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# THE MEDICAL FOUNDATION

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95 Berkeley Street Boston, MA 02116 Tel: 617-279-2240 Fax 617-423-4619 TTY 617-451-0007

Edward M. Kennedy Scholar Award Recipient 2008

**Amy Lischko, M.S., D.Sc.**

Assistant Clinical Professor  
Tufts University

*"Using Geographic Variation to Identify and Reduce Over-treatment in Massachusetts"*

## **Project Summary**

Total health care expenditures in Massachusetts reached \$43 billion in 2004, representing an increase of 35 percent from 2000. Historically, Massachusetts has had the highest per capita personal health care expenditures of any state. Massachusetts has also positioned itself to be a leader in comprehensive health insurance reform by passing landmark legislation in 2006 aimed at insuring nearly all state residents. This reform, however, is at risk of long-term sustainability due to rising health care costs. Massachusetts is currently focused on developing strategies for constraining the growth of health care costs. One cause of rising health care costs is over-treatment which is defined here as the overuse or mis-use of medical procedures, tests, and specialist care. The specific aims of this project are: 1) to identify overtreatment through variation in inpatient and outpatient care provided by Massachusetts hospitals and physician groups; 2) to enumerate and map the various structural elements of primary, specialty and diagnostic care capacity across the Commonwealth of Massachusetts; and, 3) to develop strategies which policymakers and regulators can use to constrain health care costs through the reduction of over-treatment. This research will use the state's new all-payer claims database covering the period from 7/1/06-9/30/07. Analysis will be developed based largely on the work established by Wennberg et al. regarding geographic variation used for the Dartmouth Atlas. The focus of this work, however, will be to identify variation for over-treatment of the under-65 population in Massachusetts. First, a list of preference and supply-sensitive treatments will be identified. Analysis of the claims database will proceed by using geographic variation of the identified treatments across the Commonwealth. Estimates of the cost of each of the conditions will also be calculated. The top 10-12 inpatient and outpatient procedures, tests, and/or care patterns with the largest variability and highest costs across regions of the Commonwealth will be identified for analysis at the provider-level. The third phase of analysis includes identification and mapping, using GIS tools, of the supply of health care resources. This research will conclude with the development of specific strategies for reducing over-treatment that can be widely disseminated.