

Health Services Research for Surgeons

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“Like most major advances, the first few miles are the easiest, and the last few hundred yards to the finish line are the most difficult.”¹ Referring at the time to the then early field of surgical health services research, Dr. Paul Ebert, went on to say, “The ultimate long-term goal for the use of predicted outcomes is to be able to inform patients at the earliest state of the symptoms as to the anticipated course of their disease and the results of alternative therapies. For outcomes analyses to be routinely used in clinical practice, they must be formulated succinctly.” As one of the giants in the surgical field, Dr. Ebert’s prescient assessment of the importance and challenges of rigorous methodology in conducting surgical health services research still holds true today. Surgeons have made great strides in health services research, but there is still much work left to be done as the field of surgical health services research matures.

Health services research (HSR), as defined by the Agency for Healthcare Research and Quality (AHRQ), “examines how people get access to health care, how much care costs, and what happens to patients as a result of this care.”² Some of the challenges of conducting methodologically rigorous health services research as a surgeon are resources, support, and funding. This is a very brief overview of some of the resources, support and funding available to surgeons pursuing health services research.

Resources for Health Services Researchers

AcademyHealth and the National Library of Medicine’s Health Services Research Resources (HSRR) are two prominent organizations with extensive health service research resources that are available online and easily assessable to surgeon conducting health services research. AcademyHealth is the preeminent professional society for health services researchers and health policy analysts. It has hosted the Annual Research Meeting (ARM) every June for the past 27 years as the premier forum for health services researchers and policy analysts to discuss health research methods, findings and policy implications. Increasingly, leaders from the surgical field are showcasing surgical health services research and leading panels on quality and outcomes at AcademyHealth’s ARM meeting. In addition to the ARM meeting, AcademyHealth has resources online (<https://www.academyhealth.org/Training>) for health services researchers including health services research methodology training and online tutorials. AcademyHealth also operates the Health Services Research Projects in Progress database (HSRProj) which contains descriptions of more than 7,500 current health services research projects funded by government agencies and foundations. HSRProj can be used to identify ongoing funded health services research projects that may be related to a surgeon’s own interests and present an opportunity for collaboration, or to identify government agencies and foundations funding health services research.³

The National Library of Medicine's Health Services Research Resources (HSRR) connects users to publicly available datasets, instruments and software useful to the surgical health services researcher. Online are links to 168 public datasets (http://wwwcf.nlm.nih.gov/hsrr_search/browse_topics.cfm), which includes both state level datasets and national datasets. HSRR is not the repository for these datasets, but connects users to vendors from which they can be obtained.

Two commonly used, validated datasets that are easily acquired from AHRQ (<http://www.ahrq.gov/data/>) are the Medical Expenditure Panel Survey (MEPS) which examines healthcare use, expenditures, and insurance coverage and the Nationwide Inpatient Sample (NIS) which has both national and state datasets for nonfederal hospital inpatient admissions and ambulatory care centers.⁴ There are numerous other national datasets available through Medicare/Medicaid, SEER, Medicare linked SEER, the VA, the ACS NSQIP. Each of these data sets have various limitations and, aside from SEER, must be purchased or accessed through an institution.

Support for Health Services Research

Peer support within the surgical community specifically for health services research is burgeoning. The Surgical Outcomes Club hosts an annual research meeting in conjunction with the American College of Surgeons meeting, as well as regular research in progress meetings via teleconference as a venue for surgeons to discuss their ongoing outcomes research, gain feedback from surgical peers, and develop mentoring relationships with surgeons across the country. The Association for Academic Surgery, in conjunction with the Society of University Surgeons, hosts health services research plenary sessions and panels on issues in outcomes research at the Annual Academic Surgical Congress. Increasingly, surgical specialty society meetings and specialty journals are providing dedicated venues for surgical health services researchers to present and publish health services research.

Health services research is being increasingly recognized by the political community, as well as the medical community, as an important part of optimizing patient care. The American Recovery and Reinvestment Act appropriated \$1.1 billion for health services research focused on comparative effectiveness.⁵ In addition, H.R. 3590, the recently passed Patient Protection and Affordable Care Act, establishes a Patient-Centered Outcomes Research Institute (PCORI), funded for fiscal years 2010-2012 with more than \$200 million, for the purpose "to assist patients, clinicians, purchasers, and policy-makers in making informed health decisions by advancing the quality and relevance of evidence concerning the manner in which diseases, disorders, and other health conditions can effectively and appropriately be prevented, diagnosed, treated, monitored, and managed through research and evidence synthesis that considers variations in patient subpopulations, and the dissemination of research findings with respect to the relative health outcomes, clinical effectiveness, and appropriateness of medical treatments, services, and items."⁶ The PCORI Institute Board of Governors

consists of prominent leaders in health services research and the Directors of American Recovery and Reinvestment Act and the National Institutes of Health.

Funding for Surgical Health Services Research

AHRQ delineates multiple avenues for health services research funding on their website (<http://www.ahrq.gov/funding/training-grants/rsrchtng.html>) such as the Health Services Research Dissertation Awards (R36), Institutional Training Awards (T32), and Mentored Clinical Scientist Development Awards (K08).⁷ The Association of Women Surgeons supports the AWS Foundation/Ethicon Fellowship, which surgeon scientists pursuing health services research have been successful in applying and competing for. The Association for Academic Surgery offers the Roslyn Faculty Research Award, the AAS/AASF Student Research Awards and Resident Research Fellowship Awards to support HSR work. The Commonwealth Fund also supports health services research grants that surgeon scientists can apply for.⁸

The resources outlined and highlighted here are no means intended to be an exhaustive description of the opportunities available to surgeons pursuing health services research. Hopefully, however, this sheds light on the advances made in health services research resources for surgeons. “Like most major advances, the first few miles are the easiest, and the last few hundred yards to the finish line are the most difficult.” Though conducting health services research as surgeons can be challenging, as more and more surgeons increasingly pursue this field, hopefully we can help each other reach the finish line in optimizing patient care and outcomes.

Please feel free to contact the author or refer to the following selected references for further information regarding health services research resources.

The author would like to acknowledge and thank Drs. Caprice C Greenberg, Niraj J Gusani, Justin B Dimick, Lillian S Kao and Karen J Brasel who contributed to the published paper which this article is based upon. Portions of this article have appeared in the Association for Academic Surgery Newsletter Fall 2010 and in Kuy et al. Health Services Research Resources for Surgeons. *J Surg Res.* 2011;171(1):e69-73.⁹

¹ Ebert P. The Importance of Data in Improving Practice: Effective Clinical Use of Outcomes Data. *Ann Thorac Surg.* 1994;58:1812-1814.

² Agency for Healthcare Research and Quality. What is AHRQ. <http://archive.ahrq.gov/about/whatis.htm>. Accessed May 9, 2014.

³ NIH US National Library of Medicine. HSRProj (Health Services Research Projects in Progress). http://wwwcf.nlm.nih.gov/hsr_project. Accessed May 9, 2014.

⁴ Agency for Healthcare Research and Quality. Data and Surveys. <http://www.ahrq.gov/data/>

⁵ Agency for Healthcare Research and Quality. AHRQ and the Recovery Act. <http://archive.ahrq.gov/funding/arra/>. Accessed May 9, 2014.

⁶ HR3590 "Patient Protection and Affordable Care Act". Government Printing Office. http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h3590enr.txt.pdf. January 5, 2010. Page 610.

⁷ Agency for Healthcare Research and Quality. Training and Education Funding. <http://www.ahrq.gov/funding/training-grants/rsrchtng.html>. Accessed May 9, 2014.

⁸ The Commonwealth Fund. Grants and Programs. The Association of Women Surgeons supports the AWS Foundation/Ethicon Fellowship, which surgeon scientists pursuing health services research have been successful in applying for. Accessed May 9, 2014.

⁹ Kuy S, Greenberg C, Gusani N, Dimick J, Kao L, Brasel K. Health services research resources for surgeons. *J Surg Res*. 2011;171(1):e69-73.