

Management of Obesity in Primary Care by Family Doctors

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Abstract: Medical care bears the brunt of obesity management; obese patients may present for weight-loss advice, may go to clinics such as diabetes or heart disease (CVD) centers as a secondary problem to their weight, or, more likely, will go to with something completely unrelated to their weight, which could be as diverse as holiday jobs to a black eye. The special challenge for the GP or nurse is to engage the latter group effectively and inoffensively, a discussion which represents the start of the obesity management program. This procedure might only take the last 2 minutes of an unrelated consultation engagement occurs, weight and high blood pressure are determined, blood tests organized and more detailed follow-up guaranteed. Therefore, the initial stage of weight management is the assessment of standard characteristics and the fast correction of possible features, such as type, dyslipidaemia or hypertension 2 diabetes. A current research study revealed that a bulk of patients want to review weight-loss with their physician. Hence, there is a requirement for medical care delivery redesign to help with instead of restrain physicians resolving weight issues with their patients. Part of this redesign is increasing physician abilities in beginning the discussion to sensitively attend to weight issues with a patient. It is not useful to prepare for medical care physicians to provide comprehensive behavioral weight reduction treatment to all of their patients with weight problems. The treatment of buying recommendations and defense of weight issues management professional (e.g., registered dietitians, psychologists) and community-based programs must be made easier in order to increase referral options for physicians and access to take care of patients. In addition, the electronic medical record is ending up being a tool to not just assist in BMI screening, but might likewise be used to assist in weight management treatment throughout an encounter. Provided the weight issues epidemic and increased hazard for relentless diseases, determining useful strategies to enforce policies and carry out evidence-based treatment services in medical care ought to be a high concern in health care reform.

Keywords: heart disease (CVD), , dyslipidaemia or hypertension 2 diabetes.

1. INTRODUCTION

In the U.S., the event of weight therapy in primary care for patients with weight problems decreased by 10% between 1995-1996 and 2007-2008. There have been numerous nationwide recommendations and policies to improve obesity management considering that 2008. The function of this study was to take a look at the rates of body mass index (BMI) screening, weight problems diagnosis, and weight management therapy in the U.S. from 2008 to 2013.

The National Ambulatory Healthcare Study visit-level information for adults 18 and over with a medical care see throughout survey years 2008-2009, 2010-2011, and 2012-2013 was included in the analyses utilizing SAS v9⁽³⁾. Research study results consisted of percent of visits with: BMI screening; weight problems diagnosis; and weight therapy. We compared survey years on these results utilizing 2008-2009 as the recommendation in addition to analyzed patient and practice-level predictors. Analyses were performed from 2015 to early 2017.

Of the overall 55,608 adult medical care visits sampled, 14,143 check outs (25%) were with patients with obesity. BMI screening significantly increased between 2008-2009 and 2012-2013 from 54% to 73% (OR = 1.75, 95% CI 1.28-2.41);

however, percent of geos to with an obesity diagnosis stayed low at less than 30%. Weight management counseling during check outs considerably declined from 33% to 21% between 2008-2009 and 2012-2013 (OR = 0.62, 95% CI 0.41-0.92).

In spite of emerging policies and recommendations, from 2008 to 2013, weight problems management in medical care stayed suboptimal. Identifying useful strategies to implement policies and execute evidence-based behavioral treatment in medical care must be a high priority in healthcare reform.

More than one-third of adults in the U.S. have a body mass index [BMI] ≥ 30 kg/m² and are for that reason at considerably increased danger for diabetes and cardiovascular disease (CVD)^(1,2) Behavioral weight management treatment is a reliable first-line treatment for obesity with an average preliminary weight-loss of 8-10%, which is associated with a significant decrease in threat for diabetes and improvement in CVD danger factors^(3,4). However, in 2005-2006, two-thirds of U.S. patients with weight problems were not offered or described weight management treatment throughout their medical care see⁽⁵⁾. In addition, the rate of weight management therapy in primary care substantially decreased by 10% (40% to 30%) in between 1995-1996 and 2007-2008⁽⁶⁾.

There have actually been several national recommendations and policies carried out because 2008 to enhance obesity management in medical care. The U.S. Preventive Solutions Task Force (USPSTF)⁽⁷⁾ and a joint declaration by the American Heart Association, American College of Cardiology, and The Obesity Society⁽⁸⁾ suggest that doctors screen for obese and obesity in their practices and provide or refer patients with risk elements for heart disease to extensive behavioral counseling. In 2011, the Center for Medicare & Medicaid Services (CMS) passed a choice to reimburse primary care physicians for providing extensive behavior modification to treat patients with weight problems⁽⁹⁾. The CMS reimbursement policy is restricted to protection for Medicare beneficiaries and only repays primary care specialists. When delivering the extensive behavior modification for weight problems, doctors are expected to follow the 5 A's therapy framework (i.e., Evaluate, Advise, Agree, Assist, Arrange)⁽⁹⁻¹¹⁾ with 10-15 minute check outs (maximum of 22 check outs).

In addition, CMS implemented the Electronic Health Record (EHR) Meaningful Usage Reward Program, where physicians receive financial rewards when they carry out and utilize the EHR to document quality enhancement procedures⁽¹²⁾. Physicians are incentivized to document in the EHR BMI and a follow-up treatment plan to provide or refer the patient with BMI ≥ 25 to weight management treatment.

The function of this research study was to take a look at rates of patient BMI screening, obesity diagnosis, and provision of treatment for weight problems by medical care doctors in the United States from 2008 to 2013 along with examine the patient and practice attributes related to these results.

2. METHODOLOGY

A literature search was conducted with the aid of a health sciences librarian to identify publications in the English language from January 1, 1970 to November 3, 2017 using OVID MEDLINE, Ovid Embase, and the Cochrane Library databases. Given the paucity of data in the pediatric literature, it was the consensus of the committee members that the literature search could include studies in the adult population. The selected questions were researched with Medical Subject Headings (MeSH) search terms including: "obesity", "primary care", "weight management counseling". Subject heading searches were exploded to include all narrower terms in the MeSH or Emtree (subject headings unique to Embase) hierarchy. The search terms were combined by "or" if they represented similar concepts, and by "and" if they represented different concepts. The citations of relevant articles generated from the database search were reviewed but no new articles were identified using this "snowball" methodology. Articles addressing the management of obesity in primary care by family doctors.

3. RESULTS AND DISCUSSION

There were 13,075 adult medical care geos to tested from 2008-2009, 10,951 from 2010- 2011, and 31,582 geos to tested from 2012-2013. Of the overall 55,608 adult primary care visits tested, 14,143 visits (25%) were with patients with obesity. Table 1 presents the weighted proportions for see, practice, and patient attributes by study year.

BMI Screening:

The measurement of both height and weight considerably increased between 2008-2009 and 2012-2013 from 54% to 73% (OR = 1.75, 95% CI 1.28-2.41) while adjusting for patient and practice-level attributes. Independent predictors of both

height and weight being measured consisted of: a) Hispanic ethnicity compared with White non-Hispanic (OR = 1.29, 95% CI 1.06- 1.56); b) moderate danger (OR = 1.12, 95% CI 1.01-1.24) and high risk for obesity-related disease issues and mortality (OR = 1.30, 95% CI 1.14-1.49) compared to low threat; c) Medicaid compared with personal insurance coverage (OR = 1.28 (1.02-1.59); and d) existence of all electronic medical records (OR = 1.58, 95% CI 1.25-2.00) or part paper and part electronic (OR = 1.75, 95% CI 1.28-2.41) versus no electronic records (Table 2). It must be noted that there was a substantial boost in using electronic medical records in between 2008-2009 and 2012-2013 (OR = 2.48, 95% CI 1.66-3.71.). Patients with Medicare versus private insurance coverage and recognized patients (seen before in the clinic) versus brand-new patients were less likely to have both height and weight measured throughout the go to (Table 2).

Obesity Diagnosis and Weight Management Counseling:

Across the years there was a non- substantial decrease in diagnosis and each particular domain of health education . There was a significant decrease of 33% to 21% in any mix of weight-related education in between 2008-2009 and 2012-2013 (OR = 0.62, 95% CI 0.41-0.92). Ladies compared with guys (OR = 1.41, 95% CI 1.29-1.53), Black non-Hispanic compared with White non-Hispanic (OR 1.47 (1.21- 1.79), moderate (OR = 1.91 95% CI 1.62-2.26) and high threat patients (OR = 4.76, 95% CI 3.97- 5.70) compared with low risk, patients age 18-44 (OR = 2.34, 95% CI 1.86-2.94) or 45-64 (OR = 1.87, 95% CI 1.56-2.24) compared to patients 65 and older, patients with Medicaid compared to those with personal insurance coverage (OR = 1.23, 95% 1.04-1.46), along with established patients compared with new (OR = 1.30, 95% 1.12-1.52) were more likely to have a diagnosis of weight problems recorded in their medical record (Table 3).

Weight management counseling was most likely to take place for patients who, identified as Black non-Hispanic (OR = 1.47, 95% CI 1.06-2.03), Hispanic (OR = 1.39, 95% CI 1.08-1.79) or "Other" for race/ethnicity (OR = 1.62, 95% CI 1.08-2.43), moderate (OR = 1.30 (1.02-1.65) and high threat (OR = 1.69, 95% CI 1.28-2.22), and had an obesity diagnosis recorded in their medical record (OR = 3.37, 95% CI 2.88-3.95) (Table 4). Goes to where weight management therapy occurred were, on weighted average, 21.95 (95% CI 21.04-22.86) minutes long. Weight Problems Management for Medicare Beneficiaries .

We took a look at goes to among Medicare beneficiaries just because many of the policies to enhance weight problems management in main care have actually been commissioned by CMS. There was an overall of 16,620 medical care sees sampled with Medicare recipients from 2008-2013 and 3,863 (23%) of these were with patients with weight problems. Percent of sees with both height and weight measured increased from 49% to 72% between 2008-2009 and 2012-2013 (OR = 1.57, 95% CI 1.05-2.34). Amongst check outs with patients with Medicare and BMI \geq 30, there was a non-considerable decrease in percent of gos to with a weight problems diagnosis (31% to 24%) and a non- significant decline in percent of visits with any combination of weight-related education (28% to 20%) between 2008-2009 and 2012-2013.

NAMCS information in between 2008-2009 and 2012-2013 indicated a considerable boost in BMI screening (i.e., measure of both height and weight); nevertheless, the percent of sees with a documented weight problems diagnosis decreased by 5 portion points (30% to 25%). In spite of emerging national recommendations and healthcare policies, arrangement or recommendation to weight management counseling significantly decreased from 33% to 21% in between 2008-2009 and 2012-2013. Medicare recipients had comparable boosts BMI screening and decreases in weight problems diagnosis and weight management therapy compared with the overall population.

There was a significant boost in practices with electronic medical records, which was a predictor of both height and weight being determined. Most electronic medical records allow easy input of crucial indications and automatic estimation of BMI. Other practice characteristics that predicted measurement of both height and weight included Hispanic ethnic background, Medicaid insurance, and high and moderate risks for obesity-related diseases and mortality. Established patients or patients with Medicare were less likely to have both height and weight determined. Because the height for adult and established patients is presumed to be the very same at each check out, this may be due to only weight and not height being determined throughout an encounter. However, in a lot of electronic health records, an upgraded BMI can not be determined without both a weight and

height went into at each see even if the height has not changed. It should be noted that weight was measured at 87% or more visits throughout the study years, so the percent of sees with BMI screening would be greater if height did not have to be gone into to upgrade BMI. There is a requirement for more built in sophisticated clinical choice assistance tools within the electronic medical record that can instantly extract previous crucial indication information such as last documented height and include it in computations of BMI as soon as a brand-new weight has actually been entered throughout an encounter. This enhancement might decrease problem on doctors or medical personnel and perhaps increase screening and diagnosis.

Throughout the study years, 70% or more of patients with obesity did not have a documented obesity diagnosis. Electronic medical records assist in the input of vital indications, documentation of a weight problems diagnosis needs the supplier to take additional actions. To detect obesity, doctors would have to include weight problems to the patient's problem list. Nevertheless, there is no real reward for physicians to identify obesity given that it is still not considered a billable medical condition by many insurer, with the exception of Medicare. Despite the overall low rate of detected weight problems, patients who were female, 18-64 years of age, Black non-Hispanic, Medicaid, established patient, or at high or moderate danger for obesity-related disease complications were more likely to have a diagnosis. Previous study based research studies have suggested that females as well as middle-aged and young adults are most likely to have an obesity diagnosis, perhaps since members of these populations are most likely to talk about issues about their weight with their physician that prompted an obesity diagnosis at the end of the check out^(15,16). Patients at high threat for obesity-related disease problems and death perhaps timely doctors to routinely monitor their BMI and address progress with way of life modifications and weight loss in order to prevent CVD occasions. Patients from racial/ethnic minority backgrounds or with Medicaid might likewise be more likely to be at high risk for obesity-related diseases and more frequent users of care; 16 hence possibly increasing the likelihood of receiving an obesity diagnosis and some health education.

Offered the findings in Kraschnewski et al.,⁽⁶⁾ the percent of medical care check outs with weight management counseling continued to substantially decrease by 12 percentage points in between 2008-2009 and 2012-2013, regardless of national suggestion and policies established throughout this time period. As previously pointed out, there is no immediate financial incentive to resolve and handle weight problems in the medical care office for adult patients 18-64 years of ages⁽¹⁷⁾. Although, Medicare reimburses extensive behavioral therapy for weight problems for their beneficiaries⁽⁹⁾, the event of weight management counseling during a check out also reduced amongst this patient population. The majority of doctors are unaware of this compensation policy or how to effectively implement it without interfering with present clinical workflow offered the variety of sees that need to take place (i.e., 22 total). Extra physician particular barriers to offering weight management therapy consist of time constraints, pain with going over weight problems, absence of training in weight management, and absence of understanding concerning offered treatments⁽¹⁸⁻²¹⁾. Patients with a weight problems diagnosis were three times more likely to receive weight management counseling than those without a diagnosis. Sees that did consist of weight management counseling were about 20 minutes in duration, which is consistent with the anticipated length of an intensive behavior modification session utilizing the CMS model (i.e., 10-15 minutes)⁽⁹⁾. Nevertheless, based upon 2005-2006 NAMCS information, just 8% (i.e., ~ 1.6 minutes) of the 20 minute visit was actually spent dealing with obesity⁽²²⁾. Thus, even if weight management therapy is shown in the medical chart that does not guarantee that an adequate amount of time is spent providing high quality therapy.

4. LIMITATION

There are several constraints in this research study. The NAMCS information is a cross-sectional study based on just one random week of center sees per physician over a year. Therefore, diagnosis of weight problems and weight management therapy could have taken place throughout another encounter not included in the survey sample. Second, the focus on primary care check outs as the unit of analysis, may have resulted in oversampling of sicker patients or regular users of medical care. Third, since the CMS Electronic Medical Record Meaningful Usage Incentive Program was not totally executed until 2011⁽²³⁾ maybe insufficient time has actually passed to see the impact of financial rewards on obesity management in medical care. 4th, there was a change in the sampling design and methodology for the 2012-2013 NAMCS⁽¹⁴⁾. Particularly, community university hospital sees were omitted, Census Bureau representatives were more likely to complete the study types than doctors and clinic personnel, and the survey was finished utilizing a computerized type instead of a paper type. Increased use of the Census Bureau agents and electronic forms might explain the increased number of check outs tested in 2012-2013. It is not clear if it was these modifications or real practice patterns that affected the increase or reduce in paperwork of obesity-related metrics⁽¹⁴⁾.

5. CONCLUSION

Despite emerging national suggestions and policies because 2008, obesity management in primary care is still suboptimal. A recent study showed that a majority of patients want to go over weight-loss with their physician⁽²⁴⁾. Hence, there is a requirement for primary care delivery redesign to facilitate instead of impede physicians addressing weight problems with their patients. Part of this redesign is increasing physician skills in beginning the discussion to sensitively address weight problems with a patient⁽²⁵⁾. It is not practical to anticipate primary care physicians to deliver extensive behavioral weight reduction therapy to all of their patients with weight problems. Hence, the procedure of buying referrals and protection of weight problems management professional (e.g., registered dietitians, psychologists) and community-based programs must

be made easier in order to increase referral choices for doctors and access to take care of patients⁽²⁶⁾. In addition, the electronic medical record is becoming a tool to not just assist in BMI screening, but could likewise be utilized to facilitate weight management therapy throughout an encounter^(27,28). Given the weight problems epidemic and increased threat for persistent diseases, determining useful techniques to enforce policies and execute evidence-based treatment services in primary care ought to be a high priority in healthcare reform.

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APPENDIX - A

Tables:

Table 1. Patient, Practice, & Visit Characteristics of U.S. Adult Primary Care Visits by Survey Year: %†, (95% CI)

	2008-2009 (n = 13,075)	2010-2011 (n = 10,951)	2012-2013 (n = 31,582)
Age group, y			
18-44	29.0 (27.9, 30.8)	30.0 (27.9, 32.2)	27.7 (26.4, 29.0)
45-64	38.1 (36.8, 39.5)	38.3 (36.8, 39.7)	38.3 (37.3, 39.3)
65 and up	32.9 (30.8, 35.0)	31.7 (29.3, 34.1)	34.0 (32.6, 35.4)
Sex			
Female	59.8 (58.1, 61.4)	57.0 (55.1, 58.8)	57.3 (56.1, 58.5)
Male	40.2 (38.6, 41.9)	43.0 (41.2, 44.9)	42.7 (41.5, 43.9)
Race/Ethnicity			
White non-Hispanic	74.9 (71.7, 78.1)	73.4 (69.3, 77.4)	73.0 (70.9, 75.2)
Black non-Hispanic	10.0 (7.7, 12.3)	12.7 (9.6, 15.9)	10.1 (8.9, 11.2)
Hispanic	11.0 (8.7, 13.4)	9.2 (6.0, 12.5)	12.5 (10.7, 14.3)
Other	4.1 (2.7, 5.5)	4.7 (3.0, 6.3)	4.4 (3.6, 5.2)
Body Mass Index ≥ 30 kg/m2	20.4 (18.4, 22.4)	21.4 (18.9, 23.9)	28.9 (28.2, 29.6)

Table 2. Predictors of Body Mass Index Screening, 2008-2013

	Adjusted OR (95% CI)
Survey Years	
2008-2009	1.00 [Reference]
2010-2011	1.04 (0.83-1.31)
2012-2013	1.75 (1.28-2.41)
Sex	
Female	1.04 (0.97-1.11)
Male	1.00 [Reference]
Age group, y	
18-44	1.09 (0.95-1.24)
45-64	1.02 (0.92-1.14)
65 and up	1.00 [Reference]
Risks for Obesity-Related Disease/Mortality	
Low	1.00 [Reference]
Moderate	1.12 (1.01-1.24)
High	1.30 (1.14-1.49)

Table 3. Predictors of Obesity Diagnosis, 2008-2013

	Adjusted OR (95% CI)
<u>Survey Years</u>	
2008-2009	1.00 [Reference]
2010-2011	1.08 (0.90-1.29)
2012-2013	1.11 (0.86-1.45)
<u>Sex</u>	
Female	1.41 (1.29-1.53)
Male	1.00 [Reference]
<u>Age group, y</u>	
18-44	2.34 (1.86-2.94)
45-64	1.87 (1.56-2.24)
65 and up	1.00 [Reference]
<u>Race/Ethnicity</u>	
White non-Hispanic	1.00 [Reference]
Black non-Hispanic	1.47 (1.21-1.79)
Hispanic	1.14 (0.94-1.39)

Table 4. Predictors of Any Weight-Related Education, 2008-2013

	Adjusted OR (95% CI)
<u>Survey Years</u>	
2008-2009	1.00 [Reference]
2010-2011	0.94 (0.69-1.28)
2012-2013	0.62 (0.41-0.92)
<u>Sex</u>	
Female	0.94 (0.82-1.07)
Male	1.00 [Reference]
<u>Age group, y</u>	
18-44	0.99 (0.77-1.27)
45-64	1.09 (0.89-1.33)
65 and up	1.00 [Reference]
<u>Race/Ethnicity</u>	
White non-Hispanic	1.00 [Reference]
Black non-Hispanic	1.47 (1.06-2.03)
Hispanic	1.39 (1.08-1.79)