دائـــــرة الـصـــحـــة
DEPARTMENT OF HEALTH

DOH SERVICE REQUIREMENTS FOR THE WEIGHT MANAGEMENT PROGRAM FOR OVERWEIGHT AND OBESE CHILDREN

PUBLIC عـــام

Document Title:	DOH Service Requirements for the Weight Management Program for Overweight and Obese Children		
Document Ref. Number:	DOH/PH/NCD/SD/0.9	**Version:**	0.9
Approval Date:	23/12/2018	**Effective Date:**	24/12/2018
Last Reviewed:	Dec 2018	**Next Review:**	Jan 2021
Document Owner:	Non-Communicable Diseases Department, Public Health Division		
Applies to:	All DOH authorized healthcare facilities in Abu Dhabi, including primary healthcare centers and hospitals to provide weight management intervention.		
Classification:	Public		

1. PURPOSE

This document sets out the service specifications, including clinical care and the scope of practice for the provision of the Department of Health's (DOH) Weight Management Program for Overweight and Obese children.

2. SCOPE:

2.1 This document applies to:

2.1.1. Healthcare facilities participating in DOH's Weight Management Program for Overweight and Obese Children between 2-18 years of age;

2.1.2 Health professionals (GP, family physician, general pediatrician and pediatric medical subspecialties, nurses and dietitians) providing weight management interventions within DOH's Weight Management Program for Overweight and Obese Children.

2.2 It set out the following:

2.2.1 Clinical service requirements & specifications for the Weight Management Program for Overweight and Obese Children;

2.2.2 Eligibility and enrollment criteria;

2.2.3 Referral mechanisms and pathway;

2.2.4 Evaluation and monitoring method.

3 Definition of Weight Management Program

3.1 As described here, DOH Weight Management Program for Overweight and Obese Children is a multi-disciplinary family-centered program that, at a basic level, includes multi-component lifestyle interventions;

3.2 It can also include pharmacological intervention and surgical intervention when needed and as per DOH relevant standards in obesity (Read DOH standards for Obesity and Weight Diagnosis, Pharmacological and Surgical Management Interventions).

3.3 The Program:

3.3.1 Adopts family-centered interventions that address the family's needs and concerns, seeks to promote wellness in all family members, empowers parents, and addresses important contextual factors affecting the family.

3.3.2 Provides a multicomponent approach for lifestyle interventions (diet, exercise and behavioral therapy).

3.3.3 Provide clinical support by a multidisciplinary team of qualified staff to deliver a tailored intervention for patients and families of children with Overweight and Obesity.

4 Candidates' Enrollment Criteria:

4.1. Eligibility:

Patients' eligible for the enrollment of the DOH's Weight Management Program have to;

4.1.1. Meet the criteria for the diagnosis of Overweight and Obesity in children based on the DOH recommended definitions (Annex IA).

4.1.2. Have been screened and assessed for the secondary causes of Obesity and Obesity related comorbid conditions prior to enrollment or after enrollment in the program using the recommended DOH Overweight and Obesity assessment tool (Annex IB).

4.1.3. Mental and Physical disabilities: eligibility of children with mental and/or physical disabilities for enrollment into the program should be decided on a case-by-case basis and based on the recommendations and the capabilities of the Weight Management Multi-disciplinary Team.

4.2. Exclusion from the Weight Management Program:

Children identified after the initial screening to have secondary causes of Obesity such as endocrine diseases or genetic disorders.

5 Service Specifications:

All DOH licensed healthcare facilities authorized to deliver the DOH Weight Management Program for Overweight and Obese Children must:

5.1 Provide clinical services in accordance with the requirements of this document, and ensure their practices are consistent with Annex I, II &II and Appendix I, II and with the relevant updated international best practices guidelines and standards when topics are not covered in this document;

5.2 Should have a dedicated time allocated to provide services for managing overweight and obesity in children.

5.3 Focus on delivering lifestyle intervention as the main component of the DOH Weight Management Program for Overweight and Obese Children;

5.4 The lifestyle intervention of the Program should:

5.4.2 Involve an age-appropriate, culturally sensitive, family centered multicomponent approach targeting the following: diet, physical activity and behavior to lead a healthier life.

5.4.3 Be a tailored intervention that is delivered by a qualified multidisciplinary team with sufficient experience in managing Obesity in children.

5.4.4 Core members of the Multidisciplinary Team (MDT) of lifestyle intervention should include a minimum of a physician, dietitian, with/out psychologist or behavioral therapist. Members and scope of practice are specified in Appendix I. (See also the recommended algorithm for Screening, Diagnosis and Management of Overweight and Obesity in Children in Annex II).

5.4.5 One member of the MDT should have sufficient training on evidence-based methods for behavioral intervention such as motivational intervention, Cognitive Behavioral Therapy (CBT), etc.

5.5 Deliver a well-structured intervention with clear goal, objectives and outcome shared with patient and the families as per Annex III.

5.6 Implement evidence-based methods/techniques that are proven to improve weight in overweight and obese children and lead to healthier lives. This can involve the following:

5.6.2 One to one therapy and/or group therapy to (families/patients);

5.6.3 Structured education programs (the health care provider can contract or partnership with another providers to train staff in delivering structured education for weight management programs or any method proven to be effective);

5.7 If weight loss medication is indicated for eligible patients, the prescription for such medication should be under the following circumstances:

5.7.2 The prescriber should be a DOH licensed pediatric endocrinologist with sufficient experience in prescribing and monitoring of these medications;

5.7.3 The prescriber should only prescribe weight loss medication approved by international guidelines for the treatment of obesity in a pediatric population;

5.7.4 The provider should ensure compliance with DOH Standards for Obesity and Weight Diagnosis, Pharmacological and Surgical Management Interventions when managing Obese children with weight loss medications;

5.7.5 The prescription and management of weight loss medication should be under Level 2 Model of DOH Weight Management Program (see Appendix I and Annex II) which requires the existence of high-specialized team that can manage patients in either a specialized pediatric center or hospital.

5.8 When surgical intervention is indicated, the provider of the Weight Management Program should:

5.8.2 Ensure compliance with all the DOH Standards for Obesity and Weight Diagnosis, Pharmacological and Surgical Management Interventions;

5.8.3 Delivery of the lifestyle intervention prior to surgery to eligible candidates younger than 18 years must be thorough an authorized DOH Weight Management Program provider who fulfills all the service requirements specified in this document;

5.8.4 Post-surgical intervention should be based on the DOH Standards for Obesity and Weight Diagnosis, Pharmacological and Surgical Management Interventions.

6. Staff and Service Requirements

Health care providers participating in DOH's Weight Management Program for Overweight and Obese Children should ensure:

6.1 Staff involved in the weight management program:

6.1.1 Receive appropriate training in obesity management;

6.1.2 Ensure to update their weight management program(s) to best international practices as appropriate.

6.1.3 Are encouraged to develop their own structured education, manual and guidelines to achieve program outcomes and objectives;

6.1.4 Where possible, health care provider of Weight Management Program for Overweight and Obese Children may contract another party to deliver continuous training for their staff on weight management for children;

6.2 Accessibility of the services through:

6.2.1 Offering weight management program services over a flexible range of hours throughout the day, including evening and weekend services to ensure adequate access to services;

6.2.2 Developing a referral system to:

6.2.2.1 Accept self-referral from eligible candidates;

6.2.2.2 Accept professional referral from primary care, all healthcare professionals and relevant stakeholders and screening programs (e.g. school health screening program);

6.2.2.3 Make onward referrals to other relevant health and social care services where appropriate.

7. Monitoring and evaluation:

Providers of the Weight Management Program for Overweight and Obese Children will be required to report performance and will be evaluated in accordance to the following:

7.1 Regular audit through DOH auditing team to ensure compliance with DOH standards and to the program requirements;

7.2 Key performance indicators and outcome results per program objectives set out in Appendix II.

8. Payment Mechanism:

Payment mechanism under the Health Insurance Scheme to be as follows:

8.1 The cost of childhood overweight and obesity screening, diagnosis and management are covered by the Thiqa Health Insurance scheme for UAE Nationals;

8.2 For Non-Nationals, coverage is under their health insurance plan as per the plan's Terms and Conditions;

8.3 Childhood overweight and obesity screening and diagnosis services should be coded in accordance with the coding classifications defined in the Coding Manual published by the DOH Clinical Coding Steering Committee (available at www.shafafiya.org) and in compliance with the e-claim requirements;

8.4 Charges for childhood overweight and obesity screening and diagnosis must be in accordance with the Standard Provider Contract, and in compliance with Mandatory Tariff pricelist and DOH Claims and Adjudication Rules.

Annex I:

DOH Recommendation for the Diagnosis of Overweight and Obesity in Children

I.A. Definition of Overweight and Obesity in Children Younger than 18 years

The widely acceptable tool to diagnose Overweight and Obesity is Body Mass index BMI: BMI (adjusted for age and gender as a practical estimate of adiposity in children 2-18 years old).

The measurement of BMI is equal to the body weight (in kilograms) divided by the height (in meters) squared.

The health care professional can use either WHO growth chart or CDC growth charts for diagnosis and management of overweight and obesity provided the same chart used over time to ensure consistency and accurate monitoring.

1. Definitions:

1.1 World Health Organization (WHO) definitions for Overweight or Obese Children under 5 years of age:

Overweight is or BMI-for-age/ weight for height >2 SD and ≤3 SD of the WHO Growth standards median, and

Obesity is BMI-for-age / weight for height greater than 3 standard deviations above the WHO Child Growth standards median.

1.2 World Health Organization (WHO) definition of Overweight or Obese Children aged above 5 years:

Overweight is BMI-for-age >1 SD and ≤2 SD of the WHO Growth standards median; and

Obesity is greater than 2 standard deviations above the WHO Growth Reference median.

The definition on percentile according to WHO growth chart is as follows :

- Overweight is equivalent to 85th percentile
- Obesity is equivalent to 97th percentile

1.3 The US-CDC definition of Overweight and Obesity for Children above the age of 2 years:

Overweight is BMI for age above the 85th percentile and lower than the 95th percentile.

Obesity is BMI for age at or above the 95th percentile.

1.4 Growth Charts:

Health care professional are required to plot patient's anthropometric measures against the WHO charts; available on the website:

http://www.who.int/childgrowth/standards/en/

OR against US-CDC growth charts available on the website:

https://www.cdc.gov/growthcharts/cdc_charts.htm

I.B. DOH Recommended for the Assessment of Obesity Related Co-morbidities, Complications and Secondary Causes in Children:

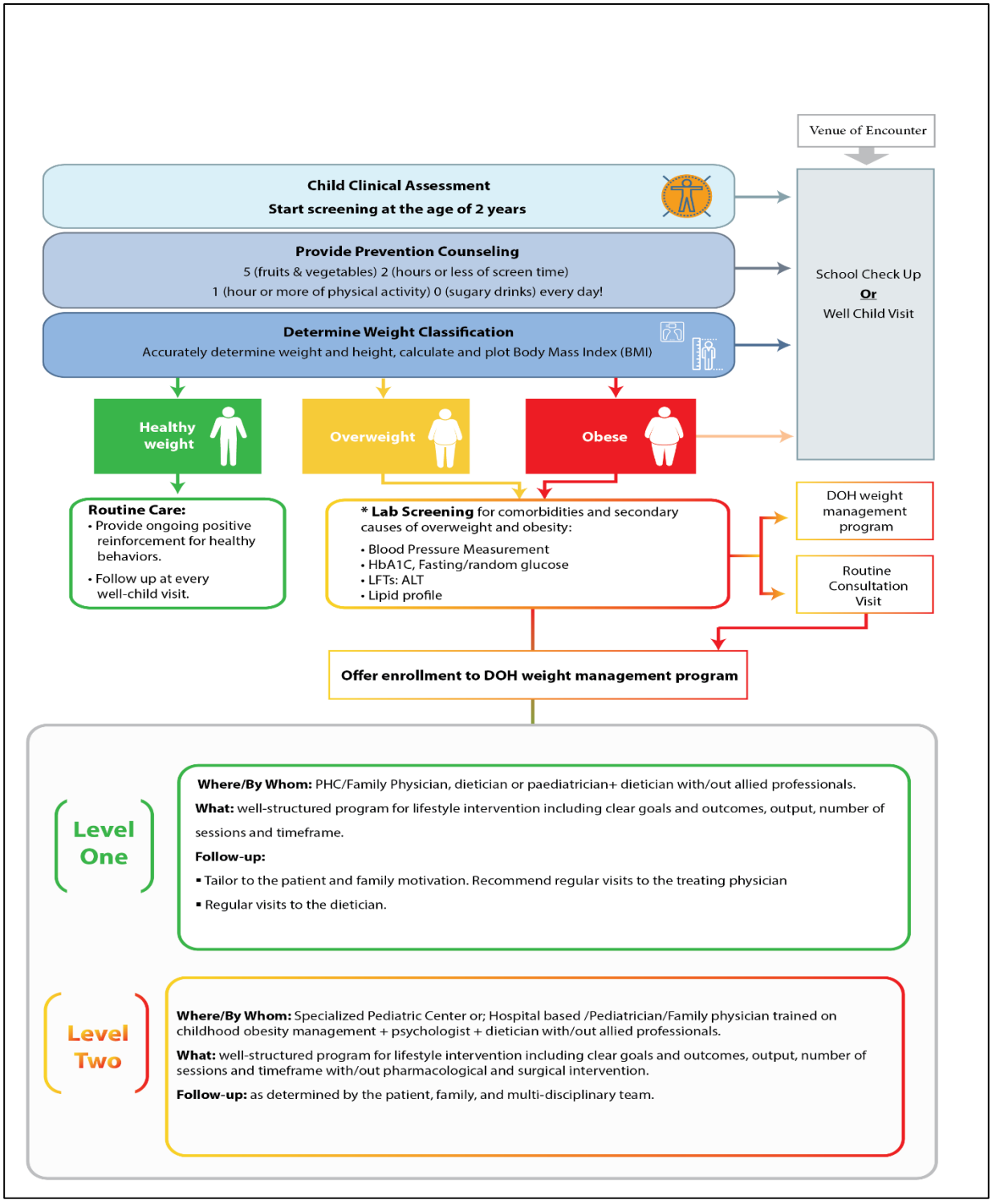
List of co-morbid conditions and obesity-related complications to be considered when assessing paediatric patients with obesity (see footnote)	**1- Dermatological diseases :** • Acanthosis nigricans • Hirsutism • Intertrigo **2- Endocrine diseases :** • Polycystic ovarian syndrome PCOS • Precocious puberty (the onset of secondary sexual characteristics before the age of eight years in girls and nine years in boys) • Type 2 Diabetes , Pre-Diabetes: impaired fasting glucose and / or impaired glucose tolerance test as demonstrated during a GTT. **3- Gastrointestinal diseases :** • Non-alcoholic fatty liver disease or steatohepatitis **4- Neurological disease :** • Pseudotumor cerebri **5- Orthopaedic conditions :** • Blount's disease • Slipped capital femoral epiphysis (SCFE). **6- Psychological conditions/Behavioural health:** • Anxiety • Binge eating disorder • Depression • Mood disorders • Adherence Concerns • Teasing/Bullying **8- Nephrological diseases** : Proteinuria and focal segmental glomerulosclerosis **9- Cardiovascular diseases :** • Dyslipidemia • Hypertension (consider nephrology referral) • Sleep Apnea (consider using validated tool)

Laboratory tests to consider in the screening for the co-morbid conditions	1. BP measurement screening starting from 3 years of age. 2. Hba1c, fasting or random glucose. 3. Aminotransferase (ALT) concentrations (2 times upper limit repeat in 1-6 months or >80 IU/l). 4. Lipid profile. (Fasting if applicable). 5. Genetic testing in only the following conditions: Extreme early onset obesity (before 5 years of age) **and** that have clinical features of genetic obesity syndromes (in particular extreme hyperphagia) and/or a family history of extreme obesity. (see footnote) 6. Endocrine testing for endocrine causes of obesity should only established in the following conditions:

	The patient's stature and/or height velocity are attenuated (assessed in relationship to genetic/familial potential and pubertal stage). e.g.: Growth Hormone, thyroid, etc. **Or** if a clinical feature is suggestive of any endocrine disorder. (see footnote).

Note: Patients who presented with clinical feature of endocrine or genetic disorders should be tested by a specialized paediatric consultant who is privileged by his scope and practice to treat these conditions.
Note: Initiation and Repeating of the screening tests at a specific age should be in accordance to international best practices.

Annex II. The DOH Recommended Care Pathway for the Screening, Diagnosis and Management for Overweight and Obese Children



* Physician shall consider following up to date international best practices when screening for age specific obesity related comorbidities.

Annex III: DOH Recommended Treatment Weight Goals in Children less than 18 years

Recommended Treatment Weight Goals for Overweight and Obese Children less than 18 Years of Age			
Age	Diagnosis	Comorbidity*	Weight goal
2–5 years	Overweight	No	Prolonged weight maintenance
	Overweight	Yes	Prolonged weight maintenance
	Obese	No	Shared decision making–prolonged weight maintenance or weight loss
	Obese	Yes	Weight loss
6- up to 18 years	Overweight	No	Shared decision making–prolonged weight maintenance or weight loss
	Overweight	Yes	Weight loss
	Obese	No	Weight loss
	Obese	Yes	Weight loss
*Comorbidities include Hypertension, Dyslipidaemias, Pseudotumor Cerebri, Sleep Apnea, Obesity Hypoventilation Syndrome, Fatty Liver, and Orthopaedic problems. Adopted from (with modification) : https://wa.kaiserpermanente.org/static/pdf/public/guidelines/weight-adolescent.pdf			

Appendix I: Services Models for the Provision of the Department of Health's Weight Management Program for Overweight and Obesity in Children

DOH Weight Management Program	Level One Model of Care	Level Two Model of Care
Members	• Family medicine trained in childhood obesity management/pediatrician • Dietitian • Other allied health professionals may also be involved to intensify management but not a must: ○ Psychologist/ behavioral therapist / Psychiatrist if needed ○ Exercise physiologist. ○ Practice nurse ○ Health educators ○ Physiotherapists ○ Social workers ○ Occupational therapists	• Minimum of the following: family physician trained on childhood obesity management OR general pediatrician. (including pediatric medical sub-specialties if needed)**, • Clinical dietitian experienced in childcare. • Psychologist/ behavioral therapists experienced in childcare/ Psychiatrist if needed • Other allied health professionals may also be involved to intensify management but not a must: ○ Similar to the previous column in addition to : ○ Pediatric specialist based on patient's needs, e.g., endocrinologist, nephrologist..., etc. ○ Bariatric surgeon based on patient's need.
Patient	• Obese / overweight	• Overweight, Obese or obese with co-morbidity, candidate for pharmacological and surgical interventions.
Where	• Primary Health Care	• Pediatric specialist center or hospitals
Referral mode	• Referral form a school nurse OR self-referral OR other professional referral	• Referral from school nurse OR self-referral OR other professional referral
Scope of practice	• Provide family based structured multicomponent approach for lifestyle intervention including the assessment of the physical activity level and nutrition using a validated tool and monitor them in accordance to updated international best practices. • Identifying and treating factors or behaviors contributing to the development or maintenance of overweight or obesity (e.g. emotional eating, misconceptions about food, physical disability, and food insecurity) using evidence based intervention (i.e. motivational interviewing & Cognitive Behavioral Therapy) to promote behavioral changes and ensure compliance. • Setting goals and monitoring changes against agreed goals	Similar to well structure lifestyle intervention scope of practice in addition to: • Managing co-morbidities. • Monitoring the individual (depending on the intervention). • Prescribing and assessing the need for weight loss medication with expert in drug monitoring. (only if medication is approved by international guidelines for pediatric population) • Provide lifestyle intervention before surgical intervention and asses the need of readiness for surgical intervention ****

Documentary evidence	Medical report to include: • Patient information; • BMI measured at recruitment, regularly at each visit , • Regular report from a DOH licensed physician/ a DOH-Licensed dietitian. • Evidence of Type of intervention delivered including clear goals*** and outcomes, output, number of sessions and timeframe.	Medical report to include: • In addition to a well-structured lifestyle intervention evidence. • Regular report from a DOH- Licensed physician (FM OR pediatrician)/dietitian / psychologist or behavioral therapist who has authorization by his/her scope of practice in weight management.

** Providing a **pediatric service** including subspecialty tailored to the patient needs is necessary in the following circumstances:

- Life threatening comorbid conditions,
- Starting surgical intervention or pharmacological intervention and follow up.

***Goals of the weight management program can be:

- Improvements in diet
- Improvements in physical activity
- Reduction in sedentary behavior
- Monitoring of mental health concerns
- Ensuring adherence
- Improvements in self-esteem
- ****The level two model can be the same multidisciplinary team involved in pre and post-surgical interventions if they fulfill the requirements mentioned in the DOH standards for Obesity and Weight Diagnosis, Pharmacological and Surgical Management Interventions

Appendix II: Objectives, Outcomes and Method of Measurement Process

Objective	Outcome
a) To implement a well-structured child weight management service for overweight and obese 2 – 18 year old within the Emirate of Abu Dhabi.	1- 100% of patients accessing the service meet the eligibility criteria.
	2- 100% of children who attended the 1st or 2nd session should be measured at baseline. **In accordance to Annex II**
	3- A minimum of 65% of all engaged participants complete the intervention. **Engaged participants** are those who have attended at least 2 sessions of the intervention. **Completion** is measured as attendance by an engaged participant of at least 60% of the sessions of the intervention or by completing one year of the intervention.
B) To provide a lifestyle weight management service that helps children achieve and maintain a healthier BMI.	80% of children completing the program maintain or reduce their BMI z-score.
C) To reduce the burden of obesity-related comorbid condition among children	100% of identified obese children with obesity-related comorbidity who had participated in the weight management program and had their clinical markers monitored and measured regularly.*

* Documentary evidence of regular submission of markers of diseases in accordance to best practices: lipid profile in children identified with dyslipidemia, HbaA1c in children diagnosed with diabetes or pre-diabetes, BP measured with children identified with hypertension and prehypertension.

References:

1. AMERICAN ACADEMY OF PEDIATRICS. (2015). Algorithm for the Assessment and Management of Childhood Obesity in Primary Careured Resources. Retrieved April 02, 2018, from https://ihcw.aap.org/resources/Pages/default.aspx
2. Alfadda, A., Al-Dhwayan, M., Alharbi, A., Khudhair, B. A., Nozha, O. A., Al-Qahtani, N., . . . Moore, A. (2016). The Saudi clinical practice guideline for the management of overweight and obesity in adults. *Saudi Medical Journal, 37*(10), 1151-1162. doi:10.15537/smj.2016.10.14353
3. Daniels, S. R., & Hassink, S. G. (2015). The Role of the Pediatrician in Primary Prevention of Obesity. Pediatrics, 136(1). doi:10.1542/peds.2015-1558
4. Davison, K. K., Lawson, H. A., & Coatsworth, J. D. (2011). The Family-Centered Action Model of Intervention Layout and Implementation (FAMILI). Health Promotion Practice, 13(4), 454-461. doi:10.1177/1524839910377966
5. Dennis M. Styne, Silva A. Arslanian, Ellen L. Connor, Ismaa Sadaf Farooqi, M. Hassan Murad, Janet H. Silverstein, Jack A. Yanovski; Pediatric Obesity—Assessment, Treatment, and Prevention: An Endocrine Society Clinical Practice Guideline, *The Journal of Clinical Endocrinology & Metabolism*, Volume 102, Issue 3, 1 March 2017, Pages 709–757, https://doi.org/10.1210/jc.2016-2573
6. Dunn, J., MD, Cohen, A., MN, Amante, C., Arterburn, D., MD, Bock, S., MD, Delgado, D., MD, . . . Wilson, D. (2012, December). Weight Management in Children and Adolescents. Retrieved May, 2018, from https://wa.kaiserpermanente.org/static/pdf/public/guidelines/weight-adolescent.pdf
7. Grossman, D. C., Bibbins-Domingo, K., Curry, S. J., Barry, M. J., Davidson, K. W., Doubeni, C. A., . . . Tseng, C. (2017). Screening for Obesity in Children and Adolescents. Jama, 317(23), 2417. doi:10.1001/jama.2017.6803
8. Kaplowitz, P., & Bloch, C. (2015). Evaluation and Referral of Children With Signs of Early Puberty. Pediatrics, 137(1). doi:10.1542/peds.2015-3732
9. Klish, William J. "Definition; epidemiology; and etiology of obesity in children and adolescents.." Up-to-Date, Mar. 2018, www.bing.com/cr?IG=B48332338DB646308CCFFF9E2EC7C78D&CID=21833E7C491F68742FE0358348E26968&rd=1&h=FBMIOI6FdTW5cozBnZ3u4peBPu-1JjxMBh-CQbgJ_EI&v=1&r=https://www.uptodate.com/contents/definition-epidemiology-and-etiology-of-obesity-in-children-and-adolescents#!&p=DevEx.LB.1,5528.1
10. National Institute for health and Care Excellence NICE. (2015, July 23). Obesity in children and young people: prevention and weight management program quality standards. Retrieved February 13, 2018, from https://www.nice.org.uk/guidance/qs94/resources/obesity-in-children-and-young-people-prevention-and-lifestyle-weight-management-programmes-pdf-209896904058.
11. National Health and Medical Research Council (2013) Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia. Melbourne: National Health and Medical Research Council.
12. Nichols, J. (2018, April). Normal growth patterns in infants and prepubertal children. Retrieved May, 2018, from https://www.uptodate.com/contents/normal-growth-patterns-in-infants-and-prepubertal-children
13. Onis, M. D., & Lobstein, T. (2010). Defining obesity risk status in the general childhood population: Which cut-offs should we use? International Journal of Pediatric Obesity, 5(6), 458-460. doi:10.3109/17477161003615583

14. Onis, M. D., Garza, C., Onyango, A. W., & Borghi, E. (2007). Comparison of the WHO Child Growth Standards and the CDC 2000 Growth Charts. The Journal of Nutrition, 137(1), 144-148. doi:10.1093/jn/137.1.144
15. Phillips, S. M. (2017, April). Measurement of growth in children. Retrieved May 01, 2018, from https://www.uptodate.com/contents/measurement-of-growth-in-children
16. Skelton, J. A., MD, MS. (2017, December 08). Management of childhood obesity in the primary care setting. Retrieved April 01, 2018, from https://www.uptodate.com/contents/management-of-childhood-obesity-in-the-primary-care-setting.
17. World Health Organization. (2017, December). Assessing and managing children at primary health-care facilities to prevent overweight and obesity in the context of the double burden of malnutrition. Retrieved May 16, 2018, from http://www.who.int/nutrition/publications/guidelines/children-primaryhealthcare-obesity-dbm/en