

Res. A-08-18

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TITLE: Requiring an Evidence-Based Nutrition Curriculum for US Medical Schools

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Endorsed by: Napa and Solano Chapters

WHEREAS, 36 percent of US adults and 17 percent of US children are obese (BMI greater than or equal to 30) with recent trends showing continued increases¹; and

WHEREAS, in a recent systematic review and meta-analysis, statistically significant associations with obesity were found with the incidence of type II diabetes, hypertension, coronary artery disease, congestive heart failure, pulmonary embolism, stroke, asthma, gallbladder disease, osteoarthritis, chronic back pain, and cancer, including colorectal, kidney, breast, ovarian, endometrial, and pancreatic²; and

WHEREAS, extrapolation from available data suggests that increases in obesity-related diseases are projected to add \$48-66 billion a year in additional healthcare costs by 2030³; and

WHEREAS, the top contributors to this cost include arthritis, coronary heart disease and diabetes, with half of these projected costs to be incurred by individuals aged 65 and older³; and

WHEREAS, the current nutrition instruction guidelines for medical education of 25-30 curricular hours⁴, which corresponds to less than one percent of estimated total lecture hours⁵, was developed in 1985 when the scope of medically-relevant nutrition knowledge was limited⁴; and

WHEREAS, a survey of 121 US medical schools reported they provided 19 hours on average of nutrition instruction with a standard deviation of 13.7 hours, and 12 schools required no instruction⁴; and

¹ Ogden CL, Carroll MD, Fryar CD, Flegal KM. Prevalence of obesity among adults and youth: United States, 2011-2014. *NCHS Data Brief*. 2015;219(219):1-8.

² Guh DP, Zhang W, Bansback N, Amarsi C, Birmingham CL, Anis AH. The incidence of co-morbidities related to obesity and overweight: a systematic review and meta-analysis. *BMC Public Health*. 2009;9:88

³ Wang YC, McPherson K, Marsh T, Gortmaker SL, Brown M. Health and economic burden of the projected obesity trends in the USA and the UK. *Lancet*. 2011;378(9793):815-825

⁴ K. Adams, W. S. Butsch, M. Kohlmeier. "The State of Nutrition Education at US Medical Schools," *Journal of Biomedical Education*. 2015;2015:1-7.

⁵ Eisenberg DM, Burgess JD. Nutrition education in an era of global obesity and diabetes: thinking outside the box. *Acad Med*. 2015;90(7):854-860.

WHEREAS, the majority of the instruction was related to biochemistry and not evidence-based diets or patient counseling⁵; and

WHEREAS, only a small fraction of the instructional hours was during clinical training⁴; and

WHEREAS, one survey of medical residents found that only 14 percent felt prepared to provide competent nutrition recommendations to their patients⁶; and

WHEREAS, one review of patient records found that less than 10 percent of US primary care providers (PCPs) counsel patients on weight loss and 52 percent of that counseling is done by only nine percent of PCPs⁷; now, therefore be it

RESOLVED: that the California Academy of Family Physicians (CAFP) advocate for the American Academy of Family Physicians (AAFP) to work with the Liaison Committee on Medical Education (LCME) and Commission on Osteopathic College Accreditation (COCA) to improve the nutrition curriculum for US medical schools through the following curricular changes:

1. Increase clinical nutrition education from the current 25-30 hours *recommendation* to a *requirement* of 50-60 hours (still less than two percent of estimated total lecture hours);
2. Recommend nutrition instruction in both preclinical *and* clinical settings with a focus on historical nutrition trends and current evidence using an integrated format with lectures, problem-based learning⁸, online self-learning modules, and clinical practice;
3. Recommend teaching motivational interviewing and mindfulness training;
4. Consider other creative innovations such as the establishment of teaching kitchens and self-care curriculums with elective laboratory instruction in nutrition and food preparation⁵;
5. Consider incorporating healthy diet and weight loss counseling cases in the National Objective Structured Clinical Exam (OSCE); and
6. Require that the United States Medical Licensing Exam (USMLE) evaluate students' knowledge of current evidence-based nutrition.

⁶ Vetter ML, Herring SJ, Sood M, Shah NR, Kalet AL. What Do Resident Physicians Know about Nutrition? An Evaluation of Attitudes, Self-Perceived Proficiency and Knowledge. *Journal of the American College of Nutrition*. 2008;27(2):287-298.

⁷ J. L. Kraschnewski, C. N. Sciamanna, K. I. Pollak, H. L. Stuckey, and N. E. Sherwood, "The epidemiology of weight counseling for adults in the United States: a case of positive deviance," *International Journal of Obesity*, vol. 37, no. 5, pp. 751–753, 2013.

⁸ Pasarica M, Harris DM, Simms-Cendan J, Gorman AL. Collaborative learning activity utilizing evidence-based medicine to improve medical student learning of the lifestyle management of obesity. *MedEdPORTAL Publications*. 2016;12:10426.

1) PROBLEM STATEMENT: What specific practice problem does this resolution seek to solve, or, if this resolution pertains to a proposed new CAFP policy or change of policy, what issue does it seek to address?

It is clear from survey data that medical students, residents, and practicing physicians do not feel competent in evidence-based nutrition data nor in counseling patients on diet and weight loss. In fact, one review of patient records⁷ found that only 10 percent of PCPs counsel patients on weight loss, yet two-thirds of Americans are overweight and more than one-third are obese¹, and trends show continued increases necessitating that all healthcare professionals are well-versed in evidence-based nutrition and counseling. This resolution seeks to improve nutrition education in medical schools so that we begin to prepare the future generations of physicians for the challenges they will face in treating obesity and obesity-related illness.

2) PROBLEM UNIVERSE: Approximately how many CAFP members or members' patients are affected by this problem or proposed policy?

All physicians nationally are affected by the obesity epidemic in this country as more than one-third of Americans are obese¹.

3) WHAT SPECIFIC SOLUTION ARE YOU PROPOSING TO RESOLVE THE PROBLEM OR POLICY, i.e., what action do you wish CAFP to take?

This proposal recommends that the CAFP advocate for the AAFP to work with the LCME and COCA to improve the medical school nutrition curriculum through requiring more dedicated instruction hours in both preclinical and clinical settings with an emphasis on evidence-based nutrition and counseling using integrated and innovative learning tools. It also recommends that nutrition knowledge and counseling be tested on the OSCE and USMLE to ensure mastery of the information.

4) WHAT EVIDENCE EXISTS TO: 1) INDICATE THAT A PROBLEM EXISTS; OR 2) THAT THERE IS NEED FOR A NEW OR REVISED POLICY?

With obesity now defined as an epidemic in the United States it has become one of the most pressing public health issues. A substantial amount of literature predicts continued increases in obesity prevalence, identifying strong associations with multiple medical illnesses, projecting an increased cost burden for these obesity-related illnesses, showing inadequate teaching time in medical school and residency, and noting the perceived lack of competence in evidence-based nutrition and subsequent low counseling rates by PCPs.