

## Teaching Excellence at Yale

Case studies help students learn to collaborate while applying knowledge to public issues.

Marney White, Associate Professor of Social and Behavioral Sciences in the School of Public Health (pictured right), uses case studies to cultivate practical research skills in her course, HLTH 240: Epidemiology and Public Health. The only epidemiology course intended for Yale undergraduates, HLTH 240 is "designed to teach epidemiological research methods," said White, "and relate these to the core functions of public health." Through case studies, White engages students with datasets from realworld situations that "simulate what it is actually like to be an epidemiologist."

Class sessions typically alternate between lecture and case study. White describes how cases present a scenario related to the lecture. featuring a "set of clues" for students to interpret and resolve through collaboration and application. This active learning approach puts formal course material into practice, enabling what White calls "learning in action." "Students might be presented with a dataset and a series of questions," White said, "in which they would seek to determine whether a disease outbreak had occurred, and what the cause might be." In doing so, students "learn analytic research methods" and



"calculate and interpret key measures of disease."

In a notable example, White positioned her students to apply their research skills to influence a public policy decision in Connecticut. White was approached by a town safety commission to inform a vote concerning the potential health hazards of tire rubber turf in playgrounds. She set the challenge for her students, who "conducted literature reviews and wrote policy briefs and recommendations." As White recounts, "the students' policy briefs were of such excellent quality that I sent them to the Senator's office. He voted in support of the ban."

For faculty considering case-based learning, White advises subject matter that is "timely or potentially personally relevant." She also holds

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class in rooms with flexible seating to encourage interaction. These factors help prepare students for "public health field experience" by teaching them to collaborate as they apply their knowledge to contemporary problems.

# Research and resources exploring the impact of case-based learning:

Mathews Nkhoma, Associate Professor and Head of the School of Business and Management at the Royal Melbourne Institute of Technology (Vietnam), et. al. discuss how case studies enrich learning outcomes by providing positive interaction among peers and opportunities for positive emotional engagement. Read "Using Case Method to Enrich Students' Learning Outcomes" online via the journal Active Learning in Higher Education.

Kevin Bonney, Clinical Assistant Professor of Liberal Studies at New York University, discusses the benefits of case studies over class discussion and reading for developing conceptual knowledge, communication skills, and application of knowledge in the sciences. Read "Case Study Teaching Method Improves Student Performance and Perceptions of Learning Gains" online via the Journal of Microbiology and Biology Education.

Yale's Center for Teaching and Learning offers <u>a resource webpage on</u> <u>Case-Based Learning</u> that explores theory and research, examples, and recommendations for implementation.

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