

Impact of Obesity on Life (Areas Related to Family and Consumer Sciences)

Please note that this list is ongoing. You will find that one site will lead you to another!

If you have any information related to enhance this matrix in any of the areas below please send to msinnovate@aol.com and bkehece@sd6.k12.mt.us

TOPIC AREA	WEBSITES	RELATED RESEARCH/ EFFORTS	KEY FINDINGS	IMPLICATIONS FOR FCS	SUGGESTED ACTIVITIES
Health Issues	http://www.cdc.gov/obesity/causes/health.html Centers for Disease Control & Prevention http://win.niddk.nih.gov/publications/health_risks.htm National Institute of Diabetes & Digestive & Kidney Diseases http://jap.physiology.org/content/98/1/3.full Journal of Applied Physiology http://www.choosemyplate.gov and http://www.cnpp.usda.gov/dietaryguidelines.htm USDA	"Health Consequences of Overweight and Obesity" "Health Risks of Being Overweight" "Effects of Exercise and Diet on Chronic Disease" (federal recommendations for healthy eating)	As a person becomes overweight or obese there is increased risk for 20 major diseases including coronary heart disease, type 2 diabetes, certain cancers, hypertension, stroke, sleep apnea and respiratory problems, and osteoarthritis. Moderate physical activity and healthy eating prevent many of the diseases mentioned above.	Encourage individuals to maintain healthy weight and take part in moderate physical activities daily on five or more days of the week. Include muscle strengthening activities.	Eat according to the MyPlate guidelines. Engage in three 10 minutes walks a day on five or more days of the week. Set realistic goals for physical activity and nutrition: - Identify barriers and overcome them - Enlist social support - Monitor progress - Reward yourself Interactive Tools: http://fnic.nal.usda.gov/nal_display/index.php?info_center=4&tax_level=2&tax_subject=256&topic_id=1459
Stress	http://psychcentral.com/news/2010/09/05/chronic-social-stress-linked-to-obesity/17685.html Psych Central	"New Study Strengthens Link Between Everyday Stress and Obesity"	If, following stress, we consume larger and less frequent meals, the conditions are favorable for weight gain--especially in the abdomen. Belly fat, as well as stress, contributes to the development of cardiovascular disease, immune dysfunction and other metabolic disorders.	Emphasize link between stress and over eating.	Chart their food intake associated with stressful situations for a week. Brainstorm positive ways to react to stress. Conduct a contest to see who lists the most substitutes for overeating when stressed.

	http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184496/ Journal of Obesity, cited by National Center for Biotechnology Information	“Mindfulness Intervention for Stress Eating to Reduce Abdominal Fat among Overweight and Obese Women”	Study indicates a way to reduce stress eating: Obese women learned meditation for stress-reduction and the practice of mindful eating-(how to tell the body's real need for food from other cues to eat, such as stress. Trained “women benefited during this training, and non trained women continued to gain weight. “The study in the Journal of Obesity was supported by the National Institutes of Health.	Expands the study of factors related to overeating. Explores positive strategies to address this issue.	Students chart their eating along with their motivation to do so for a week. Students examine various meditation techniques.
Family Relationships and Affect on Family Dynamic	http://www.ncbi.nlm.nih.gov/pubmed/20689989 National Center for Biotechnology Information	“The integration of a family systems approach for understanding youth obesity, physical activity, and dietary programs.”	Overall, family-based treatment programs that incorporated training for authoritative parenting styles, parenting skills, or child management, and family functioning had positive effects on youth weight loss, physical activity and dietary behaviors.	The family is the best setting for children to learn about healthy lifestyles. Stress the responsibilities of parents in parenting and child development classes.	Discuss and develop a list of family policies that promote overall wellness, instill in children a sense of personal responsibility for their health, and build parent-child relationships. Role play scenarios that illustrate parenting strategies to improve children's eating and activity habits
	http://www.centerfornutrition.org Gretchen Swanson Center for Nutrition	“Smart Choices for Healthy Families” (examines the impact of a family-based weight management program with a low-income population)	Targeting family change, rather than child-only change, was much more effective in reducing childhood obesity. The intervention focused on providing support for parent behavioral change, parenting strategies, role modeling, and home environmental changes to support healthy eating and regular physical activity.	The family is the best setting for children to learn about healthy lifestyles. Stress the responsibilities of parents in parenting and child development classes.	Identify positive changes that can be made to support family wellness in these areas: • parent behavioral change/role modeling • parenting strategies • home environment .
Social Relationships	http://www.nejm.org/doi/full/10.1056/NEJMsa1103216 The New England Journal of Medicine	“Neighborhoods, Obesity, and Diabetes — A Randomized Social Experiment”	The opportunity to move from a neighborhood with a high level of poverty to one with a lower level of poverty was associated with modest but potentially important reductions in the prevalence of extreme obesity and diabetes.	Community-level approaches and interventions hold promise for improving public health (especially helpful in extension).	Organize a panel of community leaders to lead discussion on how neighborhoods can support residents in pursuing healthier lifestyle habits.

	http://www.tree.com/health/obesity-effects.aspx Healthtree	"Obesity Side Effects and Social Stigma"	Obese people may have fewer social and romantic relationships compared to the non-obese. College admission, careers and earning power may be negatively affected by weight, particularly for obese women. While it may not be generally acceptable to discriminate based on gender, religion or ethnicity, many people continue to ridicule, mock or even abuse the obese.	Few approaches to the obesity epidemic address its impact of social relations--an area where FCS is better suited than most to educate.	Discuss how society might contribute to both the problem of obesity and also to its solution.
	http://www.nytimes.com/2009/10/04/books/review/Stossel-t.html New York Times article	"Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives"	When a person becomes obese, the chances that a friend will become obese increase by 57 percent. Siblings of obese people have a 40 percent increased risk of obesity, and their spouse's risk increased by 37 percent. On average, having an obese friend made a person gain 17 pounds, which put many people over the body mass index (BMI) measure for obesity.	Reinforce the importance and influence of family members and friends on our habits and lives.	Research other reports on the effect of obesity on social relationships. Research to find studies that show the opposite effect, i.e., relationships that help prevent or stem obesity. Brainstorm ways to counteract this effect.
Childhood Obesity Physical Emotional Social Mental	http://www.nejm.org/doi/full/10.1056/NEJMoa1010112 The New England Journal of Medicine	Childhood Adiposity, Adult Adiposity, and Cardiovascular Risk Factors	Overweight or obese children who were also obese as adults had increased risks of type 2 diabetes, hypertension, high blood cholesterol, and atherosclerosis. These increased risks disappeared when overweight or obese children became non-obese by adulthood. (Risks were similar to those among persons who were never obese.)	Reinforce the idea that good nutrition habits need to be practiced throughout the lifespan.	Design meal plans that allow children to get involved in planning, buying and preparing menu items--even producing some ingredients in gardens.

	http://www.tree.com/health/obesity-effects.aspx Healthtree	"Childhood Obesity Effects"	Socially, childhood obesity effects include an increased risk of bullying and teasing. Although long-term effects of childhood obesity on self-concept and relationships continue to be studied, obese children and teens report lower levels of self-esteem than their non-obese counterparts.	Stress that good parenting includes raising children who are healthy physically and emotionally. Being overweight and unfit creates a risk to physical health, and may also create a risk to emotional health.	Examine how self-concept develops in children. Discuss how teasing and bullying can have negative impacts, and what should be done to counteract them.
	http://www.livestrong.com/article/108268-emotional-effects-obesity-children/ LIVESTRONG.com	"Emotional Effects of Obesity In Children" The mission of the Campaign for America's Kids (CFAK) is to continually improve the lives of children affected by mental illnesses and their families through improved treatments and access to quality mental healthcare.	Because of the social stigma involved, being overweight during childhood can be emotionally difficult and can lead to mental health problems that last into adulthood. Read more: http://www.livestrong.com/article/108268-emotional-effects-obesity-children/#ixzz1fcclxzNN	Because children often times have difficulty verbalizing how they feel about the subject. This is an opportunity for FCS programs, community centers and leaders, and parents to introduce the topic through classes, and structured activities.	Role playing/skits dealing with the related topic. Planned physical activities that allow children to be involved in the planning process. Planned physical activities that involve participation from the community facilities, schools, and parents Instructional lessons and activities to get children engaged in conversation about the related topic. FCCLA class project
	http://www.whitehouse.gov/the-press-office/childhood-obesity-task-force-unveils-action-plan-solving-problem-childhood-obesity- The White House Taskforce	"Childhood Obesity Task Force Unveils Action Plan: Solving the Problem of Childhood Obesity Within a Generation". The goal is to return to a childhood obesity rate of just 5 percent by 2030 (the rate before childhood obesity first began to rise in the late 1970s).	Since February 2010 Task Force launch - *Children have been provided healthier food and greater opportunities for physical activity. *Better information and resources have been provided to families about health and nutrition. *Access is improving to healthy, affordable food in local communities.	FCS educators provide resources that will promote healthy lifestyles for families, educators (secondary & post-secondary level), partner with local communities and agencies.	Parent meeting for Pre-k and elementary children. Staff Development for FCS educators (all levels), community leaders and agencies, health care providers.

Adolescent/ Teenage Obesity Physical Emotional Social Mental	http://www.nejm.org/doi/full/10.1056/NEJMoa1006922 New England Journal of Medicine	“Adolescent BMI Trajectory and Risk of Diabetes versus Coronary Disease”	An elevated BMI in adolescence—even in the “normal” range--constitutes a substantial risk factor for obesity-related disorders in midlife, such as diabetes and heart disease. Diabetes is likely to show up earlier, even during the teen years, while heart disease is likely to develop later after atherosclerosis has progressed.	Adolescents are capable of both self-assessing their state of health and taking individual responsibility for healthier lifestyle habits, so FCS educators should stress this in any classes related to nutrition or personal development .	Identify one's most important life goals and consider if and how obesity-related diseases in adulthood might impact them.
	http://www.womenshealth.gov/bodyworks/ US Department of Health & Human Services--Office on Women's Health	Evaluation of DHHS “BodyWorks” program aimed at helping parents support healthy eating and exercise habits for their pre-teen and teenage children.	Parents made healthier food choices, changed how they purchased and prepared food, ate less and exercised more. The majority of pre-teens and teens felt comfortable, confident and interested in pursuing a healthier lifestyle in cooperation with their parents.	Promote family as a supportive environment for adolescent development and value parents as good role models in general, and as agents of change specifically.	Complete an inventory of lifestyle attitudes and behaviors, and propose positive changes where needed for a healthier weight. Actually practice those changes by tracking diet and activity.
	http://nccp.org/publications/index_date_2010.html National Center for Children in Poverty	“Adolescent Obesity in the United States” (facts about obesity and nutrition, system-level challenges to preventing and combating adolescent obesity, and recommendations)	Factors that contribute to increases in adolescent obesity (many of which are experienced to a greater degree by and have a greater impact on adolescents of color than their white peers) are these: limited access to healthy and affordable foods in general, easy access in schools to unhealthy snacks and beverages and in neighborhoods to fast food restaurants, food insecurity, poor eating habits, food marketing targeting children and adolescents, decreased physical activity both inside and outside of school, and increased “screen time”.	Continue educational efforts to promote healthy lifestyles for individuals, families and communities. Also work with government, the health care field, business/industry, etc. whenever possible in this effort.	Examine various behavior change theories and discuss which might be most effective with most teens in promoting healthy lifestyles. Might these be equally effective with teens of color and/or from lower-income families? If not, research other approaches that might work better.

Availability of Food Resources, School Menus	http://www.farmtoschool.org National Farm to School Network	Farm to School initiative	This network identifies programs across the nation linking farms to schools to improve student nutrition and support local/regional agriculture. .	Grants are available to be used in the classroom and school lunch programs. Nutrition education could go beyond healthy foods to include lessons on agriculture and the environment--what foods can be grown where and when.	Obtain funding for acquisition of locally-grown produce for culinary classes along with presenters from farms and culinary arts. Enlist help of parents and/or retirees to plant gardens on school grounds (with hoop houses or greenhouses if necessary). Use garden bounty in classrooms and school cafeteria. Organize agricultural education opportunities such as farm tours or farmers' presentations. Plan and produce a "local and seasonal foods" salad bar in school cafeteria.
	http://www.wecan.nhlbi.gov (coordinated effort by NIH, NIDDK, NICHD and NCI)	<u>W</u> ays to <u>E</u> nhance <u>C</u> hildren's <u>A</u> ctivity and <u>N</u> utrition	WE CAN! provides resources and programs that teach parents and families about healthy weight.	Public education aimed at older children and very young adolescents--appropriate for families with middle school students..	Develop an action plan using the WeCan! Materials to start a school-based program that educates parents and children on healthy foods and exercise.

	http://www.fns.usda.gov United States Department of Agriculture	USDA Fresh Fruit and Vegetable Program	This USDA program provides fresh fruits and vegetables during the school day. It is now nation-wide in selected schools in all 50 states, the District of Columbia, Guam, Puerto Rico and the Virgin Islands. It provides \$50-\$75/student in schools participating in National School Lunch Program, separate from reimbursable meals.	The Fresh Fruit and Vegetable Program can be an important catalyst for change in efforts to combat childhood obesity by helping students learn more healthful eating habits. The goal of this program should be reinforced in the classroom--Stress health benefits of fruits and vegetables for nutrition and weight management.	Develop a service based project that uses resources for including additional fresh fruits and vegetables for students in low income areas. Prepare fruits and vegetables in various ways in classroom. Then sample, rate, and make recommendations to school cafeteria. Have students prepare and teach lessons on eating more fruits and vegetables to elementary school children.
	http://www.fns.usda.gov/cn/whatsnew.htm United States Department of Agriculture	New Federal Standards for School Lunch Programs	The new standards align school meals with latest nutrition science and real world circumstances of America's schools.	Current nutrition education must be based on USDA's 2010 Dietary Guidelines and 2011 MyPlate recommendations, and should also reference new federal school lunch guidelines.	Compare new federal school lunch guidelines with former ones. Explain how and why changes were made.
Appearance and Self Image	http://www.sirc.org/publik/mirror/html Social Issues Research Centre	“Mirror, Mirror- A summary of research findings on body image”	Attractive children are more popular, both with classmates and teachers. Teachers give higher evaluations to the work of attractive children and have higher expectations of them (which has been shown to improve performance). Attractive applicants have a better chance of getting jobs, and of receiving higher salaries. (one US study found that taller men earned around \$600 per inch more than shorter executives.)	Possible areas for study and discussion: How obesity impacts one's self esteem, self image, employment, school relationships, social stigma teasing and bullying	Discuss the implications of appearance. Conduct first impressions/stereotype activities utilizing various photos and scenarios. Some questions that could be used: Would you seek this person out as a friend? Would you hire this person? Grade this person's appearance.

			In court, attractive people are found guilty less often. When found guilty, they receive less severe sentences. The 'bias for beauty' operates in almost all social situations – all experiments show we react more favourably to physically attractive people. We also believe in the 'what is beautiful is good' stereotype – an irrational but deep-seated belief that physically attractive people possess other desirable characteristics such as intelligence, competence, social skills, confidence – even moral virtue. (The good fairy/princess is always beautiful; the wicked stepmother is always ugly)		Does this person look like someone who might commit a crime? Do you think this person is intelligent? Do you think this person has a lot of friends? The above could also be done by creating a rating scale to assess the degree to which any of the above could occur..
Financial Impact of Obesity-	Center for Disease Control Economic Consequences of Obesity http://www.cdc.gov/obesity/causes/economics.html	National Estimated Cost of Obesity The medical care costs of obesity in the United States are staggering. In 2008 dollars, these costs totaled about \$147 billion (Finkelstein, 2009).	Medical costs associated may involve direct and indirect costs. Indirect costs relate to morbidity and mortality costs. Morbidity costs are defined as the value of income lost from decreased productivity, restricted activity, absenteeism, and bed days. Mortality costs are the value of future income lost by premature death.	Impact on the family budget, stress related to expenditures and illnesses.	Activity: Complete a family budget showing income and expenses. Incorporate the additional expenses which may be incurred from medical costs and the loss of income from not being able to work.

	Yale Rudd Center For Food Policy and Obesity http://www.yaleruddcenter.org/what_we_do.aspx?id=82	Economic Impact of Obesity "Obesity extracts a tremendous price on overweight individuals, leading to serious chronic health conditions, disability and psychological suffering. Society wide the economic burden is similarly substantial."	National Healthcare Spending - At the individual level, obesity is associated with health care costs that average about 30 percent above those for normal weight individuals. Overall, obesity-related direct and indirect economic costs exceed \$100 billion annually, and the number is expected to grow.	Stress the impacts of obesity go far beyond just the physical aspect of being obese.	Activity: Create a meal plan for a week for a family of four and then have cost out the items that are necessary to purchase. When meal plan and costs are completed, demonstrate what the food budget would be with approximately 30% less money to spend on food because it has been spent on healthcare.
	The George Washington University - School of Public Health and Health Services - Department of Health Policy http://www.gwumc.edu/sph/hs/departments/healthpolicy/dhp_publications/publications/dhpPublication_35308C47-5056-9D20-3DB157B39AC53093.pdf	A Heavy Burden: The Individual Costs of Being Overweight and Obese in the United States This publication summarizes the results of a study done on the individual costs of being overweight or obese in the United States.	What is the cost of being obese in America? "The overall, tangible, annual costs of being obese are \$4,879 for an obese woman and \$2,646 for an obese man. The overall annual costs of being overweight are \$524 and \$432 for women and men, respectively."	Obesity costs impact all areas of the family.	Activity: Brainstorm all the areas of financial impact of being overweight and obesity on a family. Read the publication and compare the cost areas and how they relate to their list to see what was similar and different.
Employment Issues: discrimination-	www.businessmanagementdaily.com/14488 Business Management Daily (new home of LegalWorkplace.com)	"Can You Be Fired for the Way You Look?"	Federal law bans age, race, sex and religion bias but doesn't address weight. Michigan is the only state with a law banning weight discrimination. Obesity discrimination occurs more often than race or gender discrimination. About 28% of men and 45% of women said they've experienced weight discrimination in employment.	Reasons for nutrition education and help for obese to trim size.	Journal or play act how it might feel to be discriminated against for size. Discuss concerns faced in the workplace by employee and employer.

	www.msnbc.com/id/16755130/ns/business-careers MSNBC.COM	“Fat Chance: It's Not Easy for Obese Workers”	More and more obese employees are feeling slighted by managers and co-workers. Yale survey of about 2,000 overweight women found 53 percent said co-workers stigmatized them and 43 percent said their employers stigmatized them. Being stigmatized translated into not being hired, being passed over for promotions, losing a job, or being teased or harassed because of their weight. Obese men and women can expect to earn on average anywhere from 1 to 6 percent less than normal weight employees	Reasons for nutrition education and help for obese to trim size. Reason to encourage healthy lifestyle for students	Act out interaction between Rosie O'Donnell and Donald Trump that was used as an example in the article.
	www.obesityaction.org Obesity Action Coalition	“Weight Discrimination: A Socially Acceptable Injustice”	Weight discrimination is common among Americans, with rates relatively close to the prevalence of race and age discrimination. On average, a person's chances of being discriminated against because of weight become higher as their body weight increases.	Education for general public about acceptance and understanding.	Question to journal: Why does much of society accept discrimination for obesity but not race? Discuss or research questions like: What is the difference between “stigma” and “discrimination?” How common is weight discrimination? What legal action can be taken for victims of weight discrimination?

	http://www.forbes.com/2008/01/11/obesity-workplace-cdc-ent-hr-cx_kw_0110whartonobesity.html Forbes	"How employers Wage War on Workplace Obesity"	Health costs are increasing due to overweight employees. Employers are trying to push employees into healthy lifestyles, including reducing obesity, estimated to cost U.S. companies \$13 billion per year. Some are using incentives (such as lower health insurance premiums for proof of exercise and improved diet); others are using penalties (such as high insurance premiums for non participation) to change employee behavior.	Education as to why healthy lifestyle helps individual and employer.	Question to journal after reading: Why do places of work want you to live and lead a healthy life? Explore ideas for encouraging workers to participate in healthy living activities.
Travel Issues	http://www.smartertravel.com/travel-advice/some-airlines-may-make-obese-passengers-buy-two-seats.html?id=2644439 Smarter Travel http://www.independenttraveler.com/resources/article.cfm?AID=885&category=13 The Independent Traveler	"Some Airlines Make Obese Passengers Buy Two Seats" Airline Obesity Policies"	Most airlines have policies about passengers "of considerable size". These range from requiring them to buy a second seat at full price (or possibly at a discount), to buying a business-class seat, to buying a second seat and if the plane is not full, being allowed to use an open seat and getting a refund, to buying a second seat and if the plane is full, being asked to leave and buy a second seat on the next available flight. Policies essentially state that if you don't fit in a seat with an extension seatbelt and the armrest down, you will be charged for two seats or removed from the plane.	Stress how the impact of obesity reaches far beyond overall wellness. It even affects travel-opportunities to do so, affordability of various options, and emotional toll if faced with obesity-related policies.	Activity: Have students research with airlines the cost of travel for persons of "considerable size". Report to the class, discuss the impact on the people traveling and the persons on the plane. The students could then role play how it would feel to be the person told they have to pay additional money to travel. They could also role play how the person sitting next to the person on the plane would feel.
	http://www.telegraph.co.uk/news/newstoppers/howaboutthat/6080374/Wider-seats-for-obese-train-passengers.html The Telegraph	"Wider Seats for Obese Train Passengers"	Wider seats were installed in response to Brazil's growing obesity problem to encourage larger people to use public transport. But the people these seats are made for are not using them, probably due to being self-conscious.	Stress how the impact of obesity reaches far beyond overall wellness. It even affects travel-opportunities to do so, affordability of various options, and emotional toll if faced with obesity-related policies.	In an interior design class, students could create a simulation of the train seats for obese persons and for regular persons and discuss the difference.

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