The Center for the Evaluative Clinical Sciences (CECS) at Dartmouth, established in 1989, is the locus of a multi-disciplinary group of scientists and clinician-scholars who conduct cutting edge research to measure, organize, and improve the health care system. At a system level, the evaluative clinical sciences provide evidence to inform and improve rational policy making and allocate resources effectively. At the interpersonal level, they seek to improve doctor-patient decision making by promoting informed medical decisions that incorporate patients’ values and cost-effective clinical care.

The Ph.D. Program at the CECS prepares its graduates with the insight and scientific skills required to conduct innovative and independent research to achieve these goals. Scientific preparation involves a multi-disciplinary approach that integrates relevant theories, methodological strategies, and evidence from a variety of fields including clinical medicine, decision science, economics, epidemiology, health services research, geography, political science, psychology, public health and sociology. Coursework capitalizes on the CECS’s academic strengths in outcomes research and health policy, quality improvement, and health care decision making with special emphasis on the role of the patient as an active participant in choice of treatment. Ph.D. students are encouraged to investigate a specialized area in depth while also gaining an informed appreciation of other core areas. They are trained in independent and team-based strategies to integrate these perspectives into research. Graduates are expected to further the development of these core areas, to lead in the design, initiation, and management of effective change in health care, and to contribute to the education of future scholars in the evaluative clinical sciences.

The faculty listed below are potential PhD Advisors. This list is not necessarily all-inclusive of faculty who may agree to be Advisors; it is also not all-inclusive of the CECS teaching or research faculty; see our webpage for a full listing.

**John A. Baron, M.D., M.S., M.Sc.**
Professor of Medicine and of Community and Family Medicine
Stanford University, M.S. 1968
University of Michigan, M.D. 1976

Sex hormone-related diseases (e.g. osteoporosis, breast cancer, prostate cancer), cigarette smoking, administrative data sets, clinical epidemiology, and cancer prevention. Investigation of orthopedic epidemiology using Medicare data; cancer prevention trials, and etiological epidemiology.


**Paul B. Batalden, M.D.**
Professor of Pediatrics and of Community and Family Medicine
Director, Health Care Improvement Leadership Development at the Center for the Evaluative Clinical Sciences,
Program Director, Dartmouth-Hitchcock Leadership Preventive Medicine Residency Program
University of Minnesota Medical School, M.D. 1967

Health-care process for quality improvement and leadership development.


Bernard F. Cole, Ph.D.
Associate Professor of Community and Family Medicine (Biostatistics)
Associate Director of Clinical Research (Biostatistics) in Norris Cotton Cancer Center
Boston University, Ph.D. 1992

Development and application of statistical methods for incorporating quality-of-life in the evaluation of cancer treatments.


Robert Drake, M.D., Ph.D.
Andrew Thomson Professor of Psychiatry and Professor of Community and Family Medicine
Director, New Hampshire-Dartmouth Psychiatric Research Center
Duke University, M.D. 1978
Duke University, Ph.D. 1977

Developing and evaluating innovative community programs for persons with severe mental disorders; rehabilitation and health services research.


Eric J. Duell, Ph.D.
Assistant Professor of Community and Family Medicine
University of North Carolina, Chapel Hill Ph.D. 1999

Cancer susceptibility, environmental and molecular epidemiology, and spatial epidemiology. Investigating the interaction of inherited genetic variation with environmental exposures.


**Elliott S. Fisher, M.D., M.P.H.**
Professor of Medicine and of Community and Family Medicine  
Senior Faculty, Outcomes Research, VAMC at White River Junction, VT  
Harvard Medical School, M.D. 1981  
University of Washington, M.P.H. 1985

Uses of administrative databases for epidemiological and clinical research. Health implications of the uneven distribution of health care resources.


**Ann Barry Flood, Ph.D.**
Professor of Community and Family Medicine; Adjunct Professor of Sociology  
Chair, Ph.D. Program and NRSA Postdoctoral Program  
Director, Policy Studies, Center for the Evaluative Clinical Sciences  
Stanford University, Ph.D. 1977

Theoretical and policy implications of professional and organizational factors that influence outcomes of health care; shared decision making in clinical practice; health policy.


**David C. Goodman, M.D., M.S.**
Professor of Pediatrics and of Community and Family Medicine  
Director, Pediatric Allergy/Asthma Program, DHMC  
SUNY, Upstate Medical Center, M.D. 1981  
Dartmouth Medical School, M.S. 1995

Development of novel methods for measuring physician resources and understanding the relationship between regional physician capacity, population risks, and health outcomes. Epidemiology of pediatric asthma medical care.


**Pamela C. Jenkins, M.D., Ph.D.**
Assistant Professor of Pediatrics and of Community and Family Medicine  
University of North Carolina, Chapel Hill, M.D. 1992  
Dartmouth College, Ph.D. 1999

Pediatric cardiology outcomes for hypoplastic left heart syndrome.
Margaret R. Karagas, Ph.D.
Professor of Community and Family Medicine
University of Washington, Seattle, Ph.D. 1990

Environmental health and public health; biologic mechanisms and prevention of human cancer.


Karagas MR, Stannard V, Mott LA, Slattery MG, Spencer SKI, Weinstock MA. Use of Tanning Lamps and the Risk of Basal Cell and Squamous Cell Carcinoma of the Skin. Journal of the National Cancer Institute 2002; 95(3).

Hilary A. Llewellyn-Thomas, R.N., Ph.D.
Professor of Community and Family Medicine; Adjunct Professor of Nursing at University of Toronto
Director, Studies in Health Care Decision-Making
University of Toronto, B.Sc. in Nursing 1968
University of Toronto, Ph.D. 1983

Assessment of patient health status and shared decision-making applications.


Jon D. Lurie, M.D., M.S.
Assistant Professor of Medicine and of Community and Family Medicine
Stanford University School of Medicine, M.D. 1992
Dartmouth College, M.S. 1997


Eugene C. Nelson, D.Sc., M.P.H.
Professor of Community and Family Medicine
Director, Quality Education, Measurement and Research
Yale Medical School, M.P.H. 1973
Harvard School of Public Health, D.Sc., 1977

Improvement of health-care delivery systems and the measurement of clinical processes in relationship to health outcomes, satisfaction, and total cost.


Gerald T. O’Connor, Ph.D., D.Sc.
Professor of Medicine and of Community and Family Medicine
Director of Educational Programs, Center for the Evaluative Clinical Sciences
Chief of Clinical Research, Department of Medicine
Boston University School of Public Health, D.Sc. 1987
Union Institute, Cincinnati, OH, Ph.D. 1980

Prevention and treatment of cardiovascular diseases; uses of epidemiology in clinical medicine; assessing medical and surgical treatment outcomes.


Stephen K. Plume, M.D.
Professor of Surgery and of Community and Family Medicine
University of Rochester, M.D. 1969

Understanding and improving systems of care and an increasing awareness of outcomes research.

Lisa M. Schwartz, M.D., M.S.
Associate Professor of Medicine and of Community and Family Medicine
Co-Director of the VA Outcomes Group, White River Junction VAMC
New York University, M.D. 1989
Dartmouth Medical School, M.S. 1996

Medical decision making and risk communication.


Jonathan S. Skinner, Ph.D.
John French Professor of Economics; Professor, Department of Economics, Dartmouth College;
Professor of Community and Family Medicine
Senior Research Associate, Center for Evaluative Clinical Sciences, Dartmouth Medical School
University of California, Los Angeles, Ph.D. 1983

Determinants of health care spending and outcomes among different income groups in the Medicare population.


Mark E. Splaine, M.D., M.S.
Assistant Professor of Medicine and Community and Family Medicine
Chief of General Internal Medicine
Dartmouth Medical School, M.D. 1991
Dartmouth Medical School, M.S. 1996

Making statistics understandable and useful for health care providers; developing practical methods to measure clinical processes and outcomes that can be incorporated into patient care settings; continuous quality improvement.

Harold M. Swartz, M.D., Ph.D., M.S.P.H.
Professor of Radiology, of Community and Family Medicine and of Physiology,
Adjunct Professor of Engineering and of Chemistry
University of Illinois, M.D. 1959
University of North Carolina, M.S.P.H., 1962
Georgetown University, Ph.D. 1969

Policy and academic issues in the development of academic/research physicians; the effects of generational differences in the responses of physicians to changes in the health care system; the evaluation of new complex diagnostic imaging technologies.


Anna N. A. Tosteson, Sc.D.
Professor of Medicine and of Community and Family Medicine
Harvard School of Public Health, Sc.D. 1988

Decision analytic modeling, economic evaluation, cost-effectiveness analysis, and statistical methods for diagnostic technology assessment.


John H. Wasson, M.D.
Professor of Community and Family Medicine and of Medicine
The Herman O. West Professor of Geriatrics, Center for the Aging Research Director, Dartmouth Primary Care (COOP) Research Network
University of Virginia, M.D. 1971

Geriatrics, clinical epidemiology, quality improvement of ambulatory care, management of prostate disease, and community-based primary care research.

William B. Weeks, M.D., M.B.A.
Associate Professor of Psychiatry and of Community and Family Medicine
Director, VISN 1 Patient Safety Center of Inquiry at the White River Junction VA Medical Center (WRJ-VA)
Senior Scholar, VA Quality Scholars Fellowship Program, WRJ-VA
Director, Veterans Rural Health Initiative, WRJ-VA
University of Texas Medical Branch, M.D. 1988.
Columbia University, M.B.A. 1996.

Patient safety, quality improvement and business aspects of medicine.


James N. Weinstein, D.O., M.S.
Professor of Orthopedics and of Community and Family Medicine
Chair of Orthopaedics
Director, Surgical Outcomes Assessment Program at the Center for the Evaluative Clinical Sciences
Chicago College of Osteopathic Medicine, D.O. 1977
Dartmouth Medical School, M.S. 1995

Low back pain and advocating conservative, non-invasive approaches to its treatment, diagnosis and treatment of spine cancers.


H. Gilbert Welch, M.D., M.P.H.
Professor of Medicine and of Community and Family Medicine
Co-Director of the VA Outcomes Group, White River Junction VAMC
University of Cincinnati Medical Center, M.D. 1982
University of Washington, M.P.H. 1990

Early detection efforts and problems, fundamental effects of advancing time of diagnosis.

Welch HG. Right and Wrong Reasons To Be Screened. Annals of Internal Medicine 2004; 140(9):754-755.
John E. Wennberg, M.D., M.P.H.
Peggy Y. Thomson Professor for the Evaluative Clinical Sciences [Community and Family Medicine]
Director, Center for the Evaluative Clinical Sciences
McGill Medical School, M.D. 1961
John Hopkins School of Hygiene and Public Health, M.P.H. 1966

Population-based rates for the utilization and distribution of health-care services.

Wennberg, JE, Fisher, ES, Stukel, TA, Sharp, SM. Use of Medicare Claims Data to Monitor Provider-Specific Performance Among Patients with Severe Chronic Illness. October 7, 2004; Web-Exclusive on Health Affairs website: http://content.healthaffairs.org/cgi/content/full/hlthaff.var.5/DC1

Steven Woloshin, M.D., M.S.
Associate Professor of Medicine and of Community and Family Medicine
Senior Fellow, Outcomes Research, White River Junction VAMC
Boston University, M.D. 1987
Dartmouth Medical School, M.S. 1996


Michael Zubkoff, Ph.D
Professor and Chair, Community and Family Medicine
Professor of Economics and Management at Amos Tuck School of Business
Columbia University, Ph.D. 1969

Measuring variations in the process, outcomes, and costs of medical care for chronic disease patients treated in different systems of care and by different medical specialties Evaluating the cost-effectiveness of continuous treatment teams versus traditional care for the drug and alcohol-abusing mentally ill.

Kravitz RL, Greenfield S., Rogers W, Manning WG, Zubkoff M, Nelson EC, Tarlov AR, Ware JE, Jr. Differences in the Mix of Patients among Medical Specialties and Systems of Care: Results from the Medical Outcomes Study. Journal of the American Medical Association, 1992; 267(12):1617-23 (Recipient of Association for Health Services Research, 1993 Article of the Year Award).