

Childhood Obesity Management Starts Prenatally Prevention Crucial to Lifelong Success

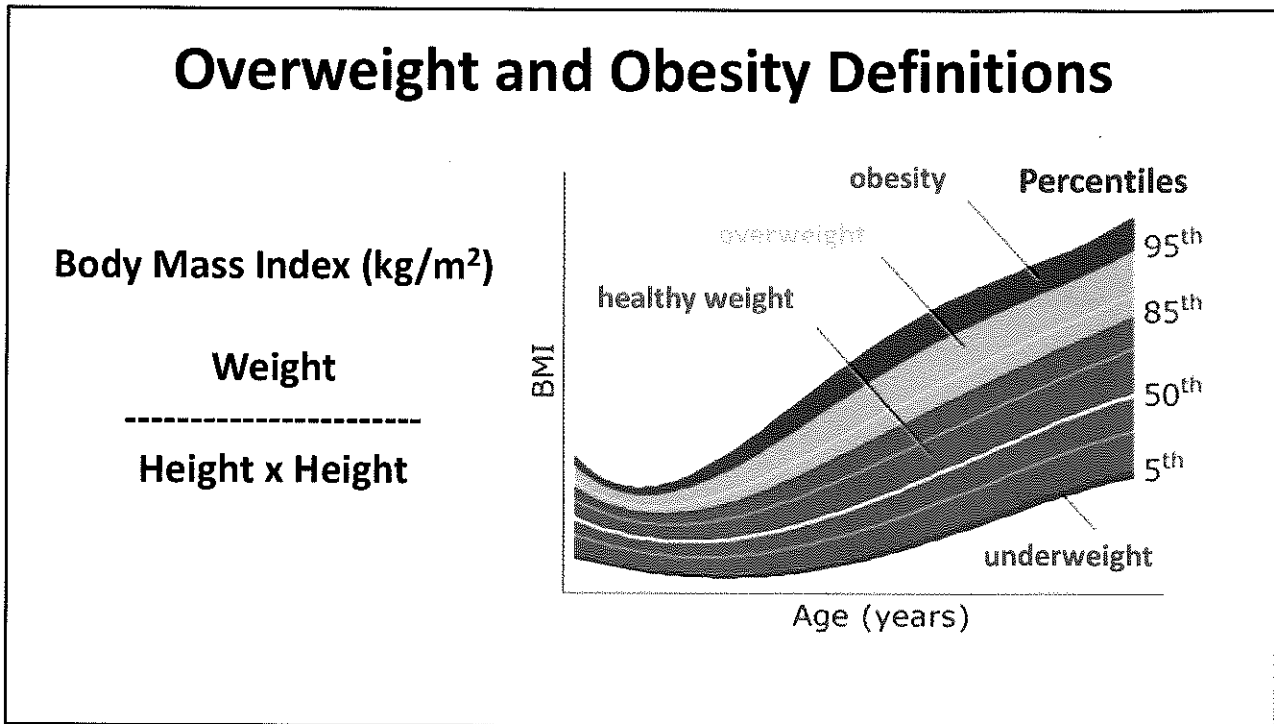
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Wisconsin Collaborative for Healthcare Quality (WCHQ) Obesity Advisory Group**

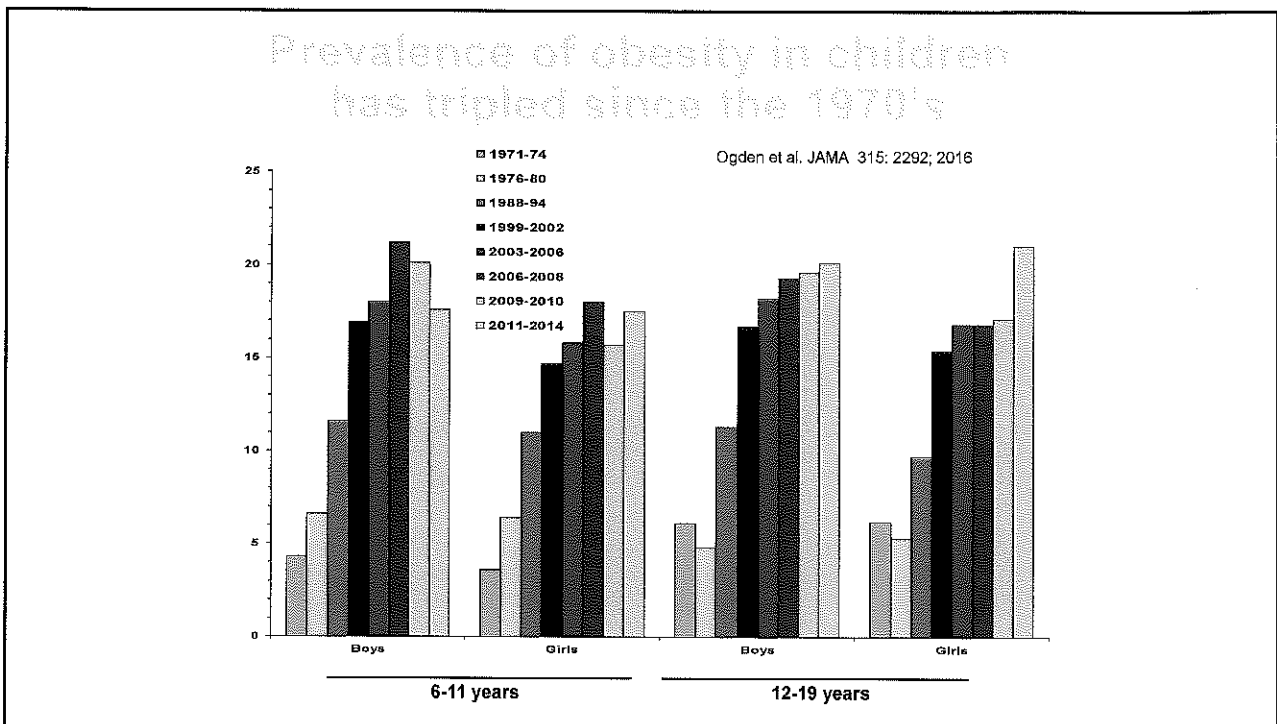
Wisconsin Speaker's Task Force on Childhood Obesity

Madison, Wisconsin

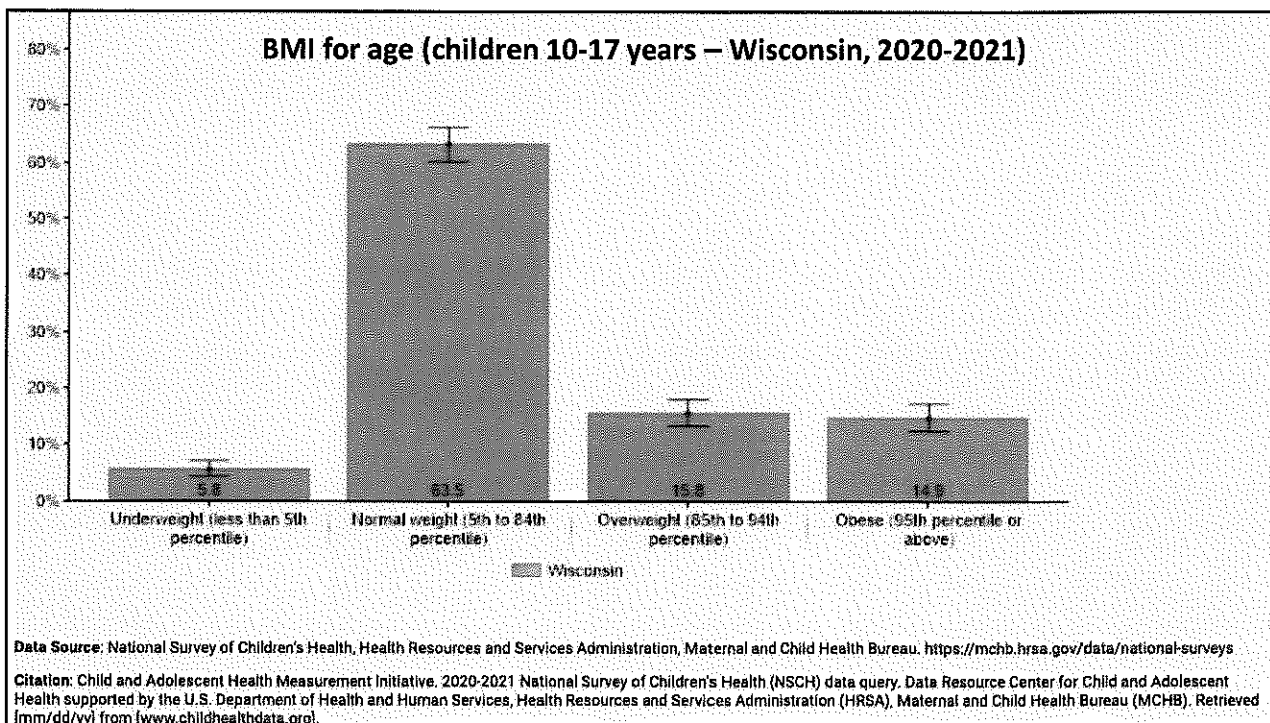
September 26, 2023



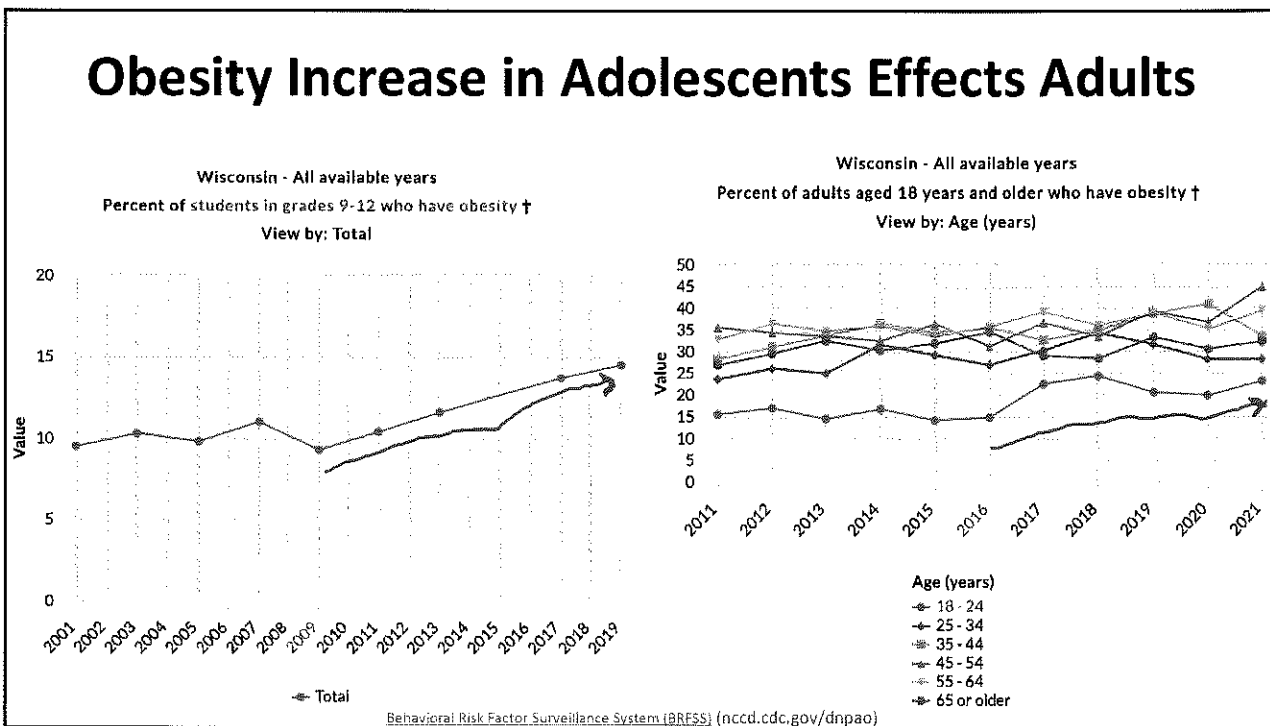
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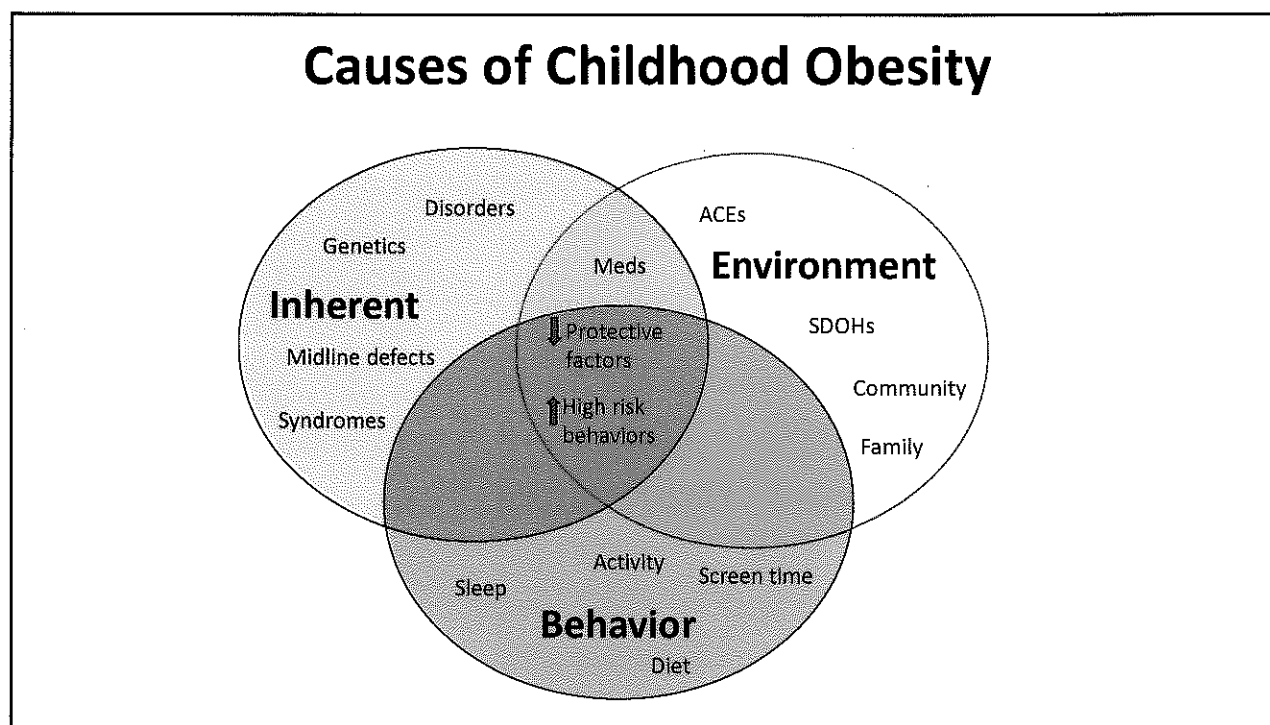
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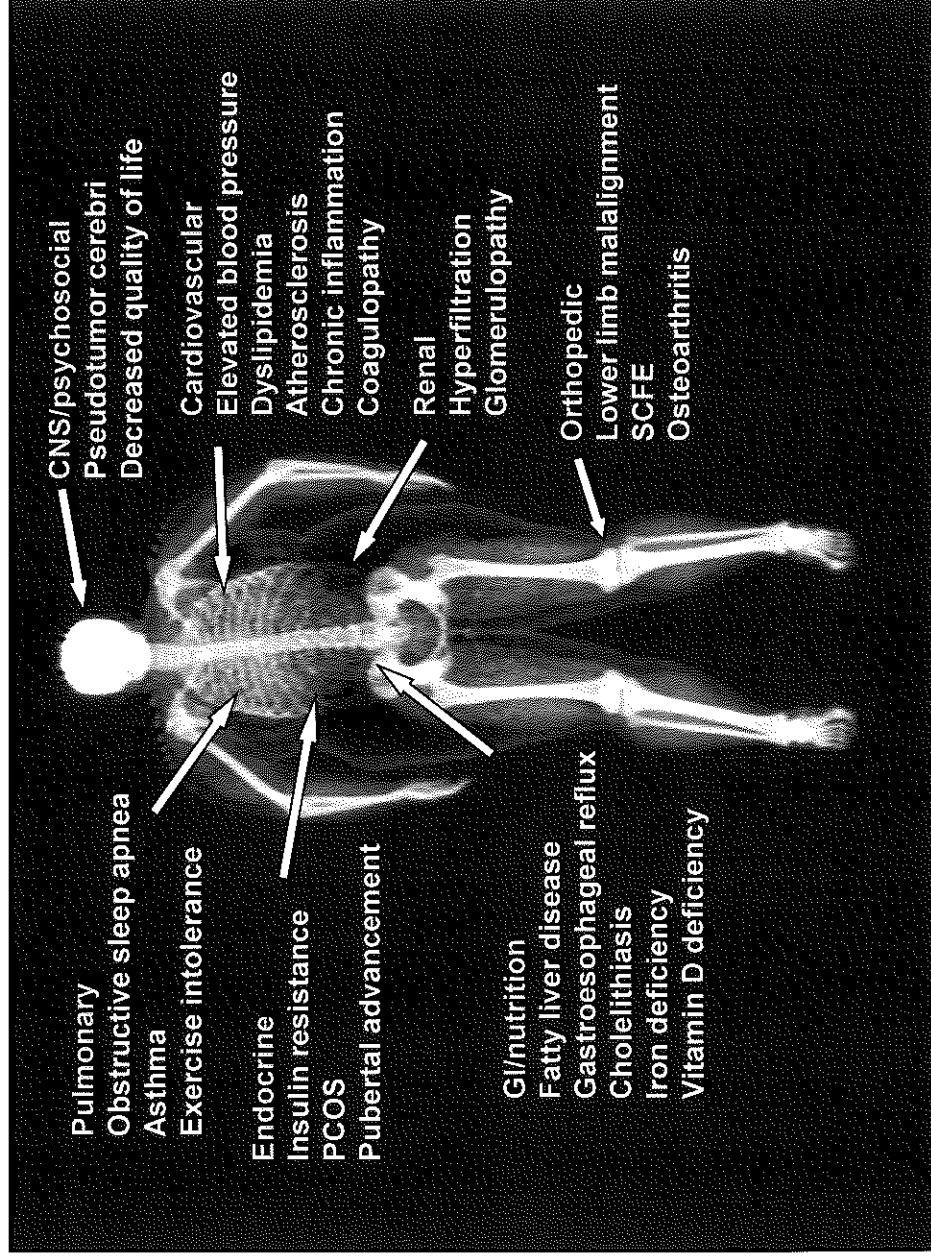
Prenatal/Perinatal Risk Factors

- Maternal adiposity, gestational weight¹
- Gestational diabetes, HTN
- Gestational weight gain (GWG)
- Newborn weight: LGA, SGA, IUGR
- Newborn gestational age: Prematurity
- Maternal fecal microbiome¹

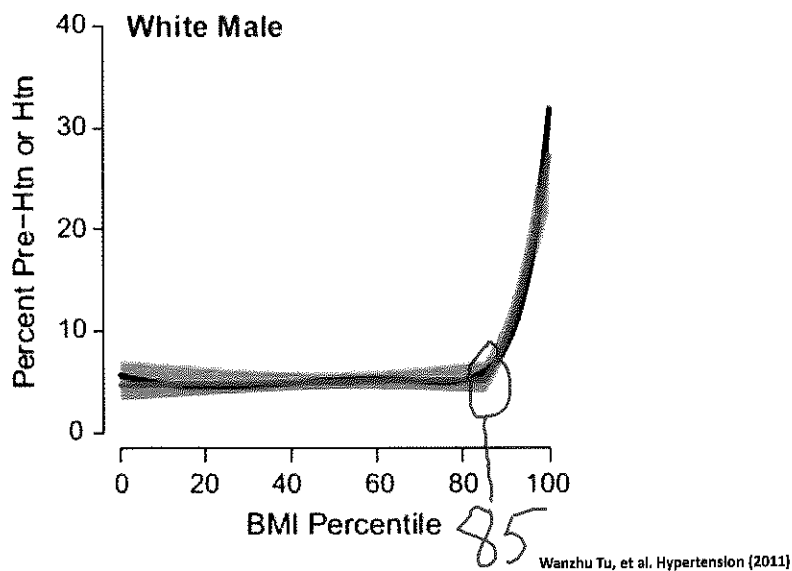
1. Wankhade, et al. *Mol Cell Endocrinol* 435: 7-19; 2016
 2. Mamun, et al. *Circulation* 119: 1720-1727; 2009

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Complications of Childhood Obesity

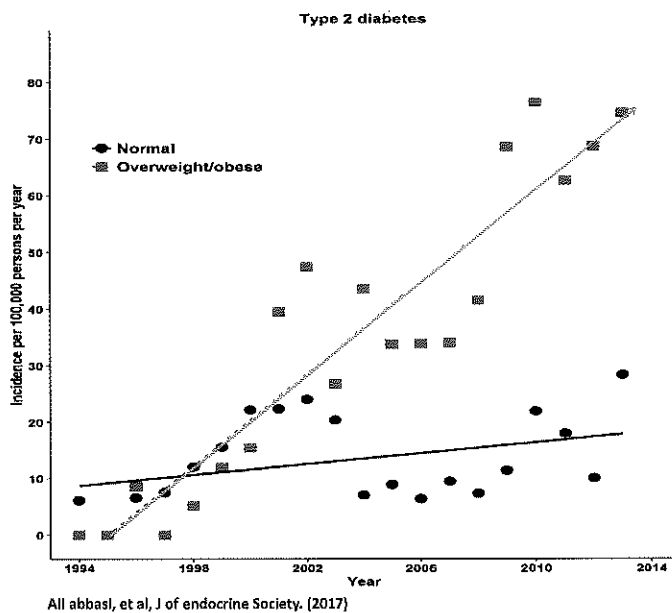


Obesity Complications: Hypertension



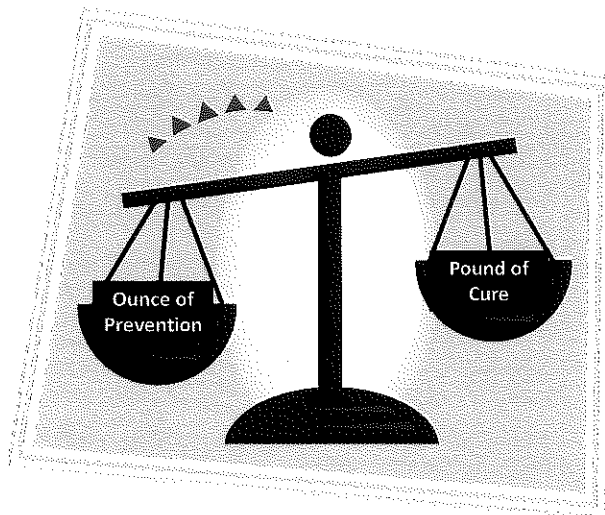
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Type 2 Diabetes and Obesity in Children



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Prevention of Obesity... Timing is Key



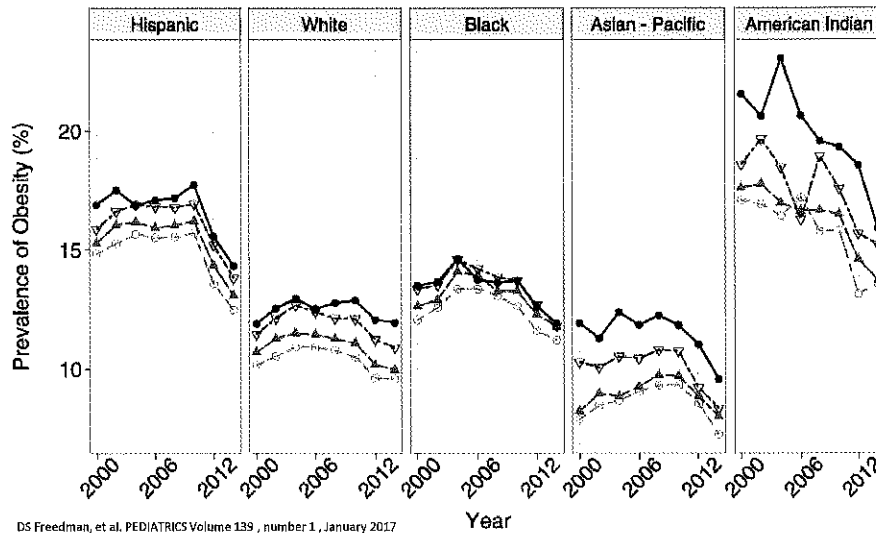
- Time period between birth and 5 years critical because incident obesity highest before age 5 years
- Overweight 5-year-olds are 4 times more likely than normal weight children to have obesity as adolescent
- 14.9% in OW and 12.4% in obesity category at baseline (entering KG = 5.6yrs)

(Cunningham SA et al. N Engl J Med. 370:403; 2014)

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Prevalence of Infant Obesity... By Race-Ethnicity and Percent Poverty

Relative Income: —●— < 50 —▲— 50 to 99 —▲— 100 to 149 —○— ≥ 150



DS Freedman, et al. PEDIATRICS Volume 139, number 1, January 2017

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Childhood Obesity Interventions

TREATMENT

P&PHCPs *should* treat overweight/obesity & comorbidities concurrently (KAS 4) following the principles of the medical home and the chronic care model, using a family-centered and non-stigmatizing approach that acknowledges obesity's biologic, social, and structural drivers.(KAS 9)

Components of Comprehensive Treatment	Overweight			Obesity		
	<6y	6 to <12y	≥12y	<6y	6 to <12y	≥12y
★ Motivational Interviewing ¹ (KAS 10)	✓	✓	✓	✓	✓	✓
★ Intensive Health Behavior and Lifestyle Treatment ¹ (KAS 11)	⊕	✓	✓	⊕	✓	✓
Weight Loss Pharmacotherapy ^b (KAS 12)						✓
Offer referral to Comprehensive Pediatric Metabolic & Bariatric Surgery programs ¹ (KAS 13)						✓ ⁱ

★ Optimize Healthy Lifestyle/Behavior

SE Hampel, et al (AAP Clinical Practice Guideline) Pediatrics 151 (2), 2023.

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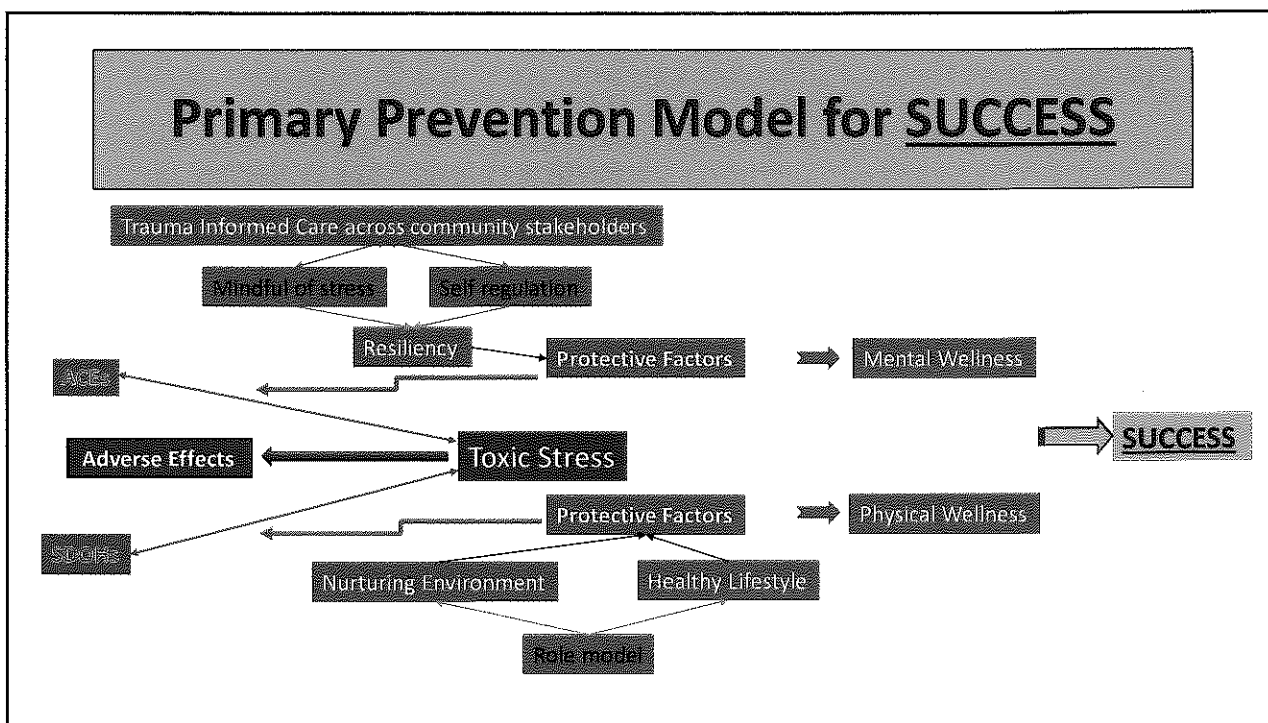
Promotion of Healthy Lifestyle

- Preconception maternal obesity prevention and treatment
- Prenatal healthy lifestyle promotion
- Postnatal anticipatory guidance for every child
- Postnatal surveillance and intervention¹
 - "5-2-1-0" from infancy
 - Promote breast milk feeding for first 6 months
 - Start screening for obesity early
 - Flag charts of children with overweight and obesity
 - Assess barriers for healthy lifestyle (SDOHs, ACEs)
- Advocacy: Promote efforts in schools, communities, businesses, public health policies

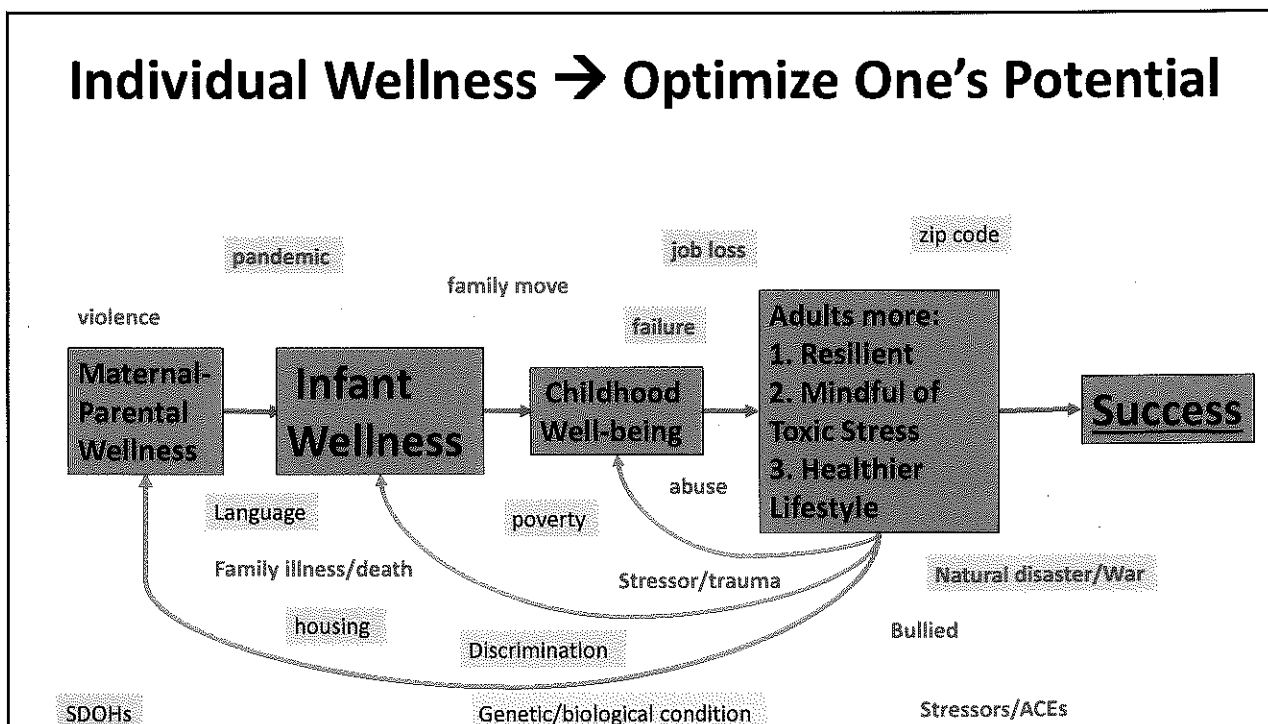


1 Davis MD et al. Pediatrics 120 (4): S229-S253, 2007
Part of AAP recommendations

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Mitigation of Obesity (Chronic Disease): “Primary Prevention”* for ALL

- **Promotion of Healthy Lifestyle through all age groups**
- **Reduce ACEs and SDOHs (much harder to accomplish):**
 - Screening
 - Tools for local availability of resources... “inventory of services” by wrap-arounds
 - Collective comprehensive community process
- **Prevention of Toxic Stress (easier to implement):**
 - **Trauma Informed Care**
 - **Building resiliency/healthy coping skills → Protective Factors**
 - **Fostering nurturing environment → Protective Factors**
 - **Promotion of healthy lifestyle: regular exercise, good nutrition, adequate sleep → Protective Factors**

*American Academy of Pediatrics