

Title:**Mining Medicare Claims Data: How to Improve Quality and Value in Medicare****Sponsoring program and its connection to the Consortium on Law and Values in Health, Environment and Life Sciences:**

Division of Health Policy and Management (formerly Health Services Research and Policy) in the School of Public Health (both the division and the School are members of the Consortium).

Work plan:

Professor Susan Bartlett Foote, School of Public Health, is Director of the Medical Technology Leadership Forum (MTLF), a project housed in the School of Public Health. (It is moving from the Center for Science and Technology Policy on July 1, 2006 when Professor Keller, a member of the MTLF advisory board, goes on leave this summer. The Division, the School, and the Center are all members of the Consortium). MTLF hosts three forums a year, including a Fall Forum at the U. of Minnesota. The colloquia focus on policy issues relevant to medical technology.

On October 30-31, 2006, MTLF will host a colloquium entitled: "Mining Medicare Claims Data: How to Improve Quality and Value in Medicare." The invitation-only forum will bring together experts from the Centers for Medicare and Medicaid Services (CMS), the Agency for Health Care Research and Quality (AHRQ), physicians who manage registries, technology developers and manufacturers, health plans, and academic experts in mining Medicare data. The academic experts represent interdisciplinary perspectives, including epidemiology, economics, law, medicine, and public policy. The dialogue will contribute to the broader debate about how to expand the Medicare data generated by Medicare's bill paying function into a process that produces data to track outcomes, ultimately to improve the quality of care for Medicare beneficiaries.

This proposal requests funds to enhance the intellectual content of the colloquium. MTLF funds will cover the logistical expenses associated with the Forum. The Consortium funds will make it possible to assemble background data, perform a literature review, prepare the report summarizing conclusions, and assist participants in the development of publishable manuscripts. The Forum Report will be widely disseminated to academics, policy makers, and other interested parties.

Project's nature and importance:

Medical care grows increasingly complex every year, with tens of thousands of procedures, technologies, and services in use [Foote 1987, 1992]. Current regulatory,

coverage and reimbursement policies require that new products and services demonstrate their safety and efficacy, but once in use, it becomes very difficult to monitor the long-term value of these procedures. [Gillick 2004]. Recent experiences with Vioxx and implantable cardiac defibrillators illustrate the challenges associated with monitoring long-term consequences of medical technologies.

The CMS is the nation's largest 3rd party payer of medical claims; the Medicare program alone pays claims for over 40 million Americans. This claims-paying process has produced an abundant source of data on utilization of medical services [Wennberg and Cooper 1999]; indeed, the Research Data Assistance Center (ResDAC) at the University of Minnesota is one of only four repositories with expertise required to extract valuable information from the voluminous Medicare claims database. While these data yield important findings, the system was not designed to generate the type of data needed for better management of quality and costs. Revision of Medicare claims provides a potential opportunity to improve health care. This issue has broad implications for the future of population-based clinical and health services research, along with the future of policy decisions regarding allocation of societal resources.

How funds will help further work on societal implications of life sciences

Advances in medicine have the potential to improve the quality and extend the length of individual lives, but the cost of pursuing and attaining this potential must compete with other uses for limited societal resources [Cutler and McClellan 2001]. Policy makers must make difficult choices about appropriate and just allocations of these resources, choices made much more difficult when there is uncertainty about the actual long-term benefits and costs of medical technology once it circulates in widespread use.

MTLF in the School of Public Health contributes to health policy deliberations by bringing together experts with many perspectives to promote dialogue on issues of interest to the medical technology community. Reports from Forum meetings have contributed to public policy on a wide range of issues that share the common theme of the societal implications of development and use of medical technology.

As noted above, the MTLF will host a forum in October 2006 to discuss ways in which the Medicare claims process may be able to generate data that can be used to evaluate the long-term health benefits and costs of medical technology. Funds for forum logistics already are available from the MTLF. The funds being requested would support the development of the intellectual content of the forum, along with dissemination of its findings to the health research and policy communities.

Faculty descriptions & roles on project

Four University of Minnesota faculty members will be involved with the project.

Susan Bartlett Foote, Associate Professor, Division of Health Services Research and Policy, School of Public Health, and Director of MTLF. Professor Foote will develop the program, identify and invite speakers from government, the private sector and academia; oversee the conference; and direct the Research Assistant who will develop the Forum's background materials and produce the Report.

Beth Virnig, Associate Professor, Division of Health Services Research and Policy, School of Public Health. Professor Virnig will present a paper describing how Medicare's claims process can be used to track cancer treatments and outcomes.

Stephen Parente, Associate Professor of Finance, Carlson School of Management. Professor Parente will present a paper on how private insurance have developed data systems in their claims processes to track and analyze health outcomes.

Robert Town, Associate Professor, Division of Health Services Research and Policy, School of Public Health. Professor Town will present a paper, based on research with Susan Foote, on how Medicare's claims data can be used to improve the quality of the relationship between Medicare's coverage policies for new technologies and payments for them.

Timeline:

During the Fall Term, 2006, Ph.D. student Barbara Jessica Shaten will join the team as Research Assistant). Her first tasks will be to work with Professor Foote on colloquium design, and to gather, assemble and draft background information and analysis for colloquium participants. The forum is scheduled for October 30-31, 2006. The R.A. will take notes at the conference. The project's work team will write the Report that summarizes the issues, highlights key findings, and identifies areas of future inquiry, including changes in regulations governing Medicare claims data forms. The R.A. will assist participating Minnesota faculty to prepare manuscripts based on forum presentations. These tasks will be completed at the end of the Fall Semester.

References:

Cutler DM, McClellan M. Is technological change in medicine worth it? *Health Aff.* September 1, 2001;20(5):11-29.

Foote SB. Assessing Medical Technology Assessment: Past, Present and Future. *Milbank Quarterly* 1987;55(1):59-80.

Foote SB. *Managing the Medical Arms Race. Innovation and public policy in the medical device industry.* Berkeley and Los Angeles: University of California Press; 1992.

Gillick MR. Medicare Coverage for Technological Innovations -- Time for New Criteria?
N Engl J Med. May 20, 2004;350(21):2199-2203.

Wennberg J, Cooper M. *The Dartmouth Atlas of Health Care.* Chicago: American Hospital Publishing; 1999.

Biographical Sketches

This project has a working team of two lead members: Associate Professor Susan B. Foote, who is the project leader, and PhD student Barbara Jessica Shaten, who will be the Research Assistant. Both Professor Foote and Ms. Shaten are with the Division of Health Policy and Management at the School of Public Health.

Biographical sketches of each are attached.

Budget

		Consortium	MTLF	
		Funding	Funding	
		08/28/06	08/28/06	TOTAL
		<u>01/10/07</u>	<u>01/10/07</u>	<u>BUDGET</u>
<i>EFFORT IN PERCENT</i>				
Susan Foote	Principal Investigator		1%	
Barbara Jessica Shaten	Research Assistant	50%		
 <i>SALARY</i>				
Susan Foote	Principal Investigator	-	1,983	1,983
Barbara Jessica Shaten	Research Assistant	<u>7,675</u>	<u>-</u>	<u>7,675</u>
TOTAL SALARY		7,675	1,983	9,658
 <i>FRINGE</i>				
Susan Foote	Principal Investigator	-	650	650
Barbara Jessica Shaten	Research Assistant	<u>5,697</u>	<u>-</u>	<u>5,697</u>
TOTAL FRINGE		5,697	650	6,347
 TOTAL PERSONNEL		 13,373	 2,633	 16,006
 <i>OTHER EXPENSES</i>				
Briefing books		-	800	800

Reports drafting, layout, printing, and mailing	2,500	-	2,500
Network Maintenance	339	-	339
Subsidy for student invitees	-	1,000	1,000
Conference Expense	-	6,000	6,000
Guest Speakers Honoraria	-	5,000	5,000
Guest Speakers Travel Expense	-	3,000	3,000
TOTAL OTHER EXPENSES:	2,839	15,800	18,639
 TOTAL BUDGET:	 16,212	 18,433	 34,645

Budget Justification

Barbara Jessica Shaten, Research Assistant: Ms. Shaten is a Ph.D. student in the Division of Health Policy and Management at the School of Public Health. Ms. Shaten will assist Dr. Foote with writing the report that summarizes the issues, highlights key findings, and identifies areas of future inquiry, including changes in regulations governing Medicare claims data forms. Ms. Shaten will also assist participating Minnesota faculty to prepare manuscripts based on forum presentations. Ms. Shaten is budgeted at 50% during the project period. Expenses were calculated using an annual base salary of \$39,541 as of May 30, 2006 and increasing 3% on July 1 thereafter. The fringe benefit rate has two components: a percentage of salary that covers health insurance and an hourly rate for tuition. The fringe benefit percentage rate is 13.5% effective July 1, 2006. The hourly rate for tuition is \$11.89.

Project Supplies & Services: We are requesting \$2,500 for project supplies and services such as papers, folders, binders, printing and mailing costs for reports drafting, layout, and presentation of research findings. Printing and duplicating is necessary for researching and analyzing articles, prepare manuscripts, and presentations.

Network Maintenance and Backups: We are requesting \$339 for network maintenance. Network maintenance is provided as a service line within the Computer Research Center. Service to the Division's Local Area Network (LAN) is budgeted at \$150 per month, based on the percentage of effort expended, for access to a variety of software packages that range from the standard office packages to the more sophisticated statistical packages. The LAN provides nightly backup services as well as secured data storage. It will be less expensive to use the existing LAN services than to locate and contract with a vendor to provide the service solely for this project.

Approvals

No approvals are required.

Letter of approval from administrator with fiscal responsibility

A letter from Joe Weisenburger, Director of Finance and Administration in the School of Public Health is attached.

Conclusion

Consortium funds in the amount of \$16,212 will significantly enhance the intellectual content of this important Colloquium. All Consortium funds will be used to accomplish the goals of sharing and disseminating ideas on how to improve the data gathering function of the Medicare program, an important contribution to improving the use of technology and the quality of care in Medicare.

Susan Bartlett Foote, JD

Associate Professor
School of Public Health
University of Minnesota

Susan Bartlett Foote is an Associate Professor at the University of Minnesota's School of Public Health. She is Director of the Medical Technology Leadership Forum at the University of Minnesota. Her research has focused on the influences of public policies on healthcare services, with a particular emphasis on innovation in medical technology. She is the author of *Managing the Medical Arms Race: Innovation and Public Policy in the Medical Device Industry* as well as numerous articles on health policy and technology policy. She is a recognized national expert in the field of Medicare's technology policy.

Prior to her arrival in Minnesota in 1999, she was a professor of business and public policy at the Haas School of Business at the University of California, Berkeley. From 1990 to 1994, she was a Robert Wood Johnson Health Policy Fellow and Senior Legislative Analyst in the office of Senator David Durenberger of Minnesota. She was a consultant on health policy issues in Washington, D.C. from 1995 to 1999. She serves on the board of Banner Health System and Haemonetics, Inc. She also is a member of the Medicare Coverage Advisory Committee at CMS. She holds a JD degree from Boalt Hall, University of California, Berkeley.

B. Jessica Shaten, M.S.

Research Director

Center for Urban Health at Hennepin County Medical Center

PhD student in Health Services Research and Policy, University of Minnesota

B. Jessica Shaten has more than 15 years of experience in public health research, and has authored or coauthored more than 20 peer-reviewed publications. She began her academic health research career in 1990 as a Masters-level statistician (from the University of Minnesota) analyzing data and preparing manuscripts from the world-renowned Multiple Risk Factor Intervention Trial (MRFIT). In 2000, she joined a clinical research organization located at Hennepin County Medical Center, where among other things, she was the Project Director for a study that used administrative claims data to examine patient use of alternative medicine, and through this project and others, became increasingly interested in health services research as a tool to investigate contextual determinants of population health. In September 2004, she entered the Ph.D. program in Health Services Research and Policy at the University of Minnesota. She pursues her studies while also working as the Research Director of the Center for Urban Health at Hennepin County Medical Center, a new office charged to help coordinate programmatic and research activities on the campus dealing with the health issues faced by vulnerable urban populations. Her research interests include the process and rationale social agencies use to make coverage and reimbursement decisions, how those decisions affect adoption and diffusion of medical goods and services, and how the adoption and diffusion of particular medical goods and services differentially affect the health and well-being of diverse populations throughout all stages of life.

May 30, 2006

Susan Foote is seeking funds from the Law School Consortium specifically for a RA position to support the “ Mining Medicare Claims Data: How to Improve Quality and Value in Medicare” forum to be held October 30-31, 2006. Part of the funding for the forum will come from funds held for MTLF. These funds will become part of the School of Public Health on July 1, 2006. The School of Public Health is supportive of this application and guarantees that the MTLF portion of the funding will be available to support the forum.

Joe Weisenburger
CFO
School of Public Health