ONLINE APPENDIX

Table 1. Practitioner roles and competencies

Profession/References	Description	Competencies	Certifications
Physician (MD, DO) **Suggested References** Aspry et al., 2018 Bradley et al., 2017 Garvey, et al., 2019 Hayes et al., 2017 Jay et al., 2009 Kushner et al., 2019 Lau et al., 2007 Montesi, 2016	Medical doctors/general practitioners are Board Certified physicians who diagnose, treat, and prevent overweight and obesity and its related co-morbidities. Their key role on an obesity team is to provide vision and leadership, including development of the team and financial planning. Unless the physician delegates to other team members, makes programming decisions, runs meetings, and decides on team model and how it functions. The physician maintains a primary role in engaging patients, supervising the comprehensive program to promote and maintain weight loss, making decisions related to medications and/or surgery, and managing medical complications. Physicians (or extenders) conduct physical examination, order and interpret laboratory values, and order sleep studies. Challenges: Lack of training in medical school and residency and hence limited confidence in being effective, lack of time in practice to provide obesity prevention and care, limited reimbursement for services, and negative bias toward obese patients.	*The Obesity Medicine Education Collaborative (OMEC). (2018). Obesity Competencies. (with 6 core domains and 32 obesity-focused competencies including "works collaboratively within an interdisciplinary team dedicated to obesity prevention and treatment strategies") https://obesitymedicine.org/wp-content/uploads/2020/09/Obesity-Medicine-Education-Collaborative-Competencies-Web.pdf *Provider Training and Education Workgroup: Provider Competencies for the Prevention and Management of Obesity. (2017). (Workgroup included: American Academy of Family Physicians, American Academy of Pediatrics, American the of Osteopathic Medicine, American Bord of Obesity Medicine, Association of American Medical Colleges) https://bipartisanpolicy.org/report/provider-competencies-for-the-prevention-and-management-of-obesity/	*American Board of Medicine: Certification in Obesity Medicine (initiated 2011; 3,370 certified obesity medicine physicians throughout the United States and Canada in 2019).
Nurse Practitioner/Physician Assistant (NP/PA) **Suggested References** Fruh et al., 2019 Kushner, 2016 Lau et al. 2007 World Health Organization, 2010 Zhu, Norman & While, 2013	Licensed medical professionals who, under the supervision of a physician, may diagnose, treat, and prevent overweight and obesity and its related co-morbidities as individual providers or members of an obesity team. May make referrals to RDN, medical weight loss or commercial weight loss programs as well as community resources for increasing physical activity including personal trainers, physical therapists, health clubs. Challenges: Need for adequate educational preparation to include obesity bias awareness, behavior change strategies, guidelines for identification and treatment of obesity, and strategies for interprofessional collaboration.	*The Obesity Medicine Education Collaborative (OMEC). (2018). Obesity Competencies. (with 6 core domains and 32 obesity-focused competencies including "works collaboratively within an interdisciplinary team dedicated to obesity prevention and treatment strategies") https://obesitymedicine.org/wp-content/uploads/2020/09/Obesity-Medicine-Education-Collaborative-Competencies-Web.pdf *Provider Training and Education Workgroup: Provider Competencies for the Prevention and Management of Obesity. (2017). (Workgroup included: American Association of Colleges of Nursing, Physician Assistant Education Association) https://bipartisanpolicy.org/report/provider-competencies-for-the-prevention-and-management-of-obesity/	*In association with Obesity Medicine Association, American Association of Physician Assistants and American Association of Nurse Practitioners: Essentials in Obesity Management Certificate Program https://www.aapa.org/cme-central/national-health-priorities/obesity-leadership-edge/#tabs-3-obesity-management-program *Commission on Dietetic Registration's Interdisciplinary Specialist Certification in Obesity and Weight management Certificate of Training in Obesity Interventions for Adults (also a certificate for pediatrics) https://www.cdrnet.org/interdisciplinary
Nurse (RN) **Suggested References** Zhu, Norman & While, 2013	Registered Nurses are generally included on overweight/obesity care teams. It is within their scope of practice to provide counseling and education to patients with overweight and obesity	*The Obesity Medicine Education Collaborative (OMEC). (2018). Obesity Competencies. (with 6 core domains and 32 obesity-focused competencies including "works collaboratively within an interdisciplinary team dedicated to obesity prevention and treatment strategies") https://obesitymedicine.org/wp-	

	Challenges: Limited nutrition and overweight/obesity management education, lack of time, reimbursement issues.	content/uploads/2020/09/Obesity-Medicine-Education-Collaborative-Competencies-Web.pdf *Provider Training and Education Workgroup: Provider Competencies for the Prevention and Management of Obesity. (2017). (Workgroup included: American Association of Colleges of Nursing) https://bipartisanpolicy.org/wp-content/uploads/2019/03/Provider-Competencies-for-the-Prevention-and-Management-of-Obesity.pdf	
Registered Dietitian Nutritionist (RD/RDN) **Suggested References** Asselin et al., 2015 & 216 Baillargeon et al., 2007 Bonilla et al., 2016 Bruening et al., 2015 Campbell et al., 2014 Cheng et al., 2020 Harvey et al., 2001 Hickman, 2009 Jortberg et al., 2015 Lau et al. 2007 Millen et al., 2014	Registered Dietitian Nutritionists provide comprehensive lifestyle interventions for weight management including outlining the dietary plan, providing nutrition counseling, and tracking calorie restricted diets that meet nutrient needs as well as specific dietary needs based on age, gender, medication side effects and other factors. In some but not all states, the RDN is a licensed professional. Obesity management is an established specialty field of dietetics. Challenges: Time, reimbursement.	*Provider Training and Education Workgroup: Provider Competencies for the Prevention and Management of Obesity. (2017). (Workgroup included: The Academy of Nutrition and Dietetics) https://bipartisanpolicy.org/wp-content/uploads/2019/03/Provider-Competencies-for-the-Prevention-and-Management-of-Obesity.pdf	*Commission on Dietetic Registration's Interdisciplinary Specialist Certification in Obesity and Weight management Certificate of Training in Obesity Interventions for Adults (also a certificate for pediatrics) https://www.cdrnet.org/interdisciplinary
Psychologist/Behavioral psychologist/Mental health worker/Mental health professional/Clinical social worker/Case manager/Social worker **Suggested References** Bernstein et al., 2016 Hunter et al., 1997 Lau et al. 2007 McDaniel et al., 2014 Pagoto et al., 2012 Reilly-Harrington et al., 2017	Behavioral health professionals complete an assessment of patients with overweight or obesity and provide appropriate behavior modification and/or cognitive behavioral therapy or other psycho-social interventions to promote and maintain weight loss. They help patients identify barriers to change and assist in modifying behaviors to achieve agreed upon weight goals. Some are able to diagnose personality and eating disorders, identify psychosocial risks and barriers to compliance, design treatments, provide group and individual psychotherapy, monitor progress, prevent attrition, as well as screen out individuals unsuited for treatment. They can also help patients adjust to weight loss. Case managers and social workers help patients incorporate lifestyle modification by coordinating community services and interprofessional care. Clinical social workers, a subspecialty of social work, observe client behavior; assess needs and create treatment strategies; diagnose psychological, behavioral and emotional disorders; and instruct clients' families during treatment.	*Provider Training and Education Workgroup: Provider Competencies for the Prevention and Management of Obesity. (2017). (Workgroup included the American Psychological Association, The National Organization of Nurse Practitioner Faculties) https://bipartisanpolicy.org/wp-content/uploads/2019/03/Provider-Competencies-for-the-Prevention-and-Management-of-Obesity.pdf	*Licensed clinical psychologists, licensed clinical social workers eligible for Commission on Dietetic Registration's Interdisciplinary Specialist Certification in Obesity and Weight management Certificate of Training in Obesity Interventions for Adults (also a certificate for pediatrics) https://www.cdrnet.org/interdisciplinary

	Challenges: Limited training specific to overweight and obesity, limitations to reimbursement.		
Kinesiologist/Exercise physiologists/Personal trainers/ Certified health fitness instructors ?Exercise specialist/ Physical therapist/Occupational therapists **Suggested References** Alexander, Rosenthal & Evans, 2012 Allison et al., 2019 Bradley & Dietz, 2017 Dean et al., 2016 Dieterle, 2018 Groven & Heggen, 2018 Jensen et al., 2014 Lau et al. 2007 Millen et al., 2014 Nielsen & Christensen, 2018	Health professionals specializing in adapting physical activity for patients with a range of diseases. Can develop individualized physical activity plans for individuals who are overweight or obese to manage weight, prevent the development of obesity, or combat its effects. More often exercise professionals work in fitness rather than clinical environments though increasingly seen as integral rather than adjunct members of the obesity team. Exercise physiologists evaluate energy expenditure and physical disabilities. Physical and occupational therapists identify strategies for patients with chronic pain, current musculoskeletal injury, cardiac or pulmonary disease, or any other medical condition affecting their ability to be physically active. Occupational therapists promote health and lifestyle changes through participation in activities of choice, prevention of occupational deprivation and increases in perceived quality of life. Can be the team member delivering lifestyle interventions including introducing adaptive equipment or modifications that support mobility and independence. Different levels of education are required for different organizations and certifications. The highest certifications (ASCM Registered or Clinical Exercise Physiologist) require a MS degree. The ACSM Exercise Physiologist-Bachelor's Degree and/or the ACE Fitness Weight Management Specialist Certification are similar in competencies. The personal trainer is only required to be over the age of 18 years and pass an exam. The 2014 recommendations from the Obesity Panel identifies the exercise specialist as an obesity care provider (Millen et al., 2014). Challenges: Reimbursement, limited perception of role in overweight/obesity care delivery.	*Provider Training and Education Workgroup: Provider Competencies for the Prevention and Management of Obesity. (2017). (Workgroup included: The American Council of Academic Physical Therapy and the American Kinesiology Association) https://bipartisanpolicy.org/wp-content/uploads/2019/03/Provider-Competencies-for-the-Prevention-and-Management-of-Obesity.pdf *From study published in *Physiotherapy Canada* (Journal of the Canadian Physiotherapy Association) 2012: 1). Assessment of medical history; 2). Evaluation of current physical activity level; 3) Providing an individualized physical activity program; 4). Gradual progression of a physical activity program; 5). Prescription of a cardiovascular training program; 6) Prescription of resistance exercises; and 7). Prescription of moderate-intensity physical activity, 30 min/d, 3–5 d/week; and 8). Calculation of body mass index. Inclusion of ''education on strategies for adherence to an independent exercise program'' also suggested whenever possible (Alexander, Rosenthal, & Evans, 2014, p. 49)	*Exercise physiologists (ACSM-CEP, ACSM-RCEP, ACSM-EP), Licensed physical therapists eligible for Commission on Dietetic Registration's Interdisciplinary Specialist Certification in Obesity and Weight management Certificate of Training in Obesity Interventions for Adults (also a certificate for pediatrics) https://www.cdrnet.org/interdisciplinary *American College of Sports Medicine Exercise is Medicine general credential for partnering in health care (not specific to weight) https://www.acsm.org/get-stay-certified/get-certified/specialization/eim-credential
Pharmacist **Suggested References:** Conrad et al., 2013	Pharmacists help monitor medication use, interactions, side effects and therapeutic benefit. Patients who successfully make lifestyle changes may have altered requirements for selected medications. Also *ideally situated to provide* counseling for weight and lifestyle management. Challenges: Time and resources, lack of expertise, and patient perception and awareness.	*Provider Training and Education Workgroup: Provider Competencies for the Prevention and Management of Obesity. (2017). (Workgroup included: The American Association of Colleges of Pharmacy) https://bipartisanpolicy.org/wp-content/uploads/2019/03/Provider-Competencies-for-the-Prevention-and-Management-of-Obesity.pdf	*Licensed pharmacists eligible for the Commission on Dietetic Registration's interdisciplinary specialist certification in obesity and weight management for Adults (also a certificate for pediatrics) https://www.cdrnet.org/interdisciplinary

Dentist/Dental hygienist (also referred to as oral health care providers: OHCPs) **Suggested References** Greenberg, 2017 Tavares, 2012	Oral health care providers (OHCP) screen for diseases related to obesity and refer to medical providers. Example of support for greater role of OHCPs in screening and referral is inclusion of objective that dentists and dental hygienists identify and refer patients with glycemic control issues https://www.healthypeople.gov/2020/topics-objectives/topic/oral-health/objectives Challenges: Lack of training, evolving role.	*Provider Training and Education Workgroup: Provider Competencies for the Prevention and Management of Obesity. (2017). (Workgroup included: The American Dental Education) https://bipartisanpolicy.org/wp-content/uploads/2019/03/Provider-Competencies-for-the-Prevention-and-Management-of-Obesity.pdf	
Health Coach/Lifestyle Trainer/Lifestyle Counselor/Lifestyle Coach/Navigator	Nonphysician health care professionals with job titles of health coach, lifestyle trainer, lifestyle counselor, navigator may have professional training in nursing, dietetics, exercise science, health education, public health, or other areas. Roles defined specific to each circumstance and may include team coordination, patient education, or other responsibilities. Some are on obesity teams. Challenges: Lack of reimbursement and patient awareness.		Wellcoaches School of Coaching (CHWC) Lifestyle Medicine Coach Certification https://www.wellcoachesschool.com/lifestyle-medicine-for-coaches
Patient	Individual with overweight or obesity. Recent literature includes as integral member of treatment team. Challenges: Access to patient-centered care, payment, non-supportive infrastructure or built environment		