

# Duties, tasks, knowledge and skills of an obesity medicine physician: A practice analysis

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## ABSTRACT

**Background:** Given the evolving nature of obesity medicine, periodic evaluation of its clinical practice is needed to ensure that certification requirements address real-world experience. Practice analysis is a systematic approach to define a field's body of knowledge, and its results can inform the content outline and examination blueprint for a certification examination. This study describes the 2023 practice analysis conducted by the American Board of Obesity Medicine (ABOM).

**Methods:** Initially, 14 obesity medicine physicians participated in a practice analysis panel, resulting in 3 duties and 30 tasks required for competent practice of obesity medicine physicians. Each task included steps, knowledge, skills, and abilities needed to perform the task. ABOM then recruited 645 certified obesity medicine physicians from its database to participate in a validation survey to rate the frequency [scale: never (0) to very frequently (5)] and importance [scale: not important (0) to very important (3)] of each task. Survey participants could also provide open-ended comments.

**Results:** Among validation survey participants (n = 645), the most common primary medical specialties reported were internal medicine (46.0 %), family medicine (33.8 %), and pediatrics (11.2 %). Years practicing obesity medicine varied with 45.3 % reporting 1–4 years, 26.0 % 5–9 years, and 28.7 % ≥ 10 years in practice. Most tasks were performed frequently (mean score ≥ 4.0) and rated as important (mean score ≥ 2.0). All tasks were retained based on the frequency and importance ratings. Survey results informed the weighting in the examination blueprint.

**Conclusion:** There was consensus among practicing ABOM-certified physicians who participated in the validation survey in the tasks required for competent obesity medicine practice. Our practice analysis approach was a structured process that engaged obesity medicine physicians and captured the breadth and depth of knowledge required for obesity medicine. The new content outline and examination blueprint developed will be implemented with the 2025 ABOM certification exam administration.

## 1. Introduction

Certification signifies that a physician has demonstrated the required knowledge, skills and abilities for competent performance within a field [1], and medical specialty boards identify the content and define the boundaries for a field of medicine [2]. The American Board of Obesity Medicine (ABOM) is a medical specialty board whose mission is to serve the public and field of obesity medicine by maintaining standards for

assessment and credentialing physicians [3]. ABOM certification signifies that a physician has specialized knowledge in obesity medicine and achieved competency in obesity care, which is critical given the well-documented gaps in education and training on obesity for physicians [4]. In 2012, ABOM offered the first certification examination in obesity medicine [5], and thereafter the examination has been conducted annually. In general, certification has been associated with improved quality of care for patients [6]. Prior research found that

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ABOM-certified physicians offer services concordant with obesity treatment guidelines, including nutrition, physical activity, anti-obesity medications, and perioperative metabolic and bariatric surgical care [7].

Given the evolving nature of medical specialties, periodic and systematic practice analysis is needed to ensure that certification requirements address real-world clinical experience [8,9]. Practice analysis is a standard approach to define the content and breadth of a field of medicine [10–13], which involves describing key tasks performed within the clinical practice and identifying the knowledge, skills, and abilities needed to competently perform those tasks. Importantly, practice analysis relies upon input from physicians practicing in the field. The practice analysis process will typically result in a content outline that defines the body of knowledge for a field along with an examination blueprint that describes the allocation of content on a certification exam [11]. The examination blueprint weights the content of each domain according to its importance and frequency of use, and it also considers the breadth and depth of content amenable to written examination.

In 2009, ABOM completed an initial practice analysis with the support of the National Board of Medical Examiners, and these findings were used to create the first certification examination in 2012. ABOM performed an updated practice analysis in 2017, which resulted in minor changes to the examination blueprint. Given the relatively small size of the field of obesity medicine at the time (~2000 ABOM-certified physicians), the 2017 practice analysis included both certified and non-certified obesity medicine physicians. Since the first examination, the obesity treatment landscape has changed substantially [14,15] and the number of ABOM-certified physicians has increased and now exceeds 8000 [3]. An updated practice analysis was therefore warranted to ensure that the certification requirements align with current real-world practice. In this article, we describe the comprehensive, multi-step approach that ABOM used to analyze the field of obesity medicine and produce an updated obesity medicine content outline and examination blueprint.

## 2. Overview of practice analysis process

The obesity medicine practice analysis process consisted of 3 phases: 1) developing a practice analysis document among a panel of practicing ABOM-certified obesity medicine physicians; 2) surveying ABOM-certified obesity medicine physicians to solicit feedback regarding the practice analysis; and 3) using the survey results to refine the content outline and inform examination weights (the percentage of questions on the certification exam assigned to each area). Fig. 1 displays an overview of our process. The company, Professional Testing, provided guidance and expertise in the ABOM practice analysis process, including support

from psychometricians and test development experts.

### 2.1. – Phase 1: Practice analysis panel

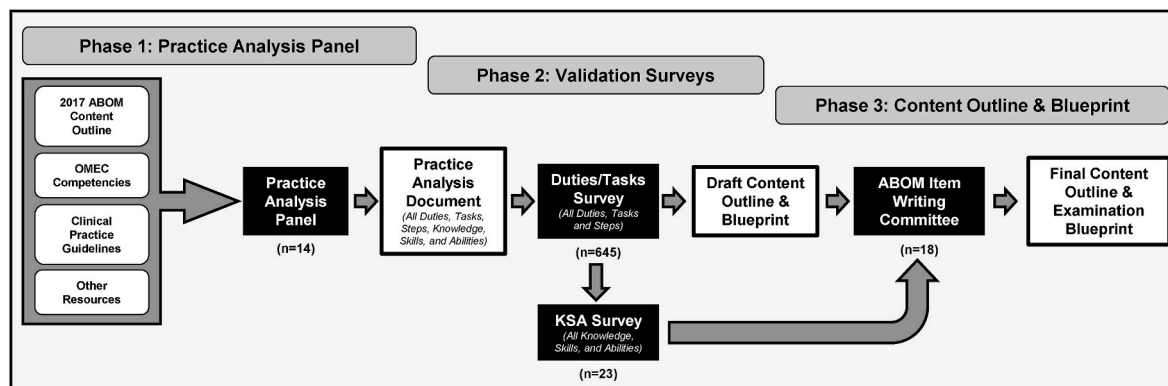
In February 2023, ABOM convened a diverse panel of 14 practicing ABOM-certified obesity medicine physicians to serve as content experts for the practice analysis. Panel size was similar to panels convened for other medical specialties [11–13]. ABOM also selected panel members with consideration of gender, geographic location, primary medical specialty, academic practice setting, obesity medicine fellowship training status, and ABOM certification year (Table 1). The panel convened for a 3-day in-person process followed by a 4-h virtual follow-up meeting.

With the panel members, Professional Testing psychometricians facilitated a focus group and brainstorming process to capture the duties and related tasks included in the role of an obesity medicine physician, as well as the steps required and knowledge, skills, and abilities needed to perform each task [16]. The panel identified both clinical and nonclinical responsibilities with the goal of defining the complete body of knowledge for the obesity medicine field.

The practice analysis identified 3 duties required for practice: 1) Evaluating, Examining and Diagnosing Patients, 2) Treating Patients with Obesity, and 3) Practicing Obesity Medicine with Professionalism. Each duty had multiple tasks, and each task required multiple steps as well as knowledge/skill/ability areas. This information was synthesized in a practice analysis document. The panel also created the following role delineation statement: *An ABOM-certified obesity medicine physician evaluates, treats, and advocates for patients with the chronic disease of obesity and its related conditions. They accomplish this by delivering compassionate, unbiased, individualized, and evidence-based longitudinal care to enhance patient health and wellbeing and improve the health of society.*

### 2.2. – Phase 2: Validation surveys

The aim of the second phase was to collect feedback from a wide group of practicing obesity medicine physicians through a series of two online surveys. The first survey was disseminated to all ABOM-certified obesity medicine physicians, and participants suggested effort allocation for each duty and rated the frequency and importance for each task (Duties/Tasks Survey). The second survey aimed to validate the knowledge, skills and abilities required for the role of an ABOM-certified obesity medicine physician among a subgroup of participants who completed the first survey (Knowledge/Skills/Abilities Survey). ABOM employed this approach to reduce survey fatigue.



**Fig. 1. Overview of Obesity Medicine Practice Analysis Process.** This figure shows the three phases of the process: practice analysis panel, validation surveys, and development of the content outline and examination blueprint. Abbreviations: ABOM – American Board of Obesity Medicine; KSA – Knowledge, Skills and Abilities; OMEC – Obesity Medicine Education Collaborative.

**Table 1**  
Characteristics of practice analysis panel.

	Geographic Location	Gender	Primary Medical Specialty	Academic Medical Center Practice	Obesity Medicine Fellowship Trained <sup>a</sup>	Initial ABOM Certification Year
1	District of Columbia	M	Preventive Medicine	No	No	2019
2	Maryland	F	Internal Medicine	Yes	No	2015
3	North Carolina	F	Internal Medicine	Yes	No	2015
4	Virginia	M	Medicine-Pediatrics   Endocrinology	Yes	No	2015
5	Alabama	M	Family Medicine	No	No	2016
6	Texas	F	Family Medicine	No	No	2017
7	Illinois	F	Pediatrics	Yes	No	2018
8	Ohio	M	Internal Medicine	Yes	Yes	2013
9	Colorado	M	Internal Medicine	Yes	No	2012
10	Utah	F	Internal Medicine	Yes	Yes	2015
11	California	F	Internal Medicine	Yes	Yes	2018
12	California	F	Internal Medicine	No	No	2017
13	New York	F	Internal Medicine   Endocrinology	Yes	No	2015
14	New York	F	Internal Medicine   Endocrinology	Yes	Yes	2019

Abbreviations: ABOM – American Board of Obesity Medicine; F – female; M – male.

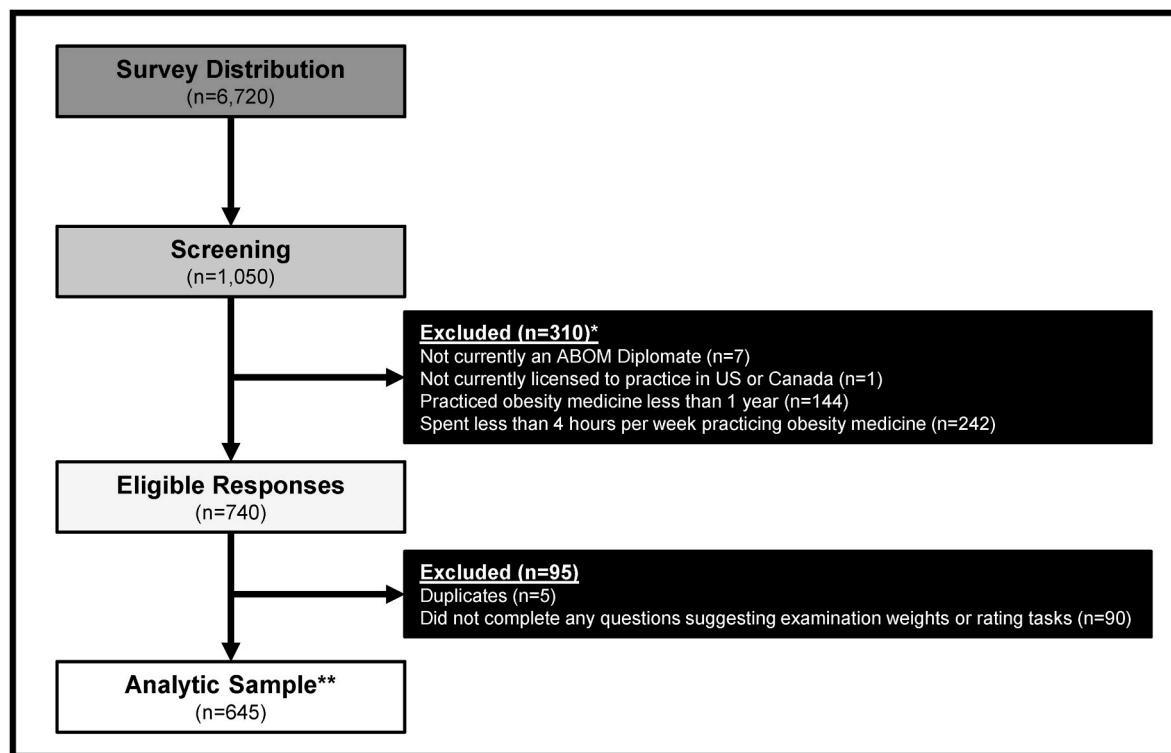
<sup>a</sup> Obesity medicine fellowships recognized by the Obesity Medicine Fellowship Council.

### 2.2.1. – Duties/Tasks Survey: Methods & results

**Design & Recruitment.** ABOM conducted a cross-sectional survey of ABOM Diplomates in March–April 2023. The purpose was twofold. The first goal was to validate the duty and task list identified during the practice analysis panel and determine if any content was missing. The second goal was to inform examination blueprint weights using task frequency and importance ratings. To recruit participants, ABOM emailed invitations to all 6720 ABOM-certified physicians and 1050 physicians responded. The response rate was 16 %, similar to other practice analysis studies [11]. To be eligible to participate, physicians

had to be an ABOM Diplomate, licensed to practice medicine in the United States or Canada, have practiced obesity medicine for 1 year or more, and spend at least 4 h per week, on average, practicing obesity medicine. Fig. 2 shows the study flow diagram. As compensation for their time, physicians who completed the survey received discounted registration fees to the 2023 national meetings of The Obesity Society and/or Obesity Medicine Association (approximate value \$50-\$100US), which were provided by these organizations.

**Measures.** The survey included several sections: 1) allocation of effort to each duty; 2) frequency and importance ratings for each task under



**Fig. 2. Study Flow Diagram for Duties/Tasks Survey.** This figure displays the study flow for the Duties/Tasks survey conducted in March–April 2023. Abbreviations: ABOM – American Board of Obesity Medicine; US – United States. \*Candidates could have been excluded for more than one reason; therefore, numbers presented for each exclusion category are not mutually exclusive. \*\* Of note, 23 participants from this group also participated in the Knowledge/Skills/Abilities Survey.

each duty; and 3) demographic and practice characteristics. The complete survey is available in **Supplemental Materials 1**. There were 3 duties and each of these duties had multiple tasks – **Evaluating, Examining and Diagnosing Patients** (14 tasks), **Treating Patients with Obesity** (11 tasks), and **Practicing Obesity Medicine with Professionalism** (5 tasks). Participants were asked to indicate the percentage of the certification exam that should be allocated to each duty (holistic rating) – each could be valued between 0 and 100, but all three duties had to add up to 100. For each task, participants were provided its name and duty assignment along with a bulleted list of statements to describe the steps that the task might involve (examples provided in Fig. 3). Participants were directed to evaluate each task that may be performed and indicate how frequently a typical obesity medicine physician would perform each task and how important each task is to an obesity medicine physician's competent job performance. For frequency, response options included: very frequently (5), frequently (4), occasionally (3), rarely (2), very rarely (1), and never (0). As perceptions of these frequency terms may vary, we provided participants guidance to define these terms both generally and in the context of a clinic session (**Supplemental Materials 1**). For importance, response options included: very important (3), important (2), somewhat important (1), and not important (0). Frequency and importance ratings were combined for each task to create a summary score (range 0–8), as some tasks might be highly important but occur infrequently. Participants were provided a space where they could enter tasks or information they felt was missing.

**Analysis.** The mean percentage allocated to each duty was calculated from the holistic ratings. To inform retention and removal of tasks, mean frequency, importance, and summary scores for each task were calculated. ABOM also calculated the percentage of respondents who reported ever performing each task (i.e., any frequency response other than 'never'). Given that tasks may differ among obesity medicine physicians who treat children, mean scores among this subgroup were also calculated to ensure that key tasks for these physicians were not removed. Physicians who treat children were defined as participants reporting primary medical specialty in pediatrics and/or having patient

populations with  $\geq 50\%$  children and/or adolescents ( $n = 69$ ).

**Results.** Overall, 645 physicians were included in the analysis. **Table 2** shows the training and practice characteristics for the included physicians. Most reported a primary medical specialty of either family medicine (33.8 %) or internal medicine (46.0 %), which is consistent with ABOM Diplomates overall [5]. Distribution of gender and region of practice was also similar to prior descriptions of ABOM Diplomates [5]. Participants' mean percentage allocated to **Evaluating, Examining and Diagnosing Patients** was 38.0 % (SD 9.5), **Treating Patients with Obesity** was 43.1 % (SD 10.9), and **Practicing Obesity Medicine with Professionalism** was 19.1 % (SD 10.1). **Table 3** shows the mean frequency, importance, and summary scores for each task; **Supplemental Table 1** shows these results among the subgroup of physicians who treat children. Across all physicians, most tasks were performed frequently (mean score  $\geq 4.0$ ) and rated as important (mean score  $\geq 2.0$ ). Mean summary scores for nearly all tasks were relatively high. Of note, "diagnose genetic and syndromic causes of obesity" had a relatively lower mean summary score of 4.4 (SD 2.1); however, this task had a higher mean summary score among physicians who treat children (mean score 5.7 (SD 2.1)) (**Supplemental Table 1**). Among all physicians, most tasks had over 95 % of physicians reporting that they performed them (**Table 3**). Only two tasks did not meet this threshold, 91.2 % reported ever "diagnosing genetic and syndromic causes of obesity" and 94.4 % reported ever "raising public awareness of obesity." Among physicians who treat children, a greater percentage of physicians reported performing these two tasks (95.7 % and 97.1 %, respectively) (**Supplemental Table 1**). Relative to all physicians, less than 95 % of physicians who treat children reported "counseling on bariatric devices and non-surgical procedures" (84.1 %) or "counseling on metabolic and bariatric surgery" (94.2 %). Ultimately, no tasks were identified for removal based on the frequency and importance ratings.

#### 2.2.2. – Knowledge/Skills/Abilities Survey: Methods & results

ABOM conducted a second cross-sectional survey in August 2023 among a small subgroup of participants who completed the Duties/

– Example Task for Duty #1 – Evaluating, Examining, and Diagnosing Patients	– Example Task for Duty #2 – Treating Patients with Obesity	– Example Task for Duty #3 – Practicing Obesity Medicine with Professionalism
<b>Obtain a medication/supplement history relevant to obesity</b> <ul style="list-style-type: none"> <li>Identify prior and current use of FDA approved anti-obesity medications</li> <li>Identify prior and current use of weight-gain-promoting medications (e.g., corticosteroids, beta blockers, atypical antipsychotics, etc.)</li> <li>Identify prior and current use of medications that may reduce weight (e.g., SGLT2 inhibitors, bupropion, etc.)</li> <li>Identify over-the-counter medications/supplements/vitamins that may influence weight</li> <li>Identify barriers to medication adherence (e.g., side effects, costs, etc.)</li> </ul>	<b>Formulate a treatment plan</b> <ul style="list-style-type: none"> <li>Use behavior change counseling techniques when formulating treatment plan with patient (e.g., motivational interviewing, 5A's framework, shared decision-making, etc.)</li> <li>Advise patients on the benefits of intensive, comprehensive treatment strategies (e.g., intensive behavioral therapy, lifestyle modification plus pharmacotherapy)</li> <li>Incorporate cultural considerations into the treatment plan</li> <li>Discuss level of scientific evidence of proposed treatments with patients</li> <li>Agree on an evidence-based, comprehensive treatment plan</li> <li>Problem-solve with patients to address barriers to treatment</li> <li>Refer patients to services to address social barriers (e.g., SNAP, WIC, etc.)</li> <li>Interpret energy expenditure measures to guide treatment plan</li> <li>Advise patients on group and commercial weight-loss programs</li> <li>Advise patients against treatments that have been proven ineffective, unsafe or are unregulated</li> </ul>	<b>Maintain professional competence in obesity medicine</b> <ul style="list-style-type: none"> <li>Maintain professional credentials</li> <li>Participate in continuing education in obesity medicine</li> <li>Monitor epidemiologic studies of obesity to understand changes in prevalence and inequities over time</li> <li>Evaluate new and emerging scientific evidence on obesity</li> <li>Incorporate new and emerging scientific knowledge into obesity medicine practice</li> <li>Contribute to the field of obesity medicine (e.g., scholarship, research, teaching, volunteering, etc.)</li> </ul>

**Fig. 3. Example Task for Each Duty.** This figure provides examples of information provided to survey participants about each task. An example task from each of the three duties is displayed. Task name is in bold text and bullets below the name represent steps. Abbreviations: FDA – Food and Drug Administration; SGLT2 – sodium-glucose co-transporter-2; SNAP – Supplemental Nutrition Assistance Program; WIC – Women, Infants & Children Program.

**Table 2**  
Characteristics of validation survey participants.

	Survey Participants (n = 645)
<b>Women, n (%)</b>	381 (59.1 %)
<b>Medical School Graduation Year, n (%)</b>	
Prior to 1990	70 (10.9 %)
1990–1999	172 (26.7 %)
2000–2009	230 (35.7 %)
2010 or later	173 (26.8 %)
<b>Primary Medical Specialty<sup>a</sup>, n (%)</b>	
Family Medicine	218 (33.8 %)
Internal Medicine	297 (46.0 %)
Pediatrics	72 (11.2 %)
Surgery	28 (4.3 %)
OB/GYN	21 (3.3 %)
<b>OMFC Obesity Medicine Fellowship, n (%)</b>	22 (3.4 %)
<b>Years Practicing Obesity Medicine, n (%)</b>	
Less than 1 year	0
1–2 years	132 (20.5 %)
3–4 years	160 (24.8 %)
5–9 years	168 (26.0 %)
10–14 years	105 (16.3 %)
15 years or more	80 (12.4 %)
<b>Time Spent Practicing Obesity Medicine, n (%)</b>	
Less than 4 h/week	0
4–10 h/week	226 (35.0 %)
11–20 h/week	160 (24.8 %)
21–30 h/week	96 (14.9 %)
31–40 h/week	98 (15.2 %)
More than 40 h/week	65 (10.1 %)
<b>Geographic Region<sup>b</sup>, n (%)</b>	
US Northeast	164 (25.4 %)
US South	257 (39.8 %)
US Midwest	191 (29.6 %)
US West	151 (23.4 %)
Canada	30 (4.7 %)
<b>Practice Setting<sup>c</sup>, n (%)</b>	
Academic Medical Center	152 (23.6 %)
Multi-specialty group practice	120 (18.6 %)
Single-specialty group practice	82 (12.7 %)
Solo practice	92 (14.2 %)
Hospital	66 (10.2 %)
Other	55 (8.5 %)

Abbreviations: IQR – interquartile range; OMFC – Obesity Medicine Fellowship Council; US – United States.

<sup>a</sup> Physicians may have also had additional specialties not listed (e.g., preventive medicine) – data not presented due to small sample sizes.

<sup>b</sup> US states categorized by US census region. Physicians may have had a license in states in more than one region or country, therefore, the groups presented are not mutually exclusive. Physicians may be licensed in Puerto Rico – data not presented due to small sample size.

<sup>c</sup> Other practice settings include federally qualified health center, health maintenance organization, telehealth company, etc. Practice setting information was missing for 78 participants..

Tasks survey, which aimed to identify unnecessary knowledge, skills and abilities for potential removal as well as determine if any omissions existed. ABOM recruited 23 participants from the Duties/Tasks survey who indicated a willingness to complete an additional survey – participants who completed this additional survey were compensated \$125US for their time. [Supplemental Table 2](#) presents the demographics of this subgroup. Participants examined 481 individual knowledge, skills and abilities, and indicated whether each was required for the role of an ABOM-certified obesity medicine physician (response options: yes, no, unsure). Participants were provided with a space where they could enter information they felt was missing. For every item, ABOM calculated the percentage of respondents who reported each response option, and flagged items for review when less than 75 % of participants indicated it was required for an obesity medicine physician. Overall, 51 items were

**Table 3**  
Mean frequency and importance ratings of each task, by duty, among all physicians.

Tasks	Mean Frequency (SD)	Mean Importance (SD)	Mean Summary Score <sup>a</sup> (SD)	% Physicians Performing <sup>b</sup>
<b>Duty #1 – Evaluating, Examining, and Diagnosing Patients</b>				
Obtain a weight history	4.7 (0.6)	2.8 (0.4)	7.5 (0.9)	100 %
Obtain a nutrition history	4.5 (0.7)	2.8 (0.4)	7.3 (1.0)	99.8 %
Obtain an eating behavior history	4.3 (0.9)	2.7 (0.6)	7.0 (1.3)	100 %
Obtain a physical activity history	4.6 (0.7)	2.7 (0.5)	7.3 (1.0)	99.8 %
Obtain a sleep history	4.4 (0.8)	2.6 (0.6)	7.0 (1.2)	100 %
Obtain a medication/supplement history relevant to obesity	4.8 (0.5)	2.8 (0.4)	7.6 (0.8)	100 %
Obtain a psychosocial and neuropsychiatric history relevant to obesity	4.2 (0.9)	2.6 (0.6)	6.8 (1.4)	99.8 %
Obtain a social history and identify social determinants of health relevant to obesity	4.3 (0.8)	2.5 (0.6)	6.9 (1.3)	100 %
Obtain a history of metabolic and biomechanical complications of obesity	4.7 (0.6)	2.8 (0.4)	7.5 (0.9)	100 %
Diagnose metabolic and biomechanical complications of obesity	4.7 (0.6)	2.8 (0.4)	7.5 (0.9)	100 %
Obtain a family history relevant to obesity	4.1 (1.0)	2.3 (0.7)	6.5 (1.6)	99.3 %
Diagnose acquired secondary causes of obesity or abnormal weight gain	4.0 (1.0)	2.3 (0.7)	6.3 (1.6)	99.5 %
Diagnose genetic and syndromic causes of obesity	2.5 (1.4)	1.9 (0.9)	4.4 (2.1)	91.2 %
Diagnose obesity and characterize its severity	4.4 (1.0)	2.6 (0.7)	7.0 (1.6)	99.5 %
<b>Duty #2 – Treating Patients with Obesity</b>				
Discuss obesity as a complex chronic disease	4.7 (0.5)	2.8 (0.4)	7.6 (0.8)	100 %
Counsel on behavior modification	4.7 (0.6)	2.8 (0.4)	7.5 (0.9)	100 %
Counsel on nutrition	4.7 (0.6)	2.9 (0.4)	7.5 (0.9)	99.8 %
Counsel on physical activity	4.6 (0.6)	2.7 (0.5)	7.4 (1.0)	100 %
Prescribe anti-obesity medication	4.4 (0.9)	2.7 (0.5)	7.1 (1.2)	99.7 %
Counsel on bariatric devices and non-surgical procedures	3.1 (1.4)	1.9 (0.9)	5.0 (2.1)	95.0 %
Counsel on metabolic and bariatric surgery	3.6 (1.2)	2.3 (0.7)	6.0 (1.7)	99.0 %
Tailor treatment plan for special populations with obesity	3.7 (1.3)	2.4 (0.7)	6.0 (1.8)	98.3 %

(continued on next page)

**Table 3** (continued)

Tasks	Mean Frequency (SD)	Mean Importance (SD)	Mean Summary Score <sup>a</sup> (SD)	% Physicians Performing <sup>b</sup>
Medical management of weight-related comorbidities	4.6 (0.8)	2.8 (0.5)	7.3 (1.1)	99.3 %
Formulate a treatment plan	4.7 (0.6)	2.8 (0.4)	7.5 (0.9)	100 %
Continue to actively manage the long-term treatment plan	4.7 (0.6)	2.8 (0.4)	7.5 (0.9)	99.8 %
<b>Duty #3 – Practicing Obesity Medicine with Professionalism</b>				
Maintain professional competence in obesity medicine	4.4 (0.8)	2.8 (0.5)	7.1 (1.1)	99.8 %
Manage the obesity medicine clinical practice	4.4 (0.9)	2.7 (0.5)	7.1 (1.3)	99.3 %
Reduce weight bias and stigma	4.7 (0.6)	2.8 (0.5)	7.4 (1.0)	100 %
Advocate for patients with obesity within the health system	3.9 (1.1)	2.7 (0.6)	6.6 (1.5)	98.4 %
Raise public awareness of obesity	3.1 (1.5)	2.5 (0.7)	5.6 (1.8)	94.4 %

Frequency was assessed on a 6-point scale – never (0), very rarely (1), rarely (2), occasionally (3), frequently (4), very frequently (5) – with maximum score of 5. Participants were provided guidance on defining these frequency terms, which is available in Supplemental Materials 1. Importance was rated on a 4-point scale – not important (0), somewhat important (1), important (2), very important (3) – with maximum score of 3.

<sup>a</sup> Summary scores calculated by adding frequency and importance scores for each task (possible range 0-8).

<sup>b</sup> Percentage of respondents who rated frequency as any option other than ‘never.’

identified for potential removal (Supplemental Table 3).

### 2.3. – Phase 3: Content outline and examination blueprint

Based on the outcome of the practice analysis panel and the Duties/Tasks survey, Professional Testing and ABOM staff prepared a draft content outline and examination blueprint. The content outline provides detailed information on each task including the steps, knowledge, skills and abilities required. The examination blueprint outlines the allocation of test questions to each duty as well as each task. In general, tasks rated as important and frequent were weighted more heavily (i.e., greater percentage of examination questions) than those less important and less frequent. The testability of content through a multiple-choice examination was also factored into the draft examination blueprint. The draft blueprint allocated 39 % of the certification examination to Evaluating, Examining and Diagnosing Patients, 58 % to Treating Patients with Obesity, and 3 % to Practicing Obesity Medicine with Professionalism. Of note, two tasks under Practicing Obesity Medicine with Professionalism (“manage the obesity medicine clinical practice” and “advocate for patients with obesity within the health system”) comprised 0 % of the examination blueprint, as this content was considered unsuitable to evaluation through multiple-choice questions.

In October 2023, ABOM convened members of its item writing committee to review the content outline and examination blueprint documents as well as additional findings from the surveys. The item writing committee is comprised of ABOM-certified obesity medicine physicians who have undergone training and are responsible for developing questions for the ABOM certification exam. This group reviewed

the flagged items from the Knowledge/Skills/Abilities survey, and decided to remove all knowledge, skills and abilities where  $\geq 20$  % of respondents indicated that it was not required for the role of an obesity medicine physician (5 items were removed) (Supplemental Table 3). They reviewed entries from both surveys regarding missing content identified by participants – 31 suggested additions were reviewed and adjudicated. The group also considered whether each task might have sufficient content that would be appropriate for testing on a multiple-choice certification examination. Tasks without sufficient testable content were consolidated into another task or received decreased weighting on the final examination blueprint. Table 4 displays the final examination blueprint.

The final ABOM content outline and examination blueprint will be available on the ABOM website in early November 2024 at <http://www.abom.org>, which outlines in-depth the steps, knowledge, skills and abilities relevant for each task. The 2025 certification exam will reflect the content in these new documents.

### 3. Discussion

In this article, we describe the practice analysis process used to develop the ABOM content outline and examination blueprint. ABOM

**Table 4**

Final examination BlueprintSM<sup>a</sup>.

Tasks	% Certification Exam
<b>Duty #1 – Evaluating, Examining, and Diagnosing Patients</b>	
Obtain a weight history <sup>b</sup>	37 %
Obtain a nutrition history	2 %
Obtain an eating behavior history	2 %
Obtain a physical activity history	2 %
Obtain a sleep history	1 %
Obtain a medication/supplement history relevant to obesity	4 %
Obtain a psychosocial and neuropsychiatric history relevant to obesity	3 %
Obtain a social history and identify social determinants of health relevant to obesity <sup>b</sup>	2 %
Obtain a history of metabolic and biomechanical complications of obesity	1 %
Diagnose metabolic and biomechanical complications of obesity	6 %
Diagnose acquired secondary causes of obesity or abnormal weight gain	4 %
Diagnose genetic and syndromic causes of obesity	3 %
Diagnose obesity and characterize its severity	5 %
<b>Duty #2 – Treating Patients with Obesity</b>	
Discuss obesity as a complex chronic disease	60 %
Counsel on behavior modification	4 %
Counsel on nutrition	6 %
Counsel on physical activity	7 %
Prescribe anti-obesity medication	2 %
Counsel on bariatric devices and non-surgical procedures	8 %
Counsel on metabolic and bariatric surgery	2 %
Tailor treatment plan for special populations with obesity	7 %
Medical management of weight-related comorbidities	9 %
Formulate a treatment plan	7 %
Continue to actively manage the long-term treatment plan	4 %
<b>Duty #3 – Practicing Obesity Medicine with Professionalism</b>	
Maintain professional competence in obesity medicine	3 %
Manage the obesity medicine clinical practice	1 %
Reduce weight bias and stigma	0
Advocate for patients with obesity within the health system	1 %
Raise public awareness of obesity	0

<sup>a</sup> The American Board of Obesity Medicine (ABOM) has filed a trademark application for the content outline and examination blueprint, therefore, ABOM retains the rights of the material presented in this table. ABOM has given permission to use this information in this publication.

<sup>b</sup> The draft examination blueprint included the task of “obtaining a family history relevant to obesity.” Given the limited content within this task, the item writing committee integrated this content into these other tasks, as appropriate.

used a structured, multi-step process to develop and refine the final product, which was vetted by a population of physicians that appropriately represents ABOM Diplomates. As the field of obesity medicine has grown, this practice analysis process exclusively engaged ABOM-certified obesity medicine physicians to define its body of knowledge – an important milestone signifying continuing maturation of the field. In addition, the tasks reflect the practice of obesity medicine physicians who care for both adults and children, and differences found among physicians who care for children may reflect that devices and procedures are not FDA-approved for children and clinical practice guidelines recommend surgery only in adolescents [17].

In addition to regular conduct of practice analyses, ABOM adheres to Institute for Credentialing Excellence best practices for certification and sets high standards to determine competency [18]. Obesity medicine is not currently recognized as a subspecialty field by the American Board of Medical Specialties (ABMS) or the American Osteopathic Association (AOA) [19]. While pursuing this recognition has been of interest to some ABOM-certified obesity medicine physicians, it also presents challenges. For example, current ABOM-certified physicians would need to successfully pass a new certification exam created by ABMS as well as potentially meet other requirements such as completing an obesity medicine fellowship [19]. As obesity medicine continues to mature, ABOM will continue to carefully consider the advantages and disadvantages of ABMS and AOA recognition for both patients and physicians.

#### 4. Limitations

This work has limitations. Practice analysis is intended to define the body of knowledge for a field of medicine, and therefore, our scope focuses on this area. Results from this work are intended to assess knowledge or competency, but not provide a clinical algorithm or guidelines for treatment. However, our results might help inform additional tools such as clinical algorithms or outcomes for quality measures. The ABOM-certified physicians who participated in the practice analysis panel were predominantly women (64 %) and physicians with primary medical specialty in internal medicine (71 %). It is important to note that a greater percentage of men (44 %) and family medicine physicians (30 %) participated in the Knowledge/Skills/Abilities Survey. Prior evaluation of ABOM Diplomates have found that a majority are women, while internal medicine physicians comprised 36 % of Diplomates and family medicine physicians comprised 30 % [5]. Given its cross-sectional approach, this practice analysis reflects the body of knowledge for obesity medicine at this point in time. As the field continues to mature, additional practice analyses will need to be conducted.

#### 5. Conclusions

The identified body of knowledge includes all key tasks important for the obesity medicine physician. This work sets the expectations for the clinical practice of obesity medicine, which may improve the care delivered to patients with obesity. As obesity medicine continues to advance, ABOM will perform a similar process at regular intervals to update the content outline and examination blueprint to ensure they reflect current knowledge and practice.

#### 6. Summary Takeaway Messages

- The American Board of Obesity Medicine (ABOM) conducted a rigorous practice analysis to define the body of knowledge for obesity medicine.
- The role of an obesity medicine physician includes three primary duties: 1) Evaluating, Examining and Diagnosing Patients, 2) Treating Patients with Obesity, and 3) Practicing Obesity Medicine with Professionalism. Multiple tasks under each duty were identified as well as the steps, knowledge, skills and abilities needed to competently perform each task.

- The body of knowledge derived from this practice analysis comprehensively outlines expectations for the clinical practice of obesity medicine, which may improve the care delivered to patients with obesity.

#### Ethical adherence

This work only involved analysis of de-identified data, and therefore, would not be considered human subjects research per U.S. Department of Health & Human Services definitions.

#### Declaration of artificial Intelligence (AI) and AI-assisted Technologies

During the preparation of this work the authors did not use AI.

#### Author Contributions

All authors conceptualized this work. KAG, DRB and AWC were involved with methodology and data curation. KAG conducted all analyses and wrote the first draft. All authors reviewed, edited, and approved the final submission and publication.

#### Disclosures

During conduct of this work, KAG previously served as Medical Director for the American Board of Obesity Medicine and is currently employed by the American Board of Obesity Medicine Foundation as Chief Medical Officer. She has received personal fees from Johns Hopkins ACG System and PRI-MED; personal fees for participation on advisory boards for Eli Lilly and Company and Novo Nordisk; and travel support from Eli Lilly and Company and Novo Nordisk. Her former institution (Johns Hopkins) received grant funding from Novo Nordisk. DRB is employed as the Executive Director of the American Board of Obesity Medicine and Executive Director of the American Board of Obesity Medicine Foundation. AWC is employed as Vice President of Credentialing for Professional Testing. TJR, EPW and JK currently serve on American Board of Obesity Medicine as Secretary, Vice-Chair, and Chair, respectively. JK serves on scientific advisory boards for Morphic Medical and Gila Therapeutics; is a medical advisor and holds stock options for Found; received lecture fees and travel from Endocrine Society; royalties from UpToDate; and received consultant fees from Apotex Inc.

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#### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.obpill.2024.100147>.

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