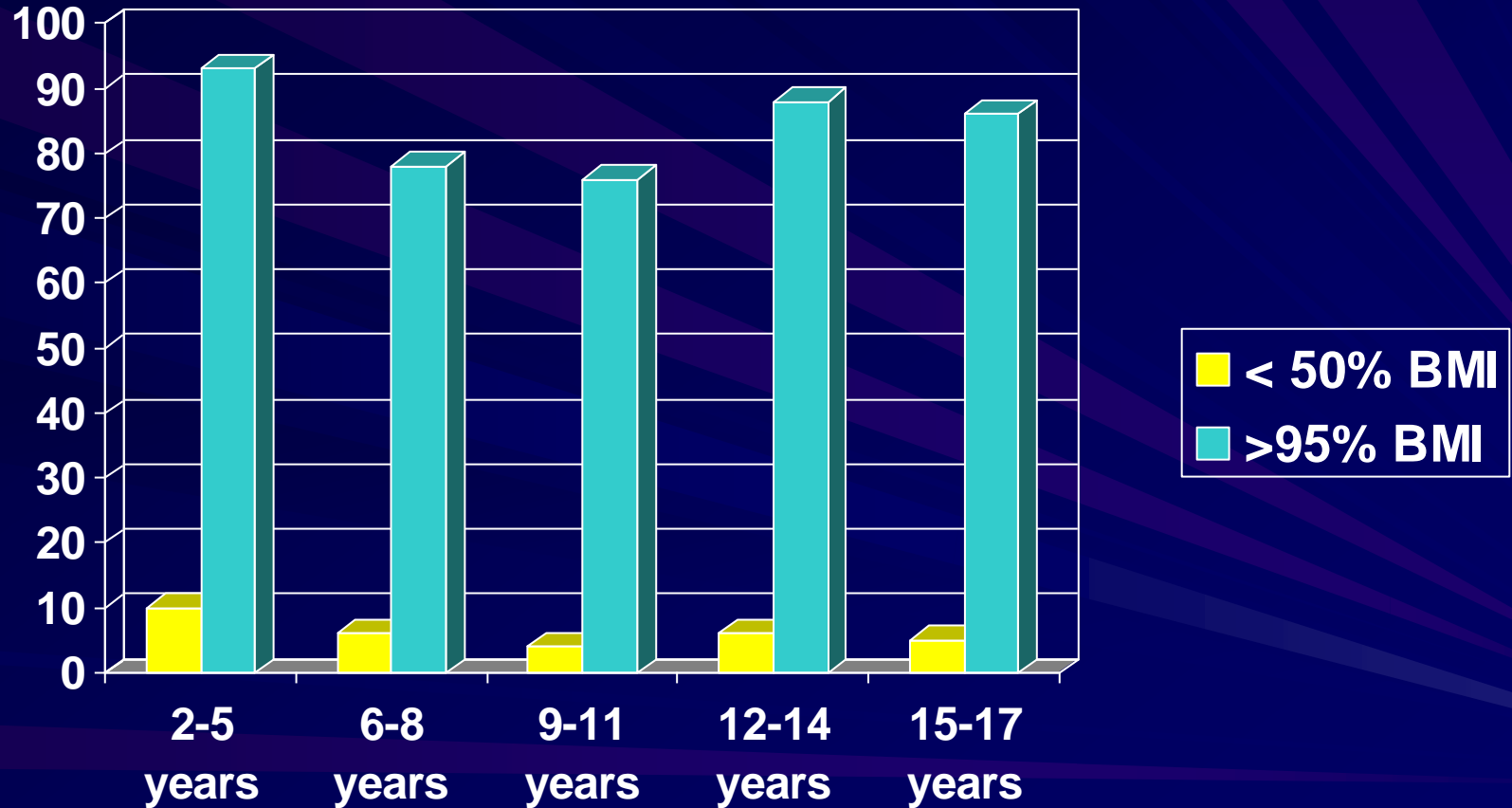




Bogalusa Heart Study

- Cohort Based 1973-1996
- 2,610 Children 2-17 years followed to ages 18-37 years
- Mean follow-up 17.6 years
- BMI-for-age & Skinfold (SF) thickness in childhood compared to adult mean SF (subscapular & triceps SF)

Bogalusa: Proportion of Children Who Become Obese Adults



American Heart Association Meeting, 11-2008

- 70 Children Ages 10-16 with abnormal cholesterol and most obese
 - Ultrasound determined “vascular age” by wall thickness of carotid
 - The group age was 30 years old than their actual age
 - Indicative of increased risk of heart disease

Complications of Pediatric Obesity

- Diabetes, Type II
- Hypertension
- Dyslipidemia
- Metabolic Syndrome
- Sleep Apnea
- NASH
- Gallbladder Disease
- Asthma
- Depression/Anxiety
- Bullying
- PCOS
- Blount's Disease
- Symptomatic Pes Planus
- Chronic Knee Pain
- Pseudotumor Cerebri
- Osteoarthritis

Etiologies

Nature Vs
Nuture



Expert Committee Recommendations (June, 2007)



www.ama-assn.org/ama/pub/category/11759.html

Maine “Keep Me Healthy”



Pediatric Obesity Clinical Decision Support Chart

keep ME healthy

5210

- 5** Eat fruits and vegetables at least 5 or more times on most days.
- 2** Limit screen time unrelated to school to 2 hours or less daily.
- 1** Get 1 hour or more of moderate to vigorous physical activity every day and 20 minutes of vigorous activity at least 3 times a week.
- 0** Drink less sugar. Try water and low-fat milk instead of sugar-sweetened drinks.

Treatment Interventions for the Overweight Child (Feeding Guide for Children over)

Tips for Busy Clinicians (Resources over)

Obesity Assessment

Medical Screening by BMI Category (Reference Values over)

15-Minute Obesity Prevention Protocol

Universal Assessment of Obesity Risk

Hypertension in Children (Hypertension Management Algorithm over)

Blood Pressure Levels—Boys (Girls over)

Coding for Obesity and Related Comorbidities

Body Mass Index (BMI) – Girls (Boys over)

Body Mass Index 99th Percentile Cut-Points/Weight Loss Targets

Let's Move and 5210

for Healthy Active Living

Name _____ Date _____

Ideas for Living a Healthy Active Life

- 5** Eat at least 5 fruits and vegetables every day.
- 2** Limit screen time (for example, TV, video games, computer) to 2 hours or less per day.
- 1** Get 1 hour or more of physical activity every day.
- 0** Drink fewer sugar-sweetened drinks. Try water and low-fat milk instead.

My Goals (choose one you would like to work on first)

- | | |
|---|--|
| <input type="checkbox"/> Eat _____ fruits and vegetables each day. | <input type="checkbox"/> Get _____ minutes of physical activity each day. |
| <input type="checkbox"/> Reduce screen time to _____ minutes per day. | <input type="checkbox"/> Reduce number of sugared drinks to _____ per day. |

Patient or Parent/Guardian signature

Doctor signature

From Your Doctor

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

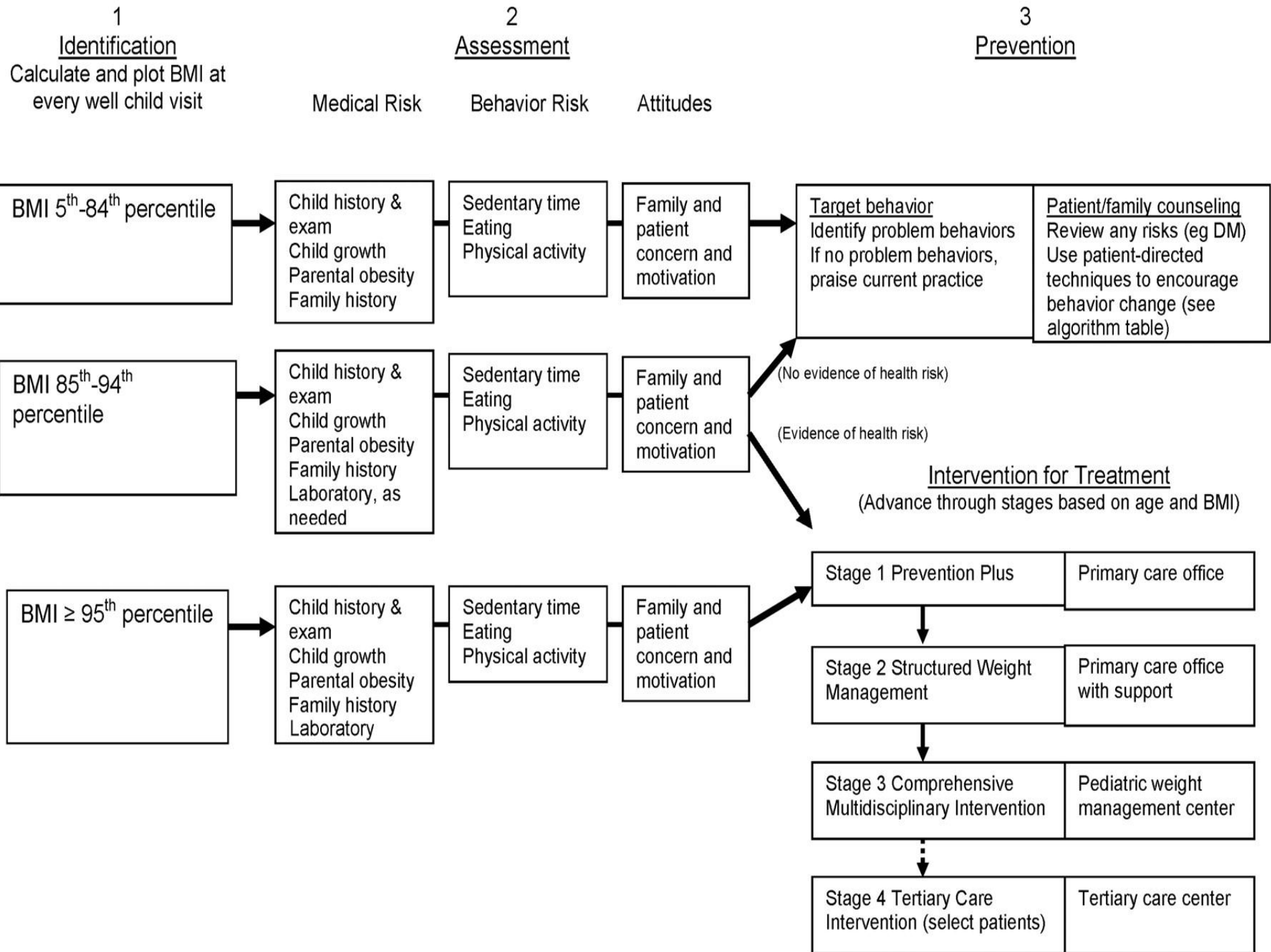


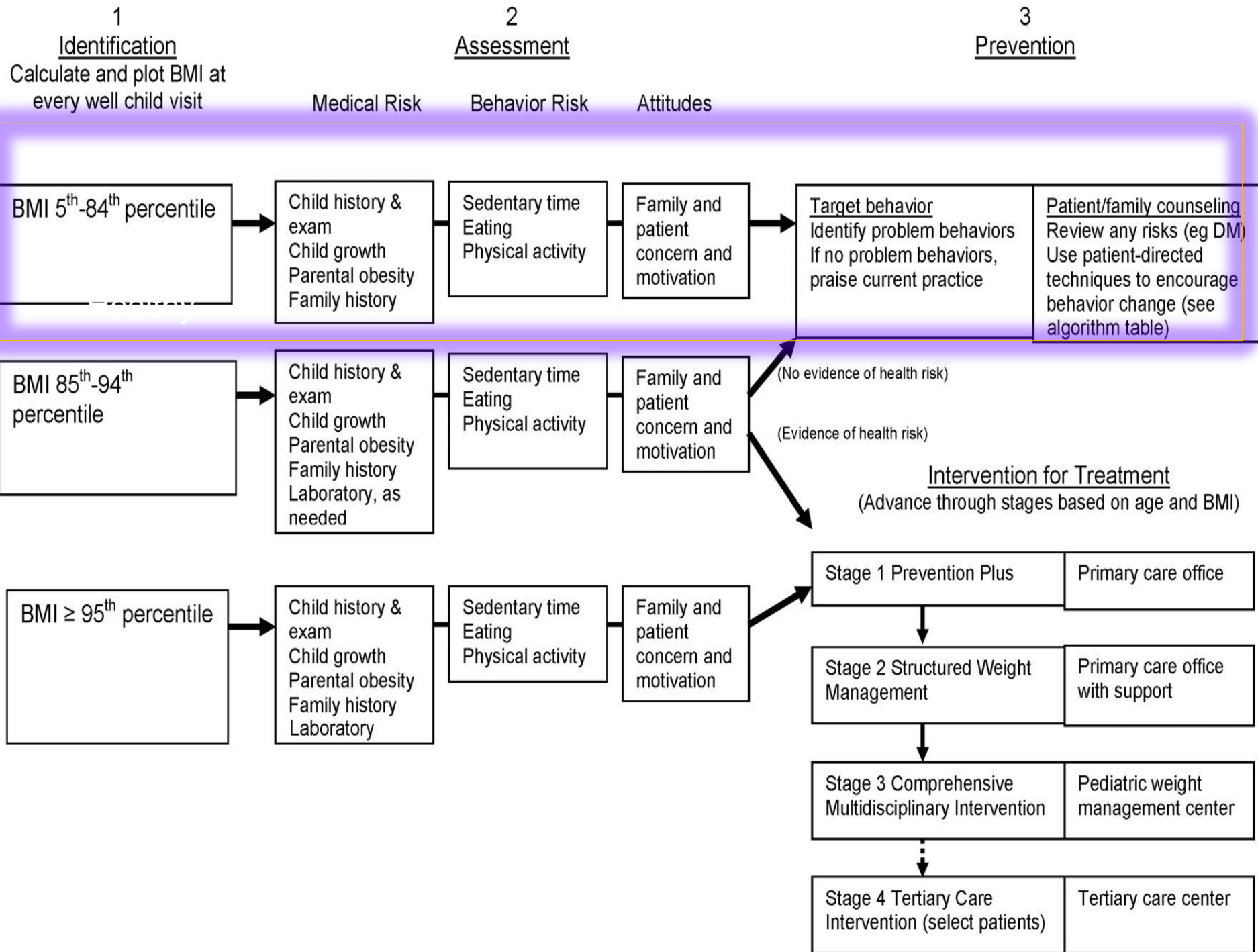
UNIVERSAL ASSESSMENT OF OBESITY RISK

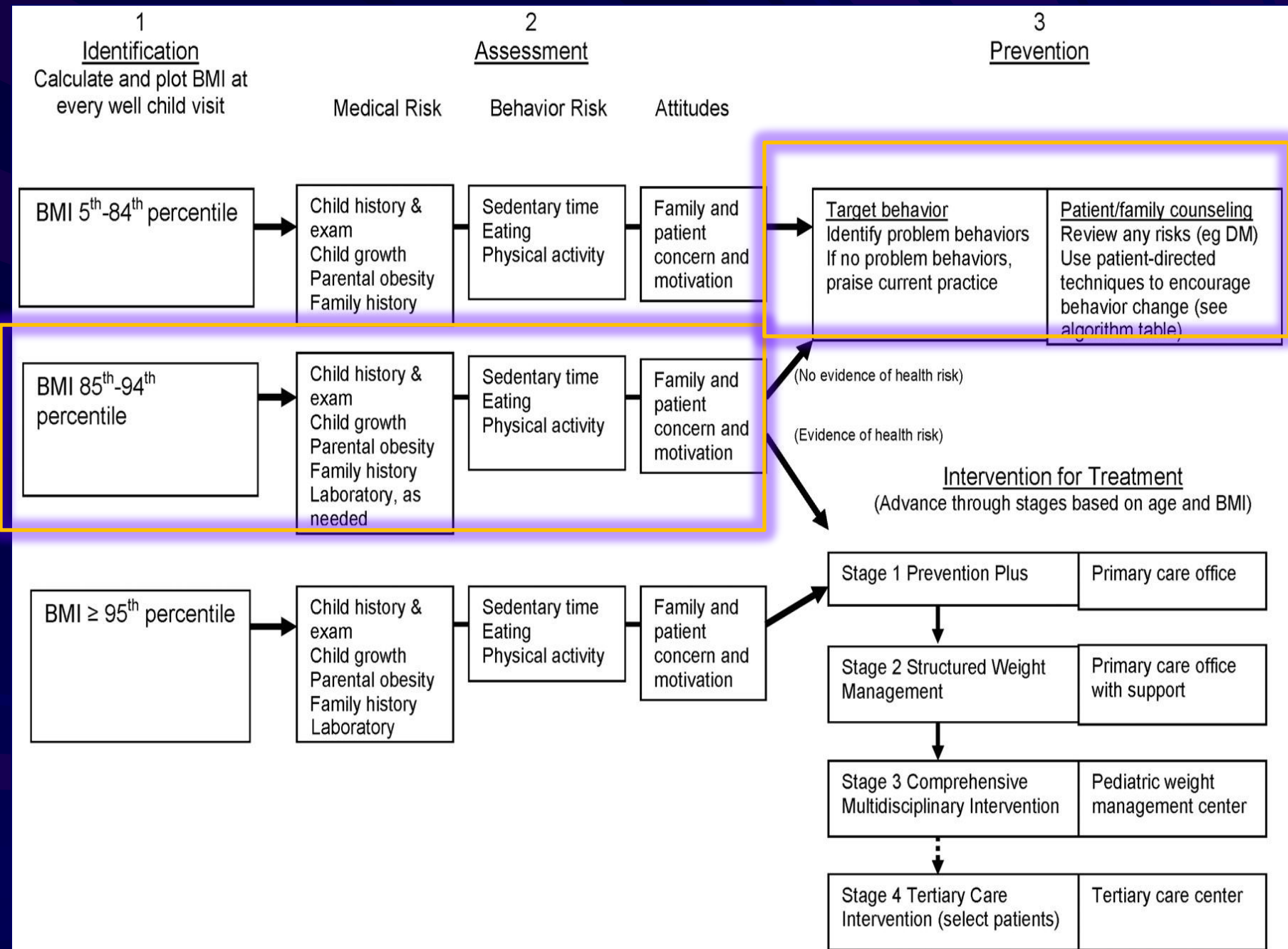
- **Identification:** Calculate and plot BMI at every WCC
- **Assessment:** Identify medical risk, problem behaviors, and attitudes about healthy lifestyle
- **Prevention:** Make a plan based on patients motivation, BMI category and risk factors

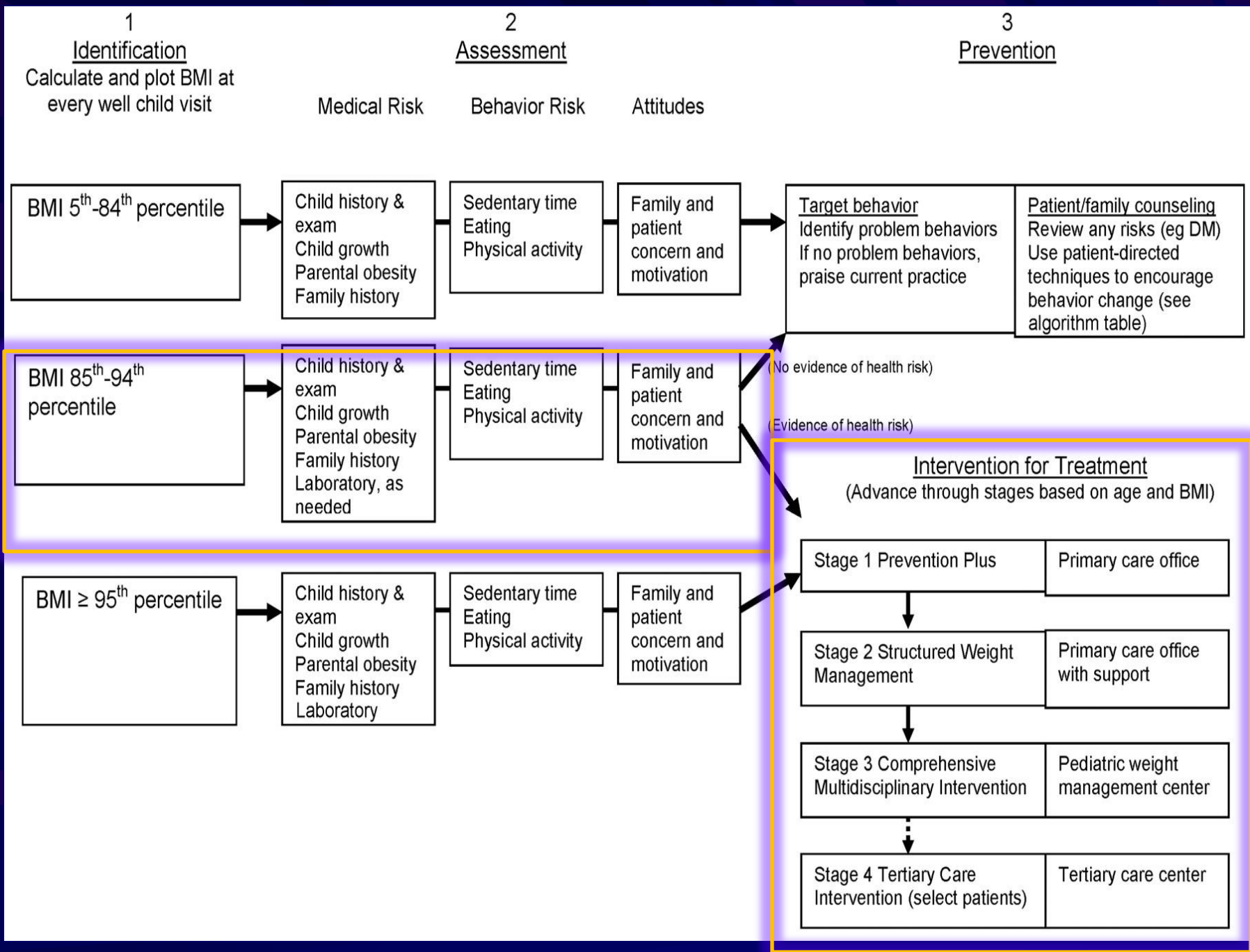
BASIC DEFINITIONS

- 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**









1

Identification

Calculate and plot BMI at every well child visit

2

Assessment

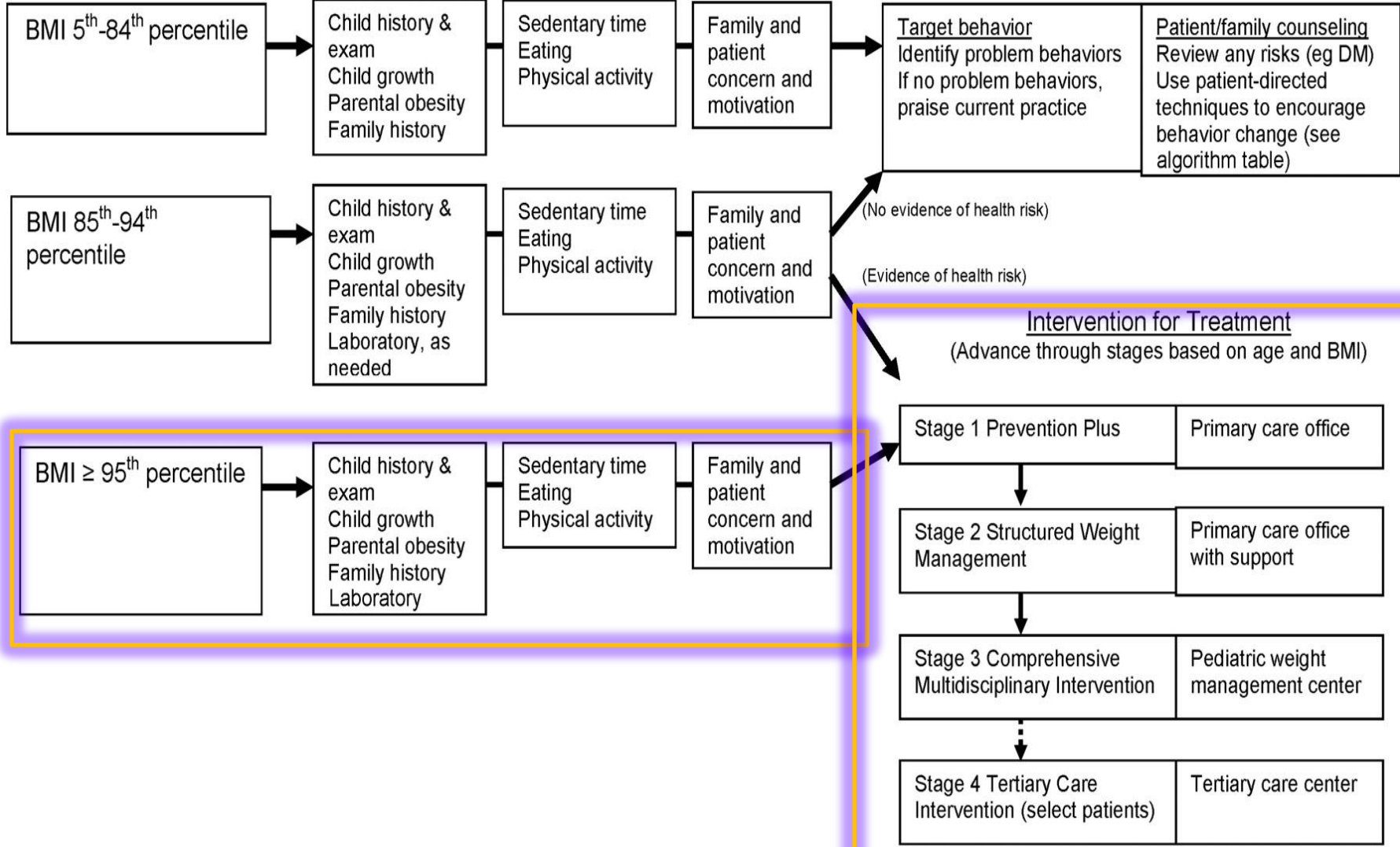
Medical Risk

Behavior Risk

Attitudes

3

Prevention



Medical Screening By BMI

BMI Percentile	Review of Systems	Family History	Physical Examination	Laboratory Tests
5 th -84 th Normal BMI		Obesity, DM-2, HTN, Lipids, CAD	BP (correct cuff)	
85 th - 94 th Overweight	Snoring/sleep abdominal pain; HA; 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



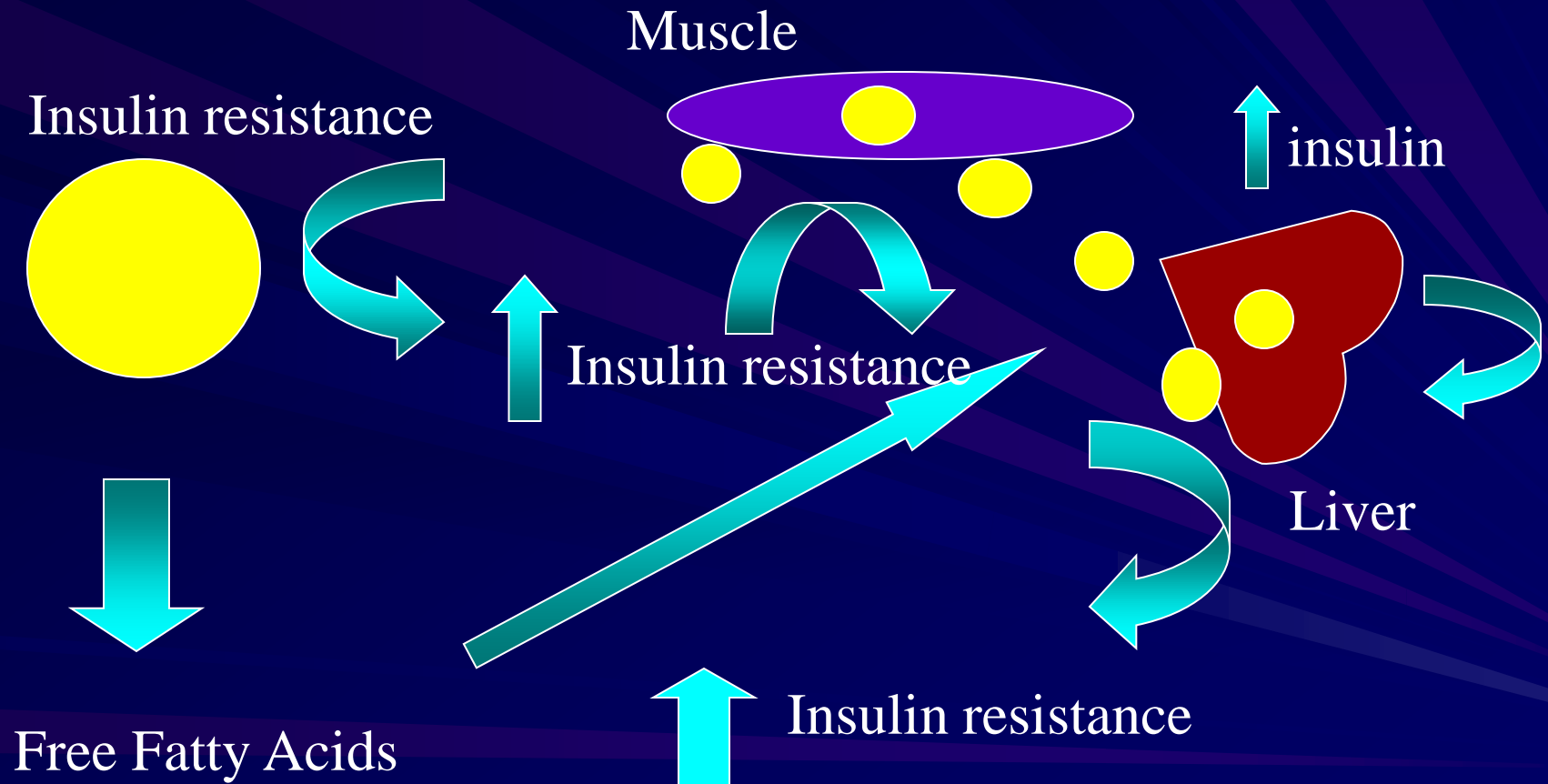
Acanthosis Nigricans



? Acanthosis Nigricans?



INSULIN RESISTANCE AND FAT DEPOSITION



LABORATORY WORK-UP

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

Diabetes Lab Work-Up

Diabetes Work-Up

- Pre-DM
- Impaired Fasting Glucose
 - FBS 100-125 mg/dl
- Impaired Glucose Tolerance
 - 2 hr post 75g glucose
 - 140-199 mg/dl
- DM
- Random BS ≥ 200 with symptoms
 - Polyuria
 - Polydipsia
 - Weight loss
- FBS ≥ 126 mg/dl
- GTT 2 hr ≥ 200 mg/dl

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

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

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 Treatment



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

STRUCTURED WEIGHT MANAGEMENT

■ Goal:

- Weight Maintenance with decreasing BMI
- **Weight loss not to exceed 1 lb/mo in ages 2-11**
- 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 with food and activity monitoring. Short term diet and activity goals.
 - Involvement of families for behavioral modification in children < 12 years

STAGE 3-MULTIDISCIPLINARY INTERVENTION

■ Goals

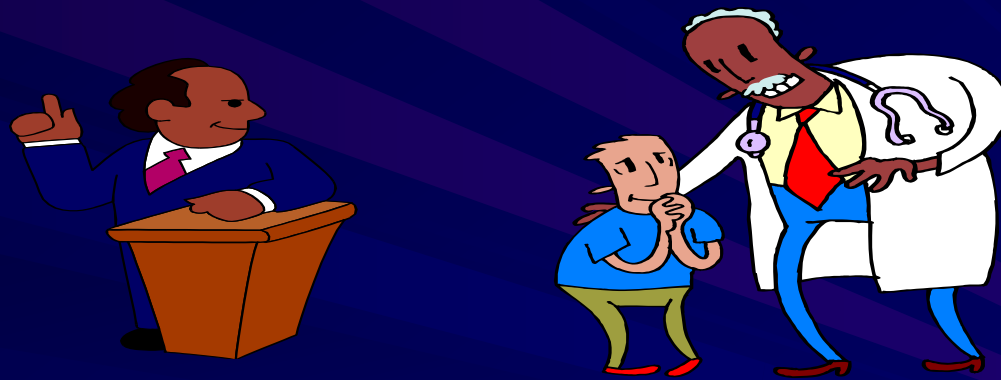
- Weight maintenance or gradual weight loss until BMI <85th %
- Not to exceed 1lb/month in 2-5 year olds
- 2 lbs/week children >5 years old

STAGE 4-TERTIARY CARE INTERVENTION

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

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

SMART Goals

- S-specific
- M-measurable
- A-attainable
- R-realistic
- T-time bound

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
 - Importance/Confidence Ruler
 - Pocket Guide
- Step 4-Summarize and Clarify Goal

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

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

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: 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 BMI is 95nd percentile, the recommended level for your age <85th. Your current weight puts you at risk for developing heart disease and diabetes.
 - 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 ideas
- Goal Oriented

MI: ASSESS READINESS & TAILOR THE INTERVENTION

Stage of Readiness	Key Questions
<p>Not ready 0—3</p> <ul style="list-style-type: none"> *Raise awareness *Elicit “change talk” *Advise and Encourage 	<ul style="list-style-type: none"> -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?
<p>Unsure 4—6</p> <p>Ambivalence</p> <ul style="list-style-type: none"> *Evaluate *Elicit “change talk” *Build readiness 	<ul style="list-style-type: none"> -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?
<p>Ready 7—10</p> <p>commitment</p> <ul style="list-style-type: none"> *Strengthen *Elicit “change talk” 	<ul style="list-style-type: none"> -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
- Confirm next steps and schedule follow up.

Prevention is Key



Let's Move and 5210

for Healthy Active Living

Name _____ Date _____

Ideas for Living a Healthy Active Life

- 5** Eat at least 5 fruits and vegetables every day.
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My Goals (*choose one you would like to work on first*)

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Patient or Parent/Guardian signature

Doctor signature

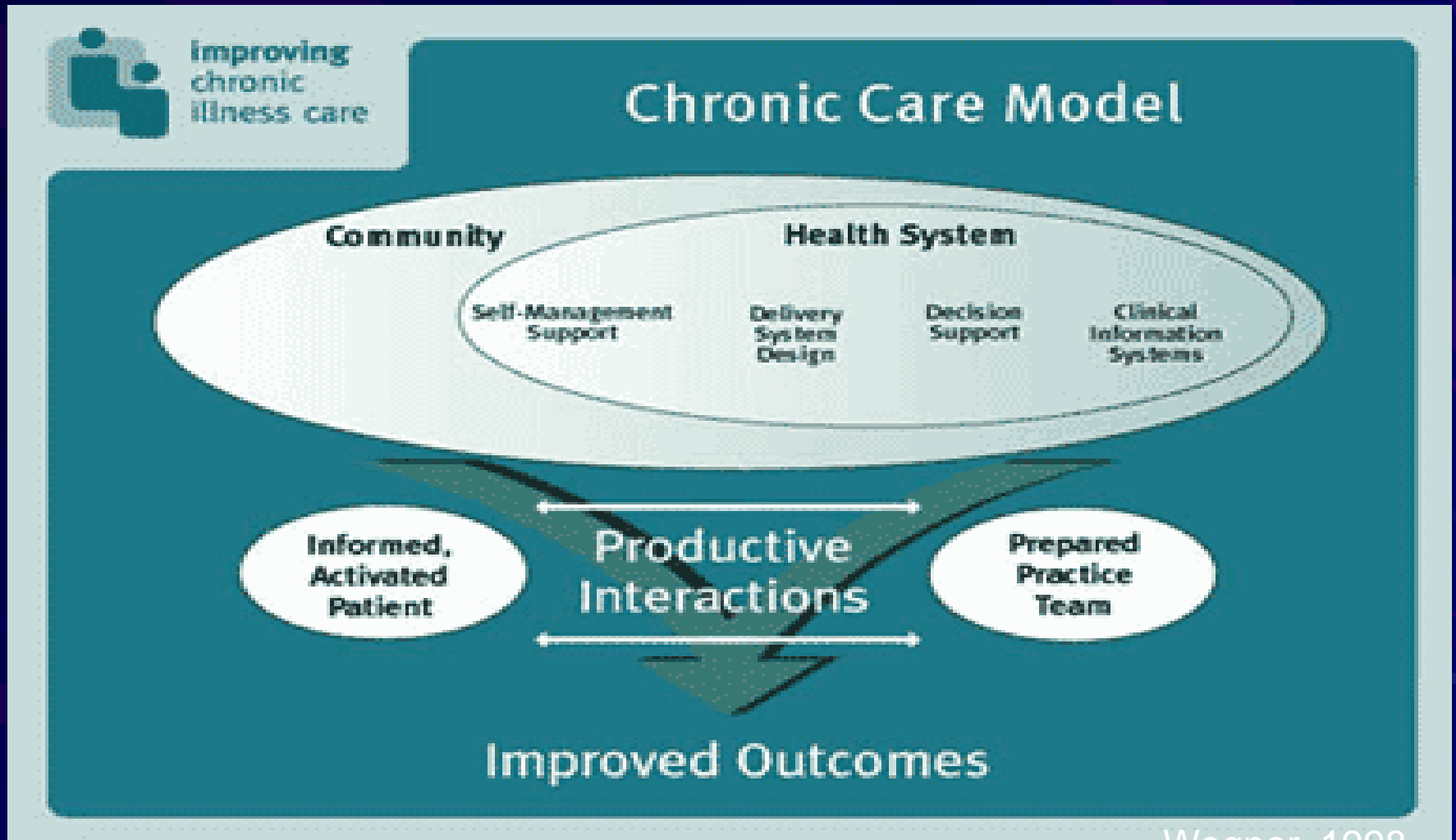
From Your Doctor

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™



 **Healthy Active Living**
An Initiative of the American Academy of Pediatrics

Chronic Care Model



Wegner, 1998

Any Questions

