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Come to the Table: Module 1

A Pediatric Primary Care Healthy Weight Initiative

Presented by

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Setting the Table

Meaningful Work

What's on our Plates?

Who is Gathered?

What courses are we serving?

How do we prepare?

What's Next?

Meet Your Chefs!

Sarah Price

Jennie McLaurin

Jessica Wallace

Naomi Smith

Meaningful Work Moment

- Three types of sighing exercise
  - Stress
  - Relief
  - Contentment

  - What are you bringing to the table today?

What's On Our Plates?

- Childhood overweight and obesity affects **1 in 4 children ages 2-5 years**
- Rate of monthly BMI change **almost doubled** for children and adolescents in pandemic
- US is expected to have **17 million children** with obesity by 2030
- Uniform screening, prevention and treatment for pediatric overweight and obesity is extremely **limited** in primary care settings despite USPSTF recommendations
- There are **long waiting lists** for weight management specialists with few real options outside primary care
- **Social Determinants of Health** (SDOH) are major drivers of childhood obesity
- Mental health and physical health are intertwined in the obesity epidemic

It isn’t an individual isolated health condition

- Family-centric
- Community-centric
- Longitudinal and variable
- Comorbidities

- **The numbers are worse with age:** Almost 40% US adults obese, twice the rate of 2-5 year-olds. Over half of school children now with obesity will be adults with obesity.

- **Social Determinants of Health:** food insecurity, built environment, education, transportation, school meals, day care, poverty, culture, housing, race/ethnicity

- **Obesity is an independent risk for severe COVID**

- **Family stress** contributes to poor nutrition and weight gain. We are in an epidemic of mental health stress in children.

- **Chronic Health Comorbidities:** Asthma, Depression, Anxiety, Diabetes, Enuresis, Joint Pain, SCFE, Sleep Apnea, Constipation, Amenorrhea, Fatigue, Headache, Hypertension, Fatty Liver

- **$190 Billion spent per year in US on obesity-related conditions; $14 billion in children**

$$$$$$$$$$$$$$$$$$

Understanding the Effect of Stress on Obesity

- Increased stress increases cortisol
- Cortisol leads to liver glycogenesis and abdominal fat deposition
- Anxiety may increase impulsive eating
- Stress may decrease sleep quality and increase insulin resistance
- Higher parent perceived stress also linked with higher childhood obesity

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Poll:

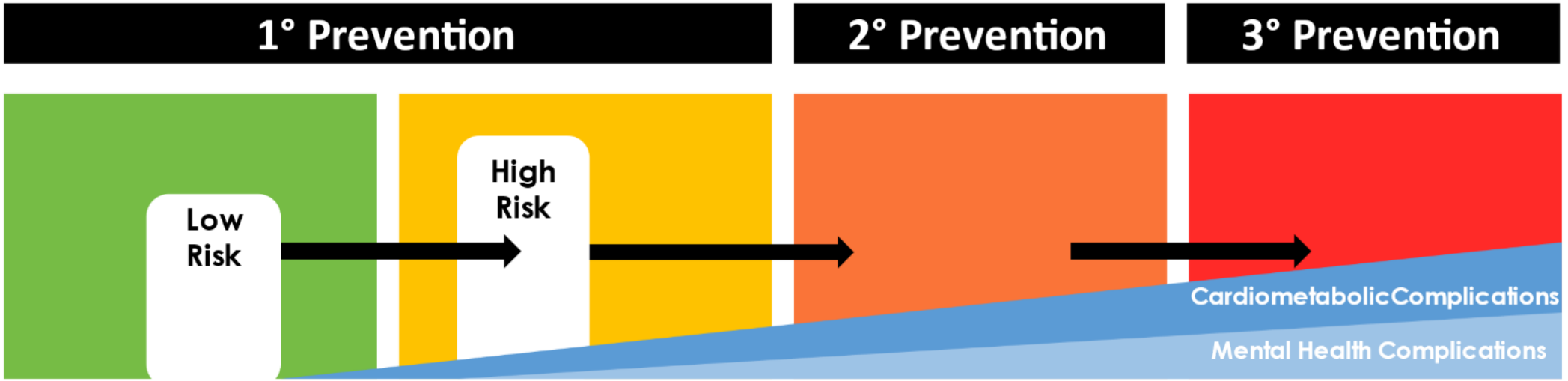
How do you respond to stress?

National Recommendations

- American Academy of Pediatrics (2007) Recommendations & Bright Futures
  - annually screen all children using Body Mass Index
  - tiers of care
- U.S. Preventive Services Task Force Recommendations 2017
- Pediatric Endocrine Society, 2017
- 2017 National Academies of Medicine
  - **multiple settings**
    - childcare centers, schools, pediatric offices, and communities

https://nam.edu/clinical-perspectives-on-obesity-treatment-challenges-gaps-and-promising-opportunities/

Preventing the Progression of Pediatric Obesity



Definition: An intervention implemented before there is evidence of a disease

Target Population: Children 2-18 years with a BMI ≥5th and < 85th percentile for age and gender

Intervention Objective: Prevent obesity from occurring through lifestyle education and anticipatory guidance

Target Population: Children 2-18 years with a BMI ≥85th and <95th percentile for age and gender

Definition: An intervention after a disease has begun but before complications are evident

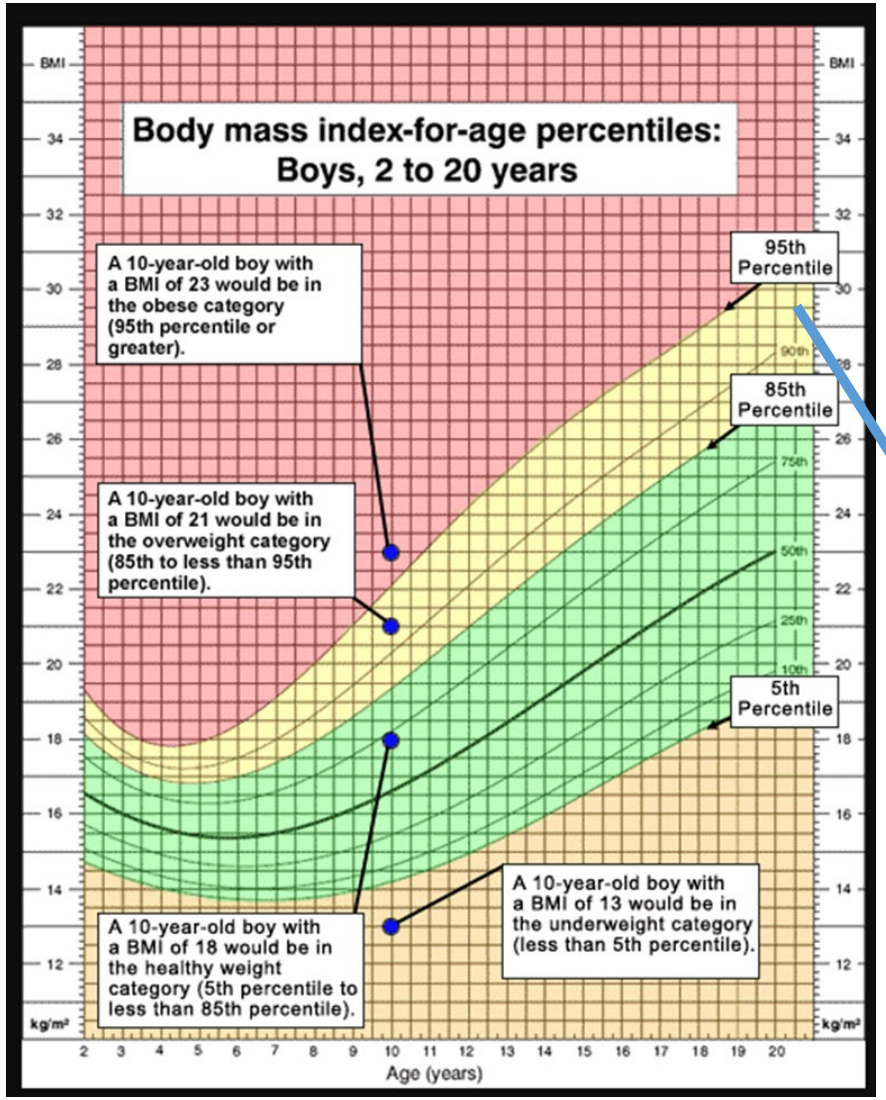
Target Population: Children 2-18 years with a BMI ≥95th and <99th percentile for age and gender

Intervention Objective: Early detection & prompt intervention to correct departures from healthy growth trajectory prior to the development of complications

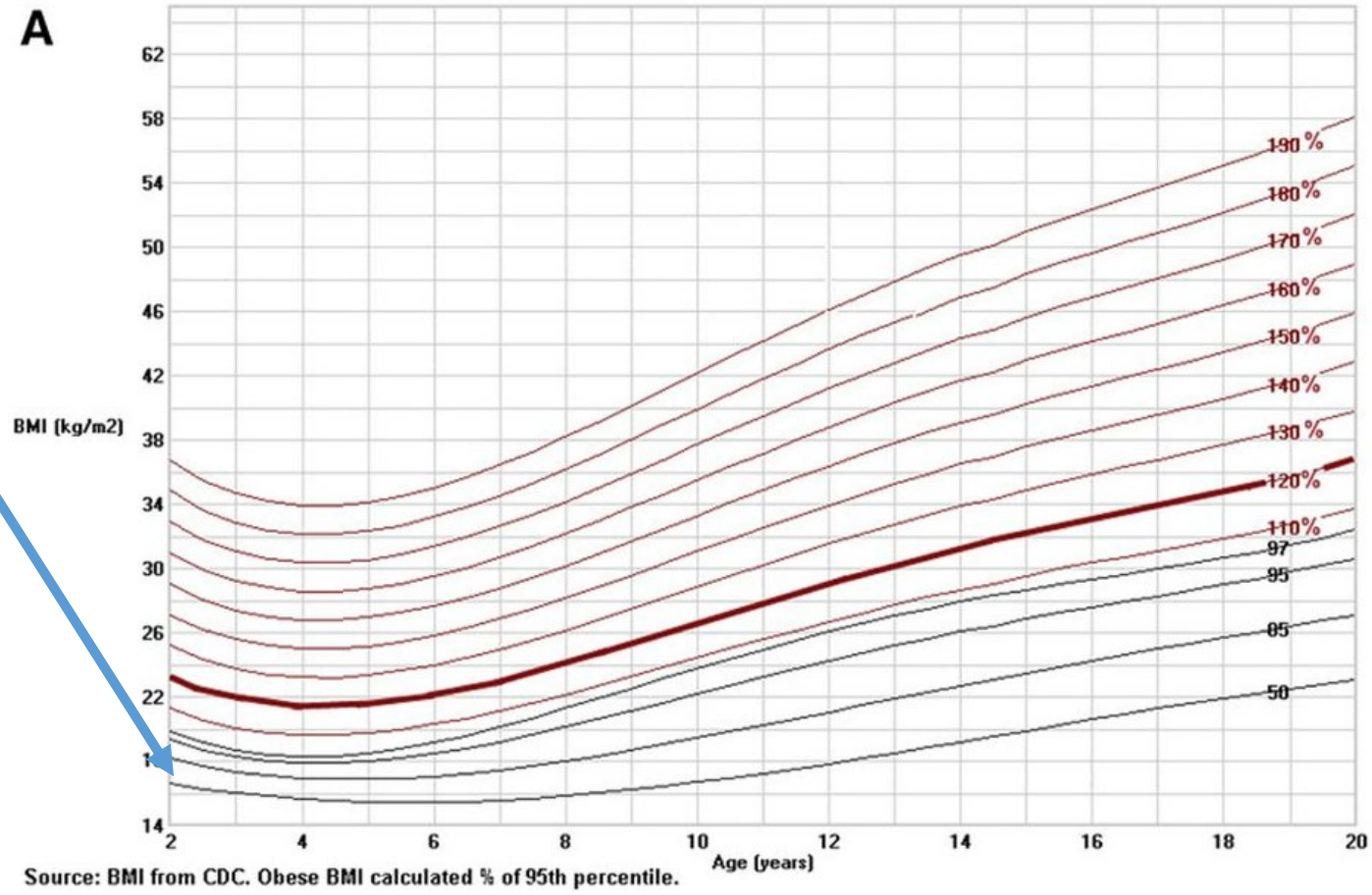
Definition: An intervention after a disease is established and complications are present

Target Population: Children 2-18 years with a BMI ≥99th percentile for age and gender

Intervention Objective: Prevent worsening of complications or progression of disabilities



Severe Obesity ≥ 120th% of the 95th%



Source: BMI from CDC. Obese BMI calculated % of 95th percentile.

https://www.nccor.org/nccor-tools/a-guide-to-methods-for-assessing-childhood-obesity/

Who Is Gathered?

- 0-2 year olds
- 3-5 year olds
- 6-9 year olds
- 10-18 year olds
- Household members
- Center staff
- Partner organizations







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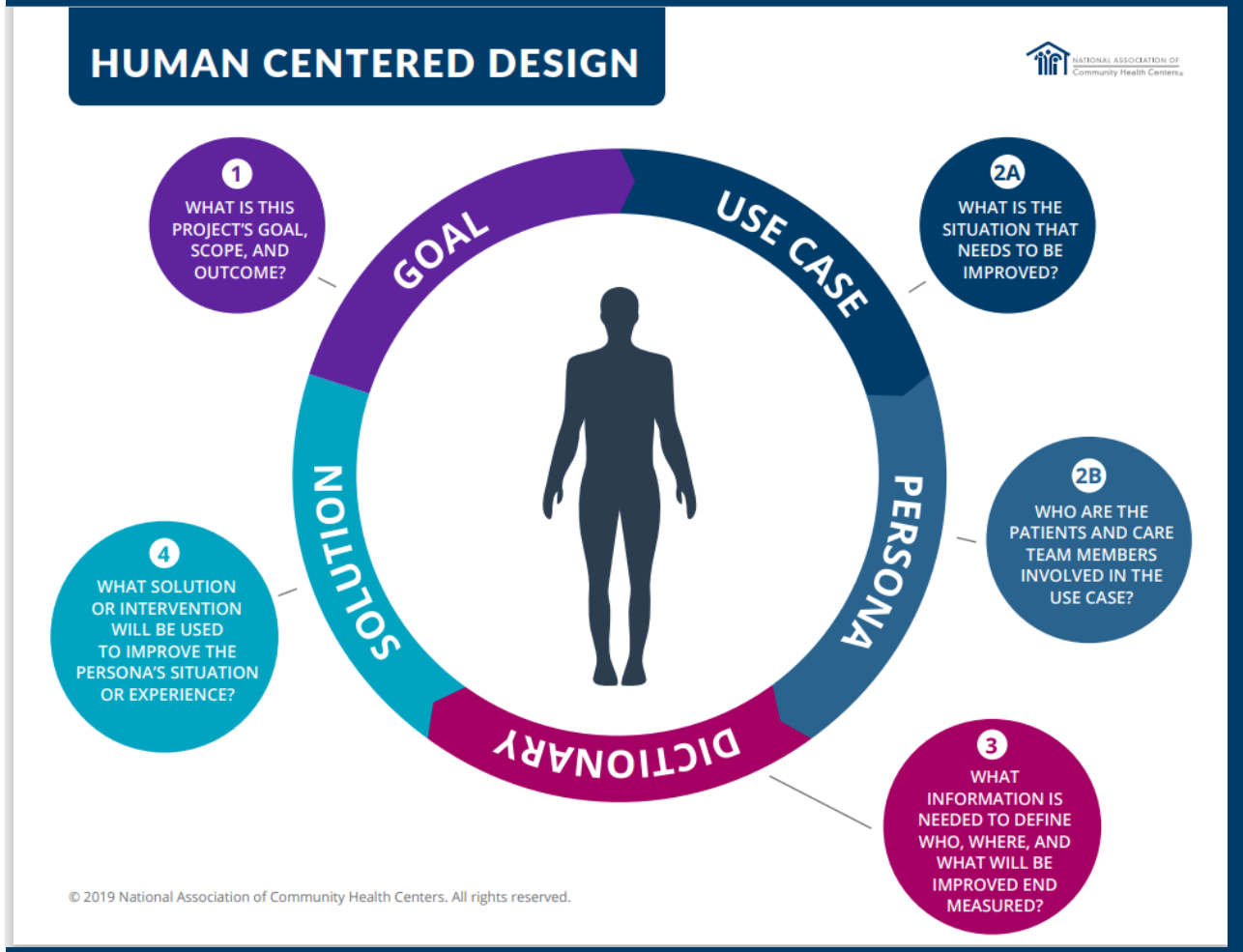
Human Centered Design

- What is the Goal of your specific efforts regarding Pediatric Weight Management?
- What is the primary challenge faced in weight management by your center?
- Personas:
  - Of children and their household
  - Of Care Teams
- Is your data meaningful and consistent, both internally and externally?
- What interventions might you try?



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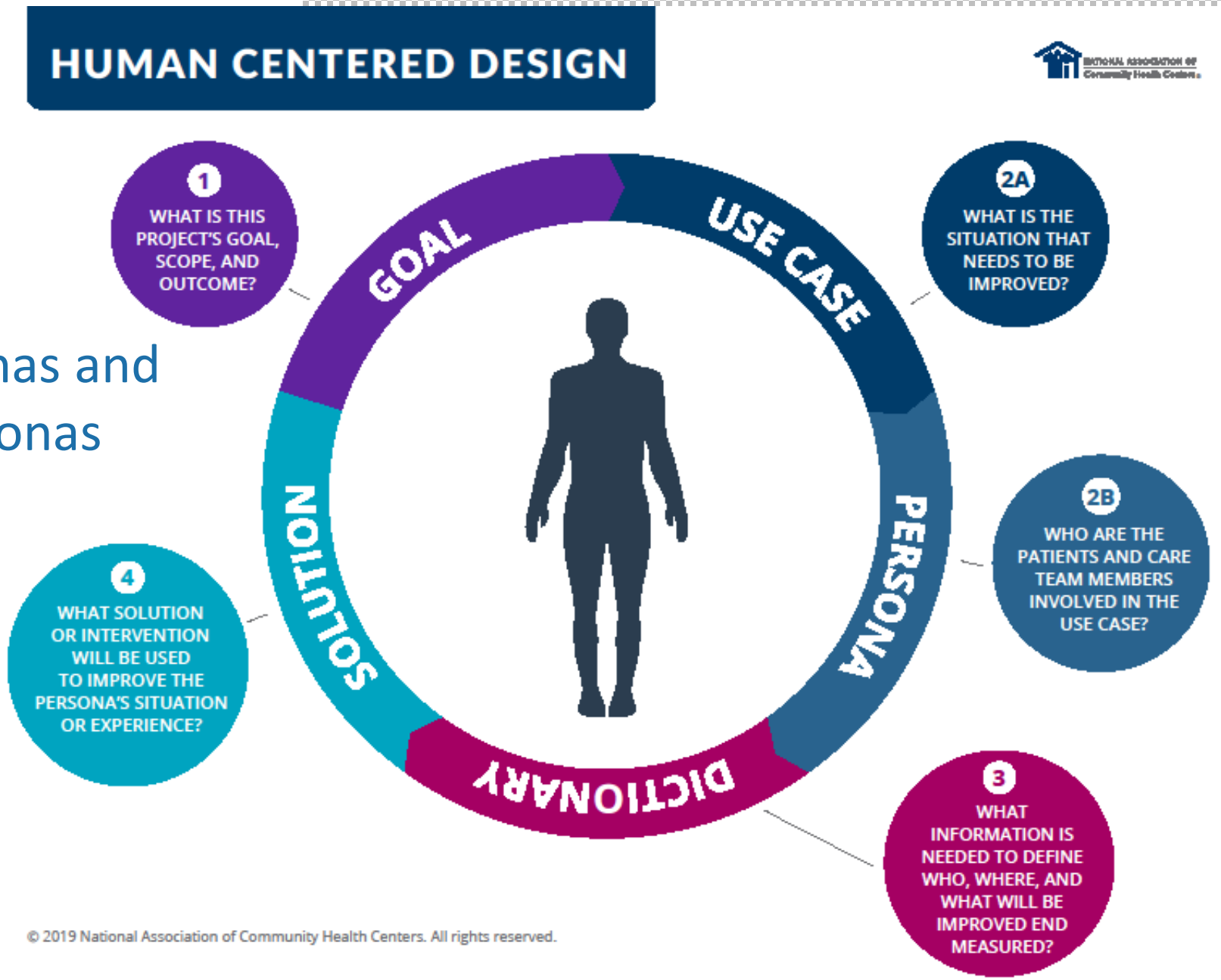
Family-Household Personas and Health Center Team Personas Drive Design of Solutions



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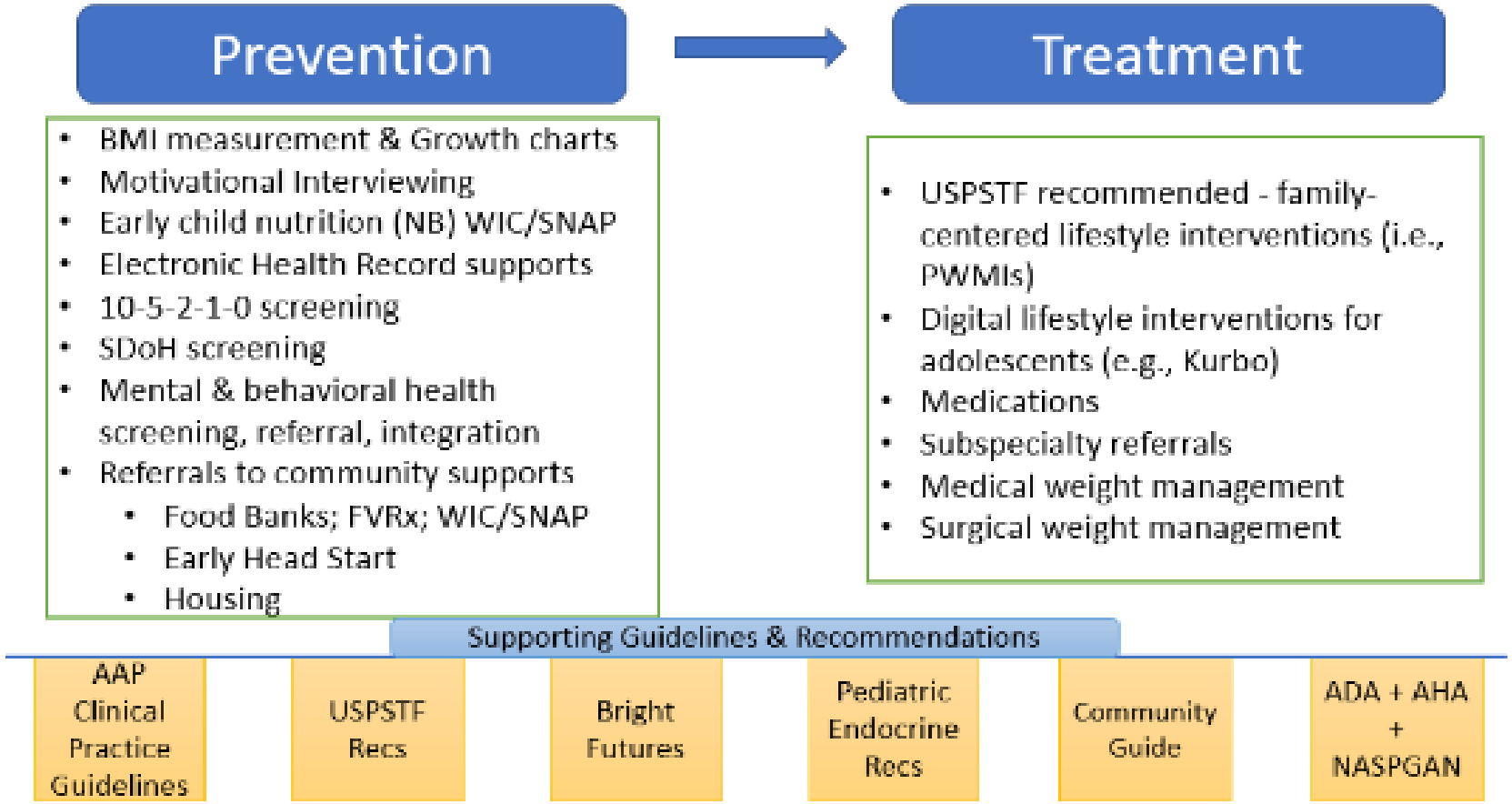
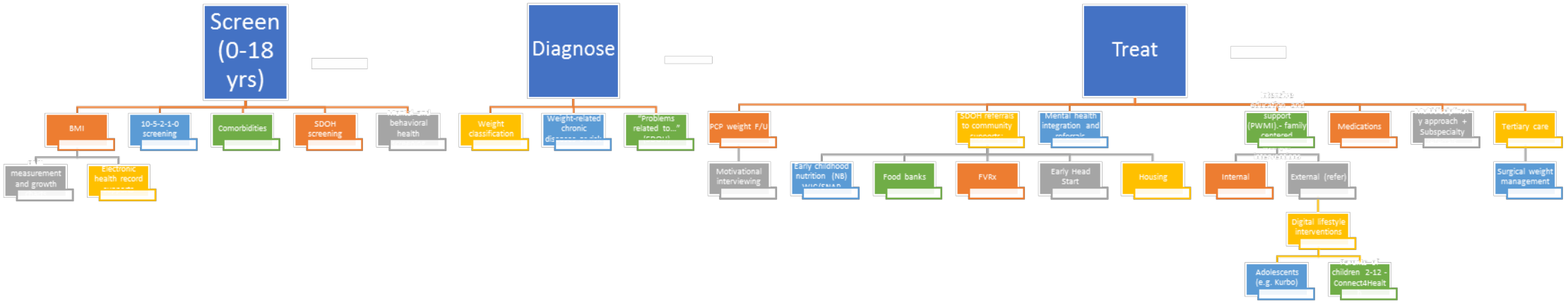
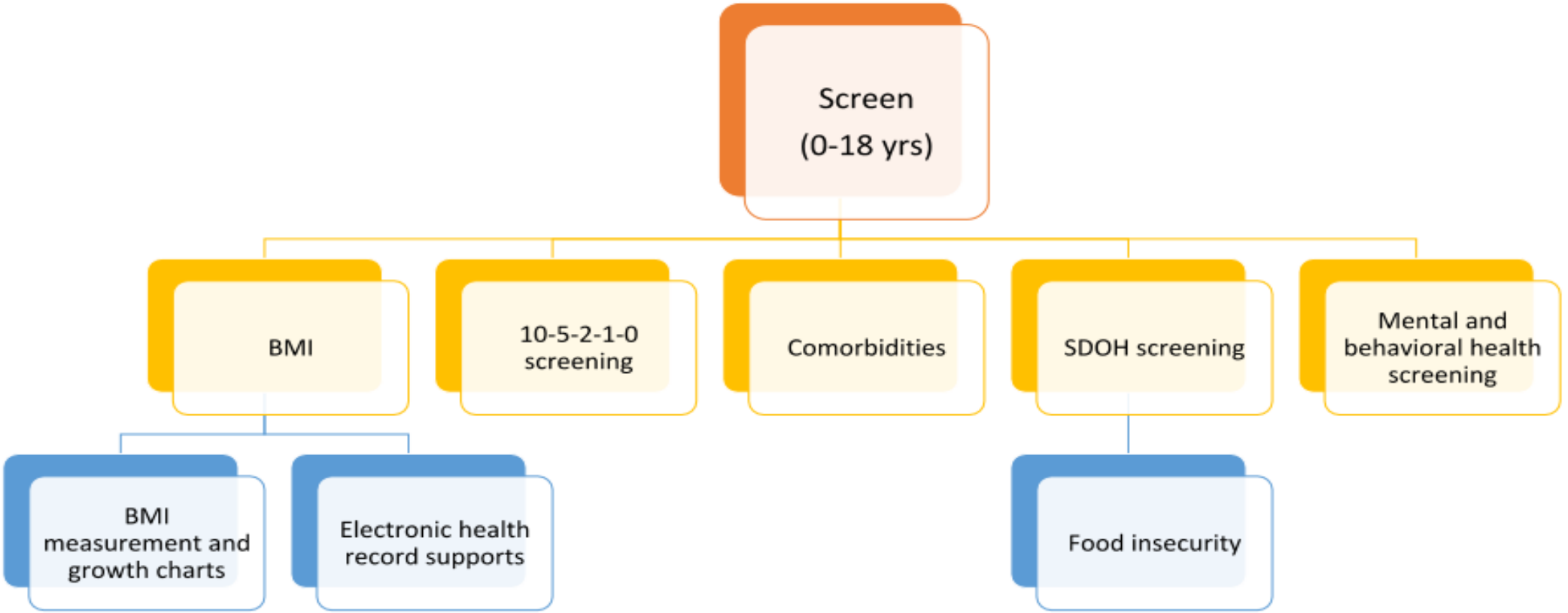
Evidence-Based Strategies



Comprehensive Health Center Approach: Utilize a Care Cascade to screen, prevent and treat




Screen
(0-18 yrs)
BMI
10-5-2-1-0 screening
Comorbidities
SDOH screening
Mental and behavioral health screening
BMI measurement and growth charts
Electronic health record supports
Food insecurity

Screening: Birth to 24 months

- 0-2 years: Height for Weight, change in growth velocity over two parameters or look at change in Z score
- Three times the risk of being overweight or obese in early school-age if change of Z score over .64
- Most of us simply look at changing trends in growth velocity

Bottom Line: *Look at changes in weight velocity in first two years*

1. Promote early and continued breastfeeding
2. Promote infant activity
3. Promote safe and healthy feeding
4. Promote self-feeding and responsive feeding

(*responsive feeding* is watching for hunger cues and feeding then, with attention to when they are satisfied)

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Poll

- Does your center have any formal screening and follow up protocols for 0-24 month olds who are gaining weight too fast?

Role of Early Childhood Education

- Reduces obesity in children through: Healthy nutrition/activity opportunities, structured day and learning, opportunities for parents to work/reduce poverty; generational poverty reduction, reduction in parental/home stress

- Obesity and cardiovascular disease were reduced 30 years after participation in a multicomponent early care program

- Skelton, J Clin and Trans Science, 2019
- Reynolds, JAMA Pediatrics 3/2021
- Hoynes, Am. Econ. Rev. 2016
- https://www.cdc.gov/obesity/strategies/childcareece.html

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Next Steps

Screen for SDOH

Screen for family history and comorbidities

Screen for Mental and Behavioral Health Needs

Does Your Center Recommend this?
See Baton Rouge link for a great curriculum
and lots of resources!

- http://www.healthybr.com/be-nourished/5-2-1-0plus10

Screening Questions for Food Insecurity "Hunger Vital Sign"

1. **Within the past 12 months, we worried whether our food would run out before we got money to buy more**
2. **Within the past 12 months, the food we bought just didn't last and we didn't have money to get more**

- Answering affirmatively ("often true" or "sometimes true" versus "never true") to both questions increases the likelihood that the family is food insecure
- The two screening questions have a sensitivity of 97% and a specificity of 83%

Hager ER, Quigg AM, Black MM, et al. *Development and validity of a 2-item screen to identify families at risk for food insecurity. Pediatrics. 2010;126(1). Available at: ntent/early/2015/10/20/peds.2015-3301*

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@NACHC

Family Assets and Child Regulation as Buffering Forces in Obesity Trajectories

Rollins BY, Francis LA, Riggs NR. Family Psychosocial Assets, Child Behavioral Regulation, and Obesity.*Pediatrics*.2022;149(3):e2021052918

Looked at 15 years of normal weight, overweight, obesity, severe obesity BMI trajectories

Examined two developmental periods: Infancy (0-15months) and early childhood (24-54 months)

But a majority White population studied!

- Parental warmth and responsiveness to distress is a family asset that buffers against excess weight
- Maternal education, maternal sensitivity, H.O.M.E. inventory of quality and quantity of stimulation in home protective
- Over against poverty, single parent, maternal depression, health, life events and parental stress as all risks

What tools do you use to gather SDOH information?

What Resources Do You Have?

What can you do?

In One Minute?

In Five Minutes?

In Fifteen 15 minutes

In 26 hours?

Possibilities to Get Started

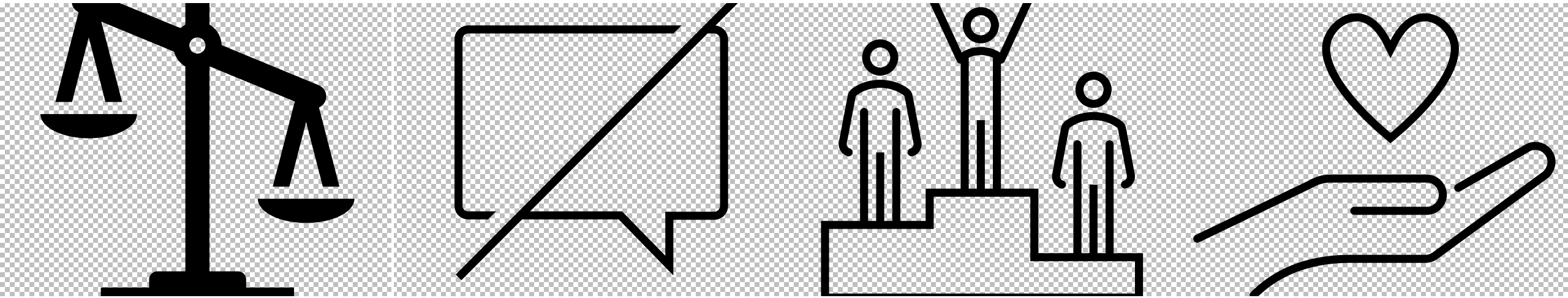
Measure the rate of healthy weight, overweight and obesity in your pediatric population

Test a Screening Tool for Food Security

Do a Quality Improvement test on your pediatric measurement charting

Develop staff and patient personas

Next! Module Two: Choosing a Tasty Menu



Bias and Stigma

Communication Preferences

Motivational Interviewing

Health Center Examples

Resources for Module One

- Infant Responsive Feeding: https://www. healthychildren.org
- Hagar 2 question food security guideline: https://childrenshealthwatch.org/public-policy/hunger-vital-sign/
- USPSTFGuideline: •https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/obesity-in-children-and-adolescents-screening (being updated now)
- https://ihcw.aap.org/Pages/Resources_ProEd.aspx

•AAP Guidelines: (under revision)
https://ihcw.aap.org/Documents/Assessment%20%20and%20Management%20of%20Childhood%20Obesity%20Algorithm_FINAL.pdf

- Sample Personas
- Baton Rouge 10-5-2-1-0 Curriculum: http://www.healthybr.com/be-nourished/5-2-1-0plus10

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AAFP CME Credit

- 1.0 Credit per each session
- You must attend the session in order to apply for CME. The name on the evaluation and attendance list will be cross-matched to ensure participation.
- An evaluation must be submitted through the NACHC evaluation link provided to gain credit.
- Though through AAFP, these credits can be submitted by the participant to other credentialing bodies for credit:
  - *American Academy of Physician Assistants (AAPA)*
  - *National Commission on Certification of Physician Assistants (NCCPA)*
  - *American Nurses Credentialing Center (ANCC)*
  - *American Academy of Nurse Practitioners Certification Board (AANPCB)*
  - *American Association of Medical Assistants (AAMA)*
  - *American Board of Family Medicine (ABFM)*
  - *American Board of Emergency Medicine (ABEM)*
  - *American Board of Preventative Medicine (ABPM)*
  - *American Board of Urology (ABU)*