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# Systems change to improve health and health care: Lessons from Addressing Tobacco in Managed Care

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## Introduction

In 2001 the Institute of Medicine released its landmark report, *Crossing the Quality Chasm: A New Health System for the 21st Century*, which documented major gaps between evidence-based best practice and usual care for most Americans. The authors concluded that closing these quality gaps would require major health systems change: "The current systems of care cannot do the job. Trying harder will not work. Changing systems of care will." (Institute of Medicine, 2001, p. 4). They went on to recommend that national efforts to develop a new health care system start with improving care for 20 high-priority conditions, which could substantially improve national health outcomes, reduce disparities in health and health care, and generate "lessons learned" for other conditions. In its subsequent report, the Institute of Medicine (2003) selected the treatment of tobacco use and dependence as one of these 20 conditions. The 2003 report cited the significant gap between evidence-based care and usual care for smokers and other tobacco users, the enormous potential benefits for the nation's health and health care burden from closing this gap, and the growing evidence from studies like those supported by The Robert Wood Johnson Foundation's Addressing Tobacco in Managed Care program in concluding that replicable systems changes could indeed close the gap.

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This designation as a priority condition adds extra urgency to efforts to identify systems changes that will expand the delivery of evidence-based tobacco dependence treatments. Nearly 70% of tobacco users see a primary care clinician each year. Yet only 50%–70% of them are asked about their tobacco use, and less than 40% are provided cessation assistance (Denny, Serdula, Holtzman, & Nelson, 2003; Goldstein et al., 1997; Thorndike, Rigotti, Stafford, & Singer, 1998). Although rates of intervention have increased substantially since the early 1990s, significant opportunities remain to ensure that all tobacco users receive evidence-based care every time they visit a health care setting.

Past research has provided strong evidence not only for the effectiveness and cost-effectiveness of screening and treating smokers in the course of everyday care but also for the impact of health systems change to support routine intervention. Reviewing this evidence, the 2000 U.S. Public Health Service clinical practice guideline on treating tobacco use and dependence concluded that interventions that target only clinicians and not the systems in which they practice were limited in their effectiveness and reach (Lancaster, Silagy, & Fowler, 2000; J. K. Ockene & Zapka, 1997) and recommended six systems-level strategies to support tobacco dependence intervention: tobacco user identification systems; provider education, resources, and feedback; dedicated staff for tobacco dependence treatment; hospital policies that support tobacco dependence treatment services; including tobacco dependence treatment as a covered benefit or paid service; and reimbursing clinicians for providing tobacco dependence treatment and including delivery of such treatments as part of clinicians' defined duties (Fiore et al., 2000). Similarly, the Task Force on Community Preventive Services (Hopkins et al., 2001) recommended clinician education coupled with systems changes (e.g., reminder systems, incentive

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systems) as a much more powerful and effective strategy.

Evidence is increasing that providers are more likely to offer tobacco dependence treatment when they receive economic benefits from doing so, in the form of pay-for-performance incentives or publicly recognized performance measurement (McMenamin et al., 2004; Schauffler & Chapman, 1998). Today, two major U.S. accreditation organizations, the National Committee for Quality Assurance (NCQA) and the Joint Commission for Accreditation of Healthcare Organizations, require health care delivery systems to track their performance in tobacco cessation, including rates of asking patients about tobacco use and offering evidence-based treatments. Rates of patient-reported provider advice to quit have increased from 61% in 1997, when the NCQA HEDIS tobacco measure was first introduced, to 67% in 2003 among managed care plans that collect and report HEDIS data (Orleans & Alper, 2003). Despite the recognition of tobacco dependence treatment as the single most clinically and cost-effective preventive service, gaps persist between the care recommended and delivered to patients who use tobacco, making it clear that much more work needs to be done (Coffield et al., 2001).

## Findings from the Addressing Tobacco in Managed Care research program

The Robert Wood Johnson Foundation took a leadership role in the 1990s to facilitate the implementation of systems changes to improve health and health care related to tobacco dependence treatment (Orleans, 1998; Orleans & Alper, 2003). Tobacco use and addiction was then and remains today the nation's leading cause of preventable disease and premature death. Intervening with the 70% of smokers who see their primary care physician every year had the potential to double the nation's annual quit rate and to substantially reduce tobacco-related disease burden and health care costs (Fiore et al., 2000). The emergence of managed care as the nation's predominant health care delivery system in the 1990s offered a unique opportunity. Managed care organizations provided a partner and laboratory for systems change innovation and research: They brought access to defined panels of patients and populations, control over centralized systems of care, new tools to support guideline-based care such as computer reminder systems and electronic medical records, and, theoretically, an economic incentive to keep members healthy. Thus the Addressing Tobacco in Managed Care initiative was launched by The Robert Wood Johnson Foundation in 1997, with the goal of testing and disseminating replicable systems changes that would promote the widespread integration of evidence-based tobacco treatment into the basic health care provided by managed care organizations. (See Curry, Fiore, Orleans, & Keller, 2002, for a detailed description of this initiative.) This supplement to *Nicotine & Tobacco Research* is the second issue featuring findings from the Addressing Tobacco in Managed Care research program. Six papers, representing both planning and evaluation projects and the diverse research questions studied in this program, are included in this supplement.

These papers address several important systems innovation issues, including creation of feasible and replicable models for treatment delivery that capitalize on the unique strengths of managed care organizations, and delivery of evidence-based treatment to underserved populations. Lessons learned from the research summarized in this supplement include the following:

### *By capitalizing on the unique strengths of managed care organizations, feasible and replicable improvements in tobacco dependence treatment delivery are achievable*

A strength of Addressing Tobacco in Managed Care has been its emphasis on the unique assets of managed care organizations to test systems innovations to improve the delivery of evidence-based tobacco dependence treatment. Evaluations of feasible, replicable innovations are essential to foster diffusion of these innovations to other managed care organizations and health care delivery systems.

Three papers in this supplement report on promising models. Boyle and colleagues evaluated the outcomes of proactively offering telephone counseling to health plan members filling prescriptions for pharmacotherapy. They took care to develop a practical protocol, involving a series of outbound calls that was feasible to implement and could be replicated by other managed care organizations. The authors found significant improvements in quit rates among patients randomized to receive a proactive telephone call versus patients who did not receive this call. In another study, Fisher and colleagues integrated smoking as a vital sign and tobacco dependence treatment into routine care for low-income patients seen in federally qualified health centers by modifying core clinical information systems to prompt clinicians to address tobacco use during each clinic visit. The authors found significant improvements that were sustained over time in both measures. Fisher et al. also evaluated the effect of neighborhood-based resources for smoking cessation as well as the integration of such resources into the clinical setting on patients' knowledge of and utilization of such services. They found greater

patient awareness and utilization of these services over the course of their study. McDaniel and colleagues tested an integrated computer-based system using interactive voice response technology, for both tobacco user identification and to prompt clinician intervention, in a managed care organization serving a medically indigent Medicaid population. The authors found that it was feasible to use this technology to identify current tobacco users prior to scheduled clinic visits and that tobacco users found this system acceptable and efficient for collecting this information. These models and the findings from their evaluation highlight some promising practices that can be adopted readily by health care delivery systems to improve delivery of evidence-based tobacco treatment.

*Systems innovations can increase the provision of evidence-based treatment to underserved or socioeconomically disadvantaged populations*

Smoking rates are highest, and treatment rates are lowest, in the United States among socioeconomically disadvantaged populations (Giovino, 2002). Two papers in this supplement address these critical disparities. Fisher and colleagues used participatory approaches to systems change and continuous quality improvement strategies to improve rates of smoker identification and the use of evidence-based clinical and neighborhood services in federally qualified health centers serving a predominantly low-income, African-American population. McDaniel et al.'s work in a managed care organization serving a medically indigent Medicaid population provides another example of partnering with a health care delivery system serving some of our most medically vulnerable populations. Both of these papers demonstrate the potential of partnering with diverse health care delivery systems and the successful targeting of underserved populations to help address the growing health disparities associated with tobacco use in the United States.

*Reaching out to dental practices can foster tobacco user intervention*

Approximately 50% of smokers visit a dentist annually (National Cancer Institute, 1997). The deleterious effect of tobacco on the oral cavity may serve as a motivating factor for a patient to make a quit attempt. Thus dentists are well positioned to help their patients quit.

To date, the dental office has been a relatively untapped market for tobacco use intervention. Albert and colleagues described the current state of tobacco use intervention through their survey of dentists' knowledge, attitudes, and practices regarding tobacco cessation and discussed opportunities for improvement in dental practice. The authors reported that many dentists are not yet actively engaged in addressing tobacco use with their patients and have not adopted the U.S. Public Health Service guideline for clinicians regarding treatment of tobacco dependence. The authors also described key barriers to tobacco use intervention cited by dentists. Strategies to address these knowledge deficits, as well as methods to overcome these barriers, need to be developed and evaluated. Further, strategies that foster the adoption of the evidence-based systems-level approaches to tobacco cessation in the dental setting need to be developed, evaluated, and widely implemented.

*Patient satisfaction is improved by providing tobacco dependence treatments*

Physicians continue to express the concern that addressing tobacco use with their patients will result in dissatisfied patients (Kottke, Solberg, & Brekke, 1990; I. S. Ockene & Ockene, 1996), despite several studies that refute this concern (Barzilai, Goodwin, Zyzanski, & Stange, 2001; Hollis et al., 2000; Solberg, Boyle, Davidson, Magnan, & Carlson 2001). Conroy and colleagues explored this issue in greater depth by assessing overall satisfaction with health care as well as satisfaction with tobacco-related health care based on receipt of each of the guideline-recommended 5A's. The authors found a dose-response relationship between intensity of tobacco treatment provided and patient satisfaction. These findings, in concert with previous research, reinforce the fact that patients expect their physicians to address tobacco use as a normal part of health care delivery. Because patient satisfaction is increasingly used as a marker of clinician performance, this finding holds particular salience for practicing clinicians.

*Electronic medical records are a promising means of documenting and facilitating the delivery of interventions*

The electronic medical record (EMR) gives providers, managed care organizations, and researchers a powerful tool to prompt, support, and track physician and practice team intervention. In an effort to determine the accuracy of the EMR in measuring providers' delivery of the 5A's, Conroy and colleagues evaluated the congruence of provider surveys, patient surveys, and EMR documentation. The differences noted in each of the techniques merit careful review. The findings also provide an important cautionary note about the promise of EMRs. Careful attention needs to be paid to the design of

EMR templates to ensure that they will accurately measure clinician performance. Only if this requirement is met can the EMR fulfill its promise to enhance quality improvement and facilitate research endeavors.

## Summary

The results presented in this issue of *Nicotine & Tobacco Research* represent promising advances in the fields of tobacco control and health services research. The research partnerships formed between academic researchers and managed care organizations are a testament to the potential and commitment of both groups to bringing "practice into research" in an effort to improve health and health care. The findings also confirm that no single strategy or systems change will ensure that all tobacco users receive evidence-based care, just as no one-size-fits-all approach exists for other health risk behaviors. The findings from this Robert Wood Johnson Foundation initiative reinforce the need for multifaceted approaches to improve health care delivery and the need to build the evidence base by involving diverse practice sites in high-quality, rigorous systems change research.

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