Hold the Fries,

Childhood Obesity the Subject of Faculty-Student Research

Associate Professor of Biology Jacob Harney (left) and Marissa Cloutier, M.S., RD, instructor in biology and author of the *The Mediterranean Diet*, with a typical fast-food lunch.
This semester, Jacob P. Harney, associate professor of biology in the College of Arts and Sciences, introduced a multidisciplinary course, titled Issues of Health and Society: Weighing In, that invites students to explore the effects of obesity on the well-being of children. Enlisting the aid of an impressive roster of consultants and guest instructors, Harney and his co-instructor, Marissa Cloutier, lead students on an in-depth examination of the biological, historical, social, psychological, and economic implications of obesity, as well as methods of prevention. Cloutier is a registered dietician, an instructor in biology in Hillyer College at the University, and author of *The Mediterranean Diet*.

The facts, according to 2005 figures from the Centers for Disease Control and Prevention (CDC), are not pretty: 65% of all adult Americans age 20 or older are either overweight or obese*...among children and teens ages 6–19, 16% are considered overweight...between the mid-1970s and 2002, the adult obesity rate climbed from 15% to 30%. Figures for 2004 indicate that 33 states had obesity prevalence rates of 20%–24%; an additional nine states had rates over 25%.

Bad news, to be sure. But for Harney and Cloutier, it’s hardly surprising. “Obesity is a huge epidemic that now represents one of the biggest challenges we face because of the enormous impact it will have in so many areas of society,” Harney says. Being overweight or obese increases the risk of many diseases and health considerations, such as hypertension, type 2 diabetes, coronary heart disease, and stroke. He is especially concerned with the rapid increase in type 2 diabetes among today’s children.

“Life expectancy, especially among our children, will be lower because of the problems associated with obesity,” he cautions. “This will be the first generation not to live a longer life than their parents.”

No wonder, then, that he didn’t hesitate when A&S Dean Joseph Voelker suggested that he attend a summer seminar sponsored by Science Education for New Civic Engagements and Responsibilities (SENCER). This project, funded by the National Science Foundation, encourages the development of academic programs that use classroom learning and original research to make a difference in the community.

Upon his return from the SENCER seminar, Harney began to formulate a course that would address the urgent issue of obesity and its related health conditions. In addition to Cloutier (who could not begin fast enough), Betsey Smith, associate dean of the College of Education, Nursing and Health Professions, and Mala Matacin, associate professor of psychology in the College of Arts and Sciences, helped construct the course curriculum.

Given Harney’s concern for the rising rate of obesity and type 2 diabetes among children, it is not surprising that the centerpiece of the course is the Make-a-Difference project, a collaborative venture between the University of Hartford Magnet School and the University of Hartford. As part of their course work, undergraduates analyze data collected anonymously from magnet school children. University students are assigned a “data set” in which they examine diet, physical activity, and caloric input and output. Ultimately, each student makes assessments and “healthy choice” recommendations aimed at improving the anonymous child’s and the family’s lives.

The project will culminate with a dinner in late spring, attended by the children and their families, at which the UH students will present their findings. Needless to say, healthy food will be on the menu. Harney plans to offer the course every year and hopes to maintain a connection with some of the children and their families so that they can be studied over time.

“Our goal is to educate our students that there are a lot of factors at play when it comes to obesity,” explains Harney. “We want them to understand that there are no simple answers to these problems.”

* The CDC’s definitions of *obese* and *overweight* are based on the body mass index, or BMI, which uses a person’s height and weight to derive a number that, for most people, corresponds to body fat. To find your BMI, divide your weight in pounds by your height in inches squared, then multiply that number by 703. An adult with a BMI in the 24–29.9 range is considered overweight; one whose BMI is over 30 is considered obese.