

# Modifying Public Policies to Combat Obesity

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## ABSTRACT

Obesity is a multifaceted, chronic condition that is a public health issue. Health care providers must modify their behavior in treating obesity in order to reduce its increasing prevalence. The theory of planned behavior is the theoretical underpinning for modifying strategies to prevent and treat obesity by addressing health policy. Suggested approaches include engaging in the policy-making process, modifying the media portrayal of obesity, and changing the reimbursement structure for the prevention and management of obesity. Health care providers, especially advanced practice nurses, are encouraged to become politically active in order to reduce obesity.

**Keywords:** advanced practice nurses, obesity, public policy, theory of planned behavior

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Obesity is a multifaceted, chronic condition that encompasses ecological, social, psychosocial, hereditary, and metabolic factors<sup>1</sup> that make it a difficult problem to resolve. According to the Healthy People 2020, the achievement of the nutrition and weight status objective is essential to the overall health of Americans because it promotes a healthy weight and healthy food consumption. A multilevel approach to reduce obesity prevalence, which includes targeting individual behavior and involving communities, policy makers, and health care organizations, is crucial for meeting this goal.<sup>2</sup> Although physical activity is an integral behavioral component to combat obesity, only nutritional avenues with policy makers and health care providers (HCPs) will be addressed.

In 2009–2010, approximately 16.9% of 2- to 19-year-olds in the United States or  $\geq 12$  million children and adolescents were classified as obese.<sup>3</sup> Twenty-three million were classified as overweight or obese, resulting in approximately \$60 billion in health care costs.<sup>4</sup> Furthermore, overweight or obese people are more likely to develop conditions such as

type 2 diabetes mellitus, osteoarthritis, and heart disease.<sup>5</sup> Body mass index (BMI) or weight to height ratio<sup>2</sup> data from the National Health and Nutrition Examination Survey 2007–2008 revealed that 68.3% of all adults age 20 and older had a BMI  $\geq 25$ . Of the 68.3%, an additional 33.9% had a BMI  $\geq 30$ .<sup>6</sup> Because obesity is a growing problem that extends beyond individual behaviors to resolve, the authors use the theory of planned behavior (TPB) to inform HCPs of the process for policy change, recognize the impact that the media has on the perceptions of HCPs, to identify policy initiatives by organizations, and to inform policy makers how health outcomes are influenced by current agricultural policies.

## THEORY OF PLANNED BEHAVIOR

According to Ajzen,<sup>7</sup> TPB focuses on a person's likelihood of success and control over the attempt to perform an activity or behavior under conditions that are not perfect. TPB is an intrapersonal theory that addresses a person's aims to perform a given activity as a function of their attitude toward performing the behavior, their beliefs about what is important, the impact of influential people regarding the particular

activity, and the person's perception of the easiness or effort it takes to accomplish the activity.<sup>7</sup>

TPB focuses on 3 major theoretical constructs (attitude toward behavior, subjective norm, and perceived behavior control) that examine the motivation of people to determine the probability of executing a particular behavior.<sup>7</sup> This theory proposes that a person's attitude toward a particular behavior is based on that person's beliefs and his or her assessment of the possible outcomes. This suggests that the attitudes of HCPs and policy makers regarding obesity would influence how they perform in their occupations. The subjective norm is related to the belief that an individual's significant others approve of the individual's personal goals and motivation to change a particular behavior. In this instance, stakeholders such as health organizations, insurance companies, and constituents would be considered the significant others, and perceived behavioral control means the person believes he or she has power and influence over the behavioral

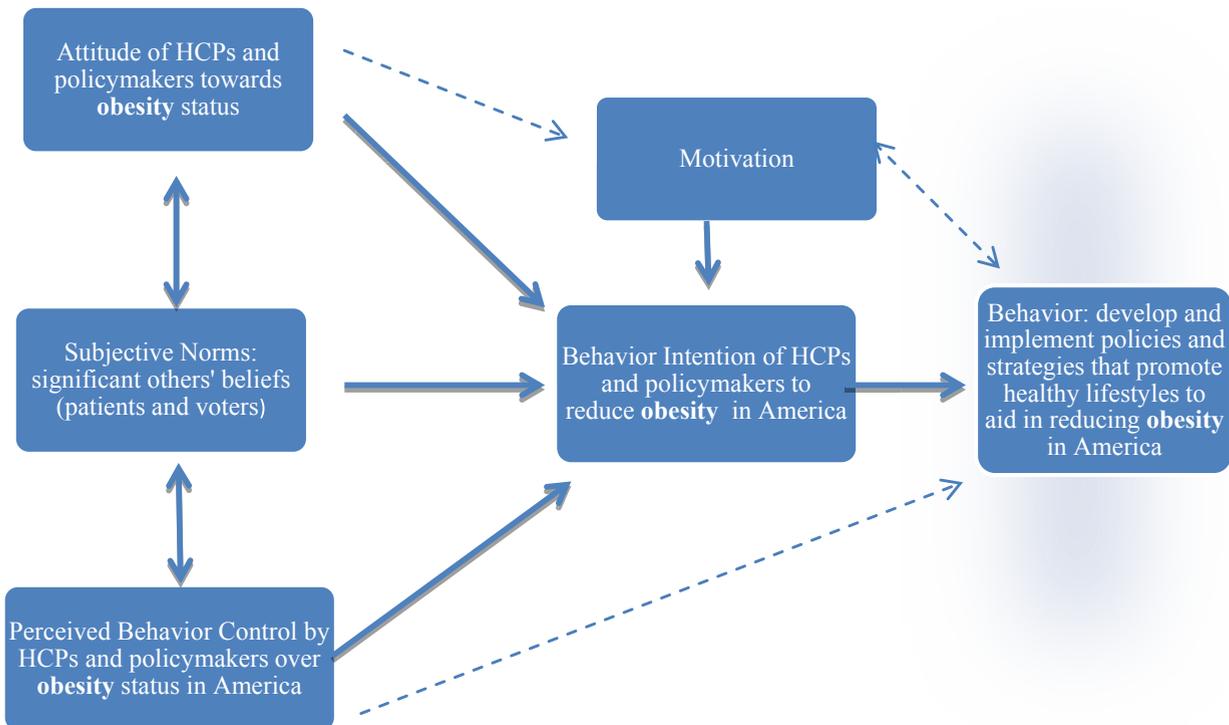
goal.<sup>7</sup> HCPs and policy makers have considerable power and influence regarding the reduction of obesity in this country.

Several researchers have found the TPB constructs to be useful in predicting exercise, smoking, healthy eating, weight loss maintenance, fruit and vegetable intake, and understanding collegiate nonsmoking in different populations.<sup>7-9</sup> Even though this theory has been useful with other health issues, the exploration of how TPB could be used to influence HCPs and policy makers to become more active in the reduction of obesity in America has not been explored. The Figure presents an illustration of the TPB model.

### PROCESS FOR CHANGING POLICY

To achieve different results from our health care system, different strategies and policies must be implemented to make our current health care system more effective for everyone. Policy is defined as "a definite course or method of action selected from among alternatives and in light of given conditions to

Figure. Illustration of obesity reduction using the Theory of Planned Behavior model.



Model has been constructed and adapted from Ajzen I.<sup>7</sup> HCP = health care provider.  
 Note: Dashed lines denote direction of potential influences.

guide and determine present and future decisions.”<sup>10</sup> Although this definition seems basic, the process for making policy changes is quite complex as evidenced by the recently passed Patient Protection and the Affordable Care Act (ACA) of 2010. Now that the ACA has been signed into law, more Americans, regardless of preexisting conditions, such as obesity or diabetes, will have access to health care.<sup>11</sup> HCPs, especially advanced practice nurses, need to become more involved in the political arena in order to advocate and promote needed health care changes. Knowledge of the policy change process, the interconnecting responsibilities of the state and federal government regarding health care, and the power struggle among these 2 governing bodies is essential.<sup>12</sup>

According to Bodenheimer and Grumbach,<sup>13</sup> in 2008 there were 2,596,400 registered nurses and 141,200 Nurse Practitioners compared with 872,900 physicians and 6000 physician assistants in 2010. The nursing workforce accounts for the largest part of the health care system,<sup>14</sup> so it is unclear why more nurses are not involved in policy-making decisions that affect health care. Many nurses are members of professional organizations that are represented by lobbyists or legislative committees to monitor and influence policy change. Nurses need to be at the political table at the time of policy conception in order to influence the power differential with other disciplines. Nurses must be attentive, assertive, and persistent in order to be included in the decision-making process. Politically active nurses are needed to change the landscape of health care and the perceptions of the public.<sup>15,16</sup> This can be accomplished through contacting elected government officials, writing letters to legislative officials, testifying in court, and disseminating research results, which are all examples of strategies that can be used to strengthen a particular political position. Table 1 shows the process for changing laws.

### PUBLIC POLICY

Policies can be influenced by people who are inside and outside of government. These may be legislators, ordinary citizens, or institutions, such as political parties or special interest groups.<sup>17,18</sup> All of these are examples of subjective norms within the TPB model.

**Table 1. Law Changing Process**

Procedural Steps	Actions to Take	Subactions
Step 1	Establish goals	Develop strategies to achieve set goals
Step 2	Cultivate relationships	Become acquainted with elected officials
Step 3	Examine current health care laws	Look for barriers to ANP
Step 4	Screen proposed law changes	Watch for changes suggested by other groups
Step 5	Reply to opposing proposed laws	Respond to laws against ANP
Step 6	Check the status of introduced bills	Follow up on bill progression through the process
Step 7	Testify at court hearings	Make sure that nurses are available to testify
Step 8	Communicate with representatives	Talk with legislative officials about professional concerns
Step 9	Arrange ANP legislative support	Obtain legislative support to draft an ANP agenda
Step 10	Monitor bill written progression	Follow status until bill is written into regulation
Step 11	Evaluate the law process	Determine if process could have been improved

ANP = advanced nursing practice.

Data adapted with permission from Buppert.<sup>16</sup>

Policies that focus on eliminating health disparities, promoting patient dignity and personal responsibility, and improving access to high-quality health care are essential to patient outcomes. All of these issues are fundamental to the health care profession, and all HCPs should be advocates to collectively safeguard the welfare and the accurate perceptions of the community.<sup>17,18</sup>

### PERCEPTIONS OF OBESITY

Success in changing policies related to obesity is related to the current social and cultural perceptions

about this problem. Weight bias and discrimination toward overweight or obese people are common, and the media are a particularly persuasive source of weight-based stigmatization. Negative portrayals of overweight and obese people are common in television shows, cartoons, movies, advertisements, and news reports.<sup>19</sup> These portrayals can be very dehumanizing to people classified as obese or overweight and are fundamental in shaping the public's perception of the problem. Those images can influence HCPs' and policy makers' decisions regarding overweight and obese people. For example, differences in patient-physician perceptions can prevent effective communication about weight loss and may hinder patient motivation to make health behavior changes.<sup>20</sup> Accurate self-perception of BMI is crucial because obesity has a negative connotation, and this may lead to the denial of high BMI statuses and hinder the adoption of healthier behaviors. HCPs have different methods for assessing, managing, and evaluating patients on BMI status, diet, physical activity, and weight. For example, Huang et al<sup>21</sup> found that family physicians were statistically less likely than pediatricians to provide general counseling or specific guidance on diet and physical activity or refer patients for further evaluation and management of weight-related conditions.

In order for obesity to be reduced nationally, policies that support prevention, early detection, and treatment of obesity are needed. In the US, referral sites for the management of weight problems are hampered by the lack of available centers and specialty clinics, which decrease HCPs' perceived behavior control when caring for obese patients. The lack of support for childhood screening and management is indicated by the number of obese adults who were obese or overweight as children. Even clearly established guidelines for screening, evaluating, and managing overweight and obese patients are insufficient to significantly reduce the problem<sup>22</sup> because reimbursement for these activities is limited.

### REIMBURSEMENT FOR TREATMENT OF OBESITY

Treatment for obesity has been impeded by private and public insurance plans omitting codes for the diagnoses of obesity (278.0) and BMI (V85-V85.5

series) in payment schedules.<sup>23</sup> These omissions interfere with HCPs' perceived behavior control, which leads to problems with their behavior intentions for reducing obesity in their patients. Clinics designed to manage obesity have used comorbidity codes, such as fatty liver disease, diabetes, hypertension, or hyperlipidemia, as the primary diagnoses to treat overweight and obese patients.<sup>23</sup> Slusser et al<sup>24</sup> conducted a study of interdisciplinary teams that provided care to moderately obese children and adolescents. This approach to care was said to be viable for sustainable funding; however, several of the teams included had grant money in addition to third party payments and fell short of their budgets. Currently, the only reimbursable option available for obese patients without any other chronic condition is a counseling visit.

With the advent of the ACA and the American Medical Association's recent designation of obesity as a disease, payment from Medicare and Medicaid would seem to be a source for increased funding. The decision of the Centers for Medicare and Medicare Services (CMS) to "cover intensive behavioral therapy for Medicare beneficiaries"<sup>25</sup> was a positive addition to care. However, only patients 65 years and older are covered. The CMS has funded reasonable and necessary preventive

**Table 2. CDC Public Health Law Program Web Sites**

Selected Legal and Policies
Artificial Trans Fat <a href="http://www.cdc.gov/php/winnable/transfat.html">http://www.cdc.gov/php/winnable/transfat.html</a>
Breastfeeding <a href="http://www.cdc.gov/php/winnable/breastfeeding.html">http://www.cdc.gov/php/winnable/breastfeeding.html</a>
Menu Labeling <a href="http://www.cdc.gov/php/winnable/menu_labeling.html">http://www.cdc.gov/php/winnable/menu_labeling.html</a>
Nutrition Advertising to Children <a href="http://www.cdc.gov/php/winnable/advertising_children.html">http://www.cdc.gov/php/winnable/advertising_children.html</a>
School Nutrition <a href="http://www.cdc.gov/php/winnable/school_nutrition.html">http://www.cdc.gov/php/winnable/school_nutrition.html</a>
Sodium Reduction <a href="http://www.cdc.gov/php/winnable/sodium_reduction.html">http://www.cdc.gov/php/winnable/sodium_reduction.html</a>
Zoning to Encourage Healthy Eating <a href="http://www.cdc.gov/php/winnable/zoning_obesity.html">http://www.cdc.gov/php/winnable/zoning_obesity.html</a>

CDC = Centers for Disease Control and Prevention.

**Table 3. Advanced Nursing Policy Group Organizations**

Organization	Committee	Contact Person	Who May Join
AANP (American Association of Nurse Practitioners)	Advocacy Center	See Web site Legislation/regulation <a href="http://www.aanp.org">www.aanp.org</a> state issues: <a href="mailto:statepolicy@aanp.org">statepolicy@aanp.org</a>	Information on Web site Political action committee is members only
ANA (American Nurses Association)	Policy and Advocacy Center	Contact <a href="mailto:professionalissuespanels@ana.org">professionalissuespanels@ana.org</a> Members only on panels for information	<a href="http://nursingworld.org">http://nursingworld.org</a> Professional issues, limited information, access to multiple articles/editorials related to obesity via search
AORN (Association of Perioperative Registered Nurses)	Advocacy Center	Steve Balog, chair <a href="mailto:orsteve1@hotmail.com">orsteve1@hotmail.com</a>	Information available on Web site <a href="http://www.aorn.org">www.aorn.org</a>
AWHONN (Association of Women's Health, Obstetric and Neonatal Nurses)	Public policy	Karen Peddicord <a href="mailto:karenp@awhonn.org">karenp@awhonn.org</a>	Information available on Web site <a href="http://www.awhonn.org">www.awhonn.org</a>
GSA (Gerontological Society of America)	Policy center	Linda Krogh Harootyan (202 587 2822)	Information available to all Press Advocacy section of Web site <a href="http://www.geron.org">www.geron.org</a> Free newsletter
ICN (International Council of Nurses)	ICN networks; programs and pillars	<a href="http://www.icn.ch/publications/health-nursing-policy-and-economics/">www.icn.ch/publications/health-nursing-policy-and-economics/</a>	Fact sheets available on specific topics/policy initiatives Only one section is members only
NAPNAP (National Association of Pediatric Nurse Practitioners)	Health policy	<a href="mailto:healtpolicy@napnap.org">healtpolicy@napnap.org</a> Mary Chesney current chair	Members apply <a href="http://napnap.org">napnap.org</a>
NLN (National League for Nurses)	Public Policy Government Action Center	Information about action center: <a href="mailto:nlmgov@aol.com">nlmgov@aol.com</a> Link for involvement, some appointed positions, interest forms to complete	<a href="http://www.nln.org">www.nln.org</a> join action e-list public policy agenda and news releases
ONS (Oncology Nurses Society)	Policy priorities	<a href="http://www.ons.org/LAC">http://www.ons.org/LAC</a> Alex Stone	<a href="http://www.ons.org">www.ons.org</a> members only
SPN (Society of Pediatric Nurses)	Advocacy toolkit	<a href="http://www.pedsnurses.org">www.pedsnurses.org</a> Public Policy Advocacy	Open to all
STTI (Sigma Theta Tau International)	Global initiatives	<a href="http://www.nursingsociety.org">www.nursingsociety.org</a> Global Action link	Information available on webpage, details limited to members

services by primary care providers for patients who have a BMI of 30 kg/m<sup>2</sup>. However, insurers are only obligated to reimburse providers who meet their definition of providers of intensive behavior therapy.

Strategies that prevent obesity are important to society and better for our health care system. The prevention of obesity in children would be the

simplest method to slow the progression of overweight and obesity in adults. However, Medicaid frequently does not provide reimbursement except for the moderate to severe obese groups of patients with comorbidities, if at all.<sup>26</sup> Access to care and funding for treatment of obesity are scarce nationally. The Children's Health Insurance Program and the ACA allow states to include obesity-related services

that are “medically necessary”<sup>27</sup>; nevertheless, the state must certify eligibility for Children’s Health Insurance Program enrollment and set parameters for coverage. Unfortunately, in states that have refused ACA funds, financial resources will be limited for such coverage. Active promotion of initiatives to give funding priority and preferences to preventive initiatives before tertiary treatments (such as bariatric surgery) is needed. Advocacy of insurance reform and support for funding of preventive and primary treatment strategies within the ACA are necessary to reduce obesity.

### **OBESITY AND AGRICULTURAL POLICIES**

Americans who adopt healthier diets that include more fresh fruits, vegetables, and beans currently pay more than those who consume large quantities of less expensive alternatives.<sup>28</sup> Current agricultural policies and subsidies and the attitudes and beliefs of HCPs and patients limit the demand for healthier foods. Americans currently consume large quantities of animal products, sugar, corn, and fat. Some support banning advertising for and taxing foods with high fat and sugar content. The reduction of domestic subsidies for grain and sugar and support of fruit and vegetable growers would make pricing more balanced for staples.<sup>29</sup>

Policy changes, such as taxes on sugar-sweetened beverages, could assist in positive behavioral changes. Such changes affect food prices and consumption indirectly. The food commodity industry produces products based on the cost of raw materials (such as grain or sugar) and the demand for food products. If the demand for high-fat, low-value food products exceeds the demands for healthier alternatives, the high-fat, low-value food will be produced in greater quantities and larger portion sizes at lower prices. It is important to consider both policy changes in agricultural policy and regulations about the foods produced from the subsidized commodities.<sup>29</sup> Table 2 provides selected legal and policy resources and information about current laws and policies regarding nutrition and obesity.

### **OPPORTUNITIES FOR INVOLVEMENT**

Involvement in the development of and modification of policies at the national and global levels is an important function of HCPs. Those who wish to

actively participate in the evaluation, development, and promotion of changes in public policy can do so easily. Issues such as environmental modifications to promote physical activity, availability of fresh food, and resource management are often linked on the organizational Web sites. Table 3 provides a sample of organization Web sites informing the HCPs of opportunities for involvement.

Most APNs and HCPs are members of one or more professional organizations. The potential for change is enormous if they would collaborate and use these resources. Frequently, organizations offer assistance with contacting legislators and networking with members from other disciplines who share a common interest. Organizational staff members are often knowledgeable of policy developments and tracking issues. Resources are available to members, and most often a telephone call or an email is all that is required to become involved.

### **CONCLUSION**

Obesity is recognized as a serious chronic health condition that contributes to multiple comorbidities and decreases the quality and length of an individual’s life. It is also preventable and treatable provided that the patient, family, and HCP are vigilant and persistent. Too often in the past, patients have succumbed to chronic illnesses before the alarm for action was raised. Using the TPB framework may assist HCPs with modifying existing behaviors and strategies that have been unsuccessful in reducing obesity in their patients. Suggested strategies to aid in this fight include engaging in the policy-making process; modifying the media portrayal of obese individuals; changing the quantities, qualities, and types of food available; and changing the reimbursement structure for prevention and management of obesity.

Pilot studies have begun in some states to address various aspects of policy change that range from making more green space, such as establishing community gardens, to developing safe routes for children to walk rather than ride to school.<sup>30</sup> Results of these studies can guide larger-scale research efforts to implement regional policy changes. The development and testing of policies should include the measurement of short- and long-term outcomes of their implementation. All HCPs who are charged with

disease prevention and health promotion as a basic tenet of the profession can become leaders in health policy advocacy for our patients and the community as a whole. **JNP**

#### References

1. What are overweight and obesity? National Heart Lung and Blood Institute Web site. <http://www.nhlbi.nih.gov/health/health-topics/topics/obe/>. Accessed June 15, 2013.
2. *Healthy People 2020*. (2013). Healthy People Web site. <http://www.healthypeople.gov/2020/default.aspx>. Accessed June 15, 2013.
3. Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of obesity and trends in body mass index among US children and adolescents, 1999-2010. *JAMA*. 2012;307(5):483-490.
4. National Conference of State Legislatures. Childhood obesity: 2012 update of legislative policy options. National Conference of State Legislatures Web site. <http://www.ncsl.org/issues-research/health/childhood-obesity-2012.aspx>. Accessed May 23, 2013.
5. Overweight and obesity. Centers for Disease Control and Prevention Web site. <http://www.cdc.gov/obesity/index.html>. Accessed September 15, 2013.
6. Flegal KM, Carroll MD, Kit BK, Ogden CL. Prevalence of obesity and trends in the distribution of body mass index among US adults, 1999-2010. *JAMA*. 2012;307(5):491-497.
7. Ajzen I. Theory of Planned Behavior Web site. <http://people.umass.edu/ajzen/index.html>. Accessed November 1, 2013.
8. Nehl EJ, Blanchard CM, Peng CY, et al. Understanding nonsmoking in African American and Caucasian college students: an application of the theory of planned behavior. *Behav Med*. 2009;35(1):23-29.
9. Barnes AS, Goodrick GK, Pavlik V, Markesino J, Laws DY, Taylor WC. Weight loss maintenance in African-American women: focus group results and questionnaire development. *J Gen Intern Med*. 2007;22(7):915-922.
10. Policy. Merriam-Webster Web site. <http://www.merriam-webster.com/dictionary/policy>. Accessed May 23, 2013.
11. Obama care facts: facts on the Obama Health Care Plan. Obama Care Facts Web site. <http://obamacarefacts.com/obamacare-facts.php>. Accessed May 7, 2013.
12. O'Grady E, Johnson J. Health policy issues in changing environments. In: Hamric AB, Spross J, Hanson C, eds. *Advanced Practice Nursing: An Integrative Approach*. 4th ed. St. Louis, MO: Saunders; 2009:627-656.
13. Bodenheimer T, Grumbach K. *Understanding Health Policy: A Clinical Approach*. 6th ed. New York: Lange; 2012.
14. Nickitas D. Nurses. In: Costello-Nickitas DM, Middaugh DJ, Aries N, eds. *Policy and Politics for Nurses and Other Health Professions: Advocacy and Action*. Sudbury, MA: Jones and Bartlett Publishers; 2011; xvi, 378.
15. Aries N. To engage or not to engage: the choice confronting nurses and other health professionals. In: Costello-Nickitas DM, Middaugh DJ, Aries N, eds. *Policy and Politics for Nurses and Other Health Professionals Advocacy and Action*. Sudbury, MA: Jones and Bartlett Publishers; 2011:3-24.
16. Buppert C. *Nurse Practitioner's Business Practice and Legal Guide*. 4th ed. Sudbury, MA: Jones & Bartlett Learning; 2012.
17. Milstead J. Advanced practice nurses and public policy, naturally. In: Milstead J, ed. *Health Policy and Politics: A Nurse's Guide*. Dublin, OH: Jones and Bartlett; 2013.
18. Lucey P. Health status and access to care. In: Costello-Nickitas DM, Middaugh DJ, Aries N, eds. *Policy and Politics for Nurses and Other Health Professionals Advocacy and Action*. Sudbury, MA: Jones and Bartlett Publishers; 2011:25-50.
19. McClure KJ, Puhl RM, Heuer CA. Obesity in the news: do photographic images of obese persons influence antifat attitudes? *J Health Commun*. 2011;16(4):359-371.
20. Pulvers KM, Kaur H, Nollen NL, et al. Comparison of body perceptions between obese primary care patients and physicians: implications for practice. *Patient Educ Couns*. 2008;73(1):73-81.
21. Huang TT, Borowski LA, Liu B, et al. Pediatricians' and family physicians' weight-related care of children in the U.S. *Am J Prev Med*. 2011;41(1):24-32.
22. Whitlock EP, O'Conner EA, Williams SB, Beil TL, Lutz KW. *Effectiveness of Primary Care Interventions for Weight Management in Children and Adolescents: An Updated, Targeted Systematic Review for the USPSTF*. Rockville, MD: Agency for Healthcare Research and Quality; 2010. Report No.: 10-05144-EF-1.
23. Stantz R. Proper coding for an obesity diagnosis. *Med Econ*. 2009;86(11):35.
24. Slusser W, Staten K, Stephens K, et al. Payment for obesity services: examples and recommendations for stage 3 comprehensive multidisciplinary intervention programs for children and adolescents. *Pediatrics*. 2011;128(suppl 2):S78-85.
25. Hager M. The Centers for Medicare and Medicaid services expand obesity coverage to include "intensive behavioral therapy." *Nutr Today*. 2012;47(2):72-74.
26. Lovejoy J. Five steps healthcare leaders can take to address childhood obesity. *American Health & Drug Benefits*. 2011;4(1):50-52.
27. Children's Health Insurance Program (CHIP). Medicaid.gov Web site <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Childrens-Health-Insurance-Program-CHIP/Childrens-Health-Insurance-Program-CHIP.html>. Accessed May 23, 2013.
28. Russo M, Smith D.; US PIRG. Apples to Twinkies 2013: Comparing taxpayer subsidies for fresh produce and junk food. [http://www.uspirg.org/sites/pirg/files/reports/Apples\\_to\\_Twinkies\\_2013\\_USPIRG.pdf](http://www.uspirg.org/sites/pirg/files/reports/Apples_to_Twinkies_2013_USPIRG.pdf). Accessed August 4, 2013.
29. Franck C, Grandi SM, Eisenberg MJ. Agricultural subsidies and the American obesity epidemic. *Am J Prev Med*. 2013;45(3):327-333.
30. Kong AS, Sussman AL, Negrete S, Patterson N, Mittleman R, Hough R. Implementation of a walking school bus: lessons learned. *J Sch Health*. 2009;79(7):319-325; quiz 333-314.

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