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The Foodservice Industry's Social Responsibility Regarding the Obesity Epidemic, Part I: Parallels to Other Public Health Issues and Potential Legal Implications

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Abstract
The incidence of obesity among both children and adults in the United States (U.S.) has reached epidemic level. If not quickly curtailed, it represents significant long-term costs to all facets of the U.S. economy. The foodservice industry has contributed to this major public health issue. Parallels between the obesity epidemic and the public health issues of smoking and foodborne illnesses could influence the foodservice industry's response to obesity concerns. Of particular note are the parallels between the liability litigation and legislative actions related to smoking and the tobacco industry. This industry has a history of taking socially responsible actions regarding public health issues. There is potential for costs to the foodservice industry from similar anti-obesity litigation and legislation if the industry does not once again assume social responsibility relative to the current obesity crisis and is not proactive in efforts to combat obesity

Keywords
Foodservice, Restauratns, Legal, Ovesity, CDC

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The incidence of obesity among both children and adults in the United States (U.S.) has reached epidemic level. If not quickly curtailed, it represents significant long-term costs to all facets of the U.S. economy. The foodservice industry has contributed to this major public health issue. Parallels between the obesity epidemic and the public health issues of smoking and foodborne illnesses could influence the foodservice industry's response to obesity concerns. Of particular note are the parallels between the liability litigation and legislative actions related to smoking and the tobacco industry. This industry has a history of taking socially responsible actions regarding public health issues. There is potential for costs to the foodservice industry from similar anti-obesity litigation and legislation if the industry does not once again assume social responsibility relative to the current obesity crisis and is not proactive in efforts to combat obesity.

INTRODUCTION

The Obesity Epidemic

Obesity has reached epidemic proportions throughout the United States (U.S.) as well as in many other countries. According to statistics reported by the U.S. Centers for Disease Control and Prevention (CDC), in 2008 obesity rates for adults exceeded 20% in every state but Colorado; 32 states had rates greater than 25%; and 6 states had rates in excess of 30% (Centers for Disease Control [CDC], n.d.c). Obesity incidence rates for children are particularly alarming as the prevalence of obesity has risen from 5% to 12.4% for children aged 2-5 years, from 6.5% to 17.0% for youth aged 6-11 years, and from 5% to 17.6% for adolescents aged 12-19 years (CDC, n.d.b). Conservatively assuming that an average of 20% of the total U.S. population is now considered obese, that percentage would indicate that there are more than 60 million persons in the U.S. who are now obese, a figure that does not include the population considered to be overweight, but not yet obese.

Fortunately, although the number of currently obese persons is already quite high, the growth in the obesity incidence rates for adults in

the U.S. appears to be leveling, as the rates for 2007-2008 were 32.2% for adult men and 35.5% for adult women, approximately the same as for 2006. However, these percentages ranged from 31.9% among non-Hispanic white males to 37.3% among non-Hispanic black males, and from 33.0% for non-Hispanic white women to 49.6% among non-Hispanic black women, variances reflecting the marked differences in incidence rates among the several ethnic groups within the U.S. When combining the prevalence of overweight with the prevalence of obesity, the combined percentages were 72.3% for males and 64.1% for women ("Obesity Rates," 2010; Flegal, Carroll, Ogden, & Curtin, 2010). The trend of increasing obesity incidence among children, based on children's body-mass index measurements, also appears to be stabilizing except among the very heaviest boys, for whom the prevalence still seems to be increasing significantly ("Obesity Rates," 2010; Ogden, Carroll, Curtin, Lamb, & Flegal, 2010).

The Foodservice Industry's Role in the Obesity Epidemic

The foodservice industry, particularly the "fast food" component and food industry advertising, has been implicated as a major contributor to the obesity epidemic (Alvy & Calvert, 2008; Chandon & Wansink, 2007; Colapinto, Fitzgerald, Taper, & Veugelers, 2007; Edwards, Engstrom, & Gustafsson, 2008; Edwards, Engstrom, & Hartwell, 2005; Harker, Harker, & Svensen, 2007; Harris, Brownell, & Bargh, 2009; Harris, Pomeranz, Lobstein, & Brownell, 2009; Henderson & Kelly, 2005; Klara, 2005; Kwan, 2009; Maddock, 2004). Consumers, today, spend about half of their food dollars on food away from home (National Restaurant Association [NRA], 2010); thus, even if the foodservice industry is not a primary cause of obesity, the industry and food available for consumption away from home are certainly related to this issue. Therefore, it has been argued that the foodservice industry should take a proactive approach to this issue and initiate actions that would help counteract the obesity incidence, particularly among children (Binelli, 2009; Burton, Creyer, Kees, & Huggins, 2006; Edwards, et al., 2008; Jones, 2009; Whitfield-Jacobson, Prawitz, & Lukaszuk, 2007; Wootan, Osborn, & Malloy, 2006).

However, not everyone is in agreement regarding the foodservice industry's responsibility for the obesity epidemic. Many persons believe that consumers have choices in their food selections and that it is their personal responsibility to select healthful foods and live a lifestyle that will enable them to prevent becoming obese. Thus there are arguments that the industry is not responsible for the obesity epidemic and should not be expected to take actions that might help reduce the obesity incidence rate, particularly if such actions would result in a decline in profitability for firms in the industry (Aranceta, Moreno, Moya, & Anadon, 2009; Binkley, 2006; Edwards, et al., 2005; Grotz, 2006; Kwan, 2009; Marr, 2004; Simmons, et al., 2005).

This paper reviews the potential costs associated with obesity, particularly if the obesity epidemic is not controlled. It relates the current obesity epidemic to two other major public health issues in which the foodservice industry has been actively involved, smoking and food safety. It considers the potential for the foodservice industry to incur costs related to obesity as a result of liability litigation and/or legal regulations that parallel the experiences of the tobacco industry. It suggests, conceptually, that whether or not the foodservice industry has been a major factor leading to the obesity epidemic, the industry has an ethical and social responsibility to take actions that may help reduce the obesity incidence, particularly among children, just as the industry has taken actions to help reduce the incidence and impact of these other major public health issues.

THE ECONOMIC IMPLICATIONS OF OBESITY

It is not only the rapidly increasing incidence of obesity that is of primary concern, but also related, potentially very high, economic consequences that are also at the forefront of public concern regarding obesity. According to a study completed by Finkelstein, Fiebelkorn, and Wang (2003) that looked at 1998 medical expenditures, the CDC reported that twelve years ago, when obesity rates were well below today's rates, medical costs attributed to both overweight and obesity accounted for 9.1% of the total U.S. medical expenditures and that such expenditures may have reached as high as $92.6 billion in 2002 dollars (CDC, n.d.a). Thorpe, Florence, Howard, and Joski (2004) reported that per capita

health care spending for obese persons increased 63% from 1987 to 2001 (in 2001 dollars). Over the same time period, the per capita health care spending for non-obese persons increased only 37%. Recently, Withrow and Alter (2010) reported that, worldwide, obese individuals were found to have medical costs approximately 30% greater than their normal-weight peers.

Medical costs are of concern as the increased obesity incidence is related to the parallel increased incidence of diabetes, hyperlipidemia and heart disease that has occurred over the same time period. Hospitalizations of children diagnosed with obesity nearly doubled between 1999 and 2005, resulting in an increased cost for these hospitalizations of $111.7 million (in 2005 dollars) (Trasande, Liu, Fryer, & Weitzman, 2009). Evidence has shown that the trends in obesity accounted for more than 38% of diabetes health-care spending growth in the U. S. (Thorpe et al., 2004). In 2008, the American Diabetes Association reported that people with diagnosed diabetes, on average, have medical expenditures that are approximately 2.3 times higher than their expenditures would be if they did not have diabetes (American Diabetes Association, 2008). After an extensive review of the literature, Ryan (2009) concluded that obesity and the related increased incidence of diabetes represented impending crises for the health care system. He suggested that increased prevalence and costs related to obesity should be expected unless more coordinated efforts are implemented to access the causes of these conditions at the national level. Such efforts may be budget neutral in the long term if they result in a reduction of the costs of morbidity and mortality related to obesity.

The costs indicated here are estimated for medical care only and do not take into account the cost of lost productivity from illness or early death. However, the worst is yet to come if the rising obesity epidemic cannot be stopped. Lightwood et al. (2009) have estimated the future economic burden of adolescents who are currently overweight, considering the probability of their becoming obese and the impact of that obesity on their likelihood of incurring diabetes, hyperlipidemia and hypertension. They estimated that 161 million life-years of these currently overweight adolescents would be complicated by diabetes or

cardiovascular disease, and 1.5 million life-years would be lost as a result of premature death. They also calculated that the cumulative excess total costs attributable to the impact of obesity could reach $254 billion in today's dollars. These cost estimates exceed the costs of any other major public health issue and represent an amount that could potentially cripple the U.S. health care system as well as severely impact the total U.S. economy.

THE SIGNIFICANCE OF THE OBESITY EPIDEMIC IN COMPARISON TO OTHER PUBLIC HEALTH ISSUES

The scope of the obesity epidemic's potential impact on the U.S. economy is a consideration when determining whether or not the foodservice industry has a responsibility for taking actions to help alleviate obesity. This impact might be considered relative to other public health issues related to the foodservice industry, issues for which the industry has been, and is currently actively involved in, helping to alleviate.

The Public Health Issue of Smoking and Foodservice Industry Actions

Although it took many years, smoking and second-hand smoke finally became a public health issue that involved the foodservice industry in the 1990s. An estimated 443,000 persons die annually within the U.S. of smoking-related diseases, and it is estimated that cigarette smoking results in more than $193 billion in annual medical costs and productivity losses (Kahende, Loomis, Adhikari, & Marshall, 2009). A Canadian study reported that implementation of selected tobacco policy interventions would result in a savings of 33,307 acute-care hospital days per year, resulting in an annual cost savings of about $37 million (Popova, Patra, & Rehm, 2009). These numbers pale relative to the projected costs for medical care, productivity losses, and the cost of premature deaths if the obesity epidemic is not controlled.

The foodservice industry was implicated in the "smoking problem" as customers often smoke while relaxing with coffee, wine or other alcoholic beverages, or after enjoying a comfortable meal. Foodservice establishments were known to have higher levels of indoor

air pollution containing carcinogenic tobacco-related chemicals, compared to smoke-free pubic venues (Fromme, Kuhn, & Bolte, 2009). Thus, laws banning smoking in public places, such as foodservice establishments, have been gradually implemented throughout the U.S. and other countries.

Within the foodservice industry, restaurants fought strongly against such laws for many years, arguing that they would suffer economic loss as a result of disgruntled customers' being unwilling to come to their restaurant to dine or enjoy drinks in their bar if they could not smoke while there. However, the reports of the economic impact of laws banning smoking in restaurants have consistently indicated that such economic loss has not occurred. Although in some instances there was a short-term decline in revenues following the implementation of the smoking ban laws, revenues quickly recovered and often improved as restaurants reconsidered their market and marketing strategies ("England Smoking," 2007; Fromme et al., 2009; McIntyre, 2007; McNabb, 2005; Stolzenberg & D'Alessio, 2007). The population demographics most opposed to smoking, generally, were older persons and families who did not want their children exposed to smoke (the former segment has the highest level of discretionary income) (NRA, 2000). These populations are more willing to frequent restaurants when no longer exposed to unwelcome second-hand smoke .

Foodservice establishments were only one public venue associated with smoking. Many were concerned about the implementation of smoking bans, but most have adjusted and are doing their part to help reduce the economic burden and the social costs of smoking in the U.S. They are doing so without realizing significant economic loss. That being so, should the foodservice industry not also be willing to take ethically and socially responsible actions to help counteract the obesity epidemic which appears to be developing into a far more costly public issue than smoking?

The Foodservice Industry's Involvement with Foodborne Illness

Foodborne illness is a second public health issue to which the current obesity epidemic might be compared. Clearly foodborne illnesses are a major concern for the foodservice industry, and failure of an establishment's efforts to control such illnesses has the potential to impact a large number of persons. In early 2009, the National Restaurant Association forecasted that more than 130 million individuals would be foodservice patrons on any one day in 2009 (NRA, 2009), and that any number of them could potentially be exposed to foodborne illness unless foodservice establishments were constantly vigilant in the preparation and handling of foods.

Compared to the health risks of smoking or obesity, foodborne illnesses are primarily short-term illnesses that have traditionally caused only a limited number of long-term disabilities or death. However, the economic burden of foodborne illnesses is high because of the high incidence rate. For example, the CDC has estimated that the annual cost of 73,000 cases of *Escherichia coli* O157 (*E.coli* O157) was $450 million, including $370 million for 60 premature deaths, $30 million for medical care, and $5 million in lost productivity (Frenzen, Drake, & Angulo, 2005). More recently, the Center for Foodborne Illness reported that the CDC estimated that 76 million persons in the U.S. become ill from foodborne illnesses annually, and of these, 325,000 are hospitalized and 5,000 die. The U.S. Department of Agriculture Economic Research Service (ERS) has reported that foodborne illnesses account for approximately one of every 100 U.S. hospitalizations and one of every 500 U.S. deaths. The ERS also estimated that five foodborne illnesses (*Campylobacter, Salmonella, E.coli* O157:h7, *Listeria monocytogenes*, and *Toxoplasma gondii*) caused $6.9 million annually in medical costs, lost productivity, and premature deaths. Children, the elderly, pregnant and post-partum women, and persons with compromised immune systems are at highest risk for foodborne illness complications. The U.S. Food and Drug Administration (FDA) has estimated that 2-3% of all foodborne illness victims develop secondary long-term medical complications resulting in over 1.5 million lingering health problems per year (Center for Foodborne Illness, n.d.).

The foodservice industry is not responsible for all the foodborne illnesses in the U.S As many cases occur in other venues, such as private homes, industry establishments incur financial risk from foodborne illnesses beyond the actual costs of the illness incidents. When foodborne illness is associated with a foodservice establishment, that establishment's business declines as potential customers fear becoming ill if they eat food served by that establishment (Knight, Worosz, & Todd, 2009; Roseman, Kurzynske, & Tietyen, 2005). Also, the establishment is at risk for lawsuits if customers can show that their illness resulted from food eaten there. Under the U.S. legal system, all patrons of foodservice establishments have the right to assume that the food they eat will be safe, free from contamination, and prepared in a sanitary environment (Eiler & Burke, 2009; Swanger & Rutherford, 2004).

Because of their high incidence rate, foodborne illnesses are considered to be an important public health issue. The threat of potential high liability cost as well as the possible economic loss from a decline in sales to an establishment blamed for an outbreak of foodborne illness are sufficiently serious to warrant these establishments' taking steps to try to avoid any foodborne illness outbreaks. In an effort to lessen the incidence of foodborne illnesses, foodservice establishments have invested time and money for personnel training and other actions, such as the development and implementation of Hazard Analysis Critical Control Point (HACCP) programs. While there are costs associated with these efforts, establishments recognize that these preventative costs are an investment offset by the economic benefits of customer retention and reduced risk for lawsuit liability (Derr, Ruetiman, Kokkinou, & Sharma, 2009; Harris, 2001).

Although the incidence rate of foodborne illnesses is high, the overall economic costs are low in comparison to the potential costs of obesity, even if the costs of potential lawsuits are taken into consideration. If the foodservice industry is willing to make substantial investments to control foodborne illnesses associated with the industry, is it not a reasonable conclusion that an investment in obesity prevention would be a viable industry investment as well?

LEGAL IMPLICATIONS OF OBESITY FOR THE FOODSERVICE INDUSTRY

The potential high cost of legal liability for foodborne illnesses and of non-compliance with legislation and local regulations regarding smoking in their facilities have been important forces motivating the foodservice industry to take socially responsible actions regarding these two public health issues. It is possible that the foodservice industry could face similarly high costs for liability and non-compliance in the future as the public becomes increasingly concerned about obesity and the related economic and quality-of- life issues.

Potential Risk for Lawsuits and Liability for Actions

Because there is a perception that the foodservice industry bears a major responsibility for the obesity epidemic, the industry could face a risk for lawsuits in which plaintiffs seek recourse for their obesity and the cost of obesity to them. It has been speculated that obesity litigation could replace smoking and the tobacco industry as the major socially related legal issue in the U.S. Activists who successfully led tobacco industry litigation and achieved passage of laws that limited the use of tobacco in venues, such as the foodservice industry, have turned their attention toward obesity issues. Even though tobacco litigation was not taken seriously for several decades, ultimately this litigation helped turned public opinion against the tobacco industry in the 1990s, leading to changes in industry marketing practices, payment of millions of dollars in damages, and passage of laws limiting smoking in many venues (Daynard, Howard, & Wilking, 2004; Parsigian & Williams, 2004).

Werner, Feinstein, and Hardigree (2007) conducted an analysis of the risk of obesity legislation for the fast food industry and concluded that, while damages for obesity and obesity-related illnesses might be awarded against fast-food companies under existing liability law, such cases were unlikely to succeed and could be efficiently avoided. They felt that the litigation against the tobacco industry was successful as the cases were based on the misdeeds of the manufacturer (i.e., manipulation of nicotine levels), and because smoking could be causally related to the plaintiffs' illnesses. In reaching their conclusions, Werner et al. argued

that establishing a direct cause-and-effect relationship between plaintiffs' eating food served by the fast food industry and their current state of obesity would be far more difficult to establish than the linkage between tobacco usage and the plaintiffs' resulting illnesses. This position reflected similar conclusions reported by Robinson, Bloom, and Lurie (2005). Werner, et al. also suggested that fast food industry lawsuits could be avoided if the industry were to take actions to ensure that the products used in their foods were clearly identified to the consumer.

While Daynard et al. (2004) agreed that the tobacco industry litigation was successful because of the linkage to misdeeds of the industry, they did not feel that the foodservice industry could as readily avoid obesity litigation as was suggested by Werner et al. (2007). They suggested that, similar to tobacco litigation, cases against food manufacturers could be based on evidence that manufacturers misrepresented the nutritional properties of products or that they took advantage of children by directly marketing calorically dense products with low nutritional value. Their suggestion that obesity litigation could be successful based on manufacturers' misrepresentation could be prophetic, considering some recent study reports. Urban, et al. (2010) reported that the stated energy contents of a variety of products labeled as "reduced-energy," which were found in supermarkets and restaurants, all had actual caloric values in excess of the level stated on the label for the product. Particularly noteworthy was their finding that some individual restaurant items contained up to 200% of the stated caloric value, and side dishes contained, on average, a caloric value of 245% of the labeled value. Halliday (2009) also reported that consumers do not trust food industry portion sizes and often purchase extra food in anticipation that the stated portion size is too small to meet their perception of what a portion size should be. This consumer behavior likely reflects the distortion in portion size that has been created by the foodservice industry through their promotional activities, such as the "super-size" or "super-value" items. That distortion, leading to increased caloric intake, is believed to be a factor contributing to obesity.

The widely publicized obesity lawsuit brought against McDonalds in 2002 is an example of the ambiguity regarding the

potential liability of the foodservice industry for consumers' obesity and related problems. Since it was first introduced, this class action lawsuit had been dismissed and reinstated on various grounds, including a change in the plaintiffs. While the claims for product liability have been dismissed, the claims for deceptive advertising are still viable (Martin, 2005; Mello, Rimm, & Studdert, 2003; Mello, Studdert, & Brennan, 2006; Robinson, et al., 2005; Werner, et al., 2007). The retention of the deceptive advertising portion of this case seems to point to the possibility of successful obesity litigation against the foodservice industry that would follow the historical pattern of the tobacco industry litigation.

The Potential for Anti-Obesity Regulatory Legislation

In addition to the possibility of obesity-related lawsuits, if the obesity epidemic parallels smoking as a public health issue, there is the potential for legislation that will mandate actions for the foodservice industry. The use of the law as a powerful public health tool is now common practice in the U.S. Some of the most important advances in public health in recent times (e.g., the reduction in smoking) have resulted from new legislation, heightened regulatory enforcement, litigation, or a combination of these three factors. The public health law approach presumes that laws can be passed that will create conditions that allow people to lead healthier lives and grant government both the power and duty to regulate private behavior in order to promote public health. The development of public health laws that impact personal behavior usually results from a combination of the development of a scientific base and social disapproval. In the case of obesity, the mounting body of research regarding the economic and human costs of obesity have provided the necessary critical scientific evidence base. As the public has become aware of this research, social disapproval of many actions of the foodservice industry, particularly of the industry's marketing of "junk foods" to children, has arisen. Thus, the conditions are present for the potential passage of regulatory legislation designed to curtail obesity among the U.S. population (Mello et al., 2006; Weiss & Smith, 2004).

However, even though the conditions are present, there is not unanimous support for such legislation. Many persons believe that anti-obesity laws would constitute paternalistic intervention into individuals'

lifestyle choices and weaken individuals' sense of personal responsibility for their health and well-being. Accordingly, while there is a strong potential for the development of anti-obesity regulatory legislation, much of which would likely impact the foodservice industry, such legislation is not a certainty. Unlike tobacco, for which usage is optional and a direct correlation between tobacco usage and illnesses, such as cancer, can be shown, everyone must eat, i.e., must have food. Not everyone has the same nutritional needs; there is no food-related equivalent to the harm people may encounter from secondhand smoke; no research has shown that foods have physically addictive properties, much less that food companies manipulate their addictive content to encourage dependence, as was the case with the tobacco companies. It is the advertising and marketing to highly vulnerable young children that is the significant factor likely to trigger anti-obesity legislation. Children's eating patterns are set early in life and likely to persist over their life span (Mello, et al., 2006; Robinson, et al., 2005; Weiss & Smith, 2004).

CONCLUSION

There is little doubt that the current obesity epidemic is nearing crisis proportions, nor that the potential long-term economic impact of the epidemic may be catastrophic to the U.S. economy if actions to help reduce the incidence of obesity are not taken quickly. There is also little doubt that the foodservice industry has played a significant role in the development of this epidemic even if that role is only one of several contributing factors. The foodservice industry has a record of becoming actively involved in social issues, including ongoing issues such as smoking and foodborne illnesses. While the foodservice industry has traditionally exhibited socially responsible behavior, that involvement has sometimes not been entirely altruistic. Foodservice operations that fail to comply with regulations resulting from anti-smoking legislation or that are found responsible for foodborne illness outbreaks can incur potentially crippling costs, costs which could be sufficient to cause the operation to fail. As there are many parallels between these public health issues and the current obesity epidemic, particularly between the development of successful smoking liability litigation and the development of laws regulating smoking and the tobacco industry, there

is potential for the foodservice industry to face similar legal issues and the related costs in the future.

Thus, it would seem logical that the foodservice industry would recognize that it has social responsibility regarding the obesity epidemic and would take the initiative in assuming a leading role in the nation's efforts to combat obesity, a far more critical public health issue than any previously faced in the U.S. Such a proactive approach would reflect the foodservice industry's long-standing support of each operation's local community while also helping to deflect obesity-related legal and legislative actions that might be taken that would be detrimental to the industry as a whole.

References

Alvy, L.M., & Calvert, S.L. (2008). Food marketing on popular children's web sites: A content analysis. *Journal of the American Dietetic Association, 108* (4)*,* 710-713.

American Diabetes Association. (2008). Economic costs of diabetes in the U.S. in 2007. *Diabetes Care, 31*(3), 596-615.

Aranceta, J., Moreno, B., Moya, M., & Anadon, A. (2009). Prevention of overweight and obesity from a public health perspective. *Nutrition Reviews, 67*(Suppl. 1), 583-588.

Binelli, B. (2009). Tipping the scale. *Foodservice & Hospitality, 42*(2), 27-32.

Binkley, J.K. (2006). The effect of demographic, economic, and nutrition factors on the frequency of food away from home. *The Journal of Consumer Affairs, 40*(2), 372-391.

Burton, S., Creyer, E.H., Kees, J., & Huggins, K. (2006). Attacking the obesity epidemic: The potential health benefits of providing nutrition information in restaurants. *American Journal of Public Health, 96*(9), 1660-1675.

Center for Foodborne Illness. (n.d.). The impact of foodborne illness. Retrieved from http://www.foodborneillness.org/fooborne_illness.htm.

Centers for Disease Control and Prevention. (n.d. a). Economic consequences.Retrieved from http://www.cdc.gov/obesity/causes/economics.html.

Centers for Disease Control and Prevention. (n.d. b). *NHANES surveys (1976-1980 and 2003-2006).* Retrieved from http://www.cdc.gov/obesity/childhood/prevalence.html.

Centers for Disease Control and Prevention. (n.d. c). *U.S. obesity trends.* Retrieved from http://www.cdc.gov/obesity/data/trends.html.

Chandon, P., & Wansink, B. (2007). The biasing health halos of fast-food restaurant health claims: Lower calorie estimates and higher side-dish consumption intentions. *Journal of Consumer Research, 34*(3), 301-314.

Colapinto, C.K., Fitzgerald, A., Taper, J.S., & Veugelers, P. J. (2007). Children's preference for large portions: Prevalence, determinants, and consequences. *Journal of the American Dietetic Association, 107*(7), 1183- 1190.

Daynard, R.A., Howard, T., & Wilking, C.L. (2004). Private enforcement: Litigation as a tool to prevent obesity. *Journal of Public Health Policy, 25*(3/4), 408-417.

Derr, E., Ruetiman, L., Kokkinou, A., & Sharma, A. (2009). Comparison of HACCP costs & benefits in commercial & non-profit foodservice organizations. *Hosteur, 18*(1), 19-23.

Edwards, J.S.A., Engstrom, K., & Gustafsson, I.B. (2008). Body mass index (BMI), perceptionsof portion size, and knowledge of energy intake and expenditure -- a pilot study. *Journal of Culinary Science & Technology, 6*(2-3), 151-169.

Edwards, J.S.A., Engstrom, K., & Hartwell, H.J. (2005). Overweight, obesity, and the food service industry. *Food Service Technology, 5*(2-4), 85-94.

Eiler, J.O., & Burke, P.W. (2009). A primer on litigation issues involving foodborne illness and environmental toxins in the hospitality industry. *Travel Law Quarterly, 1*(3), 153-164.

England smoking ban: New opportunitiesarise as the smoke clears. (2007). *MarketWatch: Food, 6*(8), 15.

Finkelstein, E.A., Fiebelkorn, I.C., & Wang, G. (2003). National medical spending attributable to overweight and obesity: How much, and who's paying? *Health Affairs, W3,* 219-226.

Flegal, K.M., Carroll, M.D., Ogden, C.L, & Curtin, L.R. (2010). Prevalence and trends in obesity among US adults, 1999-2008. *Journal of the American Medical Association, 303*(3), 235-241.

Frenzen, P.D., Drake, A., & Angulo, F. J. (2005). Economic cost of illness due to Escherichia coli O157 infections in the United States. *Journal of Food Protection, 68*(12), 2623-2630.

Fromme, H., Kuhn, J., & Bolte G. (2009). Secondhand smoke in hospitality venues. Exposure, body burden, economic and health aspects in conjunction with smoking bans. *Gesundheitswesen, 71*(4), 242-257.

Grotz, V. L. (2006). A look at food industry responses to the rising prevalence of overweight. *Nutrition Reviews, 64*(2), S48-S52.

Halliday, J. (2009). Consumers don't trust food industry portion sizes, report finds. Retrieved from http://www.foodnavigator.com/content/view/print/254300.

Harker, D., Harker, J., & Svensen, S. (2007). Attributing blame: Exploring the link between fast food advertising and obesity in Australia. *Journal of Food Products Marketing, 13*(2), 33-46.

Harris, J.L., Brownell, K.D., & Bargh, J.A. (2009). The food marketing defense model: Integrating psychological research to protect youth and inform public policy. *Social Issues and Policy Review, 3*(1), 211-271.

Harris, J.L., Pomeranz, J.L., Lobstein, T., & Brownell, K.D. (2009). A crisis in the marketplace: How food marketing contributes to childhood obesity and what can be done. *Annual Review of Public Health, 30,* 211-225.

Harris, K. (2001). Food Safety: A public crime. *Journal of Restaurant & Foodservice Marketing, 4*(3), 35-63.

Henderson, J.R., & Kelly, B. (2005). Food advertising in the age of obesity: Content analysis of food advertising on general market and African American television. *Journal of Nutrition Education & Behavior, 37*(4), 191-196.

Jones, C.S. (2009). Taking up space? How customers react to health information and health icons on restaurant menus. *Journal of Foodservice Business Research, 12*(4), 344-363.

Kahende, J.W., Loomis, B. R., Adhikari, B., & Marshall, L. (2009). A review of economic evaluations of tobacco control programs. *International Journal of Environmental Research and Public Health, 6*(1), 51-68.

Klara, R. (2005). The fat fault line. *Restaurant Business, 104(*11), 14-16.

Knight, A.J., Worosz, M.R., & Todd, E.C.D. (2009). Dining for safety: Consumer perceptions of food safety and eating out. *Journal of Hospitality & Tourism Research, 33*(4), 471-486.

Kwan, S. (2009). Individual versus corporate responsibility: Market choice, the food industry, and the pervasiveness of moral models of fatness. *Food, Culture, & Society, 12(*4), 477-495.

Lightwood, J., Bibbins-Domingo, K., Coxson, P., Wang, Y.C., Williams, L., & Goldman, L. (2009). Forecasting the future economic burden of current adolescent overweight: An estimate of the coronary heart disease policy model. *American Journal of Public Health, 99*(12), 2230-2237.

Maddock, J. (2004). The relationship between obesity and the prevalence of fast food restaurants: State-level analysis. *American Journal of Public Health, 19*(2), 137-143.

Marr, L. (2004). Soft drinks, childhood overweight, and the role of nutrition educators: Let's base our solutions on reality and sound science. *Journal of Nutrition Education and Behavior, 36,* 258-265.

Martin, R. (2005, February 14). Revived McD obesity lawsuit still suggests personal-responsibility defense – for now. *Nation's Restaurant News, 39*(7), 20.

McIntyre, P. (2007). Industry should clear the air, reconsider its opposition to smoking-ban legislation. *Nation's Restaurant News, 41*(41), 24 & 99.

McNabb, J. (2005). The smoking ban in hospitality: A cross-border perspective from Ireland. *International Journal of Contemporary Hospitality Management, 17*(2), 181-190.

Mello, M.M., Rimm, E.B., & Studdert, D.M. (2003). The McLawsuit: The fast-food industry and legal accountability for obesity. *Health Affairs, 22*(6), 207-216.

Mello, M.M., Studdert, D.M., & Brennan, T.A. (2006). Obesity – the new frontier of public health law. New *England Journal of Medicine, 24,* 2601-2610.

National Restaurant Association (NRA). (2000, November). Silver dollars: Operators find that serving seniors just makes good cents. *Restaurants USA Online.* Retrieved from http://www.restaurant.org/tools/magazines/rusa/magArchive/year/articles/index.cfm?ArticleID=534.

National Restaurant Association (NRA). (2009). Restaurant industry facts at a glance. Retrieved from http://www.restaurant.org/research/ind_glance.cfm.

National Restaurant Association (NRA). (2010). Restaurant spending. Retrieved from http://www.restaurant.org/research/consumer/spending.cfm.

Obesity rates stabilizing. (2010, January 29). *American Medical News.* Retrieved from http://www.ama-ssn.org/amednews/2010/01/25prsg0129.htm.

Ogden, C.L., Carroll, M.D., Curtin, L.R., Lamb, M.M., & Flegal, K.M. (2010). Prevalence of high body mass index in US children and adolescents, 2007-2008. *Journal of the American Medical Association, 303(3),* 242-249.

Parsigian, K.J., & Williams, U.G. (2004). Obesity litigation—the next tobacco. Retrieved from http://library.findlaw.com/2004/Jul/22/133526.html.

Popova, S., Patra, J., & Rehm J. (2009). Avoidable portion of tobacco-attributable acute care hospital days and its cost due to implementation of different intervention strategies in Canada. *International Journal of Environmental Research and Public Health, 6(*8), 2179-2192.

Robinson, M.G., Bloom, P.N., & Lurie, N.H. (2005). Combating obesity in the courts: Will lawsuits against McDonald's work? *Journal of Public Policy and Marketing, 24(2),* 299-306.

Roseman, M., Kurzynske, J., & Tietyen, J. (2005). Consumer confidence regarding the safety of the US food supply. *International Journal of Hospitality & Tourism Administration, 6*(4), 71-90.

Ryan, J.G. (2009). Cost and policy implications from the increasing prevalence of obesity and diabetes mellitus. *Gender Medicine, 6*(Suppl 1), 86-108.

Simmons, D., McKenzie, A., Eaton, S., Cox, N., Khan, M.A., Shaw, J., & Zimmet, P. (2005). Choice and availability of takeaway and restaurant food is not related to the prevalence of adult obesity in rural communities in Australia. *International Journal of Obesity, 29*(6), 703-710.

Stolzenberg, L., & D'Alessio, S. J. (2007). Is nonsmoking dangerous to the health of restaurants? The effect of California's indoor smoking ban on restaurant revenues. *Evaluation Review, 31*(1), 75-92.

Swanger, N., & Rutherford, D. G. (2004). Foodborne illness: The risk environment for chain restaurants in the United States. *International Journal of Hospitality Management, 23*(1), 71-85.

Thorpe, K.E., Florence, C.S., Howard, D.H., & Joski, P. (2004). The impact of obesity on rising medical spending. *Health Tracking Trends Web Exclusive*. Retrieved from http://content.healthaffairs.org/cgi/content/full/hlthaff.w4.480/DCI.

Trasande, L., Liu Y., Fryer, G., & Weitzman, M. (2009). Effects of childhood obesity on hospital care and costs, 1999-2005. *Health Affairs, 28*(4), W751-760.

Urban, L.E., Dallal, G.E., Robinson, L.M., Ausman, L.M., Saltzman, E., & Roberts, S. B. (2010). The accuracy of stated energy contents of reduced-energy, commercially prepared foods. *Journal of the American Dietetic Association, 110*(1), 116-123.

Weiss, R.I., & Smith, J.A. (2004). Legislative approaches to the obesity epidemic. *Journal of Public Health Policy, 25*(3/4), 379-390.

Werner, W.B., Feinstein, A.H., & Hardigree, C.E. (2007). The risk to the American fast-food industry of obesity litigation. *Cornell Hotel and Restaurant Administration Quarterly, 48*(2), 201-214.

Whitfield-Jacobson, P.J., Prawitz, A.D.,& Lukaszuk, J.M. (2007). Long-haul truck drivers want healthful meal options at truck-stop restaurants. *Journal of the American Dietetic Association, 107*(2), 2125-2129.

Withrow, D., & Alter, D.A. (2010, January 27). The economic burden of obesity worldwide: A systematic review of the direct costs of obesity. *Obesity Reviews*, Electronic Publication retrieved ahead of print: doi:10.1111/j.1467-789X.2009.00712.x

Wootan, M.G., Osborn, M., & Malloy, C. J. (2006). Availability of point-of-purchase nutrition information at a fast-food restaurant. *Preventive Medicine, 43*(6), 458-459.

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