



Let's Go! Childhood Obesity Project ECHO®

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Housekeeping

- This session will be recorded for educational and quality improvement purposes.
- Please do not provide any protected health information (PHI) during any ECHO session.
- Zoom trouble? Chat to Meg Nadeau

Please turn on your video!

Please enter your name, organization, and email address (needed for CME) in the chat.

If you are watching as a group, please put everybody's information in the chat.

Introduce Yourself



Please mute your microphone when not speaking.

Microphones



Welcome and Introductions (5 min)

Lecture & Q&A (25 min)

Case/Discussion (25 min)

Close (5 min)

Agenda



Focus of this Project ECHO®

- Increase the understanding and minimization of bias and stigma that is associated with obesity
- Promote a supportive, health-forward approach in your workforce and office environment around treatment of obesity
- Model health-focused language for parents
- Put Motivational Interviewing into practice
- Develop individualized treatment plans based on obesity physiology to help families reach their healthy goals
- Initiate treatment early and provide timely follow up



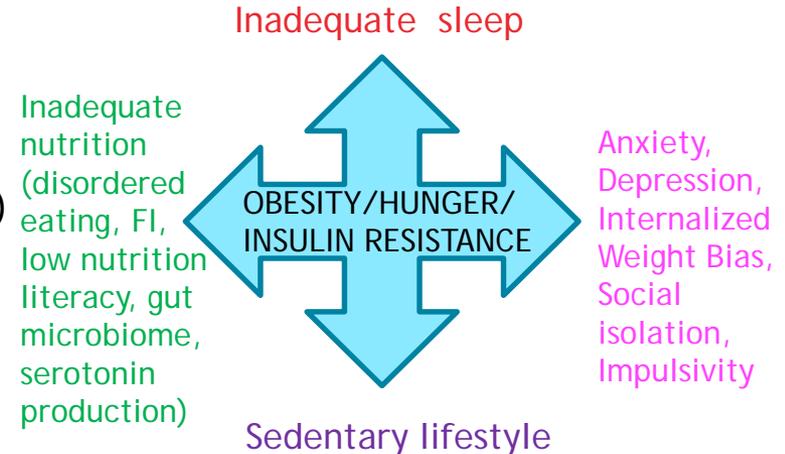
Early Identification and Screening of Overweight and Obesity: Behavioral and Psychosocial Factors

Carrie Gordon, MD



Overarching Interconnections

- Complex interwoven connections between our mood, behavior and weight/appetite
- Families may not be aware of the connections
- Depression, Anxiety, Impulsivity
 - Social isolation
 - Trauma
- Poor Sleep hygiene
- Disordered eating patterns (nocturnal eating, BED)
- Food insecurity (FI) and/or nutrition knowledge*
- Low Physical Literacy*



*Addressed in future session

Mood screening

- Anxiety and Depression are common in the setting of obesity
- Underlying cause of disordered eating (BED/NES) in many cases
- Improvement in mood and potentially co-occurring internalized weight bias important consideration for successful obesity treatment
 - Avoiding unhealth relationships with body image/body dysmorphic disorder
- Treatment choices
 - Counseling: Cognitive Behavioral Therapy*, Acceptance and Commitment therapy
 - » Mindfulness in behavioral change
 - Bupropion if NO anxiety
 - Sertraline/Fluoxetine
 - Combination of Sertraline and Bupropion maybe an option
 - Improvement in activity and sleep are important considerations
 - Influence of Screen time/Self esteem/Internalized weight bias

BED, SRED and NES

- Loss of control eating is more common in obesity and has high incidence of other mood disorders and ADHD
 - Increases risk for Type II diabetes, metabolic syndrome
- SRED and NES can be differentiated by level of consciousness and SRED is felt to be a parasomnia NOT an eating disorder and consumption of unusual substances can occur in SRED
- Treatments:
 - CBT
 - Sertraline can be helpful for BED, NES
 - Vyvanse second line for BED
 - ? Topiramate for NES
 - » FDA approved for SRED
 - Behavioral Weight loss therapy also have some efficacy
- Can consider other factors in treatment-like insulin resistance, balance of protein and food calorie density, avoiding skipping meals

Impulsivity and Obesity

- Stimulants to treat ADHD are known to result in weight loss
- There are higher rates of ADHD in the setting of obesity and impulsivity can affect eating behaviors
- If less healthy DAYTIME eating patterns appear to be related to impulsivity, stimulant therapy or Bupropion are important considerations
 - Obsessiveness around food/eating regardless of consequences, may not reach the level of Binge Eating Disorder
 - Behavioral approaches : visual schedules, counseling, structured environment, activity are also important adjuncts

Food selectivity/Avoidance and ASD/Anxiety

- Selective eating of calorie dense foods is very common in my patient population
- Parents can also be selective
- Stems from natural developmental process, that doesn't resolve
- Consider ASD, Anxiety
- OT referral, Cooking Classes, Targeted books
- patience, language, consistency , role modeling
- Ellyn Satter
 - Some discrepancy between these recommendations and obesity physiology, but helpful structure

Binge-Eating Disorder

Diagnostic Criteria

307.51 (F50.81)

- A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
1. Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than what most people would eat in a similar period of time under similar circumstances.
 2. A sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating).
- B. The binge-eating episodes are associated with three (or more) of the following:
1. Eating much more rapidly than normal.
 2. Eating until feeling uncomfortably full.
 3. Eating large amounts of food when not feeling physically hungry.
 4. Eating alone because of feeling embarrassed by how much one is eating.
 5. Feeling disgusted with oneself, depressed, or very guilty afterward.
- C. Marked distress regarding binge eating is present.
- D. The binge eating occurs, on average, at least once a week for 3 months.
- E. The binge eating is not associated with the recurrent use of inappropriate compensatory behavior as in bulimia nervosa and does not occur exclusively during the course of bulimia nervosa or anorexia nervosa.

Specify if:

In partial remission: After full criteria for binge-eating disorder were previously met, binge eating occurs at an average frequency of less than one episode per week for a sustained period of time.

In full remission: After full criteria for binge-eating disorder were previously met, none of the criteria have been met for a sustained period of time.

Specify current severity:

The minimum level of severity is based on the frequency of episodes of binge eating (see below). The level of severity may be increased to reflect other symptoms and the degree of functional disability.

Mild: 1–3 binge-eating episodes per week.

Moderate: 4–7 binge-eating episodes per week.

Severe: 8–13 binge-eating episodes per week.

Extreme: 14 or more binge-eating episodes per week.

Avoidant/Restrictive Food Intake Disorder

Diagnostic Criteria

307.59 (F50.82)

- A. An eating or feeding disturbance (e.g., apparent lack of interest in eating or food; avoidance based on the sensory characteristics of food; concern about aversive consequences of eating) associated with one (or more) of the following:
1. Significant weight loss (or failure to achieve expected weight gain or faltering growth in children).
 2. Significant nutritional deficiency.
 3. Dependence on enteral feeding or oral nutritional supplements.
 4. Marked interference with psychosocial functioning.
- B. The disturbance is not better explained by lack of available food or by an associated culturally sanctioned practice.
- C. The eating disturbance does not occur exclusively during the course of anorexia nervosa or bulimia nervosa, and there is no evidence of a disturbance in the way in which one's body weight or shape is experienced.
- D. The eating disturbance is not attributable to a concurrent medical condition or not better explained by another mental disorder. When the eating disturbance occurs in the context of another condition or disorder, the severity of the eating disturbance exceeds that routinely associated with the condition or disorder and warrants additional clinical attention.

Specify if:

In remission: After full criteria for avoidant/restrictive food intake disorder were previously met, the criteria have not been met for a sustained period of time.

Other Specified Feeding or Eating Disorder

This category applies to presentations in which symptoms characteristic of a feeding and eating disorder that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate but do not meet the full criteria for any of the disorders in the feeding and eating disorders diagnostic class. The other specified feeding or eating disorder category is used in situations in which the clinician chooses to communicate the specific reason that the presentation does not meet the criteria for any specific feeding and eating disorder. This is done by recording "other specified feeding or eating disorder" followed by the specific reason (e.g., "bulimia nervosa of low frequency").

307.59 (F50.89)

Examples of presentations that can be specified using the "other specified" designation include the following:

1. **Atypical anorexia nervosa:** All of the criteria for anorexia nervosa are met, except that despite significant weight loss, the individual's weight is within or above the normal range.
2. **Bulimia nervosa (of low frequency and/or limited duration):** All of the criteria for bulimia nervosa are met, except that the binge eating and inappropriate compensatory behaviors occur, on average, less than once a week and/or for less than 3 months.
3. **Binge-eating disorder (of low frequency and/or limited duration):** All of the criteria for binge-eating disorder are met, except that the binge eating occurs, on average, less than once a week and/or for less than 3 months.
4. **Purging disorder:** Recurrent purging behavior to influence weight or shape (e.g., self-induced vomiting; misuse of laxatives, diuretics, or other medications) in the absence of binge eating.
5. **Night eating syndrome:** Recurrent episodes of night eating, as manifested by eating after awakening from sleep or by excessive food consumption after the evening meal. There is awareness and recall of the eating. The night eating is not better explained by external influences such as changes in the individual's sleep-wake cycle or by local social norms. The night eating causes significant distress and/or impairment in functioning. The disordered pattern of eating is not better explained by binge-eating disorder or another mental disorder, including substance use, and is not attributable to another medical disorder or to an effect of medication.

BEDS-7

The following questions ask about your eating patterns and behaviors within the last 3 months. For each question, choose the answer that best applies to you.

1. During the last 3 months, did you have any episodes of excessive overeating (i.e., eating significantly more than what most people would eat in a similar period of time)? Yes No

NOTE: IF YOU ANSWERED “NO” TO QUESTION 1, YOU MAY STOP. THE REMAINING QUESTIONS DO NOT APPLY TO YOU.

2. Do you feel distressed about your episodes of excessive overeating? Yes No

Within the past 3 months...

3. During your episodes of excessive overeating, how often did you feel like you had no control over your eating (e.g., not being able to stop eating, feel compelled to eat, or going back and forth for more food)? Never or Rarely Sometimes Often Always
4. During your episodes of excessive overeating, how often did you continue eating even though you were not hungry? Never or Rarely Sometimes Often Always
5. During your episodes of excessive overeating, how often were you embarrassed by how much you ate? Never or Rarely Sometimes Often Always
6. During your episodes of excessive overeating, how often did you feel disgusted with yourself or guilty afterward? Never or Rarely Sometimes Often Always
7. During the last 3 months, how often did you make yourself vomit as a means to control your weight or shape? Never or Rarely Sometimes Often Always

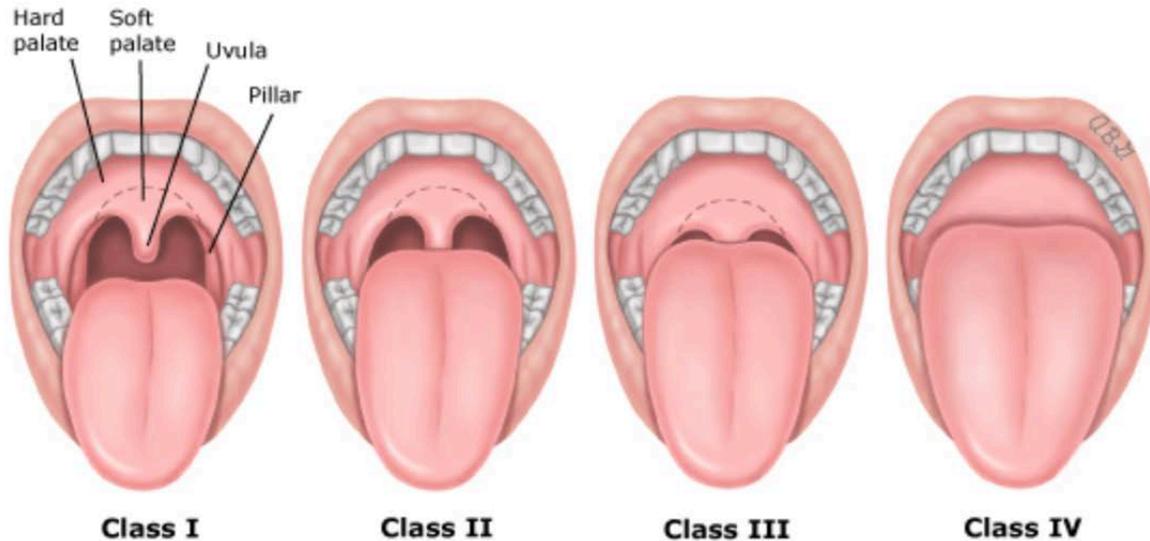
Social Isolation and Addiction

- Forming and maintaining healthy relationships is one of the pillars of lifestyle medicine
 - Connections between social isolation and obesity are not as well understood as mood disorders
 - Social isolation is challenging and can be intertwined with Social Anxiety
 - Individuals with social isolation can utilize online resources for their social connectivity and this may be at the expense of other needed health behaviors
- Addiction
 - CAGE or other screening tool
 - Crossover between gratification centers and the ERC of the brain
 - After bariatric surgery increased risk for other addictive behaviors
 - Medications to help with addiction can help to lower weight in some individuals (topiramate, Bupropion, naltrexone)

Evaluation of Pediatric Sleep

- Considerations include sleep apnea or inadequate sleep
- No one standard for sleep apnea screening
 - Low threshold for referral in the setting of obesity and daytime fatigue
 - 2020 review of questionnaires only 4 out of 50 questions with predictive value:
 - » Observed apnea, daytime mouth breathing, obesity, perceived growth delay
- Neck Circumference- greater than 17 inches in adolescent
- Mallampatti score (taken in the supine position)
 - 3 or 4 is increased risk for apnea
- Sleep hygiene review and the connections between sleep and health with family

The modified Mallampati classification for difficult laryngoscopy and intubation



The modified Mallampati classification^[1] is a simple scoring system that relates the amount of mouth opening to the size of the tongue and provides an estimate of space available for oral intubation by direct laryngoscopy. According to the Mallampati scale, class I is present when the soft palate, uvula, and pillars are visible; class II when the soft palate and the uvula are visible; class III when only the soft palate and base of the uvula are visible; and class IV when only the hard palate is visible.

Reference:



Case Presentation

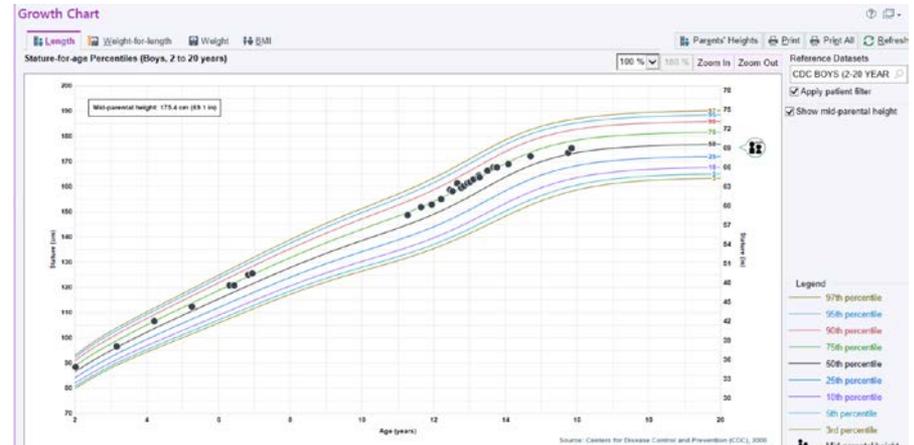
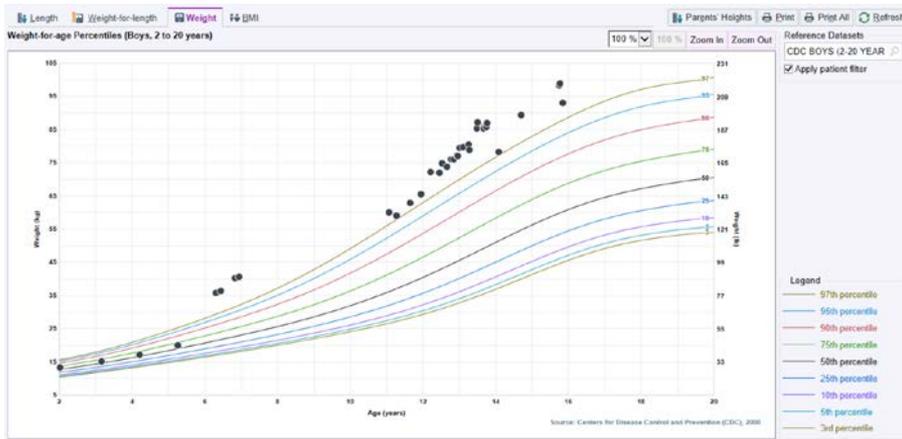
Christina Manning, MD

Patient - 15 year old male

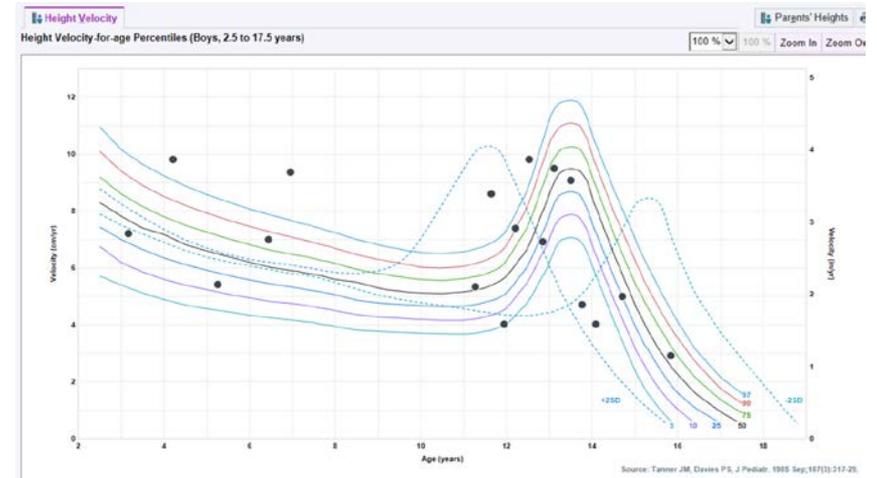
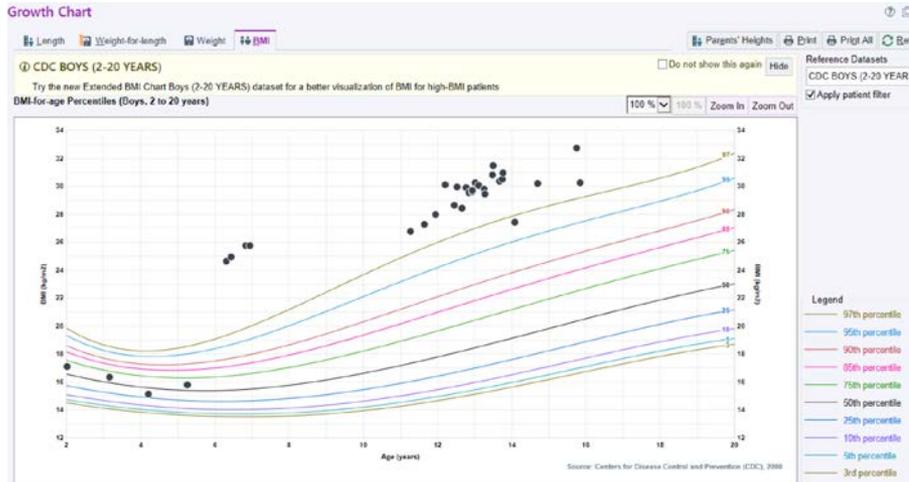
- Uncomplicated term birth to G1 mother, developmentally typical other than mild speech delay in toddlerhood, raised primarily by mother with sporadic involvement of biologic father until age 4 when mother met and subsequently married a new partner who eventually adopted him in 2010 after FOB voluntarily terminated rights. No gest DM with pregnancy, no macrosomia.
- Abnormal eating patterns noted by mother's new partner around the time he started school. Eating breakfast at home, then having 2nd full breakfast at school through school lunch program. Noted unrestrained appetite at home: "If he's awake, he's eating." Sharp climb in weight gain noted at this time. After PCP-based office interventions unsuccessful at slowing weight trajectory, referral made to Countdown clinic in 2013, but after initial meetings, no follow up continued and weight continued rapid increase, with family choosing to manage through home exercise programs and attempts at cutting back on access to food (locking fridge).
- Family history: Mother overweight but with some moderate weight loss in the last 3-5 years, no information about biologic father's weight status. Adoptive father with normal body habitus. Younger sister also overweight.

Growth Chart

- Gaps in growth chart represent plotting done by Countdown clinic and then interval time when our practice was not live on Epic



BMI and Growth Velocity



Patient

- Pt subsequently diagnosed at age 7 with ADD and started on initially vyvanse and then concerta. Was maintained on this through middle school but came off during high school and has been able to maintain good performance in school with only occasional behavioral transgressions (acting like a class clown).
- Parents separated in 2017, with sharing time between households evenly. Some comments from father about poor nutritional offerings at mother's, better adherence to exercise at father's home.
- 2 years ago after well visit, was noted to have lost 20 lb in 4 months with modifications in eating patterns and sharply increased exercise routine/reduced screen time. Gained weight back when this pattern was not sustained.
- Seen late this fall, weight continued to increase despite linear growth trend slowing after peak growth velocity in 2019-20.
- Only other notably history is that he is now fulltime with his mother, refusing to spend time with his adoptive father who fights with him a lot.

Patient

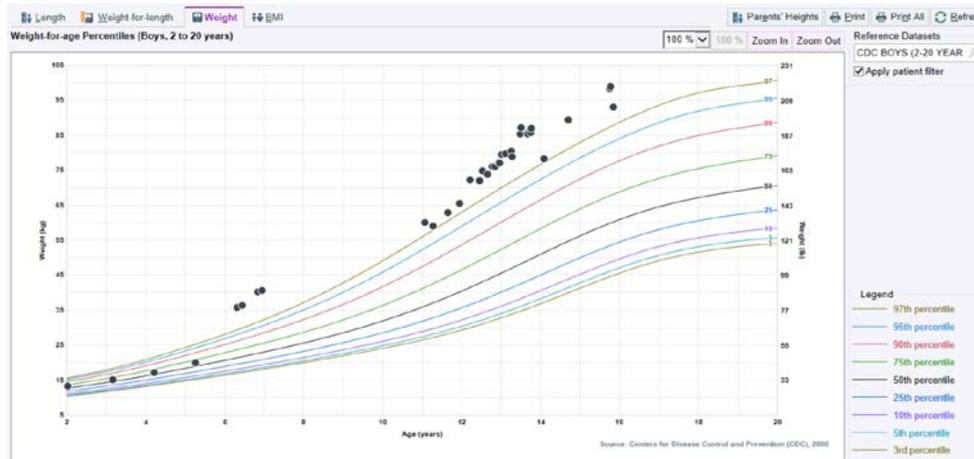
- Labs were repeated (prior ones in 2015 and 2019 had revealed only low HDL and borderline fasting glucose of 99, respectively).

11/24/2021 0707	
Sodium	
Potassium	
Chloride	
Carbon Dioxide	
Anion Gap	
Blood Urea Nitrogen	
Creatinine	
BUN Creatinine Ratio	
Glucose Fasting	110 * ▲
Glucose	
Protein	
Albumin	
Globulin	
Albumin/Globulin R...	
Bilirubin	
Calcium	
Alkaline Phosphatase	
AST	18 *
ALT	12 *
Cholesterol	112 *
Triglycerides	55 *
HDL Cholesterol	39 * !
LDL Cholesterol Ca...	62 *
Non HDL Choleste...	73.0 *
Hemoglobin A1C	5.6 *
Average Plasma Glu...	114 *
C-Reactive Protein...	
ENDOCRINOLOGY ...	
Vitamin D 25-Hydroxy	25.7 *



Patient

- Of note, only 3 weeks after his last appointment with me, he presented with acute appendicitis. While some dehydration could be assumed related to his acute illness, it is notable that he had lost 13 lb in that interval of time.



- How to appropriately support him in managing his weight without triggering disordered eating/weight loss behaviors?
- Behavioral as well as medical options for treatment.

Some possible next steps for you....

1. Are there a few key take aways you can put into practice next week?
2. View a few of the supplemental learning options
3. Think about any internal bias you have that might get in the way with your patients
 - Bias screening test - <https://implicit.harvard.edu/implicit/takeatest.html>
4. Do you have a Team to help you?
 - Internal team
 - Community partners
 - Referring physicians
5. Do you need to develop new Workflows for Well Visits and Follow Up Visits?
6. Think about taking an MI course - ask us, we know of a few good ones

Supplemental Learning CME Modules & Resources

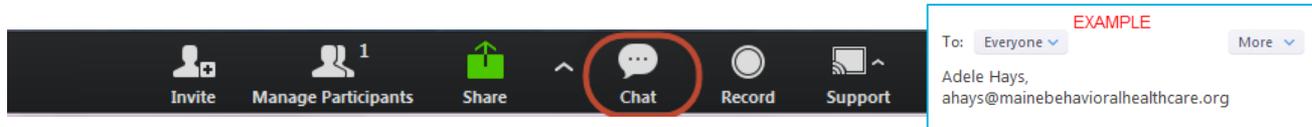
- CME Modules
 - Introduction to the Pathophysiology of Obesity
 - Bias and Stigma Associated with Obesity
 - Introduction to Motivational Interviewing
 - Talking with Patients and Families about Nutrition
 - Physical Literacy and Physical Activity - coming soon!
- Monthly Session recordings, resources, articles, etc.

[LetsGo.org/ECHO](https://lets-go.org/ECHO)



Evaluation and CMEs

If you haven't already done so, please enter your name and email address in the Chat



- After each ECHO session, you will receive an email with a link to a brief evaluation survey and Post-Test.
 - Please complete within 1 week.
- Upon completion, a link to the CME credit will be sent to you.

What's Next

- Office Hours
 - January 20 from 12-1pm
 - Opportunity to talk with Carrie and Tory about cases, workflows, labs, etc
- Monthly ECHO session: Screening for Common Comorbidities of Obesity
 - February 3 from 12-1 pm



Thank you

- Feel free to reach out to us at:
 - ObesityECHO@mainehealth.org
- or
- Tory - rogerv@mmc.org
 - Carrie - gordoc@mmc.org

