

## COURSE SYLLABUS

Course Title: ***CHS M234/HS M255 Obesity, Physical Activity and Nutrition Seminar***

Instructors: William J. McCarthy, PhD  
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Course Offered: Fall Quarter  
 Day & Time: Thursdays, 12:00-2:50 pm  
 Room: 61-235 CHS  
 Target Enrollment: 25 intermediate / advanced graduate-level students & postdoctoral fellows  
 Prerequisites: Graduate standing or permission of instructor.

Course description: 4-credit weekly seminar designed for intermediate or advanced graduate students, medical residents, and postdoctoral fellows. This course focuses on the current status of preventive and therapeutic interventions for obesity in adults and children, with an emphasis on public health policy approaches to promoting healthier eating and active living. Brief overviews of the epidemiology, physiology, chronic disease implications of obesity will be covered. Class sessions are a combination of lecture and class discussion. Fieldwork is also required. Ideally, the fieldwork will consist of a report of a public meeting of public policy-making relevant to promoting increased physical activity and healthier food choices. Alternatively, the fieldwork requirement can be met by participation in obesity-related research.

### ASPH Learning Objectives for this course

#	Learning objectives	Teaching/learning activities	Methods of evaluating performance	ASPH # competencies
1	Translate Dietary Guidelines for Americans into practical, culturally-appropriate lifestyle recommendations	Class lectures; class discussions	Cite the DGA in final paper	D.1, D.2, D.3, D.4; E.1, E.2, E.7
2	Translate Physical Activity Guidelines for Americans into practical, culturally appropriate lifestyle recommendations	Class lectures; class discussions	Cite the PAGA in final paper	D.1, D.2, D.3, D.4; E.1, E.2, E.7
3	Evaluate major population approaches to obesity prevention and health promotion, regardless of risk status	Class lectures; class discussions; class oral presentations; fieldwork	Critiques of major population approaches in final paper	D.3, D.5; E.5, E.6
4	Evaluate subpopulation-specific approaches to obesity prevention, obesity treatment, and health promotion, esp. in high-risk subgroups	Class lectures; class discussions; class oral presentations; fieldwork	Critiques of subpopulation-specific approaches in final paper	D.3, D.5; E.5, E.6

#	Learning objectives	Teaching/learning activities	Methods of evaluating performance	ASPH # competencies
5	Design major population approaches to obesity prevention and health promotion, regardless of risk status	Class lectures; class discussions; class oral presentations	Major thesis or alternative models in final paper	D.4., D.5, D.6, D.9, D.10; E.3, E.4, E.8, E.9, E.10
6	Design subpopulation-specific approaches to obesity prevention, obesity treatment, and health promotion, esp. in high-risk subgroups	Class lectures; class discussions; class oral presentations	Major thesis or alternative models in final paper	D.4, D.5, D.7, D.8, D.10; E.3, E.4, E.8, E.9, E10

#### GRADING:

- I. **Oral Proposal Presentation.** Students present to the class a brief [ ~ 5 minutes] outline of an obesity-related research proposal, designed for an organization or setting with which they are familiar. Whether the topic is prevention or treatment, targeting youth or adults, is up to the student to choose. (20%)
- II. **Written Proposal.** Students prepare a written presentation elaborating the proposal introduced orally, with a maximum length of 20 pp double-spaced. (60%)
- III. **Fieldwork Practicum.** Students attend one public meeting of a governance or advisory body involved in obesity control policy, producing a 2-p written report outlining the obesity-related challenge under discussion with the meeting agenda as an attachment or research participation option, in consultation with the instructors. (10%)
- IV. **Class Participation** reflecting command of main themes from readings, through class discussion and/or acquisition/sharing of materials in class. (10%)

#### COURSE TEXTBOOKS:

Kumanyika S, Brownson RC (eds). *Handbook of Obesity Prevention*. New York: Springer, 2007.  
Yancey T. *Instant Recess: Building a Fit Nation 10 Minutes at a Time*. Berkeley, CA: UC Press, 2010

#### COURSE REFERENCES:

Yancey AK (ed). Prioritizing Physical Activity Promotion: A Public Health Imperative. *Preventive Medicine*. 2009 October (theme issue) Accessed August 11, 2011 at [www.activelivingresearch.org/resource/research/journalspecialissues](http://www.activelivingresearch.org/resource/research/journalspecialissues).  
U.S. Department of Health and Human Services (USDHHS). *2008 Physical Activity Guidelines for Americans*. <http://www.health.gov/paguidelines/pdf/paguide.pdf>. Accessed September 21, 2010.  
U.S. Department of Agriculture (USDA). *Dietary Guidelines for Americans-2005*. <http://www.health.gov/dietaryguidelines/>. Accessed August 10, 2010.

The specific required readings listed below are available electronically from Biomed Library reserves for this course: <http://tinyurl.com/fall10-comhltm234>. Additional background readings are included for those who are interested in pursuing the topic in more depth.

Copies of most class slides can be obtained from: [www.toniyancey.com/chs234](http://www.toniyancey.com/chs234).

## PUTTING PROMOTION INTO PRACTICE:

Students are advised to wear clothing and shoes that permit low-impact, moderate intensity physical activity. A 10-minute Instant Recess<sup>®</sup> break or “*Lift Off!*” opportunity for instructor-led, group activity will be included in each class.

## COURSE SCHEDULE

<b>Week 1</b> <b>09/22/11</b>	<b>Introduction/Course Logistics</b>	<b>(Drs. McCarthy &amp; Yancey)</b>
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### Required readings

- Kumanyika & Brownson – Chapters 1 & 5
- Müller-Riemenschneider F, Reinhold T, Nocon M, Willich SN. Long-term effectiveness of interventions promoting physical activity: A systematic review. *Prev Med* 2008; 47: 354-368.
- U.S. Department of Agriculture (USDA). Part A: Executive Summary - 2010 Dietary Guidelines for Americans (draft). Washington DC: U.S. Department of Agriculture, 2010.  
<http://www.cnpp.usda.gov/Publications/DietaryGuidelines/2010/DGAC/Report/A-ExecSummary.pdf>. Accessed August 7, 2010.
- Yancey A, Cole B, Brown R, Hillier A, Williams J et al. A cross-sectional prevalence study of ethnically-targeted and general audience obesity-related advertising. *Milbank Quarterly* 2009; 87: 155-84.
- Yancey T. *Instant Recess: Building a Fit Nation 10 Minutes at a Time*. Berkeley, California: University of California Press, 2010. Introduction

### Background readings

- Adams KF, Schatzkin A, Harris TB, Kipnis V, Mouw T, Ballard-Barbash R, Hollenbeck A, Leitzmann MF. Overweight, obesity, and mortality in a large prospective cohort of persons 50 to 71 years old. *NEJM*. 2006; 355: 763-778.
- Bellisari A. Evolutionary origins of obesity. *Obes Rev*. 2008 Mar; 9(2): 165-80.
- Booth K, Pinkston M, Poston W. Obesity and the built environment. *J Am Diet Assoc* 2005; 105(5 Suppl 1): S110-7.
- Li TY, Rana JS, Manson JE, et al. Obesity as compared with physical activity in predicting risk of coronary heart disease in women. *Circulation* 2006; 113: 499-506.
- Lloyd-Jones DM, Hong YL, Labarthe D, et al. Defining and setting national goals for cardiovascular health promotion and disease reduction the American Heart Association's strategic impact goal through 2020 and beyond. *Circulation* 2010; 121(4): 586-613.
- Simon PA, Fielding JE. Public health and business: a partnership that makes cents. *Health Aff*. 2006; 25(4): 1029-1039.
- Stokols D, Grzywacz J, McMahan S, Phillips K. Increasing the health promotive capacity of human environments. *Am J Health Promot* 2003; 18(1): 4-13.
- U.S. Department of Agriculture (USDA). Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010:  
<http://www.cnpp.usda.gov/DGAs2010-DGACReport.htm>. Accessed August 6, 2010.

Week 2  
09/29/11

**Epidemiology of Obesity: Global to Local**

(Dr. McCarthy)

**Required readings**

- Kumanyika & Brownson – Chapters 2, 3 & 11  
Flegal KM, Carroll MD, Ogden CL, Curtin LR. prevalence and trends in obesity among US adults, 1999-2008. *JAMA-J. Am. Med. Assoc.* Jan 2010; 303(3):235-241.  
Ogden CL, Carroll MD, Curtin LR, Lamb MM, Flegal KM. Prevalence of high body mass index in US children and adolescents, 2007-2008. *JAMA* 2010; 303(3):242-249.  
Wang Y, Beydoun MA. The obesity epidemic in the United States - gender, age, socioeconomic, racial/ethnic, and geographic characteristics: A systematic review and meta-regression analysis. *Epidemiol. Rev.* 2007; 29: 6-28.

**Background readings**

- Brownell KD, Warner KE. The perils of ignoring history: big tobacco played dirty and millions died. How similar is big food? *Milbank Quarterly.* Mar 2009; 87: 259-294.  
Christakis NA, Fowler JH. The spread of obesity in a large social network over 32 years. *NEJM.* 2007; 357: 370-379.  
Hill JO, Thompson H, Wyatt H. Weight maintenance: what's missing? *J Am Diet Assoc.* 2005; 105(5 Suppl 1): S63-6.  
Sallis JF, Glanz K. Physical activity and food environments: solutions to the obesity epidemic. *Milbank Quarterly* 2009; 87(1): 123-154.  
Yancey AK, Leslie J, Abel EK. Obesity at the crossroads: feminist and public health perspectives. *Signs* 2006; 31(2): 425-443.

Week 3  
10/06/11

**Why Do We Move or Not Move?**

(Dr. Yancey)

**Required readings**

- Yancey – Chapters 1-4  
Day K. Active living and social justice: planning for physical activity in low-income, Black, and Latino communities. *J Am Planning Assoc* 2006; 72: 88-99.  
Yancey AK, Sallis JF. Physical activity: Cinderella or Rodney Dangerfield? *Prev Med* 2009; 49: 277-279.  
Yancey AK. The Meta-Volition Model: Organizational leadership is the key ingredient in getting society moving, literally! *Prev Med* 2009; 49: 342-351.

**Background readings**

- Ferreira I, van der Horst K, Wendel-Vos W, et al. Environmental correlates of physical activity in youth - a review and update. *Obesity Reviews* 2007; 8: 129-154.  
Kumanyika & Brownson Chapter 8 – Built environment  
Owen N, Healy GN, Matthews CE, Dunstan DW. Too much sitting: the population health science of sedentary behavior. *Exerc. Sport Sci. Rev.* Jul 2010; 38(3): 105-113.  
UCLA Center to Eliminate Health Disparities and Samuels & Assoc. *Failing Fitness: Physical Activity and Physical Education in Schools.* A policy brief from The California Endowment. Available at:  
[www.healthyeatingactivecommunities.org/downloads/Schools/Failing\\_Fitness\\_01\\_2007.pdf](http://www.healthyeatingactivecommunities.org/downloads/Schools/Failing_Fitness_01_2007.pdf).

Week 4  
10/13/11

**Why Do We Eat the Foods We Eat?**

(Drs. McCarthy & Leslie)

*One-page abstract of research proposals due*

**Required readings**

- Cordain L, Eaton SB, Sebastian A, et al. Origins and evolution of the Western diet: health implications for the 21st century. *Am. J. Clin. Nutr* 2005;81:341-354.
- Kamphuis CBM, Giskes K, de Bruijn GJ, et al. Environmental determinants of fruit and vegetable consumption among adults: a systematic review. *British J. Nutr.* 2006;96(4):620-635.
- Larson NI, Story MT, Nelson MC. Neighborhood environments disparities in access to healthy foods in the US. *Am. J. Prev. Med.* 2009;36(1):74-81.
- Rolls BJ, Roe LS, Meengs JS. Portion size can be used strategically to increase vegetable consumption in adults. *Am. J. Clin. Nutr.* 2010;91(4):913-922
- Sloane DC, Diamant AL, Lewis LB, et al. Improving the nutritional resource environment for healthy living through community-based participatory research. *J Gen Intern Med.* 2003;18(7):568-575.
- Westerterp-Plantenga MS, Verwegen CR, Ijedema MJ, Wijckmans NE, Saris WH. Acute effects of exercise or sauna on appetite in obese and non-obese men. *Physiol Behav.* 1997;62(6):1345-1354.

**Background readings**

- Eaton S, Cordain L, Lindeberg S. Evolutionary health promotion: a consideration of common counterarguments. *Prev Med* 2002;34(2):119-23.
- Lewis LB, Sloane DC, Nacimento LM, Diamant AL, Guinyard JJ, Yancey AK, Flynn G. African Americans' access to healthy food options in South Los Angeles restaurants. *Am J Public Health* 2005;95(4):668-73.
- Popkin B, Barclay D, et al. "Water and food consumption patterns of US adults from 1999 to 2001." *Obesity Research* 2005;13(12):2146-2152.
- Smith WE, Day RS, Brown LB. Heritage retention and bean intake correlates to dietary fiber intakes in Hispanic mothers--Que Sabrosa Vida. *J Am Diet Assoc.* 2005;105(3):404-411; discussion 411-412.

Week 5  
10/20/11

**Health Disparities Symposium  
(off-site event)**

(Drs. McCarthy & Wang)

**Background readings**

- Briefel RR, Crepinsek MK, Cabili C, Wilson A, Gleason PM. School food environments and practices affect dietary behaviors of US public school children. *J. Am. Diet. Assoc.* 2009;109(2):S91-S107.
- Dowda M, Sallis JF, McKenzie TL, Rosengard P, Kohl HW. Evaluating the diffusion of SPARK physical education: A case study of translating research into practice. *Res. Q. Exerc. Sport.* 2005;76:11-19.
- Florence MD, Asbridge M, Veugelers PJ. Diet quality and academic performance. *J. Sch. Health.* Apr 2008;78(4):209-215.
- Kimm SYS, Glynn NW, Obarzanek E, et al. Relation between the changes in physical activity and body-mass index during adolescence: a multicentre longitudinal study. *Lancet* 2005;366:301-307.
- Ludwig D, Currie J. The association between pregnancy weight gain and birthweight:

- a within-family comparison. *Lancet* 2010;1-7.
- Perrin EM, Flower KB, Ammerman AS. Pediatricians' own weight: self-perception, misclassification, and ease of counseling. *Obes. Res.* 2005 Feb; 13(2):326-32.
- Piernas C, Popkin BM. Trends in snacking among US children. *Health Aff.* 2010;29(3):398-404.
- van Sluijs E, McMin A, et al. Effectiveness of interventions to promote physical activity in children and adolescents: systematic review of controlled trials. *Brit. Med. J.* 2007; 335(7622):703.

**Week 6      Pediatric & Adult Obesity: Development and Obesity      (Dr. Yancey)**  
**10/27/11      Obesity Prevention Intervention**

**Required readings**

- Kumanyika & Brownson – Chapter 18-21  
 Yancey – Chapter 5
- Larson N, Story M. Are 'competitive foods' sold at school making our children fat? *Health Aff.* 2010;29(3):430-435.
- Roberts CK, Freed B, McCarthy WJ. Low aerobic fitness and obesity are associated with lower standardized test scores in children. *J. Pediatr.* May 2010;156(5):711-719.

**Background readings**

- Drewnowski A, Eichelsdoerfer P. The Mediterranean diet: does it have to cost more? *Public Health Nutr.* Sep 2009;12(9A):1621-1628.
- Hu FB, Li TY, Colditz GA, Willett WC, Manson JE. Television watching and other sedentary behaviors in relation to risk of obesity and type 2 diabetes mellitus in women. *JAMA.* 2003;289(14):1785-1791.
- Marcus B, Williams D, Dubbert PM, Sallis JF, King AC, Yancey AK, Franklin BA, Buchner D, Daniels S, Claytor R. Physical activity interventions: what we know and what we need to know. A statement from the Council on Clinical Cardiology (Subcommittee on Exercise, Rehabilitation, and Prevention) and the Council on Nutrition, Physical Activity, and Metabolism (Subcommittee on Physical Activity) of the American Heart Association. *Circulation.* 2006;114(24):2739-2752.
- Morland K, Roux AVD, Wing S. Supermarkets, other food stores, and obesity - The atherosclerosis risk in communities study. *Am. J. Prev. Med.* Apr 2006;30(4):333-339.
- Owen N (ed). The science of sedentary behavior *Am J Prev Med.* 2011 August (themed issue).
- Proper KI, Singh AS, van Mechelen W, Chinapaw MJ. Sedentary behaviors and health outcomes among adults: a systematic review of prospective studies. *Am. J. Prev. Med.* 2011;40(2):174-82.
- Yancey AK, Lewis LB, Guinyard JJ, Sloan DC, Nascimento LM, Galloway-Gilliam L, Diamant A, McCarthy WJ. Putting promotion into practice: the African Americans Building a Legacy of Health organizational wellness program. *J. Pub. Health Prac. Mgt.* 2006;10:116-123.
- Yancey, A., A. Jordan, J. Bradford, J. Voas, T. Eller, M. Buzzard, M. Welch, and W. McCarthy. Engaging high-risk populations in community-level fitness promotion: *Rock! Richmond. Health Promot Prac.* 2003; 4(2):180-88.

**Week 7**  
**11/03/11**

**Medical and Surgical Approaches to  
Obesity Treatment**

**(Drs. Maggard  
Gibbons & Roberts)**

**Required readings**

- Kumanyika & Brownson – Chapter 14  
Chaudhri OB, Salem V, Murphy KG, Bloom SR. Gastrointestinal satiety signals. *Ann. Rev. Physiol.* 2008;70:239-255.  
Elder K, Wolfe B. Bariatric surgery: A review of procedures and outcomes. *Gastroenterology* 2007;132(6): 2253-2271.  
Ello-Martin J, Roe L, Ledikwe J, et al. Dietary energy density in the treatment of obesity: a year-long trial comparing 2 weight-loss diets. *Am. J. Clin. Nutr.* 2007;85(6), 1465-1477.  
Katz DL, Faridi Z. Health care system approaches to obesity prevention and control. Chapter 14. In NY Springer. 285-316.

**Background readings**

- Gibson C, Kirk J, LeCheminant B et al. Reporting quality of randomized trials in the diet and exercise literature for weight loss. *BMC Med Res Methodol.* 2005;5:9.  
Hofbauer KG, Nicholson JR, Boss O. The obesity epidemic: Current and future pharmacological treatments. *Ann. Rev. Pharmacol. Toxicol.* 2007;47:565-592.  
Silver H, Torquati A, et al. Weight, dietary and physical activity behaviors two years after gastric bypass. *Obes. Surg.* 2006;16:859-864.  
Tsai AG, Wadden TA. Systematic review: An evaluation of major commercial weight loss programs in the United States. *Ann. Intern. Med.* 2005;142:56-66.  
Wadden TA, Butryn ML, Wilson C. Lifestyle modification for the management of obesity. *Gastroenterol.* 2007;132:2226-2238.

**Week 8**  
**11/10/11**

**Macro-environmental changes: Organizational and  
Legislative & Regulatory Policy Approaches**

**(Dr. Yancey)**

**Required readings**

- Kumanyika & Brownson – Chapters 13 and 14  
Gostin LO. Law as a tool to facilitate healthier lifestyles and prevent obesity. *JAMA* 2007;297:87-90.  
Karpyn A, Manon M, Treuhaft S, Giang T, Harries C, McCoubrey K. Policy Solutions To The 'Grocery Gap'. *Health Aff.* 2010;29:473-480.  
Mummery WK, Brown WJ. Whole of community physical activity interventions: easier said than done. *Br J Sports Med.* 2009 ;43:39-43.  
Pearson SD, Lieber SR. Financial penalties for the unhealthy? Ethical guidelines for holding employees responsible for their health. *Health Aff.* 2009;28:845-52.

**Background readings**

- Boyle M, Lawrence S, Schwarte L, Samuels S, McCarthy WJ. Health care providers' perceived role in changing environments to promote healthy eating and physical activity: Baseline findings from health care providers participating in the Healthy Eating, Active Communities program. *Pediatrics.* Jun 2009;123:S293-S300.  
Finkelstein EA, Trogon JG, Cohen JW, Dietz WH. Annual medical spending attributable to obesity. *Health Aff.* 2009:822-831.  
Green L. From research to best practice in other settings and populations. *Am J*

- Health Behav* 2001; 25: 165-178.
- Kimbrow RT, Rigby E. Federal food policy and childhood obesity. *Health Aff.* 2010; 29(3): 411-418.
- Mermin SE, Graff SK. A Legal primer for the obesity prevention movement. *Am. J. Public Health.* Oct 2009; 99(10): 1799-1805.
- Trust for America's Health. *F as in Fat: How obesity threatens America's future* - 2011. Washington DC: Trust for America's Health, 2011.
- Yancey A, Lewis L, Sloane D et al. Leading by example: a local health department-community collaboration to incorporate physical activity into organizational practice. *J Pub Health Mgt Prac.* 2004; 10(2): 116-123.

**Week 9                      Student Concept Proposal Presentations**  
**11/17/11**

**Week 10                     Thanksgiving Day Holiday**  
**11/24/11**

**Week 11                    Micro-Environmental (Single Venue) Approaches    (Dr. McCarthy)**  
**12/01/11**

**Required readings**

- Kumanyika & Brownson Chapters 7, 12, 15, and 16
- Benedict MA, Arterburn D. Worksite-based weight loss programs: a systematic review of recent literature. *Am J Health Promot.* 2008; 22(6): 408-16. Review.
- Epstein LH, Roemmich JN, Robinson JL, et al. A randomized trial of the effects of reducing television viewing and computer use on body mass index in young children. *Arch Ped Adolesc Med.* 2008; 162(3): 239-245.
- Story M, Nanney MS, Schwartz MB. Schools and obesity prevention: creating school environments and policies to promote healthy eating and physical activity. *Milbank Q.* 2009; 87(1): 71-100.

**Background reading**

- Veugelers PJ, Fitzgerald AL. Effectiveness of school programs in preventing childhood obesity: a multilevel comparison. *Am J Public Health* 2005; 95(3): 432-5.

***GUEST LECTURERS (selected from the following list as available):***

- Harold Goldstein, DrPH, Executive Director, California Center for Public Health Advocacy, Sacramento
- Cynthia Harding, MPH, Director, Maternal, Child and Adolescent Health, Los Angeles County Department of Public Health
- Joanne Leslie, ScD, Arch Deacon, Episcopal Diocese of Los Angeles
- Gail Harrison, PhD, RD, Professor, Department of Community Health Sciences, UCLA School of Public Health.
- May Wang, DrPH, Associate Professor, Department of Community Health Sciences, UCLA School of Public Health
- Melinda Maggard Gibbons, MD, Associate Professor of Surgery, Department of Medicine, UCLA School of Medicine.