

Editorial

How Health Services Researchers are Helping to Transform the Delivery of Medical Care in the United States

This year we celebrate the start of *The Open Health Services and Policy Journal* which, along with other peer-reviewed journals, is poised to contribute significantly to the evidence base about quality and accessible health services, including the cost-effectiveness and performance of different systems of care. This is an exciting time for health services researchers and policy-makers because of increasing efforts to improve the performance of health systems by identifying and implementing effective measures to increase the accessibility and quality of care, improve patient satisfaction, and increase the cost-effectiveness and administrative efficiency of health care [1]. In order to illustrate how health services researchers are helping to improve the delivery of medical care, examples are provided below of how research into the early detection and treatment of illnesses and disease precursors has led to improvements in the delivery of health care services for preventing and controlling diseases in the U.S. The major points made using these examples are that researchers contribute importantly to improvements in the quality, accessibility, and cost-effectiveness of health care and there is an ongoing need for well-designed evaluative research published in the peer-reviewed literature.

THE CONTEXT OF MEDICAL CARE IN THE UNITED STATES

In the U.S., there has been extended discussion about how best to meet the challenge of rising health care costs. The U.S. spends about 16% of its annual gross domestic product (GDP) on health care and the percentage is expected to be even higher in the future [2, 3], highlighting the importance of primary prevention of diseases and injuries and other public health measures. Several factors contribute to this spending growth including the diffusion of new medical technologies and therapies, the manner in which insurers pay for health care delivery, and, in some health care systems and settings, opportunities for profit [3-5]. Other factors that contribute to health care costs include administrative overhead, high payments to some providers, the practice of defensive medicine, and the aging of the U.S. population [2]. The first wave of baby boomers will become eligible for Medicare in 2011. Empirical data suggest that there are opportunities to constrain health care costs without incurring adverse health consequences [6]. Possible approaches to reduce total health care costs include generating more information about the relative effectiveness of medical treatments and enhancing incentives for providers to supply effective care [6]. However, more information is needed from health services research about which treatments work best for which patients or whether the benefits of more expensive therapies warrant their additional costs [6].

Studies conducted by health services researchers have helped to identify health care problems in the U.S. (for example, high costs, unwarranted variation in health care utilization, and the fragmented nature of care or lack of coordinated care) as well as potential solutions to these problems [7]. A related concern addressed by health services researchers and by organizations such as the American Medical Association and the American Cancer Society is that many persons in the U.S., especially Hispanics and those who are non-white, are uninsured or underinsured. For many, lack of health insurance or inadequate health insurance is a major barrier to preventive health care services and treatment [8]. Even those with employer-sponsored health insurance coverage may be faced with increases in insurance premiums, deductibles, and copayments [8]. Surveys of the general U.S. population indicate that many people are dissatisfied with the current health care system, and that the sizeable uninsured population and soaring health care costs contribute to this dissatisfaction with the status quo [5]. These problems are interrelated. For example, as health care costs increase, purchasers may drop or limit coverage or charge employees more for it [2]. In the U.S., people who are uninsured, even those who are most ill, often receive only a small fraction of the care that can be obtained by those with private insurance [9]. Some population groups may under-utilize medical care or have less access to it, and other population groups may obtain excessive care with benefits that are not commensurate with costs.

COMPARING THE COST-EFFECTIVENESS, EFFICIENCY, AND ACCEPTABILITY OF DIFFERENT SYSTEMS OF CARE FOR DELIVERING HEALTH CARE SERVICES

Health services researchers make an important contribution to improving the delivery of medical care by comparing the cost-effectiveness, efficiency, and acceptability of alternative health care delivery systems or structures [10]. This includes the development of performance measures for optimal care and examining factors associated with processes of health care at different levels [11]. For example, the processes of cancer care occur at individual, provider, and health care system levels. Care for cancer and many other serious illnesses may be viewed as a continuum from risk assessment, primary prevention, and early detection, through diagnosis, treatment, surveillance for recurrence, and end of life care [10]. Focusing on the transitions in care (e.g., the transitions between early detection, diagnosis, and treatment) can facilitate more organized systems of medical practices and lead to improvements in care [10]. Although the focus of research efforts has often been on promoting preventive health care services at the individual or community level, there is an ongoing need for studies that focus on clinical systems and policies to increase appropriate health care services throughout the U.S. population [11]. Research is needed to identify the types of health care delivery structures and policies that maximize access, quality, and cost-effectiveness of preventive health care services. Such structural aspects of health care delivery systems include type of delivery system, organization of clinical practice, and practice patterns [11].

Evaluating Measures to Increase the Appropriate Delivery of Quality Health Care Services and Deter the Inappropriate Delivery of Services

The cornerstone of evidence-based medicine and public health are practice guidelines such as those developed by the U.S. Preventive Services Taskforce and various medical organizations [12]. However, the continuing challenge for evidence-based recommendations is the lack of conclusive evidence addressing many important clinical and public health questions [13], which underscores the importance of health services research to evidence-based practice. Indeed, one of the benefits of systematic evidence reviews is to highlight areas where further research could help resolve outstanding questions.

For many medical procedures and treatments, practice guidelines increasingly call for taking patient perspectives into account. For example, postmenopausal hormone replacement therapy (HRT) is likely to reduce the long-term risk of fracture, but may increase the risk of heart disease and breast cancer [13, 14], highlighting the need for shared decisionmaking about HRT [15]. Health services research is increasingly aimed at identifying cost-effective approaches for shared decisionmaking by patients and providers.

In managed care settings, approaches taken to increase the appropriate delivery of health care services and deter the inappropriate delivery of services include the development and refinement of practice guidelines and standards for practice and the use of financial incentives, flowsheets, reminders, or other provider interventions [16, 17]. For example, provider assessment and feedback interventions and reminders have been shown to increase a variety of preventive services including immunizations and screening with mammography, Pap tests, and fecal occult blood tests [17, 18]. Health services researchers have an important role to play in evaluating the adherence of providers to evidence-based practice guidelines and in assessing the effectiveness and costs of alternative intervention approaches for improving the delivery of medical care. As noted by the Centers for Medicare & Medicaid Services, pay-for-performance is the use of payment methods and other incentives to encourage quality improvement and patient focused, high value health care. Although more than half of the health maintenance organizations in the private sector in the U.S. have initiated pay-for-performance programs, additional evidence is needed to link such programs to improved quality of care [19]. Uncertainties remain about the level of financial incentives needed and the optimal formula for payment that might be used for attaining high levels of performance [19]. Pay-for-performance, which necessarily entails the development and adoption of performance measures, is only one component of a broader strategy of promoting quality health care [20]. Other steps that may be taken to enhance the quality of health care have been highlighted by the Institute of Medicine Forum on the Science of Health Care Quality Improvement and Implementation, the American Medical Association, the Agency for Health Care Quality & Assurance, the Centers for Medicare & Medicaid Services, the Agency for Healthcare

Research and Quality, and the National Committee for Quality Assurance (NCQA). The NCQA maintains the Healthcare Effectiveness Data and Information Set (HEDIS).

Thus, as many health services researchers are aware, the quality of medical care can be enhanced through the use of practice guidelines, pay-for-performance approaches, and the development and use of performance measures and indicators of the quality of health care [21-23].

ASSESSING AND PROMOTING PATIENT SAFETY

Health services researchers have contributed to assessments of the frequency of medical errors in the U.S. and contributed to discussions about improved information systems for patient safety. According to a recent Institute of Medicine (IOM) report, there is a need for a system that both prevents medical errors and learns from them when they occur [24]. To achieve these goals, the IOM called for a national health information infrastructure to provide access to patient information and decision support tools for clinicians and their patients and to use patient safety information to design safer delivery systems. In addition, the IOM recommended that the federal government “pursue a robust applied research agenda on patient safety, focused on enhancing knowledge, developing tools, and disseminating results to maximize the impact of patient safety systems” [24]. The research agenda recommended by IOM included high-risk patients (identify patients at risk for medication errors, nosocomial infections, falls, and other events), near-miss incidents (test the causal continuum assumption that near misses and adverse events are causally related), hazard analysis (assess the validity and efficiency of integrating retrospective techniques (e.g., incident analysis) with prospective techniques, high-yield activities (study the cost/benefit of various approaches to patient safety, including analysis of reporting systems for near misses and adverse events), and patient roles (study the role of patients in the prevention, early detection, and mitigation of harm due to errors), and data mining techniques.

Health services researchers have helped to evaluate clinical decision support systems which have been shown to reduce medical errors and increase adherence with practice guidelines [25, 26]. The Agency for Healthcare Research and Quality (AHRQ) recently released an array of toolkits designed to help doctors, nurses, hospital managers, patients and others reduce medical errors [27]. The 17 toolkits, developed by AHRQ-funded experts who specialize in patient safety research, can be adapted to most health care settings in the U.S. and are publicly available for free. Thus, health services researchers have an ongoing role in monitoring patient safety, further developing systems to address medical errors, and helping to disseminate information and tools to providers and patients [24, 28, 29].

SUMMARY AND CONCLUSIONS

There is an ongoing need for studies to examine the concentration of health care spending and the equity and efficiency with which resources are used [9]. Such studies can help to address health inequities such as disparities in morbidity, mortality, or utilization of health care services by race, ethnicity, gender, urban/rural residence, and other factors [30, 31]. Efforts by health services researchers are leading to improvements in the quality, accessibility, and cost-effectiveness of health care and primary prevention interventions for numerous conditions and illnesses. Future directions are likely to include improved systems for monitoring patient safety, addressing medical errors, and disseminating information to providers and patients [24, 28, 29]. In addition to improving the evidence base on cost-effective approaches for improving the quality and accessibility of health care, there will be a need to identify effective approaches for translating evidence into clinical and public health practice [32, 33].

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