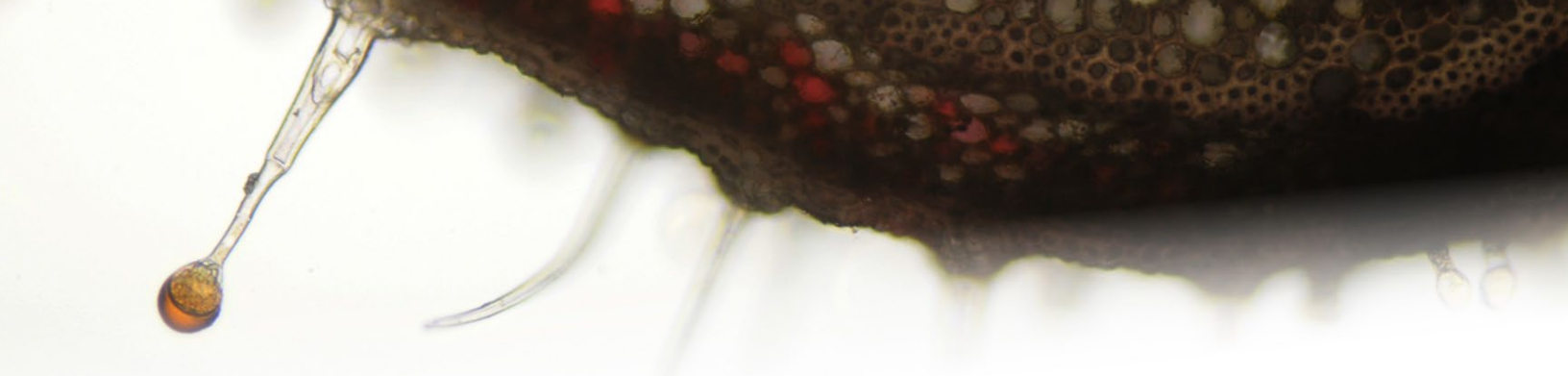

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HISTORY OF MEDICINE

Fat Norms and the AMA

Jorie Braunold, MLIS

Abstract

This article features images from the AMA Archives and brief narration of their importance for how Americans have oriented themselves to body habitus norms. In the early 20th century, the United States, as an industrialized nation with more food than ever, began to grapple with obesity. Questions about how to measure weight were being asked by the mid-20th century, as health professionals needed an indicator of obesity to accompany medicine's attempts to help patients and populations control it as a health risk.

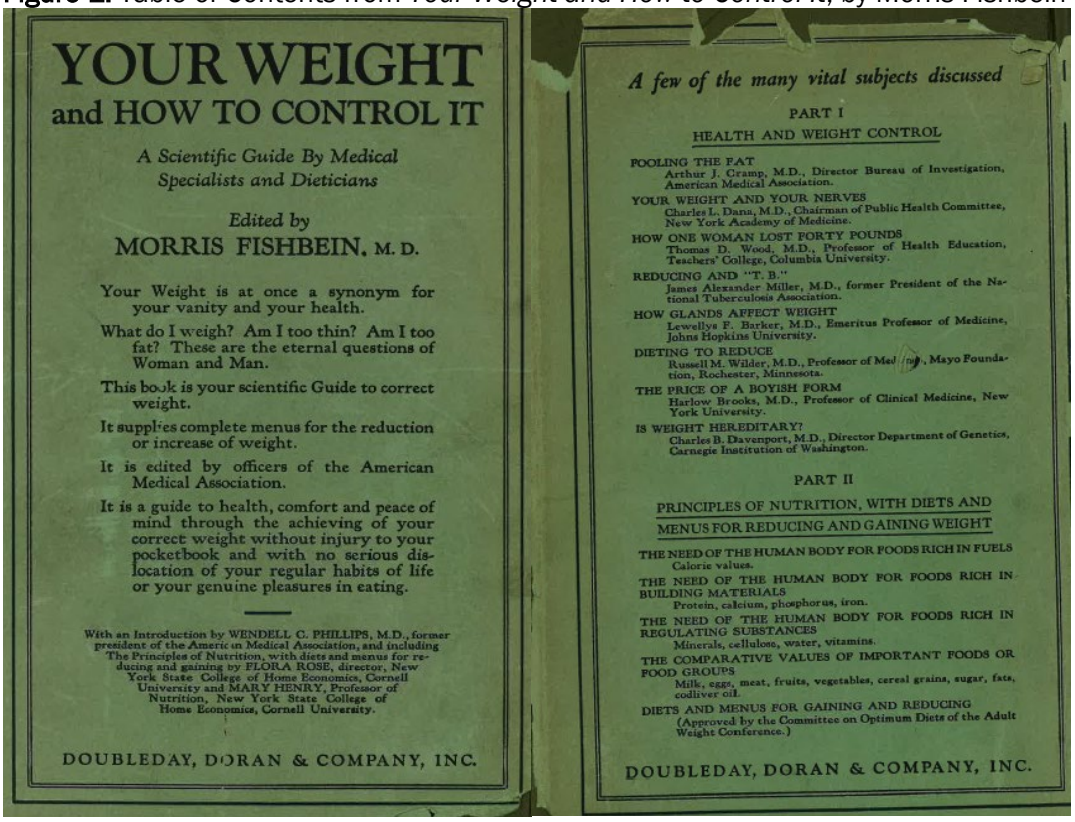
Measuring Weight

Body mass index, known colloquially as BMI, is currently the most familiar indicator of obesity, despite its known flaws.[1,2] But how did it come to be, and how was obesity calculated and talked about before the BMI entered our lexicon? More specifically, how did America's physicians think about it? This article examines the origins and flaws of BMI as an indicator of obesity and how physicians and medical organizations, including the American Medical Association (AMA), addressed weight management as part of health care before the 1970s, with specific attention to visual materials from the AMA archives.

A Brief History of BMI

Based on the work of mid-19th century scientist Adolphe Quetelet, BMI as we know it today (703 x weight (lbs)/[height (in)]^2) was promoted by Ancel Keys in the July 1972 issue of the *Journal of Chronic Diseases*.[3,4] Quetelet had initially designed the formula to study population averages and to identify the "type" or "ideal"[4] (the ideal in this case being the average ratio of weight in kg to height in m^2). Keys was moved to give the formula a second life after studying insurance companies' height-weight tables and noting that they ignored body fat content, although it must be noted that the AMA was integral to the creation of these standards and participated in the first Adult Weight Conference in 1927.[5] A compilation of articles and information on weight loss, edited by Morris Fishbein, then-editor of *Journal of the American Medical Association*, marks the first time the AMA addressed the issue for the public (see Figure 1). The timing was likely in response to the shift from food scarcity to food abundance, and for the first time being overweight was a problem for more than just the very wealthy.[6]

Figure 1. Table of Contents from *Your Weight and How to Control It*, by Morris Fishbein



YOUR WEIGHT
and HOW TO CONTROL IT

A Scientific Guide By Medical Specialists and Dieticians

Edited by
MORRIS FISHBEIN, M. D.

Your Weight is at once a synonym for your vanity and your health.

What do I weigh? Am I too thin? Am I too fat? These are the eternal questions of Woman and Man.

This book is your scientific Guide to correct weight.

It supplies complete menus for the reduction or increase of weight.

It is edited by officers of the American Medical Association.

It is a guide to health, comfort and peace of mind through the achieving of your correct weight without injury to your pocketbook and with no serious dislocation of your regular habits of life or your genuine pleasures in eating.

With an Introduction by WENDELL C. PHILLIPS, M.D., former president of the American Medical Association, and including The Principles of Nutrition, with diets and menus for reducing and gaining by FLORA ROSE, director, New York State College of Home Economics, Cornell University and MARY HENRY, Professor of Nutrition, New York State College of Home Economics, Cornell University.

DOUBLEDAY, DORAN & COMPANY, INC.

A few of the many vital subjects discussed

PART I

HEALTH AND WEIGHT CONTROL

PART II

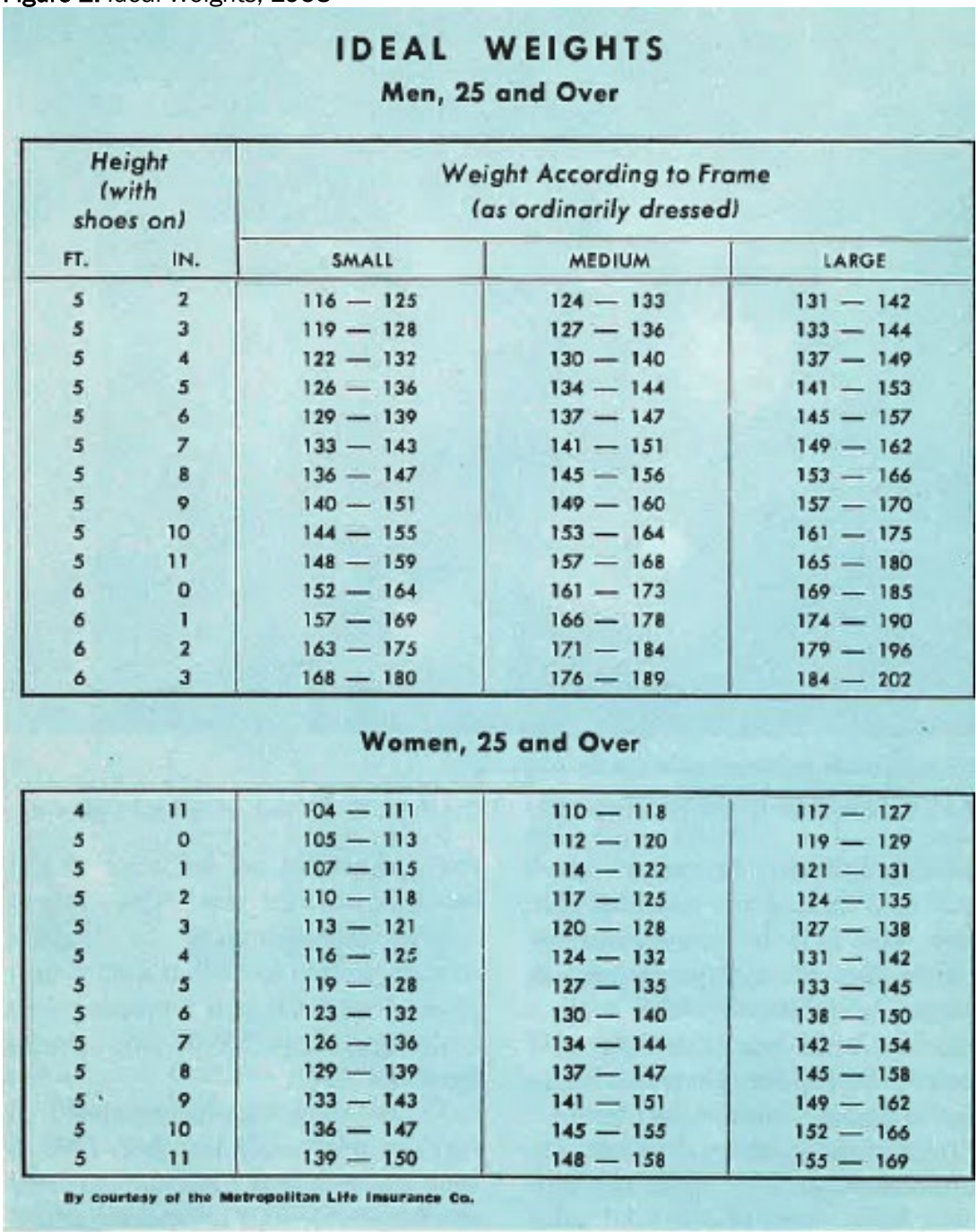
PRINCIPLES OF NUTRITION, WITH DIETS AND MENUS FOR REDUCING AND GAINING WEIGHT

DOUBLEDAY, DORAN & COMPANY, INC.

Reproduced from Fishbein.[5]

Ideal weight charts were created initially by life insurance firms, but, by 1926, the AMA and other health organizations were involved in their creation.[5] The blue chart (Figure 2) is from a 1958 pamphlet titled "How to Lose Weight and Reduce Sensibly." This title suggests that, at mid-century, the AMA's main concern was unhealthy and fad dieting rather than obesity. It is also clear when comparing this chart to the ones printed in Fishbein's book in 1927 (Figure 3) that obesity standards were already inching upwards, as was also shown in studies.[7] While obesity itself was only recently labeled an epidemic[7] and it was not until the 1990s that the extent of the obesity epidemic became clear,[8] Keys himself warned of a coming obesity epidemic in the 1950s due to changes in the lifestyle and food options available to most Americans.[1]

Figure 2. Ideal Weights, 1958



IDEAL WEIGHTS

Men, 25 and Over

Height (with shoes on)		Weight According to Frame (as ordinarily dressed)		
FT.	IN.	SMALL	MEDIUM	LARGE
5	2	116 — 125	124 — 133	131 — 142
5	3	119 — 128	127 — 136	133 — 144
5	4	122 — 132	130 — 140	137 — 149
5	5	126 — 136	134 — 144	141 — 153
5	6	129 — 139	137 — 147	145 — 157
5	7	133 — 143	141 — 151	149 — 162
5	8	136 — 147	145 — 156	153 — 166
5	9	140 — 151	149 — 160	157 — 170
5	10	144 — 155	153 — 164	161 — 175
5	11	148 — 159	157 — 168	165 — 180
6	0	152 — 164	161 — 173	169 — 185
6	1	157 — 169	166 — 178	174 — 190
6	2	163 — 175	171 — 184	179 — 196
6	3	168 — 180	176 — 189	184 — 202

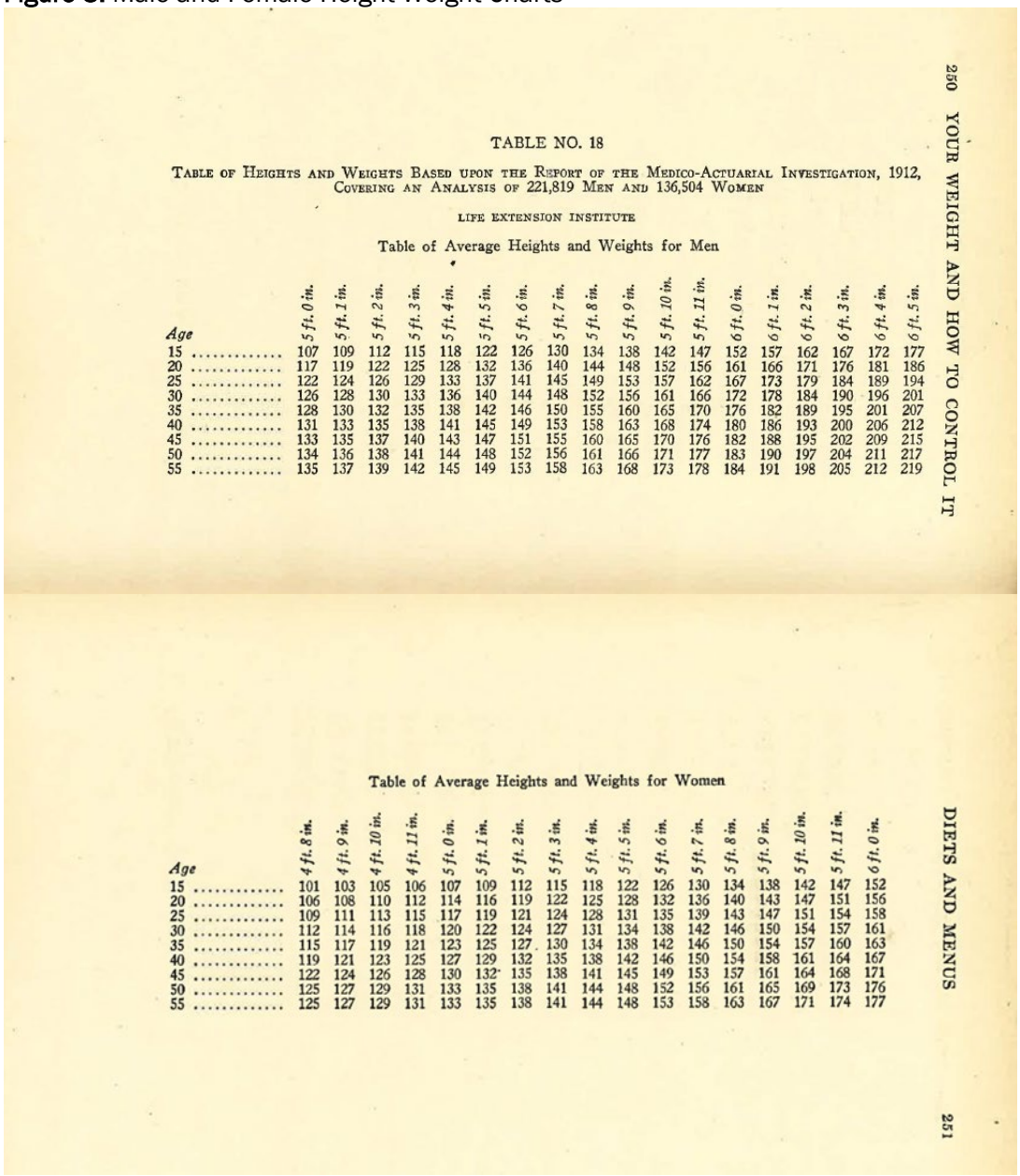
Women, 25 and Over

4	11	104 — 111	110 — 118	117 — 127
5	0	105 — 113	112 — 120	119 — 129
5	1	107 — 115	114 — 122	121 — 131
5	2	110 — 118	117 — 125	124 — 135
5	3	113 — 121	120 — 128	127 — 138
5	4	116 — 125	124 — 132	131 — 142
5	5	119 — 128	127 — 135	133 — 145
5	6	123 — 132	130 — 140	138 — 150
5	7	126 — 136	134 — 144	142 — 154
5	8	129 — 139	137 — 147	145 — 158
5	9	133 — 143	141 — 151	149 — 162
5	10	136 — 147	145 — 155	152 — 166
5	11	139 — 150	148 — 158	155 — 169

By courtesy of the Metropolitan Life Insurance Co.

Courtesy of AMA Archives.

Figure 3. Male and Female Height-Weight Charts



250 YOUR WEIGHT AND HOW TO CONTROL IT

TABLE NO. 18

TABLE OF HEIGHTS AND WEIGHTS BASED UPON THE REPORT OF THE MEDICO-ACTUARIAL INVESTIGATION, 1912, COVERING AN ANALYSIS OF 221,819 MEN AND 136,504 WOMEN

LIFE EXTENSION INSTITUTE

Table of Average Heights and Weights for Men

Age	5 ft. 0 in.	5 ft. 1 in.	5 ft. 2 in.	5 ft. 3 in.	5 ft. 4 in.	5 ft. 5 in.	5 ft. 6 in.	5 ft. 7 in.	5 ft. 8 in.	5 ft. 9 in.	5 ft. 10 in.	5 ft. 11 in.	6 ft. 0 in.	6 ft. 1 in.	6 ft. 2 in.	6 ft. 3 in.	6 ft. 4 in.	6 ft. 5 in.
15	107	109	112	115	118	122	126	130	134	138	142	147	152	157	162	167	172	177
20	117	119	122	125	128	132	136	140	144	148	152	156	161	166	171	176	181	186
25	122	124	126	129	133	137	141	145	149	153	157	162	167	173	179	184	189	194
30	126	128	130	133	136	140	144	148	152	156	161	166	172	178	184	190	196	201
35	128	130	132	135	138	142	146	150	155	160	165	170	176	182	189	195	201	207
40	131	133	135	138	141	145	149	153	158	163	168	174	180	186	193	200	206	212
45	133	135	137	140	143	147	151	155	160	165	170	176	182	188	195	202	209	215
50	134	136	138	141	144	148	152	156	161	166	171	177	183	190	197	204	211	217
55	135	137	139	142	145	149	153	158	163	168	173	178	184	191	198	205	212	219

Table of Average Heights and Weights for Women

Age	4 ft. 8 in.	4 ft. 9 in.	4 ft. 10 in.	4 ft. 11 in.	5 ft. 0 in.	5 ft. 1 in.	5 ft. 2 in.	5 ft. 3 in.	5 ft. 4 in.	5 ft. 5 in.	5 ft. 6 in.	5 ft. 7 in.	5 ft. 8 in.	5 ft. 9 in.	5 ft. 10 in.	5 ft. 11 in.	6 ft. 0 in.
15	101	103	105	106	107	109	112	115	118	122	126	130	134	138	142	147	152
20	106	108	110	112	114	116	119	122	125	128	132	136	140	143	147	151	156
25	109	111	113	115	117	119	121	124	128	131	135	139	143	147	151	154	158
30	112	114	116	118	120	122	124	127	131	134	138	142	146	150	154	157	161
35	115	117	119	121	123	125	127	130	134	138	142	146	150	154	157	160	163
40	119	121	123	125	127	129	132	135	138	142	146	150	154	158	161	164	167
45	122	124	126	128	130	132	135	138	141	145	149	153	157	161	164	168	171
50	125	127	129	131	133	135	138	141	144	148	152	156	161	165	169	173	176
55	125	127	129	131	133	135	138	141	144	148	153	158	163	167	171	174	177

DIETS AND MENUS 251

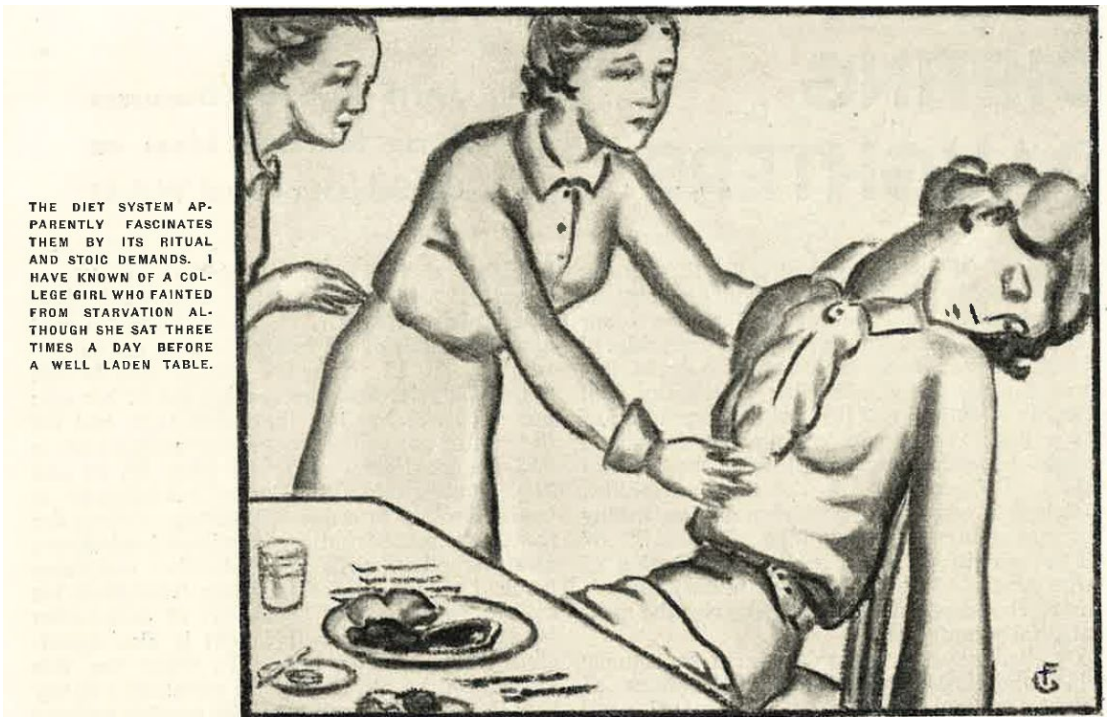
Reproduced from Fishbein.[5]

BMI as a measure of obesity is problematic. Not only does BMI have blind spots with regard to muscle mass and body fat, but it was based exclusively on Quetelet's study of adult males and, in particular, Scottish and French soldiers.[2] Although Keys did attempt to account for cultural and racial differences with his famous Seven Countries Study,[9] BMI is notoriously unreliable as a rough measure of health for women and people of color.[10] Finally, BMI categories are frequently stereotyped, as someone with a "normal" BMI is considered healthier than someone with a BMI that puts them in the obese category. This mode of thinking, however, disregards many things we now know about overall health, including that many people with obesity are metabolically healthy.[11]

The AMA Talks Weight

The AMA's popular magazine, *Hygeia*, shows how, in the early days of the AMA's discussion on achieving a healthy weight, the concern was primarily about young women starving themselves to achieve the ideal "flapper" figure (see Figure 4).

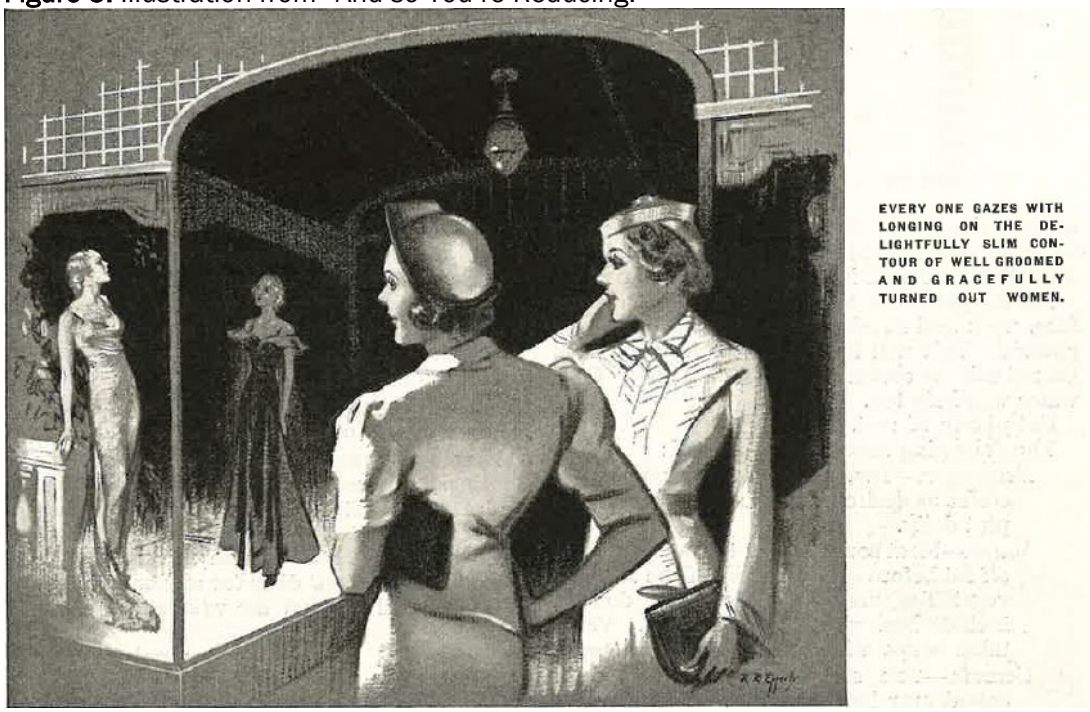
Figure 4. Illustration from "Dieting Daughters"



Reproduced from Foster.[12]

Despite repeatedly reminding readers that weight loss was a matter of good health and providing sensible, safe dieting advice, many of the AMA's publications appealed to women's perceived vanity and promoted the idea that a healthy weight was synonymous with beauty and status, thereby promoting one of the issues (unsafe dieting) it sought to prevent as well as advancing sexist stereotypes (see Figure 5).

Figure 5. Illustration from "And so You're Reducing!"



Reproduced from Geraghty.[13]

While we can see in Figure 4 that dieting to extremes was common in young women and something the AMA sought to put an end to, much of the AMA's dietary advice at mid-century was aimed at mothers looking to help their daughters lose weight (see Figure 6). This messaging can set in motion a generational cycle of unhealthy attitudes toward food and internalized ideas about women as decorative objects.

Figure 6. Nutrition Is a Family Affair

Courtesy of AMA Archives.

Another public service poster from the 1950s highlights the ways that the AMA's messaging around obesity and weight loss targeted women (see Figure 7).

Figure 7. Are You a Candidate for "Creeping Obesity"?

Courtesy of AMA Archives.

Given the unprecedented access to food (including processed food) created by the Second Industrial Revolution, it is perhaps unsurprising that dieting as we know it today began in the early 1900s.[14] We can see this trend reflected in the literature of the 1920s, when the first public materials about weight gain and loss were created in response to both an increasingly heavy population and the surge in popularity of dangerous fad diets.[15]

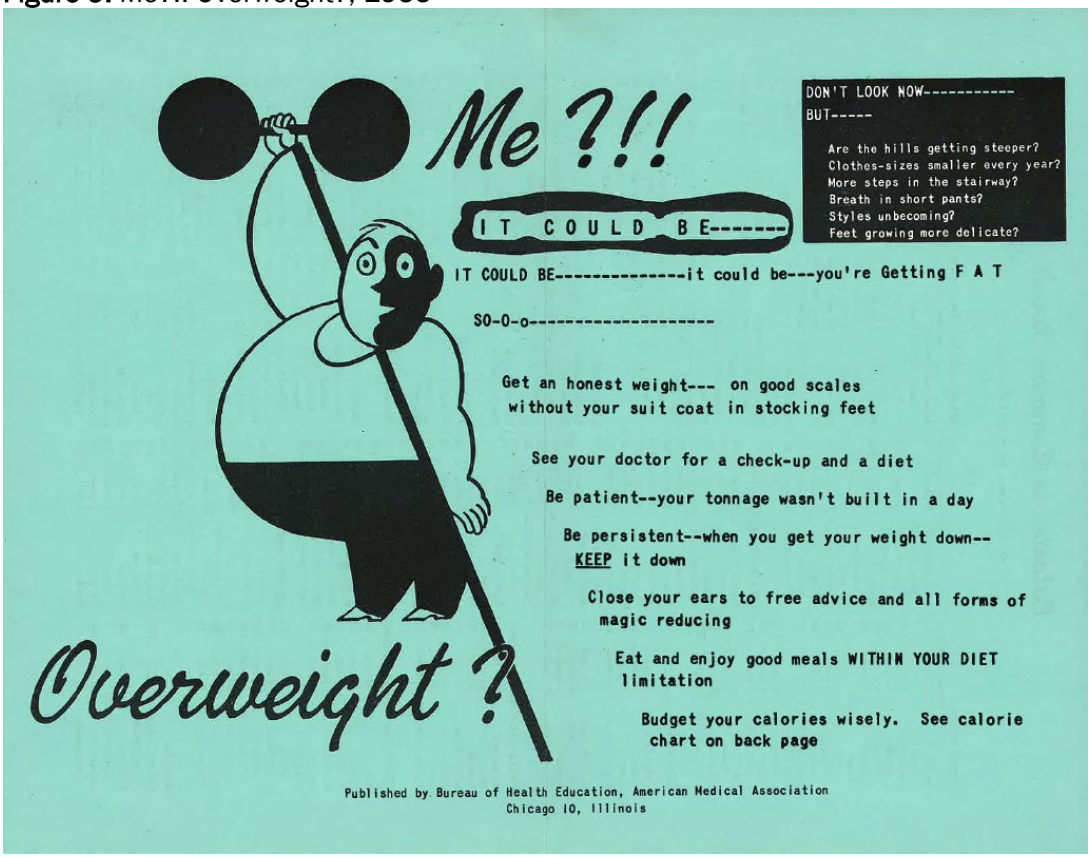
At the time, calorie counting was seen as "rational,"[14] and therefore those who were obese were irrational. This viewpoint is clear in the AMA's framing of weight loss as a matter of simple self-control.[14] The AMA also frequently used language of self-control that appealed to vanity rather than health outcomes, which may have contributed to the social stigma of obesity. Nowhere was this stigma more prevalent than in the ads targeting women, which made clear associations between thinness and desirability, as seen in Figure 5. Rare were images that focused on an overweight man (see Figure 8). Both the language and the image imply that overweight people are gluttonous and simply unwilling to take the hard steps needed to lose weight. Now we know that there are a number of biological, socioeconomic, and genealogical factors at play, but at the time (and still among some people), weight loss was viewed as a matter of willpower.

Figure 8. Illustration from "Can You Take It or Leave It?"

Reproduced from Walters.[16]

The AMA's advice favored sensible diets with slow but steady weight loss over time and speaking to one's doctor before embarking on a weight loss plan (see Figure 9). Looking back, the advice itself was sound, but the language and tone could be insensitive.

Figure 9. Me?!! Overweight?, 1955



Courtesy of AMA Archives.

Conclusion

It is only recently that an understanding of social determinants of health and the ways in which calorie restriction can slow our metabolism[17] has altered the way that medical professionals talk to patients about weight loss. The problem of stigma still exists, though, and the way doctors speak to patients with overweight and obesity can lead to them foregoing medical care at all.[18]

The Metropolitan Life Tables' criteria for defining obesity were widely used in the United States until the early 1990s when BMI came into vogue,[19] so it is perhaps unsurprising that, despite known flaws in the way the medical profession talks about obesity, the practice continues.

In the 1970s, around the time that Keys was promoting Quetelet's formula, obesity rates were going up, and American doctors were apparently getting fed up with patients' supposed inability to stick to a sensible diet. At this time, factors like social determinants of health were unknown, and processed foods were only beginning to affect Americans' health.[8] In making weight loss seem simple and accessible (see Figures 10 and 11), the AMA inadvertently promoted the diet culture that exists in America to this day.

Figure 10. How to Kill Yourself

How to kill yourself.

Eat! Drink! And Be Merry?
And whatever you do, by all means, overdo it.

Eat! It gives you something to do when you're bored or tense. (Sure, your doctor told you how many calories you should take in in a day. But it's been a long day.)

Drink! You don't really need it to unwind. It's just to be sociable.

A second helping of dessert? Lemon meringue pie is mostly egg white. And how about a pizza while you are watching TV after dinner? Of course, it always tastes better with beer.

What was it your doctor said? "People are the only animals who eat themselves to death." But you know it's your glands, not your appetite, that makes *you* plump.

Why Are America's Doctors Telling You This?
Well, for a long time we've been telling you how to stay alive and healthy. (Last year, 70% of the annual budget of the American Medical Association went to health and scientific education.) But many of you go do the opposite.

Now we figure we'll tell you how to kill yourselves. In the fervent hope that once again you'll do the exact opposite. If you do, there's every chance we'll be seeing less of you. Once a year for a checkup. And that's it.

Doing your bit to take care of yourself simply means your doctor can give everyone the best care possible. When *only* his care will do.

For a free booklet on eating and good health, write: American Medical Association, Box H, 535 North Dearborn Street, Chicago, Illinois 60610.

America's Doctors of Medicine
(Our Best Patients Take Care of Themselves)

Courtesy of AMA Archives.

Figure 11. Don't Walk When You Can Ride

Don't walk when you can ride.

Presenting Another Lesson in How To Kill Yourself.

In an earlier lesson, we told you to eat, drink, be merry, and most important, to overdo it.

Now we are going to suggest that, once you've taken in all those calories, do nothing—absolutely nothing—to burn any of them off.

No matter how short the trip, don't walk when you can ride.

And if walking is out, jogging is unthinkable. Even though your doctor told you you're one of those people who could well invest in some exercise—to get your heart muscle pumping and your blood circulating.

True, you have heard it said that most children in America learn to walk by 16 months and stop walking by 16 years. But then, *you're* no child.

And, anyway, exercise is a big, fat bore.

Why Are America's Doctors Telling You This?

Well, for a long time we've been telling you how to stay alive and healthy. (In fact, about 70% of the annual budget of the American Medical Association goes to health education.) But many of you go do the opposite.

Now we figure we'll tell you how to kill yourselves. In the fervent hope that once again you'll do the exact opposite. If you do, there's every chance we'll be seeing less of you. Just for check-ups. And that's it.

Doing your bit to take care of yourself (such as exercising, but only if your doctor says it's OK) means your doctor can give everyone the best care possible. When *only* his care will do.

For a free booklet on the right kind and right amount of exercise for you, write: Box X, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

America's Doctors of Medicine

(Our Best Patients Take Care of Themselves)

Courtesy of AMA Archives.

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