# Setting the Stage: Obesity & Pediatrics

Kofi Essel, MD, MPH, FAAP Assistant Professor of Pediatrics Director, GW Culinary Medicine Program

**FUTURE OF PEDIATRICS** 

### PLEASE DON'T WEIGH ME UNLESS IT'S (REALLY) MEDICALLY NECESSARY

If you really need my weight, please tell me why so that I can give you my informed consent.

#### WHY? BECAUSE:

- ✓Most health conditions can be addressed without knowing my weight.
- When you focus on my weight I get stressed
- (and that's not healthy). ✓Weighing me every time I come in for an
- appointment and talking about my weight like it's a problem perpetuates weight stigma (a known & serious health risk).
- I pursue healthy behaviors regardless of my weight status (see: Health at Every Size).



## How did we get here?

## What did we do wrong?

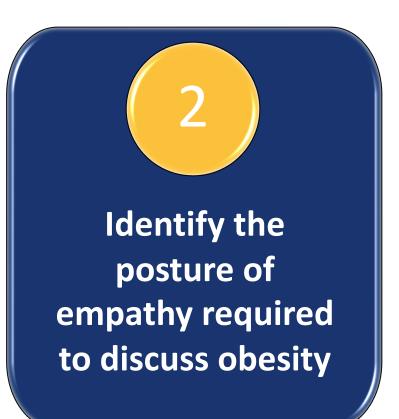
# Should we even be talking about this topic anymore?



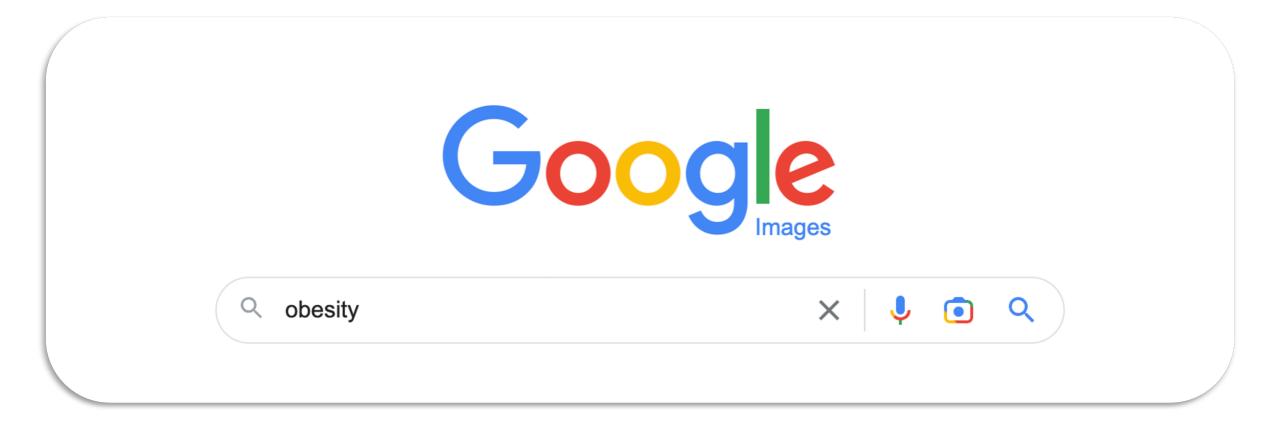
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## **Objectives**





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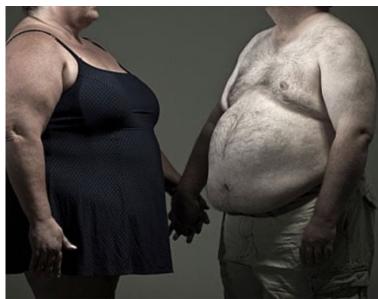
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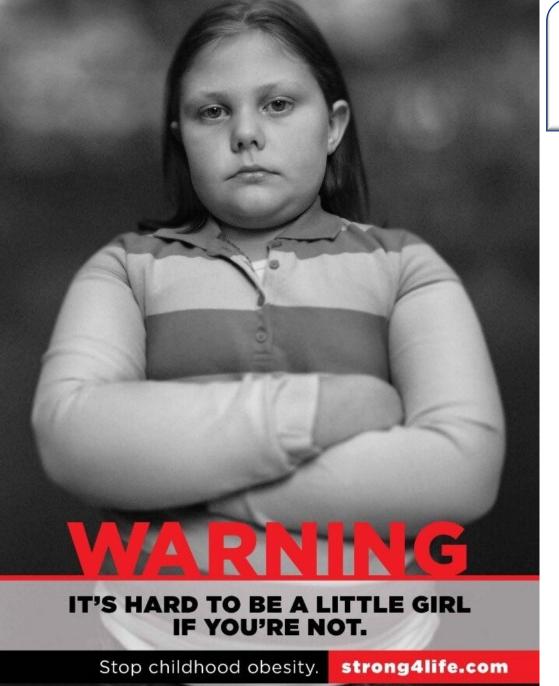
SPECIAL HEALTH ISSUE

# Our Super-Sized Kids

It's not just genetics and diet. An in-depth look at how our lifestyle is creating a juvenile obesity epidemic and the scoop on how to cure it







Brought to you by Children's Healthcare of Atlanta

"Stop Sugarcoating It, Georgia" Campaign



"It has to be harsh. If it's not, nobody's going to listen," says Linda Matzigkeit, vice president of **Children's Healthcare of Atlanta**, the pediatric hospital running the campaign. -NPR(1/9/12)

# Dehumanizing







# Strategic/Intentional

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**Descriptive Terms** 



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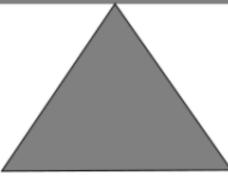


# What is Obesity?

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## CALORIES CONSUMED

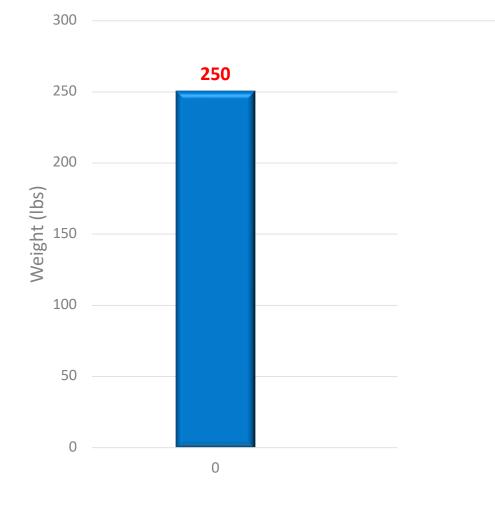
## CALORIES BURNED



## 3500 Calories = 1 Pound **FUTURE OF PEDIATRICS**

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### Weight Loss Over Time



Time (Weeks)

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### Persistent Metabolic Adaptation 6 Years After "The Biggest Loser" Competition

Erin Fothergill<sup>1</sup>, Juen Guo<sup>1</sup>, Lilian Howard<sup>1</sup>, Jennifer C. Kerns<sup>2</sup>, Nicolas D. Knuth<sup>3</sup>, Robert Brychta<sup>1</sup>, Kong Y. Chen<sup>1</sup>, Monica C. Skarulis<sup>1</sup>, Mary Walter<sup>1</sup>, Peter J. Walter<sup>1</sup>, and Kevin D. Hall<sup>1</sup>

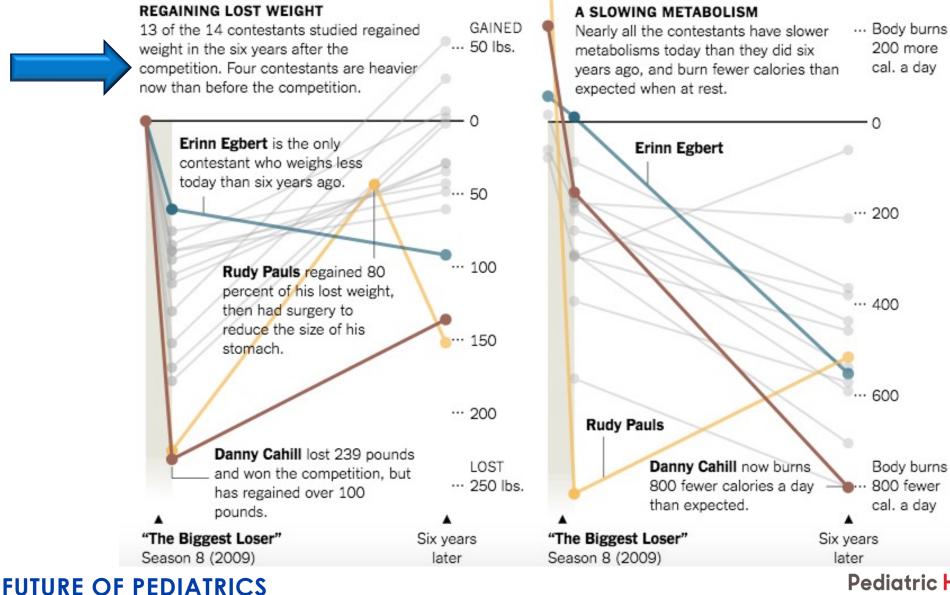


Fothergill, et. Al, Obesity, 2016



#### **Biggest Losers Fight a Slower Metabolism**

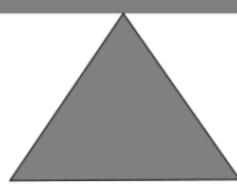
A study of contestants from "The Biggest Loser" found their metabolisms slowed during and after the competition, making it difficult to maintain weight loss.



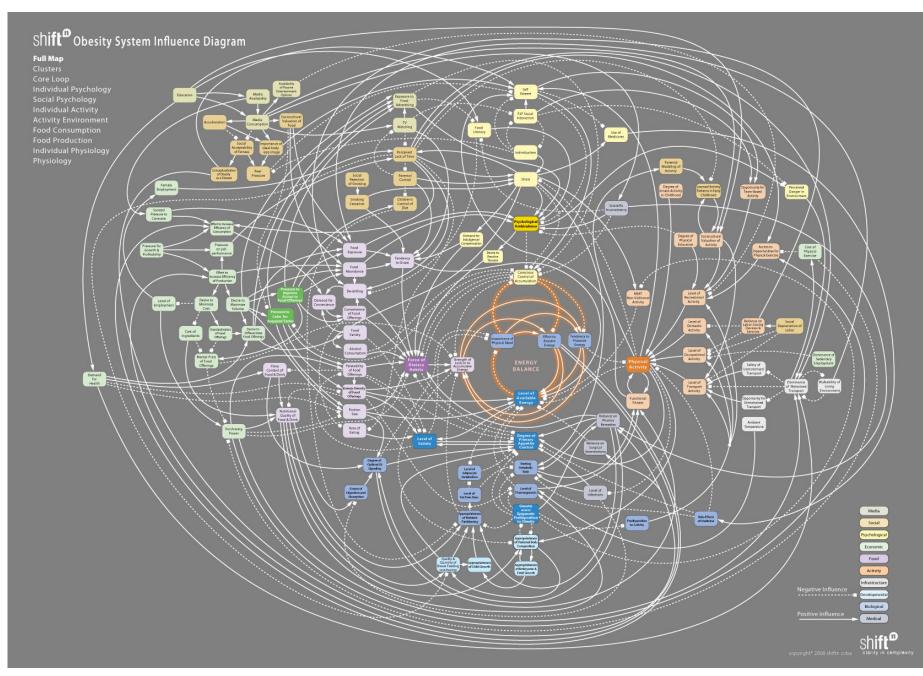
https://www.nytimes.co m/2016/05/02/health/b ggest-loser-weightloss.html

## CALORIES CONSUMED

## CALORIES BURNED



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### More than Diet & Exercise:

- 1. Anorexigenic/ Orexigenic Pathways
- Set Points/ Metabolic Adaptation
- 3. Genetics/ Epigenetics
- 4. Altered Food Supply
- 5. Decreased physical activity
- 6. Stress and Distress
- 7. Sleep
- 8. Drugs
- 9. Social Risk
- 10. Etc.

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"A chronic, progressive, relapsing, and treatable multi-factorial, neurobehavioral disease, wherein an increase in body fat promotes adipose tissue dysfunction and abnormal fat mass physical forces, resulting in adverse metabolic, biomechanical, and psychosocial health consequences."

"While body mass index may be sufficiently diagnostic for populations and many patients, accurate diagnosis of adiposity in an individual may require anthropometric assessments beyond body weight alone (e.g., waist circumference, percent body fat, and android/visceral fat)."

-Obesity Medical Association, 2022

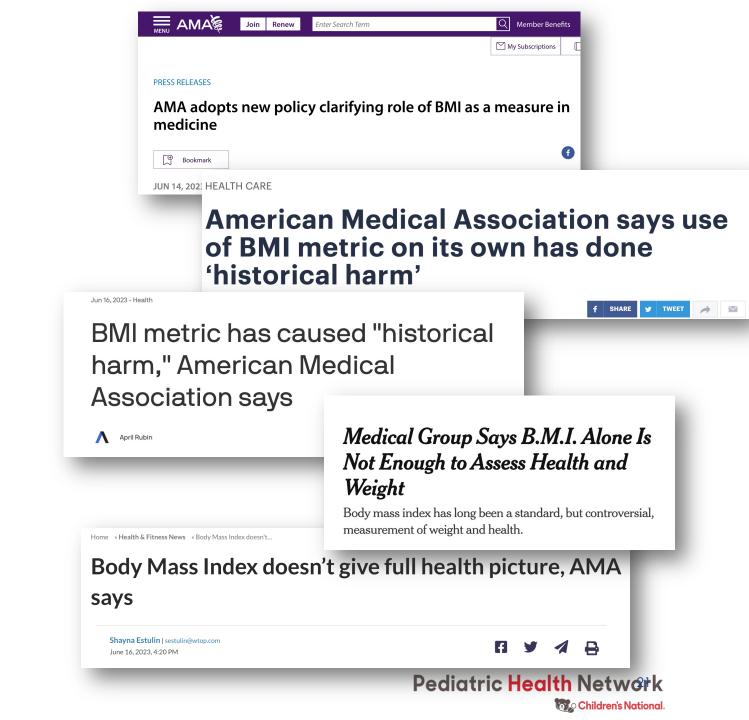
## **AMA New Policy**

The House of Delegates adopted new policy recognizing:

"Significant <u>limitations and potential</u> <u>harms</u> associated with the widespread use of body mass index(BMI) in clinical settings and supports its use only in a limited screening capacity when used in conjunction with other more valid measures of health and wellness."

"In children...BMI-for-age is currently the gold standard" for clinical settings.

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Deranged endocrine and

### immune responses

### Sick Fat Disease (SFD) (Adiposopathy)

### Endocrine/metabolic:

- Elevated blood glucose
- Elevated blood pressure
- Dyslipidemia
- Other metabolic diseases

Abnormal and pathologic physical forces

### Fat Mass Disease (FMD)

### Biomechanical/structural:

- Stress on weight-bearing joints
- Immobility
- Tissue compression (i.e., sleep apnea, gastrointestinal reflux, high blood pressure, etc.)
- Tissue friction (i.e., intertrigo, etc.)

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# What is Obesity Bias?

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### Weight Bias

- Explicit weight bias: overt, consciously held negative attitudes that can be measured by self-report.
- Implicit weight bias: automatic, negative attributions and stereotypes existing outside of conscious awareness
- Internalized weight bias(self-directed bias): occurs when individuals engage in self-blame and self-directed weight stigma because of their weight. Internalization includes agreement with stereotypes and application of these stereotypes to oneself and selfdevaluation.
  - Extent to which individuals living with larger bodies endorse negative weightbiased beliefs about themselves

<u>Weight Stigma: social devaluation and</u> *denigration of individuals* because of their body weight, and can lead to negative attitudes, stereotypes, prejudice, and discrimination.

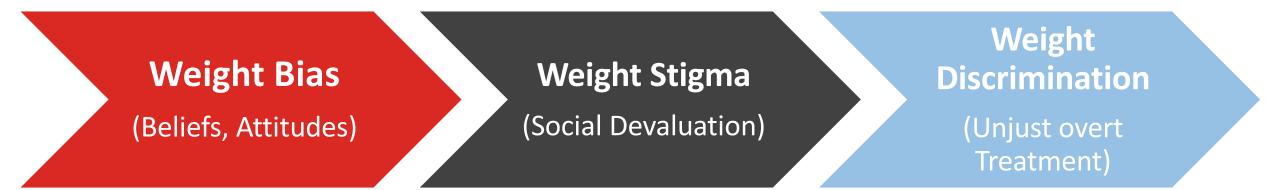
• Persons placed in categories to separate into "us" vs. "them"

<u>Weight Discrimination: overt forms of</u> weight-based prejudice and unfair treatment(biased behaviors) toward individuals with larger body sizes.

Link, Phelan, Ann Soc, 2001; Haqq, AM., et. al, Child Obesity, 2021; Rubino, et. al, Nature Medicine, 2020; Kirk, SFL, et. al, Canadian Adult Obesity Guidelines, 2020



## Weight Bias Continuum



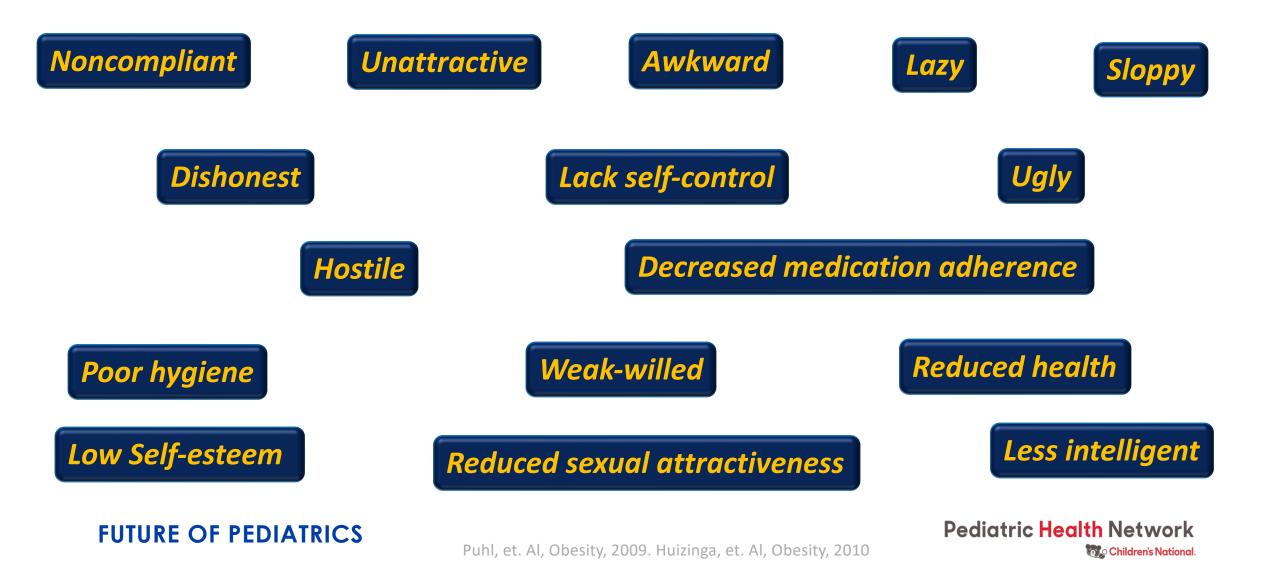
Haqq, AM., et. al, Child Obesity, 2021; Rubino, et. al, Nature Medicine, 2020; Kirk, SFL, et. al, Canadian Adult Obesity Guidelines, 2020

#### **FUTURE OF PEDIATRICS**

# **Case Study**

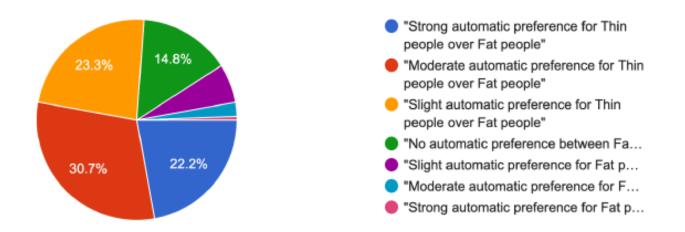
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## **Physician Labels for Patients with Obesity**



- 175+ preclinical medical students and explored their reflections when confronted with their own unconscious bias
- Completed Harvard Implicit Association Test-weight
- ~500 word reflection & Completed Qualitative Analysis (Adapted from Dr. Thomas Sherman-Georgetown)

What are your results from the IAT you completed? 176 responses



- 76.2% Automatic preference for "Thin" people over "Fat" people
- 14.8% No automatic preference for either
- 9% Automatic preference for "Fat" people over "Thin" people

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## Weight stigma is not an effective tool for weight loss or improving health!



## Weight Stigma Effective in...(Associations)

- Worsening depression, anxiety, selfesteem, stress
- Maladaptive relationships with food (i.e. binge eating, emotional overeating)
- Avoidance of physical activity
- Increasing weight gain
- Worsening obesity
- Parental/caregiver distress



Haqq, AM., et. al, Child Obesity, 2021; Rubino, et. al, Nature Medicine, 2020; Kirk, SFL, et. al, Canadian Adult Obesity Guidelines, 2020

### **FUTURE OF PEDIATRICS**

Stigma towards parents/ caregivers leads to...

**Feelings of Isolation** 

**Feelings of Blame** 

Fear concerning health of child

Internalization of self-blame

## Worry about suspicion of neglect

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Zenlea, IS., et. al, Clin Obesity, 2017, Haqq, AM., et. al, Child Obesity, 2021

# PEDIATRICS<sup>®</sup>

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

### Parental Perceptions of Weight Terminology That Providers Use With Youth

- Cross Sectional Study with 427 parents of children 2-18yo
- Assess perceptions of weight terminology and explore perceived interactions with their clinicians

<u>Most Desirable:</u> "weight" and "unhealthy weight" <u>Most Motivating:</u> "unhealthy weight" and "weight problem" <u>Most Undesirable, Stigmatizing, Blaming and Least Motivating:</u> were "fat," "obese," and "extremely obese"

Potential reactions after feeling stigmatized by child's doctor:

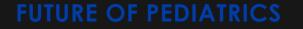
**36%** Have child go on a strict diet

35% Seek a new doctor

**24%** Avoid future appointments with doctor

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Puhl, R., et. al, Pediatrics, 2011



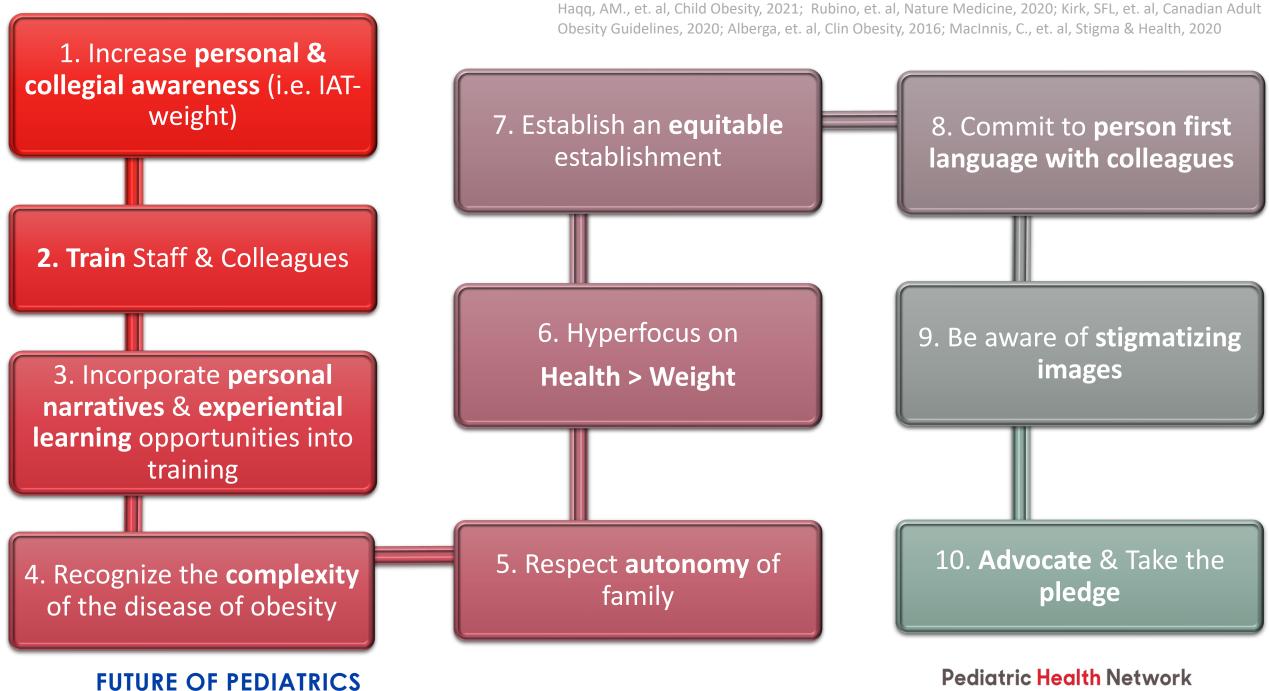






# 10 Strategies for Pediatricians to Establish a <u>Posture</u> of Empathy

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#### **NATURE MEDICINE**

Box 1 | Pledge to eliminate weight bias and stigma of obesity

#### We recognize that

- Individuals affected by overweight and obesity face a pervasive form of social stigma based on the typically unproven assumption that their body weight derives primarily from a lack self-discipline and personal responsibility.
- Such portrayal is inconsistent with current scientific evidence demonstrating that body-weight regulation is not entirely under volitional control, and that biological, genetic, and environmental factors critically contribute to obesity.
- Weight bias and stigma can result in discrimination, and undermine human rights, social rights, and the health of afflicted individuals.
- Weight stigma and discrimination cannot be tolerated in modern societies.

#### We condemn

• The use of stigmatizing language, images, attitudes, policies, and weight-based discrimination, wherever they occur.

#### We pledge

- To treat individuals with overweight and obesity with dignity and respect.
- To refrain from using stereotypical language, images, and narratives that unfairly and inaccurately depict individuals with overweight and obesity as lazy, gluttonous, and lacking willpower or self-discipline.
- To encourage and support educational initiatives aimed at eradicating weight bias through dissemination of current knowledge of obesity and body-weight regulation.
- To encourage and support initiatives aimed at preventing weight discrimination in the workplace, education, and healthcare settings.

### We pledge

- To treat individuals with overweight and obesity with **dignity and respect**.
- To refrain from using stereotypical language, images, and narratives that unfairly and inaccurately depict individuals with overweight and obesity as lazy, gluttonous, and lacking willpower or self-discipline.
- To **encourage and support educational initiatives** aimed at eradicating weight bias through dissemination of current knowledge of obesity and body-weight regulation.
- To encourage and **support initiatives aimed at preventing weight discrimination in the workplace**, education, and healthcare settings.

Joint international consensus statement for ending stigma of obesity

> Pediatric Health Network Rubino, et Children Notidnatlicine, 2020

## **Thank You!**

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## References

Alberga AS, Pickering BJ, Alix Hayden K, Ball GD, Edwards A, Jelinski S, Nutter S, Oddie S, Sharma AM, Russell-Mayhew S. Weight bias reduction in health professionals: a systematic review. Clin Obes. 2016 Jun;6(3):175-88. doi: 10.1111/cob.12147. PMID: 27166133.

Fitch, A. K., & Bays, H. E. (2022). Obesity definition, diagnosis, bias, standard operating procedures (SOPs), and telehealth: an Obesity Medicine Association (OMA) Clinical Practice Statement (CPS) 2022. *Obesity Pillars*, *1*, 100004.

Puhl RM, Peterson JL, Luedicke J. Parental perceptions of weight terminology that providers use with youth. Pediatrics. 2011 Oct;128(4):e786-93. doi: 10.1542/peds.2010-3841. Epub 2011 Sep 26. PMID: 21949145.

Parental Perceptions of Weight Terminology That Providers Use With Youth Rebecca M. Puhl, Jamie Lee Peterson, Joerg Luedicke Pediatrics Oct 2011, 128 (4) e786-e793; DOI: 10.1542/peds.2010-3841

Zenlea IS, Thompson B, Fierheller D, Green J, Ulloa C, Wills A, Mansfield E. Walking in the shoes of caregivers of children with obesity: supporting caregivers in paediatric weight management. Clin Obes. 2017 Oct;7(5):300-306. doi: 10.1111/cob.12202. Epub 2017 Jul 12. PMID: 28703480.

Haqq AM, Kebbe M, Tan Q, Manco M, Salas XR. The Complexity and Stigma of Pediatric Obesity. Child Obes. 2021 Mar 29. doi: 10.1089/chi.2021.0003. Epub ahead of print. PMID: 33780639.

Rubino, F., Puhl, R.M., Cummings, D.E. et al. Joint international consensus statement for ending stigma of obesity. Nat Med **26**, 485–497 (2020). <u>https://doi.org/10.1038/s41591-020-0803-x</u>

Kirk, SFL, Ramos Salas X, Alberga AS, Russell-Mayhew S. Canadian Adult Obesity Clinical Practice Guidelines: Reducing Weight Bias, Stigma and Discrimination in Obesity Management, Practice and Policy. Available from: https://obesitycanada.ca/guidelines/weightbias. Accessed 4.1.21

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Link Bruce G, Phelan Jo C. Conceptualizing Stigma. Annual Review of Sociology. 2001;27:363-85

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## References

Wear D, Aultman JM, Varley JD, Zarconi J. Making fun of patients: medical students' perceptions and use of derogatory and cynical humor in clinical settings. Acad Med. 2006 May;81(5):454-62. doi: 10.1097/01.ACM.0000222277.21200.a1. PMID: 16639201.

Phelan SM, Dovidio JF, Puhl RM, Burgess DJ, Nelson DB, Yeazel MW, Hardeman R, Perry S, van Ryn M. Implicit and explicit weight bias in a national sample of 4,732 medical students: the medical student CHANGES study. Obesity (Silver Spring). 2014 Apr;22(4):1201-8. doi: 10.1002/oby.20687. Epub 2014 Jan 9. PMID: 24375989; PMCID: PMC3968216.

Essel KD, Yalamanchi S, Hysom E, Lichtenstein C. Healthy Homes, Healthy Futures: A Home Visitation Curriculum for Pediatric Residents. MedEdPORTAL. 2016 Oct 2;12:10480. doi: 10.15766/mep\_2374-8265.10480. PMID: 30984822; PMCID: PMC6440495.

Essel, K.D., Hysom, E.K., Goldman, E.F. et al. The Resident Experience of an Obesity-Focused Home Visiting Curriculum. Med.Sci.Educ. 29, 113–119 (2019). https://doi.org/10.1007/s40670-018-00642-9

Essel KD, Fotang J, Deyton L, Cotter EW. Discovering the Roots: A Qualitative Analysis of Medical Students Exploring Their Unconscious Obesity Bias. Teach Learn Med. 2022 Mar 3:1-14. doi: 10.1080/10401334.2022.2041421. Epub ahead of print. PMID: 35236208.

Fryar CD, Carroll MD, Afful J. Prevalence of overweight, obesity, and severe obesity among children and adolescents aged 2–19 years: United States, 1963–1965 through 2017–2018. NCHS Health E-Stats. 2020

MacInnis, C. C., Alberga, A. S., Nutter, S., Ellard, J. H., & Russell-Mayhew, S. (2020). Regarding obesity as a disease is associated with lower weight bias among physicians: A cross-sectional survey study. *Stigma and Health*, 5(1), 114–122. <u>https://doi.org/10.1037/sah0000180</u>

Sumithran P, Prendergast LA, Delbridge E, Purcell K, Shulkes A, Kriketos A, Proietto J. Long-term persistence of hormonal adaptations to weight loss. N Engl J Med. 2011 Oct 27;365(17):1597-604. doi: 10.1056/NEJMoa1105816. PMID: 22029981.

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