

# Overview and Outcomes of Interdisciplinary Program For Adolescent Obesity and Binge Eating Disorder



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## BACKGROUND

- More than 20% of adolescents in the U.S are obese.<sup>1</sup>
- Harmful cardiovascular effects of obesity in childhood may be reversible.<sup>2</sup>
- Adolescents experience significant physiological, social, and cognitive changes that can increase risk of obesity, such as increased independence, peer influence, and weight preoccupation.
- Higher scores of body dissatisfaction are associated with more unhealthy weight control behaviors, less physical activity, and more binge eating in girls.<sup>3</sup>
- Adolescents who diet are three times as likely to be overweight and 5 to 6 times as likely to binge eat at 5-year follow-up.<sup>3</sup>
- The AAP recommendations for treatment of obesity and prevention of eating disorders in adolescence indicate the need for an integrated approach that focuses less on weight and more on promoting a healthy, sustainable lifestyle.<sup>4</sup>
- Motivational interviewing with children who are overweight and obese decreased children's BMI percentile 3.1 more points than those who did not receive motivational interviewing.<sup>5</sup>
- Treatment programs that address the unique developmental needs of adolescents are needed.

## PROGRAM OVERVIEW

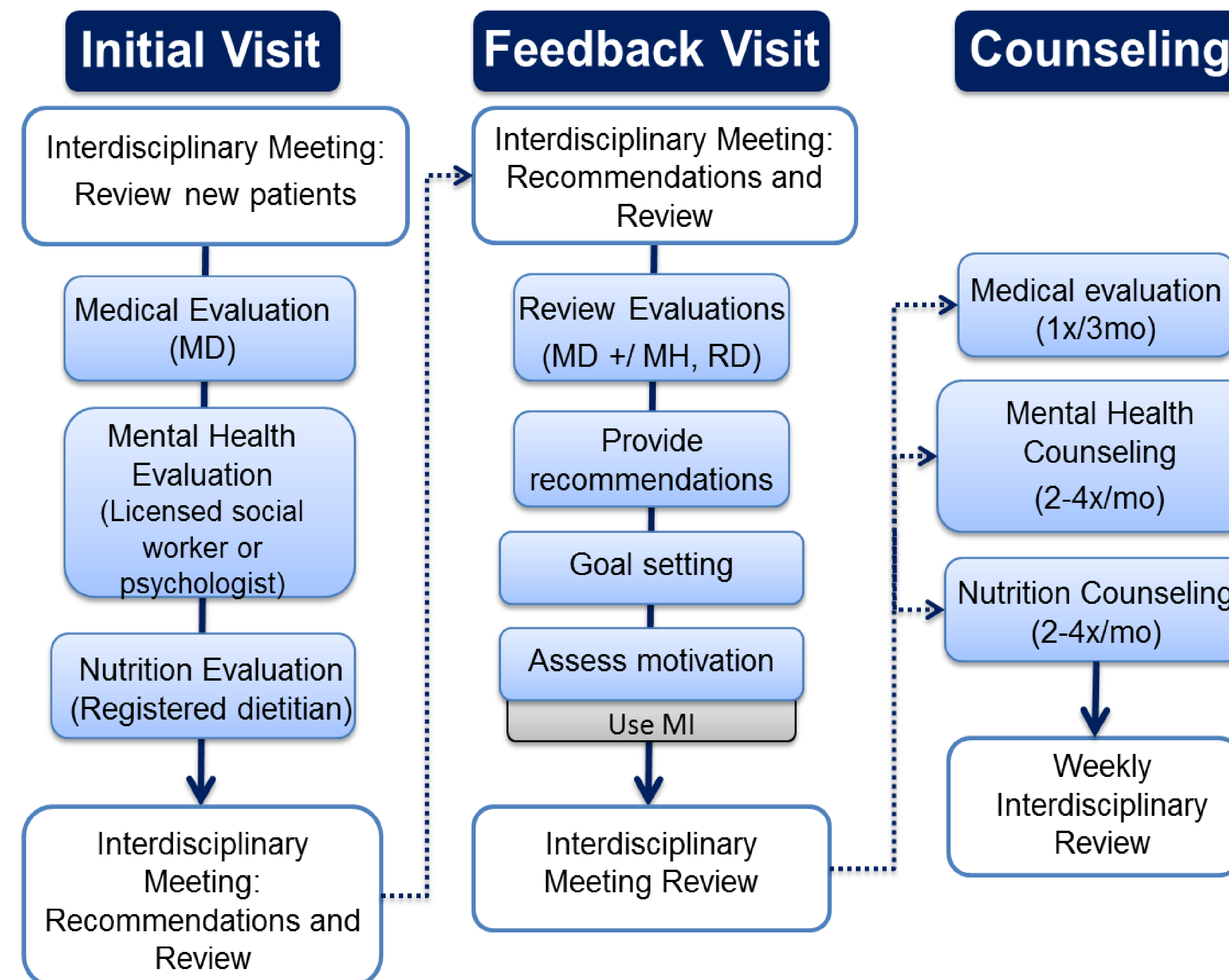
**Mission:** The Strategies for Teen Empowerment and Personal Health (STEP) Clinic aims to empower adolescents and young adults with obesity to adopt sustainable healthy behaviors through personalized medical, mental health, and nutritional counseling.

**Patient Population:** Patients ages 12 to 26 with obesity and co-occurring medical and mental health concerns.

**Treatment Approach:** Interdisciplinary approach to weight management with a focus on motivational interviewing (MI) and individualized behavior change strategies:

- **Medical:** Management of medical issues related to obesity (i.e. type 2 diabetes, PCOS, NFALD, hypertension, etc.)
- **Mental Health:** Counseling on issues including emotional eating, binge eating, weight-based bullying and trauma, depression, excessive screen time, etc.
- **Nutrition:** Education and counseling on balanced meals, hunger and fullness, nutrition label reading, portion sizes, meal planning, snacking, and beverage choices.

## PROGRAM STRUCTURE



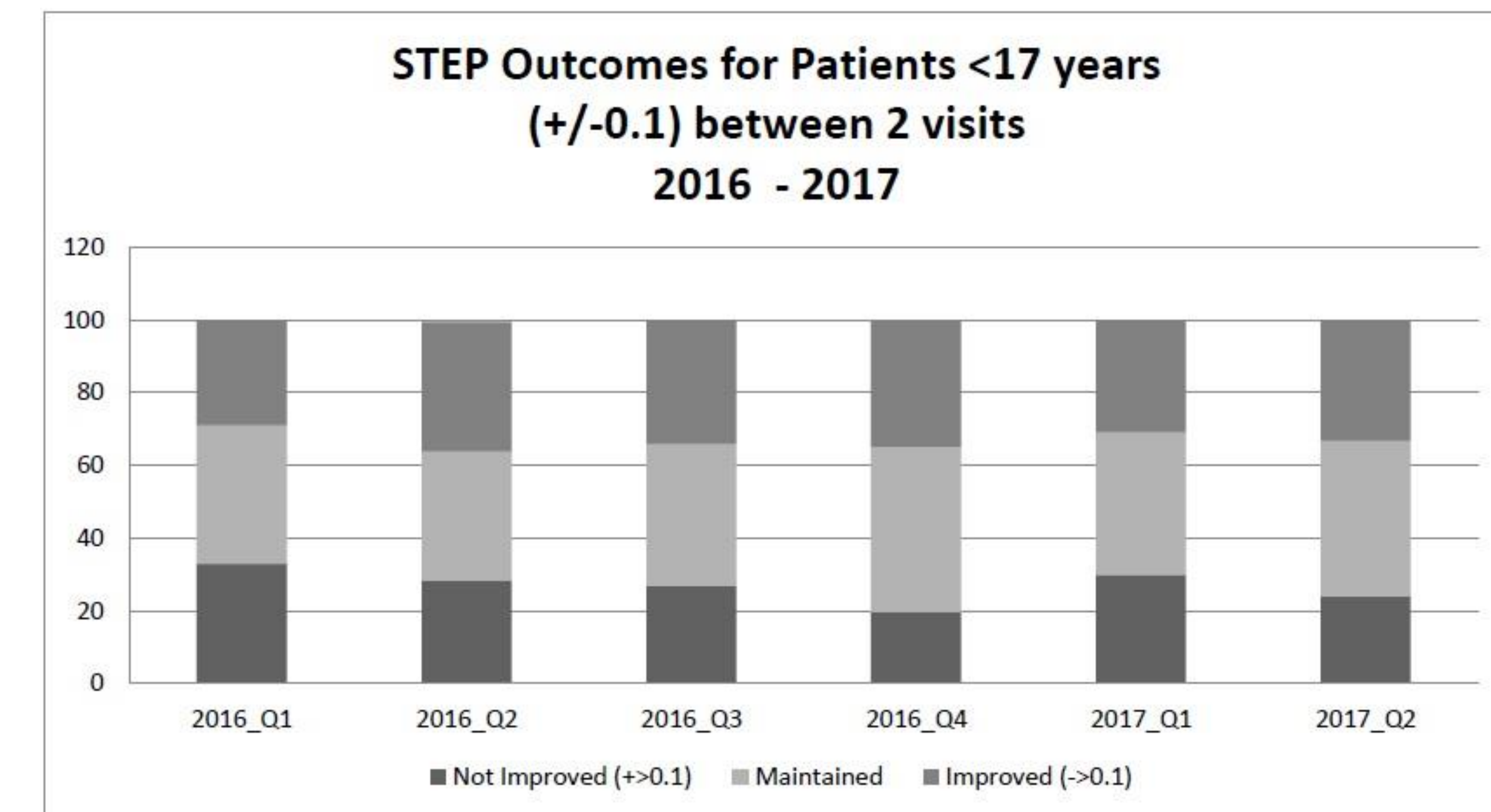
## PROGRAM POPULATION

- As shown in the table below, 75% of STEP patients were female, the average age was 16.9 years, and the majority were from a racial/ethnic minority group.

2016-2017 STEP Patient Demographics	
Female	75%
Age (years ± SD)	16.9 ± 2.9
<b>Race/Ethnicity:</b>	
African American/Black	19.6
Hispanic	20.6
White	15.5
Other	19.5
Missing	8.2
Public Insurance	21.7%
BMI at first visit (kg/m <sup>2</sup> )	39.3 ± 9.2

## PROGRAM OUTCOMES

- As shown in the figure below, 32.5% of STEP patients improved their BMI and 40.0% maintained their BMI between two visits on average in 2016 and 2017 when participating in the STEP program.



## DISCUSSION

- Among adolescent patients seen in the STEP clinic in 2016 and 2017 (n=98), 75% were female, 21.7% received public insurance, and the mean age was 16.9 years old.
- STEP patients had an average BMI of 39.3 kg/m<sup>2</sup> (SD = 9.2) at their first visit, which is consistent with class II obesity in adults.
- Lack of long-term weight outcomes and limited data on confounding factors may explain lack of significant weight changes seen among all patients in STEP clinic.

## CONCLUSION

- Boston Children's Hospital's STEP Clinic cares for adolescents with severe obesity using an approach consistent with AAP recommendations for adolescents with obesity and eating disorders.
- On average, more than two-third of adolescents seen in STEP clinic either maintained or improved their BMI between two visits.
- STEP is a promising model for adolescents who have obesity and co-existing medical and mental health concerns. Further research is needed to better understand and improve STEP's treatment approach.

## REFERENCES

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